

# 2014-16 Executive Progress Report

Commonwealth of Virginia  
Secretary of Public Safety and Homeland Security  
Department of Forensic Science

## At A Glance

The Department of Forensic Science's mission is to provide laboratory services in criminal matters in the Commonwealth of Virginia, support the criminal justice system with quality and timely services, and advance the understanding of forensic science in order to promote public safety.

**Staffing** 269 Salaried Employees, 0 Contracted Employees, 310 Authorized, and 11 Wage Employees.

**Financials** Budget FY 2015, \$41.19 million, 93.37% from the General Fund.

<b>Trends</b>	↑ Subpoenas Received	<b>Key Perf Areas</b>	↓ Average turnaround time for controlled substances cases
	➔ Cases Received		➔ Average turnaround time for DNA cases
	↑ Scientific Equipment Costs		
<b>Legend</b>	↑ Increase, ↓ Decrease, ➔ Steady	<b>Productivity</b>	➔ Average DNA Data Bank operational cost per offender sample processed
		<b>Legend</b>	↑ Improving, ↓ Worsening, ➔ Maintaining

For more information on administrative key, and productivity measures, go to [www.vaperforms.virginia.gov](http://www.vaperforms.virginia.gov)

## Background and History

### Agency Background Statement

The Department of Forensic Science (DFS) supports law enforcement and the criminal justice system through the performance of forensic analysis of crime scene evidence and presentation of the results of the analysis through reports, consultations, and expert witness testimony in courts of law.

In 1970, a survey by the International Association of Chiefs of Police demonstrated a need for a statewide forensic laboratory system in Virginia. In 1972, an act of the General Assembly created the Division of Consolidated Laboratory Services (DCLS) within the Department of General Services (DGS). DCLS included a Bureau of Forensic Science that absorbed the Commonwealth's existing drug and toxicology laboratories, in addition to providing other forensic services. In 1990, the rapidly expanding Bureau was elevated to Division status within DGS. In 1996, the Division was transferred to the Department of Criminal Justice Services (DCJS). Finally, in 2005, the Division was elevated to Department status under the Governor's Secretary of Public Safety.

### Major Products and Services

Many DFS products and services are specifically required by the Code of Virginia. This list offers a general description of those products and services and also includes some items not specifically required by Code.

\* Perform accurate, relevant, reliable, thorough and timely analyses and examinations of evidence.

\* Convey the results of analyses and examinations through clear, objective, balanced, and easily understood reports, consultations and testimony.

\* Maintain a DNA testing program and a Data Bank of DNA profiles.

\* Provide training to law enforcement and medical personnel in the recognition, collection and preservation of evidence during the investigation of crimes.

- \* Provide kits to law enforcement and medical personnel for the collection and submission of evidence to DFS for laboratory examination.
- \* Train and license all law enforcement personnel who administer breath tests. Calibrate and certify instruments and provide related supplies to law enforcement for breath testing to determine blood alcohol content.
- \* Provide facilities to the Office of the Chief Medical Examiner within each DFS laboratory.

## Customers

### Customer Summary

The DFS customer base is dictated by the following sections in the Code of Virginia:

§ 9.1-1101 – Provide forensic laboratory services to law enforcement agencies throughout the Commonwealth in any criminal matter and provide laboratory services, research, and scientific investigations for agencies of the Commonwealth as needed. The Department shall provide such services to any federal investigatory agency within available resources.

§ 9.1-1104 – Perform court ordered testing requested by the defense.

### Customer Table

Predefined Group	User Defined Group	Number Served Annually	Potential Number of Annual Customers	Projected Customer Trend
State Agency(s),	State law enforcement agencies	13	13	Stable
State Agency(s),	Office of the Chief Medical Examiner	4	4	Stable
Local or Regional Government Authorities	Sheriff's offices and local police departments	310	310	Stable
Organization	Other law enforcement agencies (e.g., private police departments)	50	50	Stable
Federal Agency	Federal law enforcement agencies	15	15	Stable
Local or Regional Government Authorities	Offices of Commonwealth's Attorneys	120	120	Stable
Local or Regional Government Authorities	General and Juvenile & Domestic Relations District Courts ( 32 districts)	209	209	Stable
Local or Regional Government Authorities	Circuit courts (in 31 circuits)	120	120	Stable

## Finance and Performance Management

### Finance

#### Financial Summary

Approximately 95% of the Department of Forensic Science (DFS) operating expenses are paid with general fund dollars. The remaining 5% are paid from federal grants to support overlapping federal and state initiatives for which state funding is not available. Overall, the DFS budget is allocated in the following manner:

67% Personnel expenses – salaries and fringe benefit costs for all Department employees;

12% Laboratory expenses – all items, other than personnel, directly related to performing scientific analysis such as scientific equipment, gases, chemicals, and other supplies;

13% Facilities expenses – direct costs such as utilities, repairs, service contracts, equipment and supplies for operating and maintaining the laboratory buildings;

6% Administrative expenses – costs such as information technology, office supplies, postage, and other necessary items that are not directly related to scientific analysis; and

2% Travel expenses – primarily costs related to court travel and some mandatory training.

NOTE: in the current biennium the percentages shown above will be impacted by receipt of a one-time award of federal asset forfeiture funds received for the purchase of scientific equipment, which are part of laboratory expenses.

## Fund Sources

Fund Code	Fund Name	FY 2015	FY 2016
0100	General Fund	\$38,458,248	\$37,964,346
0282	Abbott Laboratories Settlement Fund	\$2,945,234	\$0
1000	Federal Trust	\$2,731,309	\$2,506,996

## Revenue Summary

Federal grant funds typically make up almost all DFS revenue with a very small amount of revenue provided by the sale of surplus equipment through the state surplus property program.

DFS has received a one-time award of federal asset forfeiture funds, also referred to as Abbott Settlement Funds, via the Virginia Office of the Attorney General (OAG). These funds will be used to purchase scientific equipment for each Section in the Chemistry Program Area in order to improve case turnaround times.

## Performance

### Performance Highlights

An important measure of how DFS is meeting its obligations to the criminal justice system and the Commonwealth's citizens is the turnaround time (TAT) from receipt of evidence to issuance of the case examination report (Certificate of Analysis). When Certificates of Analysis are not available in a timely manner, investigations may be delayed; court cases may have to be continued; and cases may even be dismissed if the speedy trial provisions in §19.2-243 of the Code of Virginia are not met.

DFS has implemented a number of strategies to optimize its ability to process cases in a timely fashion. Some of these strategies have included:

- \* Testing a limited number of specimens submitted in each controlled substances case;
- \* Creating a specialized team of scientists to focus solely on clandestine methamphetamine laboratory cases (these cases take an average of 12 times longer to process than other controlled substances cases, and assigning them to a dedicated group has increased overall productivity and case throughput);
- \* Requiring Controlled Substances scientists to work extensive overtime;
- \* Strategically implementing the use of new laboratory instrumentation that has proven to increase case productivity; and
- \* Working on the implementation of a new, efficient Laboratory Information Management System (LIMS) that, when fully implemented, should reduce the amount of time scientists spend on report writing and other administrative tasks, thereby freeing up more of their time for analytical work.

Despite implementation of the above strategies, the increases in caseload now exceed the Department's ability to complete forensic analyses within current turnaround time (TAT) goals.

### Selected Measures

Measure ID	Measure	Alternative Name	Estimated Trend
77830902.001.002	Average turnaround time for controlled substances cases that are analyzed and the results reported to the requesting authority (Certificate of Analysis issued)	Average turnaround time for controlled substances cases	Worsening
77830901.001.002	Average turnaround time for DNA cases that are analyzed and the results reported to the requesting authority (Certificate of Analysis issued)	Average turnaround time for DNA cases	Maintaining
778.0004	Average Data Bank operational cost per DNA offender sample	Average DNA Data Bank operational cost per offender sample processed	Maintaining
778.0005	Average time to train new forensic scientists in the Forensic Biology, Controlled Substances, and Toxicology Sections	Average time to train new scientists	Maintaining
778.0002	Average turnaround time for toxicology cases that are analyzed and results reported to the requesting authority (Certificate of Analysis issued)	Average turnaround time for toxicology cases	Maintaining

## Key Risk Factors

The primary risk factor that could prevent the Department from fulfilling its mission is the ability to maintain a sufficient number of scientific personnel.

In September 2007, DFS reached its peak employment level of 301 classified employees. However, in October 2007, DFS submitted the first of several budget reduction strategies that would be implemented over the next four years, which included holding open vacant scientist positions. As additional budget reductions were implemented, the number of classified employees continued to drop until a low point of 264 classified employees was reached in March 2010 (a 12% reduction in staff over 2.5 years). Although most of the decline has been the result of budget reductions, some of the decline is the result of the length of time it takes to fill a vacant position, which can range from months to years. DFS received additional funds to fill vacant scientific positions in the current biennium; however, due to revenue shortfalls, most of this money is no longer available for use in FY15 and some has been permanently eliminated.

As of September 2014, approximately 7% of DFS' funded positions are vacant and in the process of being filled. Also, approximately 16% of current employees are either eligible now or will be eligible to retire within five years.

In an effort to maintain the appropriate level of scientific personnel in each of its disciplines, DFS has implemented multiple strategies, including (1) hiring and training individuals with the necessary educational credentials but without the practical experience; (2) transferring scientific personnel with appropriate skill sets to related disciplines that are understaffed; (3) using overtime; and (4) utilizing a compensation plan developed in conjunction with the Department of Human Resource Management in order to develop and retain scientific personnel.

## Agency Statistics

### Statistics Summary

The information in this section and the values in the table below are for the Fiscal Year that ended June 30, 2014.

The June 2009 United States Supreme Court opinion in the case of *Melendez-Diaz v. Massachusetts* continues to have a significant impact on DFS operations. The number of subpoenas to appear in court, the number of times personnel appeared in court, and the actual number of times expert testimony was provided all increased in FY14. For every subpoena received, examiners must log the information and often must spend a significant amount of time scheduling court dates, arranging for travel, and following up with attorneys to ensure their presence is still required. In addition to the time taken for these administrative tasks, in FY14 DFS examiners spent over 8,900 hours traveling to and appearing in court.

A DNA databank hit occurs when DNA from a crime scene sample is associated with the DNA of an individual (arrestee or convicted offender) or DNA from another case.

### Statistics Table

Description	Value
Total number of cases received by all disciplines	56,835
Number of subpoenas to appear in court received	16,325
Number of times personnel appeared in court (available for testimony)	3,093
Number of times expert testimony provided	957
Number of DNA samples processed from arrestees and convicted offenders	17,106
Number of DNA databank hits	751
Number of breath alcohol tests administered by law enforcement personnel	29,773
Number of breath test operators licensed or retrained	3,309
Number of law enforcement that attended training provided or facilitated by the Training Section	795

## Management Discussion

### General Information About Ongoing Status of Agency

DFS strives to maintain its status as a nationally-recognized leader in the field while supporting the criminal justice system and improving the public's understanding of forensic science. DFS continues to pursue new technologies that can provide cost beneficial advances in case processing time and new types of analysis needed by the criminal justice system.

The value provided by DFS is enhanced when law enforcement officers are able to properly locate, recognize, collect, preserve and submit crime scene evidence that has probative value. In order to facilitate this ability, DFS' Forensic Training Section operates the Virginia Forensic Science Academy (Academy). The Academy is a nine-week school of crime scene technology that provides classroom instruction by qualified forensic experts, evidence collection demonstrations, and numerous practical exercises in simulated crime scenes. The Academy is a rigorous academic program, and the students are evaluated on their class performance, tests, application of recovery techniques, and homework assignments. The Forensic Training Section also offers and facilitates numerous short courses that allow DFS to reach a greater number of law enforcement officers

and jurisdictions.

In addition to the Forensic Science Academy, DFS has made an effort to reach out to law enforcement, attorneys, judges, and the public to provide information about the Department and to address questions or concerns raised by these groups. DFS continues to see positive results in the awareness of the use and understanding of forensic science in supporting the criminal justice system from this outreach effort.

### **Information Technology**

DFS has made significant investments in various information technology products which are specific to the individual scientific discipline where they are deployed. DFS has also made a significant investment in the transformation to the Commonwealth of Virginia (COV) Information Technology Infrastructure managed services contract (VITA/NG Partnership), which was completed in FY13.

DFS currently has two IT initiatives underway that will facilitate more efficient and effective operations.

- Implementation of a new Laboratory Information Management System (LIMS) in order to take advantage of the operational efficiencies including, but not limited to: integration between scientific instruments and MS Office productivity tools; electronic vs. paper storage of scientific documents; improved efficiency in the capture of examination documentation; partial system generation of the Certificate of Analysis and the ability to electronically deliver the Certificate to investigating agencies and Commonwealth's Attorneys. This project is currently in the configuration and data migration phases and the anticipated deployment of the system is Spring 2015.
- Providing certain Breath test records on the DFS website. In June 2014, records pertaining to instrument certification and maintenance from August 2013 forward became available on the DFS website. New records are posted as they become available. DFS is currently working to expand the available records that will be provided via the website.

### **Workforce Development**

DFS has utilized a comprehensive workforce development plan for its scientific personnel that was initially implemented a number of years ago and continues to be modified as necessary. The plan has defined knowledge, skills and abilities that must be demonstrated in order to advance. Every scientist is evaluated annually against the criteria in this plan.

Beginning in 2013, DFS implemented a department goal to provide eight hours of technical continuing education annually for each scientist. Beginning in 2014, DFS implemented a department goal to provide four hours of continuing education to all non-scientist employees. The Department has also implemented mandatory training annually for all supervisors to help provide its managers with the knowledge and skills they need to effectively manage their employees.

### **Physical Plant**

DFS owns, operates and maintains four facilities throughout the Commonwealth that are shared with the Department of Health's Office of the Chief Medical Examiner (OCME). The Northern Laboratory in Manassas, opened in 2009, is the newest laboratory. The other three labs are between 14 and 17 years old.

The Eastern Laboratory in Norfolk has space that was vacated several years ago and a multi-phased renovation was completed in the summer of 2014 in order to expand the capacity of its operations.

The Western Laboratory in Roanoke is in the construction phase of a capital expansion-renovation project that will approximately double the square footage of space available to both DFS and OCME. Given a 24 month construction schedule, the project should be substantially complete in mid-2016.

DFS has exceeded capacity for the Central Laboratory in Richmond for several years, resulting in the need to rent space to house several DFS functions until building expansion can provide more cost effective space. A capital budget request for expanding the current facility was submitted and DFS has received funding for detailed planning of this project. The detailed planning process is anticipated to take approximately two years to complete and the subsequent construction process an additional four years.

Laboratory facilities are significant consumers of energy. In order to reduce energy consumption, DFS entered into an \$11 million Energy Performance Contract with Trane in December 2009 to make certain improvements in DFS' three oldest facilities. Final project improvements were completed in December 2012. The contract and associated financing costs are funded entirely with the savings achieved through reduced energy consumption. An added benefit to this project is the extended useful lifetime of some major building heating and cooling systems components. DFS has begun a second Energy Performance Contract with Trane for \$3 million that will reduce energy consumption in the Northern facility and further reduce energy consumption in the Eastern facility.