

**SBCA Presidents' and *JBCA* Editors' Comments on Revised U.S.
Analytic Guidance**

Comparing the Draft and Final Circular A-4

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Comparing the Draft and Final Circular A-4*

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Abstract: In April 2023, the Office of Management and Budget (OMB) published a draft of revisions to Circular A-4, the first changes proposed since its publication in 2003. Following a public comment period, OMB published the final revised Circular A-4 in November 2023. In this paper, we provide a section-by-section comparison describing the similarities and differences between the April draft and the November revision of Circular A-4. Among other observations, we note that the revised Circular A-4 changes the default social rate of time preference from 1.7 percent to 2.0 percent, retains recommendations for using distributional weighting in benefit-cost analysis, and retains recommendations to use a global point of view when determining the spatial scope of analysis.

Keywords: benefit-cost analysis, Circular A-4, regulation, regulatory review

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Following a public comment period launched in April 2023 (OMB 2023b), the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget (OMB) issued a final updated version of Circular A-4 on November 9, 2023 (OMB, 2023c), along with an Explanation and Response to Public Input (OMB, 2023d). This new version updates the original Circular A-4 from 2003 pursuant to Executive Order 14094 (2023), “Modernizing Regulatory Review.” Starting March 1, 2024, the updated Circular A-4 applies to all proposed rules, direct final rules, and interim final rules. It will apply to other final rules starting January 1, 2025.

We have compared the draft Circular A-4 (OMB, 2023a) with the final Circular A-4 (OMB, 2023c). Both versions are similar in length, containing over 90 pages (or over 40,000 words) of guidance on various aspects of regulatory analysis. This paper highlights the differences and similarities in each section between the April draft Circular A-4 and the November final version.¹

I. Introduction

Notable Changes:

- *Highlights the accompanying “Explanation and Response to Public Input” document as a reference for analysts.*
- *Clarifies the key elements of a regulatory analysis and notes how regulatory analysis is an iterative process.*

The introductory section of the final Circular A-4 is substantially similar to the April draft. One noticeable change is that the opening section of the introduction draws attention to a “contemporaneously published” document, “OMB Circular No. A-4: Explanation and Response to Public Input,” as a useful reference for analysts.

Both versions contain subsections on the “Need for Analysis of Regulatory Actions” and “Developing a Regulatory Analysis,” with mostly minor changes made to the draft. The discussion of developing a regulatory analysis clarifies the key elements of a regulatory analysis, by adding an emphasis on the need to identify, as well as evaluate, the need for regulatory action. It also notes how regulatory analysis is an iterative process where new information prompts refining previous work.

II. Analytical Approaches

Notable Changes:

- *Removes an introductory explanation of cost-effectiveness analysis (CEA) that suggests when agencies may choose to use it instead of benefit-cost analysis (BCA).*

¹ For an in-depth comparison of the original Circular A-4 and the 2023 draft, see Hay and Xie (2023).

- *Removes the subsection “Metrics for Health and Safety Outcomes,” which in the draft circular was largely unchanged from the 2003 Circular.*
- *Removes a statement about how relying on “a materially incomplete monetized BCA” could be misleading, although OMB still warns that such an incomplete analysis could offer an inadequate summary of each alternative’s net benefits.*
- *Includes a concluding statement that CEA is not required and that OMB encourages agencies to use BCA instead.*

This section lays out the main analytical approaches that agencies can use to evaluate the effects of regulatory actions. In particular, OIRA identifies BCA and CEA as methods that “provide a systematic framework for identifying and evaluating the likely outcomes of alternative regulatory choices” (OMB, 2023c, p. 4). However, the final version removes an introductory explanation of when agencies may choose to use CEA instead of BCA, further underscoring BCA as the favored approach to regulatory analysis.

The final draft retains detailed subsections on “Benefit-Cost Analysis and Cost-Effectiveness Analysis” but removes a subsection on “Metrics for Health and Safety Outcomes,” which the draft Circular A-4 had largely left unchanged from the original 2003 Circular A-4. The latter subsection included an explanation of the advantages and drawbacks of measures that account for changes in non-fatal health and safety outcomes (e.g., quality-adjusted life years) and how they might be relevant to BCA or CEA.

The subsection on BCA is largely unchanged, although the final draft removed a statement about how relying on “a materially incomplete monetized BCA” could be misleading (OMB, 2023a, p. 5). Nevertheless, the Circular still warns that such an incomplete analysis could offer an inadequate summary of what the evidence suggests is the most net-beneficial alternative. The subsection on CEA is also mostly the same, but it now concludes with a statement that CEA is not expressly required (this was taken from the deleted subsection on “Metrics for Health and Safety Outcomes”) and that “OMB encourages agencies to use BCA as the typically more informative analytical approach” (OMB, 2023c, p. 7).

III. Scope of Analysis

Notable Changes:

- *Retains the global point of view for spatial scope of analysis, in some cases.*
- *Clarifies beginning and end points for analytical time frames.*

The Scope of Analysis section retains the international focus introduced in the draft Circular A-4. When considering costs and benefits, the final Circular A-4 instructs agencies to consider all relevant effects of a regulation, “regardless of whether they result from a regulation’s domestic applicability, or from a regulation’s impact on foreign entities” (OMB, 2023c, p. 7). Per the Circular, “relevant effects” can also include effects on U.S. strategic interests, effects that occur

outside of the United States that affect U.S. citizens and residents (namely, U.S. citizens residing abroad), and in some cases, effects on noncitizens residing abroad (OMB, 2023c, p. 8). Like the draft, the final Circular recommends that when agencies conduct a global analysis, they should provide a supplemental analysis of the effects on U.S. citizens and residents, unless “such effects cannot be separated in a practical and reasonably accurate manner” (OMB, 2023c, p. 8).

Regarding the temporal scope of analysis, the final Circular A-4 provides additional guidance on the timeframe used in analysis. Specifically, it suggests that agencies use the year when the regulation will begin to have effects as the starting point for estimates, even if that year is far in the future. The Circular recommends that the ending point be far enough in the future to account for all benefits and costs, and explicitly states that agencies should not end the analysis before then so that agencies capture all costs or benefits that could affect policymakers’ decisionmaking.

IV. Developing an Analytic Baseline

Notable Changes:

- *Refers to without- and with-statute baselines, instead of pre- and post-statutory baselines.*

This section did not change significantly between the draft and final documents. Like the draft, the final Circular A-4 maintains its emphasis on how changing future conditions could affect the estimated benefits and costs of a regulation. The final document maintains flexibility for agencies to utilize without-statute baselines and with-statute baselines. This terminology is new to the final A-4; the draft referred to pre-statute baselines and post-statute baselines.

V. Identifying the Potential Needs for Federal Regulatory Action

Notable Changes:

- *Includes “positional goods” as an additional type of good that can create externalities.*
- *Adds principal-agent problem to the discussion of asymmetric and imperfect information.*
- *New language indicates that it could be considered a failure of public institutions if institutions fail to take beneficial actions available to them.*

The final Circular retains the subsections added in the draft about incorporating into regulatory analysis the assessment of potential needs for federal regulatory action and assessing whether federal regulation is the best approach. Like the draft, the latter subsection is less deferential to state, local, and territorial governments than the 2003 Circular A-4.

The majority of changes in Section 5 occur in the subsection titled “Potential Needs that Federal Regulatory Actions Commonly Address.” The most notable changes discuss externalities, asymmetric and imperfect information, and improving government operations. In addition to externalities caused by common property resources, club goods, public goods, and goods with network benefits, the final Circular A-4 also introduces “positional goods” as a type of good that

can cause externalities. According to the circular, positional goods arise when the “increase in the relative position of one person lowers the relative position of others” (OMB, 2023c, p. 16). When discussing asymmetric or imperfect information as a potential need for federal regulation, the final circular highlights that asymmetric information between principals and their agents can make inefficiencies worse.

The final circular adds new language to the subsection “Improving Government Operations and Service Delivery.” This section describes how regulations are necessary to manage government operations smoothly and transparently. The final circular states that it can be considered a failure of public institutions when institutions could have taken actions to reduce costs without proportionately reducing the quality or quantity of goods and services provided, or could have provided more and better goods and services without proportionately increasing costs, but did not do so.

VI. Alternative Regulatory Approaches

Notable Changes:

- *Removes example of when assessing a wide array of options is beneficial.*
- *Adds a new section encouraging pilot projects and data collection for testing multiple alternatives.*
- *Adds detail to the discussion of assessing compliance with regard to performance and design standards.*
- *Adds detail to the discussion of distributional effects and what to study with regard to market-based policy solutions.*

The Alternative Regulatory Approaches section retains the changes introduced in the draft, notably including nudges as a regulatory approach. The section begins with a discussion of how to choose which regulatory alternatives to assess, while cautioning that when there are many provisions, it is often impractical to analyze all combinations of provisions. The final circular removes an anecdote about when the Department of Energy successfully analyzed a wide array of alternatives. Without that anecdote, the section no longer discusses any potential benefits of assessing many alternatives.

The final circular adds a new subsection on “Pilot Projects, Data Collection, and Learning Through Variation.” If agencies have the time and resources, this section encourages them to use pilot projects to test one or more of the potential regulatory alternatives. The section also suggests that agencies consider regulatory alternatives that facilitate data collection for use in future analyses or in retrospective reviews. The circular suggests that this data collection could be particularly useful when there is uncertainty about benefits and costs, or if benefits and costs are likely to change over time.

The subsection “Performance Standards and Design Standards” now suggests that, when studying the benefits and costs of performance versus design standards, agencies also consider the costs of assuring compliance under both alternatives, the likely degrees of compliance between the two options, and the net benefits of each option. It instructs agencies to avoid generalizations about whether it is less costly to ensure compliance under performance standards or design standards, since the less costly option could be different depending on other contextual factors.

The subsection “Market-Oriented Approaches and Direct Controls” offers a more detailed explanation of potential distributional effects that can occur under market-based solutions. It also further describes what agencies should study when assessing market-based approaches: whether the behavior the policy targets (either by penalty or reward) is measurable; whether the penalties or rewards target the behavior in such a way that produces real changes in social benefits and costs; and whether agencies are accounting for the costs of monitoring compliance and the market.

VII. Assessing Benefits and Costs

Notable Changes:

- *Changes section name from “Developing Benefit and Cost Estimates” to “Assessing Benefits and Costs.”*
- *Removes the references to “transfers” throughout this section, so that the focus is only on benefits and costs as categories of effects. The discussion of transfers is now concentrated in Section 9.*
- *Contains an expanded discussion of WTP and WTA methods, explaining when basing them on stated preference methods can also be useful and adding an example of when WTP may provide incomplete estimates.*
- *Offers several more examples throughout, including on the valuation of emissions reductions in different locations and more contexts when partial equilibrium analysis would be useful.*
- *Adds new text to the subsection on “Additional Benefits and Costs,” clarifying that costs should not be excluded when those costs drive intermediate activities that could create benefits or costs down the line.*
- *Makes many minor adjustments of language to the subsection on “Methods for Treating Non-Monetized Benefits and Costs,” including an expanded discussion of when unquantified or non-monetized effects could be meaningful in informing a policy choice.*
- *Significantly changes the subsection on “Monetizing Health and Safety Benefits and Costs” by simplifying the introductory material, mentioning quality-adjusted life years as a way to monetize health effects, and reducing the summary of the economic literature on contested topics.*

OIRA renamed the section on “Developing Benefit and Cost Estimates” to “Assessing Benefits and Costs” and made numerous revisions to the text, although few would drastically change how

agencies go about preparing their regulatory analyses. One holistic change is removing the references to “transfers” throughout the section, so that the focus is only on benefits and costs as categories of effects. By implication, agencies should seek guidance on accounting for transfers by looking at Section 9. Additionally, the final version offers several more examples to illustrate concepts throughout the section, such as on the valuation of emissions reductions in different locations and discussing more contexts when partial equilibrium analysis would be useful.

The subsection explaining key concepts for estimating regulatory effects now contains an expanded discussion of willingness to pay (WTP) and willingness to accept (WTA) methods, demonstrating when basing estimates on stated preference methods can be useful and adding an example of when WTP may provide incomplete estimates.

One major change between the 2003 Circular and the Draft Circular was recharacterizing “ancillary benefits” and “countervailing risks” as “additional benefits and costs,” and this terminology change was kept in the final draft. OMB added text clarifying that costs should not be excluded when those costs drive intermediate activities that could create benefits or costs down the line, such as information collection and reporting provisions.

The final circular contains several notable changes related to the quantification and monetization of benefits and costs. In addition to a number of minor adjustments, the subsection on “Methods for Treating Non-Monetized Benefits and Costs” expands the discussion for when unquantified or non-monetized effects could be meaningful in informing a policy choice: “The discussion and summary table of important unquantified and non-monetized effects should be placed prominently in your analysis to facilitate its consideration by policymakers and the public” (OMB, 2023c, p. 46).

In the draft Circular A-4, OMB originally left the subsection “Monetizing Health and Safety Benefits and Costs” largely unchanged from the original 2003 version. However, some more significant changes were made to the final draft. The final version simplified the introductory material, primarily highlighting the need to use appropriate methods and document those choices, and it removed the discussion of the use of revealed preference and stated preference methods, which had received criticism from commenters (OMB, 2023d, p. 26). The final language also mentioned quality-adjusted life years (QALYs) as a way to monetize health effects, in addition to WTA or WTP.

Finally, OIRA modified this subsection to be less detailed in its assessment of the current state of the economics literature, especially on contested topics like the “value of statistical life” (VSL) and the “value of statistical life-years” (VSLY). Based on feedback, OMB concluded:

Given the ongoing and unsettled nature of empirical and methodological issues in the economic literature—and the limited value a summary of that literature would have for agencies—OMB has decided to remove much of the content in this section

in the final version of the Circular, but looks forward to working with agencies in the context of specific analyses that examine these issues in light of the evolving literature (2023d, pp. 26-27).

VIII. Other Key Considerations

Notable Changes:

- *Removes paragraph instructing analysts to consider “quality, applicability, and possible bias” (OMB, 2023a, p. 53) of sources related to learning and cost reduction.*
- *Encourages agencies to explain assumptions about compliance, and how alternative regulatory approaches could increase compliance.*

The Other Key Considerations section of the final Circular A-4 retains the discussions of accounting for business cycle dynamics, effects of market power, and imperfect or asymmetric information added in the draft. In discussing “Other Benefit and Cost Considerations,” the final version recommends that agencies reference “any relevant studies” related to how learning and technology may reduce costs but removes a paragraph from the draft instructing analysts to consider the “quality, applicability, and possible bias” (OMB, 2023a, p. 53) of studies’ sources.

The final circular added additional guidance for agencies on “accounting for compliance and take-up.” When there is evidence that full compliance is unlikely and that compliance is material to the analysis, but the agency still assumes full compliance, the circular encourages agencies to explain its assumption, and discuss how various compliance strategies and other factors would affect compliance and administrative costs. This section also recommends that agencies explore the distributional effects of uneven compliance.

IX. Transfers

Notable changes:

- *Retains both approaches for accounting for transfers, but deletes the statement that presenting transfers separately from benefits and costs is the default approach.*
- *Adds that the ultimate effects of a transfer may have distributional implications.*
- *Adds “further guidance on net benefits from a society-wide perspective” to address behavioral effects of transfers.*

The final Circular retains the two alternative approaches to accounting for transfers recommended in the proposed revisions: one is to present transfers separately from benefits and costs, and the other is to account for transfers as both benefits and costs. A noticeable change is that the final Circular no longer states that the former is the default approach to analyzing transfers.

The final Circular adds further guidance on taking into account distributional effects when considering the ultimate effects of a transfer. It notes that such effects may not be straightforward.

For example, “those whose welfare is ultimately increased or decreased may be different from who initially pays the transfer and who initially receives it” (OMB, 2023c, p. 59). Therefore, the Circular solicits agencies to identify the groups that contribute to or receive the transfer in the analysis, rather than only who pays or receives the transfer.

The April draft discusses behavioral changes induced by transfers. The final Circular retains that discussion and expands it by providing a few examples of such behavioral effects and a suggestion of using a market model for capturing such effects in “society-wide accounting of net benefits.” However, the Circular removes a statement in the draft that set expectations for incorporating estimates of relevant and significant behavioral effects in a full analysis of a regulation with such behavioral effects.

X. Distributional Effects

Notable Changes:

- *Retains suggestions for applying weights to the benefits and costs occurring to different groups when estimating net benefits.*
- *Retains the recommendation of using a constant-elasticity approach and an absolute value of income elasticity of marginal utility of 1.4.*
- *Still requires the production and presentation of traditionally-weighted estimates, and adds that agencies should not treat weighted estimates as primary if they are less informative than traditionally-weighted estimates.*
- *Maintains the material about unit of analysis and granularity.*
- *Retains agency discretion in determining when to conduct distributional analyses and which groups should be considered.*

The final Circular makes insignificant changes to the discussion on distributional effects. It retains the suggestion for applying weights to the benefits and costs occurring to different groups when estimating net benefits. It also keeps the recommendation of using a constant-elasticity approach in determining the weights and an absolute value of income elasticity of marginal utility of 1.4. In its responses to public input on the draft Circular, OMB states that this estimate is based on the most up-to-date and comprehensive survey of the relevant literature and robust to modeling choices (see OMB, 2023d, pp. 50-52). A trivial change in the final Circular is that, in a footnote, it acknowledges that “agencies may determine that another estimate of the income elasticity of marginal utility is most appropriate in the context of a particular regulatory analysis” (OMB, 2023c, footnote 127, p. 67).

The final Circular still requires the production and presentation of traditionally-weighted (i.e., “unweighted”) estimates, regardless of whether using weights for aggregating benefits and costs. While traditional weights can provide a useful anchoring point in an analysis, both the draft and final versions note that agencies may treat weighted estimates as their primary estimates of net

benefits. However, the final Circular further clarifies that agencies should not do so if weighted estimates “are less informative about the welfare effects of the regulation than traditionally-weighted estimates” (OMB, 2023c, p. 66).

The final Circular also maintains the material in the draft about unit of analysis and granularity. In the context of income weighting, the final Circular adds that “analyses applying weights of this type to benefits and costs that are estimated with more granularity will, holding all else equal, be more informative than if benefits and costs are estimated with less granularity” (OMB, 2023c, p. 66).

As with the proposed revisions in the April draft, the Circular allows agency discretion in determining when to conduct distributional analyses and which groups should be considered, as OMB determines that a mandatory approach is not appropriate and case-by-case assessment is required.

XI. Treatment of Uncertainty

Notable Changes:

- *Retains the removal of the presumption of risk neutrality.*
- *Provides more mathematical detail on how to estimate certainty-equivalent valuations.*

Most material in this section remains unchanged in the final Circular, including the removal of the 2003 default assumption of risk neutrality and the assumption of risk aversion in measuring the value of uncertain outcomes. One notable change is that the final version adds more mathematical detail on how to estimate certainty-equivalent valuations, which also uses the absolute value of the elasticity of marginal utility of 1.4 to value the aversion to uncertain outcomes and inequality across a population (see OMB, 2023c, footnote 149, p. 74). According to OMB, this addition clarifies how agencies should calculate benefits and costs under different risk assumptions and verifies how certainty-equivalent approaches can lead to more accurate estimates (see OMB, 2023d, p. 54).

XII. Discount Rates

Notable Changes:

- *Changes the default social rate of time preference from 1.7 percent to 2.0 percent, based on the adoption of a constant 0.3 percent CPI-PCE differential adjustment in the estimate.*
- *Deletes the reference to the Ramsey model as an alternative approach to determining the social rate of time preference and as an alternative approach to generating a discount rate schedule in the long term.*
- *Adds guidance on using risk-adjusted discount rate to account for systematic risk in estimating benefits or costs.*

The final Circular A-4 makes relatively significant changes to the section on discount rates in response to public comments submitted on the proposed revisions. It changes the default social rate of time preference from 1.7 percent to 2.0 percent. In the draft, OMB arrives at the rate of 1.7 percent based on the most recent 30-year (1993-2022) average of the yield on 10-year Treasury notes and the rate of change in the consumer price index (CPI), an approach similar to the 2003 guidance. OMB still uses this estimate in the final Circular but adjusts it to reflect inflation as measured by the personal assumption expenditure (PCE) index by adding a 0.3 percent per-year rate. Upon reviewing public input on the use of an inflation measure in the estimation of the social rate of time preference, OMB determines that PCE is a more appropriate inflation index than CPI, because PCE better reflects how consumers substitute some goods and services for others as prices change. The constant 0.3 percent rate is based on a model-predicted CPI-PCE differential and is almost identical to the historical average CPI-PCE difference since 1978.

The final Circular largely removes the discussion of the Ramsey approach. It applies to at least two places related to discounting. First, it deletes the subsection titled “Alternative Approaches” in the April draft, which discussed using the Ramsey approach to discounting instead of estimating the social rate of time preference using interest rates on long-term government debt. Second, it removes the reference to the Ramsey model as an alternative approach to generating a discount rate schedule in the long term.

The proposed revisions allowed agencies to use alternative discount rates to account for risk in their regulatory analysis if the preferred method of certainty equivalents is not feasible. The final Circular keeps that and adds further guidance on using a risk-adjusted discount rate to account for systematic risk. To obtain a risk-adjusted discount rate, it suggests combining an estimate of an economy-wide risk premium and the correlation of regulatory benefits and costs with that systematic risk. It also refers to Circular A-94 (also revised by OMB on November 9, 2023) which illustrates a method for estimating a risk-adjusted discount rate in benefit-cost analysis of federal programs (OMB, 2023e).

XIII. Other Sections with Minimal Changes

Notable Changes:

- *Renames two subsections in Section 14 to “National Environmental Policy Act” and “Health and Environmental Impacts on Communities with Environmental Justice Concern.”*
- *References Executive Order 14096 of April 21, 2023 in the subsection on health and environmental impacts.*
- *Renames Section 15 to “Presentation of Results and Accounting Statement.”*
- *Adds a new row for net benefits to the suggested format for the accounting statement.*

Very minimal changes were made to the sections on “Quality, Objectivity, Transparency, and Reproducibility of Results” (Section 13), “Specialized Analytical Requirements” (Section 14), and “Presentation of Results and Accounting Statement” (Section 15).

The “Specialized Analytical Requirements” section discusses particular laws and policies that need to be considered when conducting regulatory analysis. Here, OIRA renamed the subsection on “Environmental Impact Statements” to “National Environmental Policy Act,” making it more generally applicable to other forms of environmental review. The subsection on “Health and Environmental Impacts on Minority and Low-Income Populations,” a new addition in the draft circular (Hay and Xie, 2023), was renamed to “Health and Environmental Impacts on Communities with Environmental Justice Concern.” The text of the subsection was also revised to account for the issuance of Executive Order 14096 of April 21, 2023.

Section 15 – called “Accounting Statement” in the draft – was renamed to “Presentation of Results and Accounting Statement.” This section now specifies that the accounting statement of benefits and costs should be included “preferably in an executive summary or otherwise in a prominent early place” (OMB, 2023c, p. 88). The language suggesting “detailed reporting of [distributions of plausible outcomes] in the accounting statement is not necessary” was removed from the subsection “Treatment of Risk and Uncertainty” (OMB, 2023a, p. 90). The suggested format of the accounting statement is similar between the draft and final versions, with the main difference being the addition of a row for “Annualized monetized net benefits” (OMB, 2023c, p. 91).

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