

PhD Policy Comprehensive Exam  
Fall 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.

improving? What, if any, would be a politically feasible response (in a democracy) that might be also be Pareto improving?

Econometric Analysis: Whether poverty creates terrorism is fundamentally an empirical question. Abadie (2006) tested the hypothesis using data from a cross-section of some 150 nations.

Without going into detail on the specifics of the measurement of the main concepts, the list below briefly describes the variables that Abadie used. The table presents OLS results from two models. (For purposes of this exercise, your response should focus on results, not measurement, unless there is a blatant problem of measurement.)

Focusing on the results from both models, what do the results say about the connection between poverty and terrorism? What do the results say about the other variables? Do you believe the results? (Focus on the parameter estimates and hypothesis tests for the main theoretical variables, including poverty and governance.) How, if at all, would you improve the design and/or method of analysis?

How do the results, if they are credible, affect your response to the policy question above?

### The variables

#### *Dependent variable:*

World Market Research Center (WMRC) Global Terrorism Index (assesses risk of terrorist attack in 2003-4 both in country, and for country interests abroad, for 186 countries; encompasses 5 factors forecasting motivation, presence, scale, efficacy, and prevention of terrorism) ( Scale is 10-100, high value is greater exposure to risk).

#### *Scale of Independent variables:*

GDP (gross domestic product) per capita 2003 (in current US \$)

Lack of political rights (Freedom House Index, 2003)

(1-7, high value is absence of political rights)

Linguistic fractionalization

(probability that two individuals chosen from same country at random belong to different linguistic groups; ranges from 0-1)

Country area (million square km.)

Elevation (average elevation from sea level in 100 meters)

Fraction of country in tropical weather (0-1)

Table of results: Terrorism and Country Characteristics (OLS)

Dependent variable: log of WMRC Global Terrorism Index

Independent Variables	Parameter est. (Heteroskedasticity-robust std. error)	
Log GDP per capita	-0.168 (.034)	-.040 (.049)
Lack of political rights		.198 (.114)
Lack of political rights squared		-.020 (.013)
Linguistic fractionalization		.356 (.185)
Country area		.045 (.013)
Elevation		.015

(b) What theories of policy choice would be useful in explaining why some nations (or states within the U.S.) select different and often non-optimal forms and/or levels of environmental policy? Consider in your answer theories of rent seeking, election incentives, matters of institutional design, and other theories that might be relevant. Cite relevant literature. Briefly discuss how you would test these theories in the context of examining variation across states or nations in the form and/or level of environmental policy, and specify your theoretical equation(s). (In your discussion, you

It is estimated that there are from eight to twelve million illegal immigrants now living in the United States, including about 80,000 from nations connected to terrorism. There are two major sets of goals which proposed legislation seeks to accomplish. The first is to enforce current law and protect national security. The second goal is to deal with these and future immigrants in a practical and humanitarian way as well as helping to minimize any labor shortages.

Supporters of comprehensive immigration legislation, asked for

\*an opportunity for hard-working immigrants to regularize their status and become

lawful permanent residents and eventually United States c4(rd)JTJ71ETBT1 0 0 1 90.024 612.58 Tmingic.98

the U.S.? (Discuss federal, state and local intervention separately if necessary.) If there is market failure (or multiple failures), what would be a Pareto improving