

Public Affairs 5022 Cost-Benefit Analysis
Spring 2018 Humphrey School of Public Affairs

Location: Room 20 Humphrey

Time: 9:45 to 11 a.m. Tuesdays and Thursdays

Instructor: Prof. Judy Temple (jtemple@umn.edu)
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Office hours: Tuesdays 11-noon, 1:30-3 pm. Students are free to stop by at other times.

Purpose: This class introduces students to methods used in cost-benefit analysis, the leading evidenced-based method for guiding decisions about whether a government program or policy improves the well-being of society. For Humphrey students, this course fulfills part of the economics core requirement (PA 5021-5022). For students who have already fulfilled that requirement, this course can be used to satisfy requirements in the Advanced Policy Analysis concentration. This course also can be used to satisfy requirements in both the Evaluation and the Prevention Science graduate minors.

Require Text: Boardman, Greenberg, Vining, Weimer (2011) Cost-Benefit Analysis: Concepts and Practice, 4th edition. New Jersey: Prentice Hall. Note that the bookstore only has a few copies remaining. The third edition also is OK.

Evaluation: There will be two quizzes worth 20% each, three assignments worth 10 points each, and a final paper worth 20% in total. The final paper will have two parts – a one page summary submitted in advance and the final paper. Class participation and good class citizenship (attendance, participation, etc.) can add another 10% to your grade. The final paper will either be an evaluation and critique of an existing cost-benefit analysis or a proposal of a benefit-cost study of an actual policy or program.

The University of Minnesota's Uniform Grading Policy stipulates that a grade of an A represents achievement that is outstanding relative to the level necessary to meet course requirements. Some relevant parts of the distribution include A (94-100%), A- (90-94%), B+ (87-90%), B (83-87%), B- (80-83%), C+ (77-80%) and F (below 55%). Late work will be penalized by 10% for the first 24 hours and then another 10% every 24 hours after that.

The paper: Students will write a paper 6-8 pages in length (assuming 11 point font, double spaced, one-inch margins). The paper will either (1) assess the strengths and weaknesses in a published cost-benefit analysis on a topic to be chosen by the student or (2) propose a benefit-cost analysis of an actual policy or program. Students will assess the merits of the study's identification of important benefits and costs and the measurement strategy. What are the benefits and costs of the program or policy and how well is the author able to quantify these in dollar terms? A strong paper will be well written with a clear organizational structure, will make use of concepts from the readings and discussions in class and will cite the relevant literature. The short paper assignment will be one paragraph summary of paper with at least 4 relevant references. A grading rubric will be distributed in advance to help students prepare the paper.

Tentative schedule

Week 1 Jan 16/18	<p>Introduction (chapter 1) Social benefit-cost analysis What are the steps in performing cost-benefit analysis?</p> <p>Who has standing? Discuss Dana (2010). Conceptual issues (chapter 2) Cost-benefit analysis as consistent with Kaldor-Hicks criterion</p>
Week 2 Jan 23/25	<p>Microeconomic framework of CBA (chapters 2 and 3) Use of demand and supply framework to estimate benefits and costs. Homework 1 handed out.</p> <p>Microeconomics, continued (chapter 3 and appendix). Read articles on Moodle about consumer surplus and about the welfare analysis of tobacco. Start chapter 4 if possible.</p>
Week 3 Jan 30/ Feb 1	<p>Continue chapter 4 (valuing benefits and costs in primary markets) and secondary markets (chapter 5).</p> <p>Homework 1 due by 4 pm on Thursday February 1. Direct estimation of demand curves through regression analysis (chapter 13). Homework 2 handed out.</p>
Week 4 Feb 6/8	<p>Discounting future benefits and costs (chapter 6) What are the consequences of high discount rates or low discount rates? Read Moore et al. (2004) article called “Just give me a number!”</p> <p>Using experiments and quasi-experiments to estimate benefits and costs (chapter 12) Using the demand curve is useful when the policy directly affects the price of a good or service. How do we evaluate the many social programs that do not directly cause a movement along a demand curve? Reading by Bartik et al. (2016) and Wang, et al. (2005). Homework 2 due by 4 pm on Thursday February 8. (answers will be posted online)</p>
Week 5 Feb 13/15	<p>First Quiz (On Tuesday February 13). Then start cost-effectiveness analysis (ch. 18)</p> <p>More from chapter 18. How is cost-effectiveness used in education and health research? Read Levin and Belfield (2007). Homework 3 handed out.</p>
Week 6 Feb 20/22	<p>Indirect estimation of benefits (chapter 14) In chapters 14 and 15, we learn how to value outcomes that are not traded in markets. One page paper due by 4 pm on Tuesday February 20.</p>

Contingent valuation (chapter 15), using surveys to estimate benefits
Homework 3 due by 4 pm on Thursday February 22.

Week 7
Feb. 28/Mar 2

Discussion of social impact bonds (read Liebman et al. 2015)
and current use of CBA in policymaking. **Second Quiz** (last day of
class). **Paper due by 4 pm on Thursday March 8**

Additional readings: In addition to reading a number of book chapters, students may find the following articles and reports useful. These papers can be found on Moodle. The **bold** articles will be the most important for the quizzes.

Bartik et al. (2016) “The merits of universal scholarships: Benefit-cost evidence from the Kalamazoo Promise, Journal of Benefit-Cost Analysis, pp. 400-433.

Cohen, Joshua T. and John D. Graham (2003) “A revised economic analysis of restrictions on the use of cell phones while driving,” Risk Analysis, vol. 23, pp. 5-17.

Dana, David A. (2010) “Valuing foreign lives and settlements,” Journal of Benefit-Cost Analysis, vol. 1, article 4.

Environmental Assessment Institute (2006) Risk and uncertainty in cost-benefit analysis. Copenhagen. (46 pages)

Gyrd-Johnson, Dorte et al. (2014) “Framing the willingness-to-pay question: Impact on response patterns and mean willingness to pay,” Health Economics, vol. 23(5), pp. 550-563.

Liebman, Jeffrey and Sellman, Alina (2013) Social Impact Bonds: A Guide for State and Local Governments. Harvard Social Impact Bond Technical Assistant Lab.

Levin, Henry and Belfield, Clive (2007) “Investments in K-12 Education for Minnesota: What Works?” Paper prepared for Growth and Justice conference, November 12, Minneapolis, MN.

Moore, Mark A., Boardman, Anthony E., Vining, Aidan R., Weimer, David L., and David H. Greenberg (2004) “Just give me a number! Practical values for the social discount rate.” Journal of Policy Analysis and Management, vol. 23, no. 4, pp. 789-812.

Morrison, Steven et al. (1999) “Fundamental flaws of social regulation: The case of airplane noise,” Journal of Law and Economics, vol. 42, pp. 723-744.

Reynolds, Arthur J. , Temple, Judy A., et al. (2011) “Age 26 cost benefit analysis of the Child-Parent Center early education program,” Child Development, vol. 82, pp.379-404.

Robinson, Lisa and Hammitt, James K. (2011) “Behavioral economics and the conduct of benefit-cost analysis: Towards principles and standards,” Journal of Benefit-Cost Analysis, vol. 2(2), article 5.

Transportation Economics Committee (n.d.) “BCA v. Economic impact analysis,” Transportation Research Board of the National Research Council, Washington DC.
(<https://sites.google.com/site/benefitcostanalysis/>)

Wang, G., Macera, C., Scudder-Soucie, B., Schmid, T., Pratt, M., and Buchner, D. (2005) “A cost benefit analysis of physical activity using bike/pedestrian trails,” Health Promotion Practice, vol. 6, pp. 174-179.

Here are some Minnesota-related reports.

Gulati-Partee, Gita and Lisa Ranghelli (2009) Strengthening democracy, increasing opportunities: Impacts of advocacy, organizing, and civic engagement in Minnesota. National Committee for Responsive Philanthropy. (80 pages). Described as a CBA, but it really isn't.

Umbach, Tripp (2011) "The economic and societal impact of the University of Minnesota,"
(http://impact.umn.edu/assets/pdf/Final_Report.pdf)

Martin, Lauren and Richard Lotspeich (2014) A benefit-cost framework for an intervention to prevent sex trading, Journal of Benefit-Cost Analysis, vol. 5, pp. 43-87.