Fiscal Year 2019
Performance Oversight Hearing
Before the Committee on the Judiciary & Public Safety
Council of the District of Columbia
The Honorable Charles Allen, Chairperson

February 6, 2020
## FY 2019

**APPROVED OPERATING BUDGET**

<table>
<thead>
<tr>
<th>Description</th>
<th>FY2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget</td>
<td>$28,041,000</td>
</tr>
<tr>
<td>FTEs</td>
<td>218.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Budget Component</th>
<th>Funding</th>
<th>FTEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>$26,101,000</td>
<td>207</td>
</tr>
<tr>
<td>Federal</td>
<td>460,000</td>
<td>5</td>
</tr>
<tr>
<td>Intra-District</td>
<td>1,480,000</td>
<td>6.25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$28,041,000</strong></td>
<td><strong>218.25</strong></td>
</tr>
</tbody>
</table>
DFS FY19 HIRING

Total interview hours = 441
FSL & PHL QUALITY

Forensic Science Laboratory (FSL)
- Reaccreditation ISO/IEC 17025:2017
  - Firearms Examination Unit (FEU)
  - Latent Fingerprint Unit (LFU)
  - Forensic Biology Unit (FBU)
  - Digital Evidence Unit (DEU)
- Scope extension within LFU - Friction Ridge Enhancement
  - Transition from pre-assessment to scope extension in Friction Ridge Enhancement
  - No findings
- FBI Quality Assurance Standards for DNA Testing: FBU Compliance
  - No findings of non-conformity 4th year in a row

Public Health Laboratory (PHL)
- Clinical Laboratory Improvement Amendments (CLIA): Certification
- Centers for Disease Control and Prevention’s (CDC) Division of Select Agents and Toxins (DSAT): Certification
CRIME SCENE SCIENCES
CRIME SCENE SCIENCES (CSS)

<table>
<thead>
<tr>
<th>Measure</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of evidence items received (CEU)</td>
<td>88,683</td>
<td>74,360</td>
<td>77,253</td>
</tr>
<tr>
<td>Number of crime scene service requests (CSSU)</td>
<td>7,844</td>
<td>9,227</td>
<td>9,069</td>
</tr>
</tbody>
</table>

- CSSU processed **6,541** crime scenes – nearly 700 more than last year – with the same personpower
- In FY19, CEU received **77,253** pieces of evidence, a **3.9%** increase over FY18 totals
CRIME SCENE SCIENCES (CSS)

Assisted MPD to render 13,856 firearms safe from old cases in the Evidence Control Branch

Evidence backlog projects - over 10,000 items transferred
FORENSIC SCIENCE LABORATORY

- Forensic Intelligence Unit
- Firearms Examination Unit
- Forensic Biology Unit
- Latent Fingerprint Unit
- Digital Evidence Unit
## FY19 FSL
### KEY PERFORMANCE INDICATORS

<table>
<thead>
<tr>
<th>KPI</th>
<th>Program Responsible</th>
<th>FY19 Q1</th>
<th>FY19 Q2</th>
<th>FY19 Q3</th>
<th>FY19 Q4</th>
<th>Target</th>
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</thead>
<tbody>
<tr>
<td>Percentage of priority cases as designated by the contributor and marked in LIMS completed within 60 days from the date the analyst was assigned the case</td>
<td>FSL - FBU</td>
<td>98%</td>
<td>99%</td>
<td>100%</td>
<td>100%</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td>FSL - DEU</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td>FSL - FEU</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td>FSL - LFU</td>
<td>100%</td>
<td>97%</td>
<td>100%</td>
<td>100%</td>
<td>90%</td>
</tr>
<tr>
<td>Percentage of homicide cases completed within 60 days from the date the analyst was assigned the case</td>
<td>FSL - FBU</td>
<td>100%</td>
<td>100%</td>
<td>96%</td>
<td>100%</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td>FSL - DEU</td>
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<td>100%</td>
<td>90%</td>
</tr>
</tbody>
</table>
DEU nearly doubled its caseload in FY19

<table>
<thead>
<tr>
<th>Year</th>
<th>Caseload</th>
<th>TAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>394</td>
<td>4.59</td>
</tr>
<tr>
<td>2018</td>
<td>636</td>
<td>5.2</td>
</tr>
<tr>
<td>2019</td>
<td>1,147</td>
<td>2.28</td>
</tr>
</tbody>
</table>

DEU purchased new digital storage:
- Dell Isilon system added 148 TB of storage
- Digital storage will continue to be a need that must be met as more systems come online and HIPPA & BioWatch requirements do not permit cloud storage
NEW DIGITAL CAPABILITIES

DEU acquired the capability to unlock iPhones and Androids

<table>
<thead>
<tr>
<th>iPhones Received</th>
<th>iPhones Unlocked</th>
<th>iPhones Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>482</td>
<td>322</td>
<td>166</td>
</tr>
</tbody>
</table>

Expansion of Crash Data Recovery Technology allowing DEU to extract event data such as the speed during impact, deployment of seatbelts, and navigation, in addition to the existing capabilities of infotainment and telematics information.
FIREARMS EXAMINATION UNIT (FEU)

- Completed **980** cases with an average turnaround time of **37** days
- Average backlog of **253** cases in FY19 from **701** in FY18
- Conducted **2,229** test fires of weapons received

In FY19, FEU recruited two firearms examiners and a supervisor.

In FY20, FEU will validate the Evofinder Automated Ballistic Identification system to use as a virtual comparison microscope. This system is a scanning device that generates 3D images of bullets and cartridge cases used for comparison purposes.
Forensic Intelligence Unit (FIU) FY19 NIBIN Impact

More than 97% of the hits linked Agencies Cases (MPD, USPP and ATF) to each others (755 hits)

Less than 3% of hits link Agencies Cases (MPD, USPP and ATF) to Other Jurisdictions Cases (20 hits) (Montgomery County, PG County, and US Park Police)
GHOST GUNS

FEU has seen a spike in Ghost Guns used in crimes

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<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>2019</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Jan 1 – Feb 5, 2020</td>
<td>22</td>
<td></td>
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</table>
GHOST GUNS

Most Common Offenses involving Ghost Guns:
- Carrying a Pistol Without a License
- Possession with Intent to Distribute
- Unregistered Firearms
- Used in three homicides

Jan 2019: DFS issued Officer Awareness Bulletin
DFS and Trinity University established an Educational Partnership to incorporate DFS led Forensic Pattern Recognition (latent fingerprints and firearms examination) courses into Trinity’s Forensic Science Program. The course will include a “hands on” apprenticeship opportunity at DFS for Trinity students.
LATENT FINGERPRINT UNIT (LFU)

Completed 2,724 cases with an average TAT of 13 days
- Homicides and Priority Cases: 97% within 60 days
- LFU has no current backlog

LFU Evidence Processing completed 2016 cases with an average TAT of 9 days.

Mideo LatentWorks Implementation:
- Successful transition of current image management (DCS4 and DIMS) to Mideo
- Incorporation in training program
- Use of GYRO in LOV and identification cases
- Customer training/notification
Of LFU’s 1,087 latent identifications, 67% had a criminal justice impact leading to an arrest, confirming identification or providing an investigative lead.
FORENSIC BIOLOGY UNIT (FBU)

FBU received 294 Sexual Assault Kits for testing with an average turnaround time was 73 days

- All testing on sexual assault kits was completed within 90 days outlined in the Sexual Assault Victim’s Rights Amendment Act (SAVRAA), with the exception of four kits due to judicial delays associated with Permission to Consume
- FBU has no current backlog
Of 560 CODIS Hits/Matches, almost 95% had a criminal justice impact by leading to an arrest or providing an investigative lead.
PERK TRACKING DATABASE

Allows survivors to track their sexual assault kit

DCFNE / CNMC

Kit Number
Perk Active Status
Last Initial
First Initial
Age
Gender
Is There Toxicology?
Report/No Report?

MPD

Central Complain Number (CCN)

DFS

DFS Receives Kit
DFS Number
Permission to Consume
Date Permission Granted
Transfer to DNA
FBU Receives Kit
Analyst Start Time
Analyst End Time
Ready to Return to DFS?

<table>
<thead>
<tr>
<th>Agency Name</th>
<th>Date Received</th>
<th>Number of Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Forensic Nurse Examiners</td>
<td>3/07/2019</td>
<td>1</td>
</tr>
<tr>
<td>Metropolitan Police Department</td>
<td>3/07/2019</td>
<td>1</td>
</tr>
<tr>
<td>Office of the Chief Medical Examiner</td>
<td>3/07/2019</td>
<td>34</td>
</tr>
<tr>
<td>Department of Forensic Sciences</td>
<td>3/07/2019</td>
<td>76</td>
</tr>
<tr>
<td>Forensic Biology Unit</td>
<td>3/20/2019</td>
<td>56</td>
</tr>
</tbody>
</table>

DC Department of Forensic Sciences
Forensic Science Laboratory | Public Health Laboratory | Crime Scene Sciences
PUBLIC HEALTH LABORATORY

Tier 1 BT Lab and Tier 2 CT Lab

Microbiology Unit

Immunology & Virology Unit

Chemistry Section

Molecular Diagnostics Unit

Accessioning Unit
DFS has been involved in DC’s Strategic Plan to Reduce Opioid Use, Misuse, and Related Deaths

Placing our controlled substances testing in the PHL allow our Forensic Chemistry Unit (FCU) to conducts surveillance of all suspected opioids submitted to DFS to determine the composition of illicit drugs

FCU can determine:
- Presence and prevalence of drugs of interest
- New synthetic opioids
- Distribution patterns
Synthetic Opioid monitoring began at peak of opioid fatalities (2017)
Ten new synthetic opioids have been discovered
GEOGRAPHIC DISTRIBUTION
DC Health submitted items from six vaping-cases to PHL:
- 5 out of 6 cases were found to contain THC
- In each of the five cases, at least one cartridge contained Vitamin E Acetate
EMERGENCE OF VITAMIN E ACETATE

THC Cartridges Tested at DC DFS PHL

MONTH YEAR (DATE SEIZED/SUBMITTED)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>SCREENED</th>
<th>TESTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>23</td>
<td>3</td>
</tr>
<tr>
<td>2018</td>
<td>284</td>
<td>14</td>
</tr>
<tr>
<td>2019</td>
<td>874</td>
<td>38</td>
</tr>
</tbody>
</table>
Norovirus confirmed at elementary school in DC: health officials

WASHINGTON (FOX 5 DC) - D.C. health officials have confirmed several cases of the Norovirus at Beauvoir — an independent, coeducational elementary school housed on the grounds of the Washington National Cathedral.
NOROVIRUS IN DC SCHOOLS

Nov 19, 2019
PHL alerted by DC Health of a potential Norovirus outbreak in an NW school

Nov 20, 2019
PHL receives 3 samples for testing and reports results to DC Health same day – positive for Norovirus GII

Nov 22, 2019
PHL tests additional sample from a parent that is also positive for Norovirus GII

Nov 25, 2019
School decides to close due to the outbreak

Dec 5, 2019
Norovirus samples were sequenced and found to all be related to the same exposure
MEASLES & MUMPS TESTING

- **1,282** Measles cases in the US in 2019
- PHL brought online RNA based and serological based testing for Measles to identify cases in the District
- DFS can confirm a case **within 48 hours** to DC Health and drastically shortens the turnaround time for results from the CDC (typically one week)
- To date, DFS has received several requests for testing - all results were negative
- PHL also validated Mumps DNA based testing in 2019 (DC had a Mumps outbreak in 2017)
MICROBIOLOGY UNIT

- Antimicrobial Resistance Laboratory Network (ARLN)
  - Includes identification, susceptibility testing, phenotypic detection and genotypic characterization of carbapenemases

- Improved support to OCME
  - Testing and report within 12 days of receipt for organisms that cause meningitis

- Gonococcal Isolate Surveillance Program (GISP)
  - Partnership developed with HAHSTA Health and Wellness Clinic
  - Clinic performs cultures
DFS had 46 interns during the 2018-2019 school year

McKinley Tech High School: 10 PHL Interns to date

Ranked #1 in Forensics Colleges “Top 25 Cool Forensic Science Internships”
Abdel Maliky

- Chief Operating Officer of a non-profit organization
- Financial, Operation and Quality Auditor: ISO 9002, 17025 and 15189
- Appointed as Commissioner on African Affairs by Mayor Bowser, served as Vice-Chair
- 25 years of experience with expertise in quality management, process improvement, risk management, due diligence and actuarial projections and forecasting
- Actuarial Consultant for Fidelity Investments and advised CFOs, CIOs and HROs on financial and Operational issues
- Bachelor Degree in Mathematics, MBA and MS in Actuarial Sciences
- Quality Specialist for Public Health Laboratory
- Forensic Intelligence Manager
- Acting as Quality Manager and Training Manager since June 2019
OUTREACH & ENGAGEMENT

Special Projects include Peace Rally, National Forensic Science Week, Men in STEM program, Beat the Streets

<table>
<thead>
<tr>
<th>Educational Events</th>
<th>Laboratory Tours</th>
</tr>
</thead>
<tbody>
<tr>
<td>61</td>
<td>40</td>
</tr>
</tbody>
</table>
THE PEOPLE’S LAB
RECOGNITION FOR SERVICE

Karen A. Wiggins Room

- First African American trained at the FBI in firearms examination
- First Woman trained at the FBI in firearms examination
- Dedicated DC Public Servant for 32 years
DIVERSITY & INCLUSION INITIATIVE

- Reyarp Strategies Group interviewed 197 employees within all levels of DFS (executive team, unit managers, supervisors & staff)
- A final assessment report was provided to staff in November

- Next steps will identify & implement tools to enhance, improve, & develop skills such as:
  - a stronger communications pipeline
  - vicarious trauma counseling
  - Mid-management development
  - team building
  - conflict resolution
THANK YOU

The Women and Men at DFS
Mayor Bowser, Deputy Mayor Donahue
and the DC Council