

## CQ CONGRESSIONAL TRANSCRIPTS

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House Judiciary Subcommittee on Crime, Terrorism and Homeland Security Holds Hearing on the National Research Council's Publication "Strengthening <Forensic> <Science> in the United States: A Path Forward"

### LIST OF PANEL MEMBERS AND WITNESSES

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SCOTT:

The subcommittee will now come to order.

Good afternoon, and welcome to the hearing before the Subcommittee on Crime, Terrorism and Homeland Security on the National Research Council's publication, "Strengthening <Forensic> <Science> in the United States: A Path Forward."

The term "<forensic> <science>" refers to a broad range of disciplines, each of which aims to solve and understand crimes based on physical evidence. <Forensic> <science> has played a critical role in criminal investigations and prosecutions for decades, and law enforcement and prosecutors have come to rely on it and for good reason.

Scientific evidence offered at a trial by a witness identified by the court as an expert can be powerful and -- and often indisputable. <Forensic> <science> is also popular. So popular that television networks have created a number of successful fictional, sometimes nonfictional, programs based on <forensic> <science>, which reach virtually every jury pool across the country.

Between the popularity of <forensic> <science> and the court's acknowledgement of the forensic evidence witness as an expert, the evidence presented against a defendant can be very persuasive. Unfortunately, the reality is that not all forensic techniques have the same reliability. DNA is now recognized as among the most reliable and useful forensic - - useful tools in the area of <forensic> <science>.

The development of DNA technology has allowed scientists to use genetically -- genetic evidence to identify victims and perpetrators with almost complete accuracy, enable investigators not only to solve many crimes that otherwise would have gone unsolved, but also to establish innocence of 233 wrongfully convicted people in the United States.

Alarmingly, in over 50 percent of these wrongful conviction cases, other non-DNA forensic evidence was introduced and likely contributed to the wrongful conviction. This revelation has raised serious questions about the reliability of many forms of non-DNA forensic evidence. Where the defendant's liberty or even life at stake, evidence as powerful as forensic evidence must be -- must have the utmost reliability.

In response to these disturbing questions about the reliability of <forensic> <science>, Congress authorized the National Academy of Sciences to conduct a study. The committee made up -- the committee made up of members of the <forensic> <science> and legal communities examined the current state of <forensic> <science> and, in February 2009, issued a report entitled, "Strengthening <Forensic> <Science> in the United States: A Path Forward."

The report confirmed our fears and cites many serious problems with the national <forensic> <science> system. The report shows that most -- the most pressing problem is a need for a -- for a comprehensive knowledge base for many disciplines.

While DNA evidence has benefited from extensive scientific research, other forensic fields such as hair and fiber analysis, ballistic analysis, and handwriting samples, among others, have not had the same level of research and scrutiny leaving their reliability questionable. The report also describes a system that is woefully understaffed and undertrained and lack uniform standards and poor oversight.

Perhaps the most disturbing part of this study's findings is that trial judges rarely exclude forensic evidence at trial even though the scientific community cannot ensure reliability of the evidence. Moreover, trial lawyers lack scientific training to adequately assess and question the forensic witnesses' conclusions.

This condition does not bode well for justice, and changes are clearly in order. The report makes a number of recommendations to approve <forensic> <sciences> in the United States, most prominently, creating a National Institute for <Forensic> <Science>.

This -- the NIFS would be a new entity, independent from the existing <forensic> <science> system, law enforcement agencies and would be tasked with organizing and overseeing all <forensic> <science> operations in the country.

It would be tasked with, among other things, establishing best practices, creating accreditation standards, coordinating and promoting research initiatives, and assessing new and existing technologies and funding state and local <forensic> <science> agencies. Today we will discuss the study's findings and recommendations.

It is now my pleasure to recognize the ranking member of the subcommittee, the gentleman from Texas, Judge Gohmert.

GOHMERT:

Thank you, Mr. Chairman. And thank you for having a hearing to address the ongoing efforts to identify weaknesses and make improvements to the <forensic> <science> community in the United States.

I do welcome the witnesses, appreciate your being here. Thank you for joining us and - and for -- obviously, you submitted written testimony, and we appreciate your being here to talk to us in person. I also understand too well the significance of <forensic> <science> to our criminal justice system at every level of government having been a prosecutor, a district judge, and then a chief justice.

But <forensic> <science>, particularly DNA technology, has an extraordinary ability to assist in solving crimes, identifying missing persons and victims of mass casualties as well as guaranteeing justice in American courtrooms and courtrooms throughout the world.

As noted by the National Academy of Science's study on <forensic> <science> that brings us here today, nuclear DNA testing is now the forensic gold standard by which all other forensic disciplines are measured. For it is now well-accepted, scientifically validated ability to support individually specific conclusions to the level of research funding so that the legal foundation for its admission in courtrooms, DNA testing is a <forensic> <science> that's grown up right, so to speak.

The NAS study does not, however, portray other forensic disciplines in such positive light. In fact, it calls into question the scientific validity and legal reliability of a number

of forensic disciplines that have been admitted into courtrooms throughout this country for decades.

The study takes great pains to question the scientific validity of many, if not all, of the so-called quote, "pattern based," unquote disciplines such as friction ridge analysis, ballistics, and tool mark identification. Excuse me.

Not surprisingly, the study's findings have caused significant concerns among those in the legal profession who are involved with these forensic disciplines. In a recent article of the National Law Journal, the real life consequences of these findings are explored. The article documented numerous defense councils who are citing the reports finding in post-conviction motions, appeals, and pending trials challenging what they claim is invalid ballistics testimony.

The article went on to quote a member of the board of directors of the National District Attorney's Association as saying, the science of ballistic has been tested over and over again, and the problem was not with the science but with those applying it. By contrast, various defense attorneys work hard at suggesting that the science of ballistics did not support the testimony that was being given.

Which brings me to what I think is an important point that was not brought out in much of the reporting following the release of this study. That is this: the belief that particular forensic disciplines have not been scientifically validated does not mean that they are invalid or unreliable, simply that more research needs to be done to validate them. I'll be interested in hearing the panel review on that topic.

The study does not stop there. It documents what's called fragmented forensic community in need of oversight and governance, community that lacks standard methodologies and terminologies, mandatory accreditation and subrogation, and sufficient peer-reviewed research.

The study recommends that we create a new independent federal entity, the National Institute of <Forensic> <Science>, to accomplish these objectives. I wonder given the current economic climate whether it makes sense to create an entirely new entity that will attempt to replicate what a number of other state and federal agencies as well as private entities are already doing.

Recent history has shown us that creating new agencies at the federal level can be a tremendously costly and complex endeavor with moderate success. By its terms, the study did not purport to address the financial largesse that will be required to implement this new recommendation.

The study specifically left that task to the congressional budget office. Similarly, there was very little discussion about the downsides of creating such an entity. I look forward to hearing the panel's views on this matter as well as the possibility of leveraging -- leveraging some of the strengths of those currently involved in the forensic community to address some of the needs documented in the study.

But it was my understanding this was addressed years back when the U.S. Supreme Court said that the judge in a case would be the gatekeeper. You couldn't bring in scientific evidence and a supposed scientist -- ballistic expert, for example, could not testify unless the judge found that they met the requirements as set up by the Supreme Court for legal sufficiency.

As a former gatekeeper myself, sometimes I let in evidence, sometimes I didn't, but it had more to do, particularly in the case of ballistics, of whether the individual seeking to

testify had the required requisite training and experience and, you know, whether it was credible testimony and worthy of being presented to the jury before it was presented to the jury. That was our job.

You -- you are a distinguished panel of witnesses with a wealth of experience dealing with the legal, scientific, and leadership aspects of <forensic> <science>, and I look forward to hearing from you. And, again, I do appreciate your time here today.

Thank you, Mr. Chairman. I yield back.

SCOTT:

Thank you. We've been joined by the gentleman from New York, Mr. Weiner. I'll ask if you have a brief comment; otherwise, we'll ask for opening statements to be placed on the record.

WEINER:

I appreciate the offer (inaudible).

SCOTT:

Thank you.

We have a distinguished panel of experts for us today. Our first witness is Mr. Kenneth Melson, acting director of the Bureau of Alcohol, Tobacco, Firearms and Explosives. He's a past president of the American Academy of Forensic Scientists -- <Forensic> <Sciences>, and in 2006 became chair of the Council of Scientific Society Presidents.

He presently represents the Department of Justice in a -- as a board member on the American Society of Crime Laboratory Directors Laboratory Accreditation Board, serves as the -- on the editorial board of the Journal of <Forensic> <Science>, on the ethics committee of the AAFS and on the advisory council of the National Clearing House for Science, Technology, and the Law at Stetson University College of Law. He's a graduate of National Law Center at George Washington University.

Our next witness will be Mr. Peter Marone, director of the Virginia Department of <Forensic> <Science> and a member of the committee that developed the report. He is a member of the <Forensic> <Science> Education Accreditation Commission of the American Academy of <Forensic> <Science> and the National Academy of Sciences Committee on identifying the needs of the <forensic> <science> community.

He is also chair of the Consortium of <Forensic> <Science> organizations. He has a bachelor's degree and master's degree in chemistry, each from the University of Pittsburgh, and I would like to particularly welcome him, because he's representing the Commonwealth of Virginia, which has been -- has a great reputation in <forensic> <science>, particularly in the development of DNA.

So I want to give you a personal welcome, Mr. Marone.

Next witness is John Hicks who is the -- who is director of Northeast Regional Forensic Institute at the University of Albany, State University of New York, which provides specialized workforce development training and educational services for forensic laboratory personnel.

He's the former director of the Office of <Forensic> <Sciences>, New York State Division of Criminal Justice Services, deputy director of the Alabama Department of <Forensic> <Sciences>, and assistant director in charge of the FBI laboratory. He holds a

bachelor's degree in chemistry from Arkansas State University, master's degree in public administration from the University of Southern California.

Our final witness is Peter Neufeld, cofounder and codirector of the Innocence Project at the Benjamin Cardozo School of Law. The Innocence Project is directly responsible for the release of hundreds of people who were wrongfully convicted, who were factually innocent of the charges, some of which were actually sentenced to death.

Mr. Neufeld's work has therefore shaped the course of case law across the country and helped to lead another influential study -- and he helped to lead another influential study by the National Academy of Sciences on Forensic DNA testing as well as important state and federal legislation setting standards for the use of DNA testing.

He has a bachelor's degree from the University of Wisconsin and his law degree from New York State -- New York University School of Law.

I'd like to welcome all of our witnesses for joining us. Their written statements will be made a part of the record in their entirety, but I would ask that you summarize your testimony in 5 minutes or less, and to help stay within that time, there is a timing device before you, which will start with green, when a minute is left, it'll go to yellow, and when the 5 minutes are up, it'll turn to red.

Mr. Melson?

MELSON:

Thank you very much. Good afternoon, Chairman Scott and Ranking Member Gohmert. Thank you for the opportunity to present the views of the Department of Justice on the NRC report.

DOJ considers the report to be a helpful addition to the public discourse on the state of the <forensic> <science> community. It recommends many of the same useful steps to strengthen <forensic> <science> that the 1999 and the 2004 Department of Justice reports recommended.

While the NRC recommendations are not entirely new, the Department certainly agrees with virtually all of them. The forensic community has been and continues to address most of the recommendations in the report. Laboratory accreditation programs under ISO 17025 standards are in place.

Scientific working groups are establishing standards and protocols. A uniform code of ethics for accredited laboratories have been adopted. NIJ grant solicitations for validation research have been issued. And experts in the field have already begun to conduct research on such topics as context and confirmation bias. In fact, yesterday I was pleased to get in the mail my copy of the Journal of <Forensic> <Sciences>, which is one of the world's foremost peer-reviewed forensic journals.

And there was an article in there on just that type of bias, and it was funded by a grant. So the work is ongoing, but more needs to be done.

Although one charge the NRC by Congress was to assess the present and future needs of the <forensic> <science> community to include state and local crime labs medical examiners and coroners, the report did not attempt to create a so-called gap analysis or needs assessment with funding requirements.

The cost of developing and implementing the report's recommendations and achieving significant capacity building are important and urgent questions. For the first time, a

president's proposed budget includes \$35 million for the Paul Coverdell <Forensic> <Science> Improvement grant in anticipation of such an assessment.

As the president's leadership in this regard reflects, the federal government has an important role to play in support of our criminal justice stakeholders and constituents, and the Department of Justice has already focused on that effort.

We have been consulting with our federal laboratory director's across the government on ways to harness the full power of the federal experience and expertise to assist these ongoing efforts.

We have met with <forensic> <science> groups to listen to their concerns and ideas, discussed the issues with groups like ISAP and crime lab directors at the Crime Laboratory Management Symposium sponsored by the FBI, and we have participated in conferences throughout the U.S. since the report was published.

The Department intends to continue to work with the FBI-sponsored scientific working groups, also known as SWGs to create consensus standards and guidelines for testing protocols while significant advances have been made in the accreditation programs regarding report writing and terminology, we will continue to work with the non-profit internationally recognized accreditation programs like AFSCA Lab to enhance the reporting guidelines and consistent use of terminology.

And as I've already mentioned, the National Institute of Justice has issued grant solicitations for validation studies and is arranging for community input on a variety of <forensic> <science> issues. And NIJ is also working with NIFT on AFIS interoperability issues, which is one of the recommendations in the report and the expert working group on human factors on latent print analysis project, all of which address the issues that were raised in the report.

And, of course, as always, we look forward to working with Congress to develop and refine a comprehensive approach including necessary executive branch action and legislation to address serious issues raised by the NRC report. There are two recommendations, however, that the Department does not, at this time, support. One is the creation of the National Institute of <Forensic> <Sciences>, of NIFS, to oversee the nation's entire <forensic> <science> community, and the removal of all forensic labs from administrative control of law enforcement agencies or prosecutors.

Since my time is almost up, I hope I will have the opportunity to comment on those two recommendations during the question and answer period. Thank you.

SCOTT:

Thank you.

Mr. Marone?

MARONE:

Good afternoon, Mr. Chairman, Ranking Member Gohmert, Congressman Weiner.  
My testimony today...

SCOTT:

Is your mike on?

MARONE:

No.

SCOTT:

Thank you.

MARONE:

In -- in the -- I'd like to simply the 250-page report, if you will, into the scientific and technical challenges that must be met in order for the <forensic> <science> community in the United States to operate to its full potential.

Specifically, I'll discuss these challenges in the four categories of resources, and it should be resources, resources, resources, but resources, research, standardization, and education. These are the primary challenges for our community at this time. The report found that some of the work has already begun by many of the forensic scientists but that additional efforts and coordination are needed to carry it through.

To make this effective, however, an annual assessment -- this is one thing the report didn't do -- an annual assessment or, if you will, a requirements analysis, need to be done to set forth a valid national strategy.

The first element of the charge of the -- of the committee while not specifically addressed in the form of a recommendation was very clearly put in the report, and I'll quote, "For the state and local laboratories, there has been a lack of resources -- money, staffing, training, and equipment -- necessary to promote and maintain strong <forensic> <science> laboratory systems. The state and local crime labs as well as the medical examiner community have not been receiving the support they need, but the case loads have been increasing exponentially."

If we continue to -- and that's the end of the quote. If we continue to focus solely on backlog reduction rather than on actual capacity enhancement and methodology advancement, the capacity of the labs that process the work will be continuing to keep getting backlogs back again.

I want to make it clear, Mr. Chairman, that -- that this is the root of many of our issues, and as a laboratory director, I'm asking Congress to -- to -- to please establish funding in an adequate level for all disciplines, not just a single discipline, but on the other hand not in place of that discipline. In other words, we're not asking to take the DNA money away, we're looking to spread the bigger pie around.

Congress has been consistently putting some funding for other disciplines, but it falls short of what is necessary. The amount of funding to accomplish this is probably the most difficult to estimate, since we really don't have an accurate number of forensic service providers, and that may be a term that you haven't heard before. You're familiar with forensic laboratories. Forensic service providers would include the crime scene units or the ID units -- fingerprint sections in -- in police departments.

And the instrumentation and facilities involved are equally difficult to ascertain their conditions and needs. There are over 17,000 police and sheriff departments, and we have roughly estimated there may be 11,000 forensic service providers -- units, not people, in those departments in addition to the 400 plus publicly funded laboratories across the country.

All of these numbers need to be verified and understood. Under the category of research, the report determined that some of the <forensic> <science> disciplines need

further research to provide the proper underlying validation for some of the methods in common use and to provide the basis for more precise statements about their reliability and precision.

However, as Congressman Gohmert mentioned, not validated by one man or another does not mean it's of no value. The report clearly states that there is a value in many of the disciplines addressed. We need studies, for instance, that look at a large population of fingerprints or tool marks so as to quantify how many sources might share similar features.

In addition to investigating the limits of the techniques themselves, the research also is needed on issues of context effect and examiner bias. In the realm of standardization, the report raises concerns about the lack of mandatory requirements for professional certification and for laboratory accreditation and also the variability in ways that <forensic> <science> results are reported in courts.

I think it's critical to first understand that most of the <forensic> <science> laboratories in the community have already begun to move in the direction of accreditation. In fact, in the recently published census of publicly funded crime labs, which was from 2005, just recently published, it stated then that 82 percent of the public laboratories were accredited.

That number is much higher now, but more can be done. There are a significant number of forensic service providers -- those are the police ID units -- which need to be notified of the existence of accreditation programs, which are appropriate for them -- for their functions.

Few realize that existing ISO/IEC 17025, that's the international accreditation, is actually applicable for their -- for their use. The community fully supports mandatory accreditation, but we do not believe one needs to reinvent the wheel. The report did not intend to establish new accreditation or certification programs but to bolster the existing structure.

Lastly, the NRC report stresses a need for establishing a robust educational component. The federal government needs to support such a program and the institutions applying to the program for accreditation. The example for accreditation for forensic education programs has already been mentioned, FEPAC. It's been quite successful in raising -- in just the 5 years it's been in place -- in raising the -- the scientific rigor of the program for which it's been -- the programs it's been accredited.

The primary recommendation of the report, Mr. Melson has already mentioned, so I'll skip over that, and I'd like to thank the opportunity to -- to speak to the committee and answer any of your questions.

SCOTT:

Thank you very much.

We -- we've been joined by the gentleman from Texas, Judge Poe.

Mr. Hicks?

HICKS:

Thank you, Mr. Chairman. It's a pleasure to be here with you today, and I thank you for this opportunity. I must say, first, I share many of the views that have already been expressed by the previous panelists here.

I also should say that I -- I also do not support the notion that there should be a separate independent agency developed as was put forth in the National Academy, but on the other hand, there does need to be close coordination amongst the federal agencies that are involved in forensic's development and -- and we can look to the DNA experience to kind of see how that has successfully been applied to bring in the new DNA technology as, again, was acknowledged in the report.

The three agencies that played key roles -- there are many agencies involved and many academic institutions and research centers that were involved throughout the country -- throughout the world for that matter with DNA.

But the three primary agencies were the FBI, the National Institute of Justice, and the National Institute of Standards and Technology. Each of those agencies, I think, bring certain elements that can help in addressing many of the issues that were raised in the National Academy report.

The -- with respect to the -- what I think is probably the primary recommendation -- the most significant recommendations of the report, and that is to address the -- there were recommendations number one, three, and ten in the report, but they speak to providing funding that would be directed to promoting scholarly, competitive peer-reviewed research, which addresses issues of accuracy, reliability and validity in <forensic> <science> disciplines.

As Mr. Marone has already said, that's an area, clearly, of need and application, particularly in areas which have been around for many years, and from my perspective, I think we can have confidence in the -- in many of these pattern-based recognition techniques if they're applied by people that are properly trained and they have experience in the field, and they -- and they operate in a way that's -- that accreditation programs call for, and that is a quality management system that has appropriate review processes in place to verify the systems.

I think we can have confidence in the systems. That's not to say that mistakes can't be made and that -- and that -- that there is definitely a need to know more about those -- those technologies and applications and do some of the kind of developmental research work that really is -- it's within the core competencies of the National Institutes of Standards and Technology.

I think they should play a lead role in helping to apply their expertise in developing some of this kind of data that's been called for. The -- I think just to -- to sum up my perspective. I think I've already said it, but that is that the -- the most efficient, effective way to quickly try to address the kinds of recommendations and issues that came up in the National Academy of Science report is to assure that you have a high level of -- of -- high degree of coordination among these agencies, that there's a lot of input from the forensic community at large.

Of course with the DNA experience, one of the key elements to help coordinate the development was what was called the technical working group on DNA analysis methods. Now it's been sort of changed to the scientific working group, and based in part on that experience, the community has adopted scientific working groups in virtually all disciplines, and these -- their products can be seen in different kinds of publications where they've been working towards standards -- articulating standards and -- and coming to more uniformity in the practice nationally.

So, in my judgment, that kind of a model might be a very useful model to follow with respect to the other recommendations in the report.

Thank you, sir.

SCOTT:

Mr. Neufeld?

NEUFELD:

Good afternoon, Mr. Chairman. Good afternoon, ranking member, Mr. Gohmert.

On September 18 of 1985, a 16-year-old girl was abducted in Utica, New York, and eventually sexually assaulted and murdered. Initially, one of the people who was suspected of that crime was a gentleman named Steven Barnes only because he owned a pickup truck which fit the description of a truck seen driving along the road at about the time that the young gal was abducted.

He wasn't arrested then, because they didn't have enough evidence. But during the next 2 years, they built a forensic case against Mr. Barnes. He was ultimately charged, convicted, sentenced to life in prison and spent 20 years in prison before, just a couple of months ago, forensic DNA testing on the semen recovered from the victim and on the clothing recovered from the victim exonerated Steven Barnes.

I'd like to introduce Mr. Barnes to the committee. Would you stand up one second. As Mr. Barnes was just -- was exonerated in the last couple of months after 20 years in prison for a crime he did not commit.

The reason I wanted to mention Mr. Barnes' case to you is because a very professional criminalist forensic scientist working at a first rate <forensic> <science> laboratory -- the Connecticut State Crime Laboratory -- provided three pieces of very powerful evidence that were used to convict him.

First, she testified that the soil under the truck that Mr. Barnes was driving was very consistent with the soil found on the dirt road where the victim was found. Two, that hairs found inside Steven's vehicle were consistent with hairs belonging to the victim. Indeed, that they were microscopic matches to those hairs.

And, three, that a layer of dust found inside the van left an impression of blue jeans and of blue jean stitching, and that the victim wore similar blue jeans, and that -- that she looked at other manufacturers of blue jeans -- five or six of them -- and didn't see that particular pattern and, therefore, these were very unusual patterns.

Now, this was somebody who probably came from a laboratory that would no doubt be accredited, a person who is extremely professional and would be certified. However, the underlying disciplines that she was describing had never been adequately validated.

And when I say "adequately validated" doesn't mean that somebody can't examine soil or somebody can't look at hairs under a microscope or can't look at a pair of blue jeans, but what it means is -- and this is one of the things that the National Academy of Science talked about so vociferously, is that well, what does it mean to say that something is similar or matches? Is it one in 10, one in a million, or one in a billion?

And what -- what you realize is -- and what the National Academy realized is -- is that the hypothesis -- the hypothesis suggesting that a certain piece of evidence left at a crime scene had as its source a particular defendant or may have come from that defendant is

the type of the thing that hasn't been adequately validated. And that is one of the main problems here.

And -- and -- and that is why the National Academy of Science found -- not me, I don't know science. I'm a lawyer with a project in New York, but what the scientists found is that with the exception of nuclear DNA analysis, no forensic method has been rigorously shown to have the capacity to consistently and with the high degree of certainty demonstrate a connection between evidence and a specific individual or source.

That's their finding, not ours. And the problem is that you now want to figure out how to test that hypothesis to see whether or not they can be validly used for that specific purpose or whether they can't be. And no doubt if we do studies like that some will pass, some might not.

But, you know, what's interesting is that in other institutions, we don't do that kind of testing after the horse is out of the barn. We don't decide after we first have the FDA look at a new piece of medicine or a medical device and decide whether it's been adequately validated before we unleash it on the consumer public.

We don't have the pharmaceutical companies decide who -- how the National Institute of Health should give out grant money for basic research and applied research. We don't do that for other kinds of applied science. Why should we do it in <forensic> <science>? We shouldn't.

We should have, number one, an entity that looks at these things before they're used, not after. One of the problems that other speakers have recognized here is that some of these systemic problems were known for a long time, yet no one at NIJ, no one at the FBI laboratory did anything affirmatively about many of these systemic problems and testing that basic hypothesis for 5 or 10 or more years.

Now they want to do something because the NAS report is out, but the other thing, which is very important for us to learn in terms of a lesson from what we do with clinical laboratories in medicine, is we don't have the users themselves decide when a product is ready. We have independent people do that.

What is being suggested by some other people at this point in time is that it's OK to have the leaders of the forensic laboratories or the leaders of these different forensic disciplines decide when a device has been adequately validated.

We've never felt that's an adequate assurance when matters of public health are at stake. I don't see any reason why we should have less rigor when matters of criminal justice are at stake.

Thank you.

SCOTT:

Thank you very much. We'll now recognize ourselves (inaudible) 5-minute rule, and I'll begin by recognizing the gentleman from New York who has been relentless in his advocacy for getting overdue and rape kits tested in New York. I mean, we have an embarrassing backlog, and he's just been relentless trying to get funding for that particular science.

I'll recognize the gentleman from New York, Mr. Weiner.

WEINER:

Thank you, Mr. Chairman, and I appreciate your continuing this conversation going.

Peter, let me pick up on what you just finished with. The difference between a pharmaceutical drug or a process is that no one has to go into a court of law ask a judge, do you think this -- I'm a kosher expert, do you think that this is -- you know, no one's going to stand there and present that evidence without having someone on the other side.

It strikes me that the report identified some problems with collection, some problems with the standards for testing, and now you're talking about problems with how you interpret any information that is presented before a jury.

Now, in the -- in the -- the -- the tragic case of your -- of your client -- and I welcome him here -- here today -- wasn't this just a case though that you had a jury was too willing and a judge that were too willing to let into evidence as proof of a hypothesis stuff that was really just stuff that you -- wasn't really up to standard, that even if we solved the other problems of standards, that you're still going to have someone saying, aha, I found a jean print in dust, and going to a jury and said here's the picture, and I think that this is -- this is the -- the -- the jean of whatever.

So why -- why don't you take a stab at that.

NEUFELD:

OK. First of all, you're not going to have that problem for two reasons: one is, it's one thing for someone to say that this jean print is consistent with or matches whatever, I don't even have a problem with that. The problem is -- is that the jury has to be told is it a rare jean or a common blue jean, OK.

If the jury doesn't know that, they don't know how to interpret the evidence. When -- when an expert very often says that something is consistent with or similar, there's a whole series of psychological studies which prove that jurists take that to mean it's his, it's a match, it's unique, it's individualized.

The problem is that that hypothesis -- you don't know what it is. Is it one in 10 or one in 1,000? That has to be proved scientifically. That's what the NAS report says. Before the evidence comes into court.

The problem with -- the other difference that you mentioned between pharmaceuticals and the FDA and NIH and the criminal justice system is a suggestion that there's a judge who's a gatekeeper. And, yes, there are several judges who are good gatekeepers, and there are even a few lawyers who know when to challenge something, be they prosecutors or defense attorneys, but I did a peer-reviewed published study showing the way that Daubert was administered over 12 years -- the first 12 years of existence.

And in the civil context, it was administered very rigorously. In the criminal context, it wasn't administered at all to speak of. So 90 percent of the time, the evidence would be kept out in a civil case and only 2 or 3 percent of the time would it be kept out in a criminal case. There was no either meaningful challenge. There was no meaningful cross examination. Most the judges, frankly, were -- were interested in other kinds of legal issues as opposed to scientific issues.

After all, they didn't go to medical school, they went to law school and then went onto become judges, and I mean that in all -- in all fairness, sir, that -- that's just a natural tendency. But the data speaks for itself. There haven't been any kind of meaningful scrutiny, and that's why the NAS said in it's report that there is -- it's too late if you wait until it gets to court.

WEINER:

Right.

NEUFELD:

The idea is to try and fix a lot of this upstream before it gets to court. The judges can still be gatekeepers, but at least they'll have much more guidance.

WEINER:

Can I -- I appreciate that. Can I ask for -- change subjects and the rest of the panel this question? You know, it is true that we have made strides on dealing with the backlog, although we don't -- there are problems that have emerged.

But in -- in the testimony that I -- I heard here today that now we've got other types of problems that are building up. Are we reaching a place though that the process of taking collected DNA evidence, presenting it into a form that attorneys like Mr. Neufeld can use it -- are we reaching a place where through advance of technology or -- or -- or economies of size that that is getting more foolproof.

It's getting easier now to take data and to take this information -- is it more -- is it more likely that you're going to be able to reduce the costs, make it simpler to process the -- the evidence, and then our problem moves elsewhere in the system. I mean, is it getting more foolproof, kind of like developing film a hundred years ago turned into a Fotomat 50 years ago, turned into a digital one-click camera today.

Are we reaching that point with DNA evidence collection?

MARONE:

I would have to say that it's -- that's simply putting it, yes. But the bottom line is that -- that a lot of the methods now are lending themselves quite more easily to automation and -- and when you're -- when you get into automation, obviously, you -- you get an efficiency of scale, one.

Two, it's less chances for manipulation errors with -- with individuals, because you are working on a math scale, an automated scale with robotics, you can use smaller samples. So I would say yes to all those, but the caveat with it -- with that is, when you start looking at smaller and smaller samples and higher and higher sensitivity, you then have to worry about the consequences of -- of -- of unintended DNA that you're picking up...

WEINER:

Contamination.

MARONE:

I hesitate to use contamination, because it may or may not be a contamination issue. For example, if you're looking at door lobs, you're now looking at everyone who touched a doorknob. Those kinds of issues.

So, yes, we are getting better along those lines, but one must still have that caution to realize what it is that you're looking at.

WEINER:

Thank you.  
Thank you, Mr. Chairman.

SCOTT:  
The gentleman's time has expired. Thank you.  
The gentleman from Texas, Judge Gohmert.

GOHMERT:  
Thank you, Mr. Chairman. Obviously, for Mr. Barnes to serve any time improperly is particularly egregious. I'm curious, when did -- when did that case go to trial?

NEUFELD:  
It went to trial 4 years after the incident, in 1989.

GOHMERT:  
'89, OK. So that was before DNA evidence really came to the forefront.

NEUFELD:  
It was before they had DNA testing. The problem, sir, from our perspective, and I think everybody on the panel would agree, is that DNA, which obviously has revolutionized the criminal justice system in a lot of ways, is unavailable as the truth test, if you will, in many cases.

GOHMERT:  
Right.

NEUFELD:  
So crime...

GOHMERT:  
It wasn't in that case, though.

NEUFELD:  
Right.

GOHMERT:  
In the current day, it wouldn't not even be an issue, and as far as the dust left behind an impression of blue jeans. I mean, if I'm the gatekeeper on that case, somebody testifies to that, that tells me maybe we're looking for someone wearing blue jeans or we're looking for a 2-year-old wearing denim Osh Kosh overalls, you know.

That -- that's nothing. That evidence I'm surprised that anybody would let that in. That -- that's just way too vague as to be supported scientifically. I just can't imagine that coming in. The soil under a truck? They don't do an analysis and -- and say it's exactly the soil or it is -- I mean, that -- those kind of things are kind of hard to believe that any kind of adequate gatekeeper would -- would allow that stuff in.

Obviously, a judge did, an appellate court didn't see through it, and so Mr. Barnes served unnecessarily, but -- but I'm curious and liked to get the panel's consensus here. You know, the study talks about pattern-based disciplines. Do you -- any of you believe that fingerprints are -- have inadequate scientific validation? I'd like to know is there anybody that believes that pattern-based fingerprints have inadequate scientific validation?

NEUFELD:

In all fairness, sir, I don't think necessarily that the four of us are the best qualified people to answer that question. I think what the National Academy of Science report said is that that's a scientific question, and...

GOHMERT:

OK, so your opinion is it's not appropriate for you to have an opinion, but I'd -- I'd like your opinions anyway.

Mr. Hicks?

HICKS:

Now it's on.

GOHMERT:

Yes.

HICKS:

OK. I -- I do believe that fingerprint technology has an enormous amount of data behind it. I mean, we've -- we've established automated systems that are in use in every police department in the country. They're connected nationally. They're used internationally. They've been shown to be highly effective in distinguishing people.

I think what may be lacking is having put some of that -- that the information and experience there into a form and this sort of meets what's being defined now as these rigorous scientific studies. I think it -- there may be some validation-type studies that may be performed and published that would help to support -- may provide new information about the limits or extent of fingerprinting, but -- but my personal opinion is that there is...

GOHMERT:

Adequate validation.

Yes, Mr. Marone?

MARONE:

Two things, actually. Let me, let me quote from the report itself. This is in chapter five, the chapter that dealt with the scientific disciplines. Historically, friction ridge analysis has served as a valuable tool both to identify the guilty and exclude the innocent.

Because of the amount of detail available in friction ridges, it seems plausible that a careful comparison of two impressions can accurately discern whether or not they had a common source. Although there is limited information about the accuracy and reliability

of friction ridge analysis, claims that these analyses have zero error rates are not scientifically plausible, and I think that's the crux of the matter.

Where DNA, because of its nature, has very discrete alleles, each one of those low -- the alleles in each (inaudible) have a particular probability that they show up in the population, and that lends itself very well to coming up with a -- a nice number, a -- a -- a possibility of -- of occurrence.

With fingerprinting, there are a number of ridge details. What hasn't occurred here is someone mapping those details and give a statistically supportable conclusion as to if I have X number of points of comparison, how -- how -- how strong is that?

GOHMERT:

Right.

MARONE:

And that's what, I think, is lacking there is not that you can't do it.

GOHMERT:

Well, I don't know that it's lacking. I used to hear that testimony.

MARONE:

Right. You can't put a level...

GOHMERT:

I used to hear that testimony. Some say seven points was enough, and we didn't allow less than 10 points, and you had to be positive about those 10 points, and then we heard about the statistical analysis of -- of what that did when you went from seven to 10 points.

MARONE:

Sure, and then two compound that issue, because again, where DNA has those alleles, think about circumstances where you don't have 13 loci (ph), you don't have 26 alleles, the numbers reduce significantly.

GOHMERT:

Right.

MARONE:

If you have three or four or five, you can't even search it unless you have 10. But fingerprinting, it's not like it's a nice clean print, may be smudged, may be smeared so all those other environmental aspects of it...

GOHMERT:

They didn't have enough points, they didn't come in.

MARONE:

Exactly. But, I mean, that's...

GOHMERT:

The jury never heard it.

MARONE:

That's where the argument is.

GOHMERT:

Yes. But if there were enough points, you don't have a problem with that being scientifically validated?

MARONE:

I think -- I think after...

GOHMERT:

As long as the jury understood...

MARONE:

After all these studies are done, I have no -- I have no doubt that the underlying science will found -- will be found to be valid. The application of it by an individual might be a different issue.

GOHMERT:

My time's expired, but if I could hear from Mr. Melson.

MELSON:

Well, I think the science is applicable and probative for court when it's properly applied by a qualified individual. The problem is you can make a generalized statement, because you have -- you may have a very clear latent print to compare with the -- with the rolled print, then it's easy, probably nobody would object to that.

But once you get to the smaller smudges, the partial latent prints, then it becomes much more difficult to make a comparison. Doesn't mean it can't be done, but that's where the research needs to be done. So all of these areas, even though there may be questions about them, and even though courts allow them into evidence, more research should be done on all the areas.

GOHMERT:

When you say courts allow them into evidence, what -- what are...

MELSON:

Courts are allowing this type of pattern evidence into evidence every day.

GOHMERT:

With how many points?

MELSON:

Well, it depends on the circumstance. The admission of the evidence is so case-specific. You've got to make sure that your expert is qualified.

GOHMERT:

Sure.

MELSON:

You have to have confidence in his -- his ability to do the examination. You find that out through direct and cross examination. And if you believe that based upon what he did, whether he's from an accredited laboratory, whether he's certified, all of the other evidence that you take in holistically, you have to make a judgment call as to whether that is probative in this particular case for the issue at hand.

NEUFELD:

Congressman Gohmert, if I just may, because I didn't take advantage of it before?

GOHMERT:

Do I have unanimous consent?

UNKNOWN:

Yes, please.

NEUFELD:

I think your last question was -- was -- was incredibly poignant. You said, how many points does it have to be that they say it's a match? One of the problems is -- is that in one state it could be five, in another state it could be seven, another place it could be nine or 11.

You would not be satisfied if you sent your blood out to four different laboratories and they had a different way of determining whether you had a certain disease or whether or not you reached a certain threshold that you need a certain medication. You want to create one kind of standardized way of interpreting data.

And -- and one of the problems is we haven't done that, and that's why people talk about having a National Institute of <Forensic> <Science> so there would be some group other than just the users who would just say, you know what, it's got to be nine, or it's got to be seven, whatever it has to be, it becomes a national standard.

GOHMERT:

Was the FBI -- was that seven before they consider it an acceptable match?

MELSON:

The FBI has no...

GOHMERT:

They have no...

MELSON:

... no standards.

GOHMERT:  
OK.

MELSON:

And -- and generally -- now, there are no minimum points that you have to have. It's on a case-by-case basis.

GOHMERT:

Alright, and what Mr. Neufeld seems to forget sometimes is when he talks about the laboratories -- the medical laboratories -- they're dealing with pristine samples. You know, they aren't contaminated; they aren't partial draws of blood and things like that. It's pristine, so it's a lot different than doing an analysis of a latent fingerprint and a -- and a rolled fingerprint.

You can't have, necessarily, specific rules that apply to every single type of analysis.

MELSON:

OK. I appreciate the chair's indulgence. Thank you.

SCOTT:

Thank you. Let me just follow up on this fingerprint, because if all you have for evidence is five points, and you look at it as absolutely consistent, you do a visual overlay, and it just overlaps exactly, does the jury not get to see that if the standard is nine?

You only get seven, you have a standard of nine, but seven is all you've got -- I mean, does a -- would the jury not get to see that?

MELSON:

Well, that's the problem with having a uniform standard that's not flexible to meet the particular case at hand. Those five points of comparison may be relatively unique and, therefore, could even be a better identification than another comparison with nine points.

So what you're doing is you're setting an artificial standard for the community which deprives juries of probative evidence.

SCOTT:

Mr. Neufeld? Why was mister -- why was Mr. Barnes tested when he was tested? What were the circumstances that -- I assume he was claiming innocence all along.

NEUFELD:

He -- he was claiming innocence all along. He actually wrote to the Innocence Project way back in the early '90s, and we tried to do then state-of-the-art DNA testing, but as these folks here will know better than I will, the type of testing at the time was friction fragment laying polymorphism needed a larger sample than the kind of very sensitive Y-STRs and other STRs that we were able to finally exonerate him with in 2008 and 2009.

So we did testing way back when, then we just waited for the technology to catch up, and that's how he finally got out.

SCOTT:

Did you get a cold hit to know who it was?

NEUFELD:

On this case, no, but on more than a hundred of our 238 exonerations, we've worked with police and prosecutors to identify the real perpetrator, and invariably those people who are identified committed other serious violent crimes in the intervening years.

And that's why when we're talking about these -- these reforms that the NAS is talking about, it's not just about avoiding a wrongful conviction, it's about public safety. It's about trying to make sure that the system is working as scientifically as possible so we can get the most powerful evidence to -- to solve crime and identify perpetrators.

SCOTT:

Well, you indicated in your -- you -- in questions and in your testimony something along the lines of the purpose for which it is used. So you could have very good science, and there would be a difference between, for example, using it for screening or investigations and using it as evidence in a trial.

DNA, for example, you would have all kinds of -- if you've got all these samples out there, you'd have all kinds of chain-of-custody problems if you tried to use the sample in the database in court. But we don't do that. You use the sample in the database for screening. When you get a cold hit, you go to that person, get the sample, and that sample is what you introduce in court. So you don't have any of the chain-of-custody problems.

Are there -- is there good science that will help you solve a crime that may not be good enough for admissibility in court?

NEUFELD:

That's a good question. I think that police are constantly using different investigative tools to work leads that nevertheless may not be admissible in a court of law. A police officer can secure, for instance, a -- a confession from somebody in violation of their Miranda rights, in violation of all kinds of things that would prevent the confession from being admitted, but it may leave the police other evidence which corroborates somebody's guilt, OK.

SCOTT:

What happened to poison fruit?

NEUFELD:

No, no, no. What I'm saying is the confession...

SCOTT:

Fruit of the poison tree.

NEUFELD:

The confession itself won't be admissible but, for instance, even with confessions, under a case called *Harris v. New York*, if the defendant testifies and says something that contradicts the confession he gave, even though it was involuntary, they can then introduce the confession as part of the rebuttal case.

I mean, there are all kinds of -- of evidentiary rules to handle those situations. But the point here is -- is that, you know, I don't even have a problem with the forensic scientists in the Barnes' case doing the kind of work that she did. She was a very professional person, very highly regarded in the community, and since New York didn't have someone with this expertise, they went to the Connecticut State Crime Laboratory who availed them this woman to do the work.

The problem is once you -- once you have some leads like that, unless you're able to quantify the probative value of that evidence, what is the jury supposed to do? And -- and so what you have to realize, it's not enough with a lot of these forms of evidence, whether it's ballistics, whether it's bite marks, pattern evidence, or hair evidence, in this case, OK, which was probably the most probative of all.

It's not enough to say that something's consistent with or matches or whatever unless you can communicate the jury what does it mean to be consistent?

OK, and that's science, by the way. That's not just a judge as gatekeeper. The scientific community must ensure when they validate something that they've not only validated the analytic capacity of it, but they've also validated the way it will be interpreted and explained.

SCOTT:

Is that -- is the use of the word "match" problematic in court?

NEUFELD:

Well, it's interesting. Just to give an example of it -- the board of forensic odontology has five different types of testimony that you can give, and the lowest, in terms of its evidentiary significance, is match, OK? Yet, when the psychological studies were done at Arizona State University on jurors, they -- 84 percent of the people tested said "match" is the equivalent of it's his to the exclusion of the whole planet.

So obviously, one of the things that the NAS talks about here is, you know, we really have to have a scientific basis for the way these words are used, and the best way to do that, they say, is that for all these different pattern and impression evidence systems is to go out, roll up their sleeves like they do with DNA and get data.

Find out, you know, how common a certain class characteristic is. Once you know how common or rare a class characteristic is scientifically, you get to communicate that to the juror as opposed to words like, match, similar, or consistent with.

SCOTT:

I have several other questions.

Mr. Gohmert? Do you have questions -- further questions?

GOHMERT:

Just a couple of brief -- you know, the study recommended this new National Institute of <Forensic> <Science>, and indicated that the National Institute of Standards and

Technology had limited ties to the forensic community and would not be seen as a leader by scholars, scientists, and practitioners.

Mr. Hicks? You'd indicated in your testimony that you didn't support the new NIFS. How do you respond to the report saying that it may not be seen as adequately a leader by scholars and scientists?

HICKS:

Well, I guess, in looking...

GOHMERT:

I mean, the -- the NIST.

HICKS:

Right. In looking at NIST, NIST played a very significant role in the DNA development, and their scientists at NIST continue to play a significant role in terms of teaching and -- and -- and passing along a technology to others.

NIST was very much involved in the optimization, I guess, of the automated fingerprint identification systems. They were involved in the automated firearms identification systems in trying to optimize those systems. They are involved in standards development for industry for all sorts of clinical applications and other applications, and they -- and -- and they produce the traceability standards that are used as a quality management device or control in any laboratory and quality management system.

So I -- I'm not sure where that statement would come from. It may be that some forensic people don't have a full recognition or appreciation for the role that NIST has played, but from perspective, they were a key player in the development of those systems.

GOHMERT:

OK. Well, thank you.

And, Mr. Neufeld? You know, I applaud the efforts of the Innocence Project, you know, where you could work so hard, take so much time and effort to exonerate someone who was wrongfully convicted, but it's my understanding that since 2004 of the significant number of innocent people that you've helped get released that there have just been two since that time.

Is that not accurate?

NEUFELD:

(OFF-MIKE)

GOHMERT:

OK.

NEUFELD:

No, that's not accurate at all. In fact, I think just in the last...

GOHMERT:

Who were convicted since 2004.

NEUFELD:

Oh, yes, well...

GOHMERT:

Yes.

NEUFELD:

... also know that, in fact, the average life -- Mr. Barnes is a good example. Mr. Barnes we took on as a client in 1993. It took us -- you do the arithmetic -- 15 or 16 years to get him exonerated. The average client who we represent, it can take 5 or 6 years before we exonerate them. So you wouldn't expect any people who were convicted since 2004 to yet make it into our cycle.

GOHMERT:

Yes.

NEUFELD:

First of all, we have a backlog now of, I think, more than 2,000 cases.

GOHMERT:

But you said with Mr. Barnes, you had to wait for the science to catch up, and -- and that's -- we've come so far in the last 20 years, and that's why I was thinking that perhaps the courts are doing a better job now. Perhaps that's an indication they are doing better now than they were...

NEUFELD:

I don't...

GOHMERT:

... when he was inappropriately convicted.

NEUFELD:

Well, I don't think that's the answer, and the reason that's not the answer, sir, is because DNA is only available in a small minority of violent crimes. And if we realized that these other disciplines were being used and provided misleading evidence then, and those other disciplines may be still utilized today where there's no DNA evidence to -- to correct it, then there's the very real likelihood and risk that other innocent people will continue to be wrongly convicted.

The reason we do our work, sir, is because DNA can't solve all the problems. If it could, I would go home and go fishing. But we have all these other disciplines that are not as reliable or robust as DNA that are still out there, and we want to make them better.

GOHMERT:

And I appreciate that. That answered my question, thank you.

SCOTT:

The gentleman from New York.

WEINER:

Thank you. Can I ask -- I don't know who referred to it in their testimony -- have all of these CSI shows polluted our debate over this to a point that it's almost irretrievable? I mean, they're -- they're -- I mean a lot of these -- these conceptions that jurors must walk in with, and even language like, "match" or "a hit" or -- I mean, I don't know who would be best to -- to -- to answer this -- I mean, don't -- aren't we in this circumstance that we went for this long period of time -- the technology -- we got this great new technological tool that everyone looks at as you can see on this committee through their own ideological lens -- some people see it as a tool to put away bad guys, some people see it as a tool to exonerate people who -- who didn't do anything wrong.

I think most Americans see it as both, and that's what the beauty of these tools, but are we at a point now that there's something that even a -- even a new government agency would have difficult handling, which is the language that we use when talking about it.

Is it your suggestion, Mr. Neufeld, that there be these -- these terms of art that get built into any standards that -- that are arrived at, that putting aside the mathematics that you would say a judge would -- would hear objection if someone used the word match, and they'd have to say with reasonable probability to one in two -- you know, one in a million or whatever -- how do you solve the language problem here?

NEUFELD:

Well, what the National Academy says, and I'm not a scientist, I'm not a mathematician, I'm not a statistician, but what the scientists in the National Academy of Science report say, is that we should probably ultimately eliminate terms like match, consisting with, and similar to, and instead have science-based testimony.

So, in other words, if you have a database that says that a particular -- let's say they -- they -- they do the research and they show that this particular impression made by a shoe occurs in, you know, one out of 80 pairs of shoes that are marketed in the United States -- whatever it is -- whatever the data is, OK.

Then an expert can get up there, and instead of saying, similar or consistent with, he would say, you know, one out of every pairs of shoes -- 80 pairs of shoes is like this one, the defendant had it and the perpetrator had it.

So if you do away with all those general...

WEINER:

But isn't there an unlimited -- unlimited number of combinations and permutations of pieces of evidence -- how would you conceivably do that? I mean, you're going to have a shoe match standard for -- for Keds in the year '72 to '81, you know, how do you do that?

NEUFELD:

Well, actually, I think, for instance, Mr. Hicks could answer that better than I could, because the FBI laboratory maintain databases on lots of things like that with fibers, you know, and...

WEINER:

And tires and things like that.

NEUFELD:

And things like that, OK. But what they didn't do in terms of the wear of a used tire or a used shoe, you know, you didn't have necessarily databases on class characteristics when it came to wear.

WEINER:

Mr. -- I'm sorry, go ahead.

NEUFELD:

So all I'm simply saying is, is that we have science- based testimony for DNA, and it doesn't have to be necessarily as -- as definitive as DNA. I remember the old days when I was trying a case where if the serologist said, you know, your client had the same ABO and PGM type, which was good science, and that we'd only see that -- that particular profile in one in 50 people, I thought that was pretty persuasive evidence of guilt.

Of course when it's now matched given the CSI world of DNA and one in a trillion or one in a billion, it may not seem that persuasive, but it was very powerful then. The point is no one should try and exaggerate or overstate the probative value of evidence.

And -- and I think it's a lot to ask gatekeepers to know exactly what's out there. It would be much better if there was some standard -- standard-making body which said, this is all you can say about the sneakers, or this is all you can say about the screwdriver, nothing more, OK. And these are your arrow (ph) bars, these are your confidence intervals, this is the chance of human error. You say all that. You put...

WEINER:

Well, let me just let Mr. Hicks weigh in on this. Let's take the -- the case of Mr. Barnes. Let's say there was jeans impressions in dust. Is it reasonable, as Mr. Neufeld and -- and the -- and -- is it reasonable to come up with types of standards for something that - like that?

I mean, is it reasonable to say, alright, we've got 220 brands of jeans, 900 different combinations, permutations, and sizes, here's the math. Is that a reasonable thing to expect in advance of a jury?

HICKS:

I -- I don't think so. I think you've already characterized there are certain elements of randomness there that may not lend themselves to those kinds of studies.

Now, the types of reference files that Peter alluded to there, the shoeprint file, the tire tread file, those weren't used for court testimony purposes, but basically to provide lead information. So if you saw a certain type of image of a shoeprint I said it was available at a scene, you might be able to tell the investigators it looks like this was a characteristic of a Ked -- Keds product produced during some certain time frame. You might be able to provide that lead.

But that's a class characteristic not an individualizing characteristic. So the next challenge would be, of course, for the investigators to find a suspect that happened to have those kind of shoes, and then see if a direct comparison of those can find those wear characteristics, those things that might suggest that they are similar in appearance.

WEINER:

Can I just squeeze in one -- one final question? The report talked about the disparities in <forensic> <science> capabilities from one community to another. Is -- are there trends that you four have seen that leads you to believe if you're in a big city, you don't want to have -- you don't want to get into problems with DNA because the prosecutors are less -- or is there a regional thing, you know, if you're in the West coast, you know they are much better at dealing with these things.

Are there some labs that we can look at? Are there some systems that on their own have gotten much better that you can say, you know what, St. Louis is a good system. They train their forensic people very well. I mean, are there -- are there those types of things that we can learn -- best practices from someone before -- as we're starting to arrive at what the national standard should be?

Or is it purely random? There are cases like Mr. Barnes, tragically, throughout the country, and there are cases where people were caught because of evidence as well. I mean, is there -- are there any conclusions we can draw from one community to the next? I know Virginia is just great, I hear. Just -- just terrific.

MELSON:

Well, Virginia is great. I used to be a state prosecutor there, and we had great service from Pete Marone's lab. I -- I think there are some labs out there that are better than others. In the accreditation program when a lab has applied for accreditation and they're just starting, we see a tremendous difference between the time that they begin the process and -- and the time that they're actually accredited.

And during that process, we see that some labs are better funded than others. Some labs have better training programs than others. So it is possible to point to particular labs and say they seem to be exceptional labs. That doesn't mean they can't make a mistake from time to time, but there are difference in quality of -- in quality between laboratories and communities.

And the issue usually is surrounding funding. How much money do they get to invest in the infrastructure, the capacity building, the education, the training, and the certification and retraining.

WEINER:

And have any states gotten ahead of the curve on this in terms of the accreditation of -- of laboratories, accreditation of -- or standards for -- within their own state courts that we can look at and say, here, this is a state that -- that's tried to do it better?

Peter? Do you have some sense that there are some -- some -- some states that you've operated in that seem to be more advanced on this than others?

NEUFELD:

Well, there are some states, for instance, which are trying to proactively deal with the problems of <forensic> <science> by having an oversight commission. For instance, in Texas, in the congressman's state, on the one hand, we've had the most exonerations through DNA in Texas, and it's not a reflection at all, I believe, on -- on the criminal justice system in Texas.

There have been a lot of people out there who -- who were able to locate the evidence. It wasn't destroyed in the intervening years. Thank goodness the laboratory saved all the old samples from 20 years ago, and they were able to do the testing.

But what they did do very affirmatively in Texas was they set up a <forensic> <science> commission, one of the first in the country. And, for instance, they're taking a look at arson -- at the mechanisms that were utilized in the old days to determine that a fire was caused intentionally as opposed to accidental origin, and they're actually trying to wrestle with that.

New York has a commission also that's trying to do some of that. Virginia now has an oversight commission as well. But that isn't enough, OK. It would be much better if there were a single entity nationwide that could look at this stuff, because there's actually no reason -- there's no reason why someone should think that you're going to get better quality <forensic> <science> in Nebraska than you will in Arkansas.

Something as important as that should be consistent throughout the country just as we require that the -- the use of medical devices or drugs is the same throughout the country.

WEINER:

Thank you, Mr. Chairman.

SCOTT:

Thank you. I think we've decided that the judge would be inadequate as a gatekeeper to decide what kind of scientific evidence comes in and comes out.

The next question, if it's not the judge, who is it? I've heard an accreditation standards, but would we have an accreditation standard for each different technique, that is somebody to accredit ate fingerprints, somebody to accredit some other technique, or would it be one agency for everything?

MARONE:

Well, I think -- I think you've got a number of issues there. If you're looking at setting up the methodologies, Mr. Melson mentioned the SWGs as a starting places. These are scientific working groups.

That doesn't mean that those SWGs necessarily composed all of forensic scientists. There can be other -- other scientists in there. In fact, the -- the -- the committee that was also mentioned in this (inaudible), has psychologists on it looking at -- at biased concerns and so forth.

And so, I think, the methodology is set up by -- by -- by technical groups that have particular interest or expertise in those areas, one. There is -- there are accrediting bodies -- recognized international accrediting bodies that accredit laboratories who utilize these approved methods.

You have certifying bodies -- approved certifying bodies -- already recognized certifying bodies that are in place that set the credentials of the individuals. Now, it's not

to say that the federal entity doesn't have a -- a role in each one of those developments, but the role of the federal entity is to make sure that all these things are working in -- in tandem and it (inaudible) well together.

That's where you need the oversight of, are you accredited by -- by appropriate means, yes-no? Are you certified by a recognized body, yes-no? Are you using appropriate methods, yes-no? All these things coming together at the same time. Do you have appropriate people who have the proper graduate or undergraduate education, yes-no?

And so that -- for me, that's what I see the -- the -- the oversight is being the facilitator, if you will, of all these different functions that need to all come together and be -- and really be meshed together quite -- quite intricately.

SCOTT:

Just following up on that. Mr. Hicks, could you indicate what effect the Coverdell <Forensic> <Science> Improvement Program has had? Has that helped in this?

HICKS:

It's been very helpful, yes. Of course, one of the elements of the eligibility for funding under Coverdell requires that the laboratory be accredited or be working towards accreditation. So that, I'm sure, has had a significant effect in moving laboratories towards those standards.

And the -- in New York state, the -- it has been very helpful in that regard in helping laboratories to update their systems, and to be sure that they're -- they're complying with the standards.

If I -- If I may just go back to the scientific working group issue too. I wonder if it's almost as the DNA experience, of course, as that technology was evolving and emerging, there was a high level recognition amongst lots of people about the potential of that technology.

The scientific working group was established to help draw that together and do it in a coordinated way that would meet the needs of the criminal justice system, and following that, we saw scientific working groups emerge in other disciplines as well.

But just as with DNA where once we got started, there were questions of backlogs and difficulty keeping up with the work, and the federal government came in and supported that activity, and it's helped to address that to some extent, that's sort of where we are, it seems to me, with respect to some of these other disciplines.

Perhaps is -- now that the elements are in place to sort of work on this, it just needs -- it needs some funding support to help drive the system. It needs some centralized coordination to help -- help guide the system and -- and address the kind of questions that were raised in the Academy report.

SCOTT:

One of the worst pieces of evidence and one of the most frequently cause of mistakes is eyewitness identification. How would -- how would we let eyewitness identifications come in?

NEUFELD:

The way we have let eyewitness identifications come in for the last 25 years, after a series of Supreme Court decisions such as *Manson v. Brathwaite* and *Neil v. Biggers*, is we look at five factors of reliability.

The problem is -- is that several of those factors, again, don't have a scientific basis for them. Although they were articulated by the Supreme Court 25 or 30 years ago, there's a whole new body of social scientific research done in laboratories coupled with the compelling data of the Innocence Project where 75 or 80 percent of our cases involve misidentifications that would warrant a second look, if you will, at what the court should utilize before an identification is deemed sufficiently reliable to be heard by the jury.

One other thing, Mr. Chairman, which is that you were asking about accreditation. There's a fundamental difference between accrediting a laboratory and accrediting an actual methodology. The -- the ASPA lab system accredits laboratories.

We talked about certification. We certify individual practitioners. But before you get to accrediting and certifying, you got to be darn sure that the actual technology that these people and these laboratories are going to use has been sufficiently validated. And, you know, folks said that well, we have SWGs to do that. SWGs, in large part, are user groups. They're some of the better people at better laboratories, but they're user groups.

We would never ever allow user groups such as pharmaceutical companies or doctors to be the people who sit at the FDA to decide whether a device can be utilized or not. We use an independent group, and it's always been a tradition in important matters of health and safety to use independent people as opposed to users to decide whether or not something has been sufficiently validated or not.

And that's one of the reasons why -- why the NAC called for a National Institute of <Forensic> <Science>.

SCOTT:

Thank you.

Mr. Marone? We -- we were talking about backlogs and -- and money. I don't think -- I don't think I heard a number. How much money do we need to eliminate these backlogs and improve the technology? In just order of magnitude, what are we talking about?

MARONE:

When -- when we begin to look at the complexity of all the issues that we're talking about, there are some things you can put a dollar figure on easily by estimating.

One of those is not how many people we need or how much equipment we need, because we still don't have the numbers on that. But let me give you a for instance. One of the -- one of the report's recommendations said that we need to -- to look at a bigger pool of employees. We need better qualified people.

How do you do that? You get the kids going to school interested in that. I'm old enough -- some of the folks in the room remember LEAA. I went to graduate school under LEAA. I worked 4 years. My loans were forgiven in graduate school. I worked in a lab for 4 years, boom. We need to do that again.

What would that cost? FEPAC accredited institution -- these are accredited institutions in forensic programs. There's only 20 some out there. I don't have a handle on how many students, just a couple hundred students. Giving them loans for \$30,000 a year, is \$5 million. That's what it costs.

To do that for undergraduate for all the existing programs that are there is \$55 million. We can put -- I mean, that's easy to -- to estimate what you need. Now, that may swell when -- when, you know, more institutions see that, but what it does is it makes those people competitive with the kid who gets a free ride to go get a Ph.D. in chemistry at Duke.

So you -- you can get the better qualified -- the sharper kids into the -- into the system. When we're looking at accreditation, accreditation roughly averages about \$10,000 per site -- excuse me, per site visit.

If we're looking at 11,000 entities out there that need to be accredited, 11,000 times \$10,000, \$110 million. So those are the ones that I can put easy numbers on to begin with. What's it cost to train the people to become accredited? Somebody's going to take classes in a year or two to work for that -- that particular agency to be accredited.

Training for that person alone is \$5,000. If there's one in each one of these institutions, it's 11,000 times \$5,000. So those are the ones that are easy to figure. The ones that are impossible to figure right now is, we don't even know if 11,000 is a good number, because we can't ascertain how many -- how many of these ID units or -- or crime scene units are out there.

I do in Virginia, because we did a survey. There's about 20 or 30 that do it full time, crime scene, and another 15 or so that have ID units -- fingerprint units. So we need to do that nationwide to figure out what we're looking at and what kind of facilities they're in, what kind of equipment needs -- it -- it is a very significant needs assessment.

The military would call it, you know, their requirements document, if you will. What do we need before we move on? The number is going to be staggering.

SCOTT:

Thank you.

And final question, Mr. Melson, in your testimony, you ended by saying that you would hope that somebody would ask you about the two recommendations you were not supporting. Did you want to comment on that?

MELSON:

Yes, sir. On those two recommendations, which the department feels needs further review, the -- the first is -- is whether or not there ought to be an independent agency, and I think that requires more review to see whether or not we could spend our money more wisely and our time more wisely than creating a new bureaucracy.

Both here at home and abroad, we've seen how difficult that is, how time consuming it is. The needs of <forensic> <science> are much more urgent than we can wait to have a new entity created.

With respect to taking the law enforcement laboratory -- or the laboratories out of law enforcement, that needs further review too. I mean, just to give you an example, and going off of Mr. Marone's comment about the 11,000 small <forensic> <science> service providers in police stations and sheriff's units and so forth, to get them out of there into their own separate laboratory is going to be immensely costly.

It's going to be very disruptive. You're going to get a lot of pushback, I would think, from the chiefs and -- and the police officers and so forth. The good news is that when you're accredited under the ISO standards, like many of our laboratories are accredited,

there are required management standards in there that require autonomy from the parent organization so that, number one, you can maintain your scientific integrity and independence, and two, there is independence of some nature with regard to the funding stream for those laboratories.

So there is something in -- in place there that meets the goals, I think, of the NAS report without stripping out these laboratories from law enforcement at an immense cost and disruption.

SCOTT:

Thank you.

Mr. Gohmert?

GOHMERT:

Just an observation with the greatest of respect, the chairman had indicated that it seems that we've established the judge is inadequate as a gatekeeper. And I'm still not sure that's the case. It just seems that...

SCOTT:

I think the judge -- the judge, in fact, will be the gatekeeper.

GOHMERT:

OK.

SCOTT:

There's no question about that.

GOHMERT:

OK.

SCOTT:

The -- I thank the judge for his comment.

GOHMERT:

They may need greater training and -- and understanding in order...

SCOTT:

And also the scientific backup. If he's going to determine it -- it has to be some scientific peer review to ascertain whether this is junk science or regular science.

GOHMERT:

Yes.

SCOTT:

As -- and then what happens after you find out that it doesn't particularly -- particularly work? We -- 60 Minutes ran a report on ballistics and -- suggesting that the protocol for ballistics evidence wasn't up to par.

Mr. Hicks? Do you want to comment on -- on where we are on that?

HICKS:

I'm not sure what you're referring to.

SCOTT:

60 Minutes did a...

HICKS:

It was about bullet lead identification.

SCOTT:

Tracing ammunition on...

HICKS:

On compositional analysis, bullet lead identification, I think. Is that -- is that correct?

SCOTT:

Yes.

HICKS:

Right. Of course I -- I'm not really prepared to comment very much on that other than what was in the report. But I think essentially the -- for some period of time, the FBI would look at the elements within a particular batch of lead, for example, look for certain -- for the signature elements, if you will, that would be present there.

And if they found consistency between one bullet lead and another bullet lead, they would draw the inference that they could have come from the same batch. And I think there have been studies shown that suggest that maybe that's the variability and the manufacturing process and everything else, it may not support that conclusion.

And so I think they made their decision to discontinue that type of service.

SCOTT:

Mr. Melson? Did you want to comment?

MELSON:

Well, I was just going to say that I don't think they found that the science was bad. The science was good, because it's an elemental analysis. What they found was that the conclusions that were drawn from that analysis were not necessarily accurate.

So it kind of talks to what Mr. Neufeld is saying is that we have to understand what it means to be consistent within other things. We have to determine that terminology and make terminology understandable to the lay person.

NEUFELD:

Just -- just to clarify that. It is part of the science to communicate the probative value of the experiment that you did. It's not a separate matter. Scientists would say that you

need a scientific basis in statistics and probabilities to communicate the value of the experiment or the analysis.

So it's all part of the same thing. What's interesting about the CBLA matter is that the FBI continued testifying in many, many cases over 25 years that they could say that a particular bullet found in a body or at a crime scene came from a particular box of cartridges found in the home of a defendant.

And the -- they didn't on their own realize that they had never validated sufficiently to make that claim. They never looked at that, and they allowed their examiners to so testify. After the NAS did its study saying, there's not enough science there to permit that kind of conclusion, subsequent to that, the FBI finally started writing letters to prosecutors around the country saying, you know what, when our expert testified in your case back in 1995 or 2001, OK, his conclusion was not sufficiently based in science.

So it is all about science as well when you give these probabilistic estimates, and why you need a separate independent entity to do this is because -- and bullet lead is a perfect example of it -- the laboratory didn't come to the conclusion on its own. It took the National Academy of Science to do it for them.

SCOTT:

Thank you.

Mr. Gohmert?

GOHMERT:

The -- the other thing I was going to mention though -- the study recommends that Congress provide funds with strings attached to state and local forensic programs in order to gain compliance with the best practices and standards. Because what this comes back to -- and it's been alluded to already, but we are the federal government, and most of the crimes we're talking about are state crimes.

And although some would like to obliterate the state lines and just say, we're taking charge of everything here, it is a matter of state, and some states provide better justice than others, and I would hope that we could bring states along as effectively as possible.

But I applaud those who do hold their prosecutions to the proper standards, because I don't want the public that may be watching to get the wrong impression that people aren't trying to do a proper job before they allow people to be convicted.

I think most people are, but I thank you for the time.

SCOTT:

Gentleman from New York? Any final comments?

Well, thank you. I'd like to thank our witnesses for their testimony today. Members may have additional written questions, which we will forward to you and ask you to answer quite as promptly as you can in order that your response can be made part of the record.

Without objection, the hearing record will remain open for 1 week for the submission of additional materials.

I, again, want to thank all of the witnesses. This is very helpful testimony, and we're going to follow through on -- on what we've heard. Thank you very much.

Without objection, the subcommittee stands adjourned.

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