COMMONWEALTH of VIRGINIA

FORENSIC SCIENCE BOARD
Jo Ann Given, Chair

October 31, 2014

The Honorable S. Chris Jones
Chair, House Committee on Appropriations
P.O. Box 5059
Suffolk, Virginia 23435-0059

The Honorable Walter A. Stosch
Co-Chair, Senate Committee on Finance
Innsbrook Centre
4551 Cox Road, Suite 110
Glen Allen, Virginia 23060-6740

The Honorable Charles J. Colgan
Co-Chair, Senate Committee on Finance
10660 Aviation Lane
Manassas, Virginia 20110-2701

The Honorable Thomas K. Norment, Jr.
Chair, Virginia State Crime Commission
P.O. Box 6205
Williamsburg, VA 23188

Re: Annual Forensic Science Board Report

Dear Delegate Jones and Senators Stosch, Colgan and Norment:

Pursuant to the provisions of Subsection B of § 9.1-1110 of the *Code of Virginia*, the Forensic Science Board shall, by November 1 of each year, review and make recommendations concerning the following matters:

1. New major programs and plans for activities of the Department of Forensic Science and elimination of programs no longer needed;
2. Policy and priorities in response to agency needs;

3. General fiscal year operational budget and any major changes in appropriated funds;
4. Actions to foster and promote coordination and cooperation between the Department of Forensic Science and the user programs which are served;
5. Rules and Regulations necessary to carry out the purposes and intent of this chapter; and
6. Any recommendations submitted to the Board or the Director by the Scientific Advisory Committee.

The 2014 Report of the Forensic Science Board concerning these matters is attached.

Please do not hesitate to contact me through the Department of Forensic Science Director's Office if you have any questions or would like additional information.

Sincerely,

Jo Ann Given
Chair, Forensic Science Board

Enclosure

cc: The Honorable Brian J. Moran, Secretary of Public Safety and Homeland Security
Victoria H. Cochran, Deputy Secretary of Public Safety and Homeland Security
Members, Forensic Science Board
Linda C. Jackson, Director, Department of Forensic Science
Division of Legislative Automated Systems

FORENSIC SCIENCE BOARD
2014 ANNUAL REPORT

Virginia Code § 9.1-1110(B) requires the Forensic Science Board ("Board" or "FSB") to review and make recommendations by November 1 of each year concerning the following:

1. New major programs and plans for activities of the Department of Forensic Science and elimination of programs no longer needed;
2. Policy and priorities in response to agency needs;
3. General fiscal year operational budget and any major changes in appropriated funds;
4. Actions to foster and promote coordination and cooperation between the Department of Forensic Science and the user programs which are served;
5. Rules and Regulations necessary to carry out the purposes and intent of this chapter; and
6. Any recommendations submitted to the Board or the Director by the Scientific Advisory Committee.

The Forensic Science Board met at the Department of Forensic Science's Central Laboratory in Richmond on January 6, 2014, April 30, 2014, August 20, 2014, and October 15, 2014. A list of members of the Board is included as Attachment A. Pursuant to Code § 9.1-1110(B), the Board makes the following report.

1. NEW MAJOR PROGRAMS AND PLANS FOR THE ACTIVITIES OF DFS AND THE ELIMINATION OF PROGRAMS NO LONGER NEEDED

Accreditation of Four Regional Testing Laboratories and Calibration Laboratory

The Department of Forensic Science ("Department" or "DFS") was successfully reaccredited by ASCLD/LAB *International* on September 3, 2014. The onsite assessment of all five DFS laboratories (four regional testing laboratories and the Breath Alcohol Calibration Laboratory) was conducted in May 2014 by a team of over 25 assessors. To be reaccredited, DFS had to demonstrate its conformance to the ISO/IEC 17025:2005 International Standard as well as additional requirements designated by the accrediting body.

Post-Conviction DNA Testing Program and Notification Project

Post-Conviction DNA Testing Program

In 2001, swabs and cuttings from evidence that had been affixed to a worksheet by a DFS serologist were discovered in an old case file. Post-conviction DNA testing on the evidence found in the case file exonerated an individual who had been convicted of rape. Subsequently, two additional individuals were exonerated of rapes based on post-conviction DNA testing conducted on evidence found in their case files.

In 2004, as a result of the three individuals exonerated through post-conviction DNA testing on evidence found in old DFS case files, Governor Mark R. Warner ordered the Department to review 10% of its serology case files to identify cases where post-conviction DNA testing could provide probative evidence of the defendant's guilt or innocence. Files were

reviewed for the years 1973 to 1988, the time period identified for when the practice of retaining swabs and cuttings from evidence in case files by serologists occurred. Thirty-one cases were identified where the serologist had affixed swabs and cuttings from the evidence to worksheets in the files, and the original serology test results indicated the presence of seminal fluid. Post-conviction DNA testing conducted on the evidence from these thirty-one case files resulted in three additional defendants being exonerated of rapes.

Based on the results from the random sample of 31 cases tested, DFS recommended, and Governor Warner concurred, that a full-scale review of DFS case files be conducted, and that DNA testing be conducted when appropriate. In his December 14, 2005 press release announcing the full-scale review of DFS serology case files from 1973 to 1988, Governor Warner said, "I believe a look back at these retained case files is the only morally acceptable course, and what truth they can bring only bolsters confidence in our system. Our Department of Forensic Science has taken an impartial, scientific and unrelenting approach to this review, and I commend their effort."

The criteria specified by Governor Warner for the random sample case review was limited to sexual assault cases because of the requirement for the presence of seminal fluid on the evidence to be tested. These criteria were modified by the Governor for the full-scale review of files for the Post-Conviction DNA Testing Program, and testing was ordered to be conducted in any case involving a felony crime against a person where there was evidence suitable for DNA testing located in the file, and there was a named suspect who was convicted of the felony crime against a person. Ultimately, any person convicted of a violent felony offense specified in Code § 17.1-805 was included in the Post-Conviction DNA Testing Program.

Both state and federal funding have supported the Post-Conviction DNA Testing Program. From February 2007 to June 2008, DFS utilized state funds totaling $1,422,000 to pay project personnel and to have a nationally-accredited private laboratory conduct DNA testing on evidence samples from about 300 cases. In July 2008, Virginia received a grant from the National Institute of Justice (NIJ) of approximately $4.5 million to support this post-conviction DNA testing. Initially, the grant was to pay for the identification and DNA testing of evidence in old cases in which a suspect was convicted of rape, murder, or non-negligent manslaughter. In March 2011, NIJ expanded the definition of grant eligible cases to include any case involving a conviction for a "state violent felony offense." Testing in over 500 cases was completed using the grant funding. The grant funding expired at the end of 2012, and DFS conducted testing in the remaining eligible cases in-house.

During the full-scale review of the 1973 to 1988 case files, approximately 534,000 files were retrieved from the State Records Center and individually reviewed. Swabs and cuttings suitable for DNA testing were identified in 3,051 case files. Of the 3,051 case files containing this evidence, there were 2,204 that also had at least one named suspect listed. Efforts over the last several years have identified 860 cases (of the 2,204) where the named suspect was convicted of a violent felony offense; 1,309 cases have been deemed out of scope based on known conviction information; and 35 cases remain where conviction information has not been confirmed. DNA testing has been conducted in 859 of the 860 cases where a violent felony conviction has been confirmed. DNA testing is in process for the one remaining case. Since the full-scale review of old serology case files began in 2005, five additional individuals have been exonerated through the Post-Conviction DNA Testing Program.

Convicted Suspect Notification Project

In 2008, the General Assembly included language in the budget requiring the Forensic Science Board to notify all convicted defendants whose case files were found to contain evidence suitable for DNA testing that such evidence exists and is available for testing. In 2009, the General Assembly passed Senate Bill 1391, which directed the Board to continue its efforts to make the notifications required by the language initially included in 2008 budget. SB 1391 also specifically granted the authority for agencies and private organizations assisting with the notification project to receive criminal history record and other information necessary to complete the notifications, and also directed the Board to utilize the services of pro bono attorneys.

At its meeting in May 2009, the Board created a Notification Subcommittee to guide its efforts to fulfill the General Assembly's mandates. The Notification Subcommittee is chaired by the Executive Director of the Virginia State Crime Commission, and the Superintendent of State Police and the criminal defense attorney representative currently serve as members of the Subcommittee. The Chief Medical Examiner also previously served as a member of the Subcommittee. Although initially the Department of Corrections and the Virginia State Police gathered address information on individuals requiring notification, the staff of the Crime Commission has, since the creation of the Notification Subcommittee, led the efforts to identify correct addresses for these individuals so that notification letters can be mailed. Pro bono attorneys and law student volunteers from across the state received training from Crime Commission staff and the Mid-Atlantic Innocence Project on assisting with the notification efforts. Pro bono attorneys and law students were assigned to locate and provide letters to suspects requiring notifications, as well as work to confirm suspect conviction records.

When address information for a convicted suspect requiring notification is identified, the Department sends notification letters to the individual via First Class and Certified Mail. A pre-stamped post card is included with each letter, and the person who receives the letter is requested to indicate on the post card whether they are or are not the person specified in the letter then return the pre-stamped post card to the Department.

During 2014, the Crime Commission staff received assistance from contract employees with the Indigent Defense Commission (IDC) who researched information on suspects for the notification project. Through the efforts of the IDC contract employees, address information for multiple suspects was identified, and notification letters were mailed to these suspects. Several individuals from the IDC who assisted with the project attended the October 15, 2014, FSB meeting, and were personally thanked by the Board for their efforts.

There are currently 975 suspects who have been identified with convictions in program eligible cases; 707 of the 975 are believed to still be living, and 268 are believed to be deceased. Confirmed notifications have been made for 425 of the 707 suspects believed to be living; the remaining 282 do not have confirmed notifications. Of the 425 suspects who have confirmed notifications, 237 have requested and been provided copies of the Certificates of Analysis issued in their cases; the remaining 188 have been advised how to request copies of their Certificates of Analysis, but they have not done so.

The Department and the Crime Commission maintain separate databases for the notification project, and are currently working to update the databases in order to confirm the convicted suspects who still require notification.

Virginia State Crime Commission September 23, 2014 Meeting

At its September 23, 2014 meeting, the Virginia State Crime Commission was given a presentation by its staff regarding the Post-Conviction DNA Notification Project. After providing detailed information about the history of the Post-Conviction DNA Testing Program and the current status of the Notification Project, Crime Commission staff presented four policy options regarding the project for consideration. Addressing the policy options, the Crime Commission concluded the following:

1. Notifications are not required for convicted persons who are "indicated" on the evidence tested. A person who is "indicated" cannot be eliminated as a contributor of/to the DNA profile.
2. DFS should conduct DNA testing in misdemeanor cases where either the suspect or victim requests testing.
3. DFS should retest the cases for each of the 482 convicted suspects whose the initial post-conviction DNA testing results were "inconclusive." A result of "inconclusive" means there was insufficient data upon which to draw conclusions. The retesting in the "inconclusive" cases should be prioritized as follows:
    1. Cases where spermatozoa is present and suspect is still incarcerated
    2. Cases where suspect is still incarcerated
    3. Cases where spermatozoa is present and suspect is not still incarcerated
    4. All other cases
4. The next of kin (spouse, child or parent) of deceased suspects who were eliminated/not indicated should be notified of the DNA test results.

The Department reported to the Board at its October 15, 2014 meeting that the Crime Commission's recommendation that DFS should retest in the 482 cases with "inconclusive" results is expected to have a significant fiscal impact on the Department.

Uncertainty of Measurement Reporting

Effective December 31, 2013, the Department implemented its estimation of Uncertainty of Measurement (UoM) reporting. UoM is not error but rather demonstrates confidence in a measurement. The estimated UoM is reported for the following measurements: the weight of controlled substance evidence or the quantity (purity) of a controlled substance when reported as a weight fraction of the whole; the concentration of a drug in a toxicology sample, including values reported for blood alcohol; the barrel length of a firearm and/or the overall length of a firearm for long guns for which the barrel or overall length has been altered; and the calibration of breath alcohol measuring instruments.

DNA Population Statistical Calculations

At its October 15, 2013 meeting, after DFS had completed an internal validation of the TrueAllele computer system, which provides an estimate of the frequency of a DNA profile, the

Board approved a recommendation from the Scientific Advisory Committee that TrueAllele be approved for use by the Department. In January 2014, DFS began using this computer system to apply this application to DNA mixture profiles developed from crime scene evidence. Four scientists in the Central laboratory are now conducting analyses, reporting results and testifying in cases statewide. Virginia is the first state forensic laboratory to implement this particular technology.

Multiplex Kits for DNA Data Bank

The Department's DNA Data Bank is validating a new multiplex kit and instrumentation in anticipation of revisions to national procedures and guidelines issued by the Federal Bureau of Investigation (FBI). The FBI announced in 2011 the proposed expansion of the list of current DNA areas from 16 to 24 for DNA profiles going into the national DNA Data Bank. The "PowerPlex Fusion" kit and instrumentation being validated will allow Virginia's DNA Data Bank to comply with this expansion. This enhanced process and new instrumentation will reduce the time necessary to obtain a DNA profile and also increase the discrimination ability of DNA Data Bank searches. The resulting DNA profile will also be more compatible with databases outside the United States. Subsequent to the successful validation, the goal is to train all DFS Data Bank analysts on the new kit and procedure, and implement the new kit at the beginning of 2015.

Laboratory Information Management System

The Department is working toward implementing a web-based laboratory information management system (LIMS), which will increase customer accessibility by allowing law enforcement to remotely submit Requests for Laboratory Examination and permitting DFS to electronically disseminate Certificates of Analysis. The new LIMS will also facilitate the Department's efforts to convert to a nearly paperless records management system.

Facility Expansion and Renovation

Eastern Laboratory

The multi-phase renovation of space at the Eastern Laboratory building in Norfolk that began in 2011 is mostly completed with the exception of a few minor adjustments. In all, the renovations included expanded facilities for Administrative Offices and the Latent Prints, Firearms, and Forensic Biology Sections; reconfiguration of the laboratory parking lot to increase the number of parking spaces; and renovations to accommodate expansion of the Toxicology and Controlled Substances Sections. These two sections moved into the renovated space in November 2013.

Central Laboratory

Detailed planning money was included in the budget for the expansion/renovation of the Central Laboratory. This project will allow the DFS operations currently housed across the street in the Biotech 8 Building to be moved back into the expanded Central Laboratory. This includes the Breath Alcohol and Training Sections, the Director's Office, Human Resources, and Administration and Finance. Additionally, the Office of the Chief Medical Examiner (OCME),

which is co-located in the Central Laboratory and the Biotech 8 Building with DFS, will also return all of its operations to the Central Laboratory. DFS is working with the Division of Real Estate Services to obtain an extension of the lease for the space used by DFS and the OCME in the Biotech 8 Building. The current lease ends in 2016, and the expected completion date of the Central Laboratory expansion project is sometime in 2019.

Western Laboratory

The Western Laboratory in Roanoke opened in 1994 and, by 2008, DFS had outgrown the space. In November 2009, property adjacent to the laboratory was purchased from the Roanoke County School Board in anticipation of expanding the laboratory. In 2011, the prospect of laboratory expansion was accelerated by the General Assembly with the inclusion of pre-planning funding in the FY 12-13 Biennial Budget. Expansion plans were developed and a "contractor at risk" designated. Groundbreaking for the expansion occurred in March of 2014, and an official Groundbreaking Ceremony was held on July 28, 2014. The new 63,000 square foot facility will house the Chemistry, Toxicology, Trace Evidence, Evidence Receiving and Administrative Sections of DFS, along with waiting areas and meeting rooms for the Office of the Chief Medical Examiner. Additionally, the facility will have 4,000 square feet on ground floor designated for three large classrooms and breakout rooms for training. The new portion of the building is currently scheduled to be completed in October of 2015, at which point the existing facility will be renovated for increased space designated to the OCME and DFS. This final phase of the project is due to be completed in the Spring of 2016.

2. POLICY AND PRIORITIES IN RESPONSE TO AGENCY NEEDS

Priority: Improving Timeliness

Snapshot of Section Backlogs – September 2013 vs. September 2014

Section	Cases Received (09/2013)	Cases Received (09/2014)	Cases Completed (09/2013)	Cases Completed (09/2014)	Ending Backlog (cases) (09/2013)	Ending Backlog (cases) (09/2014)	Average Turnaround Time (days) (09/2013)	Average Turnaround Time (days) (09/2014)
Controlled Substances	2512	2548	3533*	3697*	3731	5647	52	75
Firearms	440	473	406	554	664	666	46	46
Forensic Biology	374	394	365	397	850	985	81	108
Latent Prints	302	316	299	295	791	569	72	62
Questioned Documents	20	16	24	17	16	12	30	31
Toxicology	824	867	799	860	1449	1203	55	51
Trace Evidence	63	82	82	75	119	144	55	55

* The Controlled Substances Section was under mandatory overtime in September 2013 and September 2014. Accordingly, the number of "Cases Completed" for the two months reflected in this chart will be higher than the number of cases completed by the Section when mandatory overtime is not in place.

The Snapshot of Section Backlogs compares, by Section for September 2013 and September 2014, the number of cases received, the number of cases completed, the number of cases in the backlog, and the average turnaround time in days. The data illustrates some of the challenges and successes of the past year. For example, the backlog and turnaround times have improved in the Latent Prints and Toxicology Sections. In Latent Prints, the slower turnaround time and higher backlog shown in September 2013 reflect the training of staff required to conduct on-screen comparisons using the Mideo software implemented in 2013. Both the turnaround time and backlog in Latent Prints were, as expected, improved by September 2014 after the Latent Print examiners had become familiar with the new technology. In Toxicology, the decentralization of DUI/DUID testing that was completed in 2012, and the additional Toxicology personnel who became qualified DFS examiners in 2013 and 2014, allowed the Section to continue its trend of reducing its backlog and average turnaround time.

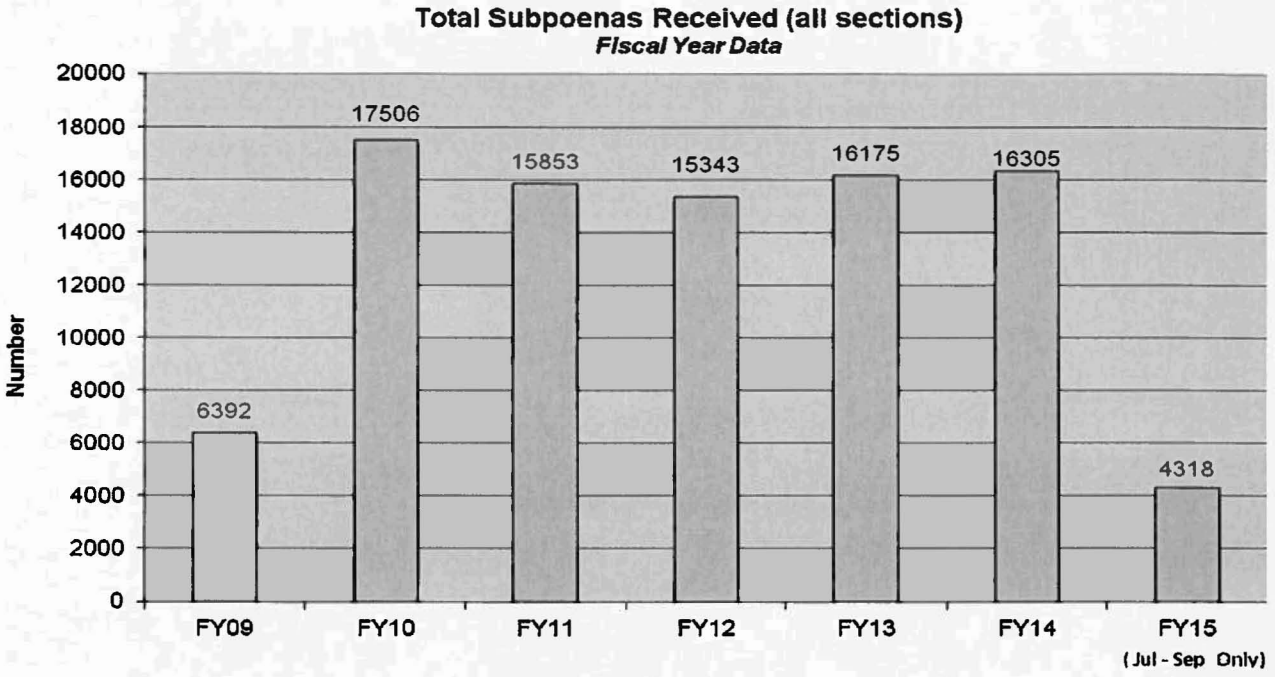
The Forensic Biology Section saw increased backlogs and turnaround times in 2014 as a result of additional statistical training that all DNA examiners statewide were required to complete so that new statistical methods could be implemented during the June-July 2014 timeframe. As DNA examiners become more acclimated and efficient with the new statistical calculations, it is anticipated that turnaround times will decrease again to the 2013 levels.

Backlogs and turnaround times in the Controlled Substances Section have continued to grow in recent years. The two primary factors responsible for these increases are: 1) the significant amount of time examiners spend managing witness subpoenas and time out of the laboratory associated with appearing in court; and 2) the rising number cases requiring *more complex* analyses, such as those involving clandestine methamphetamine laboratories.

Factors Affecting DFS Workloads and Backlogs

Melendez-Diaz v. Massachusetts

The United States Supreme Court's 2009 decision in the case of *Melendez-Diaz v. Massachusetts* significantly impacted the Department's ability to manage its caseload. In *Melendez-Diaz,* the Court held that the defendant's Sixth Amendment right to confront witnesses against him is violated if the laboratory report is offered into evidence without testimony of the forensic scientist who performed the analysis. The decision had an immediate and measurable impact on criminal trials in Virginia. As reported in prior Forensic Science Board Annual Reports, and as is illustrated by the current data below, the number of witness subpoenas received by DFS examiners and the amount of time examiners are required to spend out of the laboratory, on court travel and appearances, have remained dramatically elevated as compared to pre-*Melendez-Diaz* levels. When examiners are required to be out of the laboratory for extended periods of time, they have fewer hours available in the laboratory to perform forensic analyses. The Section that continues to be most the acutely affected is Controlled Substances. The graphs that follow illustrate the impact of the *Melendez-Diaz* decision.


Total Subpoenas Received (all sections)
Fiscal Year Data
Number
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
6392
17506
15853
15343
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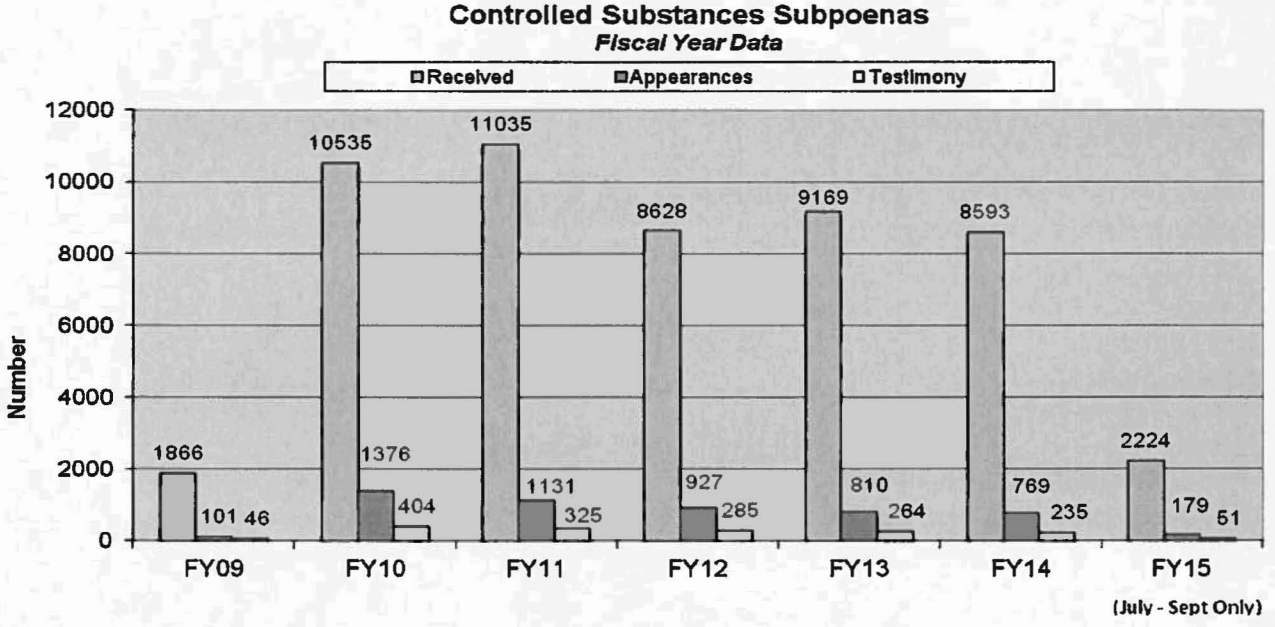
16305
4318
FY09
FY10
FY11
FY12
FY13
FY14
FY15
(Jul - Sep Only)


Controlled Substances Subpoenas
Fiscal Year Data
Received
Appearances
Testimony
Number
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8000
6000
4000
2000
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1866
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46
10535
1376
404
11035
1131
325
8628
927
285
9169
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FY11
FY12
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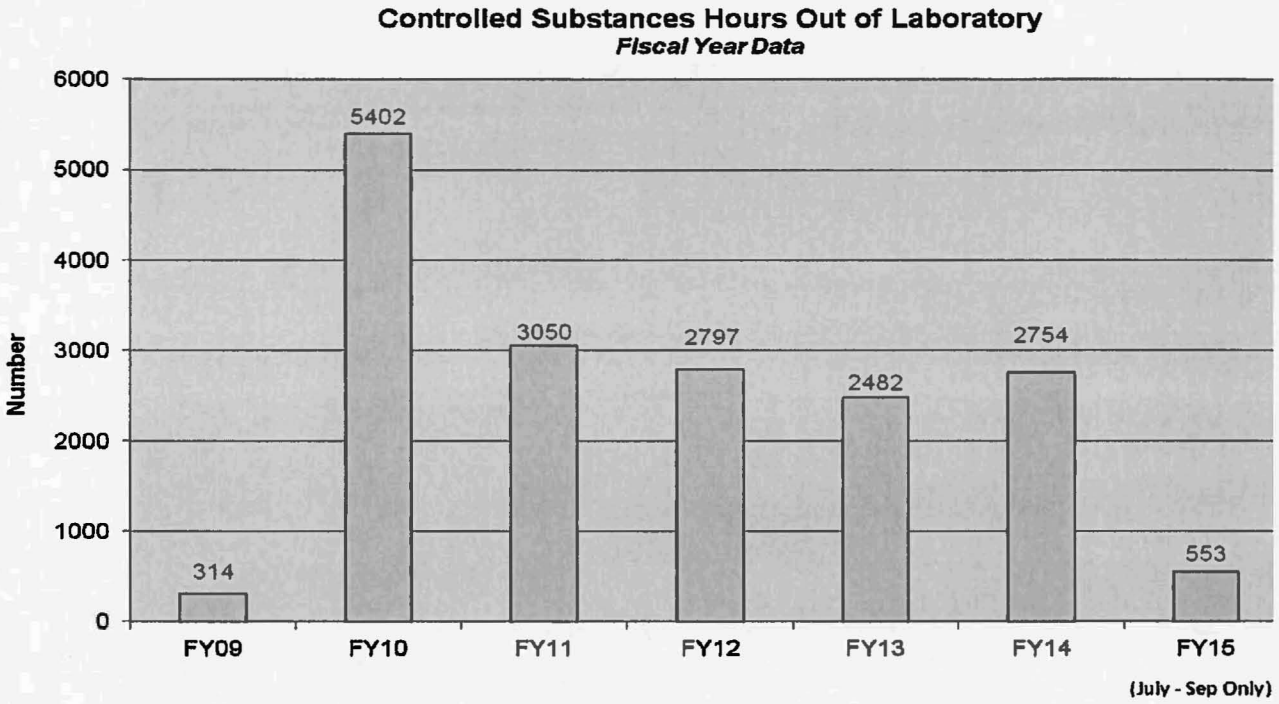
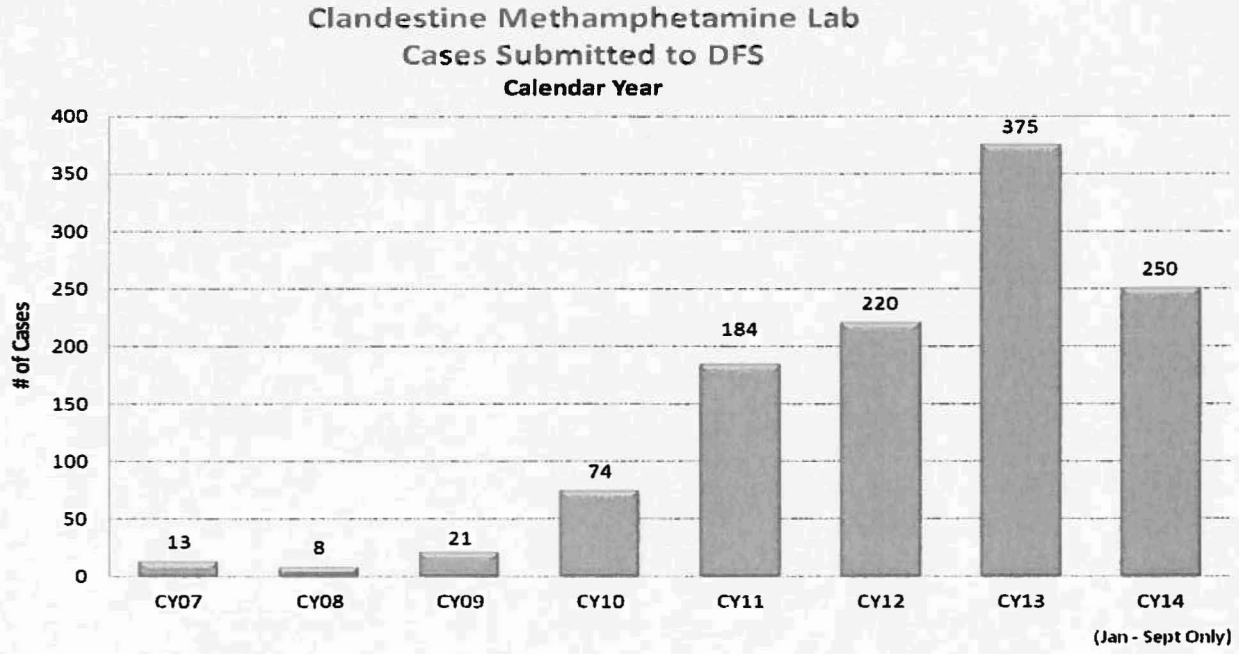
FY14
FY15
(July - Sept Only)



Clandestine Methamphetamine Labs

There has been a continued upward trend in case submissions relating to investigations of clandestine methamphetamine laboratories in recent years. The 375 cases submitted in calendar year 2013 was a significant jump over 2012. The 250 cases submitted through the first three quarters of calendar year 2014 matches the submissions for the same time period in 2013. The large volume of these cases being submitted directly impacts turnaround times as these cases are time consuming because they require more complex analyses to identify the substances present.



DFS Strategies for Addressing Timeliness in Controlled Substances

The following strategies are being utilized by the Department to reduce case turnaround times in the Controlled Substances Section:

- Seeking approval for and filling additional positions in Controlled Substances
- Providing efficient centralized training of Controlled Substances staff
- Having a dedicated "Clandestine Methamphetamine Team" to perform complete analyses of these cases in the Western Laboratory where the vast majority are submitted for analysis
- Allowing examiners to work voluntary overtime
- Implementing mandatory overtime for September and October 2014
- Using Abbott Settlement funds to purchase additional AccuTOF-DART instruments, which allow for efficient screening of complex unknown substances and for identification of legitimately manufactured tablets and capsules

Priority: Increase Continuing Educational Opportunities for Staff

DFS continues to emphasize the importance of providing training for its staff. In addition to the previous goal to offer all scientific staff the opportunity to obtain at least 8 hours of specialized scientific/technical training each year, 4 hours of training will be obtained by all other DFS staff. Training will be presented on-site to the greatest extent possible to streamline information disseminated to staff in the same section as well as all supervisory staff. Additionally, other cost efficient options continue to be explored and utilized. Virtually all personnel are on track to attain the minimum training hours by December 31, 2014. Further, additional training modules are being developed for Department-wide training (e.g., *Social Media Training, Section Specific Modules*).

3. GENERAL FISCAL YEAR OPERATIONAL BUDGET AND ANY MAJOR CHANGES IN APPROPRIATED FUNDS

Budget Overview

The Department's annual budget for FY 2015 is:

General Fund Base Budget	36,234,516
Adjustments to Base Budget	2,042,317
Non-General Funds	5,449,996
TOTAL	43,726,829
Less Budget Reductions	(1,142,035)
TOTAL ANTICIPATED OPERATING BUDGET	42,584,794

As part of the $1,142,035 in budget reductions for fiscal year 2015, the Department will be laying off ten full-time employees and one wage employee. As a result of these layoffs, services will be reduced in the disciplines of Trace Evidence, Questioned Documents, and Digital Multi-Media Evidence. The Department also will limit photography services to the preparation of court exhibits for user agencies. The new Toxicology position provided in the

FY15 budget will be eliminated. Another six positions will be held open through the end of the Fiscal Year (one position in Latent Prints and five additional positions provided in the FY15 budget, three in Forensic Biology and two in Controlled Substances).

Grants

Since the last Annual Report dated November 1, 2013, funding has been available or awarded to DFS under the following grant programs:

FY 10 Using DNA Technology to Identify the Missing – $468,640 from NIJ to continue the joint effort between DFS and the OCME to conduct DNA analysis and profiling of human remains currently in OCME storage and other cases as submitted by law enforcement. Grant period ended on March 31, 2014.

FY 11 DNA Backlog Reduction Grant Program -- DFS was awarded $1,447,358 from NIJ to enhance capacity and reduce the forensic case backlog. Grant period ended on March 31, 2014.

FY 11 Paul Coverdell Forensic Science Improvement Grant Program – $230,825 to DFS through DCJS for training, equipment and software for the Physical Evidence, Chemistry, and Calibration and Training program areas. Grant period ended on March 31, 2014.

FY 12 DNA Backlog Reduction Grant Program – $1,165,649 from NIJ to enhance capacity in the Forensic Biology Section and provide training for DNA examiners. Grant period ended on September 30, 2014.

FY 12 Paul Coverdell Forensic Science Improvement Program -- $103,891 from NIJ to provide training and equipment for Chemistry, Physical Evidence, and Calibration and Training program areas. Grant period ended on July 31, 2014.

FY 12 Solving Cold Cases with DNA -- $467,000 co-awarded to DFS and Virginia State Police to investigate cold cases and to conduct DNA analysis in violent crime cold cases. $102,859 provided to DFS. DFS funds expended prior to December 31, 2013.

2013 Continuation of Byrne Justice Assistance Grant -- $66,654 to continue training and to support equipment for the Digital and Multi-Media Evidence Section. Federal funds total $63,321, with a DFS match of $3,333. Grant period ended on June 30, 2014.

FY 13 DNA Backlog Reduction Grant Program -- $990,871 from NIJ to enhance capacity in the Forensic Biology Section. Supports personnel, training and equipment. Expires March 31, 2015.

FY 13 Paul Coverdell Forensic Science Improvement Program -- $83,582 to DFS from NIJ for training of non-DNA personnel. Grant period extended to June 30, 2015.

2014 Highway Safety Grant Program -- $174,499 awarded through DMV for Breath Alcohol training and travel costs for law enforcement officers and training for DFS Breath Alcohol personnel. Grant period ended on September 30, 2014.

FY 14 DNA Capacity Enhancement and Backlog Reduction Grant Program - $906,457 awarded from NIJ to enhance capacity in the Forensic Biology Section. Supports personnel, training, and equipment. Grant period is October 1, 2014 – September 30, 2016.

FY 14 Paul Coverdell Forensic Science Improvement Program – $184,994 awarded by NIJ to Virginia (DCJS) for DFS and the OCME. The DFS portion (~ $92,497) is to be used for scientific training of personnel in the Chemistry, Physical Evidence, and Calibration & Training program areas. Grant period is October 1, 2014 to September 30, 2015.

2015 Highway Safety Grant Program -- $190,761 awarded through DMV for Breath Alcohol training and travel costs for law enforcement officers and training for DFS Breath Alcohol personnel. Includes $37,500 conditionally approved to fund the development of an online database for public access to breath alcohol instrument records. Grant period is October 1, 2014 to September 30, 2015.

Asset Forfeiture One-Time Transfer - $2,943,000 from the Office of the Attorney General for enhancement of service capacity in the Chemistry program area. For purchases of equipment and maintenance/service agreements. Grant period is May 2014 to April 2016.

4. ACTIONS TO FOSTER AND PROMOTE COORDINATION AND COOPERATION BETWEEN DFS AND THE USER PROGRAMS WHICH ARE SERVED

Conferences, Presentations, and Training

Department staff regularly attends regional meetings and statewide conferences of its user agencies to give presentations on relevant forensic science issues and to be available for feedback and comment on the services that the Department is providing. In 2014, DFS representatives attended statewide conferences for the Virginia Association of Commonwealth's Attorneys, the Indigent Defense Commission, the Virginia Sheriffs' Association, the Virginia Association of Chiefs of Police, and the Judicial Conference of Virginia for District Courts.

Each year, the Department's Forensic Training Section offers two nine-week Forensic Science Academy training sessions to selected classes of law enforcement personnel. The Forensic Science Academy provides in depth training in the recognition, collection, preservation, and handling of evidence through classroom instruction by forensic experts, evidence collection demonstrations, and numerous practical exercises in simulated crime scenes. The Forensic Training Section also presents numerous short courses throughout the year on various crime scene investigation subjects. DFS also continues to organize the annual Virginia Forensic Science Academy Retraining Seminar, which provides Academy graduates updates on DFS services and practices. All of these conferences, presentations, and training sessions provide an opportunity for DFS to receive feedback on the services it provides to user agencies.

The Department's Breath Alcohol Section provides training for law enforcement personnel in the operation of evidential breath alcohol instruments. From November 1, 2013 through October 31, 2014, the Breath Alcohol Section conducted 44 initial breath alcohol operator (3 day) classes and licensed 829 new operators. The Section also conducted 86 relicensing (1/2 day) sessions and subsequently relicensed 2,604 operators.

Surveys of User Agencies

In November and December 2013, the Department surveyed user agencies regarding its Digital & Multi-Media Evidence (DME) Section. Specifically, the survey sought to establish connections with those agencies with current or planned internal capabilities that are similar to those of Department's DME Section as well as those agencies not currently using the Department's DME services. The DME Section encompasses the preservation, processing, and analysis of evidence that is in an analog or digital format. The section is divided into the following disciplines: Forensic Audio Analysis, Forensic Video Analysis, Comparative Analysis, and Digital Forensics.

In March 2014, the Department sought input on the content and usage patterns of the DFS Evidence Handling and Laboratory Capabilities Guide (the Guide). The Guide is intended to promote the maximum use of physical evidence and encourage greater utilization of the services of the Department. The objective of the Guide is to provide practical information concerning how the Forensic Laboratory can assist in criminal investigations, and procedures for the collection, preservation, and submission of physical evidence, available to law enforcement personnel. The full Guide is available online on the Department's website. However, as a result of the feedback received in March, portions of the Guide were posted separately with quick links to those sections for easier access, and additional portions will be added.

Availability of Breath Alcohol Records Online

Beginning June 2014, the Department's Breath Alcohol Section began offering current Breath Alcohol Instrument records on the DFS website. The records available on the website include Certificates of Instrument Accuracy, instrument maintenance history, and quality assurance worksheets and associated documentation that was generated from August 2013 to the present. The Breath Alcohol Section receives approximately 100 requests for records (both Freedom of Information Act as well as Subpoenas *Duces Tecum*) per week for this information as well as subject specific information. DFS has explored options to provide subject testing records (with personally identifiable information redacted) and was conditionally approved for grant funding through the DMV for the current grant cycle (October 2014 – September 2015) to pursue website access. Currently, DFS is awaiting word from DMV regarding final approval of those funds.

Evidential Screening Devices

Virginia Code § 19.2-188.1 permits a law enforcement officer to testify at a preliminary hearing "to the results of field tests that have been approved by the Department of Forensic Science pursuant to regulations adopted in accordance with the Administrative Process Act . . . regarding whether or not any substance the identity of which is at issue in such hearing is a

controlled substance, imitation controlled substance, or marijuana . . . ." The regulations adopted pursuant to Code § 19.2-188.1 define "field test" as "any presumptive chemical test unit used outside of a chemical laboratory environment to detect the presence of a drug."

The Department advised the Board, at the April 30, 2014 meeting, that it had been contacted by two manufacturers of evidential screening devices seeking to have DFS evaluate these screening devices as field test kits. Evidential screening devices use spectroscopy to presumptively identify controlled substances and, according to DFS scientists, would not be considered chemical tests that fall under the definition of field tests under the current regulations.

Because they are not considered chemical tests, the evaluation process specified in the regulations for traditional field tests could not be used for evidential screening devices. A new evaluation process would need to be created for these devices in the regulations. The Department advised the Board that it would consider amending the regulations to create a process to evaluate these devices if it is important to DFS stakeholders. However, only one officer had expressed an interest to DFS in such a screening device.

The evidential screening devices are marketed as a rapid identification technique, and they purport to be able to identify substances without contact in most instances. The cost for these devices, however, is likely to be cost prohibitive for agencies in that an estimate is $20,000 per device.

Given that the Department was aware of only one Virginia police officer who had expressed any interest in the evidential screening devices, the Board concluded that there was not currently a need to consider changing the Department's regulations to adopt a new evaluation process for these evidential screening devices. However, the Board indicated it would reconsider the issue if Virginia law enforcement agencies expressed an interest in purchasing and using such devices in the future.

Physical Evidence Recovery Kit Inventory

The 2014 General Assembly passed Senate Bill 658 (Chapter 642 of the 2014 Acts of Assembly), which requires all state and local law enforcement agencies to inventory all Physical Evidence Recovery Kits (PERKs) in their custody that may contain biological evidence that were collected but not submitted to DFS for analysis prior to July 1, 2014. DFS is required to establish the form of and timeline for inventory. Law enforcement agencies are required to submit the inventories to DFS, and DFS must report the results of the inventory to the General Assembly by July 1, 2015.

In August 2014, the Department held a PERK Inventory Stakeholder meeting to seek input from interested parties on a proposed form and timeline for the inventory. Over 20 stakeholders attended this meeting, including Senator Black's (the bill patron's) aide and individuals representing the Virginia Sheriffs' Association, the Virginia Association of Chiefs of Police, Commonwealth's Attorneys, defense attorneys, forensic nurse examiners, the Chief Medical Examiner, the Department of Corrections, the Department of Criminal Justice Services, the Division of Consolidated Laboratory Services, the Virginia State Crime Commission, the Criminal Injuries Compensation Fund, and various victims' advocacy groups.

With feedback from the PERK Inventory Stakeholder group, the Department finalized the form and timeline for the inventory. General information about the PERK inventory, a list of Frequently Asked Questions, instructions for completing the form, and a link to the electronic PERK Inventory form were made available on the Department's website on October 10, 2014. The availability of the information on the Department's website was shared with law enforcement agencies across the state.

5. RULES AND REGULATIONS NECESSARY TO CARRY OUT THE PURPOSES AND INTENT OF CHAPTER 11 OF TITLE 9.1 OF THE CODE OF VIRGINIA (DFS)

Regulations

As detailed in the Board's 2013 Report, DFS proposed to revise four of its regulations in 2013 to improve the clarity of the regulations, update regulatory text, eliminate obsolete provisions and reduce costs to the Commonwealth. Although one exempt regulation took effect in the summer of 2013, the remaining three regulations with proposed revisions became effective in January and February 2014.

Amendments to the ***Regulations for the Approval of Field Tests for Detection of Drugs*** (6 VAC 40-30) became effective January 3, 2014. The amendments revised the verbiage used throughout the regulation, primarily changing the terminology from an "approval" process to an "evaluation" process. Most significantly, the amendments require manufacturers submitting drug field test kits for evaluation to pay the actual costs of the "street drug preparations" used in the evaluation process (6 VAC 40-30-80), a cost previously borne by the Commonwealth.

Amendments to the ***Regulations for the Approval of Marijuana Field Tests for Detection of Marijuana Plant Material*** (6 VAC 40-50) became effective February 23, 2014. The amendments revised the verbiage used throughout the regulation, similarly changing the terminology from an "approval" process to an "evaluation" process.

Both field test regulations also clarified the process for resubmitting kits for evaluation after disapproval.

Additionally, amendments to the ***Regulations for Breath Alcohol Testing*** (6 VAC 40-20) became effective January 17, 2014. The new regulatory text eliminated references to an obsolete form and clarified that notices of the revocation of a breath alcohol operator license or breath alcohol instructor certificate could be sent via United States mail or private carrier.

(6) ANY RECOMMENDATIONS SUBMITTED TO THE FORENSIC SCIENCE BOARD OR THE DIRECTOR BY THE SCIENTIFIC ADVISORY COMMITTEE

The Scientific Advisory Committee met at the DFS Central Laboratory in Richmond on April 29, 2014 and October 14, 2014. A list of members of the Scientific Advisory Committee is included as Attachment B.

Scientific Advisory Committee (SAC) Recommendations and Actions in 2014

- In 2014, the Scientific Advisory Committee continued its goal of reviewing the procedures related to all of the Department's scientific disciplines.
- At its April 2014 meeting, the Latent Prints and Trace Evidence Subcommittees advised that they had completed and closed their reviews of the Latent Prints and Trace Evidence Procedures Manuals, respectively. A Toxicology Subcommittee was created to review the Toxicology Procedures Manual.
- At its October 2014 meeting, the Toxicology Subcommittee advised that they had completed and closed their review of the Toxicology Procedures Manual. The Toxicology Subcommittee will also be reviewing the new methods implemented by the Toxicology Section for identification and quantitation of amphetamines and anti-epileptic drugs. A new Trace Evidence Subcommittee was created and will be tasked with reviewing the validation of the Laser Induced Breakdown Spectroscopy method once it is completed by the Department. The Forensic Biology (DNA) Subcommittee will be reviewing the validation and laboratory procedures for the new Powerplex Fusion DNA kits and the new 3500 Genetic Analyzer instruments that will be used with the Powerplex Fusion kits in the DNA Data Bank.

Attachment A

FORENSIC SCIENCE BOARD MEMBERS*

(as of October 15, 2014)

- **Colonel W. Steven Flaherty** – Term: period in office or employment
  Superintendent of the Virginia State Police
- **Francine C. Ecker** – Term: period in office or employment
  Director of the Department of Criminal Justice Services
- **William T. Gormley, M.D.** – Term: period in office or employment
  Chief Medical Examiner
- **Caroline D. Juran (Vice-Chair)** – Term: period in office or employment
  Executive Director of the Virginia Board of Pharmacy
- **Richard C. Vorhis, Esq.** – Term: period in office or employment
  Designee of Attorney General Mark R. Herring
- **Karl R. Hade** – Term: period in office or employment
  Executive Secretary of the Supreme Court of Virginia
- **Kristen J. Howard** – Term: period in office or employment
  Designee of the Chair of the Virginia State Crime Commission
- **Senator Thomas K. Norment Jr./Senator Mark D. Obenshain** – Term: period in office or employment
  Co-Chairs of the Senate Committee for Courts of Justice
- **Delegate Rick Morris** – Term: period in office or employment
  Designee of the Chair of the House Committee for Courts of Justice
- **Jo Ann Given (Chair)** – Term: designated by Scientific Advisory Committee Chair
  Member of the Scientific Advisory Committee (SAC) Chosen by SAC Chair
- **Alphonse Poklis, Ph.D.**** – Term: designated by Scientific Advisory Committee Chair
  Member of the Scientific Advisory Committee Chosen by SAC Chair
- **Sheriff A. A. Lippa, Jr.** – Term: ending 6/30/2017
  Governor Appointee – Member of Law Enforcement
- **The Honorable Claiborne Stokes** – Term: ending 6/30/2017
  Governor Appointee – Member of the Virginia Commonwealth's Attorneys Association
- **David A.C. Long, Esq.** – Term: ending 6/30/2017
  Governor Appointee – Criminal defense attorney with special knowledge of forensic science

*An additional seat on the Board remains unfilled as it was designated for the Chairman of the Board of the Virginia Institute of Forensic Science and Medicine or his designee, and the Virginia Institute of Forensic Science and Medicine is no longer in existence.

Attachment B

SCIENTIFIC ADVISORY COMMITTEE MEMBERS

(as of October 15, 2014)

- **Linda C. Jackson** – Term: period in office or employment
  Director of the Department of Forensic Science
- **Les Edinboro, Ph.D.** – Term: ending 6/30/2015
  Governor Appointee – Director of a private or federal forensic laboratory located in the Commonwealth
- **Jami St. Clair** – Term: ending 6/30/2015
  Governor Appointee – Scientist or other person with education, training or experience in laboratory standards or quality assurance regulation and monitoring
- **Robin W. Cotton, Ph.D.** – Term: ending 6/30/2017
  Governor Appointee – Molecular Biologist
- **John V. Planz, Ph.D.** – Term: ending 6/30/2015
  Governor Appointee – Population Geneticist
- **Richard P. Meyers** – Term: ending 6/30/2018 (Chair)
  Governor Appointee – Forensic Chemist
- **Carl Sobieralski** – Term: ending 6/30/2015
  Governor Appointee – Forensic Biologist
- **Maureen C. Bottrell** – Term: ending 6/30/2018
  Governor Appointee – Trace Evidence Scientist
- **Alphonse Poklis, Ph.D.** – Term: ending 6/30/2018
  Governor Appointee – Toxicologist certified by the American Board of Forensic Toxicologists
- **Kenneth Zercie** – Term: ending 6/30/2015
  Governor Appointee – Member of the Board of the International Association for Identification
- **Travis Spinder** – Term: ending 6/30/2017
  Governor Appointee – Member of the Board of the Association of Firearms and Toolmark Examiners
- **Randall E. Beaty** – Term: ending 6/30/2018
  Governor Appointee – Member of the International Association for Chemical Testing
- **Jo Ann Given** -- Term: ending 6/30/2017 (Vice-Chair)
  Governor Appointee – Member of the American Society Crime Laboratory Directors