PhD Policy Comprehensive Exam
Spring 2010

Instructions: Answer Questions I and II, and chose one from Questions III-VII.

Question I
Develop a research design to evaluate the impact of an ongoing public program, policy, or institutional design; to compare the impact of program, policy, or institutional design alternatives; to examine cause (or causes) of policy or institutional choice by legislators, legislatures, bureaucrats, or bureaus; or to examine reasons for the differential implementation of policy by bureaucrats or bureaus.

Choose any policy area that you are familiar with. The application MUST be theoretically non-trivial. For example, it should relate to important normative questions of designing institutions that are representative, accountable, and efficient, or to tradeoffs among those values. Or it could relate to theoretically important disputes (for example, about government or market failures, or about cooperation versus self-interest). Discuss the theory or theories that motivate the research question, hypotheses, and the experimental or statistical model. Briefly describe the program or policy alternatives, or policy decisions, that you are examining, and discuss and justify the outcome measure(s) you will use. Based on theory, what do you expect to find? Why will your findings be theoretically important? Cite relevant literature and previous findings.

Develop a feasible research design to estimate the parameters of your theoretical model. In your design, consider some of the problems you anticipate in generating unbiased and efficient estimates, and suggest how you might address these problems. Include in your discussion the following items, as well as others you believe are pertinent:
        *how you propose to collect data;
        *problems of measurement;
        *how you will analyze the data you collect;
        *given your analytical strategy, what are the important threats to internal and
                statistical validity (that is, threats to generating BLU estimates and steps to
                minimize these threats);
        *issues of external validity;
        *how you will interpret the data you collect in light of the theory you are testing.

Question II: Economics and Statistics
a) Economics
i)Is education a public good? Why or why not? What, if any, is the economic rationale for government intervention into the education market? What is the theoretically optimal form/amount of government intervention into a private education market from an efficiency rationale? How would the form/amount of intervention change when redistribution is also a social value? Use diagrams to illustrate your written answer.

ii) How would you empirically estimate the social value of education, separating it from the private return? Use a regression-type of equation(s) to illustrate your answer, and suggest what kind of data you would use to estimate the unknowns in the equation(s).

b) Statistics
i) What does the Table below say about the impact of education on economic growth (as well as the impact of other factors)? Do these results say anything about the social value of education, separate from the private return?

ii) Do you believe the estimate(s) regarding the impact of education? Why or why not? Use the conditions for unbiased and efficient estimators to guide your response.

Description of Variables
Proxy for openness = fraction/proportion of years between 1960 and 1998 that a country was classified as having an economy open to international trade, based on 5 factors (tariff, quotas, exchange rate controls, export controls, socialist economy)
Proxy for security of property rights = index of protection against expropriation risk, averaged over 1985-98. Range: 0-10 (high number => low risk)
GDP per capita = gross domestic product (in $) / population
Test scores: Average of math and science standardized test scores over 9 international tests, 1960-2000.

Education as Determinant of Growth of Income per Capita, 1960-2000
Dependent variable: average annual growth rate in GDP per capita, 1960-2000*

Independent variables	Estimate (t-stat)
GDP per capita 1960	-0.351 (6.01)
Years of schooling (mean), 1960	-0.004 (0.05)
Test score (mean)	1.266 (4.06)
Openness	0.508 (1.39)
Protection against expropriation	0.388 (2.29)
Constant	-4.695 (5.09)
N	47
Adjusted R^2	.784

Notes: t-stats in parentheses
*Regression includes 5 regional dummies

Question III: Program Evaluation
Consider the following two statements by Robinson Hollister in a recent issue of the *Journal of Policy Analysis and Management*. Explain the defense for each of his responses to each question, and then offer a critique.

a) What is the proper role for random assignment social experiments?
How generally and widely should they be used?
"Whenever it is desired to estimate the effect, or impact, of a social policy or institution

on specific outcomes and one wishes to assert that the estimated impact is *caused by* the policy or institution, then a random assignment experimental design should be the method of first resort. The random assignment of units (persons, institutions, geographic areas, etc.) to the "treatment" or to a control group, if properly carried out with a large enough sample, assures that on average characteristics that might affect the outcome are the same (not statistically significantly different) in the two groups. This holds both for measured and unmeasured, or unmeasurable, characteristics. Further, as contextual conditions that might affect the outcome change over time (for example, a weakening of the labor market), both groups are subject to those changing contextual conditions. Therefore, the control group provides a reliable estimate of what would have happened to the members of the treatment group had they not been subjected to (or offered the opportunity to receive) the treatment; that is, the control group provides *reliable counterfactual* measures of outcome variables."

b) Are there alternatives to random assignment that are nearly as good? If so what kinds of guidelines should be applied in deciding when to use random assignment and when to use alternatives?
"The short answer to the first of these questions is: No, not as far anyone has been able to establish thus far."

Question IV: Environmental Policy and Political Economy.
 Governments, especially those in developed nations, take steps to affect how the activities of businesses and or consumers impact the natural environment. Greenhouse gases, especially carbon-based fuels, comprise a critical element of these activities.
　　　(a) What, if any, market failure (or failures) justifies the imposition of collective decisions on the use of carbon-based fuels by businesses and/or individuals? Is there ever any instance in which imposing such collectively chosen rules on the activities of businesses and individuals cannot be justified by market failure? If there is a market failure rationale, what, in theory, should be form of the policy, and what would be its optimum level? At what level of government (supra-national, national and/or sub-national) should it be implemented? (Use supply and demand curves, if necessary, to illustrate your answer.)
　　　(b) What theories of policy choice would be useful in explaining why some nations tax gasoline at higher rates than others? Consider in your answer theories of rent seeking, election incentives, matters of institutional design, and other theories or variables that might be relevant. Cite relevant literature. Discuss how you would test these theories in the context of examining variation across nations in the form and/or level of gasoline tax, and specify your theoretical equation(s). How would you test the model? How would your findings relate to the theory/theories you are testing?

Question V: Discretion.
Brehm and Gates point out that discretion potentially entails some mix of "working, shirking, and sabotage." What do they mean? What does the general literature (including, but not limited to Brehm and Gates) on discretion in public (and private)

bureaus say about the sources of discretion, how it is used, and its consequences for efficiency, effectiveness, equity, responsiveness, and accountability? To what extent is discretion and its consequences a matter of different principles or different principals (or both)? More specifically, using principal(s)-agent theory and other elements of economic theory and political analysis, how are discretion and its consequences with respect to quantity of output, quality of output, and cost per unit of output likely to vary among public, nonprofit, and for-profit bureaucracies? Outline a research design that tests your theoretical expectations using a specific policy area where public, nonprofit, and/or for-profit agencies are used to deliver services--e.g. day care, primary and secondary schools, hospitals, nursing homes, universities, job training, caseload management, housing management, arts organizations, prisons.

Question VI: Policy Implementation 1
1. Using examples from the literature as illustrations, discuss whether or not, and why, you agree with the following statement regarding policy implementation:
"The early study of policy implementation was characterized by a focus on context over parsimony which informed practice but led to a dearth of theory building, while most recently it has been characterized by a focus on parsimony that may advance theory but offer little to practitioners."

Question VII: Policy Implementation 2
2. At various times over the past four decades, scholars have argued that the study of policy implementation was (a) a "missing link" in the study of public administration, (b) an emerging new paradigm challenging public administration, (c) nothing more than a disappointing set of "proverbs" that advanced neither theory or practice, and (d) a topic widely studied by scholars, but without a self-conscious focus on implementation per se.

Discuss the logic of each of these arguments, assess their merits, and offer your perspective on the state of policy implementation research today.