



# COMMONWEALTH of VIRGINIA

## FORENSIC SCIENCE BOARD CAROLINE D. JURAN, CHAIR

October 27, 2011

The Honorable Lacey E. Putney  
Chair, House Committee on Appropriations  
P.O. Box 127  
Bedford, VA 24523

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

The Honorable Robert B. Bell  
Chair, Virginia State Crime Commission  
2309 Finch Court  
Charlottesville, Virginia 22911

### **Re: Annual Forensic Science Board Report**

Dear Delegates Putney and Bell and Senator Colgan:

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:

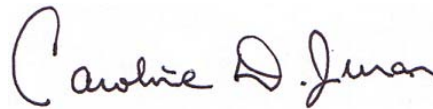
1. New major programs and plans for activities of the Department of Forensic Science and elimination of programs no longer needed;
  2. Policy and priorities in response to agency need;
  3. General fiscal year operational budget and any major changes in appropriated funds;
  4. Actions to foster and 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 purpose and intent of this chapter;
- and

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Annual Forensic Science Board Report

6. Any recommendations submitted to the Board or the Director by the Scientific Advisory Committee.

The 2011 Report of the Forensic Science Board concerning these matters is attached. Please do not hesitate to contact me at (804) 367-4578 if you have any questions or would like additional information.

Sincerely,

A handwritten signature in black ink that reads "Caroline D. Juran". The signature is written in a cursive style with a large initial "C".

Caroline D. Juran  
Executive Director, Virginia Board of Pharmacy  
Chair, Forensic Science Board

Enclosure

cc: The Honorable Marla G. Decker  
Members, Forensic Science Board  
Peter M. Marone  
Division of Legislative Automated Systems

cdj/gdj

**FORENSIC SCIENCE BOARD  
2011 ANNUAL REPORT  
Pursuant to § 9.1-1110.B of the Code of Virginia**

**1. New major programs and plans for the activities of the Department of Forensic Science (“DFS” or “Department”) and the elimination of programs no longer needed**

**Review of major programs and plans; recommendations, if any:**

**POST-CONVICTION DNA TESTING PROGRAM AND NOTIFICATION PROJECT**

*Post-Conviction DNA Testing Program*

The project initiated in 2005 at the direction of former Governor Mark Warner to perform DNA testing of biological evidence identified in certain archived DFS serology case files dating from 1973 through 1988 continued in calendar year 2011. The history of this important and unprecedented project is set out in several prior Annual Reports of the Forensic Science Board (“Board” or “FSB”), and, therefore, will not be repeated in full herein. Rather, the following will primarily provide some context and an update on the progress of the Post-Conviction DNA Testing Program and the related effort to notify persons who were convicted of crimes in the old cases that have qualified for DNA testing.

Initiated with state funding, the DNA testing of old case evidence by a private contract laboratory has been supported since 2008 through a federal grant of more than \$ 4.5 million from the National Institute of Justice (NIJ). The grant originally paid for DNA testing of identified biological evidence in old laboratory case files that included the identity of at least one known suspect who subsequently was convicted of “murder, rape or non-negligent manslaughter.” Earlier this year, coincident with extending the period of Virginia’s Post-Conviction DNA Testing Program grant through March 31, 2012, NIJ expanded the definition of “grant-eligible” cases to those in which a suspect was convicted of a “violent felony offense under state law.”

At the quarterly meeting of the Forensic Science Board on October 12, 2011, DFS presented the following updated data relating to the progress of the Post-Conviction DNA Testing Program:

<b>Case files identified with evidence suitable for DNA testing</b>	<b>3,052</b>
<b>Cases with evidence and at least one named suspect</b>	<b>2,205</b>
<i>Cases with evidence and at least one named suspect convicted of a violent felony offense against a person (grant-eligible)</i>	<b>783</b>
<b>Cases out of program scope based on known conviction information</b>	<b>768</b>
<b>Cases with no available conviction information</b>	<b>654</b>
<i>Cases in which Certificates of Analysis have been issued (grant-eligible)</i>	<b>732</b>
<b>Cases tested but not yet reported</b>	<b>51</b>
<b>Cases awaiting testing</b>	<b>0</b>

DNA testing completed thus far reflects the following results:

<b>Suspects named in cases for which Certificates of Analysis have been issued</b>	<b>1,016</b>
<i>Suspects convicted of state violent felony offenses</i>	<b>823</b>
<b>Convicted suspects “eliminated” (not indicated)</b>	<b>74</b>
<b>Convicted suspects “not eliminated”</b>	<b>217</b>
<b>Suspects for whom known samples needed</b>	<b>120</b>
<b>Scientific data insufficient to draw conclusion</b>	<b>412</b>
<i>Suspects NOT convicted of state violent felony offenses</i>	<b>193<sup>1</sup></b>
<b>Suspects “eliminated” (not indicated)</b>	<b>23</b>
<b>Suspects “not eliminated”</b>	<b>4</b>
<b>Suspects for whom known samples needed</b>	<b>62</b>
<b>Scientific data insufficient to draw conclusion</b>	<b>104</b>

DNA profiles unaccounted for by case reference samples are compared to profiles in the Virginia and, as applicable, national DNA data banks. Any “hits” to DNA data bank profiles are reported with the laboratory results. Thus far, a hit has been made to a data bank profile in 16 of the cases. The results of DNA testing performed in each Post-Conviction Testing Program case, including any DNA data bank hit that might be identified, is reported in a DFS Certificate of Analysis that is provided to the original investigating agency, with a copy to the relevant Commonwealth’s Attorney. In addition, when an elimination of a named suspect is reported, DFS contacts the relevant Commonwealth’s Attorney to inform him/her of the reported finding. Copies of such Certificates of Analysis are also provided upon request to case suspects who were convicted of crimes in conjunction with the old case investigations and/or to their legal counsel.

### ***Convicted Suspect Notification Project***

Since the fall of 2008, the Department of Forensic Science has provided staff support to the Forensic Science Board to carry out the responsibility assigned to the Board by the General Assembly to notify convicted case suspects of the existence of physical evidence found in their old DFS case files and that such evidence was available for DNA testing. The complete history of the suspect notification project also has been included in prior Annual Reports of the Forensic Science Board and, therefore, will not be reiterated in detail herein. In short, it became the Board’s obligation to deliver successfully as many of the 1,000+ suspect notification letters as proved to be needed and feasible.

The project initially involved utilizing a variety of public databases and enlisting the assistance of the Department of Corrections (DOC), Virginia State Police (VSP), Department of Motor Vehicles (DMV) and Bureau of Vital Records to identify current addresses for named

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<sup>1</sup> When evidence in the project’s cases was originally submitted to DFS for forensic examination, these persons were named by law enforcement as case suspects. Research has not indicated that these persons were thereafter convicted of violent felony offenses in the cases in which they were named as suspects. Their cases have been included in the testing program, however, because in each case, at least one other individual was convicted of a violent felony offense. Nonetheless, DNA tests results also revealed in some cases that DNA from a “non-convicted” suspect either was or was not indicated on the evidence samples tested.

suspects believed to be still living. The Board was challenged by the fact that the DFS source documents listing suspect names, Request for Laboratory Examination (RFLE) forms that accompanied the submission of case evidence, related to case investigations that were at least twenty years old and rarely included suspects' full names, dates of birth and/or social security numbers. Without such personally-identifying information, it proved extremely difficult to locate a specific individual 20 to 35 years later. Nonetheless, "best-available current addresses" were used for two rounds of notification mailings in 2008, and 317 confirmed notifications to the correct person were successfully accomplished, including 169 notifications the persons then in DOC custody. Records indicated that approximately 200 formerly convicted individuals were deceased at that time. Not unexpectedly, more than 500 notification letters from the initial two rounds of mailings were returned as "undeliverable."

After legislation was enacted by the General Assembly in 2009 that authorized the use of *pro bono* attorneys and other volunteers in the suspect notification effort, the Board adopted a work plan that allowed DFS to partner with the staff of the State Crime Commission and the Mid-Atlantic Innocence Project (MAIP), which took shared responsibility for recruiting and training potential volunteers. The Executive Director of the Crime Commission, who serves on the Board as designee of the VSCC Chair, became Chair of the Board's Notification Subcommittee. Numerous training sessions for volunteers were conducted in 2009 and 2010, but fewer volunteers than expected stepped forward to accept case assignments, and the results of volunteers' efforts were marginal. By mid-2010, the Notification Subcommittee reported that *pro bono* volunteers made only 22 successful notifications to convicted persons located within the Commonwealth who had not previously been located and notified.

Beginning in May 2010, NIJ agreed to modify the scope of DFS' 2008 Post-Conviction DNA Testing Assistance Grant to allow sub-awards to the VSCC and the MAIP to support staff positions and other expenses, enabling each to continue and to improve their notification coordination activities. Importantly, the sub-award supports research and case review by VSCC staff, including use of a Westlaw person-finder database, called West Batch Processing. These efforts have confirmed suspect death records and identified suspect addressees that previously were unknown. A third round of Notification mailings, in July and August 2011, to more than 170 case suspects, using updated last known addresses, has resulted in at least 48 additional confirmed notifications to correct individuals. The VSCC staff continues to support the Notification Subcommittee, coordinates assignments to *pro bono* volunteers, and collaborates with the VSP, the DMV, and the courts to identify the status and location of suspects still requiring notification. MAIP has continued to train potential *pro bono* volunteers, including law students, and to provide legal advice and assistance upon request to the convicted suspects who seek and obtain the results of the post-conviction DNA testing performed on evidence in their old case files.

The objective of the Post-Conviction DNA Testing Program are Certificates of Analysis reflecting DNA test results that are sent to the agencies that investigated and prosecuted each old case. The objective of the Notification Project is the ability to offer those DNA test results to the persons convicted of crimes in connection with those old cases. As reported to the Board on October 12, 2011, the following data reflect the Program's success in achieving those objectives:

<b>Total Notifications Required to All Suspects Convicted of Crimes</b>	<b>1,092<sup>2</sup></b>
<b>Notifications Required to Convicted Suspects Believed Still Living</b>	<b>844</b>
<i>Confirmed Notifications to Convicted Suspects Believed Still Living</i>	<i>405</i>
<b>Undelivered / Unconfirmed Notifications</b>	<b>439</b>
<b>Cases in which Certificates of Analysis have been issued</b>	<b>732</b>
<i>Letters sent to suspects with known addresses advising that Certificates of Analysis are available</i>	<i>351</i>

DFS' NIJ grant for Post-Conviction DNA Testing expires on March 31, 2012. The Department intends to expend as much of the remaining grant funds as possible to complete the testing of evidence in grant-eligible cases. In approximately 654 old cases files that contain evidence believed suitable for testing and include the name of at least one suspect, no information has been discovered to confirm that a person was convicted of a violent felony offense in connection with the crime being investigated. MAIP has agreed to continue to coordinate volunteer activities with pro bono attorneys and other volunteers and to place emphasis on directing volunteers who will research conviction information in these old cases. Any cases that may become classified as grant-eligible will be sent for testing before the grant period expires.

To underscore the significance of Virginia's Post-Conviction DNA Testing Program, the Virginia Forensic Science Board received an expression of appreciation at its meeting on May 11, 2011, from Mr. Thomas Haynesworth. Mr. Haynesworth was released on parole from Greensville Correctional Center on March 21, 2011 after serving 27 years in prison on three convictions involving rapes and sexual assaults in 1984. In 2009, DNA testing revealed that his DNA was not indicated on evidence in one of the rapes, but confirmed that the DNA of another individual, a convicted serial rapist, was present. Later that year, Mr. Haynesworth was the first person to receive a writ of actual innocence from the Virginia Supreme Court based on the new DNA evidence for his conviction in that case. Although no DNA evidence remained to be tested in the two other cases for which he was convicted, a review of the crimes persuaded prosecutors, the Attorney General of Virginia, and ultimately the Parole Board that the incidents matched the modus operandi of the convicted serial rapist. Currently free on parole, his petitions for two writs of actual innocence of those convictions are pending before the Virginia Court of Appeals. In a separate matter, Calvin Cunningham was granted a writ of actual innocence by the Virginia Supreme Court on April 12, 2011, based on Virginia post-conviction DNA test results.

### **FAMILIAL DNA SEARCHING**

Media reports in the summer of 2010 drew national attention to the arrest of a long-sought murder suspect in California following a "familial DNA search" of that state's DNA data bank. As a consequence, DFS received requests to look at the advisability and feasibility of conducting such data bank searches in the Commonwealth. In routine DNA data bank searches,

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<sup>2</sup> This total, which is consistent with directions first expressed in the 2008 Appropriations Act, represents the number of persons believed to have been convicted of *some crime* in connection with the grant eligible cases in the program, i.e., case files with evidence suitable for testing and at least one suspect convicted of a violent felony crime against a person.

a DNA profile developed from biological material collected at a crime scene is checked against known profiles in Virginia's DNA data base for the purpose of identifying any exact match, if one exists among profiles in the data bank. Using specialized search software, it is possible to conduct a search that is less stringent, in order to identify profiles that are not identical but, rather, similar enough to point to a possible family member of the person who deposited DNA on the evidence sample (since relatives share genetic similarities). Such "familial searching" typically results in a large number of associations that then need to be refined by further DNA "lineage" testing. The process may identify a number of DNA profiles of persons who may be related to the individual whose DNA was found at the crime scene. An actual family member ultimately may or may not be found among similar profiles identified in the data bank. The resulting profile(s), if any, would be regarded as a "lead" that would require law enforcement investigation.

In 2010, familial DNA searches were known to have been performed in only two states, California and Colorado. Procedures had been established in both jurisdictions to identify cases appropriate for such searches and to conduct the necessary follow-up investigations. Both states had to develop and validate search software and commit the necessary resources to these efforts.

The Forensic Science Board asked the Department to study familial DNA searching, including existing software, the potential cost of the Department's implementation, and the validation and efficacy of familial DNA searching, and to report back to the Board at its October 15, 2010 meeting. DFS Biology Program Manager Brad Jenkins presented the Department's report to the Board at that time. With regard to the possible implementation of familial DNA searching in Virginia, Mr. Jenkins' report included the following:

- To conduct familial DNA searches, DFS would have to acquire the software needed, validate the software according to its accreditation requirements, and train staff to evaluate the genetics of potential familial relationships identified through partial match searches. The cost to accomplish was estimated to be approximately \$100,000.
- If Virginia performed lineage testing on only 50 identified samples per case, Virginia could conduct 12 familial searches per year with current staff resources, at an estimated cost of \$65,040.
- The following should be considered before implementing familial DNA searches in Virginia:
  - What criminal cases should be eligible for familial searching?
  - Should searches be conducted on arrestee samples in the data bank?
  - What procedures are needed to balance the privacy interests of innocent persons *versus* the limited possibility of identifying a criminal suspect?
- Virginia legislation may be needed to specify criteria for conducting familial searches and releasing search results to law enforcement.

After Mr. Jenkins' report, the Commonwealth's Attorneys for Prince William County and Chesterfield County encouraged the Board to support the implementation of familial DNA searching in Virginia, and following discussion, the Board unanimously approved a motion

recommending that the General Assembly consider the implementation, funding and use of familial DNA searching in the Commonwealth.

The Department was then asked to make a presentation on Familial DNA Searching to the Virginia State Crime Commission on November 15, 2010. In anticipation of that presentation, DFS sought the advice of counsel in the Attorney General's Office regarding its authority to perform familial searches and provide law enforcement agencies any results obtained. DFS was advised by counsel that no legislative changes would be necessary to perform familial search comparisons and release any such partial match results. This advice was shared with the Crime Commission on November 15. Denver District Attorney Mitchell Morrissey also addressed the Crime Commission at that time. He offered DFS the familial search software developed by his office, without cost, so that DFS could perform the necessary validation procedures to determine its suitability for performing familial searches of the Virginia DNA offender and arrestee databases. DFS accepted his offer, and the Denver software was installed in the DFS Data Bank Section on December 28, 2011. The validation process commenced soon thereafter. DFS also initiated an informal review of commercially available software alternatives should the Denver software not prove optimal on a long-term basis. DFS completed the validation and performance verification process and determined that the software provided by the Denver District Attorney, as modified with the assistance of Denver's IT staff, could be used to perform familial DNA searches of the Virginia offender and arrestee databases.

In addition, the Department received direction from the Secretary of Public Safety to develop a case acceptance policy that would set criteria for DFS approval of a law enforcement agency's request for a familial search. Consistent with the Secretary's direction, DFS issued a policy for considering requests from law enforcement officials to conduct familial DNA searches in cases involving unsolved violent crimes against persons, provided other investigative leads had been exhausted and critical public safety concerns remained. In such a case, if crime scene evidence yielded a DNA profile suitable for searching and law enforcement officials and prosecutors commit to further investigation if a potential relative is identified, the DFS Director will direct that a familial DNA search be performed in accordance with departmental scientific protocols. With the validation process completed and the case acceptance policy in place, Governor McDonnell announced on March 21, 2011 that Virginia had acquired the capability to conduct familial searches in appropriate cases.

### **DNA POPULATION STATISTICAL CALCULATIONS**

Over several meetings, DFS advised the Board about new national guidelines for forensic DNA interpretations that were published in 2010. The guidelines can be expected to have a pronounced affect on certain types of DNA mixture calculations, called the "combined probability of inclusion" (CPI). The guidelines recommend that data below a certain threshold should not be used in this type of calculation. When the data utilized for this type of statistical estimate is limited to data above this threshold, the discriminating power of a potential DNA match is diminished, making the estimated DNA matches more common. In May 2011, DFS identified approximately 375 forensic cases from the prior 16-month period in which this CPI-



mixture DNA statistic was utilized. On a continuous basis, DFS works about 15 cases per month that would be impacted by the new national guidelines.

In May 2011, DFS developed two strategies to address this issue. One was to identify and enter into a contract with a company that could provide case reports for Virginia forensic DNA cases that would include appropriate DNA mixture calculations, *i.e.*, calculations meeting the published guidelines, using a statistical calculation method known as a Likelihood Ratio (LR). Such a calculation would utilize more data within the DNA sample and provide a more meaningful statistical calculation. The reports could be submitted into evidence at trial and an expert from the company could testify regarding the statistical assessment, should that be necessary. The second strategy was to acquire the necessary computer software, hardware and training so that DFS scientists could, in the future, generate their own LR calculations in applicable DNA mixture cases, meeting the new guidelines, for Virginia forensic DNA cases.

To that end, DFS has identified and entered into a contract with a private company, Cybergenetics, to calculate this LR statistic that follows the new DNA interpretation guidelines and to testify to those results if needed. Approximately 51 case reports have been authorized under the contract to date, and Cybergenetics has also testified in at least one case thus far in Virginia.

The contract with Cybergenetics also includes validation services involving a 150-case data set. Validation is a process that a laboratory undergoes to test the reliability and reproducibility of the scientific method. This allows the vendor to develop lab-specific training for users and an efficient means of testing and developing the computer software for DFS use. Approximately 130 cases have been sent for this validation service.

Customized training has been provided by the contract company to two DFS employees. The training consisted of distance learning, with video lectures and literature review, as well as three days of on-site training at the vendor's offices. Software has been provided and installed so that DFS can access the 150 Virginia case data set. This software is being used to train additional DFS scientists.

DFS anticipates the procurement and installation of software and computer servers in DFS laboratories that, after validation and training of DFS staff, will enable the Department to generate the statistical reports in-house for user agencies, thereby supporting the Commonwealth's criminal justice system with one of the most advanced statistical assessments of forensic DNA data available.

## **FACILITY EXPANSION AND RENOVATION**

### ***Eastern Laboratory***

The renovation of space at the Eastern Laboratory building in Norfolk continues to progress to allow for expansion of DFS laboratory facilities.

*Phase I:* Construction of the Latent Prints Section and Administrative Office on the fifth floor was completed and the renovated space occupied in June 2011.

*Phase II:* Renovation of the vacated space on fourth floor to expand the Firearms and Biology sections was completed and the renovated space occupied in October 2011.

*Phase III:* The design has been completed for parking lot re-configuration to increase the number of parking spaces. The project is otherwise ready to go out for bid, but construction is being delayed pending completed coordination with the City of Norfolk on necessary access roads and utilities work.

*Phase IV:* Approval of the design for the balance of the fifth floor, to accommodate expansion of the Toxicology and Controlled Substances Sections, is dependent upon final review by the Bureau of Capital Outlay Management of the architectural and engineering construction documents. The bidding and construction award process are projected to be completed in late 2011, with a construction period to follow of approximately twelve months.

### ***Central Laboratory***

The Central Laboratory request for major expansion is included in the Commonwealth's Six-Year Capital Outlay Plan, but not funded at this time. Pre-planning and feasibility studies will be required to determine if expansion for Department of Forensic Science and the Office of the Chief Medical Examiner can be accommodated on the current site.

### ***Western Laboratory***

The Western Laboratory site in Roanoke was expanded in November 2009 with the purchase of the adjacent property from Roanoke County School Board. The laboratory expansion request is included in the Commonwealth's Six-Year Capital Outlay Plan, but not funded at this time. As a consequence of the state revenue picture, no plans have been established as yet to develop this property for expansion of the Western Laboratory.

## **2. Policy and priorities in response to agency needs**

### **GRANTS**

Since November 1, 2010, funding has been available or been awarded to DFS under the following grant programs:

***2008 Post-Conviction DNA Testing Assistance Program*** - \$4,520,295 from the National Institute of Justice (NIJ). Funding provided to pay the costs associated with the DNA analysis of a minimum of 700 post-conviction cases. Grant period extended to March 31, 2012. Change of scope granted to provide funding to the Virginia State Crime Commission and Mid-Atlantic Innocence Project for their costs associated with case review and notification of convicted persons.

***FY 08 Using DNA Technology to Identify the Missing*** - \$443,682 from NIJ. DFS is partnering with the Office of Chief Medical Examiner (“OCME”) in a joint effort to conduct DNA analysis and profiling of human remains currently in OCME storage. ***Expired August 31, 2011.***

***2008 Research and Development in the Area of Controlled Substances Detection and Analysis*** - \$49,774 from NIJ. Funding provided to develop a Thin Layer Chromatography Method for the separation of enantiomers using chiral mobile phase additives.

***FY 09 Solving Cold Cases with DNA*** - \$490,960 from the NIJ to pay the salaries and benefits of two additional full-time scientists and to purchase the necessary equipment and supplies to conduct in-house DNA analyses on approximately 120 cold cases. ***Expired September 30, 2011.***

***FY 09 Convicted Offender/Arrestee DNA Backlog Reduction Program*** – \$171,579 from NIJ to eliminate the backlog in the DNA data bank. ***Expired March 31, 2011.***

***FY 09 Forensic DNA Backlog Reduction Program*** – \$950,167 from NIJ to reduce the forensic casework backlog in the Forensic Biology Section. ***Expired May 31, 2011.***

***2009 Paul Coverdell Forensic Science Improvement Grant Program*** - \$164,951 to DFS through DCJS for renovation of existing space at the Central Laboratory to create lab work space and for the modification of office space. ***To expire November 30, 2011.***

***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.

***FY 10 Forensic DNA Backlog Reduction Program*** – \$920,520 from NIJ to reduce the forensic casework backlog in the Forensic Biology Section.

***2010 Byrne Justice Assistance Grant*** – \$19,000 in federal funds from DCJS for the training and personal certification testing of Forensic Science Academy students and graduates. ***Expired June 30, 2011.***

***2010 Byrne Justice Assistance Grant*** – \$71,246 in federal funds from DCJS for the acquisition of four computer systems and associated hardware, software, and training to improve the services provided by the DFS Digital and Multimedia Evidence Section. ***Expired June 30, 2011.***

***2010 Paul Coverdell Forensic Science Improvement Grant Program*** – \$311,246 to DFS through DCJS to conduct training in the Chemical Analysis and Physical Evidence Sections and to purchase equipment and supplies for the Chemical Analysis Section.

***2011 Highway Safety Grant Program*** – \$173,958 from DMV to conduct breath alcohol training for law enforcement officers statewide. ***Expired September 30, 2011.***

**2011 Continuation of Byrne Justice Assistance Grant** – \$11,898 to continue the International Association for Identification (IAI) personal certification training and testing project for crime scene investigators. Funding to be used to provide certification training books and reimbursement of testing fees for Forensic Science Academy (FSA) graduates and for participants of the fall 2011 and spring 2012 FSA classes.

**2011 Continuation of Byrne Justice Assistance Grant** – \$72,710 to continue the Digital and Multi-Media Evidence Section expansion project. Funding will be used to add equipment and supplies and to provide employee training to further enhance the Section's case output and ability to recover cell phone data in criminal cases.

**2012 Highway Safety Grant Program** -- \$228,751 from DMV to (i) provide reimbursement to law enforcement officers traveling to Richmond for Breath Alcohol Training; (ii) allow the Breath Alcohol section to hire one part-time administrative assistant to assist with grant-related projects; and (iii) purchase the necessary supplies for breath alcohol instrument classroom instruction.

**2011 Paul Coverdell Forensic Science Improvement Grant Program** – \$230,825 to DFS through DCJS to conduct training in the Chemical Analysis and Physical Evidence Sections and to purchase equipment, supplies, and software for the Chemical Analysis, Firearms, and Latent Prints Sections.

**FY 11 Forensic DNA Backlog Reduction Program** – \$1,447,358 from NIJ to reduce the forensic casework backlog and enhance the capacity of the Forensic Biology Section.

### **3. General Fiscal Year Operational Budget and any Major Changes in Appropriated Funds**

#### **BUDGET REVIEW**

The Department's 2010-2012 biennial budget, as amended by the 2011 Session of the General Assembly, reduced the DFS general fund appropriation for operating expenses to \$34,310,124 for FY 2011 and \$34,252,602 for FY 2012. The final general fund appropriation for FY 2011 was \$36,272,538 after administrative adjustments. The additional general fund appropriation was primarily to cover the increased costs related to transitioning to VITA services.

DFS' FY 2011 federal fund appropriation was \$3,347,826. The federal fund appropriation was primarily attributable to remaining Post-Conviction DNA Testing grant funds and the continuation of the grant period through FY 2011 and until March 31, 2012.

#### **4. Actions to foster and promote coordination and cooperation between the Department and the user programs which are served**

##### **Review of programs; recommendations, if any:**

##### **CONFERENCES AND PRESENTATIONS**

DFS representatives have attended regional meetings and statewide conferences of its user agencies to give presentations on relevant forensic science issues and be available for feedback and comment on the services that the Department is providing. This included meetings and conferences for investigators, sheriffs, chiefs of police, and commonwealth's attorneys. DFS also continues to organize the annual Virginia Forensic Science Academy Retraining Seminar, which provides Academy graduates updates on DFS services and practices and serves as a mechanism for DFS to receive feedback on the services it provides to user agencies.

##### **BACKLOGS**

##### **Status of Backlogs on October 1, 2011**

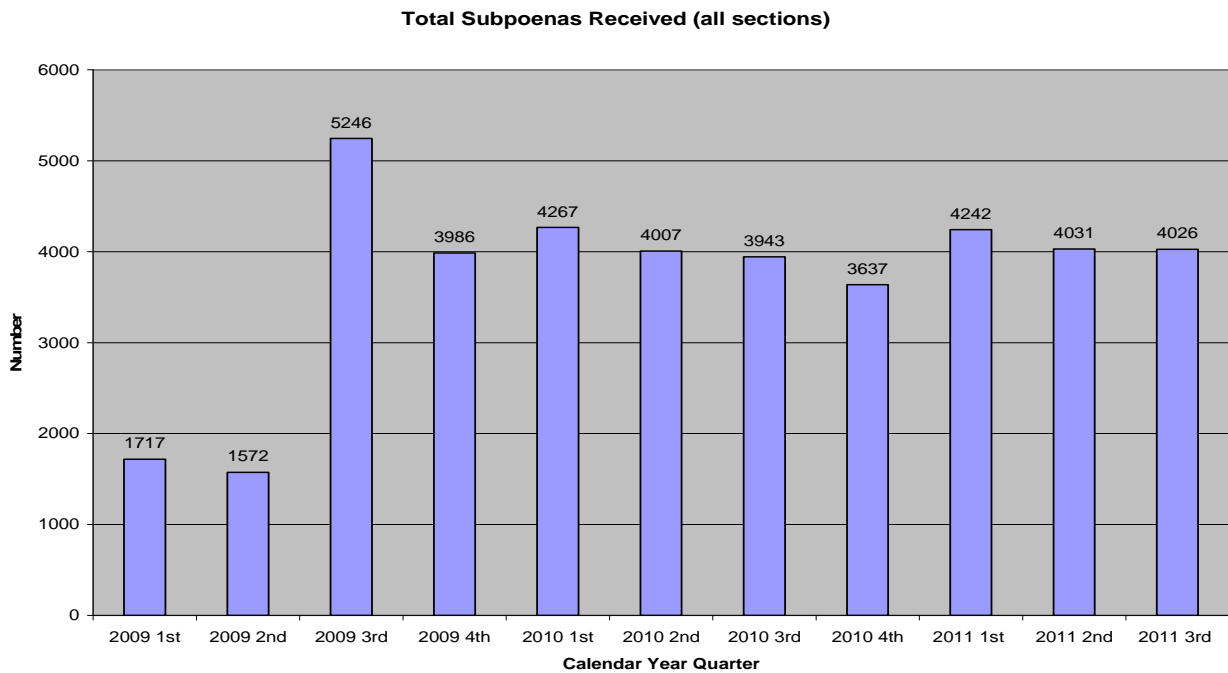
<b>Section</b>	<b>Ending Backlog (cases)</b>	<b>Average Turn Around Time (days)</b>	<b>Cases Over 30 days</b>
Controlled Substances	2005	26	200
Firearms	269	20	73
Forensic Biology	848	80	474
Latent Prints	459	67	250
Questioned Documents	21	24	2
Toxicology	1576	62	992
Trace Evidence	104	41	53

##### **CONTINUED IMPACT OF DECISION OF THE UNITED STATES SUPREME COURT IN *MELLENDEZ-DIAZ V. MASSACHUSETTS***

On June 25, 2009, the Supreme Court of the United States issued a decision in *Melendez-Diaz v. Massachusetts*, holding that a Certificate of Analysis issued by the state forensic laboratory in Massachusetts could not stand alone as evidence of the nature and weight of a controlled substance in a criminal case for drug distribution. The Court held that in order to preserve the defendant's Sixth Amendment right to confront witnesses against him, the analyst must appear in person to testify. The majority opinion also spoke approvingly of "notice-and-demand" statutes that require prosecutors to give pretrial notice of their intent to proceed on a Certificate of Analysis alone and allow the accused a period of time prior to trial to object and require the presence of the analyst.

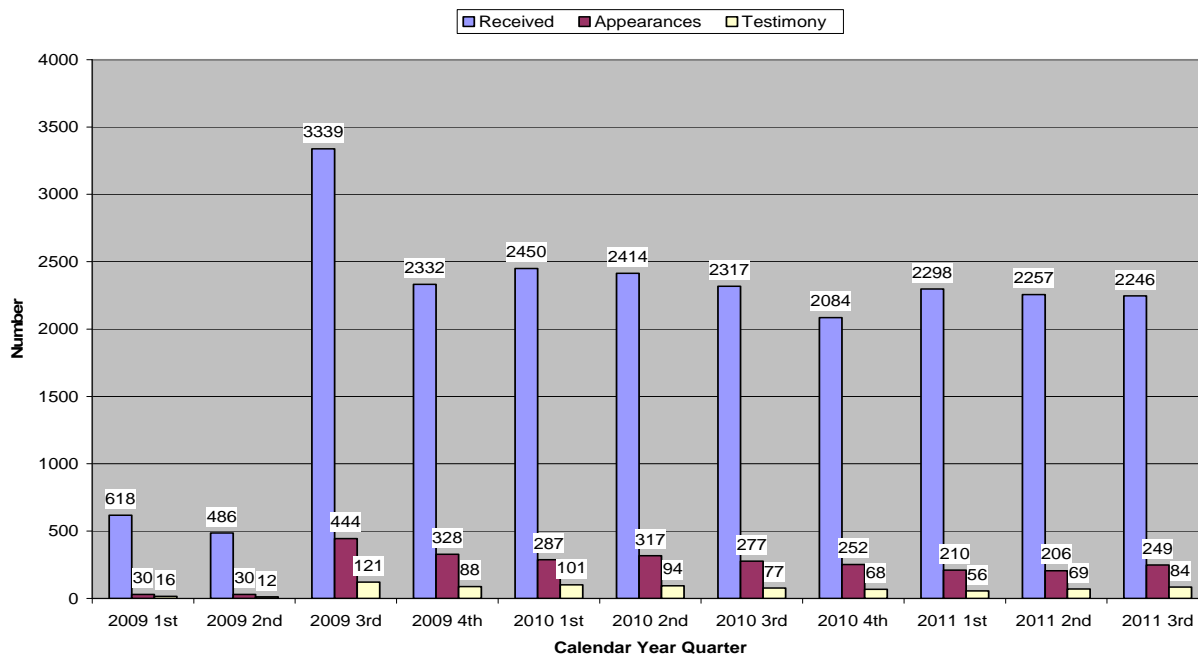
The Court's decision had an immediate and measurable impact on DFS. The number of subpoenas for analysts to testify in criminal trials soon tripled, and the amount of time analysts

were required to spend out of the laboratory, on court travel and appearances, rose dramatically. The General Assembly met in a called Special Session in August 2009 to enact emergency “notice and demand” legislation and passed further clarifying legislation in the 2010 Regular Session. While these new laws helped to establish an orderly process for ensuring defendants their Sixth Amendment rights, they have had little impact on the number of subpoenas received by Department forensic analysts, the frequency with which analysts are required to appear at hearings and trials, the amount of time they spend out of the laboratory for court travel, and the resulting impact on section backlogs. Whether the result of prosecutors’ caution or defendants’ exercise of trial rights, the numbers of subpoenas received by forensic analysts has risen to and plateaued at a level greatly exceeding pre-*Melendez* numbers. Two years later, DFS analysts continue to receive 2.5 times the number of subpoenas for court appearances than they did in the quarter just preceding the issuance of the Court’s decision. The greatest impact has been experienced by Controlled Substances analysts, who continue to spend fourteen times the number of hours each quarter on court travel than they did prior to the decision. A general fund appropriation in the 2010 Session has helped support DFS’ additional overtime compensation, court travel expenses, and needed Toxicology positions. The following graphs depict the impact of the *Melendez-Diaz* decision:



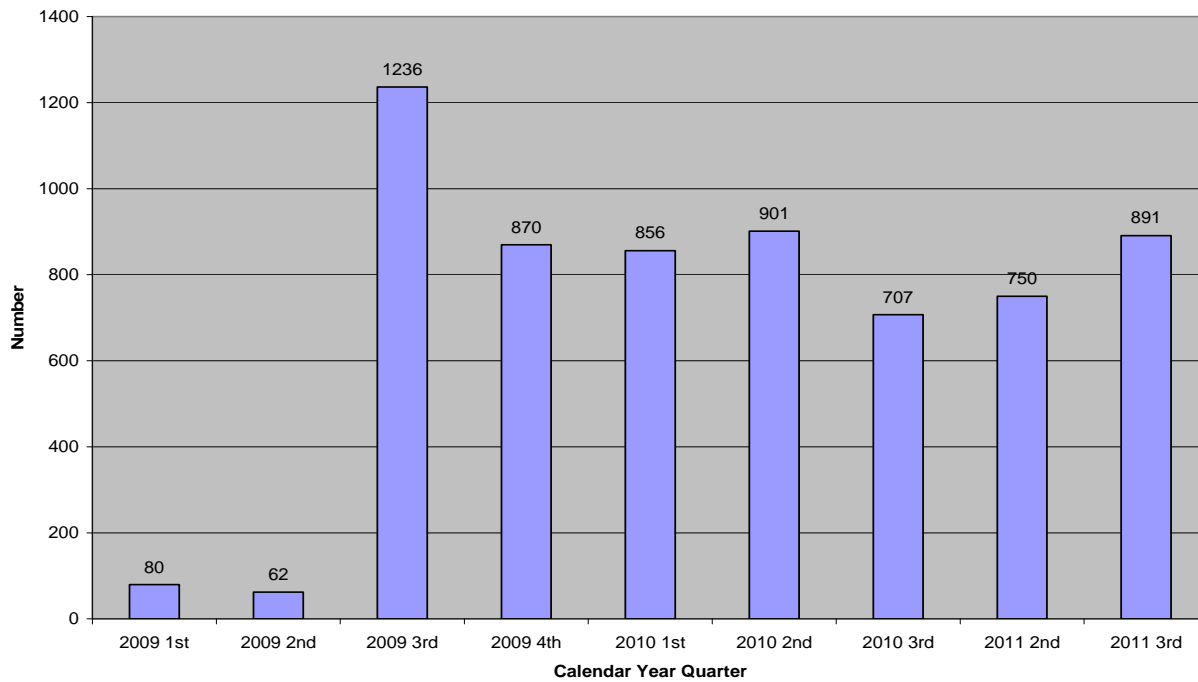
Ex. 1

### Controlled Substances Subpoenas



Ex. 2

### Controlled Substances Hours Out of Laboratory



Ex. 3

**5. Rules and Regulations necessary to carry out the purposes and intent of this chapter**

**Review of new rules and regulations; recommendations, if any:**

**REGULATIONS FOR OBTAINING INFORMATION FROM THE DNA DATA BANK  
AND PROCEDURES FOR VERIFICATION AND AUTHORIZATION OF  
PERSONS REQUESTING INFORMATION FROM THE DATA BANK (6 VAC 40-60)**

Regulations initially proposed by the Board in 2007 to comply with Virginia Code §19.2-310.5, which requires that DFS promulgate regulations that outline the method for obtaining information from the Virginia DNA data bank and procedures for verifying the requestor's identity and authority to request such information, were withdrawn in 2010 during the regulatory process because the Board concluded at that time that they were drawn too narrowly. The Board proceeded in May 2010 with a new Notice of Intended Regulatory Action (NOIRA) for the purpose of submitting a new regulation that more broadly addressed methods for obtaining data bank information in appropriate instances. After the public comment period closed, the Board voted to submit the revised regulations to the Virginia Town Hall for administrative review and public comment. While pending in the Proposed stage, legislation affecting data bank information was enacted in the 2011 Session, requiring conforming changes to the pending proposed regulations. The revised proposed regulation was pending gubernatorial approval as of the Board's October 12, 2011 quarterly meeting.

**6. Recommendations submitted to the Forensic Science Board or the Director by the Scientific Advisory Committee**

**SCIENTIFIC ADVISORY COMMITTEE (SAC) RECOMMENDATIONS AND ACTIONS IN CY 2011**

- The SAC's Controlled Substances Subcommittee, chaired by Dr. José Almirall, reviewed the Department's Controlled Substances procedures and training manuals and found both to be comprehensive and well-written. Only eight recommendations for revisions were offered, all of which were agreed to by DFS. The SAC accepted the report of the Subcommittee and the recommended changes to the Controlled Substances manual at its meeting on May 10, 2011.
- Also at the May 2011 meeting, the SAC accepted the Department's updated plan pertaining to Stochastic Threshold (ST) implementation. DFS Biology Program Manager Brad Jenkins had worked with Biology Subcommittee members Drs. Norah Rudin and John Butler on this topic. The plan has implications for the calculation of population statistics (how rare or common a DNA profile is believed to be) in DNA mixture cases. The Department at that time was considering the possible outsourcing of LR calculations in certain cases until the Department acquires the capability to perform such calculations in-house.



- In addition, the SAC voted to establish a Physical Evidence Subcommittee to review the Department's manuals and other procedures for the Physical Evidence disciplines. SAC members Kenneth Zercie and Jami St. Clair will serve on the Subcommittee. The SAC accepted the Department's suggestion to begin that effort with a review of Firearms/Toolmarks procedures.
- At its May 10, 2011 meeting, the SAC re-elected Ms. Jo Ann Given to serve as Chair and elected Ms. Jami St. Clair as Vice-Chair. The Committee also welcomed a new member to the seat reserved for a member of the Board of the International Association for Identification, Mr. Kenneth Zercie.
- At its October 11, 2011 meeting, the SAC welcomed two new members, Dr. John V. Planz, a population geneticist, and Carl A. Sobieralski, Jr., a forensic biologist. Also at that meeting, the SAC indicated its intention to continue to have its respective subcommittees review Familial Searching and Population Statistical Calculation protocols, Firearms protocols, and the validation of new instrumentation purchased for the Toxicology Section.

#### **FORENSIC SCIENCE BOARD (FSB) RECOMMENDATIONS AND ACTIONS IN CY 2011**

- The Board also gave approval to DFS in 2011 to apply for and, if awarded, to accept the following grants: FY 11 NIJ Solving Cold Cases with DNA Program Grant; 2012 Department of Motor Vehicles (DMV) Highway Safety Program Grant; the continuation of two Byrne Justice Assistance Grants; the 2011 NIJ DNA Backlog Reduction Program Grant; and two 2011 Paul Coverdell Forensic Science Improvement Program Grants.
- The Board accepted the recommendation of DFS Department Counsel to amend its pending proposed regulation, Regulations for Obtaining Information from the DNA Data Bank and Procedures for verification and Authorization of Persons Requesting Information from the DNA Data Bank, 6 VAC 40-60, to conform to statutory amendments enacted by the General Assembly in the 2011 Session.
- At its May 11, 2011 meeting, the Board elected Virginia Board of Pharmacy Executive Director Caroline Juran to the position of FSB Chair and elected Dr. Leah Bush, Chief Medical Examiner of Virginia, to serve as Vice-Chair, for one year terms beginning July 1, 2011.
- At its October 12, 2011 meeting, the Forensic Science Board considered the progress made in notifying convicted persons possibly affected by the DFS Post-Conviction DNA Testing Program. Despite extensive efforts, as many as 439 notifications to persons known to have been convicted of crimes in connection with cases in the Program have not been made for a lack of current addresses. Another 650 cases files have been identified that contain evidence suitable for testing but no records have been located to confirm that criminal convictions

resulted from those investigations. It remains unknown, therefore, how many of these should be subject to DNA testing. The Board considered whether it is advisable to initiate some type of public outreach, *i.e.*, advertising or a press release, to draw the attention of convicted persons who could be affected by the availability of case DNA testing. Consequently, the Board directed its Notification Subcommittee to work with DFS to develop a message to issue to the public prior to the January 2012 Board meeting, with the objective being to solicit inquiries from persons formerly convicted, but not yet notified, about the availability of DNA testing of evidence located in the Program's old case files.

- At the October 12, 2011 meeting, the Board also approved the submission of this annual report as required by law.

## Attachment A

### FORENSIC SCIENCE BOARD MEMBERS

- Ms. Caroline D. Juran (Chair) – Term: period in office or employment  
Executive Director of the Virginia Board of Pharmacy
- Dr. Leah L. Bush (Vice-Chair) – Term: period in office or employment  
Chief Medical Examiner
- Mr. Steven D. Benjamin, Esq. – Term: ending 6/30/2013  
Criminal defense attorney having specialized knowledge in the area of forensic sciences
- Dr. Dale A. Carpenter – Term: ending 6/30/2014  
Member of the Scientific Advisory Committee
- Mr. Garth L. Wheeler – Term: period in office or employment  
Director of the Department of Criminal Justice Services
- Mr. Alan Katz, Esq. – Term: period in office or employment  
Designee for Attorney General Kenneth T. Cuccinelli, II
- Colonel W. Steven Flaherty – Term: period in office or employment  
Superintendent of the State Police
- Ms. Jo Ann Given – Term: ending 6/30/2013  
Member of the Scientific Advisory Committee
- Mr. Karl R. Hade – Term: period in office or employment  
Executive Secretary of the Supreme Court of Virginia
- Ms. Kristen J. Howard – Term: period in office or employment  
Designee of the Chair of the Virginia State Crime Commission
- The Honorable William R. Janis, Term: period in office or employment, Designee for  
Chairman of the House Committee for Courts of Justice
- Sheriff A.A. Lippa, Jr. – Term: ending 6/30/2013  
Member of Law Enforcement
- The Honorable Henry L. Marsh III – Term: period in office or employment  
Chairman of the Senate Committee for Courts of Justice
- Mr. Raymond F. Morrogh, Esq. – Term: ending 6/30/2013  
Member of the Virginia Commonwealth's Attorneys Association
- Position unfilled -- Chairman of the Board of the Virginia Institute of Forensic Science and Medicine  
(VIFSM); VIFSM ceased to exist as of June 30, 2010

## **Attachment B**

### **SCIENTIFIC ADVISORY COMMITTEE MEMBERS**

- Ms. Jo Ann Given (Chair) – Term: ending 6/30/2013  
Member of the American Society of Crime Laboratory Directors
- Ms. Jami J. St. Clair (Vice-Chair) – Term: ending 6/30/2015  
Quality Assurance Regulation and Monitoring
- Dr. Jose Almirall – Term: ending 6/30/2014  
Trace Evidence Scientist
- Dr. John V. Planz – Term: ending 6/30/2015  
Population Geneticist
- Dr. John M. Butler – Term: ending 6/30/2013  
Molecular Biologist
- Dr. Dale Carpenter – Term: ending 6/30/2014  
Member of the International Association of Chemical Testing
- Dr. D. Christian Hassell – Term: ending 6/30/2015  
Director of a Private or Federal Forensic Laboratory
- Mr. Richard Meyers – Term: ending 6/30/2014  
Forensic Chemist
- Mr. Pete M. Marone – Term: period in office or employment  
Director of the Department of Forensic Science
- Dr. Alphonse Poklis – Term: ending 6/30/2014  
Toxicologist certified by the American Board of Forensic Toxicologists
- Mr. Thomas L.G. Price – Term: ending 6/30/2013  
Member of the Board of the Association of Firearms and Toolmark Examiners
- Carl A. Sobieralski, Jr – Term: ending 6/30/2015  
Forensic Biologist
- Kenneth Zercie – Term: ending 6/30/2015  
Member of the Board of the International Association for Identification