

HEALTH POLICY ANALYSIS

UCLA – School of Public Health
HS M233/ CHS M252

Spring 2007

Class Sessions: Fridays, 9:00 – 11:50 am, Room 71-257 CHS (per registrar)

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Course Overview:

The course seeks to provide the policy analysis learner a conceptual foundation of the rationales for, the tools for and limitations to public policy analysis. More bluntly, it seeks to help you think like an analyst, become familiar with the tools analysts use, and write like an analyst. The course uses lectures on economics, political science and statistics reinforced by case-method learning from real-world decision dilemmas faced by public health practitioners and policy makers. The focus of the course is on the analytic process and analytic methods, rather than political analysis.

Learning Objectives for the Course:

- Understand what policy analysis is and why we do it
- Develop usable conceptual frameworks in three areas: defining problems, identifying and analyzing policy “solutions” appropriate to specific problems, understanding how public programs are financed and the issues in choosing specific financing strategies. At the end of the course, students should be able to grasp concepts of what constitutes market failure, the meaning of social surplus and the limits to government intervention.
- Develop a basic quantitative toolkit for analyzing policy issues: integrating research findings, decision-analysis, cost-benefit, growth models and cross sectional modeling.
- Understand how to do policy analysis: describing the problem, developing a solution and communicating your analyses.
- Write effective policy memos for clients on current public health issues. Learn how to open a case, close a case and constructively critique a colleague’s ideas.

Tools Addressed in the Class:

- Framework for policy analysis and problem analysis
- Economic framework for analyzing government action
- Decision analysis
- Introduction to cost-benefit and cost-effectiveness analysis
- Introduction to modeling

The course is divided into two parts. In the first half of the course, we discuss the issues policy must address and the conceptual frameworks for analysis. These sessions include an introduction to policy analysis, and frames for discussing what constitutes a “problem,” available policy tools, and the issue of

financing public programs. In the second half, we focus on building a toolkit for quantitative analysis. We discuss thinking quantitatively and reviewing published research, introduce cost benefit and cost effectiveness and decision analysis, and modeling cross-sectional and longitudinal policy changes.

Prerequisites:

HS 236, Microeconomic Theory of the Health Sector, or an undergraduate level course on microeconomic theory

HS M287, Politics of Health Policy, or an undergraduate course on political science or public policy.

Introductory statistics

Readings:

Texts:

Feldstein PJ (2002). *Health Policy Issues: An Economic Perspective on Health Reform, Third Edition*. Chicago: Health Administration Press. **(F)**

Munger MC (2000). *Analyzing Policy: Choices, Conflicts and Practices*. New York: WW Norton.. **(Munger)**

Stokey E and Zeckhauser R (1978). *A Primer for Policy Analysis*. New York: WW Norton & Company. **(SZ)**

Reserves:

Articles and selected chapters from books are being placed in the library reserves. **(Reserves)**

If you are attempting to access the materials from off-campus, you need to set up your browser to use the BOL Proxy Server. See: <http://www.bol.ucla.edu/services/proxy>

Cases:

Cases are all from the Kennedy School Case Program, unless otherwise noted. They can be purchased and downloaded from the KSG Case Program website (make sure you indicate you are in the Academic price category): <http://www.ksgcase.harvard.edu>.

How classes will be run:

Classes are generally broken into two parts: a case and a lecture. The lecture, the second part of the class except in week one, sets up the readings and case for the following week. The case provides an opportunity to apply the lecture and readings to a real world example.

To open the case, one student will be chosen at random to start the discussion by outlining the issues in the case. At the end of the case discussion, one student will be chosen at random to summarize the discussion, implications of the case and unresolved issues.

yahoo class group and forum

I have created for the class a group on yahoo: <http://groups.yahoo.com/group/hs233>

Membership is restricted to class participants, and I will email invitations to participate to enrolled students one week before class. I will post notices and relevant files to the group, so you should log on and check notices at least weekly.

The group offers class members the opportunity to have a running conversation on topics of interest or concern. These might include discussion of readings, cases or assignments before class. You need to submit your own work but you are encouraged to discuss assignments among yourselves. You are not in competition with one another. I will check the forum at least every other day, unless I let you know otherwise, and I encourage you to make use of the forum as well. The more students who regularly participate, the more useful the forum will be.

Assignments/Grading and Deadlines

Nine assignments, a combination of case write-ups and quantitative assignments.

You may skip one assignment after week 2's, except the problem set. The grades for the lowest graded assignments handed in which have been seriously attempted will be dropped. (Those handing in all assignments will have the two lowest grades dropped.)

With the exception of the problem set, the write ups should be 2 pages (11 point type) plus tables. This puts a strong premium on setting up the problem or issue to be addressed quickly and putting analysis into tables. Tables can include word tables, or matrices with text. Notes to tables should indicate 1) where original data was obtained from (e.g., "Vaccine effectiveness rate obtained from CDC website www.url, and 2) computational formula applied to construct a number from raw data (e.g., $\text{rate}/1000 = \text{deaths in column a}/\text{US population in 1976 from Census web page}$).

Class participation counts and will be taken into consideration in grading as follows: Exceptional participation – e.g., repeated discussion leadership, insight into the analytic issues in the cases – will, at the discretion of the professor, result in a half-letter grade increase in your final grade. Repeated, demonstrated failure to be prepared to participate in class will result in a half-letter grade decrease in the final grade.

Assignments are due at the beginning of the class. No credit for late assignments, unless this has been negotiated with the instructor prior to the class. E-mail, phone, in-person discussion all acceptable. If you are going to miss a class, please let me know by e-mail.

Given the importance of full and effective oral communication in a graduate course – and even more so in the world of policy making – part of the course grade will be based on each student's individual participation, especially during the case discussions. "Participation" includes such things as demonstrating preparation and familiarity with the course readings, offering valuable insights, speaking clearly about complex subjects, synthesizing relevant information, answering questions effectively, posing pertinent questions, as well as listening to other members of the class and building effectively upon their contributions. The beginning of each class will generally involve discussion of a specific case or issue. Students must be prepared at all times to be called upon during discussions.

Letter grades for the course will be assigned as follows:

98- 100 = A+ 88- <90 = B+ 78- <80 = C+
94- <98 = A 84- <88 = B 74- <78 = C
90- <94 = A- 80- <84 = B- 70- <74 = C-
Below 70 = F

You will get out of this course what you put into it. A's mean excellent work; B's are acceptable grades – they mean good work. It is possible to get a C in this course if you do not put in enough effort.

Note: The workload for the course is heavy and, unfortunately, uneven. If you haven't read the material for week one before class, you will need to catch up even while moving forward. Assignments are due each week starting in week 2. Plan ahead.

Note 2: The course is set up so that there is an introductory lecture/discussion one week, followed by reading and a written assignment on the topic due at the beginning of the next week's class. It will be to your advantage to have at least skimmed the readings for the next week before each class.

Some general comments on attacking cases and preparing papers:

1. In reviewing papers, I am generally focusing on the analytics, not the form or flow of the memo. Clarity matters as does hitting the key issues in the case from an analytic perspective, and I generally don't downgrade because of awkward ordering or language. But let me offer some general comments on these issues based on prior years' papers.

The biggest weakness I have seen in papers is not establishing a clear outline, and the scope of the analysis that follows. I would suggest something like:

- i. Topic
- ii. Issues in reaching decision. At the end of this section, you can preview your recommendation, but by laying out the issues, the criteria you are using should be clear.
- iii. Analysis issue by issue, with subheads clearly related to the issues listed in ii. Tables are good.
- iv. Recommendation

So, for example, in the acid rain case, the outline might include:

- Brief description of the bill and its provisions (can be very brief in this class, how long in the world will depend on the style in the organization you work for).
- List of issues influencing recommendation: 1) what are the costs the bill will impose? 2) what are the benefits and do they exceed the costs? 3) are the higher costs associated to protect jobs worth it or should these provisions be opposed? 4) optional: would taxes, or cap at the plant level, rather than cap and trade be preferable.
- Analysis, with sections on each of the issues listed.
- Recommendation, and brief criteria based justification.

2. The first task in attacking these cases, as the Harvard case note assigned for week 1 notes, is clarifying the issue. It is critical that you develop your own understanding of the key issues on which decisions will turn/should turn. With this understanding, determine what data and analysis you need to address the issue, and prepare this analysis. Only then, write the memo. The alternative is to be whipsawed by how the issues are presented in the case. Cases are not written to highlight the issues or analytic tasks. Often the presentation obscures them.

The assignments are hard, especially the acid rain, Medicare catastrophic, cervical cancer, and Arizona transplant cases. They require parsing the case analytically, practicing specific analytic skills, finding or working around missing data, and then writing up the analysis in a limited space. I think the WIC case and swine flu cases are easier, in that they are more narrowly focused on carrying out a specific set of analyses and communicating the conclusion from these, but are also challenging. Based on my experience in

Washington, the work required by these assignments reflects the work those in policy positions and consulting are asked to do. The class is about acquiring skills, and few people pick up skills perfectly the first time they are asked to practice them. Struggle is part of the process. It gets easier with practice. I have been impressed by how past classes have tackled these difficult assignments, and am looking forward to being in class with you.

The session by session syllabus begins on the next page.

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Week 1: A. Role of Analysis in the Policy Process B. Framework for Policy Analysis

Skills/Learnings:

How to prepare a case
How to write a policy memo
Policy analysis framework
Developing frameworks for getting the “appropriate” number

Lecture:

Framework for Policy Analysis
How to analyze a case
How to write a policy memo

Case:

BE PREPARED TO DISCUSS IN THE FIRST CLASS:

Web: Read Gladwell, “Troublemakers,” *The New Yorker*, February 2, 2006, available on line at:
http://www.newyorker.com/fact/content/articles/060206fa_fact

Be prepared to discuss these questions:

- 1) What lessons should we draw from Commissioner Kelly’s experience at Customs?
- 2) How would you design a profiling system with high specificity?

ALSO:

Web: Fermi Problems http://www.ph.utexas.edu/~gleeson/httpb/section1_3_3_5.html and
http://www.vendian.org/envelope/dir0/fermi_questions.html

Be prepared to address the question:

- 1) How many pediatricians are there in LA county? (Treat this as a Fermi problem)
Other questions presented in class.

Readings:

Munger: Chapter 1: Policy Analysis as a Profession and a Process
Chapter 5: Experts and Advocacy: The Limits of Policy Analysis
Chapter 12: Conclusion

SZ: Chapter 3: The Model of Choice, Chapter 15: Putting Analysis to Work

Group Site: Needleman, Creating a Statement of the Problem

Recommended:

Reserve: Stone, *Policy Paradox*, Chapter 1: The Market and the Polis

Web: Cronon, “Only Connect,” *American Scholar* 1998. 67(4). Available at:
<http://www.pbk.org/about/Events/Convesations/CrononOnlyConnect.PDF>

Advice on writing policy memos:

You will need to learn to write policy memos. They come in two flavors: analytic/decision support, and persuasive. The first are used internally to brief others on findings and analysis. Even when they make a recommendation, the goal is to allow the reader to reach his/her own conclusions. The second type of memo is to convince an external audience. There is a lot of advice on the web on how to write policy memos, but few examples of a short analytic memo. Look at the following:

Wilcoxon “Tips on Writing a Policy Memo” on the yahoo group site and at:

<http://wilcoxen.cp.maxwell.syr.edu/pages/275.html>

Imperial “Guidelines” available on the yahoo group site and at:
http://people.uncw.edu/imperialm/UNCW/PLS_308_Summer/PLS_308_Sum_guidelines.htm

Dobel, Elmore and Werner “Memoranda Writing” available on the yahoo group site
Helms, “More Observations on Writing Policy Papers,” available on the yahoo group site.

Seriously, look at these documents before beginning the writing assignment for week 2.

Advice on thinking quantitatively in a policy context

It is useful when approaching a policy issue or case to implement a 4 step process:

1. Identify the decision to be made
2. What is your (quantitative) decision rule? E.g., choose option A of A&B if $\text{cost A} < \text{cost B}$.
3. What information is needed to implement the decision rule. Write the computational algorithm.
4. Find and plug the data needed into the algorithm.

Week 2: A. Framework for Policy Analysis B. What Problem Are We Trying to Solve

A:

Readings:

Munger: Chapter 3: A Benchmark for Performance: The Market (skim if have solid microeconomics background)

F: Chapter 1: The Rise in Medical Expenditures

F: Chapter 2: How much should we spend on Medical Care?

F: Chapter 13: The Malpractice Crisis

F: Chapter 25: Why Are Prescription Drugs Less Expensive Overseas?

KSG case 1136. Learning by the Case Method

Case:

Creating a Framework for Policy Analysis: A. Malpractice, B. Prescription Drug Reimportation

Assignment due at the beginning of this class:

Malpractice and Reimportation of Prescription Drugs have both been subject to recent policy debates. Each is the subject of a chapter in Feldstein on the reading list for next week. Choose one. Begin with statements of potential problems as they have been put forward in the current debate. What information/analysis would you conduct to assess how accurate these assertions are and how serious any underlying problems are. For each, you will need to consider explanation, the underlying causes, and prognosis, what will happen if nothing changes. Consider how much uncertainty there is in the prognoses and what will influence the actual outcome. What goals or criteria for evaluating options would you propose. Who would support or reject each goal/criterion. **Critical to this assignment is moving your thinking from the presenting symptom or problem to an understanding of underlying causes and dynamics.** In the quality improvement field, those trying to understand why problems occur are encourage to ask “Why?” five times. It’s a good way to force yourself to think more deeply about what you are observing.

You will likely need to augment Feldstein with other readings.

B:
Skills/Learnings:

Problem Analysis
Economic and political arguments for public policy interventions

Lecture: Rationales for Public Action: Market Failure, Inequity, and Government Failure

Week 3: **A. What Problem Are We Trying to Solve**
 B. Policy Tools: Do, Regulate, Tax, Subsidize, Educate

A:
Readings:

Munger: Chapter 4: Evaluation and Market Failure
 Chapter 7: The Welfare Economics Paradigm
SZ: Chapter 3: The Model of Choice
Reserve: Stone, *Policy Paradox*, Chapter 2: Equity

Case:

Market/Drug Reimportation (B)

Assignment due at beginning of class:

For either of these issues, prepare a 2 page paper addressing the following: What is the nature of the current malpractice or drug price problem, recast in terms of the market failure/equity/government failure frames discussed in the lecture last week? Graphs (handwritten if necessary) or tables are always welcome if they make your argument clearer.

B:
Skills/Learnings:

Economic and political arguments for public policy interventions

Lecture: Policy Tools: Do, Regulate, Tax, Subsidize, Educate

Week 4: **A. Policy Tools: Do, Regulate, Tax, Subsidize, Educate**
 B. Ways and Means: Taxes and Tax Incidence

A:
Readings:

Munger: Chapter 8: Choice of Regulatory Form
Reserve: Weimer and Vining, Chapter 10: Correcting Market and Government Failure: Generic Policies
SZ: Chapter 13: Public Choice: To What Ends (skim)
Web: Joint Economic Committee, Tradable Emissions, 1997. Available at:
<http://www.house.gov/jec/cost-gov/regs/cost/emission.pdf>
and posted to group web site
Web: Tientenberg, The Tradable Permits Approach to Protecting the Commons: What Have We Learned? Written for the National Research Council Institutions for Managing the Commons Problem. Available at (use link to get PDF):
<http://www.colby.edu/personal/t/thtieten/TT.NRC4.pdf>

and posted to the group web site.

Reserve: Stone, *Policy Paradox*, Introduction to Part IV: Solutions

F: Chapter 28: The Role of Government in Health Care

F: Chapter 27: Should Kidneys (and Other Organs) Be Bought and Sold?

Case:

KSG case 699: Controlling Acid Rain, 1986

Assignment due at beginning of class:

You are the aide to a Mountain State Senator whose constituents are not directly affected by acid rain. Your boss wants to know whether the costs imposed are worth it, both for the overall program and the protection of jobs. Write a memo to your boss presenting the issues in the Waxman-Sikorski bill with a recommendation on how she should vote. (Remember Wilcoxon on memo writing). Among the issues you will have to think about in preparing your memo are:

1. What are the costs of acid rain control?
2. What are the principal sources of uncertainty in forecasting the benefits of control and placing the correct dollar values on those benefits? How should uncertain costs or benefits be taken into account?
3. Did the NAPAP study evaluate the appropriate benefits of control and place the correct dollar value on those benefits? What costs or benefits drive the analysis?
4. Based on current information, what controls would you recommend on acid rain? Taxes or caps? Tradable caps or fixed requirements for each plant?

All these may not go into your memo in detail but be prepared to discuss in class.

B:

Skills/Learnings:

Issues in determining how to finance public programs

Lecture: Taxes and Tax Incidence: How States Finance Health Care

Week 5: A. Ways and Means: Taxes and Tax Incidence
B. Reading Research and Thinking Quantitatively

A:

Readings:

F: Chapter 29: Medical Research, Medical Education, Alcohol Consumption and Pollution: Who Should Pay?

F: Chapter 33: Financing Long-Term Care

F: Chapter 26: How Should A Medicare Prescription Drug Benefit Be Designed?

Web: Stephen J. Entin, "Tax Incidence, Tax Burden, and Tax Shifting: Who Really Pays the Tax?" pages 1-11. Available at:
<http://www.heritage.org/Research/Taxes/cda04-12.cfm>
and on group web site

Reserve: McClellan and Skinner, Medicare Reform: Who Pays and Who Benefits, *Health Affairs* (1999), 18:1, 48-62. Available full text through UCLA library.

Case:

KSG case 1278: Catastrophic Health Insurance for the Elderly

Assignment due at beginning of class:

You are a legislative aide to a Midwestern member of Congress. Prepare a 2 page policy memo outlining choices for financing the Medicare Catastrophic Health Insurance Plan, focusing on the incidence of each option. For each option, assess 1) adequacy of financing, 2) equity of the financing approach (define your criteria for equity!), 3) economic distortions, if any, associated with the option, and 4) political acceptability or problems associated with the option. Make and justify a recommendation.

**B:
Skills/Learnings:**

Lecture:

Reading research
Regression coefficients, odds ratios, risk ratios, and elasticities

**Week 6: A. Reading Research and Thinking Quantitatively
 B. Measuring Social Surplus and Intro to Cost Benefit Analysis**

Readings:

Yahoo: Needleman, Critiquing a research article.

Yahoo: Needleman, Stats Overview

Reserve: Weimer and Vining, Chapter 18: When Statistics Count: Revising the Lead Standard for Gasoline

For those with a limited background in statistics and regression, the Federal Judicial Center's Reference Manual on Scientific Evidence has two useful chapters:
Reference Guide on Statistics
Reference Guide on Multiple Regression

Available at:

http://www.fjc.gov/library/fjc_catalog.nsf/autoframepage?openform&url=/library/fjc_catalog.nsf/bysubjectfrm?openform&category=Scientific+Evidence

Case:

KSG case 680: Conflicting Findings: Evaluating WIC

Assignment due at beginning of class:

You are Louis Bird, committee staff. Write a 2 page memo with your assessment of the findings from the GAO report and implications for committee action. Take the closing question in the case as your task. Most of the studies cited as strong studies are on the yahoo group site.

**B:
Skills/Learnings:**

Economic measures of benefit and social surplus
Cost-benefit analysis

Lecture: Introduction to Cost-Benefit Analysis

**Week 7: A. Measuring Social Surplus and Intro to Cost Benefit Analysis
 B. Benefit and Cost Effectiveness Analysis**

A:

Readings:

SZ: Chapter 9: Project Analysis: Benefit-Cost Analysis

Munger: Chapter 10: Discounting II: Time

Munger: Chapter 11: Cost Benefit Analysis

F: Chapter 3: Do More Medical Expenditures Produce Better Health?

F: Chapter 5: Rationing Medical Care

Web: Implementing QALYs, at:

<http://www.evidence-based-medicine.co.uk/ebmfiles/ImplementQALYs.pdf>

Web: Ubel, Peter A, Erik Nord, Marthe Gold, et al. Improving Value Measurement in Cost Effectiveness Analysis, *Medical Care* 38(9):892-901. Available on-line through UCLA library

Web: Matchar, David B. "Treating QALYs With a Heavy Dose of Social Values: Is the Cure Worth the Cost?" [Editorials] *Medical Care* 38(9):889. Available on-line through UCLA library

Case:

Cervical Cancer Screening Strategies in Low-Resource Settings

Assignment due at the beginning of class:

Read the following cost-effectiveness analysis, comment, and letters

Sue Goldie, et al., "Policy Cost-effectiveness of cervical-cancer screening in five developing countries," *NEJM* (2005), 353(20):2158-68.

Mark Schiffman and Philip E. Castle, "The promise of global cervical-cancer prevention," *NEJM* (2005), 353(20): 2101-2104.

Letters, *NEJM*(2006), 354(14), 1535-1536.

Note: The Goldie modeling approach uses Markov models to estimate the long term risk of entering various disease states. Look at the SZ chapter on Markov Models to get a feel for how these models work. You needn't work through the math, just get the general ideas.

You are the health advisor to the President of Haiti. Write a 2 page memo summarizing the study and making recommendations on what, if anything, should be done in response to this study. You will need to think about: 1) What factors drive the Goldie results? 2) How do those factors compare between Haiti and Goldie's five country examples?

B:

Skills/Learnings:

Cost-benefit and cost effectiveness analysis: issues and methods

Lecture: Cost-Benefit and Cost-Effectiveness 2

Week 8: A. Benefit and Cost Effectiveness Analysis
B. Decision Analysis

A:

Readings:

Reserve: Weimer & Vining Chap 16: Cost-Benefit Analysis (pay special attention to pages 413-425, An Illustration: Taxing Alcohol to Save Lives

Case: KSG case 821. Matters of Life and Death: Defunding Organ Transplants in the State of Arizona

Assignment due at beginning of class:

You are a member of the legislative analyst's staff in Arizona. Write a memo analyzing the impact of the proposed policy. What is the trade-off between transplants and pre-natal care? Numbers? Impacts? How should these trade-offs be valued? You may need to research/ballpark some numbers. You are encouraged to use the yahoo group to share information.

B:

Skills/Learnings:

Decision analysis
Combining Cost-Benefit and Decision Analysis

Lecture:

Choice Under Uncertainty
Decision analysis

**Week 9: A. Decision Analysis
 B. Difference Equations and Modeling**

A:

Readings:

SZ: Chapter 12 Decision Analysis pages 201-229

Munger: Chapter 9: Discounting I: Expected Values, Probability and Risk

Web: Detsky et al. Primer on Medical Decision Making, Parts I-V, *Medical Decision Making*, 1997, 17, 125-159. Available on web at:

<http://umg.umdj.edu/smdm/pdf/17-02-124.pdf>

<http://umg.umdj.edu/smdm/pdf/17-02-126.pdf>

<http://umg.umdj.edu/smdm/pdf/17-02-136.pdf>

<http://umg.umdj.edu/smdm/pdf/17-02-142.pdf>

<http://umg.umdj.edu/smdm/pdf/17-02-152.pdf>

Case:

KSG Case 313 Swine Flu (A)

KSG Case 314 Swine Flue (Appendix)

Assignment due at the beginning of next class:

Write a 2 page memo assessing whether a national swine flu inoculation program should be implemented based on an assessment of the consequences of acting or not acting. A decision tree should be attached to this analysis. What are the tipping points that would change your recommendation (e.g., difference in likelihood of pandemic, rate of injuries due to vaccination, cost of the program).

B:

Skills/Learnings:

Difference equations and growth models
Modeling and Simulation

Lecture:

Difference equations, modeling and simulation

Week 10: A. Difference Equations and Modeling
B. Closing Thoughts

A:

Readings:

Reserve: Quade, *Analysis for Public Decisions*, Chapter 9 Models

SZ: Chapter 2: Models: A General Discussion, Chapter 4: Difference equations

Web: Congressional Budget Office, Increasing Small-Firm Health Insurance Coverage Through Association Health Plans and Health Marts, January 2000. Available at:

<http://www.cbo.gov/showdoc.cfm?index=1815&sequence=0>

and posted to yahoo group.

Case:

Problem Set 1 due at beginning of class

B:

Readings:

Web: Surowiecki, "Board Stiffs," *The New Yorker*, March 8, 2004, page 30. Available at:

http://www.newyorker.com/talk/content/?040308ta_talk_surowiecki

Web: Cronon, "Only Connect," *American Scholar* 1998. 67(4). Available at:

<http://www.pbk.org/about/Events/Convesations/CrononOnlyConnect.PDF>

Discussion:

Closing Thoughts
