

Ten Facts Every Policy-maker Should Consider Before Giving Cost-benefit Analysis Veto Power

Mark Neuman-Lee (J.D. 2016) and U. of Texas Regulatory Oversight Group (UTROG)
June 30, 2016

Concerned that excessive regulation may be hampering economic growth and impeding job creation, some policymakers have proposed eliminating all regulations that fail a cost-benefit test. Cost-benefit analysis or CBA is a process that attempts to measure the dollar value of every cost and benefit that would result from a particular policy or proposal, and then compares the total costs and benefits. The proposal to use cost-benefit as a mandatory test that every rule must pass to remain on the books, in effect, gives the analysis a veto power: if a policy's measured costs outweigh its measured benefits, it should be repealed.

Before lawmakers cede their power to these analyses, they should understand the limitations of CBA as a tool for making final policy decisions. The purpose of this white paper is to spotlight the ways this simple-sounding analysis can be manipulated or, even worse, performed in a manner that undermines the public values that motivated passage of the laws in the first place.

There are least ten important facts that policymakers should consider before they allow CBA to be used to veto regulations:

1. **CBA is susceptible to manipulation**– A main criticism of CBA is that political pressure and lobbying may influence the analysis. Many factors in a CBA are difficult to objectively quantify; instead, the analyst must use subjective judgments and make assumptions. This removes the supposed objectivity from the analysis.
Example: Critics of big government have complained of regulators' "innumerable" opportunities to adjust the factors in a CBA in order to justify increased regulations.¹
2. **Not all values can be objectively quantified**– A full CBA will often require quantifying values that do not lend themselves to measurement. If these values are overstated, the analysis may be unfairly biased in favor of regulation. Yet disregarding, or "zeroing out", such values may result in bias against regulation. Both outcomes undermine the accuracy of CBA.
Example: An analyst may not be able to quantify the benefit derived to future generations when a historic landmark has been preserved, thus reducing the measured benefits of historic landmark preservation potentially to zero when maintenance costs are added in.
3. **Results may vary depending on whether benefits are valued based on willingness to pay or willingness to be paid**– People's value of things changes based on how they are asked about it – generally, people value something that they already have more highly than things they would need to purchase. This inconsistency adds to the difficulty of measuring benefits.
Example: People would probably value property they already have more highly than property they do not have.
4. **Valuing human life and health is particularly difficult** – Accounting for all of the costs and benefits of regulation will often require valuing human health and life, which is not

¹ Kathleen Hartnett White & Josiah Neeley, *Who Regulates the Regulator?: Cost-Effectiveness Analysis in Texas State Agency Rulemaking*, 14 Tex. Tech Admin. L.J. 401, 407 (2013).

easily done. Much discretion will be left to the analyst, who must make subjective policy judgments, and answer moral questions. The approach taken may affect the CBA outcome dramatically.

Example: An analyst measuring benefits could be faced with questions such as, “What is the value of a life 100 years from now?” and “Should the value of one’s life decrease with age?”

5. **Economic efficiency, prioritized in CBA, is only one of several important goals behind most public policies** – The primary if not exclusive social goal measured in CBA is economic efficiency, but efficiency may not be the primary reason for a law or public policy. For example, equitable considerations often motivate the passage of laws and affect regulatory requirements. To the extent that CBA is afforded veto power over a regulation, however, these other public goals are ignored and could be undermined.
Example: The legislature may have passed a law requiring disability access on all public transportation in order to promote inclusion, regardless of its economic efficiency.
6. **There is significant risk of overstated costs**– Cost estimates in CBAs often rely heavily on self-reported compliance costs. Yet regulated entities have an incentive to overestimate costs.
Example: Studies show that regulated parties' prospective cost estimates of complying with regulations are more than double the actual cost of compliance.²
7. **The discount rate used may affect the analysis**– Economists generally “discount” future costs and benefits, but do not agree what discount rate should be used. Adjusting the discount rate just one percentage point can create radically different results for the CBA.
Example: Using a 6% annual discount rate, \$100 of benefit 30 years from now can only justify \$17 of cost today. With a 5% discount rate, it can justify \$23 of cost today.
8. **The geographic scope used for the analysis may affect its results** – Often, the costs of a law or regulation are more geographically concentrated than the benefits. By narrowing or enlarging the geographic scope of the CBA, an analyst can affect its results.
Example: Regulation of a single factory could have a relatively high cost versus benefit ratio if the analysis is limited to the factory’s town and a lower cost versus benefit ratio if the analysis includes cleaner water downstream in another state.
9. **Questionable legality of giving CBA veto power**– Giving a CBA veto power over certain regulations may not comply with the statutory mandates set out in the law. Moreover, it could undermine legislative processes by allowing the executive to nullify legislation.
Example: A law requiring disability access regardless of cost efficiency should not legally be repealed by the executive simply because it is not cost effective.
10. **CBA may not be cost effective**– Performing a full and accurate CBA can be costly and time consuming, requiring advanced economic expertise. Carrying out a CBA of all of a state’s laws and regulations would be an immense undertaking, with the expense borne by taxpayers.

² Thomas O. McGarity & Ruth Rutenber, *Counting the Cost of Health, Safety, and Environmental Regulation*, 80 Tex. L. Rev. 1997, 1998 (2002).

Ten facts policy-makers should consider before giving cost-benefit analysis veto power

The argument is well known: America is overregulated. At all levels of government, so the argument goes, burdensome and inefficient regulations are slowing the country's commerce and hurting the economy.³ As a quick fix, some commentators have proposed that all existing and future regulations be subjected to a cost-benefit analysis (CBA). If the regulation fails the CBA, that is, its estimated costs outweigh its estimated benefits, it should not be implemented or, if it already exists, be abolished. This would, in effect, give CBA veto power over regulation.

Several states are currently considering such reforms. For example, the governor of Massachusetts issued an executive order in 2015 requiring most state agencies to perform a comprehensive CBA review of all regulations and to retain only those regulations whose benefits exceed costs.⁴ Such executive action has been supported by the American Legislative Exchange Council (ALEC), a group that writes model legislation for states. ALEC recommends that states undertake comprehensive CBA review of all regulations, with the governor afforded unilateral discretion to remove regulations that fail a CBA test.⁵

This approach, which involves judging regulations based purely on economic efficiency, is attractively simple. On first glance, it appears to remove politics, special interests, negotiations, and other economically inefficient influences from the equation. When examined more closely, however, a number of problems become clear.

³ See, e.g., The Economist, *Over-Regulated America*, Feb. 18, 2002, available at <http://www.economist.com/node/21547789>.

⁴ Mass. Exec. Order No. 562 § 3 (2016).

⁵ Legis. Exch. Council, *Regulatory Review and Rescission Act* § 2(E) available at <http://www.alec.org/model-legislation/regulatory-review-and-rescission-act>.

Policymakers should be aware of the dangers of an overreliance on CBA. Because serious issues compromise CBA's objectivity and accuracy, policymakers should not blindly rely on CBA's results to craft laws and regulations. Most practitioners believe that CBA should be at most a "decision-helping" device, not a "decision-making" device.⁶ In fact, some have questioned the usefulness of CBA altogether, arguing that policymakers should be hesitant to use it for any purpose.⁷

This paper lists ten features of CBA that policymakers should consider before giving CBA veto power.

1. Difficulty of quantification and the danger of manipulation

One of the main attractions to CBA is its apparent lack of bias: after all, numbers don't lie. However, when one peels back the layers of a CBA, the enormous amount of discretion afforded to the analyst becomes clear. CBA cannot escape bias and is often rife with unexplained choices that can affect whether net benefits are negative or positive.

An overriding concern running through the commentary with respect to CBA is the ease with which it can be manipulated.⁸ A motive to manipulate often comes from political and lobbying pressure. The high-stake results of a CBA, particularly when it is afforded veto power, can create strong incentives to influence the analysis. Even lacking intent to manipulate, the analyst running the CBA must insert numerous assumptions and subjective judgments, which

⁶ R. Shep Melnick, *Valuing Health Risks, Costs, and Benefits for Environmental Decision Making: Report for a Conference* (1990).

⁷ William K. Stevens, *Congress Asks, Is Nature Worth More Than a Shopping Mall?*, N.Y. Times, April 25, 1995, available at <http://www.nytimes.com/1995/04/25/science/congress-asks-is-nature-worth-more-than-a-shopping-mall.html?pagewanted=all>.

⁸ Lisa Heinzerling, *Regulatory Costs of Mythic Proportions*, 107 Yale L. J. 1981, 1985 (1998).

may affect the results dramatically. These assumptions and judgments are often not disclosed by the analyst and, as a result, may not be apparent to those relying on the CBA.

Critics on both the left and right are justly concerned about this potential for error and even manipulation of CBA. For example, critics from the left point out how Bush-era federal agencies manipulated numbers to downplay the benefits of proposed regulations, thus avoiding Congressional mandates to regulate.⁹ Similarly, critics from the right call on federal agencies under President Obama to stop using CBA altogether, alleging that the agencies manipulated the benefits of potential regulations to justify their implementation.¹⁰ As one conservative think tank wrote, “The kinds of statistical manipulations available to a wily regulator are probably innumerable.”¹¹ Even if the analyst has no intent to manipulate, reasonable people will disagree over the assumptions upon which many of the factors rely and yet many of these choices – because they are so pervasive – are likely to fall under the public radar.

Climate change regulation provides a concrete example of these battles over CBA assumptions. Climate change cost-benefit analyses can vary tremendously. EPA concludes that the benefits far exceed the costs. Others, however, argue that the impacts of regulation limiting greenhouse gas emissions could theoretically affect every facet of human life and thus the net benefits of regulation are small or even negative. Representative Lamar Smith, Chairman of the Committee on Science, Space, and Technology, decried a recent EPA CBA of a Clean Air Act regulation because, in his view, the benefits of the regulation were wildly inflated, while the

⁹ Catherine A. O’Neill & Amy Sinden, *The Cost-Benefit Dodge*, Phila. Inquirer, May 12, 2009, available at http://www.progressivereform.org/articles/O%27Neill-Sinden_PhillyInq_C-B_051209a.pdf.

¹⁰ Ryan Young, Competitive Enterprise Institute, *Federal Agencies Should Stop Using Cost-Benefit Analyses*, Sept. 19, 2012, available at <https://cei.org/op-eds-articles/federal-agencies-should-stop-using-cost-benefit-analyses>.

¹¹ Kathleen Hartnett White & Josiah Neeley, *Who Regulates the Regulator?: Cost-Effectiveness Analysis in Texas State Agency Rulemaking*, 14 Tex. Tech Admin. L.J. 401, 407 (2013).

regulation would impose “tremendous costs on every American.”¹² Much discretion will lie in the hands of the analyst, with no possibility that everyone can agree on the objectivity of the results.

2. Objective quantification of inherently subjective values

Many proposed regulations will have benefits that are difficult, if not impossible to accurately quantify. If those benefits are over-stated, the CBA results will be unfairly biased in favor of regulation. Yet, if CBA consistently disregards these benefits, valuable regulations may not be adopted.

One classic example of an intangible benefit that is difficult to measure is the benefit derived from aesthetic value. A regulation limiting the number of billboards along a scenic highway will have a real, quantifiable cost, measured by the loss of economic activity generated by, say, ten additional billboards. By contrast, what is the benefit to travelers of having an unimpeded view from the highway? The value surely varies dramatically between travelers – some may even favor the entertainment of billboards.

Quantifying the value of an unimpeded view will invariably rest on a subjective value judgment. Using this subjective judgment removes the objectivity from CBA. On the other hand, not quantifying the value, or zeroing it out, will undermine the accuracy of the CBA by removing a primary benefit. Either way, the CBA results will be of limited or no use to policymakers.

¹² Committee on Science, Space, and Technology, Statement of Chairman Lamar Smith (June 24, 2015) *available at* <http://docs.house.gov/meetings/SY/SY18/20150624/103667/HHRG-114-SY18-20150624-SD004.pdf>.

3. Willingness to Pay vs. Willingness to be Paid

Even if we could ask everyone how much they value intangible benefits, the value they name may vary depending on how the question is asked: how much are you willing to pay for the benefit or how much would you be willing to be paid to forgo the benefit? Though both would seem to measure the benefit's value, the answer may vary dramatically due to what economists call the "endowment effect." The endowment effect is a cognitive bias that reveals that people value things they already have more highly than things they must buy.¹³ Using the highway-beautification example above, the endowment effect suggests that people would likely be willing to pay a relatively small amount to remove billboards and a larger amount to keep the highway billboard-free.

Both willingness to pay and willingness to be paid are valid measurements of the benefits received from any given regulation. However, depending on which measure an analyst uses, the overall CBA results may differ dramatically, potentially moving from a negative net benefit to positive benefit.

4. The value of human life and health

Fully quantifying the cost and benefits of regulations requires valuing human health and life. At the margins, almost any regulation could hasten or delay death. Yet, quantifying life and health is not only uncomfortable, but exceedingly difficult.

Numerous methods for valuing human life exist, and this paper will not detail them. Federal agencies and academic studies have reached widely varying numbers for the value of life. For

¹³ Ward Farnsworth, *The Legal Analyst* 209 (2007).

example, the EPA calculated \$7.6 million per statistical life in 2006,¹⁴ and conservative commentators decried this valuation as “gobbledygook.”¹⁵

The valuation of human life unavoidably raises moral issues as well. For example, should an analyst value the lives of poor people less than the lives of the rich since their future income is lower?¹⁶ Should young lives and old lives be valued the same? Should deaths that included exceptional suffering be valued more highly? The questions do not lend themselves to easy answers. The answer will likely be different depending on the assumptions used by the analyst.

And yet, because the protection of life is often the largest benefit derived from regulations, reaching a decision on the value of life will have a large impact on the results of the CBA. As one prominent commentator noted, “everything” turns on the selected value of human life.¹⁷

5. Economic efficiency is only one of several important goals behind most public policies

Allowing CBA to veto regulations assumes that economic efficiency and wealth maximization are society’s top priorities. More specifically, CBA prioritizes economic efficiency by monetizing all of the impacts of a policy proposal or regulation without worrying about whether the losers (who incur the costs) are compensated by the winners who reap the benefits; a proposal passes a CBA only when the monetary value of the net benefits outweighs the monetary value of the costs. However, many laws and regulations are passed with entirely

¹⁴ National Center for Environmental Economics, *Frequently Asked Questions on Mortality Risk Valuation*, available at <http://yosemite.epa.gov/ee/epa/eed.nsf/pages/MortalityRiskValuation.html#pastvsl>.

¹⁵ William Yeatman, *The Troubling Basis for EPA’s Rosy Cost-Benefit Analysis of The Clean Air Act*, available at <http://www.globalwarming.org/2014/03/31/the-troubling-basis-of-epas-rosy-cost-benefit-analysis-for-the-clean-air-act/>.

¹⁶ These questions are raised in Cass R. Sunstein, *Valuing Life: A Plea for Disaggregation*, 54 Duke L.J. 385, 389 (2004).

¹⁷ *Id.*

different motives, such as justice, inclusion, or equality. CBA's inability to properly account for motives outside of economic efficiency undermines its usefulness as the end-all-be-all test for acceptable social policies.

Take, as one example, disability laws. A CBA of public-access laws may show that handicap-accessible public buses are not cost effective; simply providing private transportation for disabled residents could be cheaper than retrofitting all of a city's buses. However, the primary motivation for such a regulation may not have been to maximize efficiency; instead it may have been to provide inclusion for those with disabilities. Society may view achieving equity and inclusion as being of prime importance; economic efficiency is, at best, a secondary goal.

Reviewing goals of equity and inclusion through the lens of CBA's economic analysis is unwieldy and ultimately unproductive. The primary motivation of such laws and regulations is not to increase economic efficiency, and thus should not be the basis for their repeal. In these situations, the CBA results are of questionable value and perhaps entirely inapplicable.

6. Overstated costs

The costs of regulation are often easier to identify than the benefits because, generally, a discrete set of actors bears the cost, typically involving items with market value, while the benefits are more diffuse and intangible. A CBA analyst may rely on estimates from the regulated community to value costs. However, regulated entities have incentive overestimate potential costs in order to discourage regulation. The CBA analyst will often lack time and expertise to verify those costs on the front end, and confirming the costs once the regulations are

in place is rarely done, as it can be costly and time consuming.¹⁸ Furthermore, in predicting future compliance costs, reporting companies have little incentive to expend resources researching dynamic and innovative ways to comply with the regulations to lower their estimates.

As a result, CBAs often overestimates the actual cost of proposed regulations, an outcome demonstrated by numerous studies.¹⁹ Indeed, one study found that in 11 out of 12 cost analyses, “the initial estimates were at least double the actual costs.”²⁰ When considering CBA, policymakers should be aware of this internal problem with cost measuring.

7. Discount rates

A dollar today is worth less than a dollar ten years from now. Thus, CBA must discount future values by considering inflation. But should all benefits and costs be discounted over time? And at what rate? These questions have generated opposing views, with dramatically different results. If the main costs or benefits of a regulation will be felt many years from now, the discount rate chosen by the analyst will have a significant impact on the overall results of the CBA. Because the costs of regulation are often felt upfront, whereas the benefits are realized later, the use of discount rates can undervalue the benefits compared to costs.

For example, if a regulation would provide a benefit with a value of \$1 million 100 years from now, a CBA with the discount rate of 7% suggests we should invest no more than \$1,152 in that regulation today. If we change the discount rate to 1%, the acceptable current-day cost of the regulation rises to \$369,711. Commentators have advocated for discount rates anywhere between

¹⁸ Thomas O. McGarity & Ruth Ruttenberg, *Counting the Cost of Health, Safety, and Environmental Regulation*, 80 *Tex. L. Rev.* 1997, 2044 (2002).

¹⁹ *Id.* (reviewing several studies).

²⁰ *Id.* Citing Eban Goodstein & Hart Hodges, *Polluted Data: Overestimating Environmental Costs*, *The Am. Prospect*, Nov.-Dec. 1997, at 64.

1% and 7% (and even numbers outside of this range).²¹ The choice of discount rate enables the analyst to inject his/her own subjective views into the CBA.

A particularly controversial application of discounting is its application to life and health. For example, 500 lives 100 years into the future are worth a less than 1.5 present-day lives if we use a discount rate of 6%. Combining the difficulty of valuing human life with the uncertainty of discount rates compounds the measurement problems in CBA.

8. Malleable geographic scope

The geographic scope of CBA also influences the results of the analysis, and yet this choice can also be made in ways that are not transparent or subject to public scrutiny. For many public policies, the costs and benefits of any given regulation are not limited to the county, state, or even country where the regulation is adopted. For the purposes of CBA, however, it is necessary to define the geographic scope of the issue. Where the analyst draws the line in terms of geographic scope affects how the costs and benefits play out, particularly in cases when the costs of a regulation are concentrated and the benefits are diffuse.

For example, the primary costs of a pollution-limiting regulation that impact a factory will be concentrated in the factory and surrounding community. However, the benefits of cleaner air may be far more diffuse – indeed, there may be little limit to where the benefits are felt, particularly if the factory uses tall stacks to send the pollution downwind. If the town that contains the factory runs a CBA of the regulation and only measures the impact to its citizens, the result may be very different from a CBA that measures the impact throughout the state or country. By setting the geographic scope of a CBA, then, the analyst may affect its results.

²¹ Tyler Cowen, *Using Cost-Benefit Analysis to Review Regulation* 6 (2007), available at <https://www.gmu.edu/centers/publicchoice/faculty%20pages/Tyler/Cowen%20on%20cost%20benefit.pdf>.

9. Legality of a CBA's veto power

An Executive Order repealing all regulations that fail CBA will also raise questions of legality in some settings since the order could nullify a statutory mandate. Government agencies promulgate regulations following the mandates of a statute, which may require the implementation of regulations regardless of their economic efficiency. If so, our constitutional architecture demands that the executive must carry out the law by implementing regulations, even if the benefits do not outweigh the costs.

Courts have already warned about the use of CBA as a final decision-maker in regulatory programs where the legislature rejected its use. In *Whitman v. American Trucking Association*, for example, the Supreme Court considered whether the federal agency had the discretion to consider the reasonableness of costs versus benefits when creating air quality standards to protect public health.²² The Court concluded that the statutory mandate left no room for the agency to consider CBA when promulgating the regulation.²³ For this regulatory program, an executive order requiring that all regulations pass a CBA would be in violation of the underlying statutory mandate.

Additionally, CBA with veto power allows unelected bureaucrats to undo public decisions that representatives made through the legislative process. Ultimately, analysts applying CBA to regulations may enjoy far more power than law-makers to set public policy.

²² *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 468 (2001).

²³ *Id.*

10. Cost effectiveness

Given all of the above limitations on a CBA, policymakers must ask whether comprehensive CBA itself is worth the cost. Performing a full and accurate CBA can be costly and time consuming. A CBA calls for considerable data, modeling expertise, and numerous choices and assumptions to make the model run. Despite this substantial investment of time and expertise, however, CBA results are still afflicted with considerable uncertainty and sources of bias -- many of which may not be communicated to the public or lawmakers. As a result, it appears unlikely that CBA -- as currently proposed -- can survive its own cost-benefit test.

Summary

Many factors upon which CBA relies are difficult, if not impossible, to objectively quantify, requiring rough estimates and subjective judgments that are open to manipulation. Furthermore, CBA privileges some variables and judgments over others, often without making these choices clear. As a result, while CBA may offer useful information for decision-making, there are significant risks of providing this crude and malleable tool with final veto power over public policies. At the very least, policymakers should be aware of the many risks in doing so.