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ATTORNEY GENERAL

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DEPARTMENT OF JUSTICE
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REPLY TO: SARAH JESSICA FARBER
STATE CRIME LAB OMBUDSMAN
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May 1, 2020

Dear Attorney General Stein:

I have been the Ombudsman for the State Crime Lab (“SCL”) since June of 2018. In this role, I am charged with regularly making recommendations to you and to the Director of the State Crime Laboratory. I anticipate this will be an annual occurrence. As Ombudsman, my goal is to enhance the work of the State Crime Lab.

At the start of my tenure, I carefully reviewed the report created by attorney Chris Swecker and consultant Michael Wolff, “An Independent Review of the SBI Forensic Laboratory,” issued in 2010, as well as the Forensic Sciences Act of 2011, S.L. 2011-19, which created the Ombudsman position. I also carefully reviewed the report prepared by Judge Vince Rozier, the Lab’s first ombudsman.

These documents addressed how the Crime Lab operated in the past, and contain recommendations for moving forward. The State Crime Lab has worked diligently to improve and I look forward to working collaboratively with them to continue moving forward.

In this Report, I will highlight the numerous accomplishments of the State Crime Laboratory and offer suggestions for future growth. I recognize that some of these recommendations represent serious investments of resources that are not possible in the current budget. Additionally, some of the recommendations would require an enormous investment in time which renders them aspirational. I also offer suggestions as to how to continue to maintain and strengthen stakeholders' trust in the work of the State Crime Lab.

The Department of Justice recognizes that the citizens of North Carolina have a right to expect accuracy, proficiency, objectivity, full transparency, and excellence in the operations of their forensic laboratory. This Report concludes that both the leadership and staff at the SCL work very hard to fulfill its stated purpose of seeking the truth through science.

Sincerely,



Sarah Jessica Farber

State Crime Lab Ombudsman

CC: Vanessa Martinucci, Director, NC State Crime Laboratory

The Swecker-Wolff Report and Laboratory Culture¹

Prior to the State Crime Lab being moved to the Department of Justice in 2014, the State Crime Lab was housed under the State Bureau of Investigation (“SBI”). For years, all SCL forensic scientists were also sworn law enforcement officers, with all of the privileges and responsibilities that go along with that status, and were issued weapons and badges accordingly. According to the SBI’s current website, that agency prizes its reputation for integrity and provides “expert criminal investigative assistance to local law enforcement agencies when requested by police, sheriffs, district attorneys or judges.”² In addition to providing investigative assistance the SBI has original jurisdiction over some discrete categories of criminal activity: drug and arson investigations, election law violations, human trafficking, weapons of mass destruction, gambling, alcohol violations, child sexual abuse in day care centers, computer crimes against children, crimes involving state property and overseeing boxing regulations.

As part of the SBI, a state-level law enforcement agency, the Laboratory reflected that agency’s culture. Thus, SCL staff members were subject to the “chain of command” in their management hierarchy. Remnants of the chain of command ethos remain today, despite the fact that the SCL is no longer part of the State Bureau of Investigation, as illustrated by the SCL’s Administrative Policy and Procedures in effect at the time of drafting of this Report:

¹ See Table 1, *supra*, collecting the Recommendations from this report.

² North Carolina State Bureau of Investigation, <https://www.ncsbi.gov/> (last accessed March 21, 2019).

- 3.0 Chain of Command** - The chain of command for all personnel assigned to the Laboratory shall be as follows:
- 3.1 Technician or Forensic Scientist.
 - 3.2 Forensic Scientist Supervisor (if defined in Section).
 - 3.3 Forensic Scientist Manager (or designee) or Section Supervisor (or designee).
 - 3.4 Assistant Director (or designee).
 - 3.5 Lab Director (or designee).
 - 3.6 NC Attorney General (or designee).

While every organization needs some hierarchy to function, the “chain of command” nomenclature is reflective of the SCL’s culture and sensibility. Prior to the publication of this Report, “chain of command” was replaced with “management structure.”

The first Ombudsman Report³

The first Ombudsman report was based on a year of outreach to the Lab’s stakeholders, where he sought out their perceptions and chief criticisms. The SCL’s then-director responded to the Ombudsman’s report, point by point, with explanations and occasional refutations. In several instances, concerns raised by the report had already been addressed by the SCL. The Director’s response closed by saying, “The Crime Lab stands open to a consideration of any proposed strengthening of the Lab’s operation such as the recommendations presented by the Ombudsman in the Report discussed herein.” This openness to constructive feedback remains a vital part of the SCL ethos.

The first Ombudsman report emphasized practical considerations, writing that “some recommended actions, along with the ongoing changes already in place, have the potential to cause confusion and misunderstanding by Crime Lab employees if implemented too swiftly or without clear direction.” The Ombudsman went on to say that

³ See Table 2, *supra*, collecting the Recommendations from this report.

other suggestions “may be implemented without severe interruption in the Lab’s operations.”

This wisdom holds true today. Not all of the recommendations marshalled below will be simple to deploy. Some will require significant financial investments and some will require a significant change to established norms. Nevertheless, they are worthwhile considerations and are offered in the spirit of enhancing the goal of “truth through science.”

Recommendations for 2020 and beyond

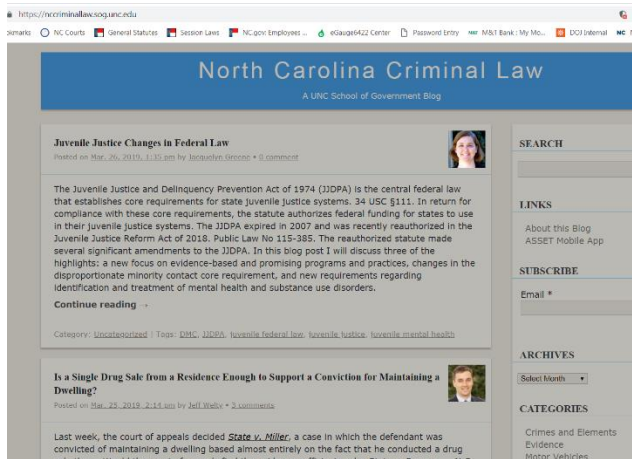
It has been eight years since the first Ombudsman’s report. In that time, the SBI has been removed from the Attorney General’s Office while the Lab remains a part of the office. The hierarchal “chain of command” ethos that made sense when the SCL was part of the SBI is no longer necessary or consistent with the culture of the Department of Justice. The SCL has a leadership team that is uniquely poised to guide it forward with both integrity and innovation.

I have attached two tables to this Report. I thought they were the best method to capture all the accomplishments of the SCL. Additionally, they were helpful in the development of the following recommendations:

- 1. Create a single point of access for all stakeholders to receive SCL communication.**

Currently, SCL communications are not found in one place. When former Director John Byrd sent an issue of his newsletter, entitled *NC State Crime Lab Forensic Update*, it was emailed to various stakeholders – contacts at the Office of Indigent Defense Services, the Conference of District Attorneys, elected District Attorneys, Chief Public Defenders, and law enforcement agencies. How those recipients share its contents with those they supervise – or whether they do at all – is unknown.

The newsletter is also displayed on the SCL's Forensic Advantage "splash" page. Forensic Advantage ("FA") is the Laboratory's information management system, and includes a portal for law enforcement agencies and prosecutor's offices to receive and upload information. The splash page is the page users see after they log into the system. These users are law enforcement agencies and prosecutors. Typically, one person in each DA's office performs FA functions for that office, and it is unknown if anyone forwards the newsletter to colleagues after seeing it on the FA splash page. The newsletter is also shared in hard copy at Evidence Control, where evidence submissions are received, in each of the three lab locations. The most recent edition, from December 2019, contains a lot of useful information, but I would like to make it easier for this information to reach folks operating at the ground-level in these agencies. Finally, the newsletter is available on the SCL's public-facing SharePoint page, but this is not a resource that is widely known to the public or easily accessible, as will be discussed in Recommendation 2.



I recommend that the State Crime Lab create a blog, much like the UNC School of Government's popular Criminal Law Blog. This blog would be hosted on the State Crime Lab's current website, which is a sub-site of the Department of Justice's website. A service like Wordpress can be used to do the hosting and will allow anyone interested in the

SCL's work to subscribe to its posts (this is a free feature of most blog platforms).

Posts need not be limited to typical Director's Newsletter-type subjects as this would be an ideal place to use as a central clearinghouse for all outbound communication about the Lab. For instance, anything from press releases, notifications about evidence submission guidelines changes, media coverage the SCL wishes to highlight, to

requests for comments for policy and procedure guidelines changes, could be pushed out this way. If a deputy sheriff in Cherokee County wants to know the latest and greatest from the SCL, she can look in the same place a state legislator or the resident superior court judge in New Hanover County can look. And if they want to stay in the loop, they can subscribe to get posts as emails and never miss out on the latest news.

This would allow the SCL and the Department of Justice to leverage information and data analysis it is already producing to yield additional value. For instance, the SCL currently reports data related to its DNA Database and DNA databank every fiscal year pursuant to N.C. Gen. Stat. § 15A-265.5(c). This data is available on the SCL's website, assuming one knows where to look for it, in PDF format. If the SCL had a blog, this type of data could also be shared as an infographic

This idea requires teamwork with Department of Justice communications personnel, information technology staff, and SCL staff, but will not necessarily cost much in terms of budget allocations. All of the content for such a blog already exists, it is just a matter of making sure it is routed to a blog for dissemination. The Department of Justice has recently revamped its web presence, and this blog could be included within the SCL's web presence on that new website. If current staffing levels are an obstacle to this work, it is possible that in the future, an additional staff member dedicated to communications could be responsible for this task.

See Table 2 – Education, Recommendations 3 and 4.

2. Prioritize ease of access for the public for all SCL public documents.

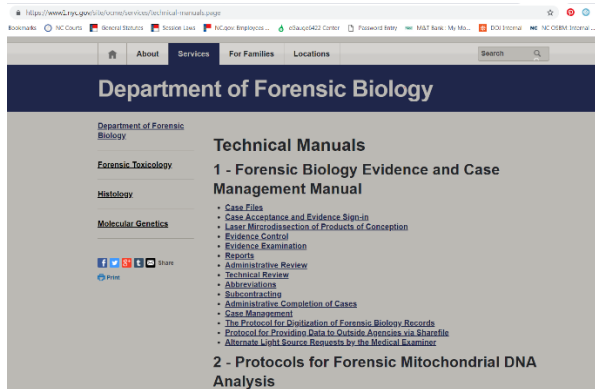
This follows from the previous recommendation. Currently, to access the SCL's policies and procedures, a person must sign up for (or use their existing) Microsoft account. Though this is free, it is an unnecessary step, and could be seen as an attempt at chilling access to information by logging credentials of those who ask for permission. Next, that person must send an email to an account at the SCL, requesting permission

to access the external SharePoint site where the policies and procedures are housed. Once that permission is granted, then the person may use their Microsoft login to view the Policies and Procedures, which are simply PDF files locked so that they cannot be edited. This is unnecessary.

At one point, a security reason was offered for logging users, under the theory that it is possible someone could download the pdf, change it with a program like Adobe Acrobat, and then try to use that falsified document in court. Since the controlling policy is that which is in force on the SCL’s SharePoint, this seems unlikely. I also note a potential public records problem here – if these requests exist, then the SCL has a duty to maintain them consistent with existing law, and to provide them upon request pursuant to that law.

Moreover, the SCL’s current process does not seem to be in use nationwide. Plenty of forensic science labs have their policies and procedures online as PDFs on their websites for anyone to view. Examples include:

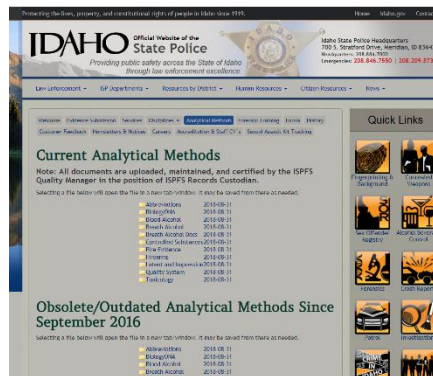
New York City

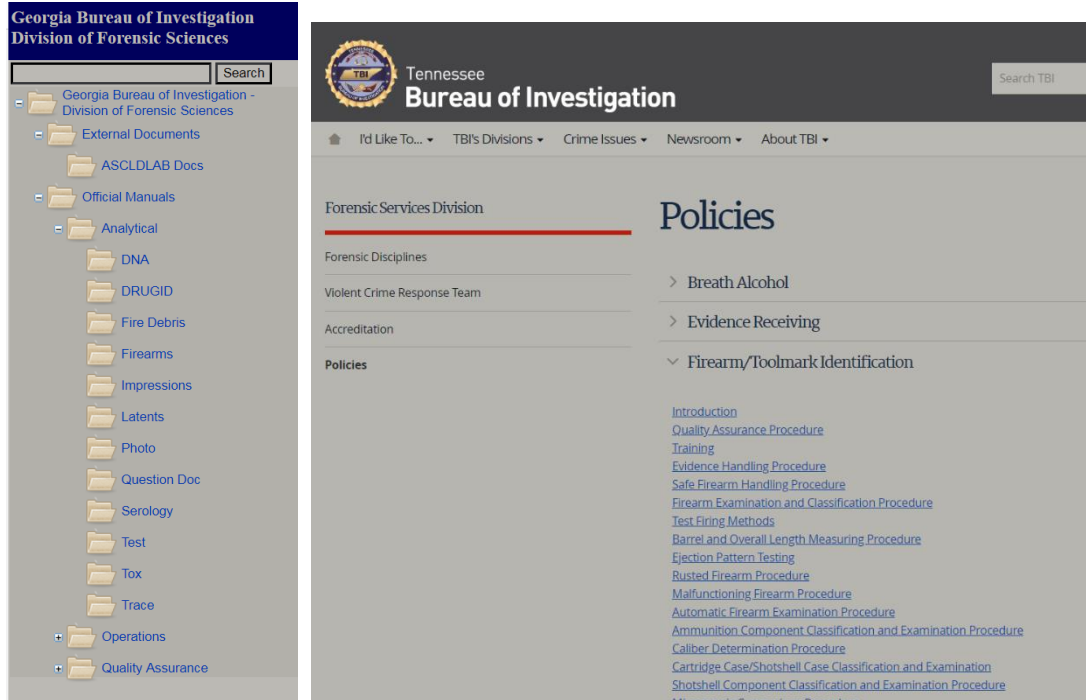


Georgia

Tennessee

Idaho





It is recommended that the SCL remove the requirement that people who want to view the Policies and Procedures register a Microsoft account and get permission from the SCL prior to viewing them. These policies could be reached via a page of links on the State Crime Lab's subsection with the DOJ's website. It is recommended that the SCL adopt a practice similar to the laboratories surveyed above.

See Table 1, Recommendation 7, Table 2, Education, Items 1 and 4,

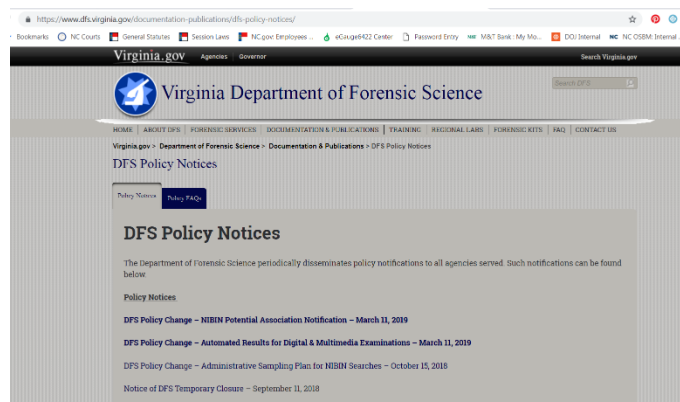
3. Publish proposed changes to existing policies and procedures as well as new policies and procedures for public comment every time a modification or addition is sought.

The SCL always welcomes input from stakeholders, for which it is to be commended. One way to make this clearer would be for the SCL to share proposed changes to existing policies and procedures as well as new policies and procedures for public comment. This will allow for interested stakeholders to provide timely feedback, and

give greater transparency to the SCL's actions. Again, this could be housed within the SCL's existing website.

Indeed, as the Lab is dedicated to continuous process improvement, seeking input whenever possible should be the norm. Ideally, these requests for input would be publicized both by posting them on the Lab's website as well as emailing them to interested parties as suggested in Recommendations 1 and 2.

At least one similarly situated laboratory posts proposed changes online. The Virginia Division of Forensic Sciences currently has a place on its website where changes to its Policies are posted. The addition of an email address and simple request for comments would suffice to achieve my recommendation as well as the recommendation in the first report.



The impact of a recent change to policies and procedures might illustrate the usefulness of this recommendation better. It has long been the practice of the SCL to encourage scientists to speak to the attorney of record on a case. However, I received information that some attorneys were having difficulty connecting with the appropriate scientist. In an effort to eliminate that disconnect, in addition to sharing the SCL's practice with attorneys whenever possible, I requested an official change to the SCL's relevant Document Retention Policy. That change was swiftly enacted – many thanks to Quality Manager Timothy Suggs – and I was able to push the text of that policy out to defense attorneys with the help of Indigent Defense Services attorney Sarah Olson. After undergoing these actions, I have had no new complaints.

See Table 1, Recommendation 4, and Table 2, Education, Recommendations 2 and 5.

4. Upon announcing a proposed change, the SCL should offer an explanation as to why the change is necessary and whether the change calls into question tests done under prior methods.

This recommendation is designed to foster dialog and increase transparency between the Lab and the criminal defense bar. In some instances, such as when the SCL brings a new machine online and retires an older piece of equipment, policies and procedures will adjust to that machine's manufacturer's specifications. Advances in technology do not necessarily indicate an infirmity in prior technology.

The SCL has a duty to be honest with stakeholders about why it changes its practices, whether those changes stem from a lower demand, in that fewer requests from law enforcement come in, or experts are rarely or never called to testify, or whether a change has occurred because the scientific consensus has changed about a given method or discipline. As the science improves, as the technology changes, as the law changes, so too do the procedures of the SCL.

The SCL should discuss these changes in a way that acknowledges known weaknesses and provides a path forward. It is possible that in so doing, the SCL might encounter instances where the interests of justice require alerting law enforcement or prosecutors to the possibility of retesting old evidence. I recognize that, if that happens, it may well present a burden on the SCL's already substantial workload. And if that is the case, then the SCL and its partners in the court system will have to work together to ask the legislature and other funders to provide the necessary resources. The SCL should enhance its efforts to articulate its rationale for its choices.

See Table 1, Recommendation 1.

5. Create a simple, streamlined sub-website for the State Crime Lab and the Ombudsman.

Previous reports highlighted the importance of having a streamlined process for anyone to bring potential lab errors or omissions or general feedback to an ombudsman. The legislature created the Ombudsman position and it has been filled ever since. For this, the SCL is to be commended.

Citizens can find an email address to reach the Ombudsman on the Department of Justice website, but it takes a bit of looking. Likewise, if you know the Ombudsman's name, you can find a phone number, but that, too, is more difficult than it needs to be. In short, any steps that can be taken to provide easy access to the Ombudsman to all of the stakeholders in the SCL's work should be taken.

Many of the aforementioned recommendations relate to ease of access of information to the public using existing technological tools – PDFs, blogs, and the like. Creating a simple page within the State Crime Lab's site where all of this information is available will help stakeholders.

See Table 1, Recommendation 8.

6. Review and improve Policies and Procedures to provide for Forensic Advantage Outages

The SCL is commended for the way it uses Forensic Advantage, its information management system, to house all casework and to communicate with law enforcement and district attorneys' offices. Analysts no longer rely on any handwritten bench notes; instead, everything is captured digitally within the FA system. This is part of what both reports recommended to the Lab.

Heavy reliance on a partially internet-based platform has its drawbacks. Currently, the SCL's Raleigh Lab's connection to the internet does not include a backup method. Thus, when workers severed an underground cable, the Raleigh office was without internet access and access to Forensic Advantage for two days. The SCL should explore ways to provide redundancy in its internet connectivity. The legislature should prioritize funds for this purpose.

See Table 1, Recommendation 6, and Table 2 – Lab Neutrality, Recommendation 2

7. Work to reduce or eliminate cognitive bias within the Forensic Advantage system.

The issue of cognitive bias comes up consistently in my interactions with various stakeholders. The Lab is likewise concerned: SCL Quality Manager Timothy Suggs presented a poster on the topic of "Cognitive Bias in the Laboratory" at a program co-sponsored by Duke Law Center for Criminal Justice and Professional Responsibility and Indigent Defense Services called "Whiskey in the Courtroom: Evolving Trends in Forensic Science." To that end, Mr. Suggs and the Forensic Advantage administrator have discussed that in future iterations of FA (or other laboratory information management systems), attention needs to be given to eliminating unnecessary data fields from the view of forensic analysts.

For instance, a scientist evaluating the presence or absence of particles associated with gunshot residue does not need to know the race or sex of a suspect. Such information could lead to some cognitive bias that might infect their analysis. Thus, if that information can be shielded from the analyst, the SCL can eliminate a source of possible bias (and error) from its work product. This furthers the SCL's interests of serving the public good with integrity. Of course, in some disciplines, sex is relevant – Y-STR Amplification of DNA is only possible for suspects with Y chromosomes. Thus, designing a feasible solution, both technically and appropriate for each discipline will

take careful thought. The SCL is commended for its attention to this issue, and I trust that a technical solution will be deployed as soon as it is available.

8. Continue current practices designed to avoid disparate treatment of sworn-officer-employees versus non-sworn employees.

Since 2009, the SCL has not listed a preference for sworn law enforcement officers in hiring. This is a significant departure from the Laboratory's days as part of the SBI, when every analyst was also a badge-carrying SBI agent. Many existing employees are still sworn law enforcement officers throughout SCL's locations. Management should take care to ensure that non-sworn staff members have the same opportunities for leadership and promotion that their sworn counterparts have, and to make sure that management is not weighted towards sworn officer employees over non-sworn officer employees. This is another way to avoid even the appearance of bias towards law enforcement in the SCL's operations.

See Table 2, Neutrality – Recommendation 3.

9. Seek the Ombudsman's input during the process of legal reviews of policies and procedures.

Currently, the SCL's legal counsel is tasked with reviewing changes to SCL policies and procedures prior to their implementation. It would benefit the SCL and all stakeholders to have an additional attorney with litigation experience and the perspective of working on the criminal defense side reviewing policy and procedure changes. This suggestion contemplates a consultative role rather than an official role in the process. A diversity of perspectives will serve as an additional bulwark against possible bias.

See Table 1, Recommendation 3.

10. A working group comprised of the SCL legal counsel, Ombudsman, at least one Forensic Scientist Technical Leader or Manager, and at least one additional Assistant/Deputy Attorney General with significant superior court trial experience should review existing curricula and training practices and develop additional tools for training scientists for their roles in the courtroom. This Working Group should take advantage of the resources of the UNC School of Government, and the School's experience of training prosecutors, public defenders, and judges, in crafting its product.

Both reports reviewed for this document highlight the need for laboratory personnel to be trained in constitutional discovery requirements, statutory discovery requirements, the legal aspects of forensic science, and the role of forensic laboratories as an objective reporter of facts to all components of the justice system. This training and foundation are crucial to the project of dispelling the myth that the SCL and its personnel only serve to help the state. The SCL is to be commended for the significant work it does to that end.

For instance, in the past, the SCL's Director provided annual ethics training. Training for each discipline included direction on the fundamentals of courtroom testimony, and that is reflected in the existing policies and procedures. Analysts must successfully participate in a moot court as part of their training. Ongoing feedback is offered as part of the SCL's quality review program, including feedback solicited from the judges and attorneys who see analysts testify. SCL analysts who are sworn officers have the additional benefit of the training they received during Basic Law Enforcement and SBI Academy training. And when the SCL offers its internal academy, the lab counsel typically provides additional legal preparation.

Continuing to do all of this training in-house demands a heavy lift from the SCL's counsel as well as the scientists tasked with training new hires. It also risks passing on the blind spots or weak points each individual instructor has, creating uneven results

and differing practices amongst sections. Technology in forensic science evolves rapidly, and it is imperative that the SCL's employees are equipped to explain the work they do to a lay person who may not have a college degree or any background in science at all. Perhaps more challenging, forensic scientists must explain the work they do and the conclusions they are able to reach to the population of jurors and fact-finders who compare our work to the fantastic things they see on television shows like CSI.

The better equipped the SCL's analysts are at explaining their work and procedures in plain English, the better off every stakeholder in the system becomes. The SCL should continue to take advantage of the wealth of resources in the Department of Justice and in the legal community.

See Table 1, Recommendations 2 and 10.

11. Ensure that SCL analysts are aware of the procedure in effect at the time they performed casework, and whether that procedure differs from what is currently in place, prior to testifying in court.

Every time a change is made to a procedure, employees are notified, cued to review the procedure, and acknowledge their review on an acknowledgement sheet. Each procedure has a revision history appended, so that a quick check should show the reader when it was last changed and why.

I recommend an addition to the current practice: the SCL should officially incorporate that check into an analyst's pre-trial testimony preparation, and into the training suggested above. This brief addition can save all court actors time and improve the courtroom experience for the analyst. Analysts should consider having the procedure they used in the case *as well as* any updated version on hand when they testify, and be prepared to explain any differences. This is current practice, but it is not official policy.

See Table 2 – Lab Neutrality, Recommendation 4.

12. Move towards blind proficiency testing in every discipline.

This recommendation comes from the Swecker/Wolff report. A proficiency test is an evaluation of a practitioner's performance (in this case, a forensic scientist's analysis) against pre-established criteria. In an open proficiency test, the analyst knows they are being tested. In a blind proficiency test, the analyst is unaware that they are being tested.⁴ I recognize that ISO/IEC 17025:2017 standards for accreditation do *not* require blind proficiency testing. This recommendation, therefore, aims higher than the accreditation standards.

There is no better way to get a complete picture of the strengths and weaknesses of the SCL's processes. Truly blind testing will assist with the elimination of bias and lead the Lab towards even more reliable and valuable workflows. And there is no need to reinvent the wheel in this process. The Houston Forensic Science Center has led the way in introducing blind testing procedures.⁵

Currently, the Lab uses open proficiency testing where no two tests are identical whenever possible. In some disciplines, such as Forensic Biology and Firearms, the ways in which analysts use state and federal databases would prohibit a truly blind proficiency test experience. In these arenas, blind samples would be used in a more limited fashion. For instance, a blind sample could be used on the front end in Forensic

⁴ National Institute for Science's National Commission on Forensic Science, Proficiency Testing in Forensic Science, available at <https://www.justice.gov/archives/ncfs/page/file/831806/download> (Last accessed April 3, 2019).

⁵ See Augenstein, Seth, "Houston Forensic Science Center Slides Blind Testing Into Workload," Forensic Science Magazine, March 13, 2018, available at https://www.forensicmag.com/news/2018/03/houston-forensic-science-center-slides-blind-testing-workload?et_cid=6286232&et_rid=753714207&type=headline&et_cid=6286232&et_rid=753714207&linkid=https%3a%2f%2fwww.forensicmag.com%2fnews%2f2018%2f03%2fhouston-forensic-science-center-slides-blind-testing-workload%3fet_cid%3d6286232%26et_rid%3d%26type%3dheadline (last accessed April 3, 2019); "Just Blind Proficiency Testing," Just Science Podcast, Forensic Technology Center of Excellence, Department of Justice, released Jan. 14, 2019, available at <https://forensiccoe.org/js7-e10/> (last accessed April 3, 2019); Houston Forensic Science Center, "In a National First, HFSC Begins Blind Testing in DNA, Latent Prints," Forensic Science Magazine, November 21, 2016 (last accessed April 3, 2019).

Biology, where an analyst tests evidence to see whether there is biological material present that can be used for a full DNA analysis.

See Table 1, Recommendation 9.

13. Continue outreach to the Bench, Bar, Law Enforcement, and Public.

I recognize that much work is done on these fronts every single day. To list just a fraction of what happens, the SCL hosts open houses at its various locations and welcomes groups from schools during National Forensic Science week. I have attended or will be attending in the future meetings with the Conference of District Attorneys, the Superior Court Judges' Conference, the Public Defender's Conference, continuing education for Magistrate Judges, as well as continuing legal education sponsored by the State Bar, the Wake County Bar Association, the North Carolina Central University School of Law, among others. I have met with members of the Office of the Capital Defender, the Office of the Appellate Defender, the Forensic Science Resource Attorney for Indigent Defense Services, the Chief Justice's Commission of Professionalism, and the Susie Sharp Inn of Court, among others.

The SCL should use the video production capabilities of the Justice Academy to multiply the impact of some of the outreach work it is already doing. Creating short informational videos to share to the SCL's website and blog, as referenced above in recommendations 1 and 2, will allow stakeholders to access information about the SCL on an on-demand basis. The Department of Justice already does this in other contexts; for instance, the Attorney General posts videos to YouTube and deploys them on AG social media channels.

Videos could be as varied as:

- A 101-level explanation of what the SCL does
- A guide to pre-logging evidence for law enforcement
- An explanation of SCL's evidence submission guidelines
- For attorneys, an anatomy of a State Crime Lab report
- Quality Manager Timothy Suggs has suggested a tutorial for DA's offices on how to use Forensic Advantage to their maximum advantage

The public at large would be able to learn more from these videos as well, and can do so with substantially less investment from the SCL than if a citizen's academy were created (a suggestion from Judge Rozier's report). This recommendation requires an initial investment of time and energy, but once these videos are available, they will yield dividends for as long as they are posted.

See Table 2, Education – Recommendation 3, Procedural Review – Recommendation 4.

14. Continue to maximize SCL resources by distributing casework across locations, using outsourcing when necessary, and using Lean SixSigma methods for continuous process improvement.

The amount of work done by the SCL in deploying resources and maintaining its work flows across three different facilities is mind-boggling. Stop to consider that law enforcement can submit evidence to the SCL at any of its three locations – the Western Laboratory in Edneyville, the Triad Laboratory in Greensboro, or the main office in Raleigh. Once that evidence is received, it is assigned based upon the presence or absence of a rush request, the disciplines which need to use it, the disciplines available at each location (for instance, the Triad Laboratory does not have a firearms section), and the relative volume of casework at each location. Taking all of these variables into account, the SCL endeavors to get evidence processed as quickly as possible for the submitting agency, reports issued to that agency and the appropriate prosecutor's

office, and evidence either maintained, destroyed, or returned to the submitting agency as necessary. The logistics are burdensome, but go largely unnoticed by the end users of the SCL's work product. This is as it should be, but it is the result of a dedicated and professional staff and that should not go unnoticed or uncelebrated.

At the time the first Ombudsman's report was submitted, drug toxicology had high volume and slow "turn around times" – the measurement of how long it takes a law enforcement agency to get a report back after submitting evidence for testing. Those delays were resolved due to several factors: internal process improvements within the toxicology discipline, outsourcing to private labs supported by appropriations from the legislature, and some changes in the laws as to blood testing for suspected DWI cases that allowed for hospitals to perform the testing. The way the toxicology caseload was taken from an unsatisfactory delay to its current relatively rapid turnaround is a useful case study in the adaptability of the SCL.

Currently, the SCL is outsourcing the testing of previously unsubmitted, so-called "backlogged" sexual assault evidence collection kits in accordance with recent legislation and the Attorney General's direction. This "backlog" is different from the toxicology cases discussed above; with toxicology, the evidence was already present at the lab, but it was taking a long time for those samples to get worked by a scientist. With these sexual assault evidence collection kits, the evidence has been in the custody of law enforcement agencies, not submitted to the SCL. In any case, outsourcing these types of cases is being done in order to provide results for those cases as quickly as possible while allowing the SCL to continue delivering the same level of quality and service to newly submitted sexual assault evidence collection cases.

The ability of the SCL to react quickly to the changing needs of its customers is impressive. Outsourcing evidence testing is not simple; it requires the cooperation of lots of parties and much attention to detail. The SCL's continued diligence in monitoring its workflow, reporting that information, and moving resources accordingly to maximize

its production only serves to underline what a valuable contribution the SCL makes to our community. The SCL should continue in this endeavor.

See Table 2, Procedural – Recommendations 1 and 3.

15. Continue working with court actors to optimize courtroom time for SCL employees.

The SCL continues to balance time at the bench completing casework, with time in court, especially for analysts in the toxicology discipline. The cooperation from trial court administrators, District Attorney's Offices, and judges has been essential in making strides forward in this area. Jurisdictions that have adopted the Memorandum of Understanding, which came out of the State Crime Lab Working Group convened by Professor Jessie Smith of the UNC School of Government, agree to set cases where SCL employees are witnesses for a time certain and to allow the SCL employee to testify out of turn, allowing that person to provide their necessary evidence and then return to the SCL to work on new cases. It is recommended that the SCL, perhaps via the Ombudsman, work to expand participation in the MOU to jurisdictions that have not adopted it yet.

The SCL's Laboratory Information Management System, Forensic Advantage, also helps with scheduling. District Attorneys may use the system to see when SCL employees have leave scheduled, and also to upload subpoenas. District Attorneys can easily notify the SCL when a given piece of evidence no longer needs to be processed. Absent this notification, the SCL sometimes ends up working evidence for a case that has already been resolved by plea or dismissal. In addition, the SCL uses an automatically generated report from CJLEADS (Criminal Justice Law Enforcement Automated Data Services) of cases that appear to have been finally adjudicated to check in with DA's offices and set those cases to stop work status. This procedure is valuable and works well, and the SCL is commended for implementing it.

See Table 2, Neutrality – Recommendation 2, Procedural – Recommendation 5.

Conclusion

The North Carolina State Crime Laboratory does the work of the people of North Carolina in testing evidence with professionalism and efficiency as a matter of course. The recommendations given here offer suggestions for fine-tuning a machine that is already operating at a high level.

Note: Recommendations that have been undertaken and are complete are highlighted in **turquoise**. Recommendations that have been undertaken and represent a continuous, ongoing process, which the State Crime Lab has committed to, are highlighted in **green**. Recommendations that are unfeasible, incomplete, or otherwise not addressed are highlighted **red**.

Table 1: Review of Outside Report

<ul style="list-style-type: none"> • Recommendation 1 <ul style="list-style-type: none"> ○ Review identified cases ○ Determine whether action should be taken to notify any defendants potentially subjected to unjust convictions or otherwise adversely impacted as result of the nondisclosure of the negative or inconclusive lab reports ○ Make necessary notifications • Action to Date: Completed <ul style="list-style-type: none"> ○ Additional cases of concern were identified by the North Carolina Advocates for Justice and added to the scope of the Report ○ Data for those cases was released to defense attorneys through the North Carolina Office of Indigent Defense Services (“NCOIDS”) as appropriate • 2019 Follow Up Recommendations <ul style="list-style-type: none"> ○ Members of the defense bar question the “why” behind each change in the State Crime Laboratory’s procedures. A key concern is whether the change indicates a problem with prior procedures and the results produced under those guidelines. ○ I recommend that the State Crime Lab implementing notifications to stakeholders (defense counsel of record, NCOIDS, District Attorney’s Offices) when existing practices change.
<ul style="list-style-type: none"> • Recommendation 2 <ul style="list-style-type: none"> ○ Ensure that current and future laboratory personnel are sufficiently trained in constitutional discovery requirements, statutory discovery requirements, legal aspects of forensic science, and the role of forensic laboratories as an objective reporter of facts the justice system. ○ This effort should specifically dispel any belief that the SBI Laboratory and its personnel serve to support investigating officers and prosecutors only. • Action to Date: Ongoing <ul style="list-style-type: none"> ○ The State Crime Lab offers ethics and legal training as part of its in-house academies ○ Former Director Byrd led annual ethics trainings ○ In addition, ongoing feedback is offered as part of the Crime Lab’s quality review program • 2019 Follow Up Recommendation(s) <ul style="list-style-type: none"> ○ I recommend that the Ombudsman and in-house counsel for the SCL review the Lab’s current academy content and curricula to ensure the SCL continues to comply with this recommendation going forward. ○ I note that a change to Record Confidentiality and Security in the State Crime Lab’s Procedure for Record and Data Management was published in January of 2019 to formalize its policy of allowing its staff to speak with counsel of record for Defendants. This is a significant achievement under the second part of this recommendation, which goes to dispelling the belief that the SCL works for just ‘one side’ of the criminal justice system.

- **Recommendation 3**
 - Ensure that a legal analysis is conducted of all its formal operating procedures as well as custom and actual practice relating to reporting of laboratory test results.
- **Action to Date: Completed**
 - This is **completed** as to the current standards.
 - When the State Crime Lab transitioned to ISO/IEC 17025 accreditation in 2012, all of its policies and procedures were rewritten per those standards.
- **2019 Follow Up Recommendation(s)**
 - As new procedures are implemented, or current procedures are revised, they should continue to undergo legal review by in-house counsel.

- **Recommendation 4**
 - Obtain the most current ALCSL/LAB International ISO 17025 accreditation as soon as possible
- **Action to Date: Completed**
 - Accreditation is renewed annually, so maintaining compliance with this recommendation is **ongoing**.
- **2019 Follow Up Recommendation(s):**
 - **I note** that the Crime Lab has been continually accredited for the last 30 years, for which they are to be commended.

- **Recommendation 5**
 - Ensure that the entire contents of all lab files are routinely provided on a timely basis to prosecutors for disclosure to defense attorneys
 - A backup manual system combined with commensurate business continuity policies should be implemented to account for system malfunctions and other contingencies
- **Action to Date: Ongoing**
 - The routine production of the entire contents of lab files has been **completed** with the SCL's adoption of Forensic Advantage ("FA") as its laboratory information management system in 2008. No paper documents should exist in the lab; anything received in paper form is scanned into Forensic Advantage and produced via the Lab's report to the appropriate prosecuting agency.
 - The backup manual system **needs improvement**. When the SCL's internet connection is down, which has happened multiple times in the last year, workarounds are not sufficient.
- **2019 Follow Up Recommendation(s)**
 - Under the current FA software, when FA goes offline, all data is backed up remotely. There is no functional protocol in place to work manually when FA is down.
 - Current protocols for FA outages were not followed when FA was down for about two weeks in October 2018. Ultimately there was no impact to production of reports to prosecuting agencies nor to the ability of forensic scientists to be able to testify, but this is evidence that our current protocol is not serving its intended purpose if it is not used.
 - **I recommend** a procedure for working manually be developed. Production of data to prosecutors and defense counsel is a necessary part of this requirement.
 - **I recommend that** the SCL's Raleigh facility's internet connection be updated so that it no longer goes through State Bureau of Investigation property, because that has been the source of multiple outages.

- **Recommendation 6**
 - Consider automating historical laboratory files to facilitate electronic searches and discovery of laboratory files that currently exist in paper form only
- **Action to Date: Completed**
 - This consideration has been **completed**.
 - The SCL has gone a step forward and has begun the process of scanning its old files with OCR so that future discovery requests will be done digitally, consistent with applicable state record retention policies. This process is **ongoing**.
- **2019 Follow Up Recommendation(s)**
 - I **recommend** that future laboratory management software procurement requirements should include the ability to integrate historical files with current files so that discovery and applicable public records requests can be routed through the same information management system.

- **Recommendation 7**
 - Post all non-privileged policies and procedures on a public website
 - This will stimulate vigorous and health cross examinations and public debate of lab tests and attendant procedures/policies
- **Action to Date: Ongoing**
 - Access to current SCL procedures requires going to the DOJ webpage, navigating through the menu bar to crime and then to State Crime Lab, then clicking Crime Lab Documentation, then clicking Crime Lab Policies and Procedures and logging in with a Microsoft Account.
 - The Microsoft login is free to obtain, but requires sending an email to get authorization to use the DOJ SharePoint website.
- **2019 Follow Up Recommendation(s)**
 - I **recommend** making all procedures available via a public webpage on NCDOJ.gov, rather than SharePoint, and unencumbered by registration.
 - In the **alternative**, if SharePoint is to be used, viewers should be able to access it as seamlessly as possible.

- **Recommendation 8**
 - Develop, implement, and publish a streamlined process by which prosecutors, defense attorneys, and citizens may bring potential lab errors or omissions and general feedback to the attention of a designated Ombudsman
 - The objective would be to identify and correct errors early, as well as the modification of potentially flawed policies, practices, and procedures
- **Action to Date: Ongoing**
 - Develop, implement, and publish a streamlined process by which prosecutors, defense attorneys, and citizens may bring potential lab errors or omissions and general feedback to the attention of a designated Ombudsman
 - The objective would be to identify and correct errors early, as well as the modification of potentially flawed policies, practices, and procedures
- **2019 Follow Up Recommendation(s):**
 - Efforts to publicize the role of the Ombudsman to all stakeholders are ongoing and I **recommend** this work continue to be a priority.
 - Make Ombudsman contact information easily accessible via website.
 - Recent revisions to the policies and procedures have formalized the workflow process for complaints received by the Ombudsman. The SCL is to be **commended** for this work.

<ul style="list-style-type: none"> ● Recommendation 9 <ul style="list-style-type: none"> ○ Director should conduct a spot audit of the DNA testing program to review and verify the results of a representative sample of recent DNA tests ○ Consider the use of blind DNA proficiency testing in conjunction with its quality assurance (“QA”) program ● Action to Date: Not Feasible/Ongoing <ul style="list-style-type: none"> ○ Per the assistant director for quality assurance, the spot audit is untenable due to constraints associated with the state and federal databases used in the DNA discipline. ○ Proficiency testing is ongoing as part of the SCL’s accreditation. Whenever available from vendors, unique proficiency tests are used. ● 2019 Follow Up Recommendation(s) <ul style="list-style-type: none"> ○ The Houston Forensic Science Center is at the vanguard of deploying blind testing in various disciplines and can share best practices going forward. Ultimately, the goal should be to implement some form of truly blind proficiency testing in every discipline.
<ul style="list-style-type: none"> ● Recommendation 10 <ul style="list-style-type: none"> ○ Conduct an internal review of the circumstances identified where the results of confirmatory tests were overstated, incorrectly reported, or tests were conducted with negative results despite a report stating no further tests were done ○ Determine whether these reports were the result of intentional action or stemmed from confusion over reporting methods or human error ● Action to Date: Completed <ul style="list-style-type: none"> ○ Conduct an internal review of the circumstances identified where the results of confirmatory tests were overstated, incorrectly reported, or tests were conducted with negative results despite a report stating no further tests were done ○ Determine whether these reports were the result of intentional action or stemmed from confusion over reporting methods or human error ● 2019 Follow Up Recommendation(s) <ul style="list-style-type: none"> ○ The State Bureau of Investigation has shared the internal affairs report with the current administration of the State Crime Lab at the Lab’s request. ○ The specific errors identified as to reporting in the serology discipline are unlikely to be repeated due to the specific policies in place for reporting confirmatory testing results

Table 2: Review of Internal Report

<p>Category: Education</p> <ul style="list-style-type: none"> ● Recommendation 1 <ul style="list-style-type: none"> ○ It is recommended that current and past policies, procedures, and section-wide administrative orders modifying testing procedures and reporting standards be made available for public access in a central, online location, along with the new <u>International Organization for Standardization (ISO)</u> policies and procedures. ● Action to Date: Completed <ul style="list-style-type: none"> ○ Current and past policies and procedures are all available on a SharePoint site. Access to the site is open to anyone with a Microsoft account (available for free) to whom the Lab has granted permission. Any modifications to those procedures are included as well. ● 2019 Follow Up Recommendation <ul style="list-style-type: none"> ○ I recommend ending the requirement that persons be granted access to the policies by the Lab. The SharePoint site does not allow viewers to edit or upload documents. The Ombudsman does not think security concerns merit the additional step of requiring persons to be granted permission before they can access the policies and procedures.

- **Recommendation 2**
 - It is recommended that a process be established to allow for a period of comment concerning the new ISO policies and procedures.
- **Action to Date: Completed**
 - An email address is listed on the external DOJ website for the public to solicit comments.
- **2019 Follow Up Recommendation**
 - I recommend drafts of new policies and procedures as well as changes to existing policies and procedures be published for public comment for a short time prior to their implementation.
 - Comments should be sought from members of the bench, bar, and law enforcement community and requests for comments should be made by emailing organizations representing those entities.

- **Recommendation 3**
 - Because of the lack of exposure that many attorneys have regarding the application of science in the field of law, it is recommended that efforts be made to further educate the legal and non-legal community concerning the science utilized within the Crime Lab.
- **Action to Date: Ongoing**
 - SCL staff currently host multiple open houses for area schools and the public as well as participate in continuing education events within the forensic science and legal communities as often as is possible.
- **2019 Follow Up Recommendation**
 - I recommend continuing to work with the School of Government to continue to offer relevant programming to their customers.
 - I recommend working with video production staff at the Justice Academy to produce content for a wider audience to be hosted on a Laboratory YouTube channel.
 - I recommend creating an email list where anyone can sign up to receive updates when a press release is created, when a policy is updated, and the like.

- **Recommendation 4**
 - It is recommended that the Crime Lab's DNA Database Unit regularly and publicly report statistical data accumulated by the Lab regarding information such as CODIS matches and the number of cases in which a suspect was excluded by DNA through testing.
 - This report may also include information regarding the occasions in which law enforcement complies with or fails to respond to the Crime Lab's CODIS match confirmation process.
- **Action to Date: Completed**
 - The Lab [currently reports](#) data related to the DNA Database and DNA databank every fiscal year pursuant to N.C. Gen. Stat. § 15A-266.5(c).
 - This data includes total CODIS hits and is broken down into hits to arrestee DNA, hits to convicted offender DNA, hits to crime scene DNA, and so on.
- **2019 Follow Up Recommendation**
 - I recommend this data be made visual and shared in a more easily digested format suitable for our digital media landscape in addition to the link to the PDF document submitted to the legislature that is currently posted.

- **Recommendation 5**
 - It is recommended that it be reiterated and/or posted on the Crime Lab section of the Department of Justice website that analysts have been and remain accessible to all verified attorneys who wish to ask questions about tests performed and to visit with analysts for pre-trial conferences.
- **Action to Date: Completed**
 - A change to Record Confidentiality and Security in the State Crime Lab’s Procedure for Record and Data Management was published in January of 2019 to formalize its policy of allowing its staff to speak with counsel of record for Defendants. This is a significant achievement under the second part of this recommendation, which goes to dispelling the belief that the SCL works for just ‘one side’ of the criminal justice system.
- **2019 Follow Up Recommendation**
 - Continue to publicize the change mentioned above to stakeholders in the criminal defense community.

Category: Promoting Laboratory Neutrality

- **Recommendation 1**
 - It is recommended that the Crime Lab establish an “Evidence Submission Forms Review Committee” to evaluate the current form and suggest changes.
- **Action to Date: Completed**
 - This referred to the SBI-5 form used when the SCL was part of the SBI. While this form is still used by some agencies, the SCL does not have the ability to unilaterally change this form.
 - In addition, the use of Forensic Advantage has removed the need for many external forms because it allows law enforcement to pre-log their cases and evidence.
- **2019 Follow Up Recommendation**
 - I recommend the SCL continue to seek input from law enforcement and work collaboratively with law enforcement partners on how to create intake materials that suit their needs as well as the Lab’s needs.

- **Recommendation 2**
 - It is recommended that analysts continue to maintain a log in FA of all communication regarding casework. While this is current Lab practice, it is recommended that it be implemented into Crime Lab policy.
- **Action to Date: Completed**
 - This has been added to the policies and procedures.
- **2019 Follow Up Recommendation**
 - Continue to use FA or successor software to capture all case communications.

- **Recommendation 3**
 - It is recommended that positions for hire within the Crime Lab no longer indicate a preference that an applicant be sworn or not sworn as a law enforcement officer unless the position specifically necessitates the execution of duties for which the law requires an individual with sworn officer training.
 - It is also recommended that the SBI conduct a review regarding the discretionary requirement that all Crime Lab analysts reporting to Clandestine Laboratories be sworn law enforcement officers.
- **Action to Date: Completed**
 - This has been done in accordance with S.L. 2009-451 since that law went into effect.
 - The second component of this recommendation is no longer relevant, since the SBI and not the SCL responds to Clandestine Laboratories.
- **2019 Follow Up Recommendation**
 - It is recommended that the SCL be wary of internal promotion practices that serve to elevate sworn officers to leadership, leaving later-hired, non-sworn employees out of decision-making.

- **Recommendation 4**
 - It is recommended that prior to testifying in court, Lab analysts ascertain if there have been any administrative orders modifying the language used for reporting results when there have been no significant modifications to the testing procedures utilized during a test. This would prepare analysts to provide testimony regarding the current and/or updated standard.
- **Action to Date: Ongoing**
 - Existing policies and procedures do not directly address this. However, it is best practice for analysts to be aware of which protocol they followed when they worked a given case.
- **2019 Follow Up Recommendation**
 - Make minor adjustments to existing training and policies to include double-checking the Procedure used and the Procedure currently enforced prior to going to court.

Category: Procedural Review

- **Recommendation 1:**
 - It is recommended that a review be conducted to determine the feasibility of assigning cases to analysts based on geographic regions or districts within the state to allow for regular and increased accountability, accessibility, court visits, and attorney contact. The size of districts may be determined based on the resources of each section. This would be similar to the eight districts to which field agents are assigned.
- **Action to Date: Ongoing**
 - The SCL was removed from the SBI and placed under the Department of Justice in 2013. AS such, mapping the SBI's regions may not make the most sense.
- **2019 Follow Up Recommendation:**
 - The SCL engages in continuous process improvement to track case numbers across disciplines and Labs to ensure that work is sent to the place where it can be completed efficiently and where travel for analysts can be optimized.
 - The amount of travel forensic scientists must do, as well as the time in court that is spent waiting, remains a frustration to scientists and a reason why employees leave for other opportunities. The SCL and the Administrative Office of the Courts should continue to work together to optimize the use of analysts' time in court.

- **Recommendation 2**
 - It is recommended that there be a review of the process for notifying District Attorneys of scheduled leave time for analysts in order to provide prosecutors with the maximum notice for scheduling District Court cases.
- **Action to Date: Ongoing**
 - Forensic Advantage includes scheduling information and availability for all SCL employees. DAs are able to review this when inputting subpoenas.
- **2019 Follow Up Recommendation:**
 - Roll out training and reminders to DAs offices that the ability to see SCL employee schedules is part of Forensic Advantage. Consulting FA prior to setting trial dates can avoid scheduling issues.
 - Reinforcing this capability at multiple opportunities will be necessary

- **Recommendation 3**
 - It is recommended that a comprehensive evaluation be conducted to consider whether drug toxicology cases submitted to the lab involving impaired driving should be contracted out (indefinitely or temporarily) to reduce the number of pending cases to a waiting period of 4 months or 120 days from receipt.
- **Action to Date: Completed**
 - The Legislature appropriated funds from 2013-2017 for outsourcing of toxicology cases in order to address delays in completion of casework at the Laboratory. This program ended in 2017.
- **2019 Follow Up Recommendation**
 - Improvements in internal processes have made marked improvement to turn around times in the toxicology and Forensic Biology (DNA) sections.
 - Currently, outsourcing is being used to deal with previously unsubmitted Sexual Assault Kits located with law enforcement.
 - The ability to outsource testing when casework submissions increase beyond the SCL's capacity is key to the Lab's ability to provide its customers with results in a reasonable amount of time.

- **Recommendation 4**
 - It is recommended that the SBI consider creating a Citizens' Academy to enlighten and inform citizens of the SBI's many roles in crime control and law enforcement.
- **Action to Date: Complete**
 - This concern was mooted in part by the legislature relocating the SCL from the SBI to DOJ in 2013.
- **2019 Follow Up Recommendation**
 - I recommend that outreach continue by the SCL as outlined above, but do not think the SCL needs to consider a Citizens Academy.

- **Recommendation 5**
 - It is recommended that District Attorneys be regularly encouraged to complete the Case Disposition Form to assure that cases disposed of in court are removed from the testing cycle.
- **Action to Date: Ongoing**
 - The Lab currently reaches out to attorneys on a monthly basis with a listing of the current open cases with that office to inquire if there are any cases for which a "stop work" form is appropriate.
- **2019 Follow Up Recommendation:**
 - Partner with the Justice Academy to create a video tutorial explaining Forensic Advantage's features to encourage DA's to use the stop work function in that application.