

NELSON SANTOS: So, if I can have everybody sit down. I'm going to turn it over to Judge Hervey, who is going to moderate this session. Barb.

BARBARA HERVEY: Good afternoon. All of you know me. And I just want to say a couple -- I hate the word "queer" but -- queer things. First of all, I'm a little concerned about the last discussion because, after all these years of us working collaboratively, I really, really hope we're not going back to finger-pointing, because that's how I took it. And, please, let's not do that. And from my perspective, I think all of us, whatever discipline we come from, whether it's science or the law or law enforcement, the criminal justice system, as a whole, cannot be improved if we all don't work together. So, that's my personal opinion.

I'm going to speak last about Texas. You've heard about Texas a few times. I'm going to introduce the members of our fine panel, but what I will say is a little bit about me. I became very involved or very concerned about "forensic science" when I was robbed at gunpoint on the River Walk in San Antonio, when I was in law school. And, unfortunately, in that situation, there were three people who were involved in the robbery, my boyfriend at the time, we had a visitor from Atlanta who never came back to see us ever again after this experience. The robbers got a whole 13 dollars from us; after all, we were law students, we had no money. But the detective at the time, they did a show-up, and he really pushed us to ID all three people, which we could not do. And from that point on I was very concerned about eyewitness identification, and it progressed.

Presently, the Texas Court of Criminal Appeals, we have two supreme courts in Texas with equal jurisdiction, equal power, supposedly, although we don't get invited to the parties. We work very closely with the Texas Forensic Science Commission in our trainings. And at the present -- and our court maintains a grant from the legislature. They're playing with the numbers right now. I'm going to get less money than I usually do, but we get somewhere between 15 and 20 million dollars per biennium to train all of the lawyers and all of the judges in the state. And we, like I said, we work with Lynn, with the Forensic Science Commission. And we do all kinds of unique and exciting things, and we will continue to do that, regardless of what happens here. We will continue to train, as I hope all of you will.

So, without any further information about us and Texas, I'm going to introduce Carol Henderson. I'm sure a lot of you are familiar with her wonderful work. She's the founding director of the National Clearinghouse for Science, Technology, and the Law, and is a professor of law at Stetson. And you can read about her, her bio's in here. I don't want to take up anymore of her time [inaudible].

CAROL HENDERSON: Thank you, Judge Hervey. I will see if our technology works here. Okay. Okay. All right. I wanted to mention first that our path forward since 2009, and, of course, the NAS report, has been a long and winding road, particularly when it comes to what's been going on in training. And it is also a worldwide issue when it comes to training. And we're going to talk a little bit about what's going on in the rest of the world as well.

Okay. Some of the things that have been going on in continuing legal education forensic science have been done by both professional associations as well as government agencies. And in the slides, which you do have in your information packet, you can see different groups, like the American Academy of Forensic Sciences, the ABA, which we've had some speakers with the judicial division as well as the criminal justice section; of course, the NACDL, the American Association for Justice, and, of course, the NDAA all have done training. The thing is we do not have any universal training. So, we have all of this fragmented training, and it really hasn't been compiled in one place.

With judicial education in forensic science, which I know Judge Hervey is a big advocate, as well as Judge Waxse, who was here and spoke to you, again, we have different organizations who are doing the training. Again, there is not a universal curriculum, and I think that is one of the things that we have been working toward.

As was mentioned by Judge Waxse, the ABA, in August of 2015, passed a resolution where they encouraged this body to go ahead and develop a model curriculum for federal, state, local, territorial, and tribal justices. Also, this body itself passed a directive and said that they would like to, again, have

universal curriculum so that we could do training, and not just of lawyers and judges but also that we could be spread out to forensic science providers, law enforcement and victim advocates like the groups we heard from yesterday.

So, the group that I head and direct at Stetson University College of Law is the National Clearinghouse for Science, Technology, and the Law. And what I want to do is tell you a bit about this. Many of you are familiar with it, and I know you actually use our database that we have, and our training materials. We were founded in 2003. We have 1.4 million visitors from over 170 countries using our database. We've trained over 14,500 forensic professionals. That's everyone from the practitioners of forensic science to lawyers and judges. We have over 600 students who have participated and worked on pro bono projects to help us with our research. We produce an e-newsletter called "It's Evident," which, right now, because our project is dealing with training capital litigators, focuses on issues for capital litigators. We have 144,000 data points in our database, which is free for anyone in the world to use. We also have 8,886 multimedia records. We have a collection that is available through interlibrary loans. So, if your local library, even if your law school library, does not have this particular piece of information, we can send it to you. And we have received grants both from NIJ and from BJA.

So, now what we're doing is, with our BJA grants, we received 800,000 dollars from BJA to do 16 interactive webinars, six live training sessions. We have continuing legal education credits given two hours per webinar, and 11.5 hours for each live training session. And all the webinars are also available on demand. So, if you're in trial, on the bench, or something else, then you can go ahead and receive the training after the live part.

We have an education and training page on the NCSTL.org. And there you can see other things that we've developed, like with NIJ, we did DNA for the defense. We did Law 101 so that we could also train the practitioners of forensic science in the legal system.

Now, our webinars are not talking heads. I must tell you, it is like a mini TV show. We are very blessed, I have to say, at Stetson University College of Law, we're the number one trial advocacy school in the country. Number two is Temple, which Jules told me to tell you. And so one of the things that we do is we have two TV studios, and we have a person who knows how to produce shows who is on our, you know, production team.

So, what we do is we have to develop, just like you would a TV show. We have identifying, of course, who's going to speak, outlines, scripts. We have to do pre-production, post-production. We coordinate with our continuing legal education group. We have advertising and graphics. I would say outreach, not advertising, probably would be the better terminology. And what we do is get the word out to all those who can utilize these types of services, and bring them then these skills that they learn to the courtroom; okay? And we then make them on demand. So, during the course of the webinar, all the participants online, and we've had over 200 at one time, will send us questions to be answered by the people who are the speakers. We also have video clips, and I think this makes a big difference. Instead of having a talking head alone, we will go -- and I'll talk about some of the ones we have produced -- actually to a crime scene, for example, and then process it.

So, here, for example, is our first webinar that we did, which was "Crime Scene Essentials." And this was on March 2nd, 2016. And we set up, with LEIC, which some of you are familiar with, the Law Enforcement Innovation Center, a crime scene, and then took the participants in our webinar through the crime scene, discussing what is done or should be done at every single stage, including, say, presumptive tests, all kinds of other things. And so the participants who are there online with us would go ahead and type in questions. And we had two people, one was a crime scene reconstruction expert and the other person is both the DNA analyst as well as a blood stain pattern analyst, and could answer any of the questions that the participants had, as well as give their own expertise and talk about things that made a difference when they were processing scenes.

Our second webinar was on crime laboratory essentials. And we had the great cooperation, of course, here from Ann Talbot. She had just opened her laboratory up there at the Metro Nashville Police

Department. And we took the participants through a crime laboratory and showed them actually how each piece of equipment worked. So, it was something -- I think it's much better if somebody sees how something is done and actually gets the video and can look at it and then also ask questions of the speakers as well as other participants. We also bring in sometimes lawyers as well as scientists. Even though our goal is to train in forensic science, we have to say, well, how are you going to use it in the courtroom, and that's why we'll also have guest speakers who are lawyers as well, both defense and prosecution. So, our game plan is to train both the prosecutors and the defense counsel who are doing the capital litigation death penalty cases.

Okay. On our third webinar, this one I talked to Angela Williamson, who is my policy advisor, and I said have they ever done, I would say, a live autopsy; okay? It makes no sense, of course, but have they ever filmed one and presented one online? And she said, "Why don't you ask if they'll do that?" So, I wrote a memo and said this would be an incredible learning experience, and I did get I would say -- prosecutors and defense counsel say we need this online. So, that's what we did. We actually had a medical examiner film an autopsy. We didn't show it from start to finish, but we concentrated on areas like strangulation, blunt trauma, different gunshot wounds, and then had people discuss it, both the person who actually filmed it while doing the autopsy as well as issues that can arise during an autopsy.

Then what we do is we put them on our Education and Training page. We also produce bibliographies of information so you don't go to court without having both scientific data to bring with you as well as case law. So, our bibliographies cover both science and law. And that's also posted on our training page.

Now, we have future webinar topics that we've contemplated, but we are trying to get feedback, too. We get feedback from the people who participate in the other webinars, as well as people who say, "You know, I wish I knew more about X." So, for example, we have a lot of opioid problems these days, as I think many of you are aware. And so when we do our toxicology essentials, we want to concentrate on that. We, of course, are going to talk about bias, because that's a very hot topic at this point. Also, how do you understand a scientific report? How do you locate, evaluate, and select expert witnesses? How do you do appropriate discovery when you're dealing with expert testimony? And also we'll talk about how you do a motion in limine. And, again, that's why videotape is very important. So, if you have a video to demonstrate things and people can also then talk to our live speakers, all of this really helps in learning and absorbing data.

Now, with our live training sessions, they go for two days and we have, again, 11.5 hours of continuing legal education. This was the agenda that we had in July last year on Forensic Science 101: Interpreting DNA Results, and you can see the rest of the topics that we cover. At the next one, we want to have judges present to be asked the judges panel. Another idea, which Angela had which I thought was great, is "Ask the Lab Personnel," have actual scientists there at a roundtable where the participants in the live session can go ahead and inquire about issues that can arise.

Now, what does the future hold, and this is one thing I know that Judge Hervey and all of us on this panel have been talking about? Where do we go from here; okay? Now that we know we have all this data and we know that training is important, what do we do? Well, there's certain things, and this is where we can talk -- it is global, not local, when it comes to forensic science. And what they've done in the U.K., and I have sitting next to me John Butler, who's working on the first we call them either a "primmer" or a primer on forensic science. So, what the judges have requested, we were part of a Royal Society meeting over in the U.K. back in February of 2015, and they said we would like sort of, I would call them "in a nutshell" things, if I remember from law school, that we would have this information.

So, what they're doing in the U.K. is they're developing these primers for judges. And John can probably talk more about it probably later about what is going on over there. So, they're doing one on DNA first, and then gait analysis, which is apparently a hot topic in the U.K., which is not here in the U.S., but that's one of the other issues that they said they needed to have a "primmer" or primer on. So, you can see that this is being done with the Royal Society, which is the oldest scientific society in the U.K. And then in partnership with the Judicial Colleague and the judiciary in the U.K.

Now, here's some of the things, I think, if we continue on the path forward, what we should be doing in terms of training. We have to coordinate training across all groups, judges, lawyers, forensic scientists. We need a level playing field so everybody knows what the other team is doing. And I don't mean that in terms -- I'll tell you, when I train people, both prosecution and defense together, I give them strategy sessions. They can run into a room without anybody from the "other side," I'll put in quotation marks, all right, because I think that's good if they feel that way. However, the science is the same no matter what.

I think there has to be an ethics component. That is a theme I heard throughout all of the last two days, that we really are concerned about not just lawyers ethics but forensic scientists ethics as well. And, again, both sides should be thinking about, well, all right, if I'm a lawyer, I need to know what kind of ethical codes are out there for forensic scientists. Same thing, the forensic scientists should know, well, is the lawyer doing the right thing, what kind of codes do the lawyers have in terms of ethical guidelines?

We should also gather all the training information in one place accessible to all. That's been a problem. I know on my training page, I bring as many things together as I can, but we have to make sure that everything -- there's nothing missing, and that we have all of this training data together. We should also have mobile access to training materials. The recent ABA Legal Technology Survey Report from 2016, which I just pulled, is amazing. Most lawyers, and this won't surprise any lawyers in the room, work off of mobile devices mostly, 90 percent at home, in airports -- I think all of us know this, okay -- and other places. So, you have to make it user-friendly on mobile devices when it comes to your training. Now, I know some of you might rather check Facebook instead of a training, you know, video or something like that, but there's no such thing as a lot of downtime anymore, and that's another thing we want to take a look at.

Okay. You should have the continuing education and certification credits, because I think most people -- in fact, the vast majority of states require that for attorneys. And then we should follow up on previous work that's been done, both by NIJ and other groups. And two things came to mind here, one is "Scientific education for judges: what, where, and by whom," by Mara Merlino, who's now in Kentucky. And I would say you need to look at this. It was 2003. We need to follow up on this. It was what every resource that's out there on forensic science education at law schools and at other institutions. That has not been followed up since 2003. Okay.

The other one is this focus group on scientific and forensic evidence in the courtroom, which I was on the panel, and also Jules Epstein was, Ron Reinstein -- Judge Reinstein, and that has not gone anywhere. And I reread it the other day. I'm a packrat, I save everything. And so that was one thing I said 2007, some of these are the same things we're bringing up now, and we need to follow up on things that our tax dollars worked on before. So, I think this is just something to consider is we should move forward in this path that we have been traversing for a while and actually get some things done.

Okay. So, you can contact me. That information is in with your handout material. And, of course, I want to thank BJA for my funding at present. And we continue to march forward on our path. Thank you.

BARBARA HERVEY: Excuse me. Thank you. And now we're going to have a presentation from Dr. Angela Williamson. And she joined the Bureau of Justice Assistance DOJ as a senior policy advisor. Again, her long and extensive résumé is in your materials. She's an excellent -- excuse me -- excellent addition to this panel. And without further ado, I don't want to cut into her time, Angela, please.

ANGELA WILLIAMSON: Thank you. So, I'm going to tell everyone how we are using our taxpayers dollars to do training. So, Stetson is one of our grantees, and I just want to follow up about the other programs that we're doing besides the capital litigation.

So, the first thing that we have in BJA, which makes us a little bit different to NIJ, is that BJA does very similar things to the National Institute of Justice, but we also really focus on training and technical assistance. So, that's kind of what differentiates the two departments. I know it's often confusing. And I hope everyone's familiar with NTTAC, which is our free National Training and Technical Assistance Center. And they service everyone in the country, so anyone in the criminal justice system who needs

assistance with any topic you can think of, I haven't listed topics because it's really anything you can think of. You can contact NTTAC. You can get -- it's short-term assistance. You can get access to training events, to webinars, to experts. So, anyone that you need help with, any expert across the country is provided free of charge by the Bureau of Justice Assistance. Sorry.

Just important links. You can go to the website to see previous trainings, upcoming training events, archived webinars, resources, and a catalogue of things that NTTAC offers. More specifically, some other programs we're working on at BJA. This has stopped working. Okay. The Homicide Enhancement Training and Technical Assistance Project was something that I've been involved in in the past, and we are doing this in collaboration with the Police Executive Research Forum. In a nutshell, we are going into jurisdictions that have an increase in homicide rates and a decrease in solve rates.

So, our current sites we're working with, no surprise, Baltimore, Pittsburgh, Cleveland, and Miami P.D. And they've -- all sites that -- their police chief has reached out and said, "We have a problem. What can you do to help?" So, again, it's not a bunch of bureaucrats going in to help. We work with the Executive Research Forum, and they have a team of subject matter experts who are from the field. So, it's not people who don't know what they're talking about. It's actual practitioners going in, meeting with the sites to assess their problems, and to develop strategic plans to really help these sites get up to speed.

I'm sorry. So, one of the things we do with our homicide program this year was we held a training in this very room and we had all the police jurisdictions in attendance. And we also had some jurisdictions that have successfully addressed similar problems, and experts from those fields as well. Some things we trained on were how to improve homicide clearance rates, tools for building an effective homicide unit, which seems really basic, but when you go into these jurisdictions you don't even have digitized files, you don't actually have designated cold case units. You have SOPs that are dated 1995 and haven't been updated since then, and you have checklists that don't have a single mark on them.

So, often, it's really fundamental issues that we're finding, but then we also have the forensic issues where there's no communication between the lab, the crime scene personnel, and the detectives, or very limited understanding. So, one of the main trainings we're making sure that all these sites are getting are understanding forensics, the capabilities, and working more hand in hand with the labs and the crime scene units.

The main program that I oversee at BJA is the National Sexual Assault Kit Initiative, which has really been driven by findings that NIJ found when they did their research projects, particularly with Houston and Detroit. The program was developed to not only test sexual assault kits, but really to get at the fundamental issues of why sexual assault kit backlogs keep happening in this country.

A whole list of things that we fund, the program is not just funding forensics and testing. We fund the sites to actually count the number of kits they have, which can take up to six months. It sounds like an easy task, but you'd be surprised where these kits are hiding. We pay them. They have to track the kits so there's a full accountability of all the sexual assault kits. They have to do a slew of performance metrics so, by the end of this program, we know exactly why the problem happened, how they're fixing it, and the main outcomes. We train them on anything you can think of to do with the issue of sexual assault as a crime, and in the forensics arena as well. And we pay them to investigate and prosecute the crimes, as well as support the victims involved.

We have nearly hit every state in the country for our grantees so far. To-date, we've handed out about 80 million dollars in funding for sites. And right now we're reviewing the latest applicants. And we'll probably award another 20 awards for another 40 million dollars. So, about 120 million dollars has been invested since 2015 in the program.

The other biggest thing that we're doing with this, which is a little unusual, is that we actually carved out, to-date, 11 million dollars just for training and technical assistance. Because we didn't want to give funding to the sites just to test their kits and not really understand what they were deficient in, what they

needed training in, areas for improvement so that, once the funding runs out, they have sustainable practices and policies in place.

So, Research Triangle International has 11 million dollars from BJA. They're our main provider. They have a team of about 50 subject matter experts from across the country. Rebecca Campbell is one of our experts. We have people like that on the team. So, prosecutors, victim advocates, investigators, forensic scientists, policymakers, Joyful Heart, RAINN, they're all members of the SAKI TTA team. We have a website, SAKItta.org. And like Carol said, it's important that we have one place where we have all our technical and training documents, webinars. Everything to do with the crime and sexual assault is on this website and updated continuously. And this is available to the public as well. This training and technical assistance started as just for our grantees, but now it's for anybody in need in the country.

So, some of the training topics that we focus on are how to tackle the crime and sexual assaults and backlogs from a multidisciplinary approach. That's helping sites get their policies and practices in place. And, again, sustainability, how they get a SART up and running, and how they keep it once the federal dollars run out. From a law enforcement angle, we're helping them with guidance on investigative steps after you get a CODIS hit, because I think most people know that in a lot of these cases you get a CODIS hit and it never even gets to a detective. And if it does, does it always get followed up on, and especially in a timely manner, not so much.

What to do when you get multiple CODIS hits, CODIS hits outside states? For example, Detroit have had CODIS hits from their sexual assault kits to 40 different states. So, one of the biggest things we're working on is how do we get these sites talking to each other, how do we get all this case information linked up? We help them with writing policies and procedures on investigative standards. Collecting and handling evidence, we're helping them work with their SANEs on how to do this and how to do it more efficiently and more effectively, and really basic stuff like managing investigations and case information to make sure things don't slip through the cracks.

We train our prosecutors well. The biggest problem that we're facing, these are all cold cases. So, how do we get engagement from prosecution? How do we successfully prosecute a cold case sexual assault? We train our witness preparation, cross-examination of expert witnesses, and presenting sexual assault evidence at trials so that juries understand it. The same programs, not every state, not every jurisdiction we work with has actual SANEs, so we're working with sites to enhance this and try and encourage their policymakers to actually have funds carved out for SANEs. And, again, we fund SANEs under our program, but we want to make sure it continues once our funding runs out.

We work with the crime labs as well, so making sure that the crime lab information is linking up with investigators and prosecutors, everyone involved in each step of the actual case. Understanding DNA analysis, we all know that we have investigators and prosecutors out there who still don't understand. It's a uniform training for everyone who's involved. And how to prioritize cold case evidence, so what do you do when there's tens of thousands of sexual assault kits and how are you going to prioritize what you should be testing first?

Victim advocacy is a huge component as well. Support and training regarding notification, the debate on how to notify a victim is huge. And we've seen some great practices. We've seen some practices that don't work so well. And there's going to be some really good findings that come out of this work to really provide national standards on how victim advocacy should be done for cases like this.

So, some of the trainings that we've delivered to-date, we've done DNA 101 for law enforcement agencies; utilizing CODIS for sexual assault kits. It seems really basic, but a lot of people still don't really understand CODIS, what can get uploaded, how hits happen, what it means when you get a forensic kit or a suspect hit. So, we cover the basics like that as well. How you conduct a large-scale, multijurisdictional inventory, what does that mean? Well, a lot of our grantees are states. So, how do you get every jurisdiction within your state to play nicely and to actually do a proper inventory so that in five years the Washington Post doesn't come out and say, "Whoops, there's another 5,000 kits that you missed"? We don't want that happening.

Research, so a lot of our sites have research partners. And we're actually doing a research project with NIJ as part of this as well, to really -- what does all this mean? What can we learn from this and what policies can we set up for the future so it never happens again? As I mentioned, strategies for victim notification, this is ongoing and this is something we're really working on from training and technical assistance.

Sexual assault kit evidence tracking, most sites have an Excel spreadsheet. It's a start, but we need to do a little bit better than that. So, we're really helping our sites enhance what they have for tracking so that it kind of relays to all the players and that it's easy to use and that it's not lost in the future. Cold case sexual assault, where do you even start when you start investigating? And one of the really important topics, which if you know Rebecca Campbell, she always presents on this, the neurobiology of trauma and consideration of how you treat the victims, how you notify them about the case, and how you involve them in the sexual assault kit process.

So, that's just a snapshot of some of the things we're doing with training in BJA. We have other programs and we're constantly expanding and looking at things that need to be trained on in the field. Our goal is to make sure everyone gets education and training. So, regardless of when the grant money runs out, we want to make sure these resources are permanent and are always available via the web for everyone. Thank you.

BARBARA HERVEY: And now we have a judge who I know quite well, and he's kind enough that when I go to Arizona to see my grandchildren, we often get together and discuss training. I know, that's really bad, but we do. Ron Reinstein is a consultant for the Supreme Court in Arizona. And he trains and trains and trains. And just learning about their methodology, we share ideas. I've been invited to Arizona. He comes to Texas quite often, speaks for one of our grantees in particular. And he is here to talk about their very different and unique strategy in Arizona. Ron.

RON REINSTEIN: Thanks, Judge Hervey. Well, I really appreciate being asked to participate in this panel. You know, I see a lot of faces that I've known for a long time, people that I've really learned from, Cecilia, forensic science, and Kathryn about victims issues. It's just been -- and Dean about the proper management of a crime lab. But I'm going to talk to you a little bit today about what we've done in Arizona. Judge Hervey has the Cadillac of training for a state. We operate on a shoestring. We have no legislative authority. We have very little funding, but we've been able to accomplish, I think, a lot with what we have.

We started -- the Arizona Attorney General formed the Arizona Forensic Science Advisory Committee in 2007. They appointed me as the chair, and I've been the chair since then. It's a broad-based committee made of all criminal justice stakeholders, prosecutors, defense attorneys, law enforcement, medical personnel, victims, judges, and the state crime lab and all the local crime labs in Arizona. And we really -- one of the things we've really developed was a commitment to training.

We started an education subcommittee I believe in 2009. And since the inception, Jody Wolf, who's the Assistant Administrator at the Phoenix Crime Lab, has been a chair of the Education Subcommittee. Jody's the past president of ASCLD. And really the education component of the Forensic Science Advisory Committee has been a labor of love for Jody. She devotes a lot of time to it. She's very committed to it. And, in fact, she provided most of the slides for this PowerPoint. I'm not a PowerPoint kind of guy.

The -- all right. What we decided to do in 2009 was look into doing an Arizona Forensic Science Academy. And, again, the academy board is made up of a number of the people who are on the advisory committee to get a broad perspective from our membership on what was needed for training. And our program goals are to increase the criminal justice practitioner's understanding of forensic principles, scientific methodologies, and evidentiary concerns. Our target audience is, first, lawyers and judges, prosecutors, defense attorneys, and judges, and I'll talk about that in our -- as to our basic and advanced academies. And then branched out to education for forensic scientists and also law enforcement.

We wanted to start, first, with a basic academy. And what we decided was that we wanted to develop an innovative course that would bring both prosecutors and defense attorneys together to learn about the scientific issues which are presented in criminal cases from the experts who actually do the science. And, you know, from a state perspective, as we all know, lawyers and judges are kind of anti-science. And most of our lawyers and judges know very little about science, let alone forensic science. So, this is different because we have prosecutors and defense attorneys in a room together, learning in a non-adversarial manner.

It's presented by experts from the accredited and recognized labs in Arizona, and also it's a forum that encourages open discussion and questioning from all sides, but not in an adversarial manner. We don't point fingers at each other. We try to start from scratch as to that this is a collaborative effort that we want everybody in the legal field to understand about forensic science. I'm not -- this is not working to get me to the next slide.

All right. So, the training programs that we offer are the basic forensic science academy. It's a multi-week program. It consists of lectures, a tour of the crime lab, and the medical examiner facilities. We offer autopsies to all the participants that -- they're not going to have an autopsy, but they view autopsies. We offer hands-on exercises, of course, continuing education credit. And these are some of the topics that we utilize in the basic academy. And also we utilize judges and experienced lawyers for some legal issues in the basic academy. And we cap the basic academy at about 40 participants each time. The advanced academy has less participants in it.

Our academies run every Friday afternoon. And each of the participants is expected to attend 80 percent of the sessions, at least. Some of them have to be -- have long motions on their Fridays, but we've had really good attendance from all the participants. And it usually runs from about 1:00 to 4:30. The advanced academy is also multi-week, but I think the basic academy is about 11 weeks. The advanced academy is about nine weeks. Again, that consists of lectures. We do case debriefs in the advanced academy. We bring in some national experts for guest lectures to the academy.

We brought in Chris Plourd from Arizona -- I mean from California. Dean has spoken, I think, on our forensic science series. Judge Hervey, as she said, has been here. Lynn Garcia and Mike Coble from NIST. We've had Sue Ballou come in from NIST. We've had Melissa Taylor come in from NIST. We also give, of course, continuing education credits for the advanced academy. And this is a more in-depth review and analysis of forensic science disciplines. We limit it to DNA and biology, latent prints, firearms. We've added digital in this the latest one that's going on right now, and then we have an ethics component as well, and legal issues. I may give up on this clicker.

We perceive the need for lawyers who mainly do work in the limited jurisdiction courts doing misdemeanors. So, we started one 3-D Academy, we call it Domestic Violence, Drugs, and DUI. Again, this is multi-week. It's shorter. The domestic violence had to do with the analysis of strangulation cases because that turned out to be a big, big problem in the Phoenix area in particular for DV cases. Again, we do in-depth review and analysis of those disciplines and those are the topics that we cover in the 3-D, and that was really appreciated by the people who do misdemeanor work.

Then we decided we wanted to develop a forensic science speaker series, lecture series for forensic scientists, but also to invite lawyers and judges to attend as well. We've done 21 of those now. We usually have six a year. They're standalone, four-hour lectures. It provides continuing education credits for forensic scientists. And we bring in usually recognized experts as lecturers, both national and local. The topics are identified to meet the continuing education needs of forensic scientists and attorneys, as well as law enforcement. Some of the examples you see there are DNA mixture interpretation. Mike Coble came in on that with -- from NIST. Analysis, emerging drugs, ethics issues, cognitive bias. Glenn Langenburg from Minnesota came in and talked about cognitive bias issues. But that has been very well attended as well by forensic scientists in particular.

Judges training is a little bit different because judges really can't go every Friday afternoon. So, what we decided to do was invite judges to come to any of the sessions for the advanced or basic courses that they were interested in, but we saw a need that there had to be a really standalone judicial training for forensic science. Chief Justice Scott Bales has been really supportive of this. He made forensic science training for judges as part of his strategic agenda. We partnered with the Arizona Judicial College in December. We did a two-day dedicated conference. We brought in three national speakers and all the rest were local. Jules came in and was the keynote speaker, along with Sue Ballou and Charlotte Word, who's back there, taught our biology and DNA session.

And we ran the gamut, the basic issues, Daubert issues, forensic biology and DNA, death investigation, controlled substances, firearms, toxicology, digital, and latent prints. We filled a lot in a two-day period. We're going to be doing those judicial trainings at least every two years. We're going to do the next one in 2018. And we're hoping to expand that to a three-day program because of the evaluations that we got that were through the roof. I mean, we -- on a scale of five, virtually every session drew 4.8 to 5 as the evaluation, because it was something that was clearly needed by judges.

In addition to the two-day training, we have, each year at the State Judicial Conference the last several years, we've brought in somebody from out of state to do a focused program on forensic science. The other thing that we really wanted to do was impress upon the judges the issues that have been brought forward by the Arizona Justice Project and the Innocence Project. So, we brought in experts on eyewitness identification, on false confessions, on neuroscience and the law. We brought in Chris Mumma from the North Carolina Center for Actual Innocence with one of her clients, Dwayne Dail, to talk about his experience and the issues that were involved in his case regarding eyewitness identification, then eventual exoneration by DNA.

Ray Krone is one of our two "exonerees" in Arizona. Ray has spoken several times in Arizona and has been, you know, a real force in, I think, promoting change and getting judges to understand the issues. I know Peter talked before about bite-mark evidence. We stopped using bite-mark evidence in 2002 after Ray Krone's exoneration. The attorney general of Arizona, as well as the Arizona prosecuting attorney's advisory council, decided together that they would not use bite-mark evidence anymore. That's why there's no cases in Arizona. They repudiate bite-mark evidence because there has not been one instance of it -- of being used.

We did another program at one of our judicial conferences which was really interesting. It was victims of crime and victims of justice. So, victims of crime, we brought in Brooks Douglass. I don't know if any of you know him. I'm sure Kathryn does. Brooks' parents were murdered in Oklahoma. His sister was raped and shot and left for dead, and Brooks was left for dead as well and shot. Gave a very compelling talk about that. And then we brought in Ray again to talk about him being a victim of the justice system. And what was really remarkable, maybe not so remarkable, is the relationship that Brooks and Ray had in seeing how they both were really victimized. And it made a huge impact, just as Dwayne Dail did when he came in and talked with Chris Mumma.

We also had another program where Ray came in and we brought in jurors. The jurors were brought in that were in Ray's trial. And those jurors, you know, they felt so guilty. They were crying. And Ray was -- I don't know if any of you have ever heard him. He's a pretty articulate guy. And, you know, he does not blame the jurors. He got apologies from the law enforcement officers that were there, the detectives that were involved. The only person who didn't apologize to him was the individual prosecutor who tried that case. The district attorney -- county attorney himself apologized, but I know that's always stuck in my Ray's craw over the years that the individual prosecutor didn't apologize.

The training that we've delivered, we've done six basic academies now since 2011. We're on our fifth advanced academy currently. It's -- this Friday will be the second session of that. We've done the one 3-D academy. We've done 21 forensic science series lectures. We've had the one judicial training, plus the additional judicial conferences. I also do a presentation at new judge orientation each year for all the new judges that are -- that have come into Arizona to the superior court system. We've had, 1,200 total attendees over the years.

And right now, what's next, we have the current advanced academy going on. We've got three forensic science lectures scheduled now for in the next couple months. We're going to go to webinars. We've made a kind of testing on that. We're going to try two of those because the problem we have in Arizona, you know, for those of you who know the state, about 68 percent of the population is in the Maricopa County-Phoenix area. It's difficult for some attorneys to come for our trainings that are spread around the state, especially since it's every Friday. And so we're going to attempt to do the webinars. And, again, we're going to continue to do judges training.

If any of you have any questions, there's my contact information, Jody's contact information. And the last one is Marna McLendon, who's with the Attorney General's Office. She's our staff person. She's an attorney who retired from the AG's office and has done a lot of work in this field. And Marna just finished a report for RTI on forensic science commissions, and I know she spoke extensively with Judge Hervey and others. Thanks.

BARBARA HERVEY: Excuse me. Next, we have Kevin Lothridge, and he's an accomplished forensic scientist and business leader. And he has served as the President of the American Society of Crime Lab Directors, and is a fellow of the American Academy of Forensic Sciences. And so, without further ado, Kevin, thank you.

KEVIN LOTHDRIDGE: Thank you, Judge. As it was stated, I actually am the CEO at the National Forensic Science Technology Center. We've been around 21 years, going on 22 years. We had a humble start with 1,500 dollars and a mission to do good things from the American Society of Crime Lab Directors. And from that time, we've done a lot. I think we should have been called the National Forensic Science Training Center sometimes because we do a lot of training and have done a lot of training.

One of the first things that we realize, as you're dealing with technology, you have to deal with training. And we focus primarily on the laboratories themselves and people working in the laboratories, so technology training. However, over our 21-year history, we have done many projects for NIJ and BJA. And I sent around a little flyer just to show you some things that have been done. And when I get to the end of my talk, I'm going to talk about where the gaps are and kind of charge the group -- even though this is the last meeting -- with some things that should be continued on.

It should be noted that all the people sitting up here have really done a great job in developing training capabilities. Those of you who have delivered training know that you can't just decide one day you're going to give a training class. You actually have to have some capabilities and you need to be thoughtful about what you're going to invest in, are you going to use those tools over and over again, because forensic science training gets very expensive.

Some of the things that we do are not only in the U.S. but for international customers. Forensic science is a global business. The opportunities and challenges are the same. Therefore, if you're smart and can leverage partnerships, you might find that there's way to expand the training that's developed in one country to another, and I'll speak about that. We've also branched out from state and local crime labs to things that support law enforcement to work with our military as well as the Department of State and other countries in looking at their needs. We not only train analysts and crime scene technicians, we also take training into the field to individuals that may use a forensic service. We also, as I've said, have done a lot of work in site exploitation training or training for the U.S. military.

What's it take to build a training program, which is one of the things I think this group needs to think about? You should really look at having an instructional design staff, not just a bunch of really great subject matter experts, because we can all tell a wonderful story. That doesn't mean at the end of the story somebody's going to be able to do something better. And, in this case, we actually have subject matter instructional design folks that work with scientists to actually make sure the pre-learning and post-learning meet the goals of the individuals.

We also use subject matter experts that are leaders in their field and know the technology and how to get that information across. I put up here we have a DEA license -- it's not because Nelson's sitting next to me -- but we also have an ATF license, because when we do the training for people on technology, we use real substances instead of simulants so that if they're asked "What did your training contain," they can say, "We used the same types of materials we're going to analyze in our day-to-day work."

We've also been a big advocate for the last at least 17 years of blended learning where we have some web-based delivery as well as stand-up, face-to-face delivery. People ask, "Well, why did you guys that?" Our background is we came in support of a lot of academic institutions. And one of the things that's problematic is if you have a subject matter expert who develops the content and goes away, then that content may go with them. If you build a web-based delivery system, that material is there for other people to either adapt or use so that investment that you make up front can be spread over several years. And we put on our own online learning system. It's called NOLS. Being from Florida, it's not for the Seminoles, even though I'm a big fan, but that's what it's called.

And NOLS is very interesting because a lot of people told us our customers -- and I heard the word "customers" today, and "clients," and all those things -- the people that want training will access training that's available to them 24/7. Carol talked about they would rather watch a -- go to Facebook or whatever it is. We have a lot of people in here who were there at midnight, 1:00 AM, doing training programs. And it's really, really important that there's a system that these people who want the training can get it. We've looked at all those online programs. We've standardized on Desire to Learn, which is a commercially available program. We worked with the company so that we could actually charge the people per seat usage instead of a big, giant fee. We don't maintain servers or anything. It's almost like a subscription service. They can be self-paced, can be combined with instructor-led.

I'll give an example of that. We do training for the Australian military. All of the online courses there are prerequisites before the people show up. That way we know we have a baseline of information. We also then have all the lectures in the online learning environment so that if they have to step out, they haven't missed anything. They can go back and get that same information. Or we can point them to exactly where that's at.

We've also converted some of these to a fee-for-service basis for just anyone that wants to use it. So, we have an introduction in intermediate crime scene. We have a forensic biology, a digital crime scene, and a DNA analyst program. I look around the room and see people we've asked for some input on, how do you price these, how would you use this as a practitioner. The introduction to crime scene is 129 dollars. The forensic biology and the digital crime scene I think are 79 dollars. And then the DNA analyst, which is a much more complex program, is about 995 dollars. We do have good uptakes. And how do we know, you know, that people want this? We actually have the statistics to show what's going on.

The online growth is about 20 percent per year. We have a YouTube system with videos on there that anybody can go see. If you haven't been there, please visit and subscribe. 1,900 subscribers, doesn't sound like much for the really popular viral videos, but we're talking forensic science, so I'm pretty happy with that 1,900. 4,000 views and hundreds of minutes seen. We actually did a project for BJA called Forensic Science Simplified. Earlier, the panel right before us was talking about who are your jurors, who are the general population, and I'll talk a little bit more about that, but that 700,000 people went to Forensic Science Simplified in 2016 alone. We're the top ten at the NFSTC. Free online training, introduction to CSI online, CSI Guide, which is a joint product of NIST, NIJ, BJA, and the NFSTC. Online courses, DNA analyst online training, and, in general, forensic training. There is clearly a huge need for additional training venues and outlets, but it also needs to be quality training.

As I said before, we switched in the mid-2000s to being supporting the Department of Defense in their application of forensic science. I don't know how many people actually realize the amount of forensic science that goes on outside the criminal justice community, but it's quite substantial, particularly in the intelligence community. And what are the things that we teach them? We teach them basically the same type of crime scene -- it's a tactical crime scene. You have to deal with the same type of problems. The only thing is they may only have 15 minutes. And sometimes time is not your friend. We have other

studies out there that say if you spend a lot of time on crime scenes, you may not do a much better job, you may do a worse job actually.

So, we teach them the same exact things. That allows us to leverage off the work we had already done for the traditional crime scene community. Standard scientific processes vetted by the groups sitting around the table and the people that have worked on that. So, it's been -- it's really wise. I think there's a lot of comments about we need to have standardized training. The materials out there, there's just not one place to go get it. And I don't know that it's wise to keep making investments if things are out there, if you haven't done a good catalogue of what training is.

So, who else wants to be users of this work? The general public. How many people in the room have actually been to Forensic Science Simplified? Show your hand. Raise your hand. Come on. Okay. There's a few of you. ForensicScienceSimplified.com goes there and it actually is meant to be a global resource, because we've used international partners to look at all the various topics in forensic science to make it understandable. It's not to train a scientist. It's not to train a law enforcement officer. It's to train people who are interested versus the 200 hours a week that they can watch on TV with the word "forensic science" in it.

We have YouTube, there's a lot of training videos and things on there. Much like Carol, we have our own video production folks. And the last one I have to say we did because we got so tired of the faux forensic things that are out there, the fake forensic science. So, if you haven't went to see our forensic series, it would be great. It's one year old. We actually won a Communicator Award for it. And we've had more than 10,000 views of that.

So, it's a series. So, we did the Netflix thing; right? So, you can binge watch the whole process. The first one's my favorite one because it's zoom and enhance. So, how many people have always thought that from any satellite in the world we can zoom in on any picture and get a clear identification and everything? So, we take a lot of time to make some fun out of what the fake forensic science is and what the real side is. And we cover every topic from zoom and enhance to entomology to the other things. So, again, training is not always just for a goal of learning something, but it is pretty cool.

We're proud to announce that we just partnered with our friends in Australia to put the first virtual proficiency test for crime scene online globally. It's been used in Australia and New Zealand for quite some time. It's actually called After the Fact. You can go to CSIskills.com and take a look at that, but it allows you to interact and allows people on the backend to review your work. More tools like this should be made. The current practitioners of forensic science use these tools much better than probably anybody else in this room does. And you have to address those needs.

So, for the mundane, we teach forensic chemistry, what do you talk about? Presumptive screening, I heard somebody talking about drug testing this morning. Yes, it's a presumptive test. You have to explain those things. What about how do they use these other things. The picture here depicts -- one of the interesting things here, the guys on the right side there are actual hazmat people who actually use the same tools that they use in the field, but, guess what, had never seen a real substance with their systems until we actually showed them that. So, it's important.

Biometrics, again, many of you have heard the term "biometrics." We throw it around. It means everything from fingerprints to facial to iris to DNA and rapid DNA now. DNA analysis, not only online theoretical pieces, but the most difficult thing about training in forensic science, and Ron had it in his, you have to do hands-on practical pieces for people to truly understand what's going on. To give a lecture only on how to collect a fingerprint is not very helpful because the people can't probably do it.

And in the current environment that we're in, we actually have to look at, you know, other situational things that we hadn't traditionally thought about. So, it stretched our capabilities. So, we do look at IED awareness and HME awareness on a lot of the activities.

So, where are the gaps? We've been doing this for 21 years. That list I showed you there was a lot of products that are out there. There's really no unified content and it's really difficult to judge quality. People judge quality sometimes by what they pay. We did a lot of things for Gerry and the folks at NIJ for free, and all we told them they had to pay was attention. And sometimes they didn't pay attention when we were doing that. So, it's important to know that cost -- there is a cost driver to this. You heard Paul Speaker talk about return on investment this morning. Just because I run a nonprofit, that doesn't mean I'm for loss either. You have to make sure that you're looking at what the cost is and how you can sustain this.

We're not really good at life cycle support. We build it once. We think it will live forever. And unless you put resources in the out years to make sure it's maintained, kept up, updated, then you have a one-time product that may be there for a long time, but it may not be as current as it needs to be. There's a lot more that needs to be done with officers of the court. A little story about the NFSTC. One of the first things we did was principles of forensic DNA for officers of the court, simply because it was the early days of DNA. The scientists were having a hard enough time understanding it. Then we figured we're going to give it to somebody else. So, we actually put that together in early 2000-something. I can't even tell you the date. Those types of things are more important, particularly if we're starting to use advanced technology in the field where it may or may not go to a laboratory before it gets to you in the court.

It would be great if we could identify the requirements. I'm a big requirements guy now. We used to get projects and they'd say, "Build us a toxicology training program." Well, if I build the one that you want me to build, it may not be the one you're thinking of. So, give me a firm list of pre- and post-learning outcomes that you want, that we can make sure that whoever takes that training will actually get the desired outcome.

And the last thing, and I'm sure that I won't be around when this happens, a standardized lexicon of what we're talking about in the field of forensic science. I didn't say it had to be agreed upon, I just said to standardize it. So, I think that's important. And Judge Hervey, you asked where the gaps are. I think, if you listen to the panel, they're pretty -- some pretty consistent things that have went along with that, and I just -- you know, I would hate to see us keep going down this path another 14 years from now or whenever the next time we get together is. There's my contact information. I appreciate your time, and glad to be here.

BARBARA HERVEY: Okay. So, now I get to confess about how pathetic I am with technology. Ron, you know Ron's a judge, too, and, you know, he confessed. So, there's my PowerPoint in the middle of the floor; okay? Now -- okay.

MALE SPEAKER: It's upside down.

BARBARA HERVEY: I understand. I even -- I brought colored pens in case people wanted to play, besides me. But what I did -- first of all, it took me a long time to get that weight paper. I had to look all over for it. But I put this in my office and I drew on it as I thought of topics that we train on in Texas, that the rest of you train on, that we've been discussing since the inception of this commission. And I'm sure there's a lot more that should be added to this, but this is my concept of all the stuff that we have accomplished. And I like it. I think it's pretty. I used different colors and everything, but there's my PowerPoint.

Now, as I was listening to the other panelists who all do a brilliant job in training, I have a lot of similar comments, but I'm going to start with the question that my co-chair on education at the beginning just asked me. He asked me, "Why is Texas seemingly, you know, ahead in doing all this stuff?" Well, I probably shouldn't say this live, but anyway, one thing is you got to learn how to trick your legislature or your commissioner's court or whoever's controlling the money. Now, with the federal government, I can't do that. I just can work it in Texas. And so, so far, except for this session, because they're telling us we're poor like everybody else, we just tell them what a great, great thing they're doing by giving us this money, because it makes Texas a star. And it's because of you, you legislative people, that we can be a star. And they like that. So, they give us the money to train.

But, to answer Jim's question about how we got involved in this in the first place, it really happened kind of on a bad note in that we started -- we are the court of last resort, obviously, for criminal cases, and some of our work is non-discretionary. Unlike our civil counterpart, everything they take is discretionary. We have no discretion when it comes to the appeals for death cases. And we have no discretion when it comes to writs of habeas corpus, and that's where this first came up. We get between 4,000 and 6,000 writs of habeas corpus a year. We have been told that we are the busiest court in the country, busiest appellate court. That's unfortunate because we have 150-some-odd-thousand people in prison.

But what happened years ago was we started to see this phrase, "actual innocence," coming through our writs. And so, of course, you have defendants that always say they're innocent, but this "actual innocence" phrase, I didn't understand what they were really talking about. And a lot of the -- most of the writs are pro se, so a lot of the times you never know what they're talking about and you have to guess. Well, wanting to understand what was actually being sent to us, I took the presiding judge with me and we went over to talk to a brilliant professor at the University of Texas, Professor Dawson, who is no longer with us, unfortunately.

And he spent all day with us explaining this concept, and he was a great believer in the criminal justice system. He said, "But obviously it has some flaws." And after we had this time with him, the court, together with the University of Texas, put on the very first conference for our state on actual innocence. And we invited all of the stakeholders. We particularly wanted the legislature to be there. And we discussed the situation, what were we going to do with it. We had all these problems in the system. And our goal has to be to fix it at the front end so that we don't have to deal with this with all these thousands of writs. And that's how we got involved.

And, as you well know, Texas has had quite a few exonerations. And we are trying desperately to keep that from happening. But what I'm afraid of is that when we try to train -- right now, our legislature happens to be focused on mental health. So, they're not as concerned about forensics anymore. So, we have to keep them on track there. But what they want to do with mental health, and it's a good example because this happens with forensics, too, is they decide, oh, my gosh, we've got this crisis, so we're going to take this bunch of money and we're going to throw it at the wall, and we're going to train some aspects of this problem. We might hit some. Maybe we'll educate five people in this area, five people, but that's not the way to do it. So, we face that problem in the future with training on mental health, but we also have that problem with forensics.

So, when we train in Texas, the good thing about having the court of criminal appeals be in charge of the money for training is that we are the people that see where the problem areas are. So, for example, when we saw this phrase "actual innocence" come up; okay? And then some claims early on about eyewitness identification. And Peter, not to criticize you or Barry in any way, because you're brilliant people and you've helped us a lot, but I wanted to put on a presentation first for the court to understand what I was trying to get at with education on eyewitness identification.

So, I brought in Barry and I called the New York office and I said, "Okay, look, I was born and raised 22 miles outside of New York. I want Barry to come in and talk about eyewitness identification and the need for change, but he can't put on a New York presentation." I said, "Do you know what I mean?" Your staffers laughed, said yes. Barry came down. He was excellent, as always. And in Texas, they don't like to listen -- I say "they" because I'm still from New Jersey in my mind -- but in Texas, we don't like to listen to anybody, in other states, the feds, each other, whatever. But Barry did a brilliant job. And the most conservative judge on my court leaned over and said to me, "Is this all you've been talking about? Is this all we need to do?" And I said yes. Well, then the court was very behind this concept. So, that's how we get involved in these things.

So, the court set up an integrity unit of its own in 2008. And we'd already been talking about the different trainings we needed in forensic science, but, with this unit, we took -- we had 14 members. I purposely picked people that were from across the board, every stakeholder group was represented. I didn't pick any bomb-throwers because you can't get anything done with bomb-throwers. And I was made fun of

because, in Texas, all 30 statewide officials are Republican, most of the people I put on this group were Democrats, because I thought, well, I can already talk to the Republicans, I need to convince the legislative Democrats that this is a good thing to do. And we sat and we talked about issues.

Now, everybody had an idea of what we should be looking at, and it was very helpful. So, then what we started to do was we started to bring in experts on various topics. We'd present to the court. And then all of our grantees, we have eight at the present time, and we would have them sit in and then suggest that they take these trainings back to their constituents and train. And what's good is that, since we control their money, sometimes if they say, "No, we're not going to train in this area," oh, really, because guess we're not going to give you any money. We'll find someone else that will train on this topic because the training will occur. So, it works very well and our constituents are very good about not only being involved in these areas and reading all kinds of things or going to other states or going to other conferences and taking care of these things themselves, but they take a lot of guidance from us and what we learn from looking at the writs.

Now, the unfortunate thing for me, I went to a CSAFE meeting not too long ago, and what was interesting, I think there were maybe one or two other lawyers there, but mostly brilliant scientists. And one of the brilliant scientists made the suggestion that -- or told us, rather, that a federal judge friend of hers had said that experts can't give opinions on the stand. I asked her what planet he came from, but anyway, I read her the rule and there was a gentleman from England and a gentleman from the Netherlands there. And the gentleman from England said, "Do you know the difference between a fact and an opinion?" So, we started to get into a very detailed legal discussion, which was great. And they didn't understand what I was talking about about our interest in this project. And, of course, I was very interested in theirs. And it was a really good exchange and it really reinforced, for me, the need for this intersection of science and the law.

And for me, since I deal with habeas, at the end of my beautiful chart, the problem is we can have all of the rest of the stuff trained on and hopefully absorbed by some of the people, but when it gets down to the very end and we have habeas, we only have a group of people, and maybe your states are different, that really understand habeas. So, if we've done all this work and the lawyers don't know what to do with it, based on new science, then we've failed.

So, what the court is doing now is we're training on habeas, because that's our specialty. And we're training lawyers on how to do that so they can, you know, look at all these things that may or may not have gone right and challenge that, and hopefully go back through the cycle to teach us all how to look at these problems. But there's a lot of stuff there to be trained. We can't give up, regardless of whether this commission ever sees the light of day again or not, or some like body. We've got to keep doing it. And we have enough people here that are interested. We can all collaborate. And money is a big thing, but there are a lot of ways to train people by sharing resources where we can all do this.

You know, I've talked to Carol a lot about borrowing her stuff, because Lynn, who's in charge of the Forensic Science Commission and is wonderful and has done a brilliant job in Texas, she and I work hand-in-hand all the time on training. And we've decided our next big show will be concentrated on collection, preservation, and storage of evidence, because I think everybody in this room would agree, if we don't do it correctly at the front end, forget all the rest of it; okay? So, we're going to do that, and we're going to -- I've already talked to some people from the FBI. And I'm going to bring in some experts. And that's what we're going to do.

Now, one thing Carol said that I would repeat is my concept of training, when it comes to science, is it's science. What the individual groups, defense or judges or prosecutors, do with it in their camps, that's another story, but if it's science, there's a great resource situation that you can fix if you present across the board. It's good for -- and it's really good to bring in the stakeholders, like the legislature or your commissioners courts, so we understand the science. And you can't just train them once. It took me three times to listen to Bud Bidoli [ph] talk about this DNA mixture situation for me to understand what he was talking about, not because I wasn't trying, but I understood I needed to -- I needed to pay attention and

learn and learn and learn. And so you've got to repeat it. You can't just do it once. You've got to keep repeating it.

And as Keith said, you've got to have hands-on stuff. So, you've got to make them work at it. The judges for habeas, when I teach judges, they get a habeas and they're going to have to figure out what the answer is. You're going to have to work on it. I was fortunate enough to go to Los Alamos for a program for judges. And when we walked in, they said you're going to do a physics problem. I laughed. I said, "No, no, no, I'm a judge. I can't do physics." "No, you're going to do a physics problem." And lo and behold, we did. And my team won. I think we cheated or something. I don't know. But anyway, we won. And at the end of the week, I could think more like a scientist on how to approach things, and yet understand what I needed to do with that information in the courtroom.

And as far as judges are concerned, I often give this speech, and so being on a Supreme Court helps me in my state. When I talk to them about training, I say, you know, the judges are the hardest people to train, and that's because judges think they know everything. And if they don't know everything, they don't want anybody to know they don't know everything. And we have to get over that. No one -- no one is more important, no one is smarter, no one is better than anybody else in the room when we're trying to learn this to fix the criminal justice system. That's what it's about.

We can't have any more people like the gentleman that was here yesterday, you know, to tell his horror story. That's just not good. It's good to bring their stories to the forefront so that we all not only feel a little bit guilty and ashamed, but that we realize we've got to work at fixing it. And I'll leave you this one last thing -- oh, and I have an interesting situation. I was a prosecutor and I'm married to a defense attorney. My daughter is a prosecutor. My son-in-law is a defense attorney. So, we have some interesting discussions. Fortunately, now I'm a judge and I go, "Well, if you don't like the law, I don't care," but anyway.

The one biggest thrill I had in working with all of this is I went to an Innocence Conference. And one of the speakers was an "exonerated" in Texas. And he was very articulate. And I went up after he spoke and introduced myself. And he got up and he hugged me and he hugged me. And then he brought -- I went back to my seat and he brought his entire family over and he said to me, "You saved my life." And I said, "No, I didn't save your life. I wrote the opinion. The court saved your life." And it was one of the best feelings I've ever had since I started on all of this.

So, I appreciate everything all of you have done and meeting you and talking to you and sharing experiences with you. And, please, anything that we can do, what I say in every speech I give with training is any ideas that you have, please share them not only with me but with the rest of the people in here so we can continue to work on this and not give up, and make the system as good as it possibly can be. So, thank you very much.

Oh, one last thing, not that it will matter. And I don't know how much stroke he really has on the Hill, but I had a conversation with Senator Cornyn and staffer during the break. And I told him that it was ridiculous to stop this forward motion, and that I knew that sometime back he and Senator Leahy were very concerned about DNA and forensics and all of this, and that they really needed to talk and do something about this. So, I'm supposed to have a meeting with Senator Cornyn's office when I come back for ALI in May. And so maybe somebody will pay attention. So, I hope that does something, whatever.

JOHN BUTLER: We'll go ahead and take questions for a few minutes then. We have until 1:15 scheduled. Jim.

JIM GATES: As usual, I want to thank the panel for the briefing. I find that I learn so much listening to the content experts like this. My question is actually directed towards Keith, however, and this online sort of resource that's out there so that the public gets a chance to look at what real forensic science is like versus the images that Hollywood feeds them about how forensic science works. So, my question is the following, I can imagine being called to serve on jury duty, and one of the -- perhaps one of the things that

would be, like, really good for me to do is to actually watch those videos and watch that training as a prospective juror. And I'm curious whether anything like that has happened, to your knowledge?

KEVIN LOTHRIDGE: Not to my knowledge, nobody's told me that they were on jury duty and they used Forensic Science Simplified or any of our tools.

JIM GATES: But there's sort of no -- so, there's no sort of formalized request or requirement to get -- you know, we talk about educating judges and lawyers, but your point was, yeah, we need to educate juries. And this looks like a really interesting resource. And I'm just surprised that I haven't heard more about it being used for that purpose.

KEVIN LOTHRIDGE: It's out there. It's widely available. Everybody should have the right scientific information. If you listen to all the topics for today -- I wasn't here yesterday -- but if you treat science as the most important thing, and everything is totally unbiased -- and there's a lot of bias on the sheet out here -- that people can make their own decisions. They may understand something that they didn't know before.

In the U.S., STEM is not as important as it should be. And sometimes you're asking people to make decisions, almost like solving a physics problem in Los Alamos, without the tools to be able to do that. So, we put together at BJA's request, and almost as an on-ramp for anybody. If you're just a general population and you want to go learn about forensic science because you hear about it a lot and it's in every TV show that's out there, isn't it good to have a resource out there that anybody can use.

JIM GATES: No, no, I'm not opposed. I'm just surprised that this is somehow not part of best practice in actually, you know, having the cases heard. Why aren't -- why isn't there more of a push to get our jurors to be in a better position to evaluate forensic science? This looks like a low-cost tool to me.

KEVIN LOTHRIDGE: It's been paid for now, so it's basically free.

JOHN BUTLER: I have Dean, and then Cecilia.

DEAN GIALAMAS: [Inaudible].

JOHN BUTLER: Okay.

CECILIA CROUSE: Thank you, Dean. I have a rather large question, and so I'm going to try to focus it. For the last couple years, the Florida Association of Crime Lab Directors, we've been meeting and we've been mulling the idea -- not mulling it, we've actually tried to formulate a way to move forward with the state to get a commission. And I actually brought the RTI commission report. It's been very, very helpful. One of the things that it does not discuss is the difference between an advisory board, a board, a commission, and an investigative council. And I'm not sure I know what those differences are, but one of the things that is not a difference is when they talk about special stakeholders and partners. And Ron, you were talking about who's on your specific commission, and it does not include an academician. So, one of my questions --.

RON REINSTEIN: Oh, it actually does.

CECILIA CROUSE: Oh, I'm sorry. I didn't see.

RON REINSTEIN: Yeah, I didn't put it on there.

CECILIA CROUSE: Yeah, it's not in your thing, so, okay. All right. Well, then that answers that question.

RON REINSTEIN: Before David Kaye abandoned us to go to Pennsylvania, he was the member. And now we have another person from AFC on there.

CECILIA CROUSE: Okay. I missed that. I'm -- I'm glad for that. One of the issues that we're having is that there are other governmental entities in the State of Florida that already have a part of what we want to do, and they're not necessarily willing to give up their entity to be a part of this entity, especially since we haven't really formulated the entire template. So, my question is the crime lab directors are getting together a meeting in August or September, and if someone from -- someone who has a commission would actually come and guide us, if nothing else, are we looking at an advisory board or are we looking at a commission, because I hear there's a difference between the two?

RON REINSTEIN: Well, I think, for a commission, you need some legislative authority and funding. That's why I call Texas the "Cadillac." Lynn Garcia is funded. You know, she's the executive director of the commission. They have authority to, you know, do studies that they've done and make recommendations. Ours is an advisory committee. It was formed by the Attorney General's Office. It's all voluntary. We get great attendance from everybody -- all the stakeholders. And it's really a collaborative effort to inform the various stakeholders in the justice system about ongoing issues regarding forensic science. And hopefully from that get buy-in to not use certain types of, you know, things in forensic science or to use things, you know, that are really, really good and positive. It's worked for us so far. And as far as our academy goes, I know Stephanie Stoiloff has contacted me in the past about doing a similar thing at Miami-Dade on having an academy for judges and lawyers.

JOHN BUTLER: Dean and then Julia.

DEAN GIALAMAS: Thank you. I just wanted to thank the panel for your presentations today. And I hope everyone who is here and everyone listening online recognizes that there already are some pretty amazing and powerful tools in the training aspects of what we can do. We just need to give them the tools to train on, and I think that's really the next step. So, I just want to thank all of you for being a part of the presentation today.

Judge Hervey, I just wanted to say thank you for your presentation, too. It's the first time I've seen a recyclable, biodegradable, energy-efficient PowerPoint that's been delivered. And I might be rather sarcastic and suggest that if you can hold on to that, I think it would make a perfect tie for Mr. John Butler.

JOHN BUTLER: Julia and then Gerry.

JULIA LEIGHTON: Thank you very much for the presentations. I may have missed it or maybe it's sort of deeper in the slides, but one of the -- there are two topics I was wondering how you all address, if you address, and how you address. And the first is training on statistics. And then the second is training on what is scientific methodology.

CAROL HENDERSON: Actually, that's something that's come up recently. There's been a lot on statistics, I know, and big discussion with OSAC as well. And, in fact, I think David Kaye just wrote an article that was published in Harvard Law Review explaining statistics and forensic science because there was a question that came from José Almirall at FIU. And he's on one of the subcommittees, and actually I think he's on the FSBB -- or is it FSSB? And he had asked about this. And I think this is an area -- I know in law schools that's a real problem that we don't have statistics, economics-related, except if you're in Chicago, I think. So, there's some areas, again, that we have to branch out and do.

The same with the social sciences, too, a lot of times we're looking at different areas of forensic science, but not the social sciences. I'm finding, especially in death penalty cases, when we're talking about mitigation and aggravation and things like this, we need to have approaches. So, as I said, like the list I have is rather fluid at this point because I'm trying to find out where are the needs. And sometimes the needs will change over time when you have a lengthy time period for grants as well.

RON REINSTEIN: We brought in Mike Coble from NIST to talk about DNA mixture interpretation. I think he's been there twice now. And -- but that's really an area that needs to be discussed. You know, one of the things that we try to do is do the basics and then more in-depth review, but leave specific issues for the Arizona Prosecuting Attorneys' Advisory Council for their advocacy and strategy, and the Arizona

Public Defender Association, the Arizona Attorneys for Criminal Justice for the defense side on those as far as strategies and advocacy. But statistics is definitely something that, you know, we're going to be delving into.

JULIA LEIGHTON: And I guess I would commend those topics because they seem very foundational before even getting -- so, that our audience is -- so that we're just also thinking human beings, that we have sort of foundational understanding, and then can listen and ask intelligent questions as we learn how things are applied. And so that's why -- I mean, they're tough; right? They're tough topics to teach to lawyers and judges, and to some analysts, because they don't seem directly related to understand sort of the fundamentals of the scientific methodology, the fundamentals of statistics, so that they can be thoughtful consumers of the rest of the information they get.

RON REINSTEIN: I will tell you that one of the things -- well, Carol has sponsored a Law 101 for Forensic Scientists as far as being an expert witness. And one of the things that came up a number of years ago, David Kaye came to me after I had done one of my DNA admissibility hearings and asked if I would speak to the International Association of Forensic Statisticians, I think it was. And I said what the hell could I possibly talk to them about? And he says, "I want you to talk to them the same as you did in court in the admissibility hearing." And it was a world-famous expert who testified.

I had a consolidated hearing so that all the cases that were pending at the time on that particular aspect of DNA were consolidated into one hearing so that both the prosecution and defense could focus a lot of funding for experts. And it was, you know, a multi-day hearing, multi-week training. And one of the world experts -- I read everything that they had presented to me. I listened to them. And, at the end of the day, I said -- his name, I won't mention it now -- I said, "I've listened to you. I understand you're a world expert, but I really haven't understood almost a word that you said the entire day. And what David wanted to talk - - me to talk about was the fact that experts need to talk the language of judges and lawyers and jurors, and we need to speak the same language so that we can understand what they're saying as well.

BARBARA HERVEY: [Inaudible] taking off on what Ron said, it's got to be a "Dick, Jane, and Sally" approach to that because we're not going to get it. And we have to have some other name for it. You say statistics, I'm not even going to listen because I won't understand, but it's got to be a real basic thing for people to not only want to listen but to try to understand it. And it is something that needs to be addressed.

GERALD LAPORTE: Cecilia, thanks for bringing up that state commission report. So, just I want to sort of take the credit and the plug. So, that was an NIJ product. And one of the reasons that we did that, we worked real hard to get that done within this year in the event that the -- this commission was going to sunset in its guidance for states, if they're going to set up their own commissions. I had pitched the idea to this commission at some point in time, but sort of that didn't take any traction. So, as usual, I just took it upon myself to take care of it on another end. So, thanks for bringing that up, by the way.

CECILIA CROUSE: I actually went to the very end of it because I was hoping there would be a section on what didn't work, and there was no such section.

GERALD LAPORTE: I'll say there was probably some of that in the original version, but we cleaned it up and we tried not to opine too much, if you will, as opposed to just report on good things and not necessarily all bad things. But I do have a question for the panel sort of up for grabs. It probably pertains more to Carol, Ron, or Kevin, but what efforts do you guys make to ensure that the forensic science training materials and the curricula that you develop are scientifically sound, like, the things that you're talking about have good [inaudible]?

CAROL HENDERSON: [Inaudible]. Sorry. We had an advisory council. Now, of course, you can't fund an advisory council with OJP's change in some regulations, but that was one of the things, to have scientists look over materials. And then when we would have a group, a committee build things, it was lawyers and scientists together. So, we didn't want to have -- the lawyers cannot speak the language as one problem, but also know the science. And the scientists still have to know how are we going to translate this to go

into court. So, that's one method we did, but now with the OJP thing about not having an advisory council, that does create some issues. And I think but Kevin does have an advisory council, is that correct?

KEVIN LOTHBRIDGE: I don't have an advisory council. We use the instructional designer as the gatekeeper, because they're the subject matter expert. Then we use a series of scientific subject matter experts to make sure that they're all in concordance. And then when the product is done, you have to have a deep, deep review, which is painfully hard, to make sure that everybody that you get to do the review understands exactly what the outcomes, and don't try to put their own personal flair or flavor onto the training, because that goes back to the desire to have the lexicon and the requirements so that we know what the content has to be.

JOHN BUTLER: Thank you all for your participation on this panel. I appreciate all of your input.