Florida State University College of Criminology and Criminal Justice Ph.D. Comprehensive Examination in Research Methods and Statistics, Fall, 2018 Day One of the Exam, October 31, 2018: 8:30am to 12:45pm

INSTRUCTIONS

Answer one question from each of the two sections below. Please notify the proctor when you are finished. Please note: Once a student takes possession of the examination at the 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. DATA GATHERING METHODS

<u>Question 1</u>: (1) Describe a quasi-experimental study of a community policing initiative. (2) Describe a qualitative study of the same initiative. 3) What would need to be done to ensure that each study produced credible results? (4) What would be the relative strengths and weaknesses of each study?

<u>Question 2</u>: Researchers often prefer experimental designs with random assignment, but they are often concerned about limits to external validity with this approach. Explain why this is a concern, then describe all the ways you can think of to reduce the concern.

II. RESEARCH DESIGN

<u>Question 3</u>: Self-report surveys are frequently used in criminological research. Discuss the strengths and weaknesses to self-reports, paying particularly attention to measurement, error, and the estimation of covariance across self-reported measures.

<u>Question 4</u>: (1) What steps should be taken to "clean" administrative records data prior to analysis? (2) What steps should be taken with data fields that have a large amount of missingness? (3) In what ways might you be able to augment the administrative records data?

Florida State University College of Criminology and Criminal Justice Ph.D. Comprehensive Examination in Research Methods and Statistics, Fall, 2018 Day Two of the Exam, November 1, 2018: 8:30am to 12:45pm

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III. STATISTICS

<u>Question 1</u>: Describe the method of propensity score matching. How does this method strengthen causal inferences? What are some of the key decisions that need to be made? What are its weaknesses? Provide a brief real-world example of how it might be used in criminology and criminal justice research.

<u>Question 2</u>: Describe why it is inappropriate to use ordinary least squares regression when the dependent variable is non-normally distributed. Explain some of the correct statistical techniques that can be used with non-normally distributed dependent variables.

IV. DATA INTERPRETATION

<u>Question 3</u>: Interpret the findings of the attached article by McNeeley et al. This means that you should tell what the results mean with respect to the goals of the researchers and what they were trying to find out, just as if you were writing the Results and Discussion/Conclusion sections of the journal article. Do not merely repeat in words what is already shown in numbers in the tables. What conclusions would follow from the results? What problems with the methods might undermine or weaken these conclusions?

<u>Question 4</u>: Interpret the findings of the attached article by Peguero. This means that you should tell what the results mean with respect to the goals of the researchers and what they were trying to find out, just as if you were writing the Results and Discussion/Conclusion sections of the journal article. Do not merely repeat in words what is already shown in numbers in the tables. What conclusions would follow from the results? What problems with the methods might undermine or weaken these conclusions?