

panel, and that any proficiency test that is not successfully completed be immediately reported to ASCLD/LAB along with a corrective action plan. To retain accredited status for a full five-year term, a laboratory must continue to meet the standards under which it was accredited. One of the means by which ASCLD/LAB monitors compliance is by reviewing proficiency testing reports submitted by approved test providers.

According to the 2002 BJS census,<sup>33</sup> 274 of the 351 publicly funded laboratories were engaged in proficiency testing. Proficiency testing was slightly less common among smaller laboratories and those serving municipal jurisdictions (8 laboratories did not engage in such testing, and 69 did not answer the survey question). Among the laboratories engaged in proficiency testing, almost all use declared tests. Slightly more than half engaged in proficiency testing use random case reanalysis. Twenty-six percent of the laboratories engaged in proficiency testing use blind tests. In addition, the BJS survey reported that almost all laboratories engaged in proficiency testing used tests that were generated externally (thus allowing comparative analysis). In addition to external tests, 74 percent of laboratories engaged in proficiency testing also used internally generated tests. Data on proficiency testing were not collected for the 2005 census.

## CERTIFICATION

The certification of individuals complements the accreditation of laboratories for a total quality assurance program. In other realms of science and technology, professionals, including nurses, physicians, professional engineers, and some laboratorians, typically must be certified before they can practice.<sup>34</sup> The same should be true for forensic scientists who practice and testify. Although the accreditation process primarily addresses the management system, technical methods, and quality of the work of a laboratory (which includes the education and training of staff), certification is a process specifically designed to ensure the competency of the individual examiner.

The American Bar Association has recommended that certification standards be required of examiners, including “demanding written examinations, proficiency testing, continuing education, recertification procedures,

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<sup>33</sup> Peterson and Hickman, op. cit.

<sup>34</sup> T. Ortelli. 2008. Characteristics of candidates who have taken the Certified Nurse Educator: CNE examination: A two-year review. *Nursing Education Perspectives* 29(2):120; P. Nowak. 2008. Get IT-certified: Having employees with the right certifications can help dealers and integrators qualify for business and gain access to IT networks. *Network Technology* 38(3):123; S. Space. 2007. Investigator certification. *Issues in Clinical Trials Management* 8(2):73.

an ethical code, and effective disciplinary procedures.”<sup>35</sup> In addition to improving quality, certification programs can enhance the credibility of certificate holders. An excellent description of the certification process is contained in the following excerpt from the National Association of Medical Examiners (NAME) Web site:

In general, certification boards consist of respected professionals in a particular area of professional practice who develop standards for education, training, and experience that are required before one can become ‘certified’ in a particular professional discipline. Successful completion of a written and/or practical examination is also usually required. In essence, ‘certification’ usually means that a particular individual has completed a defined course of education, training, and experience, and has passed an examination prepared by peers which demonstrates that the individual has obtained at least the minimum level of competence required to practice the specific discipline. A number of ‘Certification Boards’ exist for people in various scientific disciplines. . . .<sup>36</sup>

The professional forensic science community supports the concept of certification. ASCLD recommends that laboratory managers support peer certification programs that promote professionalism and provide objective standards. In 2002, the Technical Working Group on Forensic Science Education recommended certification of an individual’s competency by an independent peer-based organization, if available, from a certifying body with appropriate credentials. In addition, IAI supports certification of forensic science practitioners.<sup>37</sup>

Some organizations, such as the American Board of Criminalistics (ABC), offer examiner certification programs, but some certification organizations appear to lack stringent requirements.<sup>38</sup> In response, the American Academy of Forensic Sciences has formed a Forensic Specialties Accreditation Board to accredit certifying organizations. Organizations are invited to participate if they meet established requirements, such as periodic recertification, a sufficient knowledge base for certification, a process for providing credentials, and a code of ethics.<sup>39</sup> Currently accredited boards include:

- American Board of Criminalistics

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<sup>35</sup> American Bar Association, op. cit., p. 7.

<sup>36</sup> See [http://thename.org/index.php?option=com\\_content&task=view&id=80&Itemid=41](http://thename.org/index.php?option=com_content&task=view&id=80&Itemid=41).

<sup>37</sup> K.F. Martin, President, IAI. Presentation to the committee. September 19, 2007.

<sup>38</sup> See M. Hansen. 2000. Expertise to go. *ABA J.* 86:44-45; E. MacDonald. 1999. “The Making of an Expert Witness: It’s in the Credentials.” *Wall Street Journal*. February 8, p. B1.

<sup>39</sup> See FABS Standards for Accrediting Forensic Specialty Certification Boards at [www.thefsab.org/standards\\_20070218.pdf](http://www.thefsab.org/standards_20070218.pdf).

- American Board of Forensic Document Examiners
- American Board of Forensic Toxicology
- American Board of Medicolegal Death Investigators
- Board of Forensic Document Examiners
- International Institute of Forensic Engineering Sciences

IAI also has established certification programs in:

- Bloodstain Pattern Analysis
- Crime Scene Investigation
- Footwear
- Forensic Art
- Forensic Photography/Imaging
- Latent Print
- Tenprint Fingerprint<sup>40</sup>

Other certification programs exist for (but are not limited to) the following forensic science disciplines:

- Document Examination (The American Board of Forensic Document Examiners [ABFDE])
- Drug Analysis, Fire Debris Analysis, Molecular Biology, Trace Analysis, and General Criminalistics (ABC)
- Firearms and ToolMark Identification (Association of Firearm and ToolMark Examiners [AFTE])
- Forensic Odontology (The American Board of Forensic Odontology [ABFO])
- Forensic Pathology (The American Board of Pathology [ABP])
- Toxicology (American Board of Forensic Toxicology [ABFT])

Each of these entities has specific educational, training, and experience requirements, including a series of competency tests—both written and practical—and participation in proficiency testing, and provide continuing education/active participation by means of publication, presentation, and membership in professional organizations.

### OVERSIGHT AS A REQUIREMENT OF PAUL COVERDELL FORENSIC SCIENCE IMPROVEMENT GRANTS

One way of enforcing quality control is through the conditional funding of programs. The *Justice for All Act of 2004* (P.L. 108-405) that created

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<sup>40</sup> K.F. Martin, President, IAI. Presentation to the committee. September 19, 2007.