PhD Policy Comprehensive Exam
Spring 2008

Answer I, II, and any ONE other question:
I. Develop a research design that provides evidence on a theoretically non-trivial problem in the context of either: evaluating the impact of an ongoing public program, policy, or institutional design; comparing the impact of program, policy, or institutional design alternatives; examining cause (or causes) of policy or institutional choice by legislators, legislatures, bureaucrats or bureaus; or examining reasons for the differential implementation of policy by bureaucrats or bureaus.

   Choose any policy area that you are familiar with. Discuss the theory or theories that motivate the empirical question and the 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, and discuss briefly what your project will add.

   Develop a feasible research design to estimate the parameters of your theoretical model. In your design, consider some of the problems you anticipate in making unbiased and efficient estimates, and suggest how you might go about coping with 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;
   *threats to internal, external, and statistical validity;
   *how you will analyze and interpret the data you collect;
   *how the findings relate to the theoretical question you are asking.

II.
a) Economics:

i. What, if any, market failures might provide an efficiency justification for governments to impose regulations on businesses? What form should these regulations take if they are to be as efficient as possible? What, if any, non-market failures, or hidden costs, might be expected from inefficient regulatory responses? Use basic models of market and government failure to frame your response to these questions.

ii. Then, consider a particular set of governments (e.g. the governments of developing nations; or the governments of OECD nations; or autocracies; or stable democracies; or unstable democracies; or U.S. state governments; or local governments in the U.S.; or sub-national governments in other countries. Given your choice of setting, what kind of actual policy response do you expect? Do you expect the most likely response on the whole to enhance efficiency (positive net benefits) or more likely to be costly (negative net benefits)? Why? Who would be most likely to bear the costs? Collect the benefits? Use supply and demand curves to illustrate your answer.

b) Econometrics:

Depending on the nature of the market failure(s), it is possible that business regulations can either enhance or retard the creation of new businesses. Two researchers investigated whether government regulations of business affected the net formation of new businesses in the U.S. states. They used the Economic Freedom of North America (EFNA) index as a measure of how free from government regulations and restrictions businesses are in each U.S. state. The index is an ordinal scale ranging from 0 (very low freedom) to 10 (highest level of freedom). It is comprised of 10 elements reflecting the size of the state government budget relative to state GSP (gross state product), the top marginal income tax rate and the income threshold at which it applies, sales taxes, state transfers and subsidies as a percent of GSP, minimum wage legislation, union density, the percent of employees who work in the public sector, and the relative stringency of environmental, occupational and labor force, and insurance regulations.

The dependent variable is percent net new business formation, relative to total businesses in the state: PctNew = [(N new businesses – N business deaths)/Total N businesses] * 100. Theoretically, regulations can stimulate or hinder new business births, or increase or reduce new business deaths. The sample mean of the dependent variable is 1.59 percent, and ranges from net losses of 1.75 percent to gains of 7.27 percent.

Other variables in the model include:
Income: State real income per capita (log of $ value)
Age: Median age of state population
Minority: Percent African American + Latino in each state
Loans: (Log of) dollar volume of commercial and industrial loans
Pop: State population (in millions)
FIGR: Real federal inter-governmental revenues (dollars per capita)

The researchers constructed a panel of U.S. states from 1990 through 2001.
The Table at the top of the next page reports the results.

    i.   Discuss the results for the main theoretical variable and for the significant control variables.

    ii.   Do you believe the estimate for the main theoretical variable? Discuss how well the assumptions for valid parameter estimates and estimates of standard errors are likely to fit this particular application.

    iii.   How do the results pertain to your response in part a? Do they uphold your conjecture about market/government failure, or are do they raise questions about your conjecture?

Regression of Net New Business Formation on EFNA Index

Variable	Parameter estimate
Intercept	3.26
EFNA	2.01***
Income	-0.05***
Age	-0.21***
Minority	-0.08
Loans	-5.82E-9***
Pop.	1.26E-7***
FIGR	-0.01
R-square	0.34
F-statistic	36.89

N = 600. Fixed effects for each state included but not shown. Asterisks *, **, and *** indicate significance at the .10, .05 and .01 levels using a two-tailed hypothesis test, respectively, using White's robust standard errors.

III. Policy researchers can choose among three major types of designs: randomized field experiments (RFEs), quasi-experiments, and non-experiments.

a) In general, briefly discuss the primary characteristics, advantages, and disadvantages of each of these three types of designs.

b) Which of these three types of designs would you use to test the hypothesis that women who earn higher salaries are more likely to return to work after childbearing than women with lower salaries. Justify your answer with a discussion of internal validity, external validity, and feasibility. (You do not need to describe the details of your design; however, it may be useful to identify a specific type of design within the general category of design that you recommend.)

c) What underlying general theory (if any) underlies the hypothesis posed in part b), and how (if at all) does the use of a general theory help you to evaluate the validity of your design?

IV. (a) How necessary and/or useful is the concept of "social capital" in explaining how collective action problems are successfully resolved i) among citizens, in their capacity as consumers and/or producers; OR ii) among legislators; OR iii) among bureaucrats? Discuss, citing relevant literature. In your answer, consider how (or whether) the idea of "social capital" is useful for public policy analysis. (Your discussion can apply to social capital as a general concept, or apply it in the context of a specific policy area, such as crime, housing, education, or international development.)

(b) Is there a "dark" side of social capital? Can social capital lead to social losses? Under what conditions might this be likely? Discuss supporting literature and suggest some empirical examples.

(c) Take one of the theoretical claims about "social capital" that you discussed in part (a) or (b) of this question and describe how you would test the claim empirically.

V. One of the first books in the then-emerging field of policy analysis was Equality and Efficiency: The Big Tradeoff, written in 1975 by economist Arthur Okun. Brookings still publishes the book.

a) Write the likely main points of the book: What are the tradeoffs between equality and efficiency, and to what extent should government pursue economic equality? Are there always tradeoffs between equality and efficiency; that is, discuss instances in which they are complements and not substitutes, or discuss why such instances are either unlikely or impossible.

Since the book was written, there is considerably more theory and empirical evidence about the conditions (both economic and political) for such a tradeoff, and your response to these questions should take that literature into account.

b) Develop a hypothesis based on expectations from theory or from questionable previous evidence. How would you test the hypothesis empirically, and what would the evidence from the hypothesis test contribute to what we know about the tradeoff?

Your responses to this question may proceed in the context of the issue of tradeoffs between equality and efficiency in specific policy areas (e.g., education; anti-poverty; criminal justice), or in the larger context of inequality and efficiency within nations or between nations.