

National Commission on Forensic Science

Meeting Summary

February 3–4, 2014

**Office of Justice Programs
810 7th Street N.W., Washington, DC**



NIST
**National Institute of
Standards and Technology**
U.S. Department of Commerce

National Commission on Forensic Science

Meeting Summary

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Office of Justice Programs

810 7th Street N.W., Washington, DC

February 3, Day I

Call to Order at 9 a.m.

Call to Order and Housekeeping Items

Brette Steele, Designated Federal Official

Senior Advisor on Forensic Science and Senior Counsel to the Deputy Attorney General, Department of Justice (DOJ)

Welcoming Remarks

Nelson Santos, Department of Justice (DOJ), and John Butler, National Institute of Standards and Technology (NIST), Vice-Chairs

The two Vice-Chairs welcomed the participants and thanked them for participating in the commission. They acknowledged funding by the Office of Justice Programs (OJP). They then provided an overview of the Commission and briefly looked back at the 5 years since its creation. They emphasized the importance of developing ideas to move the Commission forward and the opportunity to influence the direction of forensic science.

Visions for Improvements

Each of the Commissioners introduced themselves and shared their expectations for the group and what they hoped it would be able to address and accomplish. Following is a list of those expectations.

- Impactful policies
- Quality forensics and science
- Incorporate fundamental science
- Robust statistical approaches
- Credentials and ethics
- Help lawyers understand and increase accessibility to all partners
- Develop a platform to improve the quality of forensics
- Victim assurance and understanding
- Be a vehicle for movement on new ideas and approaches
- Understanding of the application of forensic science in the criminal justice system
- Produce results that can help forensic science
- Basic and applied research, validation of disciplines, measurement standards
- Bring science to the justice mission
- Promote professionalism among coroners and medical examiners

- Distinguish sciences from disciplines
- Education for consumers
- Guidance on documentation
- Moving conversation to action
- Identify standards and conformity assessment needs
- Close the gap between public awareness and reality
- Move issues forward
- Ensure a bridge between science and the legal community
- Vehicle for Interagency Working Group (IWG) work to become public
- Promote clarity of understanding of science and its limitations
- Communication and collaboration with legal community
- Greater role for law enforcement
- Validation and courtroom presentation
- Explain limitations of forensic evidence for victims
- Smart recommendations to improve quality
- Bring academic research to conversations with practitioners, and address cognitive bias
- Solid scientific foundation and better support for attorneys
- Support scientific and statistical foundation
- Accomplish something
- Focus on common ground and move forward
- Accreditation and certification of crime labs and medico-legal death examination

The Federal Advisory Committee Act and the Special Government Employee

Brette Steele

*Senior Advisor on Forensic Science and Senior Counsel to the Deputy Attorney General,
Department of Justice (DOJ)*

Ms. Steele, the Designated Federal Official, provided background information on the Federal Advisory Committee Act (FACA) and the role of the Special Government Employee (SGE). Specifically, she articulated that the meetings are open to the public, and materials provided to and developed by the committee will be made available to the public through a website. Ms. Steele reviewed the bylaws and discussed Commission voting procedures.

Kathleen Silbaugh

Attorney, Office of Government Ethics, DOJ

Ms. Silbaugh addressed ethics and transparency considerations and the reporting obligations of SGEs. She gave an overview of the Federal ethics rules and regulations that are applicable to the members of the Commission. She addressed areas of potential conflicts of interest for Commission members and steps to avoid these conflicts.

Welcoming Remarks

James Cole

Deputy Attorney General, United States Department of Justice

Mr. Cole thanked the group for volunteering their time and expertise. He described the wide range of talents and expertise that the group brings to this effort of advancing the science of forensics and the application of findings and of understanding the foundations and limitations of current practice. He spoke of the importance of standard setting, reducing fragmentation, and bringing together stakeholders.

Mr. Cole briefly reviewed the efforts undertaken since 2009 including the National Academy of Sciences (NAS). He addressed the goals and aims of the Commission in areas of standards development, policy recommendations, and research and development. Mr. Cole's official remarks can be found in Appendix A.

Patrick D. Gallagher, Ph.D.

Director, National Institute of Standards and Technology (NIST) and Acting Deputy Director, United States Department of Commerce

Dr. Gallagher thanked the Commission members for their time and effort. He introduced the partnerships between NIST and the DOJ and commented on the roles of the two organizations as they relate to the Commission. He described NIST's role in measurement science as well as NIST's facilitation of standards development.

Dr. Gallagher described the Commission as the only body in a position to inform both DOJ and NIST. He described a main objective as providing guidance to help to coordinate the efforts of these two institutions. He explained that the makeup of the Commission is deliberate to give the group a unique voice in articulating science perspective in concert with legal and forensic science practitioners to translate scientific findings for the "community of practice."

John Holdren

Assistant to the President for Science and Technology, Director of the White House Office of Science and Technology Policy, and co-chair of the President's Council of Advisors on Science and Technology (PCAST)

Dr. Holdren expressed the President's gratitude that the participants agreed to be involved in this process. He stressed the importance of forensic science to the American justice system. He called on the Commission to address challenges, and stressed that logistical barriers must be overcome. He discussed the work done by the White House Office of Science and Technology Policy (OSTP) (www.ostp.gov) in the area of forensic science. Specifically, he mentioned a series of white papers to be released as a result of these efforts and the value OSTP places on strengthening forensic science in the United States, emphasizing the role of scientific integrity. Dr. Holdren's official remarks can be found in Appendix B.

Comments/Questions and Answers

Q: Could the pathway to implementation of recommendations of the Commission be facilitated by ongoing efforts at NIST?

A: There are a couple of avenues to approach implementation. NIST doesn't work with the community of practice when it makes recommendations about the use of measurement

techniques, but it does facilitate the development of standards and make recommendations on how to implement and conduct measurements. The goal is to have the Commission aid in developing recommendations for the Attorney General to put practices into effect in the Federal criminal justice system. This will become a standard-setting and best practices approach that will advance over time.

Q: Given the nature of the times in which we exist—for example, constraints on financial inputs—how should the Commission approach recommendations for new investments?

A: It's not the job of the Commission to determine if a system is too costly to be feasible. Allocation of resources would be the responsibility of others. That said, suggestions on ways to do things in a more cost-effective manner, are useful.

Q: Does NIST see its role in just the science of measurements, or as taking the measurements and standards and putting them into a language that could be used in the courts?

A: NIST's primary mission involves measurement science. However, NIST also facilitates the development of standards. NIST hopes to work with groups developing standards and on the practical aspects of employing them.

Follow-up question: That is, would the Commission consider how the science is interpreted for the use of judges, lawyers, juries, etc.— or is this a task of the Commission?

A: A task of the Commission is to help translate complex concepts, looking at the science and working to make it understandable to those who would use it.

Q: Do you think that NIST, in supporting the development of documentary standards would also protect the fidelity of research?

A: NIST could provide support on the use of measurements, technical specifications, and research in addition to requirements related to the competency of personnel, and the coordination of the collective effort is important.

Q: What is your take on our position on speaking to the wider audience—e.g., the public or the international community?

A: The Commission could take a hard look at current practices and their use, giving them due consideration in developing best practices, and recognizing what might be required in the future.

Reflections on the Findings of the NRC Committee on Identifying the Needs of the Forensic Science Community

The Honorable Harry T. Edwards

Senior Judge, U.S. Court of Appeals for the District of Columbia

Judge Edwards served as co-chair of the Committee on Identifying the Needs of the Forensic Science Community, National Academies of Science (NAS), whose work was published in 2009. He spoke of the need to look closely at forensic methods and their reliability in order to move forward from the recommendations of the NAS report, which noted a number of areas for improvement. He spoke of the paucity of scientific research, of measures to quantify forensic

examinations, the need for mandatory certification, and the lack of uniform training and oversight of forensic practitioners.

Judge Edwards suggested that judicial review by itself is not enough. Absent meaningful action, courts will continue to allow the introduction of forensic evidence simply because precedent exists to admit it. He spoke of the need for working with the scientific community to change the culture of the judicial community in how it views forensic science.

Judge Edwards discussed the lack of standards as they relate to court cases, and suggested that *Daubert* has not led to significantly meaningful changes. He said the courts will not be able to move beyond the routine admission of forensic science without the input of scientists.

Judge Edwards maintained that the adversarial system of justice is not suited to addressing the validity of science. "We in the justice system need help from those of you who are scientists," he concluded. Judge Edwards' official remarks can be found in Appendix C.

Census of Publicly Funded Crime Laboratories

Matthew R. DuRose

Statistician, Bureau of Justice Statistics (BJS)

Mr. Durose summarized results from the Bureau of Justice Statistics National Survey of Publicly Funded Crime Laboratories, 2002, 2005, and 2009, focusing on the latter year. Data reported includes the types of forensic laboratories, caseloads (by discipline), backlogs, outsourcing, operating budgets, employees, accreditation status, and resource allocation. Mr. DuRose's PowerPoint presentation and the 2009 BJS Report can be found in Appendix D.

Questions and Answers:

Q: Do you break down trace evidence between fiber and hair?

A: Yes, there is a sub-discipline system; more detail is available.

Q: Why is there a decrease in the rate of are blind proficiency tests?

A: It's not known at this time. We will look at 2015 data to see if the decline continues.

Q: Does the survey provide way of assessing the quality of the standards employed?

A: No - it's outside the scope of the study.

Q: Is there a possibility of extending the survey to include police agencies?

A: We are aware of the need, but there are thousands of these types of agencies, and the goal for 2015 is to stick with traditional publicly funded crime laboratories to make sure the data gets completed and back to us in a timely fashion. Covering the police agencies might be suggested as a separate survey.

Accreditation of Forensic Sciences Service Providers

Patricia Manzolillo

Director, U.S. Postal Service Laboratory

Ms. Manzolillo explained what laboratory accreditation involves, including technical and administrative review by a third party. She spoke of the emphasis on using industry standards

and the criteria and procedures that laboratories use, including standard operating procedures, training, and continuing education, among others. She pointed out that voluntary accreditation has not resulted in universal accreditation and outlined the progress made as well as challenges to improvement. Ms. Manzollillo's presentation on accreditation can be found in Appendix E.

Questions and Answers:

Q: How can we support accreditation when the practices and standards employed might not meet the standards we expect?

A: These are separate issues to be addressed.

Q: Do you see a pattern in the movement towards privatization of testing facilities?

A: The analysis related to accreditation didn't specifically address that question.

Q: Explain the process of picking out five cases for casework review?

A: The reason for pulling five cases is to allow the accreditation assessor to become familiar with the institution's standard operating procedures. After that, more cases may be pulled for review should it be required.

Forensic Science Proficiency Testing

Dean M. Gialamas

Director, Scientific Services Bureau, Los Angeles County Sheriff's Department

Mr. Gialamas presented information on the history and described the attributes and objectives of proficiency testing. He explained the various methods of proficiency testing—open, blind, internal, and the role of external and internal resourcing to support proficiency test programs. He outlined requirements in proficiency testing related to accreditation and some of the challenges related to addressing them. He identified issues faced by the forensic science community, proficiency test providers, and the accrediting bodies. He also outlined existing and future issues for the Commission to consider. Mr. Gialamas' presentation can be found in Appendix F.

Questions and Answers:

Q: Any idea about why blind proficiency testing numbers are dropping?

A: No specific data exists, but a primary reason could be due to the logistical complexity of coordinating the submission of casework with external agencies to ensure the test is truly 'blind' to the analyst.

Q: What is the cycle of development of proficiency tests? Is it static, or are changes in technology moving the field?

A: It varies by area; there are many challenges to ensure proficiency tests keep up with current technology.

Q: Are military technology and virtual imaging being used?

A: Not yet, the community is just beginning to look at what possibilities might be available.

Q: How can you verify proficiency with only one test per year?

A: We need to look at the quality systems and the quality review. Proficiency testing is a component of accreditation. If there are problems with a proficiency test, the accrediting body is required to take action.

Q: You mentioned the high cost of proficiency testing. For a blind proficiency test, having an item inserted into a work stream, it wouldn't seem to be a large cost. Could you say more about where the cost is?

A: The 'mock' evidentiary sample has to be created, and then it has to be validated before it is used in a proficiency test scenario. There are many other factors that contribute to the cost of developing a robust external or internal proficiency test.

Q: Would having a prepared test sample made available through a Federal agency like NIST help?

A: There are many complexities - it's not just a matter of having the validated standard sample; it has to be properly presented into the testing regimes to ensure the test is truly 'blind' to the analyst.

Q: Are the current proficiency tests sufficiently rigorous?

A: More at issue is the fact that commercially available tests that can be used for proficiency testing need to truly replicate actual casework. There are limitations related to shipping, packaging, etc., unique to the jurisdiction/laboratory and the type of evidence that would be relevant to the particular testing being conducted.

Forensic Science Certification

Patricia Manzolillo

Laboratory Director, U.S. Postal Inspection Service

Ms. Manzolillo noted that the NAS report recommendations include the mandatory certification of individual forensic science professionals and discussed the work of the National Science and Technology Council's Subcommittee on Forensic Science (SoFS) Interagency Working Group. She explained that *certification* is the recognition, by an independent body, that an individual has acquired and demonstrated specialized knowledge, skills, and abilities in the standard practices necessary to execute the duties of his or her profession; to maintain technical proficiency; and to meet ethical standards of practice. The analysis included consideration for whether existing certification programs are standardized, whether they are accredited, and what gaps exist (not all forensic disciplines/categories of testing have a certification program available). She described considerations for any certification program to include: who should be certified, the minimum requirements to begin a certification process, requirements to maintain and continue professional development, and whether certification should become mandatory or a condition of employment. She indicated that results of analysis concluded that certification bodies should collaborate to develop uniform standards and agree on the essential elements of certification for all forensic disciplines (categories of testing) and that certification should apply to Federal, state, and local government practitioners, as well as to all private and part-time practitioners. Ms. Manzolillo's presentation on certification can be found in Appendix G.

Questions and Answers:

Q: Is there something like Continuing Medical Education credits used for doctors to maintain their license for forensic practitioners?

A: Yes, most of the certifying bodies have continuing educations requirements.

Q: Regarding the costs of the certification process, does your analysis take on the ability of laboratories to pay for it?

A: While we did look at the costs, we didn't specifically look at who assumes the costs associated with certification.

Q: How can we do certifications when the practices and standards and interpretations might not meet the standards we expect?

A: These would be separate issues to be addressed.

Forensic Sciences Research and Development

Michael "Jeff" Salyards

Executive Director, Defense Forensic Science Center, Department of Defense

Dr. Salyards described the differences between forensic and physical sciences and the requirements related to each, addressing the cultural considerations such as collegial versus adversarial interactions. He gave some background on research issues identified in the 2009 NAS report. He broke his presentation into three stages: what we should know, what we could know, and what we don't know. He discussed error rates and measurement uncertainty as areas where clearer understanding related to forensic science applications would be beneficial. He described how interpretation of results could lead to false positives and false negatives—and the importance of the language used to describe findings.

Dr. Salyards talked about the work to develop annotated bibliographies by the SoFS Interagency Working Group and the need to bring together the pertinent research findings integral to the scientific footing in each forensic science discipline as a basis to develop a consolidated research agenda. Dr. Salyards' presentation can be found in Appendix H.

Standards in Forensic Science

Gerald LaPorte

Acting Director, Office of Investigative and Forensic Sciences, National Institute of Justice

Mr. LaPorte described what a standard is, the difference between technical and documentary standards, and the four essential requirements for a robust standards development process as defined by the American National Standards Institute (ANSI). He then gave a historical background of the forensic science Scientific Working Groups (SWGs) and a summary of the work of the SoFS Standards, Practices, and Protocols Interagency Working Group. Mr. LaPorte's presentation can be found in Appendix I.

Oral Public Comment Period (Written public comments can be found on www.facadatabase.gov)

Lynn Garcia, Texas Forensic Science Commission

The Texas Forensic Science Commission was created back in 2005 to investigate problems within Texas crime labs. They require all labs within the state to be accredited. Accreditation is not the only answer, but it is an important step. Their commission investigates but has no enforcement

capabilities. How can we make a difference? They write extensive, detailed reports. “We have come to be a model for the nation. Please involve the states in your work. The vast majority of testing facilities are state, county, and local entities.”

Marvin Schechter, Attorney, National Association of Criminal Defense Lawyers (NACDL)

There are three areas to underscore. First, research into what forensic areas we are talking about. We can’t accredit labs until we know what sciences we are dealing with and the work must be scientifically validated. Documentation of the process is also important, as well as articulating the potential limitations. The ACLU has deep concerns about the state of laboratory accreditation in 2014—is a valid process in place? Lab failures in accredited labs indicate that there is a continuing, deepening crisis.

Peter Marone (Speaking as a private citizen)

Mr. Marone mentioned the importance of getting information and data out from the Commission to the community. He noted that the work of the Interagency Working Groups has not yet been made available to the public. He expressed concern that there tends to be mismatches between Federal and state regulations, which can create difficulties. He cautioned the Commission not to make snap judgments and to be mindful of unintended consequences and impacts on the state and local communities.

Jeremy Triplett, Laboratory Supervisor, Kentucky State Police

Mr. Triplett pointed out the importance of getting feedback from state and local laboratories. “I understand the process here is about Federal labs and the others could follow along,” he said. But he pointed out that over 90% percent of forensic testing occurs outside of the federal laboratory system. He said the Commission needs to consider the needs of the state and local labs and the impact of recommendations on these labs. He suggested the Commission focus on issues of sustainable funding and on enhancing access to funding for research.

Madeline DeLone, Executive Director, The Innocence Project

Ms. DeLone discussed the different issues in forensic science that have led to wrongful convictions. She articulated that courts are not the right place to test scientific hypotheses, stating that, “We believe the test standards should be established long before it gets to the courts.” She urged the Commission to strengthen the scientific foundations of forensic analyses and how the results of analyses are presented in court. High-quality and validated forensic science will result in a system that is more fair and just, she concluded.

Marcus Nashelski, National Association of Medical Examiners

Mr. Nashelski gave some background on his group and what its goals and approaches are in the areas of medical and legal death investigation. He pointed out that the 2009 National Academy of Sciences report provided standards and his association supported these standards. He suggested the use of guiding principles of best practices and accreditation.

Pamela Bordner, American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB)

Ms. Bordner’s group had supplied written comments to the Commission summarizing the work of the association, which represents more than 400 individual crime laboratories. ASCLD/LAB encourages the Commission to have widely promoted public information sessions and supports its collaborative efforts with groups such as the ASCLD/LAB.

Brady Mills, President Elect, American Society of Crime Laboratory Directors

Mr. Mills' organization applauds the creation of the Commission and its aim in continuing the advancements in forensic science. He pointed out that the ASCLD has three of its members on the Commission. The association is eager to provide any information or to cooperate as needed. He asked the Commission to consider state and local labs and to involve more practitioners from those labs; to clarify a plan on comparative sciences and to involve more practitioners; and to address the analysis of digital evidence.

Thomas Bohan, Forensic Specialties Accreditation Board

Mr. Bohan said part of the problem is that not enough people and laboratories have pursued accreditation and certification. He noted that his association already has a structure in place, and, he said, "I hope this is left in place with some oversight." He stressed the urgency of determining what practices are valid and which are not by examining the forensic practices.

Kenneth Martin, International Association for Identification (IAI)

The IAI represents more than 7,000 members and promotes standardization. "We anticipated there would be more forensic practitioners. It is important to include this large community," he stressed. He noted that the IAI has three primary areas of concern: (1) That forensic practitioners be represented in significant portions; (2) that members of the SWGs be involved, as they have a wealth of resources ("We recommend reviewing and implementing these resources from the outset"); and (3) that all the professional forensic societies have representation on the Commission.

Steve Pierson, American Statistical Association (ASA)

The ASA has an ad hoc committee on forensic science that was formed shortly after the NAS report release in 2009. The ASA promotes the use of sound scientific methods. Statisticians are vital for establishing standards and analysis data.

Suggestions for the Commission from the ASA:

1. Define and quantify error rates.
2. Define enforceable mechanisms for recommended guidelines.
3. Encourage discussion with outside groups.
4. Maintain continuity of interaction with various groups.
5. Carefully document each step as part of quality assurance.
6. Change education projects from considering each forensic field as a separate area and, instead, promote understanding as a whole of the scientific process involved.

Edward Bartick, Research Professor, George Washington University

Mr. Bartick emphasized the need for oversight and the important need for research. He said that there is a need for research to provide a statistical basis for forensic procedures, and he asked the Commission to find ways to get this type of research funded.

Meeting adjournment: 4:47pm

Day 2, February 4, 2014

Call to Order at 9 a.m.

Call to Order and Housekeeping Items

Brette Steele, Designated Federal Official

*Senior Advisor on Forensic Science and Senior Counsel to the Deputy Attorney General,
Department of Justice (DOJ)*

Welcoming Remarks

Organization of Scientific Area Committees

Mark Stolorow, Director, Law Enforcement Standards Office, NIST

Mr. Stolorow welcomed the members to the Commission and thanked them for volunteering their leadership and expertise. He began with some information on the NIST structure and its work in research and measurement services, test validation, and the establishment of codes and standards, working in association with large numbers of scientists and associations to advance measurement standards. He listed the various forensic areas that where NIST was actively working.

The purpose of his talk, he said, was to outline the infrastructure that NIST had developed for guidance groups that would replace the current Scientific Working Groups (SWGs)—the Organization of Scientific Area Committees (OSAC). The OSAC decision-making governance consists of Scientific Area Committees (SACs) that report to a Forensic Science Standards Board (FSSB). Each of the five SACs has discipline-specific subcommittees. The five SACs are Biology/DNA, Chemistry/Instrumentation, Crime Scene/Death Investigation, Information Technology/Multimedia, and Physics/Pattern. A Quality Infrastructure Committee (QIC) and a Legal Research Committee (LRC) provide input to the FSSB in developing a forensics science code of practice and a professional code of ethics.

The OSAC will have input from forensic practitioners, legal personnel, and scientific researchers and will work towards standards enforcement. Each of the SACs would have a number of subcommittees related to its area. The SACs will set priorities for subcommittee work and enable a “bigger picture” view on various topics.

NIST suggests that the makeup of subcommittees each have a maximum of 25 members with a distribution of 70 percent practitioner (divided evenly among Federal, 20 percent; state & local, 30 percent; and civil or other levels, 20 percent), 20 percent researchers (including statisticians), and 10 percent research and development technology partners and providers.

Mr. Stolorow said that NIST planned to oversee the structure for 3 to 5 years and then work toward making the organization a stand-alone, self-funded one.

Questions and Answers:

Q: Is this the least complex structure that will meet our goals? Will the SWGs be disbanded?

A: We think that we have achieved a balance of the most simplistic and the most effective. The simplest is just the 21 groups that are currently active, working independently, but is highly inconsistent. This structure is agnostic as to the existing SWGs; various SWGS will continue and perhaps one day merge with OSAC, but they may continue to operate independently if they choose.

Q: What is the role of this Commission in interfacing with OSAC? I don't see this Commission on the flowchart? Will we have input on the structure?

A: Formation of the OSAC is practice oriented, an infrastructure for developing standards and guidelines. A collaborative relationship is envisioned. All the deliverables of OSAC will be made available to the Commission and the public.

There are limitations with how Federal Advisory Committees and how they directly interact with external agency activities, but it can make recommendations and provide input.

Q: Might the governance between SACs and the OSAC inhibit the process? Are all the layers needed?

A: The idea is to add an integrative capacity and provide a process for discipline-specific or subject matter expert contribution to the process.

Q: This is a good structure, and you should be complimented on it. But we also suggest a third human factors guidance group (e.g., related human bias) that would address human factor issues that would include cognitive bias, statements of uncertainty, standard terminology, and reporting or blinding methodologies. These are new, rich areas for research. The work of this Commission could be used by the various SACs.

A: The NIST has experience working on issues related to human factors (specifically in latent fingerprint analyses) and recognizes the importance of these issues in other forensic disciplines.

Q: A query about the slight disconnect between the two-page summary and the Memorandum of Understanding (MOU) between the Justice Department and NIST that talks about the involvement of the Commission.

A: We hope that the OSAC will be quite prolific and productive. The Commission can take up policy issues with the intersection of work products developed by OSAC as it deems appropriate.

Q: Subcommittees seem heavily weighted to practitioners. Might this not lead to rubber-stamping of existing practices without due consideration of the science?

A: It is felt that 20 percent of the committee being researchers should bring the needed input to balance this out.

Q: Regarding the makeup of the LRC, we expressed concern about the policy role of the LRC and whether it impinges on the role of the Commission. Are members of the Commission allowed to be members of the LRC?

A: Members can be on both the Commission and the LRC, but a subcommittee of the Commission cannot directly advise the OSAC.

Q: What thought has been given to the selection of researchers and even of practitioners (since so many labs are police crime labs with law enforcement areas) for the committees?

A: Coordinating and convening, committees need to include adequate representation and to make sure that the scientific research community and the practitioners integrate their work. NIST has the responsibility to make sure the integrity of the science is maintained.

Q: The National Transportation Safety Board (NTSB) committee structure is similar to what is being presented here. It has been proven to be very effective. There is a balance of experts from a variety of areas. My question: Two areas seem to be missing: digital evidence and perhaps management. The question is about how to implement the recommendations. And regarding the suggestion of the structure being independent from NIST in 3 to 5 years: To do that is to go back to where funding sustained funding and infrastructure was always at issue. The commenter suggested NIST should continue to support OSAC into the future.

A: NIST will take that under consideration. We don't intend to outsource this, but we want to avoid an over-dominant Federal role that might become a barrier as to the involvement of states or private sectors. Multi-stakeholder makeup is the key to having this work out.

C: We need a new start; there is a problem with SWGs not getting together to coordinate. Trying to make progress from the bottom up, the current SWGs weren't working. The new structure will help address that.

Q: We need to make something as simple as possible, but no simpler. He echoed comments about the human factors committee being needed. Also there is a need to include digital forensics. This is an excellent paradigm for the Federal level, but most work is done outside the Federal system. The partners who are doing the bulk of the work should be involved, borrowing things that work and scaling them up. I don't see a formal outreach to the partners in this structure.

A: We went to 30 professional organizations. That is part of the outreach that is designed. We aim to have that continued level of outreach.

Q: Good to hear. Perhaps that should be formalized in the document. There is a lot of system engineering that will be required, and that's a different thing than just getting the science right.

A: You are right, and NIST is very aware of that and is reaching out to various partners. NIST did consider having a subcommittee that included lab management. It is a very valid point.

C: I compliment the structure and note that it was directed towards a standards development process. I note that this document allows for that to occur properly. It is not a fast or easy process, and not meant to be either. It needs due process. People may not recognize that the committee can comment on any standard during the process. There is always the opportunity for groups and individuals to have input. The large number of standards may be overwhelming for the Commission, in areas they may not have the expertise to assess. A discipline could have 30 to 40 standards, and the situation gets very complicated. I advise familiarizing yourself with what a standard is and what standards development entails.

C: In the law enforcement world, we work on leads. The leads are not necessarily scientifically based. In the SWGs that has sometimes created some friction. This has to do with utilizing resources effectively.

Q: Why is there a 70 percent practitioner representation in the subcommittees where most of the work is going to be done? In court, the practitioners testifying may express their findings perhaps with too strong a certainty. Are you setting yourself up to have the practitioner perspective dominate?

A: We looked at the model of DNA, there the forensic scientists got involved and collaborated to address the needs of practitioners with various sample problems. That was the basis for how to take the problems and augment with all the stakeholders in a multi-stakeholder process.

A: The thought is that we have the practitioners who know what the problems are, and involve the scientists with the expertise in discrete areas of scientific study, validation, etc.

Q: Compliments to NIST as well on the draft. The question is, where is the line between policy and practice? In terms of deliverables from the Commission, what are they in terms of policy? The question is about our core mission and what we are delivering.

A: Policy statements and views documents can certainly be drafted in response to the work being performed at OSAC such as on issues related to oversight and the uniform adoption of standards. The Commission can't direct or oversee OSAC but can certainly make recommendations for work in certain areas.

Q: So both reactive and proactive? Making recommendations that topics be covered?

A: Yes, OSAC can't wait for input before deciding what should be pursued, but will certainly take recommendations throughout the process to inform the agenda to be considered.

C: Echoing the concern about the human factors. I'm not sure where it fits, but it's a mistake to leave it to each of the individual committees and subcommittees. I understand the complexity, but there are overarching issues, and I think human factors is one of the.... I am also concerned about the 3- to 5-year timeline, concerned about it not being an institutionalized structure and its works could be lost. Finally, I have a concern with the 70 percent practitioner involvement. Not all areas have the basic science as well defined as some such as DNA. I don't mind having a majority of practitioners, but I don't think you need 70 percent of practitioners. The problem is the lack of the science basis in some of these areas and where unscientific statements still may be used. We suggested 60 percent and another 10 percent of scientists. We haven't taken advantage of the scientific community that is out there. I think our work depends on infusing scientific values in the process. These are not currently in the culture in some of the systems.

C: I compliment the impressive body of work.

C: Some of the subcommittee groups may have overlapping interests.

C: I suggest there be some formal means for the various groups to communicate.

Summary of Dr. Patrick Gallagher (NIST) Comments

- Human factors have a cross-cutting function among various committees and subcommittees.
- There will be a 3- to 5-year window, where NIST would direct the process, trying to increase the capacity of the organization. We will take the concerns about that time period to heart.
- On the balance of committee and subcommittee representation, we concur with the concerns about the multi-stakeholder process. NIST is trying to balance the scientific rigor and also include broader groups of participants. A functional balance will be developed and we hope to get to the functional necessity without an overly prescriptive numeric value.

Looking to the Future and Issues Affecting Forensic Sciences in the United States

Nelson Santos, DOJ Vice-Chair

The areas Mr. Santos highlighted were:

- **Oversight:** Accreditation, certification, standardization, code of ethics.
- **Research & Development:** Foundational versus emerging technologies and includes activities such as validation studies. Public/private partnerships; university involvement; and support by NIST and DOJ.
- **Education & Training:** When and where does education and training happen? Initial education versus training to competency and continuing education. Includes more than the forensic practitioner community, also includes officers of the court.
- **Operations and Execution:** Management and organizational governance, policy-based best practices.

Mr. Santos announced that the next meetings of the Commission will be in May, August, and October of 2014.

Comments and Questions from Commissioners, including Suggestions for Additional Subcommittees

- Suggestion for medical-legal subgroup, ideally with at least one member of the Commission as a chair.
- It is hoped we'd continue to give recommendations to the Attorney General over time. This Commission runs out in 15 months in the original Charter; I hope it will be upped for two years and become institutionalized after this.
- Yesterday one of the more controversial areas was accreditation, especially in areas where the scientific basis wasn't strong. As a policy matter it is important to understand the downside of an error. The consequences can be huge, so the tolerance in the legal system might be lower; that would be a policy decision.
- Suggestion for a subcommittee on what to do with the forensic areas with strongly based scientific consensus on what can be used in court and to determine what to do until more scientific-based materials are available. Commenter suggests interim advice to the Attorney General until complete validation is demonstrated.
- Comment regarding accreditation discussion of yesterday. Suggest having a subcommittee to look at current accreditation issues.
- A subcommittee that would be tasked with determining where members of the Federal judiciary are in dealing with forensic issues.
- A subcommittee on standardization of the reporting mechanism, what is required in the system to deal with forensic science. Report writing and communications to investigators and attorneys.
- Query about subcommittees. Is it the people in the room who would populate these, or do we reach out to others? Response: it could be a variety of ways, including both of the above. Several tools are available to attract people. Federal *Register* notices, 40+ forensic societies we can reach out to (over 300 applications were made to this Commission).
- A critical implementation subcommittee. What can we propose right now to go forward? There is some low-hanging fruit out there. How do we change the problems area as soon as possible? Perhaps by saying "We must produce a written report," then making suggestions on the

structure of the report. Proficiency testing may also be a low-hanging fruit. I suggest considering a bigger-picture outlook.

- Subcommittee on report writing and how the report can be used. To develop different types of reports for different situations. Reports should have more information, not less—that should be a priority. There is a need for different types of reports, specifying requirements for their content and how the various reports should be used.
- Subcommittee on ethics and enforceability. This could stand alone or be folded into various committees.
- Lead generation during investigations is a very important area. There needs to be a distinction for forensic analysis things that may lead to admissibility in court as evidence and those that don't.
- Question about the staff support for the Commission. Staffing will be critical if you hope to meet the aspirations expressed here. Response: We don't have a large team, but we are committed to making this Commission work and will look to provide the staffing needed.
- We should think about a more aggressive way of communicating things, and that goes to the staffing issue. Public information is vital to communicate what we are doing.

Summation and Prioritization of NCFS Agenda

DOJ and NIST representatives summarized the comments and suggested that, based on Departmental approval, subcommittees be used as a vehicle to develop recommendations on the major issues identified through the discussion. It was envisioned that members of the Commission would chair and populate each subcommittee, and would be supplemented by individuals external to the Commission for additional expertise, as required. Commissioners expressed interest in serving on potential subcommittees that would be further defined over the next few weeks.

Public Comment Period

Pamela Bordner, ASCLD/LAB

Ms. Bordner described how ASCLD/LAB does accreditation of laboratories and the standards used in these assessments. She described the various attributes that are monitored, and how there is follow-up on whether the labs conform to the ASCLD standards.

Debra Runkle, American Association for the Advancement of Science (AAAS)

Ms. Runkle discussed the AAAS science and law program and AAAS's collaboration with the American Bar Association. AAAS organizes educational symposiums, for example, on advances in neuroscience, and how judges can interpret scientific reports. She discussed AAAS's work related to analyzing gaps in the system. She said AAAS would be willing to discuss opportunities for collaboration in forensic science.

Edward Bartick, Research Professor, George Washington University

Dr. Bartick pointed out that more work is needed in developing statistical bases to represent analytical results, and he added that financial support is needed to do this. He noted that work in the DNA field has led the way, but this work needs to be done in several other areas.

Dennis Hilliard, Director, Rhode Island Crime Laboratory

Mr. Hilliard, a member of one of the SWGs, talked about the role of the SWGs and suggested they be invited to participate, as SWGs have done a lot of work already. He urged the Commission to look at the training of state and local labs, accreditation, and funding. He said accreditation is a good guide, but problems can still arise. He stressed that ethics is what drives the system, and ethics should be considered.

The meeting closed with the DOJ and NIST co-chairs thanking all participants.

Day 2 Adjournment: 1:07 p.m.

Written Public Comments

Written comments provided to Commission members were received from the following:

Lynn Robitaille Garcia and Vincent Di Maio on behalf of the Texas Forensic Science Commission

The Board of the American Society of Crime Laboratory Directors

James Darnell, Melody Buba, and Richard Vorder Bruegge (respectively) on behalf of the Scientific Working Groups on Digital Evidence, Information Technology, and Facial Identification

Keith Greenway on behalf of the American National Standards Institute – American Society for Quality National Accreditation Board

Renee Romero and John Neuner on behalf of the American Society of Crime Laboratory Directors / Laboratory Accreditation Board

Thomas Bohan on behalf of the Forensic Sciences Accreditation Board

Charles Michael Bowers on behalf of Dental and Forensic Services

Stephen Fienberg on behalf of himself

The Innocence Project

Lesley Hammer on behalf of the International Association for Identification

Jerry Cox on behalf of the National Association of Criminal Defense Lawyers

Meeting Attendees

First Name	Last Name	TYPE	Title	Organization
Suzanne	Bell	Commissioner	Associate Professor of Chemistry	Bennett Department of Chemistry, West Virginia University
Frederick	Bieber	Commissioner	Medical Geneticist	Department of Pathology, Bingham and Women's Hospital
John	Butler	NIST Vice-Chair	NIST Fellow and Special Assistant to the Director for Forensic Science	Office of Special Programs, National Institute of Standards and Technology
Thomas	Cech	Commissioner	Distinguished Professor	University of Colorado at Boulder
James	Cole	DOJ Co-Chair	Deputy Attorney General	United States Department of Justice

Cecelia	Crouse	Commissioner	Director	Palm Beach County Sheriff's Office Crime Laboratory
Patrick	Gallagher	NIST Co-Chair	Director	National Institute of Standards and Technology
Dean	Gialamas	Commissioner	Crime Laboratory Director	Los Angeles County Sheriff's Department - Scientific Services Bureau
Gregory	Czarnopys	Commissioner	Deputy Assistant Director	Forensic Services, Office of Science and Technology, ATF
M. Bonner	Denton	Commissioner	Professor	The University of Arizona
Vincent	Di Maio	Commissioner	Consultant in Forensic Pathology	
Troy	Duster	Commissioner	Chancellor's Professor and Senior Fellow	Warren Institute on Law and Social Policy, University of California, Berkeley
Jules	Epstein	Commissioner	Professor of Law	Widener University School of Law
Andrea	Ferreira-Gonzalez	Commissioner	Professor of Pathology	Virginia Commonwealth University
John	Fudenberg	Commissioner	Assistant Coroner	Clark County Office of the Coroner/Medical Examiner
S. James	Gates, Jr.	Commissioner	Regents Professor and John S. Toll Professor of Physics	University of Maryland
Paul	Giannelli	Commissioner	Distinguished University Professor	Case Western Reserve University
Christian	Hassell	Proxy for Commissioner Marc LeBeau	Assistant Director	Federal Bureau of Investigation Laboratory
Barbara	Hervey	Commissioner	Judge	Texas Court of Criminal Appeals
Susan	Howley	Commissioner	Director of Public Policy	National Center for Victims of Crime
Ted	Hunt	Commissioner	Chief Trial Attorney	Jackson County Prosecutor's Office
Linda	Jackson	Commissioner	Director	Virginia Department of Forensic Science
Robin	Jones	NCFS Program Manager	Senior Policy Advisor	United States Department of Justice
John	Kacavas	Commissioner	United States Attorney	District of New Hampshire
Pamela	King	Commissioner	Assistant State Public Defender	Minnesota State Public Defender Office
Gerald	LaPorte	Commissioner	Acting Director	Office of Investigative and Forensic Sciences, National Institute of Justice, Office of Justice Programs
Julia	Leighton	Commissioner	General Counsel	Public Defender Service For The District Of Columbia
Patricia	Manzollilo	Commissioner	Laboratory Director	United States Postal Inspection Service

Bridget Mary	McCormack	Commissioner	Justice	Michigan Supreme Court
Peter	Neufeld	Commissioner	Co-director	Innocence Project
Phil	Pulaski	Commissioner	Chief of Detectives	New York City Police Department
Matthew	Redle	Commissioner	Sheridan County and Prosecuting Attorney	Sheridan County and Prosecuting Attorney's Office
Jeff	Salyards	Commissioner	Executive Director	Defense Forensic Science Center, Department of the Army
Nelson	Santos	DOJ Vice-Chair	Deputy Assistant Administrator	Office of Forensic Sciences, Drug Enforcement Administration
Brette	Steele	Designated Federal Official	Senior Advisor on Forensic Science and Senior Counsel	Office of the Deputy Attorney General, United States Department of Justice
Ryant	Washington	Commissioner	Sheriff	Fluvanna County, Virginia
Jed	Rakoff	Ex Officio	Senior United States District Judge	Southern District of New York
Frances	Schrotter	Ex Officio	Senior Vice President and Chief Operating Officer	American National Standards Institute
Katy	Suchma	Proxy for Ex Officio David Honey	Senior Science and Technology Advisor	Office of the Director of National Intelligence
Kathryn	Turman	Ex Officio	Program Director	Office of Victim Assistance
Mark	Weiss	Ex Officio	Division Director	Behavioral and Cognitive Sciences, National Science Foundation
Matt	DuRose	Presenter	Statistician	Bureau of Justice Assistance
Harry	Edwards	Presenter	Judge	U.S. Court of Appeals for the District of Columbia
John	Holdren	Presenter	Assistant to the President for Science and Technology	Director, Office of Science and Technology Policy
Karol	Mason	Presenter	Assistant Attorney General	Office of Justice Programs, United States Department of Justice
Kathleen	Silbaugh	Presenter	Deputy Director	Office of Government Ethics
Mark	Stolorow	Presenter	Director	Law Enforcement Standards Office, National Institute for Standards and Technology
Susan	Ballou	Public	Program Manager	Law Enforcement Standards Office, National Institute for Standards and Technology
David	Barron	Public	Vice Chair	American Society of Crime Laboratory Directors/Laboratory Accreditation Board
Edward	Bartick	Public	Research Professor	The George Washington University
Thomas	Bohan	Public	Treasurer	Forensic Specialties Accreditation Board

Pamela	Bordner	Public	Senior Accreditation Program Manager	American Society of Crime Laboratory Directors/Laboratory Accreditation Board
Charles Michael	Bowers	Public	Forensic odontologist	Self employed forensic expert
Melody	Buba	Public	Electronics Technician	Federal Bureau of Investigation Laboratory
Ted	Burkes	Public	Forensic Document Examiner	Federal Bureau of Investigation Laboratory
Julie	Burrill	Public	Forensic Scientist	Public Defender Service
Vanessa	Castellanos	Public	Consultant	Booz Allen Hamilton
Richard	Cavanagh	Public	Director, Office of Special Programs	National Institute of Standards and Technology
Sarah	Chu	Public	Forensic Policy Advocate	Innocence Project
Jeffrey	Clemente	Public	Assistant Division Chief	United States Secret Service
Jeffrey	Comparin	Public	Laboratory Director, Special Testing and Research Laboratory	Drug Enforcement Administration
Madeline	deLone	Public	Executive Director	Innocence Project
Gregory	Dutton	Public	Program Manager	National Institute of Justice
M. Chris	Fabricant	Public	Director, Strategic Litigation	Innocence Project, Inc.
Drew	Findling	Public		The Findling Law Firm, P.C.
Lynn	Garcia	Public	General Counsel	Texas Forensic Science Commission
Shimica	Gaskins	Public	Senior Counsel	Department of Justice
Erica	Gersowitz	Public	Criminal Justice Manager	Laura and John Arnold Foundation
Melissa	Gische	Public	Forensic Examiner	Federal Bureau of Investigation Laboratory
Keith	Greenaway	Public	Vice President	ANSI-ASQ National Accreditation Board
Mark	Greene	Public	Program Manager	National Institute of Justice
Michael	Goodman	Public	Trial Attorney, Civil Division	United States Department of Justice
Carey	Goryl	Public	Chief Executive Officer	International Association of Forensic Nurses
Kristine	Hamann	Public	Visiting Fellow	Bureau of Justice Assistance
Diana	Harrison	Public	Supervisory Document Analyst	Federal Bureau of Investigation Laboratory

Chuck	Heurich	Public	Program Manager/Physical Scientist	National Institute of Justice
Dennis	Hilliard	Public	Director	Rhode Island State Crime Laboratory
Mary	Horvath	Public	ITS-FE	Federal Bureau of Investigation Laboratory
Spencer	Hsu	Public	Investigative Reporter	The Washington Post
Katharine	Huffman	Public	Principal	The Raben Group
Alice	Isenberg	Public	Section Chief, Biometrics Analysis	Federal Bureau of Investigation Laboratory
John Paul	Jones	Public	Program Manager	National Institute of Standards and Technology
Donya	Khalili	Public		Independent
Ken	Kroupa	Public	Deputy Director Defense Forensics	Department of Defense
Beth	Kroupa	Public	Member	American Society of Crime Laboratory Directors
Beth	Lavach	Public	Legislative Liaison	Consortium of Forensic Science Organizations
Mary Lou	Leary	Public	Principal Deputy Assistant Attorney General	Office of Justice Programs, United States Department of Justice
Deborah	Leben	Public	Laboratory Director	United States Secret Service
Peter	Marone	Public	Chair	Consortium of Forensic Science Organizations
Kenneth	Martin	Public	Past President	International Association for Identification
Willie	May	Public	Associate Director for Laboratory Programs	National Institute for Standards and Technology
Mark	Mayes	Public	Lieutenant	Kentucky State Police
Anne-Marie	Mazza	Public	Director, Committee on Science, Technology, and Law	National Academy of Sciences
Brian	McVicker	Public	SWGTHREAD Vice Chair	Federal Bureau of Investigation Laboratory
Brady	Mills	Public	President-Elect	American Society of Crime Laboratory Directors
Randi	Moore	Public	Senior Associate	The Raben Group
Megan	Moloney	Public	Attorney	Federal Bureau of Investigation
Robert	Morgan	Public	Director , Standards Development	ASTM International
Douglas	Murphy	Public	Physical Scientist / Forensic Examiner	Federal Bureau of Investigation Laboratory

Marcus	Nashelsky	Public	Vice President	National Association of Medical Examiners
Cary	Oien	Public	Forensic Sciences Manager	Federal Bureau of Investigation Laboratory
Charles	Painter	Public	Senior Vice President for Government Services	E-merging Technologies Group, Inc.
Daniel	Penchina	Public	Principal	The Raben Group
Kate	Philpott	Public	Forensic and Legal Consultant	Self-Employed
Steve	Pierson	Public	Director of Science Policy	American Statistical Association
Devin	Potts	Public	Forensic Policy Associate	Innocence Project
Mindi	Ramage	Public	Latent Print Section Chief	DHS Immigration and Customs Enforcement
Robert	Ramotowski	Public	Chief Research Scientist, Forensic Services Division	U.S. Secret Service
Sara	Reardon	Public	Reporter	Nature Magazine
John	Ross	Public	Supervisory Forensic Document Examiner	Department of Homeland Security
Deborah	Runkle	Public	Senior Program Associate	American Association for the Advancement of Science
Frough	Safavi	Public	Intern	Office of Science and Technology Policy, Executive Office of the President
Stephen	Saloom	Public	Policy Director	Innocence project
Marvin	Schechter	Public	Attorney	National Association of Criminal Defense Lawyers
Barry	Scheck	Public	Prof. of Law, Benjamin N. Cardozo School of Law, Co-Director, Innocence Project	Innocence Project, Cardozo Law School
Dawn Elizabeth	Schwarting	Public	Associate	Booz Allen Hamilton
Tania	Simoncelli	Public	Assistant Director for Forensic Science	Office of Science and Technology Policy, Executive Office of the President
Heather	Seubert	Public	Unit Chief	Federal Bureau of Investigation Laboratory
Chelsi	Slotten	Public		
Erich	Smith	Public	Physical Scientist	Federal Bureau of Investigation Laboratory
Amanda	Sozer	Public	President	SNA International
Alan	Spanbauer	Public	Physical Scientist/Program Manager	National Institute of Justice

Shayaan	Subramanian	Public	Office of Justice Programs	United States Department of Justice
Laura	Sudkamp	Public	Laboratory Director	Kentucky State Police
Melissa	Taylor	Public	Program Manager	Law Enforcement Standards Office, National Institute for Standards and Technology
Rick	Tontarski	Public	Chief Scientist	Defense Forensics and Biometrics Agency
Jeremy	Triplett	Public	Forensic Laboratory Supervisor	Kentucky State Police Forensic Laboratories
Jason	Tulley	Public	Special Counsel	Public Defender Service for DC
Ronald	Uscinski	Public	Associate Academic Fellow	Potomac Institute for Policy Studies
Victor	Weedn	Public	Chair and Professor, Department of Forensic Sciences	George Washington University
Danielle	Weiss	Public	Lead Associate (Consultant, Booz Allen Hamilton)	Office of Investigative and Forensic Sciences, National Institute of Justice, Office of Justice Programs
Rick	Weiss	Public	Director of Strategic Communications	Office of Science and Technology Policy, Executive Office of the President
Shannan	Williams	Public	Program Manager	Law Enforcement Standards Office, National Institute for Standards and Technology
Charlotte	Word	Public	Consultant	Charlotte Word Consulting
Paula	Wulff	Public	Attorney	Federal Bureau of Investigation Laboratory