### Florida State University College of Criminology and Criminal Justice Ph.D. Comprehensive Examination in Research Methods and Statistics, Spring 2022

# DAY 1 OF THE EXAM

#### **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. RESEARCH DESIGN

- 1. Present a study that uses survey data from a representative sample and interview data from a non-representative sample. Justify how your study provides a scientifically credible assessment of your topic and how the two sources of data can be combined to yield greater insight than one or the other data source. In addition, explain the limitations of your study and how the results of it can, or cannot, be used to inform theory and policy.
- 2. Select any topic in criminology and criminal justice and identify a research question that could be addressed. Develop a research design that addresses the research question. Describe your design in a way that can be understood by those with a thorough understanding of research methodology, but who may not have a specialized knowledge of the particular area of research you have chosen. Be sure to discuss and justify the methods of data collection, operationalization of key variables, and statistical method of analysis. What are the strengths and limitations of your proposed research design?

## II. DATA GATHERING

- 3. Researchers often use more than one mode of survey data collection for a single research project. Describe this concept of a mixed-mode (sometimes called multi-mode) survey. Now imagine that you want to conduct a survey of Tallahassee residents to examine their perceptions of the police. Select two survey modes that could be combined as a mixed-mode survey during this single phase of data collection. Explain how these two modes would be used together, and describe the reasons for doing so. What are the advantages and disadvantages of this approach compared to using a single mode of survey data collection?
- 4. Hagan once wrote that self-report research in criminology is the study of "delinquency, not crime." Discuss the main issues that might arise when self-reports are used in studies of serious offending. Describe any remedies for these issues.

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## **DAY 2 OF THE EXAM**

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## III. STATISTICS

- 5. In examining the relationship between two variables, X and Y, researchers often consider the potential role of a third variable, Z. This third variable can relate to X and Y in a number of different ways, including as a mediator, a moderator, and a confounder. Define what is meant by these terms. Then, provide an example of each, drawing on the criminological literature. Finally, identify the most appropriate statistical approaches to test for these different relationships.
- 6. In regression-based statistical frameworks, we often "control" for potential confounding variables. Provide a detailed description of what it means to "control" for a variable particularly when using ordinary least squares regression.

## IV. DATA INTERPRETATION

- 7. Interpret the findings of the attached article by Svensson et al. (2010). 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?
- 8. Interpret the findings of the attached article by Kurtz and Zavala (2017). 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?