

PhD Policy Comprehensive Exam
Spring 2007

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. Charter schools are private, non-profit institutions that use public money to provide primary or secondary education to students in a school district. They get the same amount per student that the public schools receive, but they are not public schools. The teachers and curriculum in charter schools usually must meet certain standards, set forth in charter school laws that vary from state to state (and district to district). State charter school laws vary considerably; some states make it easy to set up a charter school, and do little to monitor the schools; others make it hard to establish a school, and do more or less monitoring of existing schools. The first charter law was passed in Minnesota in 1991; by the year of the study mentioned below, all states had charter laws, and some had revised their laws at least once. Hence, charter laws not only vary from state to state; they also vary over time.

In a recently published study, several investigators examined the causes and some of the effects of state charter school laws. In this study, the authors first examined why some states adopt charter school laws that are more “flexible” than others; then they examined whether legal flexibility affects the number of charter schools available in the state. The authors measured flexibility with an index of 17 characteristics of each state’s

law(s). These characteristics included issues of the ease of application and authorization; local oversight; fiscal support; and the employees of charter schools. Each characteristic is measured with a score from 1 to 5; the index for the state is an average of the 17 components for each state. The final index is an ordinal (average) score that ranges from 1 (lowest relative score) to 5 (highest relative score). The data pertain to the 2002-2003 school year. States that had amended their charter laws as of Dec. 2003 appear in the data as multiple observations; states that had never amended their charter laws appear in the data only once. Thus, a state with one revision appears in the data as two observations, one with a flexibility score for the first observation, and the other with a revised flexibility score. The authors validated the index by reporting a Cronbach's alpha of 0.56.

- a) What, if any, is the economic rationale for state regulation of charter schools? In your answer, consider whether charter schools are primarily a response to a market or government failure, and whether, in either case, the charter-school response is likely to be Pareto improving. (As mentioned above, charter schools are private, non-profit institutions that use public funds to provide primary and/or secondary education services to children.)
- b) Considering here only the results for the causes of flexibility, briefly comment on the likely reliability and validity of the index of flexibility. Then discuss the results presented below in Table 1. (You do not need precise t-statistics for this task; eyeball estimates will do.) The dependent variable is the flexibility score discussed above. The measure of the independent variables is as follows: Ideology (Berry's index, ranging from 0 (most conservative) to 100 (most liberal)); Party of the governor (1=Republican, 0 otherwise); Mean percent Republican seats in the upper and lower houses of the state legislature; Union strength = percent of public sector workers who are unionized. The remaining variables are self-explanatory. Remember to comment on the index, discuss the results, and summarize (in one sentence) what the results say about the adoption of state charter laws. What, if anything, do the results say about the question raised in part (a)?
- c) Do you believe the results in Table 1? Assess the validity of the results in the table by discussing how well or poorly the model meets the assumptions necessary for valid parameter estimates and hypothesis tests. How would you improve the model? How does the theoretical question of market or government failure raised in part (a) pertain to the validity of the results in part (b)? That is, consider whether there might be a connection between economic and political rationales, at least in this example.

Table 1: Factors Affecting the Degree of Flexibility in State Charter School Laws

<u>State politics</u>	
Government Ideology (100=liberal)	-.01 (.004)
Governor is Republican	-.24 (.16)
Republican % in state legislature	.0003 (.01)
Percent of public sector unionized	-.01 (.003)
<u>State context</u>	
Years since first charter law	.002 (.02)
Charter law has been revised (yes=1)	.26 (.11)
Percent school-aged children white	.005 (.004)
Percent state population in poverty	.01 (.02)
State population (actual #)	.03 (.01)
Constant	3.46 (.51)
F-score	8.84
p-value	<.01
Adjusted R-square	.50
Number of clusters	39
N	77

Robust standard errors in parentheses. OLS estimates with clustered robust standard errors. States with multiple revisions appear more than once in the dataset. Observations are clustered by states to account for these repeated observations.

III. a) Why do markets fail when there are externalities? What is the market and social optimum in the presence of these market failures? (Diagrams will probably help, if they are properly labeled.) In your answer, consider:

- Positive externalities of consumption
- Positive externalities of production
- Negative externalities of consumption
- Negative externalities of production

- b) Do these distinctions matter theoretically?
- c) Considering only taxes and subsidies, does it matter theoretically whether you tax unwanted behavior, or subsidize desired behavior? Does it matter theoretically whether you tax/subsidize consumers or producers? (Use diagrams to support your answer.)
- d) Considering only taxes and subsidies, does it matter politically whether you tax unwanted behavior, or subsidize desired behavior? Does it matter politically whether you tax/subsidize consumers or producers? (Use diagrams to support your answer.)
- e) How would you test one of your conjectures regarding either political or economic consequences empirically? Briefly describe a feasible research design.

IV. Citing and using relevant literature, write a mini-essay on each of the following topics:

- (a) Why democracies are efficient;
- (b) Why democracies are inefficient..

Then, describe an empirical test of these contending theories using either the American states as units of analysis, or nation-states (or a subset of nation-states) as units of analysis.

Your empirical test can be general, or it can apply to the provision of a particular type of government service (e.g., education, environmental regulation, criminal justice, social services, etc.)

V. Citing and using relevant literature, write a mini-essay on each of the following topics:

- (a) Why bureaucracies (in democracies) are efficient;
- (b) Why bureaucracies (in democracies) are inefficient..

Then, describe an empirical test of these contending theories using either the American states as units of analysis, or nation-states (or a subset of nation-states) as units of analysis.

Your empirical test can be general, or they can apply to the provision of a particular type of government service (e.g., education, environmental regulation, criminal justice, social services, etc.)