Incorporating Equity in Regulatory and Benefit-Cost Analysis

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Economists have been said to have a tin ear for political debates driven by distributional concerns. However, economists have been major contributors to the development of descriptive statistics of inequality as well as to the large literature on the integration of equity issues with social welfare. This paper first takes a "GAO" approach by asking what criteria might exist for distributional standards involving benefit-cost analysis. Second, the paper considers empirical issues in estimation of distributional effects seeking the positively informative as a step forward from current practice.

The economic and risk analysis professions both lack governing bodies that issue credentials and promulgate analytical standards. This may be desirable in general but the practice creates a vacuum when governmental organizations such as the Office of Information and Regulatory Affairs (OIRA) considers revisions to its guidelines for regulatory analysis (OMB 2003). This paper first considers the purpose and possible sources of specific guidelines, and second provides substantive and procedural suggestions for guidelines related to distributional impacts.

[1]Appreciation is extended to participants at the SRA/RfF New Ideas for Regulation workshop.
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Target audience and sources of analytical guidelines

The Office of Information and Regulatory Affairs and its predecessors have issued guidelines for the benefit-cost and related analysis of regulations and government investments for decades (OMB 1991, 2003). Other parts of the Office of Management and Budget also regularly issue guidelines of varying complexity, such as those issued for budget submissions (OMB 2008), which sometimes include elements of economic and risk practice. Each circular is generally issued under legal authority delegated by statute or an Executive Order[2].

The target audience for OMB guidelines is personnel in the Executive Branch and their consultants. The subject is the analytical expectation for specialized products, such as regulatory reviews. The personnel may practice a wide range of professions and degrees but are generally applied practitioners of each discipline, whatever degree they are holding. For instance, about 2 percent of EPA's personnel with advanced degrees (Master's, J.D. or Ph.D.) were economists; about 16 percent in the life sciences, 3 percent health professionals, and so on (Morgenstern, 1997). As Lave (1996) has well articulated, benefit-cost analysis in practice may fall significantly short of its capability in an ideal setting. Not only are there conceptual difficulties for even the most advanced analysis but at least time, budget, strategic pressures and training limitations in practice affect the product produced.

The guidelines appear designed to communicate "standard" practice to be implemented by government analysts and consultants rather than "frontier" practice as might be implemented by researchers implementing new approaches, although some advanced practices are mentioned. In that context, advanced approaches to distribution such as proposed by Adler (2008) or Zerbe (2001) may be more appropriately the subject of academic development than the content of standard guidelines for practice.

[2] For instance, Circular A-4 on Regulatory Analysis cites as authority "… Section 6(a)(3)(c) of Executive Order12866, "Regulatory Planning and Review," the Regulatory Right-to-Know Act, and a variety of related authorities." (OMB 2003).

The guidelines can provide criteria for Executive Office review either by OMB or by other parties. OMB review is a standard part of agency regulatory procedures (Lubbers 2006; McGarity 1991). In addition, the U.S. Governmental Accountability Office (GAO) considers OMB guidelines as sources of criteria by which to review agency products; and academic or think tank analysts also use the guidelines as review criteria (Hahn 1996; Belzer 1999; Hahn and Dudley 2007). However, the guidelines do not appear to create a source of judicial review although they mix guidance on implementation of Executive Orders, which is crafted so as not to create a basis for judicial review, with guidance on statutory requirements which have varying exposure to judicial review (McGarity 1991; Lubbers 2006).

In some professional organizations there is a clearly specified hierarchy of sources of guidance. Appendix Figure 1 reproduces the hierarchy of sources for the accounting profession. The Governmental guidelines under discussion, and the professional literature from which it is drawn, are included in the lowest level of acceptable sources for guidance in the accounting profession.

While there is no author attribution for OMB guidance, the authors of the guidelines appear to be primarily staff in the Executive Office of the President as augmented by external consultation and review. For instance, the 1996 guidance on regulatory analysis was prepared over two years by an interagency group co-chaired by OMB and the White House Council of Economic Advisors. The substantive source of the guidelines appears to be a combination of the specific problem context with which OMB is familiar, whether regulatory analysis (OMB 2003, A-4), budget submissions (OMB 2008, A-11), or government investments (OMB 1992, A-94); and the staff's view of professional practice through their training and readings. In some ways, guidance documents appear similar to a condensed version of a textbook that is focusing on implementable ways to analyze a specific set of problems.

Guidance on Distributional Impacts

Providing additional guidance on distributional issues, particularly for A-4 (OMB 2003) which is directed at regulatory analysis, could be focused on three steps: 1) enforcing distributional impacts as more central to the process, 2) identifying typical types of descriptive distributional statistics, and 3) identifying typical welfare adjustments or distributional test. Each is discussed in turn.

Communicating distributional impacts as more central to the process

Substantial research has indicated that many agencies do not as yet regularly comply with the basic requirements for BCA as defined by OMB guidance (Hahn 1996; Hahn and Dudley 2007; Belzer 1999). Currently, the subject of distributional analysis is covered relatively well in initial portions of regulatory guidance where it is stated:

> **"**Those who bear the costs of a regulation and those who enjoy its benefits often are not the same people. The term "distributional effect" refers to the impact of a regulatory action across the population and economy, divided up in various ways (e.g., income groups, race, sex, industrial sector, geography). ….
>
> Your regulatory analysis should provide a separate description of distributional effects (i.e., how both benefits and costs are distributed among sub-populations of particular concern) so that decision makers can properly consider them along with the effects on economic efficiency. Executive Order 12866 authorizes this approach. Where distributive effects are thought to be important, the effects of various regulatory alternatives should be described quantitatively to the extent possible, including the magnitude, likelihood, and severity of impacts on particular groups. " (OMB 2003, p. 14)

No regulatory impact analysis is known to this author to have been returned to an agency for lack of a distributional analysis, nor is it known if OIRA has chosen to interact extensively with an agency on the subject.

The currently nominated director of OIRA, Cass Sunstein, also appears favorable to considering distributional issues as he stated with regard to regulation:

> Suppose that in terms of overall welfare, the regulation is not desirable; it makes aggregate welfare lower rather than higher. But suppose, too, that those who benefit are less advantaged than those who lose (and) ….suppose that the redistribution is not going to happen through the tax system. If so, then the regulation in the harder cases cannot be ruled off-limits despite its inefficiency. (Sunstein 2005, p. 168-169)

Whether or not redistribution can occur more effectively, or at all, through the tax code or another mechanism gets at the core of some economist's concern with investigating equity through benefit-cost analysis. Projects may be inefficient means of transferring income such that it would be better to increase the over-all "pie" and then redistribute it (Gramlich 1990, chapter 7) although such approaches may ignore the behavioral immediacy of project impacts and the feasibility of adjusting the tax code.

Although OMB has to date avoided a public checklist of required elements of a regulatory analysis, such a checklist or other means of communicating the importance of distributional issues seems appropriate, leading to the following recommendation:

Recommendation 1: OMB should develop a communication method to consistently expect data or discussion on the distributional impacts of a regulation as requested in existing guidance.

However, while substantive guidance exists for many elements of a benefit-cost analysis, additional detail is desirable but lacking for the analysis of distributional impacts.

Identifying acceptable types of distributional descriptive statistics

While it will be desirable to link distributional impacts to the underlying normative question of when society is better off with or without an action, the first task is a positive one; the statistical description and visual display of the distributional impacts of a governmental action.

There is very little guidance from OMB on data analysis related to distribution, either as its own subject or where it might be integrated with the benefit-cost analysis. In other areas of economics however, there are extensive discussions of descriptive statistics and of normative measures related to distribution (e.g. Cowell 2003; Lambert 1989; Sen 1997).

Additional guidance should exist on typical measures of distributional information. Distributional data may be relevant on a wide range of sub-groups of potential interest identified in legislation, executive orders, by the nature of the project, or other sources such as income, poverty, race, gender, ethnicity, location, health status, age and so on. However, guidance may more appropriately be targeted at acceptable or preferred measures irrespective of their particular application. Numerous options exist for quantifying distributional measures in a benefit-cost analysis, among them:

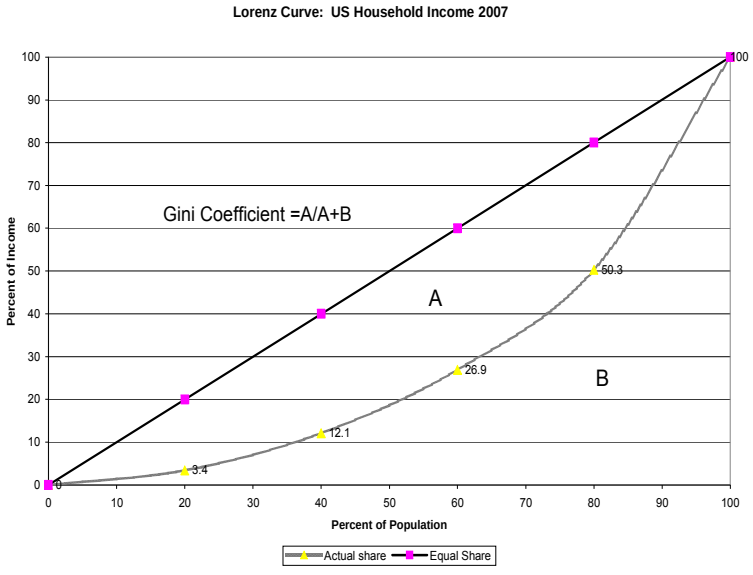
- Tableaus of impacts on economic actors (decomposition of surplus measures)
- Frequency or cumulative distribution plots
- Quantile measures
- Variance
- Coefficient of variation (σ/μ)
- Lorenz curves (ordered quantiles of the population with quantiles of the variable of interest, such as income)
- Gini coefficients (derived from Lorenz curve information, range 0 to 1)
- Atkinson index of inequality (based on measure related to income inequality aversion, range 0 to 1)

The first item, impacts on economic actors from decompositions of welfare effects, is well established in textbook expositions (Just, et al. 2004, Boardman et al. 2006, Zerbe and Dively 1994) and in the literature (e.g.

Fullerton 2001, Krutilla 2005). OMB briefly identifies some elements of distributional tableaus under "other benefits and costs" such as consumer and producer surplus (OMB 2003, p. 37). A benefit of analyzing distributional effects on consumers, producers, government and externally affected parties is that the categories are generally consistent with the welfare economic of the analysis; a cost is that those specific categories may not represent the sub-groups of interest in any particular project or government redistribution objective. As with all analysis, implementation takes data and time.

Other statistical measures of variation as listed above have been used in the study of inequality, especially that of income (Cowell 2003). There is some overlap with the display of distributions of risk information about which Krupnick, et al (2006) have investigated the responses of some decision-makers. The U.S. Census Bureau has long reported various measures of inequality in income in the U.S. including the summary measures of the Gini, Theil, and Atkinson measures. As an illustration, the Lorenz curve for the United States for 2007 is easily graphed from Census data as in Figure 1 while some summary measures presented in Table 1.

Figure 1: US Lorenz Curve and Gini Coefficient Definition



Data Source: U.S. Census Bureau 2008b .

Table 1: Summary inequality statistics reported by U.S. Census Bureau

Income Distribution Measures Using Money Income and Equivalence-Adjusted Income: 2006 and 2007

Measure	2006				2007			
	Money income		Equivalence-adjusted income		Money income		Equivalence-adjusted income	
	Estimate	90-percent confidence interval[1] (±)	Estimate	90-percent confidence interval[1] (±)	Estimate	90-percent confidence interval[1] (±)	Estimate	90-percent confidence interval[1] (±)
Shares of Aggregate Income by Percentile								
Lowest quintile	3.4	0.04	3.7	0.03	3.4	0.04	3.7	0.03
Second quintile	8.6	0.10	9.4	0.07	8.7	0.10	9.6	0.07
Middle quintile	14.5	0.16	15.0	0.11	14.8	0.16	15.3	0.12
Fourth quintile	22.9	0.25	22.5	0.17	23.4	0.25	22.9	0.17
Highest quintile	50.5	0.56	49.4	0.36	49.7	0.54	48.5	0.35
Top 5 percent	22.3	0.51	22.2	0.33	21.2	0.48	21.1	0.31
Summary Measures								
Gini index of income inequality	0.470	0.0047	0.454	0.0029	0.463	0.0045	0.445	0.0028
Mean logarithmic deviation of income	0.543	0.0103	0.607	0.0076	0.532	0.0103	0.588	0.0075
Theil	0.417	0.0003	0.397	0.0002	0.391	0.0002	0.371	0.0001
Atkinson:								
e=0.25	0.099	0.0022	0.095	0.0015	0.095	0.0018	0.090	0.0012
e=0.50	0.192	0.0035	0.186	0.0023	0.185	0.0030	0.178	0.0020
e=0.75	0.289	0.0044	0.288	0.0029	0.281	0.0039	0.279	0.0027

[1] A 90-percent confidence interval is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. For more information, see "Standard Errors and Their Use" at <www.census.gov/hhes/www/p60_235sa.pdf>.

Source: U.S. Census Bureau, Current Population Survey, 2007 and 2008 Annual Social and Economic Supplements.

Source: US Census Bureau 2008a.

The development of the Atkinson measure is discussed in more detail below. Suffice it here to interpret a value, such as .099 for the Atkinson measure with *e* equal to .25 in column 1. This indicates a degree of inequality aversion such that 9.9% of money income could be given up but the same level of social welfare achieved if incomes were equally distributed.

These observations lead to:

Recommendation 2: OMB should meet with the U.S. Census Bureau and an interagency statistical and economic group to provide guidance on methods and measures for the quantitative analysis and visual display of distributional measures.

Recommendation 3: OMB should report the status quo (baseline) estimates of its preferred measures every T years using nationwide data.

Linking Distributional Analysis to Social Welfare

Benefit-cost analysis is applied welfare analysis seeking to answer when a governmental action will make society better off with the project than without. The foundation and standard practice in BCA is to count each dollar equally no matter who receives or pays that dollar. It is well understood that benefit-cost analysis using equal weights and the Kaldor-Hicks potential compensation criteria answers the societal question only with the unrealistically stringent assumption that the marginal social utility of income for all members is equal (Boadway 1974). It is here that economist's stated aversion to mixing efficiency with equity when doing benefit-cost analysis removes the profession from perhaps "the" central topic of policy debate, the distributional impacts of governmental actions. What links may exist between descriptive measures of distributional impacts and the welfare underpinnings of benefit-cost analysis?

Fortunately, substantial intellectual effort has been spent on the question of distribution and welfare analysis. Two lines of thought are investigated, that of sub-group Pareto optimality only briefly, and that of distributional weights in the standard potential compensation criteria.

Actual compensation

If all those who bear costs from a government action were compensated, in the sense of achieving at least their original utility, and some residual remained; there would be little practical doubt in a standard formulation that society would be better off. Such compensation is generally ruled out due to high transaction costs when costs are spread widely. However, much legislation and data collection is based on sub-groups of concern, for instance: those in poverty, racial and ethnic minorities, age cohorts (children, elderly), gender, spatially distinct regions, and so on. Executive Order 12898 on Environmental Justice focuses on minority and low income populations (US EOP 1994). Farrow (1997) recommended that sub-

groups identified as sensitive populations in the regulatory process receive actual instead of hypothetical compensation. As a group, at least indifference or Pareto improvement would occur.

As context, this recommendation was the result of participation in a benefit-cost analysis for a developing world project. The project was forecast to meet standard benefit-cost criteria where distribution is ignored but it was clear that regional and occupational sub-groups of the population would bear a substantial portion of the cost. The project plans included the likelihood of compensation to restore the prior level of utility but distribution was an important issue in the region as significant economic and political unrest has accompanied projects nearby. Below are some distributional tables from the benefit-cost report to indicate that the project anticipated compensation for major costs borne by subsistence farmers identified in the project.

Table 2: Project Analysis: Summary Table with Compensation

COMPENSATION ANALYSIS: Basic Scenario

Category	Present Value	Minimum Expected Compensation	Net Effect
Benefits			
Transportation	1,788	0	1,788
Health	N.A./0	0	N.A./0
Multi-Industry/Construction	12,116	0	12,116
Multi-Industry/Operation	258,693	0	258,693
Natural resource income	357,808	0	357,808
Costs			
Agriculture (incl. bush)			
Short Term	378	-378	0
Long Term	234	-234	0
Livestock	56	-56	0
Health	N.A./0	N.A./0	0
Housing	144	-144	0
Job Search	145	0	145
Transportation	206	-206	0
Present Value Net Benefit	629,242	1,018	630,260
Present Value (Dollars)	$1,258 million	$2 million	$1,260 million

Table 3 (17): Project Analysis: Farm and Urban Impacts from multi-industry impacts with significant unemployment

TABLE 17
HOUSEHOLD INCOME DISTRIBUTIONAL IMPACTS
FROM EXPORTING 85 PERCENT OF PEAK CAPACITY

Household	Percent Change
Farm, lower 40%	14.4
Farm, upper 60%	13.2
Non-farm, lower 40%	20.4
Non-farm, upper 60%	21.6
Urban, lower 40%	20.4
Urban, upper 60%	21.6
All Households	**19.2**

In a similar vein, Graham (2008) suggests that a test be included for those below the poverty line. Adler (2008) discusses measures such as these as social gradient measures for which there may be various difficulties with bright lines and within-group equity. At the same time, identifying sub-groups and considering actual compensation is responsive to the type of distributional criteria that tends to be identified in legislation.

Recommendation 4: OMB should consult with the Department of Justice and convene a multi-disciplinary advisory panel to review whether a reasonable reading of legislation and executive orders has identified sub-populations where the intent is not to make that group worse off as a result of Government actions. If any such groups are found, OMB should request the estimated cost in regulatory analyses to compensate any identified sub-groups.

Integrating descriptive measures with benefit-cost analysis

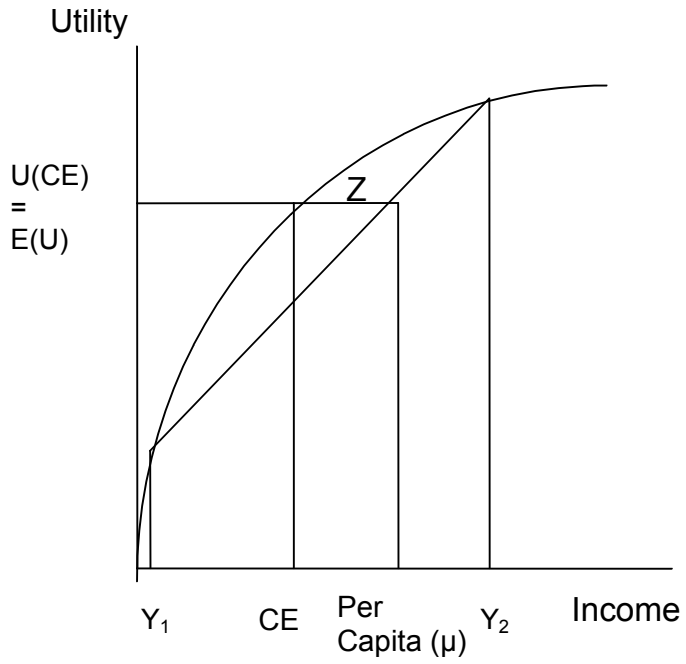
Several of the descriptive distributional statistics have a welfare basis that can be linked to benefit-cost analysis. For instance, the edited volume by Cowell (2003) contains a section of eight "classic" articles on inequality that take an explicit welfare theoretic approach and include authors such as Rothschild,

Stiglitz, Atkinson, Kolm, Meade and others. In textbook formats, much of these discussions are summarized as the use of distributional weights that might be placed on outcomes for various groups from a project (Boardman, et al. 2006). Importantly, and perhaps of most interest to attendees of a risk and environmentally oriented conference, is that the conceptual development of welfare based inequality measures is symmetric to and owes a large debt to measures of risk. This may be clearest in the work of Atkinson (1970, 2008) and Rothchild and Stiglitz. In particular, it was noted that when outcomes are dispersed and marginal utilities decline for larger values, then there is symmetry between risk aversion and inequality aversion whether over income or other variables. Figure 1 below is based on a typical upper level/Master's exposition of risk aversion given a concave utility function over increasing levels of income (e.g. Nicholson and Snyder 2008, p. 208). Identified is the certainty equivalent (CE) level of the mean income, that certain income which provides the same level of utility as the gamble across the range of incomes. Also identified is the risk premium, Z, that a person is maximally willing to pay to avoid the gamble and receive the certainty equivalent income. Much effort has gone into quantitatively measuring the degree of risk aversion.

Atkinson (1970) noted the parallel mathematical structure between the welfare based modeling of risk and the welfare based modeling of inequality which he was linking to evaluation of Lorenz curves. This suggests the first normative comparison of measures such as the Lorenz curve for a project compared to the status quo without the project. Atkinson went further to define the "equally distributed equivalent income" symmetrically with the certainty equivalent and defined an inequality measure (using the notation in Figure 1) based on the ratio of the certainty equivalent income (now equally distributed equivalent income) to the mean:

$$\mathrm{I(e)} = 1 - \frac{CE(e)}{\mu} = \frac{Z}{\mu}$$

Figure 1: Risk and Inequality Aversion



As with measures of risk aversion, a key component in Atkinson's measure is the functional form of the social utility function and its parameter(s). In parallel to the focus on power or CRRA (constant relative risk aversion) functional forms in risk which depend on one parameter, *e*; social welfare functions for inequality aversion follow analogous development (Eeckhoudt, Gollier and Schlesinger 2005, p. 21). The parameter *e* defines the degree of inequality aversion as the elasticity of marginal utility with respect to income. Perhaps the central "equity" result of these forms is that movements toward a more equal distribution increase welfare if *e* differs from 0, the current default.

The link between these power forms and social marginal utility weighting can be straightforward. Consider that the foundational distributional assumption in benefit-cost analysis is that the marginal utility of income, U'(y), is a constant, λ, across all individuals and groups, for example $U'(y)=\lambda y^0$. Let that remain the default assumption for regulatory anlaysis. But consider that sensitivity analysis is almost universally identified as good

practice and recommended by OMB (2003) and so distributional weights can be investigated as sensitivity analysis. Inequality aversion can be based on diminishing social marginal utility of any factor, but let it remain income for now such that $U'(y,e) = \lambda y^{-e}$. Here *e* is interpreted as the elasticity of marginal social welfare with respect to income of group i. Given this specification of marginal utility, one can integrate to the utility function itself which yields the power functional form; or more directly, use weights in benefit-cost analysis that depend on the relative marginal utilities of individuals or groups compared to the mean:

$$\frac{U'_i}{\overline{U'}} = \left(\frac{y_i}{\overline{y}}\right)^{-e} = \left(\frac{\overline{y}}{y_i}\right)^{e}$$

If *e,* the inequality aversion parameter is zero then the standard assumption applies of equal impact or no inequality aversion. Review articles exist on the values of e, the inequality aversion parameter (e.g. Cowell and Gardiner 1999; Layard, Nickell and Mayraz 2008). The U.S. Bureau of the Census regularly reports measures based on values of .25, .5, and .75 for *e* (US Bureau of the Census 2008). The Government of the United Kingdom uses in its illustration of weighting for benefit-cost analysis a value of *e* equal to 1, implying a marginal utility as simple as 1/y (HM Treasury 2003). Table 2 uses these Governmentally identified values of *e* to estimate weights for the median and quintiles of the U.S. household income distribution for 2007. The ratio of weights for the lowest quintile compared to the highest quintile increases from 1:1 for the standard assumption to 2:1 for *e* equal to .25, and then up to 7.5:1 for *e* equal to .75, the highest value used by the U.S. Census Bureau.

Table 2: Distributional weights based on values of inequality aversion, e, used by the U.S. Census Bureau and the UK Treasury

Population Quintile, Median, %	Mean US HH Income by Quintile: 2007	Default: e=0	e=.25	e=.5	e=.75	e=1
0-20	$11,551	1	1.4	2.1	3.0	4.3
20-40	$29,442	1	1.1	1.3	1.5	1.7
Median	$50,233	1	1.0	1.0	1.0	1.0
40-60	$49,968	1	1.0	1.0	1.0	1.0
60-80	$79,111	1	0.9	0.8	0.7	0.6
80-100	$167,971	1	0.7	0.5	0.4	0.3

Data source: US Census, 2008b; author's calculations.

As OMB guidance (2003) recommends both sensitivity analysis and the use of certainty equivalents for the analysis of risk, it seems appropriate to consider parallel analysis for distributional impacts.

Recommendation 5: OMB should convene a multi-disciplinary advisory group to provide advice on methods to apply sensitivity analysis to the standard equal marginal utility of income assumption. Further, OMB may consider, as it has for the discount rate, several "anchoring" values for sensitivity tests perhaps using an inequality aversion parameter and values published by the U.S. Census.

Conclusion

Guidance for benefit-cost analysis is targeted at implementation by applied analysts. Existing guidance recommends sensitivity analysis in general without providing substantive discussions of how that might be implemented with respect to the implicit distributional assumptions of standard benefit-cost analysis. Recommendations are targeted at: 1) better communication of existing expectations for distributional analysis, 2) developing guidance for descriptive statistics related to distributional issues, and 3) investigating the sensitivity of the standard benefit-cost results to actual compensation or to Government published measures of inequality aversion. While such actions have a data collection and analysis cost, they may make the results of benefit-cost analysis more relevant by investigating both efficiency and equity measures.

Appendix Figure 1: Summary of Hierarchy of Sources of Generally Accepted Accounting Principles

Category	Principles of accounting for	
	Nongovernmental entities	**Federal governmental entities**
a	Financial Accounting Standards Board (FASB) *Statements and Interpretations*, Accounting Principles Board (APB) *Opinions*, and American Institute of Certified Public Accountants (AICPA) *Accounting Research Bulletins*	FASAB *Statements (FASAB) and Interpretations*, and AICPA and FASB pronouncements if made applicable to federal governmental entities by a FASAB *Statement and Interpretations*
b	FASB *Technical Bulletins* and, if they have been cleared, AICPA *Industry Guides and Statements of Position*.	FASAB *Technical Bulletins* and, if they are specifically applicable to federal governmental entities, cleared AICPA *Industry Guides* and *Statements of Position*
c	Consensus positions of the FASB Emerging Issues Task Force and cleared AICPA *Practice Bulletins*	AICPA *Practice Bulletins*, if specifically applicable to federal government and cleared by the FASAB, and technical releases of the FASAB Accounting and Auditing Policy Committee
d	AICPA accounting interpretations, "Q and As" published by FASB, industry practices widely recognized and prevalent, and the FASB, AICPA audit guides, SOPs, and practice bulletins when they have not been cleared.	Implementation guides published by the FASAB staff and practices that are widely recognized and prevalent in the federal government
e	Other accounting literature, including FASB concept statements, AICPA *Issues Papers*; International Accounting Standards Committee statements, GASB statements, interpretations, and *Technical Bulletins*; pronouncements of other professional associations or AICPA Technical Practice Aides; and the **regulatory agencies** and **accounting textbooks, handbooks, and articles.**	Other accounting literature, including FASAB concept statements; pronouncements in categories "a" through "d" of the hierarchy for non-governmental entities when not specifically applicable to federal governmental entities; FASB concept statements; GASB statements, interpretations, *Technical Bulletins*, and concept statements; AICPA *Issues Papers*; International Accounting Standards Committee statements, pronouncements of other professional associations or **regulatory agencies**; AICPA technical practice aides; and **accounting textbooks, handbooks, and articles**

Source: Pallais, D.M, M.L. Reed and C.A. Hartfield, PPC's Guide to GAAS: Standards for Audits, Compilations, Reviews, Attestations, Consulting, Quality Control and Ethics, *Audit Reports*, (Practitioners Publications Co., Fort Worth, TX, October 2002, Chapter 18, Exhibit 18-1.

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