



Multi-Subject Assessment of Public Forensic Science Knowledge

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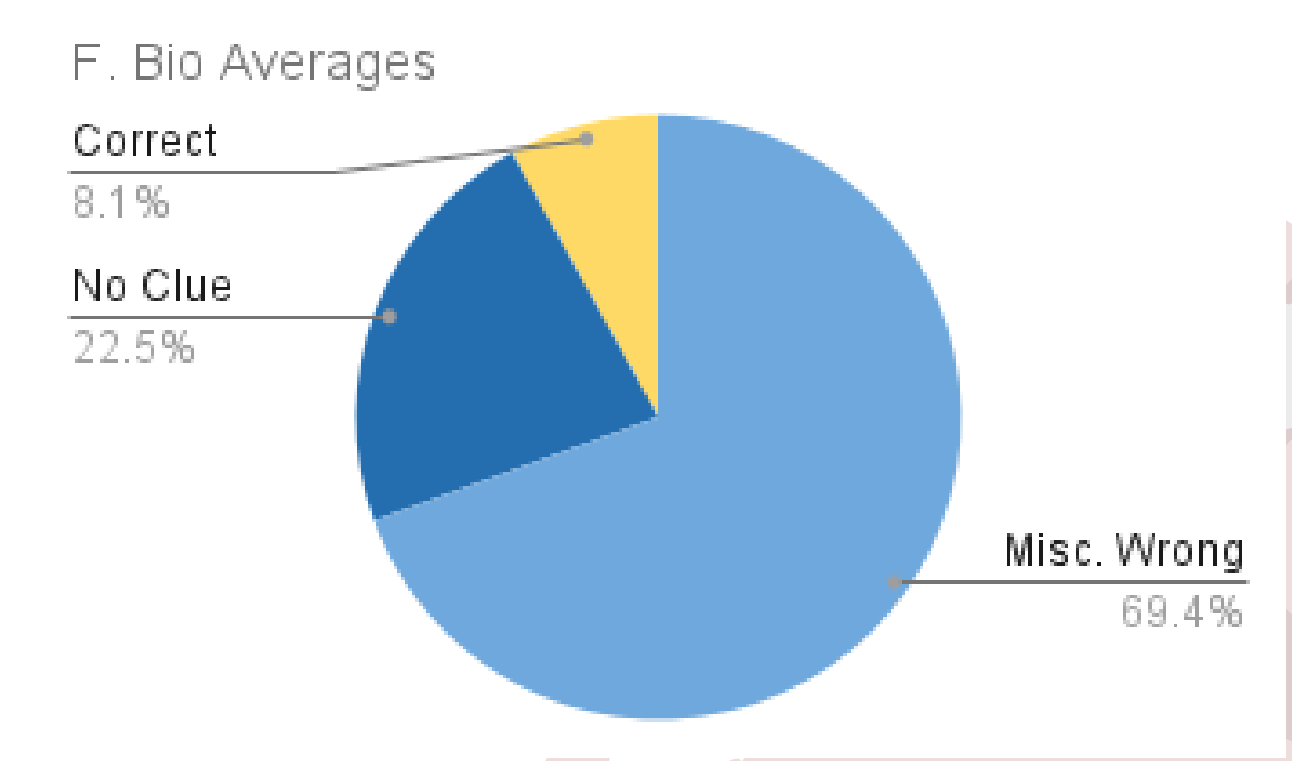
Background and Abstract

One of my mentors from toxicology shared that they are told to assume the jury has somewhere between a 5th-9th grade education, and to explain every topic when giving their expert testimony on the stand as such. This figure shocked me, and I assumed that it was wrong. Surely the general public can understand more than that! This inspired the research project you have before you. Although numerous studies¹ have been done on the CSI effect- the inclination of juries to want more concrete forensic evidence in order to convict- none have yet been done on what exactly the general member of the United States public actually knows about the evidence they so heavily rely on to keep their courts just- if they know anything at all!

Methodology

A survey was taken by 120 respondents with 17 questions relating to 6 main forensic disciplines. Of the 17 questions, 11 were free response, 3 were yes/no, 2 were select all that apply, and 1 was multiple choice. Each section had at least one free response question. The data was separated by if the respondent had taken a class prior to the survey, then the percentage of wrong answers was totaled for each question.

Results

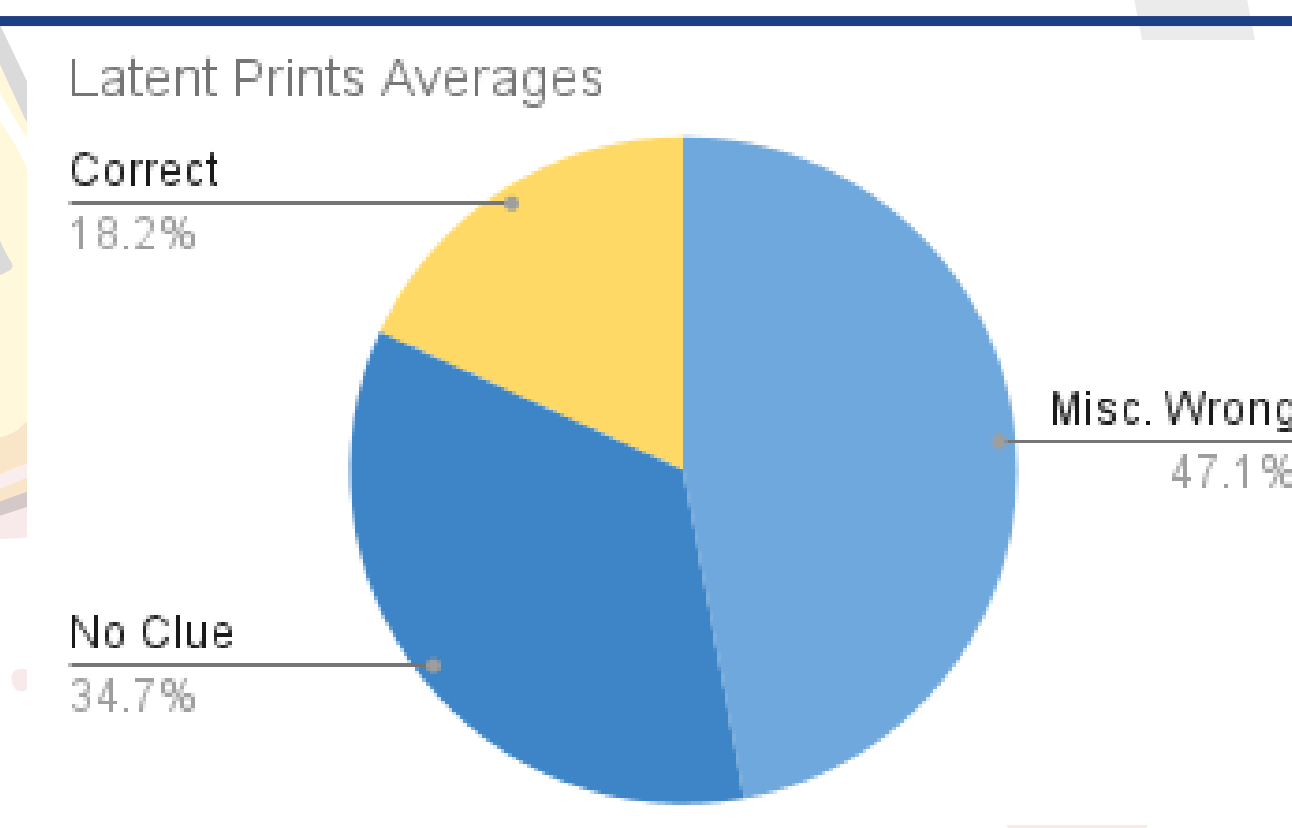
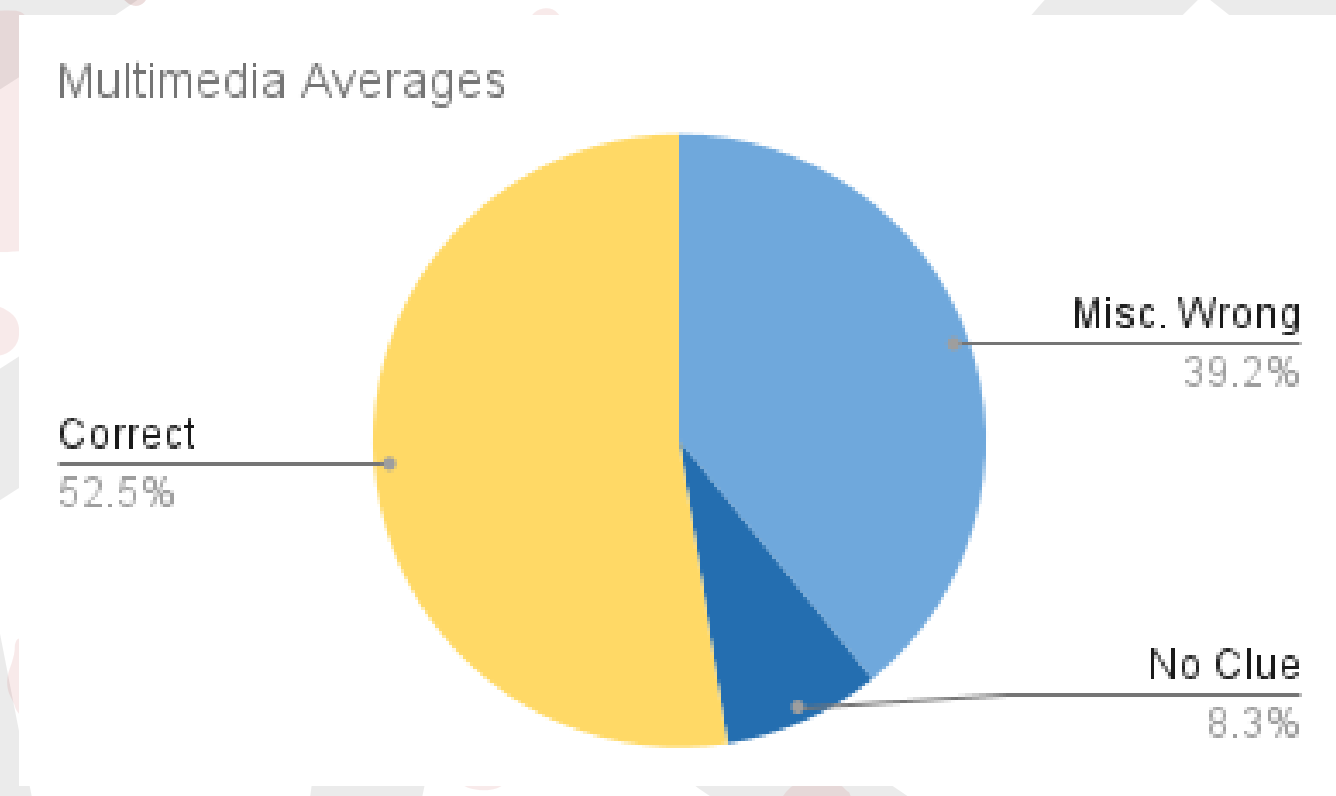


Forensic Biology

This was the section with the most missed questions.

Multimedia

This was the section that had the least missed questions, but it also had the least free-response questions.

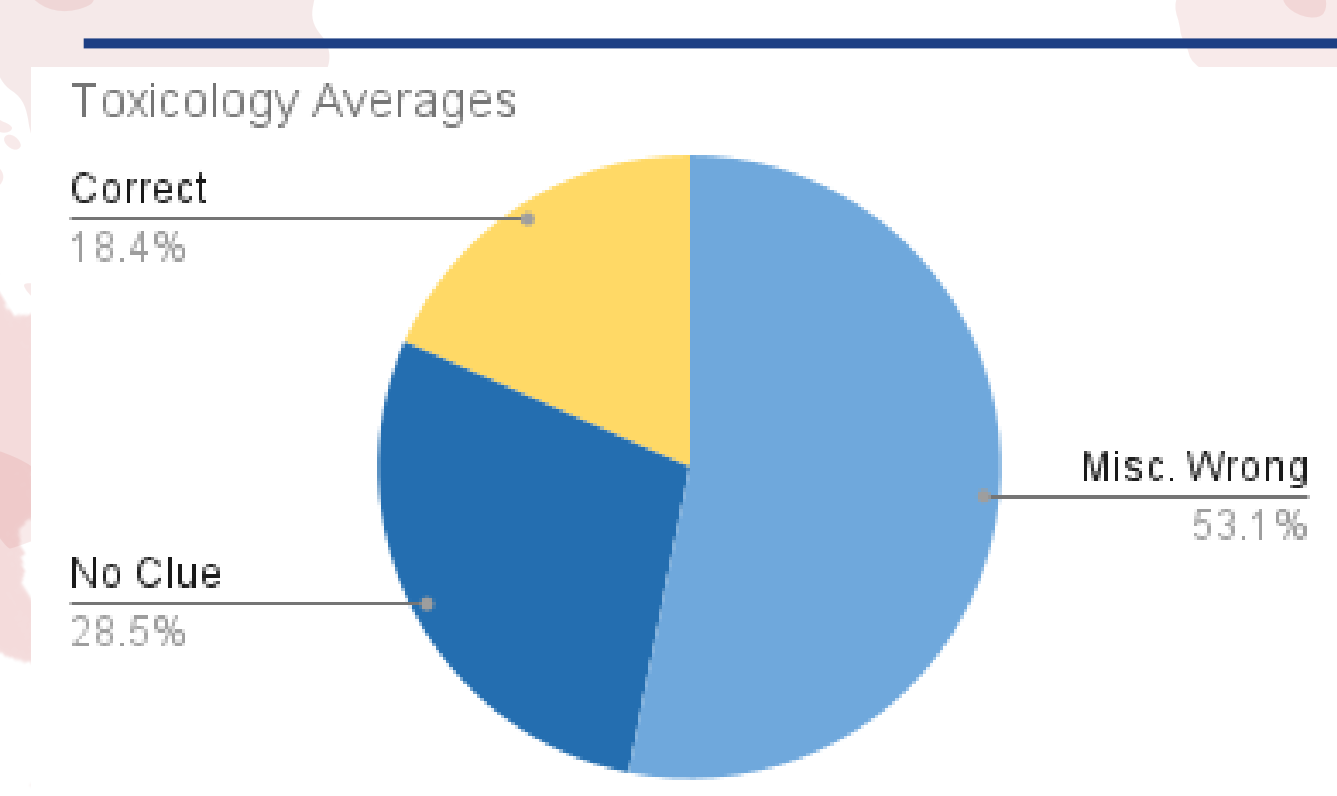
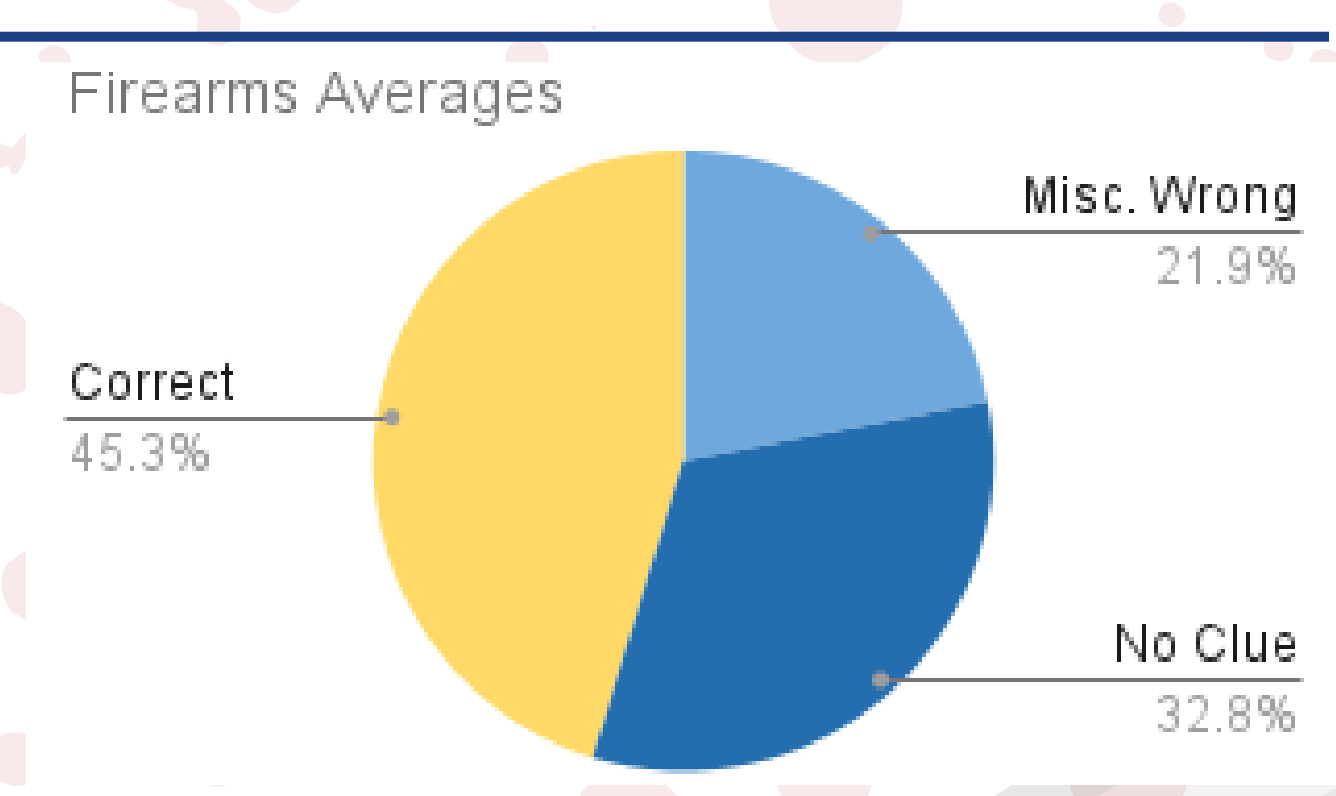


Latent Prints

This section had a potential *trick* question that may have skewed the numerical data.

Firearms

This section surprised me with the amount of knowledge people had on firearm uniqueness.

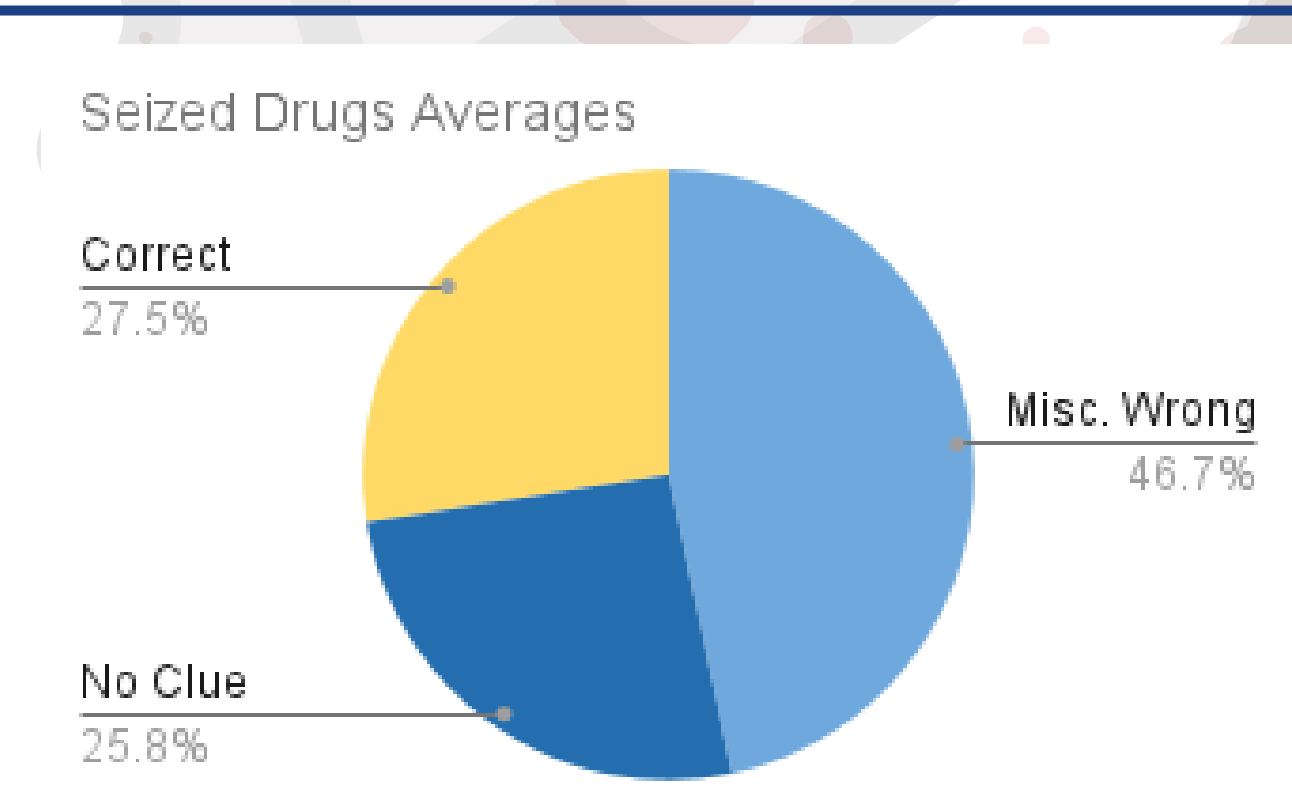


Toxicology

This one had a question relating more to a perception of lab work rather than function of it, but the data is still the mean for this study.

Seized Drugs

This section only had 1 question, but its ratio of wrong: right answers is representative of most of the other individual questions within other sections on average.



Discussion and Implication

Overall, my hypothesis was proved correct because in 4/6 sections that were covered by the survey, over 50% of the respondents got the questions wrong. Surprisingly, Each section had a considerable amount of people who not only got the question wrong, but didn't know where to begin answering. This was a big enough trend for me to track it throughout every question. Furthermore, I found that those who have been through a forensic science curriculum did not perform notably better on any of the questions, which I was not expecting based on personal experience.

Although the efficacy of public education campaigns is another topic entirely, this data will direct future efforts to target areas where more specific help to public knowledge is needed, such as forensic biology, toxicology, and latent prints. This survey was designed to ask questions that are basic to the understanding of modern forensic practices, but there was potential bias introduced due to the author of the questions having insider knowledge.

Your Turn!

As part of my personal mission to spread the forensic science love, scan the QR code to try your hand at multiple choice versions of the survey questions the research participants had to answer! I hope you learn something new!

