

**Johns Hopkins University
Applied Economics
Fall 2007
440.632**

BENEFIT-COST ANALYSIS

TUESDAYS 6:00-8:45

Instructor: Joe Aldy
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Office Hours: after class and by appointment

Course Description

This course will provide students with an understanding of the principles and practice of benefit-cost analysis. Students will learn how to develop and apply benefit-cost techniques to evaluate public policies and specific projects. Topics include accounting for incomplete markets, long-term discounting, analysis in the presence of uncertainty, sensitivity analysis, and distributional concerns. Instruction will consist of a mix of lectures and class discussion.

Required textbook:

Boardman, Anthony E., David H. Greenberg, Aidan R. Vining, and David L. Weimer. 2006. Cost-Benefit Analysis: Concepts and Practice. Pearson/Prentice-Hall. (BGVW)

Additional readings will supplement the text and be posted on the course website.

Course Requirements and Grading

Your work will be evaluated on the following basis:

Problem Sets:	35%
Final:	65%

Course Outline

September 11, 2007: Overview of BCA

BGVW chapters 1, 2

Economic Analyses of Federal Regulations Under Executive Order 12866

<http://www.whitehouse.gov/omb/inforeg/riaguide.html>

September 18, 2007: Foundations of Welfare Economics and Critiques of BCA

BGVW chapter 3

Kelman, S. 1981. Cost-Benefit Analysis: An Ethical Critique. Regulation Jan/Feb: 74-82.

Arrow, K.J. et al. 2000. National Ambient Air Quality Standards Brief. Amicus Curiae Brief submitted to the U.S. Supreme Court.

Stern Review 2007 Chapter 2

September 25, 2007: Valuing Benefits and Costs from Markets I

BGVW chapters 4, 5

Assign problem set 1.

October 2, 2007: Valuing Benefits and Costs from Markets II

BGVW chapters 4, 5

October 9, 2007: Non-Market Valuation: Revealed Preference

BGVW chapters 13, 15

Viscusi, W.K. and J.E. Aldy. 2003. The Value of a Statistical Life: A Critical Review of Market Estimates throughout the World. Journal of Risk and Uncertainty 27(1): 5-76.

Problem set 1 due.

Assign problem set 2.

October 16, 2007: Non-Market Valuation: Stated Preference

BGVW chapter 14

Krutilla, J. 1967. Conservation Reconsidered. *American Economic Review* 57(4): 777-786.

Portney, P. 1994 The Contingent Valuation Debate: Why Economists Should Care. *Journal of Economic Perspectives* 8(4): 3-17.

October 23, 2007: Non-Market Valuation: Mortality and Morbidity

BGVW chapter 15

Viscusi, W.K. and J.E. Aldy. 2003. The Value of a Statistical Life: A Critical Review of Market Estimates throughout the World. *Journal of Risk and Uncertainty* 27(1): 5-76.

Problem set 2 due.

Assign problem set 3.

October 30, 2007: Uncertainty

BGVW chapters 8

Arrow, K.J. and A.C Fischer. 1974. Environmental Preservation, Uncertainty, and Irreversibility. *Quarterly Journal of Economics* 88(2): 312-319.

November 6, 2007: Sensitivity Analysis

BGVW chapter 7

Krupnick, A., R. Morgenstern, M. Batz, P. Nelson, D. Burtraw, J.-S. Shih, and M. McWilliams. 2006. Not a Sure Thing: Making Regulatory Choices Under Uncertainty. Resources for the Future Report.

Problem set 3 due.

Assign problem set 4.

November 13, 2007: Discounting

BGVW chapters 6, 10

Arrow, K.J., W.R. Cline, K.-G. Maler, M. Munasinghe, R. Squitieri, and J.E. Stiglitz 1996. Intergenerational Equity, Discounting, and Economic Efficiency. In: *Climate Change 1995: Economic and Social Dimensions of Climate Change*. Cambridge: Cambridge University Press. Pages 129-144.

U.S. Office of Management and Budget. 1992. *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*. Circular A-94. Washington, DC: Executive Office of the President.

November 20, 2007: Distributional Concerns

BGVW chapter 18

Harberger, A.C. 1978. On the Use of Distributional Weights in Social Cost-Benefit Analysis. *Journal of Political Economy* 86(2-2): S87-S120.

Problem set 4 due.

November 27, 2007: Case Studies

Readings to be announced

December 4, 2007: Case Studies

Readings to be announced

December 11, 2007: Final Exam