Cost-benefit analysis is required for all major regulations. It's also highly controversial, as well as being a mysterious procedure unless you're an economist. These FAQs will tell you what you need to know about how cost-benefit analysis (CBA) fits into the regulatory process, how it works, and why it's controversial.

Q: Let's start with a basic question. Exactly what *is* cost-benefit analysis?

A: The term cost-benefit analysis is sometimes used to mean any comparison of pros and cons, which is something we all do every day in ordinary life. For present purposes, though, it means a very rigorous way of balancing pros and cons, using economic analysis to quantify the costs and benefits of an action. Basically, everything gets converted into dollar equivalents in this process.

Q: Why do agencies conduct cost-benefit analyses?

A: A few laws explicitly require cost-benefit analysis or at least something along those lines. Those laws are a minority. However, since Ronald Reagan's first days in office, Presidents have ordered agencies to make cost-benefit analysis for major regulations a major part of their decisions. There are a few laws that actually prohibit agencies from considering costs, but agencies do cost-benefit analysis when implementing those laws for informational purposes.

Q: What role does the White House play in the process?

A: There's a White House agency called the Office of Information and Regulatory Affairs (OIRA) that reviews major regulations at least twice — before the regulation is even proposed and again before the final regulation is issued. (Two small asides: The agency is part of the "Executive Office of the President" but it's actually next door to the White House. Also, OIRA is pronounced "O-I-Ra.") The head of OIRA is often called the regulatory czar. If OIRA wants to kill or modify a regulation, the agency head can appeal to the President or the White House chief of staff, but that's a card that can't be played very often.

Q: How does an agency determine the cost of a regulation?

A: Normally, the agency focuses on the cost for industry to comply with the regulation. In environmental cases, that's often an engineering issue — what steps will the agency take to comply, and how much will it cost? Another cost may involve foregone use of resources; for instance, lost profits from logging or mining that can't take place. In principle, less direct regulatory impacts can also be counted, but they're often difficult to assess.

Q: What counts as a regulatory benefit?

A: Historically, OIRA has told agencies to count everything they can quantify. This has become controversial recently. A regulation may have side-benefits that don't directly relate to the purpose of the regulation. For instance, EPA has required pollution controls that dramatically slash emissions of carbon monoxide from vehicles. It turns out that one major benefit is that a lot fewer people commit suicide by gassing themselves in their cars. (Some simply use another method, but apparently some simply don't bother.) Economists as well as OIRA would count that as a benefit of the regulation. Conservatives argue that these incidental benefits (often called co-benefits) shouldn't count.

Q: How do agencies determine the number of lives saved or health benefits of regulations?

A: This can be very tricky. We may know that air pollution helps cause deaths from respiratory conditions, but it's more difficult to estimate the number. That's basically a job for scientists, typically toxicologists or epidemiologists. In some situations, there's a large range of plausible estimates, introducing a lot of uncertainty into the cost-benefit analysis.

Q: How do agencies place a dollar value on reductions in mortality?

A: Economists do this by assigning a monetary amount to each death and multiplying that by the number of deaths. The monetary amount if called the "value of a statistical life." That sounds like they're putting a cash value on a human life. They determine this value by studying employment statistics in occupations with different levels of risk and asking how much you have to pay workers in exchange for a higher level of risk. So you can see that what's really being valued is risk, not the inherent worth of a human life. The answer is in the ballpark of $10 million per life, meaning that it's worth $100,000 to reduce the risk of death by 1%.

Q: What about placing a value on an endangered species or a wilderness area?

A: There are several ways of doing this, but the most common is a survey technique called contingent valuation. This basically involves asking people who much they would pay to save the endangered species or wilderness in question. Doing this in a rigorous way is an art. economists Contingent valuation is now pretty broadly accepted, but some don't believe the answers are that meaningful.

Q: Agencies "discount benefit to present value." What on earth does that mean?

A: I've written several articles about this, so I'm having to really stifle the impulse to go into detail. In general, people seem to prefer to put more weight on effects that are closer in time. They prefer immediate benefits but want to defer costs. Discounting is a technique for quantifying this preference. In a cost-benefit analysis, the amount of weight placed on the future is calibrated by something called the "discount rate." Unfortunately, there's considerable disagreement among economists about choosing the right discount rate. In addition, some people (even economists) think that discounting is morally suspect when harms to future generations are involved.

Q: Is the agency supposed to ignore everything it can't quantify?

A: OIRA says unquantifiable costs should be discussed and given weight. Many people suspect, however, that they get short shrift in decision making compared with the seemingly precise quantitative results.

Q: Why are conservatives unhappy with cost-benefit analysis?

A: A cynic might say they're unhappy because it turns out a lot of regulations are supported by cost-benefit analysis. To be less cynical, conservatives think that cost-benefit analysis leaves out the human impacts of lost jobs, ignores the loss of individual autonomy caused by regulations, and fails to take into account the cumulative impact of regulations on the economy as a whole.

Q: Why are progressives unhappy with cost-benefit analysis?

A: A cynic might say they're unhappy because it turns out a lot of regulations they like aren't supported by cost-benefit analysis. To be less cynical, progressives think that cost-benefit analysis ignores the inherent value of human life and the environment, leaves out issues of social justice and human dignity, and undervalues the interests of future generations.

Q: So who favors cost-benefit analysis?

A: Probably four main groups, in decreasing order of political importance: (1) Presidents, because it gives them a tool to control agency rulemaking; (2) moderate liberals and conservatives, because they like the idea of objectively balancing costs and benefits; (3) other liberals and conservatives who see it as a way of validating their regulatory preferences; and (4) technocrats, such as economists, policy analysts, and OIRA staff, because it's data-driven and analytic.