



Comments to the Office of Management and Budget on the proposed draft update to Circular A-4: Regulatory Analysis

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The Competitive Enterprise Institute (CEI) is a non-profit public interest organization committed to advancing the principles of free markets and limited government. CEI has a longstanding interest in applying these principles to the rulemaking process, and has frequently commented on issues related to Office of Management and Budget oversight of rulemaking and regulatory analysis. I am pleased to provide comments on OMB's effort to update its Circular A-4: Regulatory Analysis guidelines.¹

This draft update reflects the first changes made to OMB's economic analysis guidance to executive branch agencies in 20 years, as the current Circular A-4 guidance was put in place in 2003.² The 2003 version of the guidance did have many good attributes, however it was also flawed in many respects. As such, the OMB should be commended for making a good faith effort at updating the guidance. That said, there are significant shortcomings with the new draft guidelines as they currently are being proposed. The following comment describes ways in which the Circular A-4 update could be improved. The comment is organized by topic area.

The social discount rate

The "social discount rate" found in cost-benefit analysis reflects a normative policy choice made by the analyst.³ It represents, in lay terms, a measure of how much weight the analyst places on the future. In economics jargon, it is a "social rate of time preference," or, equivalently, the rate at which a unit of present consumption is exchanged for a unit of future consumption.

It should be obvious that this is an ethical choice, not an objective one, and therefore depends on the preferences and ideology of the analyst. The OMB has decided to base its recommended social discount rate on "the real (inflation-adjusted) rate of return on long-term U.S. government debt."⁴ Over the last 30 years, OMB estimates this rate has averaged 1.7 percent. However, the OMB's selection of this number is based on an arbitrary method. Equally defensible, from a scientific perspective, would be drawing a number out of a hat. While it is true that the method OMB is using is the same as the method reflected in the 2003 version of Circular A-4 (which is

¹ Office of Management and Budget. "Circular A-4: Regulatory Analysis, Draft for Public Review." Washington, DC: Office of Management and Budget (April 6, 2023).

² Office of Management and Budget. Circular A-4: Regulatory Analysis. Washington, DC: Office of Management and Budget (2003).

³ Broughel, James. "The Social Discount Rate: A Primer for Policymakers." *Mercatus Policy Brief*. Arlington, VA: Mercatus Center at George Mason University (2020).

⁴ OMB draft Circular A-4, p. 75-76.

how OMB arrived at the 3 percent social discount rate used in many regulatory analyses in the past), that method was equally problematic and arbitrary then.

In fact, use of the 3 percent social discount rate represented, if anything, a worst practice on the part of OMB and federal regulatory agencies. By relying on objective market data, they concealed the normative nature of the discounting decision, making it appear as though the question of how much consideration the future should receive is a scientific one rather than an ethical one. That worst practice should not be repeated in the OMB's update.

In short, there is no economic basis for the OMB's recommendation that agencies use a 1.7 percent social discount rate. While that rate may reflect particular interest rates in the economy during a particular time period, it in no way reflects anything objective about "society's" rate of time preference.⁵ Indeed, it is doubtful "society" has time preference, because society is not an individual, but rather a collection of individuals with unique values, tastes, and concerns, living at distinct intervals in time. The social discount rate concept itself arguably constitutes an unnecessary normative assumption that adds little value to the analysis and furthermore conceals the true impacts of a regulation on society.

Recommendation: OMB should make clear that the selection of the social discount rate is a normative policy choice that reflects an ideological decision made by analysts. The 1.7 percent rate should be dropped from the Circular A-4 guidance.

The opportunity cost of capital

The "opportunity cost of capital" refers to the rate of return earned on capital investment that is displaced as a result of government or private actions. This rate is sometimes confused with the social discount rate. For example, the 2003 version of Circular A-4 directed agencies to incorrectly account for the opportunity cost of capital using a social discount rate of 7 percent. The correct approach, as the updated draft guidance recognizes, is to apply a "shadow price" to capital investment (which is an adjustment made to the value of benefits and costs coming in the form of capital investment).⁶ This shadow price accounts for deviations between the market price of capital and its social opportunity cost.

The use of the 7 percent social discount rate was, at best, a crude rule of thumb. In most cases, it probably led agencies to undervalue the social benefits of capital investment, relative to consumption, since all benefits and costs were treated as if they were growing in value at the

⁵ To offer a simple example why this is the case, the time preferences of young children and future generations are not represented in market interest rates. It is an arbitrary decision on the part of OMB to exclude these individuals' preferences from consideration, especially when they are sure to be impacted by federal regulatory actions.

⁶ It should be noted that the 2003 Circular A-4 acknowledged that the shadow price method is correct, but then recommended agencies not use the method without OMB's permission. ("Consequently, any agency that wishes to tackle this challenging analytical task should check with OMB before proceeding.") In practice, regulatory agencies used the 7 percent social discount rate rather than apply a shadow price to displaced capital investment, an approach that is analytically incorrect in most instances.

same rate, regardless of whether they came in the form of consumption or investment. In this sense, the Office of Management and Budget is now correct to cease recommending agencies use the 7 percent social discount rate.

However, this does not mean that the OMB is now free to completely ignore the issue of opportunity cost as it pertains to capital. Critically, the opportunity cost of capital is represented by an interest rate. It should not be accounted for with a shadow price such as 1 or 1.2,⁷ which are the shadow price of capital factors the draft Circular recommends.⁸ A useful opportunity cost interest rate can be found in Broughel and Baxter (2022).⁹ The relevant shadow price interest rate arrived at in that analysis depends on two factors: 1) the marginal rate of return to private capital in the economy net of depreciation (ROI), as well the fraction of the investment return reinvested each period (f). Broughel and Baxter estimate $f \cdot \text{ROI} = 0.8(0.07)$, yielding a shadow price of capital rate of return of 5.6 percent. This is the opportunity cost of capital interest rate OMB should recommend to executive agencies.

In addition, it is critically important that the risk premium be included when incorporating information about interest rates into regulatory economic analysis. This is not being done in the calculations OMB is relying on for its shadow price of capital estimates (see footnote 7). If anything, OMB should consider including a *larger* risk premium for federal agency regulations, relative to those found on similar private sector investment returns. Most federal regulations are all but irreversible once enacted. By contrast, private sector investments usually terminate if they turn out not to be profitable.¹⁰

⁷ Neither of these shadow price of capital (SPC) estimates is appropriate for use in any cost-benefit analysis of real-world projects. The SPC of 1 cannot be taken seriously because it depends on the extreme, completely unrealistic assumption that no capital investment is displaced by government projects. The 1.2 SPC is also wrong because it depends on a number of flawed assumptions. First, the risk premium is removed from the investment rate of interest in the equation used to calculate this figure. This is inappropriate both because government projects are often riskier than equivalent private sector projects, and because the risk premium constitutes part of the objective return of the project. To ignore part of the return is to ignore the actual impacts of the project. Moreover, the 1.2 SPC calculation relies on an average savings rate for society, as opposed to the marginal rate, which will tend to be much higher. This commenter recommends using a savings rate of 0.8, consistent with Broughel and Baxter (2022). Additionally, the calculation of the 1.2 SPC depends—like OMB's 1.7 percent proposed social discount rate—on completely arbitrary normative assumptions about the social rate of time preference. Finally, the 1.2 SPC value is calculated using an equation that assumes convergence in the growth model that underpins the social welfare function. This convergence assumption is misleading. A more general equation for the SPC, which does not assume convergence, is $\text{SPC} = \sum_{t=0}^{\infty} (1 - f) \text{ROI} \frac{(1+f\text{ROI})^t}{(1+\text{SRTP})^t}$. Here, f is the fraction of the return that is reinvested each period, ROI is the marginal social rate of return to capital net of depreciation, and SRTP is the social rate of time preference (which is normative). This is the equation that underpins the recommended shadow price of capital rate of return in this comment, and it (or something similar) should be the equation OMB uses going forward to calculate the shadow price of capital.

⁸ OMB draft Circular A-4, p. 79.

⁹ Broughel, James and Andrew Baxter. "A Mortality Risk Analysis for OSHA's COVID-19 Emergency Regulations." *Journal of Risk and Financial Management* 15, no. 10 (2022): 481.

¹⁰ Another reason to include risk premia when valuing public investments is that presumably society does not want to engage in the kind of naïve expected value maximizing associated with Pascal's Wager-type

For these reasons, as a robustness test,¹¹ a rate of 10 percent, or even higher, could be used alongside the recommended 5.6 percent rate reflecting the opportunity cost of capital. An upper bound as high as 20 percent might even be reasonable given such hurdle rates are common in the private sector.

Recommendation: The opportunity cost of capital must be accounted for in every economic analysis conducted by the government. The opportunity cost of capital should be represented by an interest rate, not a shadow price such as 1 or 1.2. The OMB should use, on the low end, an opportunity cost of capital rate of return of 5.6 percent, based on Broughel and Baxter (2022). For robustness purposes, an upper bound in the range of 10 to 20 percent is reasonable. Investment rates of interest must include risk premia.

There are two interest rates in cost-benefit analysis

As the preceding sections hopefully make clear, there are two interest rates that arise in cost-benefit analysis. These are: 1) the consumption rate of interest, and 2) the investment rate of interest. Contrary to traditional OMB and federal agency practices—where the two rates are applied as discount rates one at a time—a correctly-conducted cost-benefit analysis will actually incorporate both interest rates simultaneously.

There are various ways in which this can be done. The most popular option is to convert all of the benefits and costs that come in the form of capital investment into their consumption equivalent before discounting at “society’s” consumption rate of interest (i.e., the social rate of time preference).¹² However, this approach is sometimes criticized for assuming agents in the economy are myopic because they don’t anticipate future investment income.¹³ An alternative approach,¹⁴ which assumes perfect foresight on the part of economic agents, assigns consumption to the benefits side of the ledger and investment to the cost side. Each side of the ledger is then discounted at its corresponding rate of interest. Finally, costs are multiplied by the “marginal cost of funds” (which is another name for the shadow price of capital, only in this case it is applied to a present value of investment). Whichever approach is taken, analysts incorporate two interest rates in the cost-benefit analysis.

scenarios. In such cases, bad outcomes are all but assured, as society repeatedly accepts risky gambles with very low probability of success but high expected value.

¹¹ The draft Circular notes “you may choose to instead use alternative discount rates, appropriate to the specific regulatory context, as a sensitivity analysis.” See OMB draft Circular, p. 83. More generally, OMB is moving away from assuming risk neutrality toward methods that account for risk aversion. See OMB draft Circular, p. 71-73, 82-83.

¹² For this approach, see Boardman, Anthony E., David H. Greenberg, Aidan R. Vining, and David L. Weimer. *Cost-Benefit Analysis: Concepts and Practice*, 5th ed. Cambridge: Cambridge University Press (2018).

¹³ Burgess, David F. “The Appropriate Measure of the Social Discount Rate and Its Role in the Analysis of Policies with Long-Run Consequences.” Mercatus Symposium, Mercatus Center at George Mason University, Arlington, VA (2018).

¹⁴ Liqun Liu, “A marginal cost of funds approach to multi-period public project evaluation: implications for the social discount rate,” *Journal of Public Economics* 87 (2003): 1707–1718.

Recommendation: A properly-conducted cost-benefit analysis incorporates two interest rates: 1) the consumption rate of interest and 2) the investment rate of interest. Both interest rates should be used in cost-benefit analysis simultaneously.

Implications of a low social rate of time preference

The OMB may be recommending a lower social discount rate than used in the past in part because this would increase the present value of regulations with benefits accruing in the distant future. This is particularly relevant to climate change regulations, such as those with analysis that incorporates the benefits of carbon dioxide emissions reductions using the “social cost of carbon” (SCC). The SCC is an estimate of the value, in “social welfare” terms, of a ton of carbon dioxide emissions reductions. If this is the reason for the recommendation, then the recommendation is pretextual.

Note that there are important implications that follow from selecting a low social rate of time preference, implications that are not currently being considered by the OMB. For example, if the opportunity cost of capital is 5.6 percent, and the social rate of time preference is 1.7 percent, then any capital investments either displaced or induced by the regulation will come to dominate all other benefits and costs in the analysis. The intuition for this is that capital’s returns will be growing at a rate faster than the returns are discounted due to societal impatience. In the limit, the value of capital goes to infinity, suggesting the value of capital investment—no matter how initially small—will exceed the value of any finite gains in consumption.

This has important implications for the SCC, which is expressed in “consumption equivalent units” before discounting.¹⁵ In the final determination of the regulation’s efficiency, the SCC will generally drop out of any economic analysis using a social rate of time preference as low as 1.7 percent, given most reasonable estimates of the opportunity cost of capital exceed this value by a significant amount. Put simply, it would generally be inefficient to displace even a dollar of capital investment in order to pay to reduce carbon dioxide emissions, under OMB’s assumption of a 1.7 percent social rate of time preference.

Recommendation: If the OMB proceeds with recommending a relatively low social discount rate, such as its recommended 1.7 percent rate in the new draft Circular, it must make clear to federal agencies that under reasonable assumptions about the opportunity cost of capital, any benefits or costs that come solely in the form of consumption will generally have no impact on the efficiency of the regulation. These benefits and costs can therefore be discarded in the final

¹⁵ “In calculating the SC-GHG, the stream of future damages to agriculture, human health, and other market and non-market sectors from an additional unit of emissions are estimated in terms of reduced consumption (or consumption equivalents).” See Office of Management and Budget. “Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990.” Interagency Working Group on Social Cost of Greenhouse Gases, United States Government (February 19, 2021).

tabulation of net benefits, though they might be important for other reasons, such as for distributional reasons. This is relevant to the social cost of carbon.

What is OMB's cost-benefit analysis measuring?

Arbitrary distributional weights are sometimes included in a cost-benefit analysis. These make adjustments to benefits and costs based on the analyst's preferences about inequality. OMB must make clear that any analysis using such weights, as the draft guidance now allows,¹⁶ is not measuring welfare but rather is reporting information on the analyst's capricious preferences about how wealth should be distributed in society.¹⁷

The current draft guidance, allowing federal agencies to use distributional weights, moves federal regulatory analysis away from an objective grounding in economics. It is the equivalent of basing analysis on Scientology or some related pseudoscience. As such, any regulation based on this reasoning will lack rational basis.

It is sometimes argued that equal weighting of benefits is also arbitrary. However, valuing benefits and costs in dollars that are equally weighted across individuals is defensible because this is what occurs in reality. If John receives healthcare services worth \$10,000 dollars, then this is reported as \$10,000 in the analysis. Any other weighting of these dollars reflects an arbitrary judgment on the part of the analyst, based on ideology, politics, or other values. Even if such weighting is allowed, where for example \$10,000 is instead reported as \$20,000 or some other number, the OMB should require agencies to report unweighted figures for transparency reasons, and to make clear what they are measuring and the basis upon which such adjustments are made.

Additionally, OMB should also make clear in its guidelines that a wide variety of regulations (perhaps even the majority of all regulations) are regressive in the incidence of their cost, including many related to energy, labor, and goods and services regulations. Even if businesses make the initial expenditures on regulatory compliance, these costs will inevitably be passed on to workers in the form of lower wages, consumers in the form of higher prices, and shareholders in the form of lower investment returns than otherwise would be the case. In general, these kinds of costs represent a larger share of a low-income person's budget compared to a high-income person's budget.

It follows, therefore, that if OMB allows agencies to use arbitrary distributional weights, this must be done consistently across both benefits and costs. Any analysis that reports benefits higher than they occur in reality, and does not adjust costs correspondingly, risks tipping the scales in

¹⁶ OMB draft Circular A-4, p. 65.

¹⁷ Note that this is a similar, though not exactly identical, issue as the discounting issue raised earlier. The social discount rate weights benefits and costs depending on their timing, while distributional weights apply to benefits and costs accruing within the same time period. The social discount rate plays the added role of being the normative method by which individual benefits and costs are aggregated in a cost-benefit analysis to identify a "social" value for the project.

favor of the regulation. Moreover, it would be much more desirable to simply produce distinct cost-benefit calculations for different segments of the population, without applying weights to benefits or costs. This would be more transparent and help ensure that regulations actually pass a cost-benefit test for the various subgroups considered.¹⁸

Recommendation: No distributional weights should be used in regulatory analysis. Instead, benefits and costs should be assessed without weights for important subgroups that might be disproportionately impacted by particular regulations. If distributional weights are used, both benefits and costs should be weighted based on their incidence. Agencies should always explain what they are measuring and always report unweighted benefits and costs to ensure transparency.

Counting benefits and costs to foreigners

The decision of which individuals should receive “standing” in an economic analysis is, like several of the other issues raised in this comment, normative. It reflects a value judgment on the part of the analyst about whose welfare matters and therefore should be counted in an economic analysis. For a federal agency in the United States, the most logical group to give standing to is likely all of the individuals living under the jurisdiction of that agency, which in most cases will be residents of the United States of America. There may be instances, such as in some cases related to national defense, where a global perspective makes more sense. In such cases, the regulatory agency must explain why it is taking a global perspective and should, irrespective of this reasoning, report benefits and costs in a transparent manner as they apply solely to residents of the United States of America.

Furthermore, when a global perspective is taken, the analysis must consistently take a global perspective. This means costs must also be reported to individuals outside the United States, and any benefits and costs that are estimated using the willingness to pay of Americans should be updated to reflect the willingness to pay of everyone in the world.

For example, it is a common practice for federal regulatory agencies to value mortality risk reductions using an “average value of a statistical life” for the population of the United States. In an analysis that takes a global perspective, extending this logic implies using an average value of a statistical life for the entire world, which according to one estimate was about \$1.8 million in 2015.¹⁹ An alternative approach would be to value the lives of individuals in different geographic regions with a more granular value of life that is specific to them. If that approach is taken, multiple values of life could be used, so that those values most relevant to the particular individuals or groups impacted by the regulation are selected.

¹⁸ Williams, Richard and James Broughel. "Principles for Analyzing Distribution in Regulatory Impact Analysis." *Mercatus on Policy*. Arlington, VA: Mercatus Center at George Mason University (2015).

¹⁹ See Viscusi, W. K. and C. J. Masterman. "Income Elasticities and Global Values of a Statistical Life." *Journal of Benefit-Cost Analysis* 8, no. 2 (2017): 226–250; Broughel, James. "Recommendations to Improve Consistency and Transparency in the EPA's Clean Air Act Benefit-Cost Analyses." Comment to the Environmental Protection Agency (July 24, 2020); Broughel, James. "COVID-19 is Forcing Economists to Rethink the Value of Life." *Real Clear Policy*, (August 20, 2020).

Recommendation: If regulators take a global perspective with regard to who receives standing in economic analysis, they should explain why. Even in analyses that adopt a global perspective, analysts should report benefits and costs as they pertain only from a domestic perspective, since this information will always be pertinent to domestic residents of the United States. In cases where a global perspective is taken, both benefits and costs should be reported from a global perspective, and any benefit or cost estimates based on values to Americans, such as the value of life, should be reported from a global perspective to ensure consistency throughout the analysis.

The value of life

Relating to the value of life issue, OMB's draft guidance currently incorrectly states:

Some describe the monetized value of small changes in fatality risk as the "value of statistical life" (VSL) or, less precisely, the "value of a life." The latter phrase can be misleading because it suggests erroneously that the monetization exercise tries to place a "value" on individual lives.²⁰

Contrary to this inaccurate statement, it is actually true that the value of a statistical life (VSL) places a dollar value on individual lives. In fact, OMB's own draft circular makes this clear in the very next paragraph, when it states:

if the annual risk of death is reduced by one in a million for each of two million people, that is said to represent two "statistical lives" extended per year (2 million people x $1/1,000,000 = 2$).

It should be obvious that reducing mortality risk by a factor of one in a million for a population of two million people saves two lives. If no lives were saved, then mortality risk for the community would remain unchanged. *Mortality risk for a population is only reduced when individual lives are saved.*

This confusion likely arises for the following reason. From the perspective of any individual member of this community, the individual will not know if it is *their life* that will be spared. Thus, the VSL comprises, from the individual's perspective, the willingness to pay to reduce the "risk" of death. However, the VSL is the sum of these individual willingness to pay values. From the social perspective, after aggregating individual WTPs across the community, the VSL is simply what the population is willing to pay to save one life.

Thus, the VSL does indeed place a dollar value on individual lives. It is a matter of semantics whether one calls the VSL the "value of life" or the "value of mortality risk reduction." However,

²⁰ OMB draft Circular A-4, p. 49.

one thing is clear: it is misleading to suggest, erroneously as draft Circular A-4 now does, that analysts are not placing a dollar value on life when they rely on a metric like the VSL.

It is also worth noting that the VSL is not technically the correct measure of the value of life in a cost-benefit analysis measuring economic efficiency. The simplest reason the VSL is wrong is because individuals impose externalities on one another through their savings decisions. Another way to say this is that by paying to reduce risk today on myself, that decision leaves fewer resources available for others to reduce risk or use for other purposes in the future. This problem is most obvious at the end of life, when spending on risk reduction comes at the direct expense of bequests passed on to one's heirs.²¹ However, the problem is general for VSLs evaluated at any age. A correct measure of the value of mortality risk reduction must account for these "savings externalities."²²

In fact, the VSL measure would only be theoretically correct in a perfectly efficient market free of any distortions such as externalities. If such a market existed, there would be little need for government intervention to reduce mortality risk, since resources devoted to risk reduction would already be allocated optimally. Thus, the VSL is self-defeating in a sense. If the VSL is consistent with economic efficiency, it shouldn't be used in regulatory economic analysis because markets are already efficient and therefore regulation is unnecessary. If markets are not efficient, the VSL is not the correct way of valuing mortality risk reductions, because it doesn't account for externalities and other distortions.

This commenter recommends relying on value of life tables found in Broughel and Kotrous (2021),²³ who assess the value of life based on the productive contributions of individuals (including household production). A production value of life, or similar "human capital values of life,"²⁴ should be used either as substitutes for the VSL (the preferred approach), or, at a minimum, as robustness checks alongside the VSL.

Recommendation: The OMB should make clear that the value of a statistical life applies a dollar value to human life. Moreover, the VSL is not in general the correct measure for valuing mortality risk reductions in any cost-benefit analysis measuring economic efficiency. Thus, discussion of the VSL should be removed from OMB's draft guidance. Human capital or

²¹ Broughel, James and Michael Kotrous. "The Benefits of Coronavirus Suppression: A Cost-Benefit Analysis of the Response to the First Wave of COVID-19 in the United States." *PLOS ONE* 16, no. 6 (2021): e0252729.

²² The savings externalities described here suggest that future generations would generally benefit from trading with the current generation. As a result, few if any partial equilibrium outcomes in markets can be assumed efficient. This is relevant to OMB's assumption that effects in one market won't spill over and affect others. "An implicit assumption of this approach is that effects that occur in other markets are not material for the analysis because they are either fully captured in the analysis of the directly affected markets or are small" (OMB Draft Circular A-4, p. 40). OMB's implicit assumption appears unreasonable.

²³ Broughel, James and Michael Kotrous. "The Benefits of Coronavirus Suppression: A Cost-Benefit Analysis of the Response to the First Wave of COVID-19 in the United States."

²⁴ These include valuation methods based on the replacement cost of human capital and production, which may be the most precise method of valuing mortality benefits. However, it can also be difficult to estimate.

production-based values of life are more fit for cost-benefit analysis, and these should ideally be recommended in place of the VSL. Such measures could also be used as robustness checks alongside the VSL.

Mortality risk tradeoffs

A subset of opportunity costs are health opportunity costs. A literature with a more than 40-year history evaluates health opportunity costs, including by estimating the value of an induced death, or VOID.²⁵ The VOID represents the cost level sufficient to reduce incomes across society by enough to produce one expected death. The mechanism by which this occurs is that falling incomes result in less spending on risk reduction and therefore greater risk. Two recent articles by 1) Broughel & Viscusi and 2) Broughel & Chambers estimate that the VOID ranges from about \$38.6 million to \$108.5 million (2019\$).²⁶

Recommendation: The OMB must direct agencies to account for health opportunity costs in addition to other opportunity costs. Federal agencies should be required to estimate the number of expected fatalities caused by their regulations as a result of displacing private expenditures on risk reduction. This can be done using estimates of the value of an induced death found in the literature.

The regulatory budget

It is notable that there is almost no discussion in the draft Circular of a regulatory budget.²⁷ This is a significant oversight given recent advances with regulatory budgeting made during the presidency of Donald Trump.²⁸ His administration demonstrated that the concept of a budget for regulations is workable, even if there is much work to be done to improve it. Furthermore, significant academic work has been done in recent years demonstrating the benefits of regulatory budgets.²⁹

OMB might consider a regulatory budget to be a separate issue from the economic analysis required under executive order 12,866,³⁰ but it should not. The regulatory analysis that accompanies a regulatory budget can be viewed as a more comprehensive form of cost-benefit analysis than what federal agencies currently conduct.³¹ It is more comprehensive because

²⁵ This concept is sometimes called the “cost-per-life-saved cutoff.” This commenter is indifferent as to the terminology used.

²⁶ Broughel, James and Dustin Chambers. "Federal Regulation and Mortality in the 50 States." *Risk Analysis* 42, no. 3 (2022): 592-613; Broughel, James and W. Kip Viscusi. "The Mortality Cost of Expenditures." *Contemporary Economic Policy* 39, no. 1 (2021): 156-167.

²⁷ The concept is mentioned once, on p. 7, when discussing cost-effectiveness analysis.

²⁸ Executive Order 13771, "Reducing Regulation and Controlling Regulatory Costs," 82 *Fed. Reg.* 9339 (Jan. 30, 2017).

²⁹ See, for example, A Symposium on Regulatory Budgeting, *Harvard Journal of Law & Public Policy Per Curiam* No. 25 (Summer, 2022).

³⁰ Executive Order 12866, "Regulatory Planning and Review," 58 *Fed. Reg.* 51735 (October 4, 1993).

³¹ Broughel, James. "The Regulatory Budget in Theory and Practice: Lessons From the U.S. States," *Harvard Journal of Law & Public Policy Per Curiam*, no. 25 (2022): 11-42.

benefits and costs are considered in the aggregate over an infinite time horizon. By contrast, traditional cost-benefit analysis evaluates projects as they affect current welfare. Some scholars also recommend regulations be required to pass a two-step test: one based on traditional cost-benefit analysis and a second based on the constraint placed by a regulatory budget.³² Such an approach has the benefit of balancing present and future considerations in economic analysis.

Recommendation: OMB should include recommendations in its Circular A-4 update on how to construct a federal regulatory budget, as well as how to integrate a regulatory budget test for regulations with a cost-benefit test.

Conclusion

In many aspects of economics analysis—ranging from discounting, to shadow pricing, to valuing human lives—the OMB is either incorrectly accounting for the issue of opportunity cost or ignoring the issue altogether. Additionally, the OMB is masquerading normative ethical choices behind a false veneer of science. The confusion—or worse, deception—that OMB exhibits in these areas raises grave questions about the competence and knowledge of the staff at OMB, as well as their objectivity as dispassionate analysts. Regulatory analysis should be based on sound, objective economic principles. It should not reflect the ideologies of analysts arbitrarily seeking to impose their own policy preferences upon Americans. Unfortunately, OMB's draft Circular A-4 update comes across as doing just that. It must be withdrawn.

Recommendation: The Office of Management and Budget should withdraw its draft Circular A-4 update and instead reintroduce a new draft circular, made available for public comment as well as peer review, after each of the issues raised in this comment has been addressed thoroughly.

³² Ibid; see also, Tozzi, Jim. "Office of Information and Regulatory Affairs: Past, Present, and Future," *Journal of Benefit-Cost Analysis* 11, no. 1 (2020): 1-24.