

**Instructions:**

**First field: Answer I and II, and either III or IV.**

**Second field: Answer I and II.**

**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, effective and efficient, or to tradeoffs among those values. Or it could relate to theoretically important disputes (for example, about government or market failure, or about cooperation versus individual self-interest). Discuss the theory or theories that motivate 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 or an important contribution to current research? 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 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;
- \*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 getting 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:**

**II.1) Economics**

Prior to 1973, the military relied on a combination of volunteers and conscripts to meet its personnel requirements. The institution of the All Volunteer Force (AVF) in 1973, largely viewed as a response to problems with the Vietnam era draft, forced the military to compete with the private sector for its workforce. Recent conflicts in Afghanistan and Iraq have strained the capacity of the armed forces, resulting in a shortfall of qualified personnel, and highlighting the

need for additional troops. The question of a return to the draft has not disappeared from the policy and political agenda.

From the perspective of economic efficiency, is the draft an appropriate response to a market failure, a government failure, or both? Should the US government continue to meet its military personnel requirements with an all-volunteer force? Or is a return to the draft warranted?

## II.2) Statistics

An empirical study of the relationship between enlistments into the military, unemployment and pay reported the results shown in the regression table below. The study was based on quarterly data from each of the fifty states in the US from January 2000 to January 2004. Although not reported in the table, the researcher included state fixed effects and a time trend.

The dependent variable was the number of signed entry level enlistment contracts. These contracts are typically signed by male, high school graduates between the ages of 18 and 20. The independent variables included:

- U The state unemployment rate of all males aged 16-19
- WM Average weekly pay for first year enlistees in the military
- WP Average weekly pay for 18 year old males in the state's private sector
- S A dummy variable indicating the state is a southern state

The study resulted in the regression output reported below:

	Coefficient	t-statistic
U	34.7	4.1
WM	18.3	1.3
WP	-9.45	-1.2
S	12.1	3.6

Adj-R<sup>2</sup> = .74

F-prob .0021

- a. What do the results in the table above tell you about the impact of unemployment and pay on enlistment? What, if any, are the implications of the results for increases in military pay as a means of addressing enlistment shortfalls?
- b. Do you believe the results reported in the above table? Specifically, do you believe the parameter estimates? The significance test results? Discuss how well or how poorly the model above meets the assumptions necessary for valid parameter estimates and hypothesis tests.
- c. How could you improve the model?

## II.3) Program Evaluation

Describe how a randomized field experiment might be used to examine the impact of level of pay on enlistments in the military, or to compare the impact of different types of compensation

packages (e.g., lower pay, more benefits; higher pay, fewer benefits). What would the experiment look like? What statistical model would you use to estimate program impact? Then describe how a quasi-experimental design might be used to accomplish this same task. What type of quasi-experimental design would you use, and what statistical model would you use to estimate program impact? Briefly comment on the validity and feasibility of each design, and compare them to the likely validity and feasibility of your improved non-experimental model above, from II.2c. Based on your comments, which of the three approaches would you pick?

### **Question III: Implementation**

Writing in 1975, Erwin Hargrove referred to the study of policy implementation as a “missing link” in public administration and policy research, urging an increase in comparative case research on this topic. Two decades later, Malcolm Goggin and his colleagues (1990) argued that only large-N statistical studies could advance our understanding of policy implementation beyond proverbs. Now, nearly four decades later, Paul Pierson (2004) argues that policy research in general, and implementation in particular, is best characterized as “links gone missing” because of the dominance of quantitative methodologies in our field. In an essay informed by references to the three generations of policy implementation theory, discuss the logic, merits, and shortcomings of each of these positions.

### **Question IV: Health Policy and Politics**

Consider the market and nonmarket failures in U.S. health policy. Your answer must use the outline below (supplemented with diagrams of market supply and demand, including labels). You may consider health policy in general, or health policy that applies to a specific group (or state, like Massachusetts). Regardless of your choice, answer the following questions. Your response should demonstrate your ability to apply analytical tools of policy analysis to a specific policy issue.

- A. Describe the current policy that you are considering
- B. Market failure/success
  - 1) In the absence of government, what, if any, market failure(s) would characterize the supply of and/or the demand for health care?
  - 2) What, if any, would be a theoretically preferred (if not optimal) policy response(s)? (i.e., Pareto improving if not Pareto optimal)
- C. Non-market (government) failure/success
  - 1) Given the presence (or absence) of government, what, if any, is/are the type(s) of non-market failure (or success) that characterize current policy?
  - 2) What political factors account for disparity (or, possibly, conformity) between the current and a theoretically more optimal policy? In your answer, use existing theory and evidence

about the characteristics of voters/citizens, interest groups, politicians, and unelected officials (especially in executive agencies) in terms of their likely preferences and the institutional "rules" that affect their behavior and preferences.

- D. Briefly consider what we do not know about health policy (or policy management) that might help to inform current debates or issues. In other words, develop a (brief, near-term) research agenda for health policy (or health policy management) research.