

The NAS Report, Forensic Science and the Law

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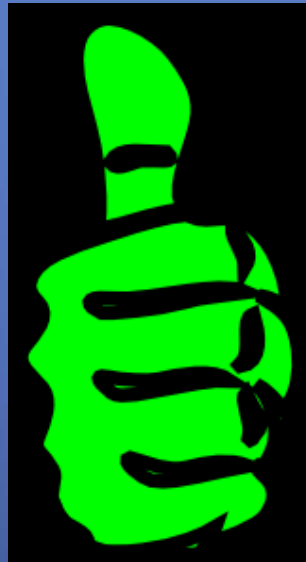
Forensic Science for the 21st Century

The NAS Report and Beyond

Sandra Day O'Connor College of Law

April 4, 2009

Generally,



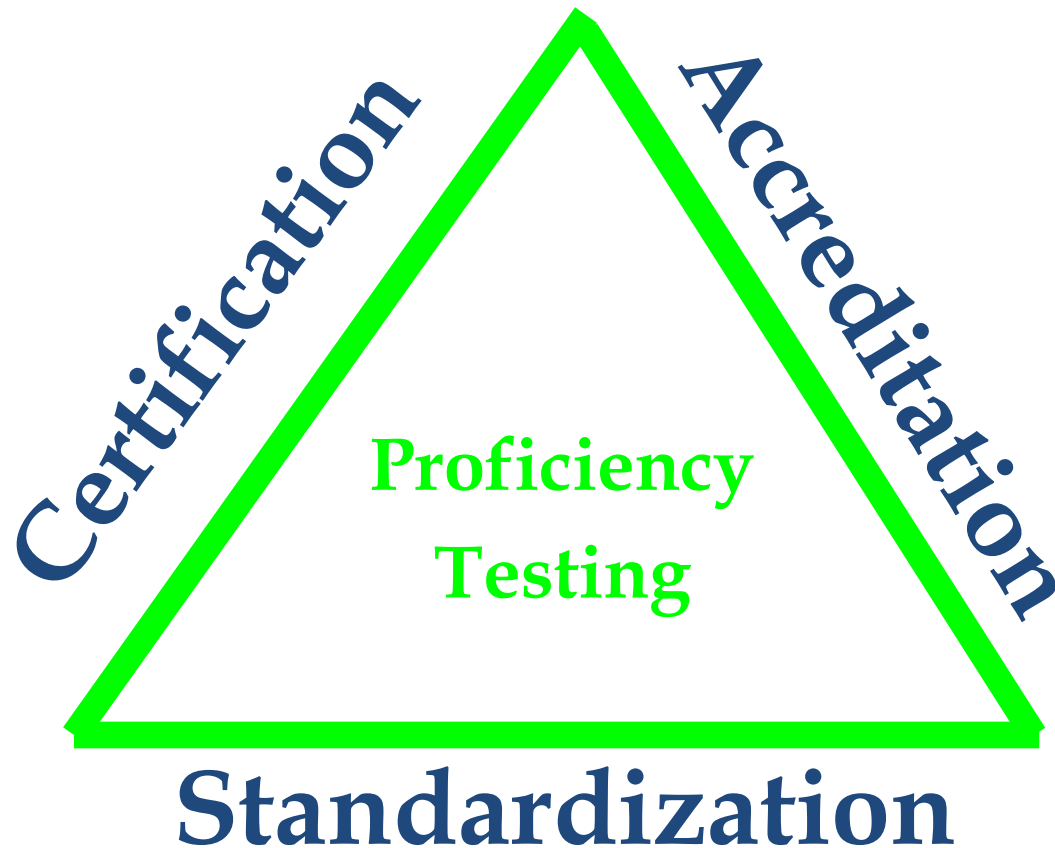


CIVIL



CRIMINAL

The Quality Triangle in Forensic Science



ABA House of Delegates August 9 and 10, 2004

“RESOLVED, That the American Bar Association urges federal, state, local and territorial governments to reduce the risk of convicting the innocent, while increasing the likelihood of convicting the guilty, by adopting the following principles:

1. Crime laboratories and medical examiner offices should be **accredited**, examiners should be **certified**, and procedures should be **standardized** and published to ensure the validity, reliability, and timely analysis of forensic evidence.

ABA House of Delegates August 9 and 10, 2004

2. Crime laboratories and medical examiner offices should be **adequately funded**.

ABA House of Delegates August 9 and 10, 2004

3. The appointment of defense experts for indigent defendants should be required whenever reasonably necessary to the defense.

ABA House of Delegates August 9 and 10, 2004

4. Training in forensic science for attorneys should be made available at minimal cost to ensure adequate representation for both the public and defendants.

ABA House of Delegates August 9 and 10, 2004

5. Counsel should have competence in the relevant area or consult with those who do where forensic evidence is essential in a case.

However,

Scores?

There are **scores** of talented and dedicated people in the forensic science community, and the work that they perform is vitally important.

(One hopes they meant to say countless scores)





Location of NIFS

In the end analysis, however, NIST did not appear to be a viable option. It has a good program of research targeted at forensic science and law enforcement, but the program is modest. NIST also has strong ties to industry and academia, and it has an eminent history in standard setting and method development. But its ties to the forensic science community **are still limited**, and it would not be seen as a natural leader by the scholars, scientists, and practitioners in the field.

Location of NIFS

To facilitate the work of the National Institute of Forensic Science (NIFS), Congress should authorize and appropriate funds to NIFS to work with the National Institute of Standards and Technology (NIST), in conjunction with government laboratories, universities, and private laboratories, and in consultation with Scientific Working Groups, to develop tools for advancing measurement, validation, reliability, information sharing, and proficiency testing in forensic science and to establish protocols for forensic examinations, methods, and practices.

Much of the required
“new” infrastructure
already exists.

Accreditation:

ASCLD-LAB,
A2LA, others

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Certification:

ABC, ABFA,

ABFDE, ABFO,

ABMDI, ABP,

ABPN, ABFT,

IAAI, IIFES, NAFI

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IAAI, IIFES, NAFI

Standardization:

SWG's
ASTM E-30

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ABMDI, ABP,
ABPN, ABFT,
IAAI, IIFES, NAFI

Standardization: SWGs

ASTM E-30

Ethics: ASCLD-LAB
Guiding Principles
(2008)

Narrow focus:

Who dunnit?

Narrow focus:

What happened?



Cause of Death

Cause of Fire

Specifically related to
Fire Investigation

...much more research is needed on the natural variability of burn patterns and damage characteristics and how they are affected by the presence of various accelerants. Despite the paucity of research, some arson investigators continue to make determinations about whether or not a particular fire was set. However, according to testimony presented to the committee,¹¹⁸ many of the rules of thumb that are typically assumed to indicate that an accelerant was used (e.g., “alligatoring” of wood, specific char patterns) have been shown not to be true.¹¹⁹ — Page 5-35

Better than nothing!

No person (public or private) should be allowed to practice in a forensic science discipline or testify as a forensic science professional without certification.

– Page S-19

Why

“What happened?”

is at least as important as

“Who dunnit?”

The science starts on day 7,
or week 7, of the trial.

This is a monstrous act. So the **first** thing that the state proves is that the defendant is a monster.

By the time the science is addressed, the jury already hates the defendant.

In all prosecutions involving **arson**, unless the cause of **the fire** is stipulated, the State shall have the burden of proving beyond a reasonable doubt that the **fire was incendiary** prior to any evidence being presented regarding the guilt or innocence of the defendant.

In all prosecutions involving **death**, unless the **cause of death** is stipulated, the State shall have the burden of proving beyond a reasonable doubt that the **cause of death was criminal** prior to any evidence being presented regarding the guilt or innocence of the defendant.