

Florida State University College of Criminology and Criminal Justice

Ph.D. Comprehensive Examination in Research Methods, Fall 2009

Instructions:

There are four sections to the exam. Answer one question from each section. You have until 4:00 PM to finish. If you have problems with the exam, you may consult with faculty proctoring the exam: Kevin Beaver (Room 322), 8:00-10:00 AM; Bill Bales (Room 324), 10:00 AM to Noon; Brian Stults (Room 317), Noon to 2:00 PM; Gary Kleck (Room 306), 2:00-4:00 PM. Please notify Margarita Frankeberger (Room 216) when you are finished and ready to have your exam answers printed out. *Please note:* Once a student takes possession of the examination at start of the exam period, this constitutes an attempt at taking the exam, regardless of whether the student completes the exam, hands in any answers, or remains for the full exam period.

I. Research Design

1. One of the most pressing issues when conducting evaluation research is that unless subjects are randomly assigned to an experimental group that receives the “treatment” or a control group that does not, there may be some variable (or set of variables) that may determine who is selected for treatment that may also affect the outcome. Thus, the units that are treated may be very different from those not treated on a set of one or more characteristics that affect both their selection into treatment and their outcomes. Describe how researchers have dealt with this “selection bias” problem. Additionally, summarize an evaluation study (one that has been completed or one you conceptualized) and explain how the study tried to address the problem of selection bias.
2. Spuriousness always represents a threat to any statistically significant associations. Discuss the ways that researchers attempt to rule out spuriousness. Design a research project where you specify how you would reduce the possibility that your findings could be explained away in terms of spuriousness.

II. Data Gathering Methods

3. Describe the relative strengths and weaknesses, along as many dimensions as you can think of, of the following major survey research modes: face-to-face (personal), telephone, mail, and Internet.
4. Many scholars have observed an association between neighborhood disadvantage and crime. Compare and contrast the ways in which qualitative and quantitative researchers might study this relationship. Discuss each approach in terms of its epistemological assumptions, data quality concerns (e.g. validity and reliability), and generalizability. How might the choice of a qualitative versus a quantitative approach affect the nature of the research question? Do you believe that one or the other approach (qualitative or quantitative) is better for developing *causal* explanations? Support your case.

III. Statistics

5. One type of causal relationship involves threshold effects. Here, changes in X do not produce changes in Y until a certain threshold of X has been reached. (1) Describe a crime theory where a plausible case can be made for a threshold effect and describe what precisely the effect would likely be. (2) Discuss how you would go about statistically testing for the existence of a threshold effect. (3) Discuss the implications for the theory should a threshold, rather than linear, effect exist (assuming that the theory posits a linear effect). (4) Identify the potential policy implications associated with a threshold effect rather than a linear effect.

6. You are conducting a sentencing study in which you have the following sentencing outcomes: prison, jail, probation, and house arrest. You also have measures of a host of independent variables including age, race, gender, current offense, prior convictions, income level, employment, etc. Your goal is to determine whether there are differences in punishment outcomes across racial groups. How would you apply both binary logistic regression and multinomial logistic regression to your data to understand the correlates of at least two different sentencing outcomes? What advantages and disadvantages are there to each of the statistical approaches you take in your study?

IV. Data Interpretation

7. Interpret the findings of the research report titled "Linking Childhood Exposure to Physical Abuse and Adult Offending," as if you were writing the Findings, Discussion, and Conclusion sections of the article. Critically assess the research.

8. Interpret the findings of the research report titled "Strain, Crime, and Contingencies," as if you were writing the Findings, Discussion, and Conclusion sections of the article. Critically assess the research. [Note that this article presents results from tobit regression analyses. Correct interpretation does not require knowledge of tobit regression - you may interpret the tobit regression coefficients as if they were OLS coefficients.]

