Cost-Benefit Analysis and the Environment **Fall 2014**

Syllabus

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Monday, 6-10
Location: Sem II A2109

The program wears several hats. First, it introduces you to cost-benefit analysis, a policy evaluation exercise that has become mandatory for many government agencies and other participants in the environmental arena. You will learn the methods it employs and the assumptions it rests on so you can be a more knowledgeable reader of CBA's. Second, as we will see, CBA poses important policy questions such as fairness to different stakeholders, the value of environmental, health and other objectives compared to economic impacts, and our responsibility to future generations. What makes CBA an excellent venue for exploring these questions is its demand for concrete answers; vague or evasive responses just don't cut it. Finally, CBA in its conventional form constitutes an attempt by economics to encompass all other forms of understanding: anything that can't be translated into economics isn't allowed to affect the policy decision. This forces us to confront—again in very concrete terms—the limits of economics and the value of other intellectual systems. What exactly is it that can't be translated and why?

First, however, we need to brush up on the core ideas of microeconomics, which give us the starting point for CBA. A three-week review will cover the essential material for those who haven't studied economics in the past and can serve as a refresher for those who have. The primary readings are manuscript versions of several chapters from my book *Microeconomics: A Fresh Start* (MFS), which was published earlier this year by Springer. In addition, this portion of program will also begin introducing CBA itself with several chapters from our main textbook, *Cost-Benefit Analysis: Concepts and Practice.*

From here we will plunge into the difficult and controversial issues that have arisen from the use of CBA in the environmental sphere. There isn't time to cover all of them, but the ones we will survey include discounting (the weight given to the future compared to the present), the challenge of coping with uncertainty, the methods used to assign dollar values to nonmarket (environmental, health) goods, and how distributional fairness should affect the analysis—if at all. Following this we will devote a week to the fundamental debate: is CBA an appropriate framework for evaluating environmental policy?

As you can see, rather than cycling through a large number of environmental issues and cases, we will have one case throughout the quarter which we will look at from multiple angles. It's a big one: climate change and what to do about it. As it happens, every dispute regarding CBA methodology applies critically to climate policy. Moreover, CBA is already playing a large role in guiding the regulatory response to the climate crisis, and this in itself is controversial.

While most of our attention will be given to academic debates surrounding CBA, we are also interested in the real world of the policy-maker who has to deal with it. How has the CBA mandate affected the regulatory process nationally and here in Washington State? I hope to line up a series of speakers who can offer their experiences on this front; as the schedule indicates I have one ex-official on deck, and hopefully others will follow.

The most important part of student work in this program is doing the reading, showing up and participating actively! The way to get the most out of debates, like the ones we're going to examine this quarter, is to actually debate them. We will have a variety of backgrounds and perspectives

in the room, and we should make the most of it. But there will also be writing:

a. Short papers. By the end of each Tuesday following a class day, you should write a brief (1000-1500 word) paper responding to the topics addressed in the readings. (Exceptions: not the first week and not the last.) Why Tuesday? This gives you a chance to incorporate what you've learned from class discussion. Why just one day after class? The assumption is that you've already read the week's readings and perhaps even drafted a preliminary paper. You won't be starting from scratch on Tuesday morning. Please note the writing guidelines posted on the program website; every paper you write is an opportunity to become a more professional and effective writer.

b. Final project. On the first day of class you will pick a partner, and by the third week you will have chosen a published or otherwise publicly available cost-benefit analysis to jointly evaluate. Your mission is to scrutinize this CBA and assess it both on methodological grounds (did they do it properly?) and from a policy perspective (did they properly represent the policy impacts?). This will mean working through the report item by item, looking for potential pitfalls or overlooked alternatives. Your work will be presented in two forms, a class presentation on Week 10 and a final paper. In the schedule I offer teams an opportunity to submit a first draft of their work on Nov. 17. If they meet this deadline with a finished draft I will return comments within a week so they can be incorporated in a second, final draft. Note: a proper first draft should be complete and carefully proofread—it is not a "rough draft". Professionals in most fields submit a polished first draft to reviewers; what makes it "first" is that its authors haven't yet had a chance to respond to peer comment. It is common to prepare multiple drafts of important documents, each one carefully written and striving to be the last. I will post more detailed guidelines on this paper shortly.

The main reading for this course will be the textbook *Cost-Benefit Analysis: Concepts and Practice* (CBACP) by Boardman, Greenberg, Vining and Weimer. I chose it because it is by the far the most commonly assigned text in courses around the country; it is useful to learn what others are learning when the subject matter concerns conventional methods of policy analysis. As counterpoint I have also assigned *Priceless: On Knowing the Price of Everything and the Value of Nothing* by Ackerman and Heinzerling, a blistering attack on CBA and its intrusion into environmental policy. We will read it on Week 9 as part of an overall wrap up. In addition—besides the chapters from the micro textbook—we will read a large number of articles by economists and policy analysts on the various controversies stirred up by CBA. Note that Week 9 has a heavy reading load—read ahead!

Schedule

Sept. 29	Review of Microeconomics I Readings: MFS: Ch. 3, Ch. 4

Oct. 6 Review of Microeconomics II
Readings:
MFS: Ch. 5 Ch. 6
CBACP: Ch. 1, Ch. 2
Banzhaf, H. Spencer. 2009. Objective or Multi-objective? Two Historically Competing Visions for Benefit-Cost Analysis. *Land Economics.* 85(1): 3-23.
Hansson, Sven Ove. 2007. Philosophical Problems in Cost–Benefit Analysis. *Economics and Philosophy.* 23(2): 163-83.
Speaker: Paul Pickett, Washington State Department of Ecology (and TESC)

Oct. 13 Review of Microeconomics III
Readings:
MFS: Ch. 11, Ch. 12, Ch. 15
CBACP: Ch. 3, Ch. 4, Ch. 5
Greenstone, Michael, Elizabeth Kopits and Ann Wolverton. 2011. Estimating the Social Cost of Carbon for Use in U.S. Federal Rulemakings: A Summary and Interpretation. MIT Economics Department Working Paper No. 11-04.
Speaker: Michael Silverstein, University of Washington (formerly Division of Occupational Safety and Health, Washington State Dept. of Labor & Industries)
Selection of CBA for final project due

Oct. 20 Discounting
Readings:
CBACP: Ch. 6, Ch. 10
Orszag, Peter. 2010 Discount Rates for OMB. US Office of Management and Budget Circular No. A-94.
Chen, M. Keith. 2013. The Effect of Language on Economic Behavior: Evidence from Savings Rates, Health Behaviors, and Retirement Assets. *American Economic Review.* 103(2): 690-731. (skim)
Summers, Lawrence and Richard Zeckhauser. 2008. Policymaking for Posterity. *Journal of Risk and Uncertainty.* 37(2): 115-40.
Sunstein, Cass and David Weisbach. 2008. Climate Change and Discounting the Future: A Guide for the Perplexed. Harvard Law School Program on Risk Regulation Working Paper No. 8-12.
Speaker: Laurie Johnson, National Resources Defense Council

Oct. 27 Uncertainty
Readings:
CBACP: Ch. 7
Stern, Nicholas. 2013. The Structure of Economic Modeling of the Potential Impacts of Climate Change: Grafting Gross Underestimation of Risk onto Already Narrow Science Models. *Journal of Economic Literature*. 51(3): 838-59.
Hallegatte, Stéphane, Ankur Shah, Robert Lempert, Casey Brown and Stuart Gill. 2012. Investment Decision Making Under Deep Uncertainty: Application to Climate Change. World Bank Policy Research Working Paper No. 6193.
Vandenbergh, Michael P. and Jonathan M. Gilligan. 2012. Macro-Risks: The Challenge for Rational Risk Regulation. Vanderbilt University Law School Law & Economics Working Paper No. 12-4.
Sunstein, Cass and Richard Zeckhauser. 2011. Overreaction to Fearsome Risks. *Environmental and Resource Economics.* 48(3): 435-49.

Nov. 3 Valuation using markets
Readings:
CBACP: Ch. 13, Ch. 14, Ch. 16
Stutzer, Alois and Bruno S. Frey. 2004. Stress that Doesn't Pay: The Commuting Paradox. IZA Discussion Paper No. 1278. (skim)
Graves, Philip E. 2010. Benefit-Cost Analysis of Environmental Projects: A Plethora of Systematic Biases. CESifo Working Paper No. 3144.
Robinson, Lisa A. and James K. Hammitt. 2011. Behavioral Economics and the Conduct of Benefit-Cost Analysis: Towards Principles and Standards. *Journal of Benefit-Cost Analysis.* 2(2), Article 5.
Ackerman, Frank. 2008. Climate Economics in Four Easy Pieces. *Dollars & Sense.* Nov/Dec.

Nov. 10 Valuation using surveys
Readings:
CBACP: Ch. 15
Levinson, Arik. 2013. Happiness, Behavioral Economics, and Public Policy. NBER Working Paper No. 19329.
Kling, Catherine L., Daniel J. Phaneuf and Jinhua Zhao. 2012. From Exxon to BP: Has Some Number Become Better than No Number? *Journal of Economic Perspectives.* 26(4): 3-26
Hausman, Jerry. 2012. Contingent Valuation: From Dubious to Hopeless. *Journal of Economic Perspectives.* 26(4): 43-56.
Dam Removal on the Elwha River—Native Case Study. Accessed at: http://nativecases.evergreen.edu/collection/cases/dam-removal-on-the-elwha-river.html

Nov. 17 Distribution and social justice
Readings
CBACP: Ch. 19
Farrow, Scott. 2011. Incorporating Equity in Regulatory and Benefit-Cost Analysis. *Risk Analysis.* 31(6): 902-7
Masur, Jonathan S. and Eric A. Posner. 2010. Climate Regulation and the Limits of Cost-benefit Analysis. University of Chicago Law School, Olin Law & Economics Working Paper No. 525
Speaker: Megan White, Washington State Department of Transportation
First draft of final paper due

Dec. 1 Critiques and defenses of CBA (CBACP: Ch 9, Ch 18)
Sunstein, Cass. 2004. Cost-Benefit Analysis and the Environment. University of Chicago Law School, Olin Law & Economics Working Paper No. 227
Driesen, David A. 2006. Is Cost-Benefit Analysis Neutral? *University of Colorado Law Review.* 77(2): 335–404
Ackerman, Frank, Lisa Heinzerling and Rachel Massey. 2004. Applying Cost-Benefit Analysis to Past Decisions: Was Protecting the Environment *Ever* a Good Idea? Center for Progressive Regulation White Paper.
Rose-Ackerman, Susan. 2011. Putting Cost-Benefit Analysis in its Place: Rethinking Regulatory Review. *University of Miami Law Review.* 65(2): 335-55
Priceless: On Knowing the Price of Everything and the Value of Nothing.

Dec. 8 Presentations
Final draft of final paper due

Dec. 15→ Evaluations