



F6 Bringing Science Back: Strengthening the Foundation of Fingerprint Examination

Henry J. Swofford, MSFS, 4930 N 31st Street, Forest Park, GA 30297*

After attending this presentation, attendees will have a greater understanding of what it means to demonstrate scientific validity, the issues surrounding the litigation of fingerprint evidence, and a way forward for the forensic fingerprint community to navigate toward a stronger scientific foundation.

This presentation will impact the forensic science community by discussing the current issues and a path forward for the forensic fingerprint discipline to demonstrate scientific validity in the wake of the highly critical Report by the President's Council of Advisors on Science and Technology (PCAST).

Fingerprint evidence has been admissible in legal proceedings for more than a century and has been practiced by nearly every forensic laboratory throughout the world. Once viewed as the gold standard of forensic evidence, the fingerprint discipline, along with nearly every other forensic discipline, is experiencing a great deal of turbulence as it navigates through the criticisms from the National Research Council (NRC), PCAST, and several other professional working groups and academic commentators. Although the forensic fingerprint discipline was determined to be foundationally valid by the PCAST Report in 2016, questions still remain regarding the validity of the methods when applied to a specific case at hand. The primary concern is the legal field's inability to assess the reliability of fingerprint comparison results for a given case at hand without validated statistical data concerning the strength of the findings, thus bringing into question the scientific validity of fingerprint evidence and threatening its admissibility in criminal courts. These concerns have stimulated a great deal of healthy debate within the forensic fingerprint discipline regarding how forensic science laboratories can move forward in light of these criticisms and demonstrate the applied validity of their methods so they may continue to serve the criminal justice community.

This presentation will provide a candid assessment of the current state of the forensic fingerprint discipline through the lenses of scientific validity, discuss existing gaps between the current state of the practice and the ideal future state, and propose a way forward for the forensic fingerprint community to navigate toward a stronger scientific foundation. As a result, forensic science leadership and criminal and civil litigators will have a much better understanding of the issues related to traditional practices of fingerprint examinations, become familiar with recently developed tools and technologies that can be leveraged by forensic science laboratories to promote more objective, transparent, and standardized practices, and become better positioned to advocate for appropriate improvements within their respective jurisdictions.

The opinions or assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the United States Department of the Army or United States Department of Defense.

Fingerprints, Validity, Science