Project Title: Project U - Research on Lawyers, Jurors, and the Evaluation of Forensic Evidence

Major Accomplishments:


Impact:

Unpacked how jurors respond to information about limitations of forensic techniques, including error rates, likelihood rations, and through proficiency, as well as work on quantitative expressions of conclusions. Informed ALI Principles, training for lawyers, and standards discussions, as well as judges. Publications for forensic practitioners, judges, and in law reviews.
CSAFE 1.0 Accomplishments

Project Title: Analysis of Forensic Testimony and Reports

Major Accomplishments:

• Completed collection and analysis of baseline of probabilistic reporting in forensic reports in 4 in-scope disciplines
• Completed survey of friction ridge examiners on attitudes toward probabilistic reporting with more than 300 responses in cooperation with the Defense Forensic Science Center.
• Completed survey of crime laboratory directors on probabilistic reporting.
• Began project of coding the cases involving forensic science contained in the National Registry of Exonerations, the nation’s authoritative data repository of exonerations in cooperation with the Innocence Project.

Impact:

Title: Evaluating Lay Perceptions of Forensic Evidence (Project I)

Major Accomplishments:

- Multiple peer-reviewed publications
- Questionnaires and jury simulation studies
- Participants recruited online and from jury pools
- Commentaries in law reviews and professional publications for judges
- This work has influenced discussions (OSAC and elsewhere) of how best to present results in reports and testimony
As new probabilistic and statistical methods are developed they must be implemented by the forensic community.

CSAFE is focused on research to facilitate the implementation of methods and to identify best practices for their use.

Relevant research topics and goals:
Best ways to communicate statistical conclusions (both verbally and graphically),
Understanding the barriers to widespread implementation
Best practices for forensic practitioners, lawyers and judges.
CSAFE 2.0 Projects and Lead Investigators

**IMPL I** - Evaluating Lay Perceptions of Forensic Evidence
Lead PI: Brandon Garrett (Duke), Bill Thompson (UCI)

**IMPL III** - Understanding the Barriers to Accepting Probabilistic Methods
Lead PI: Simon Cole (UCI)
Project Title: Project IMPL I - Evaluating Lay Perceptions of Forensic Evidence

Proposed Activities:

1. Efforts to better understand, as a foundational matter, how laypeople evaluate forensics
   - More realistic, ecologically valid designs. Up-to-date terminology. Deliberation studies.
     • Work in progress: Garrett, Brandon L, Scurich, Nicholas, & Crozier, William, How Jurors Evaluate Firearms Evidence
     • Garrett, Brandon L, Kukucka, Jeff, & Crozier, William, Blinding and Jury Evaluation of Forensic Evidence
     • Garrett, Brandon L; Mitchell, Gregory, Creating Reasonable Doubt in Fingerprint Identification Cases: Substantive and Methodological Rebuttals by Defense Experts (under submission)

2. Testing new interventions, such as new language from OSAC, jury instructions, role of lawyers
   • Thompson, assessing lay reactions to new footwear reporting language

3. Develop model recommendations for how to express forensic results in testimony, to inform standards, judicial rulings, legal approaches towards litigating forensics

Potential Impact:
Developing empirical base for standard reporting language, judicial approaches, and training for lawyers
Project Title: Understanding the Barriers to Accepting Probabilistic Methods

Proposed Activities:

• Undertake sociological study of forensic statistics using social scientific methods, such as interviews, participant-observation, and ethnography, and history of science, such analyses of scholarly debates conducted through published literature.
• Replicate survey of practitioner attitudes toward probabilistic reporting for other in-scope pattern disciplines.

Potential Impact:

• Facilitate the adoption of statistical applications by enabling a better understanding of the organizational cultures of the forensic service providers that will have to adopt them.
• Enhance non-statisticians’ understanding of the statistics discipline and the nature of the applications it is seeking to implement with a sociological account of the discipline.
Project Title: Evaluating Lay Perceptions of Forensic Evidence

Proposed Activities:
More elaborate and realistic studies of how communication of forensic science findings is affected by:

- Characteristics of the messenger and message (e.g., nature of testimony; lawyers’ arguments; graphics)
- Characteristics of audience (e.g., education; numeracy)
- Greater involvement practitioners in identification of research questions and preparation of experimental materials

Potential Impact: This work will be directly relevant to ongoing efforts to standardize and improve reporting practices in pattern matching disciplines.
Resources and Needs

- More outreach to lawyers, judges, forensic practitioners
- Please participate in surveys and experiments.
- Please consider starring in them!
- We look forward to your suggestions and feedback!