

Cost Benefit Analysis

Professor Stuart Shapiro

EJB 274

Office Hours Tuesday, Thursday 10-12

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Course: 34:833:685

Thursday 1:10-3:50 pm

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Overview

The goal of this course is for students to be able to conceptualize the costs and benefits of public policy decisions and to effectively critique professional cost-benefit analyses. After an introduction to the utilitarian roots of cost-benefit analysis, we will deal with particular issues in doing cost benefit analysis. These include identification of costs and benefits, discounting, dealing with uncertainty, valuing health and human life and comparisons with cost-effectiveness analysis. The course will conclude with a series of case studies where students will be asked to evaluate a cost benefit analysis that played a role in a policy decision.

Requirements

The class is divided into two parts. The first eight weeks of the class are mostly lecture oriented. During this period of the class there will be 5 take home assignments (worth 25% of the grade) and a midterm worth 30% of the grade. The second portion of the class will be case studies of cost-benefit analyses. The class will be divided into three groups with each group leading the discussion on one of the cases and each individual writing an evaluation of the analysis. Leading the discussion will be worth 10% of the grade in the course (there will be one grade for the group) and the papers will be worth 20% of the grade. The remaining 15% of your grade is class participation, which will be particularly valuable during the case study section of the course.

Readings

I recommend that you examine purchasing *Cost Benefit Analysis* by Boardman, Greenberg, Vining, and Weimer (BGVW below). Several readings in the first portion of the class are from this text. While I have copied these chapters and put them online, the book will be a valuable reference for anyone doing further work in this area. The book is not available at the bookstore (I figured they would charge over \$100 for it).

Other readings are available on the course website on Sakai or have links below.

Section I The Mechanics

Class 1 September 6, Introduction and Economic Roots of CBA

Arrow, Kenneth, et al. 1996. "Benefit-Cost Analysis in Environmental, Health, and Safety Regulation: A Statement of Principles" AEI-Brookings Joint Center.
<http://www.aei.brookings.org/admin/authorpdfs/page.php?id=203>

Chapter 3 BGVW (not appendix)

Class 2 September 13, Ethical Debate over CBA

Assignment 1 due

"Cost-Benefit Analysis: An Ethical Critique." by Steven Kelman, from *AEI Journal on Government and Society Regulation* (January/February 1981) PP. 33—40 and responses available on Sakai.

Economic Analysis at EPA, Chapter 4 "Lead in Gasoline". Resources for the Future Washington DC. 1997 available on Sakai

Class 3 September 20, Measuring Costs and Using Market Prices to Measure Benefits. Shadow Prices.

BGVW Chapter 4 available on Sakai

"On the Accuracy of Regulatory Cost Estimates" by Winston Harrington, Richard Morgenstern, and Peter Nelson. *Journal of Policy Analysis and Management* 19:297-322 (2000) available on Sakai

Class 4 September 27, Other Techniques for Measuring Benefits

BGVW ch.5 Ch13 339-344 available on Sakai

Hanemann, W. Michael, "Valuing the Environment Through Contingent Valuation," *Journal of Economic Perspectives* 8, 4 (Autumn 1994): 19-43. available on Sakai.

Assignment 2 due

Class 5 October 4, Discounting

Edward Gramlich *A Guide to Benefit Cost Analysis* Ch. 6 "Benefits and Costs Realized at Different Times"

Mark Moore, Anthony Boardman, Aidan Vining, David Weimer, and David Greenberg, "Just Give Me a Number: Practical Values for the Social Discount Rate." *Journal of Policy Analysis and Management* 23:789 (2004)

Assignment 3 due

**Class 6 October 11, Uncertainty, Sensitivity Analysis, Simulations.
BGVW ch. 7.**

Schroeder, Christopher, "The Precautionary Principle," Center for Progressive Regulation *Perspectives*, accessed on February 9, 2005, at <http://www.progressiveregulation.org/perspectives/precaution.cfm>

John Graham, "Risk and Precaution," transcript of remarks delivered at AEI-Brookings Joint Center conference, "Risk, Science, and Public Policy: Setting Social and Environmental Priorities," October 12, 2004.
<http://www.aei-brookings.org/events/page.php?id=136>

Posner, Richard. "How to Evaluate the Catastrophic Risks and the Possible Responses to Them." Ch. 3 of *Catastrophe*. available on Sakai

Assignment 4 due

Class 7 October 18 Valuing Life and Health and Cost Effectiveness Analysis

Hahn, Robert W. & Scott Wallsten. 2003. "Is Granny Worth \$2.3 Million or \$6.1 Million?" AEI-Brookings Joint Center.
<http://www.aei-brookings.org/policy/page.php?id=138>

Ashenfelter, Orly, "Measuring the Value of a Statistical Life", National Bureau of Economic Research Working Paper 11916, January 2006,
available on Sakai

Sunstein, Cass, "Lives, Life-Years, and Willingness to Pay," Working Paper 03-5, June 2003, AEI-Brookings Joint Center for Regulatory Studies.
<http://www.aei.brookings.org/admin/authorpdfs/page.php?id=270>

Assignment 5 due

Class 8 October 25, Midterm

Section II Case Studies

Class 9 November 1 Labeling for Trans-Fatty Acids

Federal Register July 11, 2003. pp.41466-41492 Available on Sakai

OMB guidance on cost-benefit analysis.
<http://www.whitehouse.gov/omb/circulars/a004/a-4.pdf>

Class 10 November 8, Western Hemisphere Travel Initiative

<http://www.regulations.gov/fdmspublic/ContentViewer?objectId=09000064801e5ad9&disposition=attachment&contentType=pdf> Sections 1, 2, and 3.

Class 11 November 15, OSHA Hexavalent Chromium Standard

Introduction:

<http://dockets.osha.gov/search/documentDownload.asp?udi=1596726&ua=1005>

Costs:

<http://dockets.osha.gov/search/documentDownload.asp?udi=1596729&ua=1005>

Benefits

<http://dockets.osha.gov/search/documentDownload.asp?udi=1596731&ua=1005>

Class 12 November 20, Electronic Stability Control Systems

http://www.nhtsa.dot.gov/staticfiles/DOT/NHTSA/Rulemaking/Rules/Associated%20Files/ESC_PRIA.pdf

Sections I-VIII

Class 13 November 29, Light Truck CAFÉ Standards

<http://www.nhtsa.dot.gov/cars/rules/rulings/LightTrucksRuling-2008-2001/Preliminary/PRIA-CAFE-LightTrucks.pdf>

Sections I-X

Class 14 December 6 Wrap up

"Rethinking Cost-Benefit Analysis" by Matthew Adler and Eric Posner *Yale Law Journal* 109:165 (1999) available on Sakai