Forensic Science NAS Report

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"Bad Record" Case

- Expert not certified,
- Laboratory not accredited,
- Never formally tested by a neutral proficiency examination,
- Could not cite any reliable error rates for technique,
- No reference materials of any specificity, no national or even local database on which he relied.
- No notes or pictures memorializing his past.
  - U.S. v. Green, 405 F. Supp. 2d 104 (D. Mass. 2005).

Another "Bad Record"

- Expert did not make any sketches or take any photographs, adequate documentation was lacking,
- "Until the basis for the identification is described in such a way that the procedure performed by [the examiner] is reproducible and verifiable, it is inadmissible under Rule 702."
- An independent 2d examiner had not confirmed the identification.
  - U.S. v. Monteiro, 407 F. Supp.2d 351, 374 (D. Mass. 2006).

Prosecution Response

- Accreditation of laboratory
- Certification of examiner
- Association of Firearms and Toolmark Examiners
- National Institute of Standards & Technology (NIST)
- Scientific Working Groups e.g., SWIGFIRE

Limitations on Testimony

- "Many other district courts have similarly permitted a handwriting expert to analyze a writing sample for the jury without permitting the expert to offer an opinion on the ultimate question of authorship."
  - U.S v. Oskowitz, 294 F. Supp. 2d 379, 384 (E.D.N.Y. 2003)
- Demonstrative chart comparing handwriting. E.g., Lindbergh & Oklahoma City bombing cases.

- Expert permitted to testify only that it was "more likely than not" that recovered bullets and cartridge cases came from a particular weapon.
  - U.S. v. Glynn, 578 F. Supp. 2d 567 (S.D.N.Y.) (firearms examination).

NAS Report criticized

- "exaggerated" testimony (Report at S-3)
- claims of perfect accuracy (*Id.* at 1-10),
- infallibility (*Id.* at 3-15), or
- zero error rate. (*Id.* at 5-12).

"Zerro Error Rate"

- "Testimony at the *Daubert* hearing indicated that some latent fingerprint examiners insist that there is no error rate associated with their activities . . . . This would be out-of-place under Rule 702."
  - U.S v. Mitchell, 365 F.3d 215, 245-46 (3d Cir. 2004).

"Absolute Certainty"

- "examiners testified to the effect that they could be 100 percent sure of a match. Because an examiner's bottom line opinion as to an identification is largely a subjective one, there is no reliable statistical or scientific methodology which will currently permit the expert to testify that it is a 'match' to an absolute certainty, or to an arbitrary degree of statistical certainty."
  - U.S. v. Monteiro, 407 F. Supp.2d 351(D. Mass. 2006).

"Scientific"

- Excluded use of terms such as "science" or "scientific," due to the risk that jurors may bestow the aura of the infallibility of science on the testimony.
  - U.S. v. Starzecpyzel, 880 F. Supp. 1027, 1038 (S.D.N.Y. 1995).

"reasonable scientific certainty"

- Could not be used due to the subjective nature of the opinion.
  - U.S. v. Glynn, 578 F. Supp. 2d 567 (S.D. N.Y. 2008).
- Has no scientific meaning.
- Legal meaning is ambiguous at best.
  - Sometimes confidence statement
  - Hair sample probably came from the defendant and not that it possibly came from him. State v. Holt, 246 N.E.2d 365, 368 (Ohio 1969).

- Testimony meets the relevancy standard of Federal Rule 401.
- No requirement in Federal Rules that an expert's opinion be expressed in terms of "probabilities."
- "There is no such requirement."
  - U.S. v. Cyphers, 553 F.2d 1064 (7th Cir. 1977) (hair samples found on items used in a robbery "could have come" from the defendants).

- Burke v. Town Of Walpole, 405 F.3d 66, 91 (1st Cir. 2005) (used in an arrest warrant):
- “a standard requiring a showing that the injury was more likely than not caused by a particular stimulus, based on the general consensus of recognized [scientific] thought.” Black's Law Dictionary 1294 (8th ed.2004) (defining “reasonable medical probability,” or “reasonable medical certainty,” as used in tort actions).

Weight Attacks

- Learned Treatise Hearsay Exception:
  - Fed. R. Evid. 803(18).
- Called to attention of expert witness upon cross-examination or relied upon by the expert witness in direct examination,
- statements contained in published treatises, periodicals, or pamphlets on a subject of . . . science

Learned Treatise

- Established as a reliable authority
  - by the testimony or admission of the witness or
  - by other expert testimony or
  - by judicial notice.

- "If admitted, the statements may be read into evidence but may not be received as exhibits."

Judicial Notice

- "A judicially noticed fact must be one not subject to reasonable dispute in that it is . . . capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned." Fed. R. Evid. 201

- Mandatory upon request.