

US Senate Committee on the Judiciary regarding “Strengthening Forensic Science in the United States”

Eric Buel’s response to Committee questions resulting from his testimony on this subject on September 9, 2009:

1. *Dr. Buel, you testified that “the resources necessary to make [the highest level of forensic science services available to all victims of crime] have not been provided to the State and Local crime labs” and you go on to urge Congress to ensure that “Federal budgets [are] adequate to provide funding to improve capacity to promote long-term improvements, facilitating backlog reductions of State and Local laboratories.” What do you think is an appropriate Federal/State & Local mix for forensics funding? Would you support a 50/50 match requirement for Federal grants to states?*

Response: The Vermont Forensic Laboratory is very appreciative of the federal funding received in support of the laboratory. Federal funds support training and continuing education, overtime for backlog reduction, and the purchase of supplies, new equipment and instrumentation. These funds have been essential as state funds have not been provided to meet these laboratory needs. I know my peers also understand the importance of federal support to all forensic laboratories across the country, many of whom also serve states that have not provided forensic funding for capacity building. I know from personal experience that we have not applied for certain federal grants due to “match” requirements. Those grants that require matching funds will not be a viable source of funding for our laboratory since new funds to support the match would not be available for any grants in the immediate future. I am certain that our laboratory would not be the exception in this regard. I would respectfully recommend that federal support not be tied to a match requirement.

Many of the federal programs which support the expansion and improvement of forensic laboratory services aid federal law enforcement and provide interstate cooperation. National databases,

whether they include DNA, fingerprint or firearm information, allow faster identification and interruption of interstate crime. This is a national goal that would be difficult to achieve if state participation was tied to the availability of matching funds. If the federal government feels that it is necessary to require matching funds for certain grants, I would suggest a phased approach to allow states to slowly acquire matching funding over an extended period of time. It is also imperative to note that many federal law enforcement agencies rely upon state and local laboratories for forensic services.

.
Congress can use the work of the Bureau of Justice Statistics (BJS) in their “Census of Publicly Funded Forensic Crime Laboratories, 2005” as a basis to support the funding mix for building capacity within our forensic laboratories. An appropriate funding level could be estimated based upon the cases received by an agency. For example, the 2005 BJS census reported that Federal forensic laboratories received only 4% of the total number of cases submitted to forensic labs with the remaining 96% evenly split between State & Local forensic laboratories. This data, albeit dated, could be of use in determining the appropriate funding mix to Federal / State & Local agencies. Reliance upon the BJS for timely information may be problematic as their 2005 report was not published until July of 2008. Annual and timely assessment reports detailing the needs of State and Local crime laboratories and forensic science providers is critical and must be included in legislation to accurately address the requirements of the community to perform necessary duties. From such an assessment one could evaluate changes which have occurred since 2005 when the largest case backlogs were in controlled substances (51%) and latent prints (16%), with DNA at 9%. The BJS report also demonstrated a 24% increase in cases submitted to crime labs from 2003 to 2005. I am confident that the case increase was much higher from 2005 to 2009, but we do not have those statistics on a national scale. From this BJS report we see that there is a significant need to fund multiple disciplines in order to reduce backlogs and a necessity to address laboratory

capacity. Without applying a dual approach to this funding problem, we will never improve the capacity of the lab to address the increase in case submissions and the problems of backlogs.

2. *Dr. Buel, you testified that you “support the establishment and congressional funding of National Research Committees to perform a comprehensive review of particular forensic disciplines.” How would you go about ensuring that the National Research Committees were not relegated to the same status as DOJ existing Scientific Working Groups (SWGs) that D.C. Circuit Judge Harry T. Edwards described as “of questionable value” because, among other things, their “recommendations are not enforceable”?*

Response: The Scientific Working Groups have developed guidelines and many forensic laboratories follow these as a matter of practice. However, many laboratories may not have the instrumentation or personnel necessary to appropriately implement these guidelines. The NAS report supports nationwide standards and the community can move in that direction but it will take considerable federal support through funding of additional personnel, instrumentation and training to local and state laboratories.

In my testimony of September 9, I mentioned that the process that the DNA discipline went through to obtain standardization could be a model for the other forensic disciplines. Applying the lessons learned from the DNA discipline process could create a path that may build upon the SWG accomplishments to date to develop standards for the community.

Briefly, the DNA discipline saw two NRC reports issued which led to standards developed by the DNA SWG which were then reviewed and finalized by the DNA Advisory Board (DAB). In 1994 the Federal DNA Identification Act outlined the rules under which law enforcement agencies were

allowed to exchange DNA information. These standards established by the DAB were incorporated by accreditation bodies into their audit documents and those laboratories that wanted to load DNA profiles into CODIS had to be audited to these standards and maintain accreditation in order to meet federal guidelines and federal law. Laboratories that failed to maintain accreditation were not allowed to load DNA profiles into CODIS, became ineligible for federal funds to support DNA programs and were therefore open to intense cross examination scrutiny.

With the NAS report we are now in a position to effect similar changes throughout the disciplines of forensic science and to ensure that suitable standards are incorporated and followed by the entire forensic community. One approach would be to have the guidelines already developed by the forensic discipline SWGs reviewed and modified, as necessary, to transition into standards; similar to the process used with the DNA discipline. This approach could be successful if the panel consisted of the proper mix of qualified forensic specialists and academicians. The activities of this panel could be combined into an Advisory Board composed of qualified forensic science practitioners, with assistance from statisticians, academics, and other stakeholders suitable to answer particular technical forensic questions. An Advisory Board with the appropriate members could be charged to answer the technical questions raised in the NAS report and establish suitable standards for the field. The key will be to ensure that they are “qualified” in understanding the various disciplines within forensic science. The Advisory Board could be charged with the following and/or additional duties:

- Coordinate discipline research, literature, and accumulated data and fully vet this material to determine if further research is required.
- Recommend and seek funding for any additional research.
- Promulgate standards for community review, modify as necessary and publish as accepted

standards after community comment.

- Determine needs of the community to implement the standards and recommend necessary funding.

Once the standards are established, they could be made enforceable with mandatory accreditation of all forensic laboratories. Accreditation bodies could incorporate the standards into audit documents and perform assessments to determine compliance with these standards. Those laboratories which fail to meet the standards would no longer be able to achieve or maintain accreditation. By linking federal financial support to mandatory accreditation and database usage (CODIS for DNA, IAFIS for fingerprints and NIBIN for firearms), the quality and standards used by the nation's forensic laboratories could be enforced.

3. *Dr. Buel, your testimony appears to studiously avoid the issue of divorcing forensic laboratories from law enforcement command and control. Do you support the first recommendation in the NAS Report, namely, that “Congress should establish and appropriate funds for an independent federal entity, the National Institute of Forensic Science (NIFS)” and the fourth recommendation that NIFS “must not be part of a law enforcement agency”?*

Response: The criminal justice community would be well served by an organization that directed and facilitated the recommendations found to be appropriate to improve and strengthen forensic science. The creation of a new federal agency, with all the associated costs and time required to “construct” such an arm of the federal government would use considerable funds and resources that would be better spent on forensic science reform. I would look for solutions existing within the federal government to create a division that would conduct the business of a NIFS-like entity without using precious funds that should be reserved for moving forensic science forward.

Recommendation #4 states that laboratories should be removed from administrative control of law enforcement agencies or prosecutor offices, or autonomous within. This has been often misconstrued by the media as physically removing the lab from either of those parent organizations. The reason the Committee recommended this administrative separation is to remove undue influence of the parent organization on the forensic laboratory. Accreditation to ISO 17025 standards addresses this administrative separation. The standards address this on three levels: (i) Parent agency relationships, (ii) Authority of laboratory director, and (iii) Undue influence on all lab personnel. The ISO standards stipulate that the laboratory must “have policies and procedures to avoid involvement in any activities that would diminish confidence in its competence, impartiality, judgment or operational integrity” and that laboratory management must “define the organization and management structure of the laboratory, its place in any parent organization, and the relationships between quality management, technical operations and support services”. Through conformance with the ISO standards a laboratory is required to demonstrate that an appropriate relationship exists. By meeting these standards laboratories can exist and function properly within, yet remain autonomous to, parent organizations while meeting the expectations of the NAS committee report.