



SOUTH CAROLINA
HOUSE OF REPRESENTATIVES
GOVERNMENT EFFICIENCY &
LEGISLATIVE OVERSIGHT COMMITTEE

Law Enforcement, Criminal and Civil Justice
Subcommittee

Chairman Chris Wooten

The Honorable William H. Bailey

The Honorable Kambrell H. Garvin

The Honorable Leon Douglas “Doug” Gilliam

The Honorable Jefferey E. “Jeff” Johnson

A G E N D A

Wednesday, November 5, 2025

10:30 a.m.

Room 516 – Blatt Building

- I. Approval of Minutes
- II. Discussion of the Study of the South Carolina Law Enforcement Division
- III. Adjournment



**SOUTH CAROLINA
HOUSE OF REPRESENTATIVES
GOVERNMENT EFFICIENCY &
LEGISLATIVE OVERSIGHT COMMITTEE**

Chair Jeffrey E. “Jeff” Johnson

Vice-Chair Chris Wooten

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Lewis Carter Research Director	Cathy Greer Administrative Coordinator	Roland Franklin Legal Counsel
Charlie LaRosa Research Analyst	Riley McCullough Research Analyst	

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Telephone: (803) 212-6810 Fax: (803) 212-6811
Room 228 Blatt Building

MEETING MINUTES

Wednesday, October 29, 2025
10:30 a.m.
Room 516 – Blatt Building

Archived Video Available

- I. Pursuant to House Legislative Oversight Committee Rule 6.7, South Carolina ETV was allowed access for streaming the meeting. You may access an archived video of this meeting by visiting the South Carolina General Assembly’s website (<http://www.scstatehouse.gov>) and clicking on Committee Postings and Reports, then under House Standing Committees click on Legislative Oversight. Then, click on Video Archives for a listing of archived videos for the Committee.

Attendance

The Law Enforcement and Criminal and Civil Justice Subcommittee meeting was called to order by Chair Chris Wooten on Wednesday, October 29, 2025, in Room 516 of the Blatt Building. Representative Jeffrey E. “Jeff” Johnson, Representative Kambrell H. Garvin, Representative Leon D. “Doug” Gilliam, and Representative William H. Bailey were present for all or a portion of the meeting.

Minutes

- I. House Rule 4.5 requires standing committees to prepare and make available to the public the minutes of committee meetings, but the minutes do not have to be verbatim accounts of meetings.

Approval of Minutes

- I. Representative Gilliam made a motion to approve the meeting minutes from prior meeting. A roll call vote was held, and the motion passed.

Rep. Garvin's motion to approve meeting minutes.	Yea	Nay	Not Voting
Rep. Wooten	✓		
Rep. Johnson			✓
Rep. Garvin			✓
Rep. Gilliam	✓		
Rep. Bailey	✓		

Discussion of the South Carolina Law Enforcement Division

- I. Prior to beginning today's testimony, Chair Wooten asks if there are any SLED agency representatives who may address the subcommittee today or at future meetings who have not been placed under oath. Major Dr. C. Todd Hughley, Director of SLED Forensic Services Laboratory; Captain Emily B. Reingart, Forensic Administration; Lieutenant Donna Money, DNA Casework; and Paul Ahearn, Deputy General Counsel for SLED were all sworn. In addition, representatives from the Legislative Audit Council (LAC) were present to present the council's findings and conclusions from the Review of the Statewide Sexual Assault Kit Tracking System. K. Earle Powell, Director; Marcia A. Lindsay, Director of Audits; Jordan Kneece, Esq., Senior Auditor; Julia Buchanan, Auditor; and Katelyn Hulion, Auditor were all sworn.
- II. Marcia A. Lindsay then begins her presentation to the subcommittee and discusses the following topics:
 1. The South Carolina Legislative Audit Council's Review of the Statewide Sexual Assault Kit Tracking System Operated by the S.C. State Law Enforcement Division.

Throughout her presentation to the subcommittee, Members ask Marcia Lindsay questions and she responds.

- III. SLED Chief Mark Keel begins his presentation to the subcommittee and discusses the following topics:
 1. Response to the LAC's Report.

Throughout his presentation to the subcommittee, Members ask Chief Keel questions and he responds.

IV. Marcia A. Lindsay then responds to Chief Keel's presentation, after which the subcommittee took a brief recess.

V. Major Dr. C. Todd Hughley begins his presentation to the subcommittee and discusses the following topics:

1. Overview of SLED Forensic Services.

Throughout his presentation to the subcommittee, Members ask Major Hughley questions and he responds.

Adjournment

- I. There being no further business, the meeting is adjourned.

STATE LAW ENFORCEMENT DIVISION (SLED)



ABOUT

On May 14, 1935, the General Assembly created the South Carolina Law Enforcement Division to enforce the state liquor law, assist any law enforcement officer in the detection of crime, along with the enforcement of the state's criminal laws. Funding was provided for 21 new officers to the existing three members of the State Constabulary.

MISSION

The primary mission of SLED is to provide quality manpower and technical assistance to all law enforcement agencies in South Carolina to ensure that every citizen in the State of South Carolina is afforded an equal level of law enforcement service. SLED is also tasked with protecting and preserving the safety, integrity, and security of South Carolina's citizens and all statewide public resources, infrastructure, and data. SLED also conducts timely, thorough, and professional criminal investigations on behalf of the State of South Carolina along with many other statutory roles and responsibilities.

VISION

SLED seeks to be the premier law enforcement agency in the State of South Carolina so as to ensure every citizen in South Carolina is provided an equal level of law enforcement services.

SUCSESSES

- ❖ Experienced staff with a wide range of talents capable of handling a variety of tasks and projects.
- ❖ Collaboration and coordination with regional and federal counterparts to provide the highest quality of service.
- ❖ Personnel's dedication, ability and involvement in the law enforcement profession as subject matter experts in their own individual areas of expertise.
- ❖ Commitment to maintaining accreditation to ensure law enforcement partners have access to the best forensic analysis possible.

DEPARTMENTS

- ❖ Alcohol, Narcotics & Vice Services
- ❖ Criminal Justice Information Services
- ❖ South Carolina Information and Intelligence Center
- ❖ Counterterrorism
- ❖ Forensic Services
- ❖ Homeland Security
- ❖ Investigative Services
- ❖ Regulatory Services

EMPLOYEES

758

Authorized FTEs

FUNDING

\$148,137,395

Total Funds

CHALLENGES

- ❖ Personnel turnover
- ❖ Succession planning issues
- ❖ Reliance on others and outside factors causing a delay in case progress.
- ❖ High volume of plant material testing cases has caused a time delay in receiving results.
- ❖ Continued use of an outdated case management system.

SLED FORENSIC SERVICES



Captain Emily B. Reinhart
Forensic Administration

FORENSIC ADMINISTRATION - SUPERVISION



Captain Emily B. Reinhart

Education:

- B.S. Medical Technology – University of South Carolina (1987)
- MT ASCP – Baptist Medical Center – School of Medical Technology (1987)
- FBI Academy – Forensic Serology (1990)
- FBI Academy – Principles of DNA Analysis (1996)
- Forensic Management Academy – West Virginia University (2015)

Work History: – 36 Year SLED Career

- Serologist/Criminalist – Serology/DNA (1988 – 1998)
- Lieutenant – Evidence Processing/Evidence Control (1998 – 2009)
- Admin. Lieutenant – Quality Manager/Evidence Control (2009 – 2013)
- Captain – Forensic Administration (2013 – Present)

Committee:

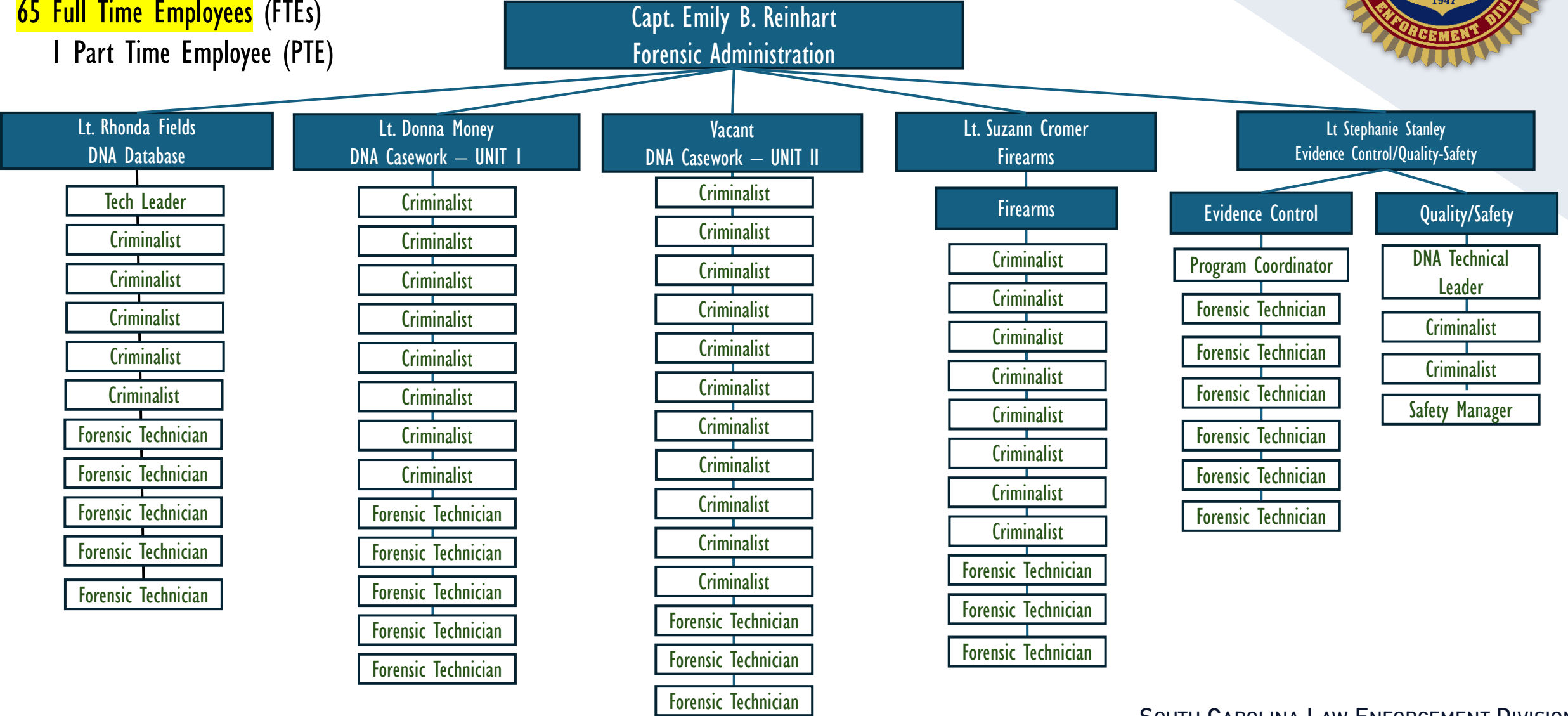
- State Child Fatality Advisory Committee (2000 – Present)



FORENSIC ADMINISTRATION - ORGANIZATION



65 Full Time Employees (FTEs)
1 Part Time Employee (PTE)



DNA CASEWORK



Staffing:

Criminalists:	22
Technicians:	8

Department Metrics FY 2024-25:

Assignments Received	Assignments Completed	Department Backlog at end of FY24-25
2,868	2,195	13,290

Services and Capabilities:

- Perform scientific analyses and examinations on biological evidence such as blood, semen, and saliva in an effort to locate and identify probative biological samples for comparison purposes.
- Analyze case types including, but not limited to, the following: homicides/violent crimes (robbery, assault, etc.), sexual assaults (adults and minors), relationship testing (criminal parentage and missing persons/body identifications) and burglary/property crimes.
- The DNA Casework Department prioritizes the analysis of Homicide and Sexual Assault cases using a team approach and **Direct-to-DNA methodology**.

DNA CASEWORK



Achievements/Process Improvements:

- Phased implementation of the **S.C. Sexual Assault Kit Tracking System** (Track-Kit™) started in December 2023 and was completed in February 2024 to comply with H.3309.
- The contract was awarded to Bode Technology for outsourcing the analysis of sexual assault kits beginning in Q4 of 2024.
- Efforts are ongoing to evaluate improved management and assignment of cases.

Challenges Faced:

- DNA Analysts have been tasked with **training new analysts** as well as maintaining their caseload. In FY 25-26 eight (8) DNA analysts currently in training will be authorized to perform casework and will help to reduce the current backlog.
- DNA Casework staff received an increased number of cases to prioritize and complete in limited time for scheduled court dates.



DNA DATABASE



Staffing:

Criminalists:	7
Technicians:	5

Department Metrics FY 2024-25:

Samples Received	Profiles Entered into CODIS	Department Backlog at end of FY24-25
14,816	14,097	7

Services and Capabilities:

- Manage the Combined DNA Index System (CODIS) used to provide investigative leads to law enforcement for unsolved cases. CODIS is a repository where law enforcement agencies can share DNA information to:
 - ✓ Identify suspects in unsolved cases (an offender or an arrestee hit)
 - ✓ Link unsolved crimes (forensic hit)
- Identify remains or missing persons through the use of CODIS.
- Process DNA expungement requests in accordance with S.C. Code Ann. §23- 3-660

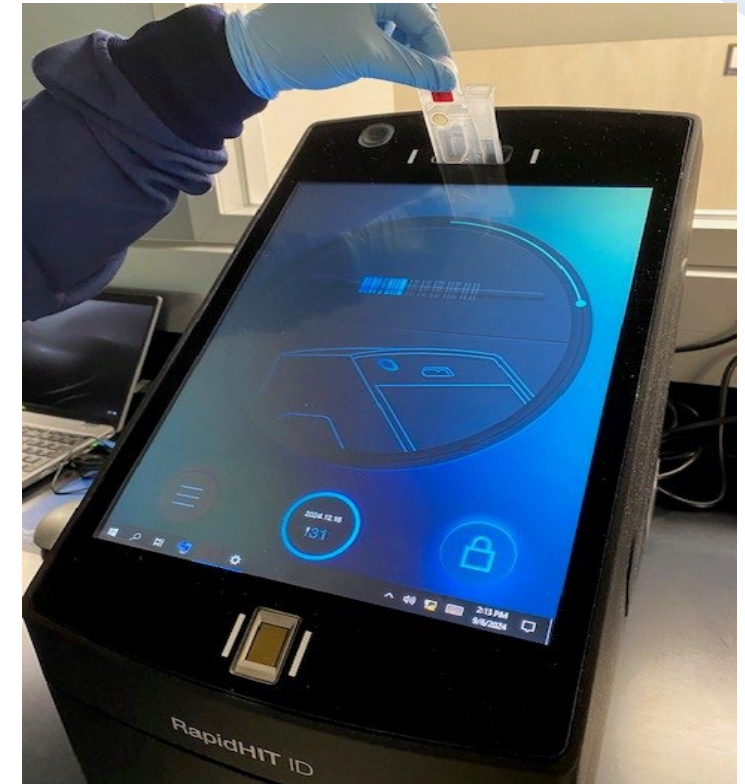
DNA DATABASE

Achievements/Process Improvements:

- DNA Database **nearly eliminated** the backlog of database samples awaiting DNA analysis.
- Two analysts and two technicians completed training contributing to the backlog reduction.
- The **RapidHit ID** protocol, validation and competencies were completed for use on reference samples.
- In-person DNA collection training was provided to agencies tasked with the collection of database samples from qualifying offenders to help improve the quality of submissions.

Challenges Faced:

- Staff continue in their efforts to help reduce the number of database samples that lack essential information required for processing, leading to their rejection or delayed entry into the system.
- Database continues to prepare for the use of Rapid DNA on forensic samples and methods to disseminate information to participating law enforcement agencies.



SOUTH CAROLINA LAW ENFORCEMENT DIVISION

FIREARMS & TOOLMARKS



Staffing:

Criminalists:	9
Technicians:	3

Department Metrics FY 2024-25:

Assignments Received	Assignments Completed	Department Backlog at end of FY24-25
1,162	1,365	1,549

Services and Capabilities:

- Examines firearms to test operability and compliance with various statutory regulations (ex. capability for full auto fire, barrel length, and/or overall length) and examines and microscopically compares fired ammunition components.
- Examines tools and microscopically compares tool marks and performs serial number restoration.
- Destroys firearms, knives, metal tools, etc. for various agencies in South Carolina.
- Operates the Integrated Ballistics Identification System (IBIS) database and the Entry by Appointment (EBA) program designed to increase the efficiency and throughput of the IBIS system.

FIREARMS & TOOLMARKS



Achievements/Process Improvements:

IBIS EBA appointments – over 150 more than previous year.

- 6160 IBIS EBA cases entered – (FY 24-25)
- 8890 IBIS EBA items entered – (FY 24-25)

IBIS Total stats

- 6385 Cases entered
- 9489 Items entered
- 2691 Leads reported

National Rankings

- The SLED NIBIN Program is consistently ranked in the Top 10 NIBIN sites across the nation for entries and the Top 15 for NIBIN Leads reported. **Recently, SLED was ranked Number 2 in the nation for number of entries.**

Challenges Faced:

- The complexity of firearms cases increased including the number of items per case, cross-related cases, and additional submissions.
- Revising training program to decrease the length of time for trainees to contribute to case production is a priority.



EVIDENCE CONTROL



Staffing:

Program Coordinator:	1
Technicians:	6

Department Metrics FY 2024-25:

Cases Received	Cases Returned	Agencies Served
20,388	25,439	292

Services and Capabilities:

- Assists law enforcement officers throughout the state, both in person and via the iLab internet pre-log system, with the submission of physical evidence involved in criminal investigations.
- Manages daily operations of the Evidence Room.
- Distributes evidence collection kits to local law enforcement.

EVIDENCE CONTROL

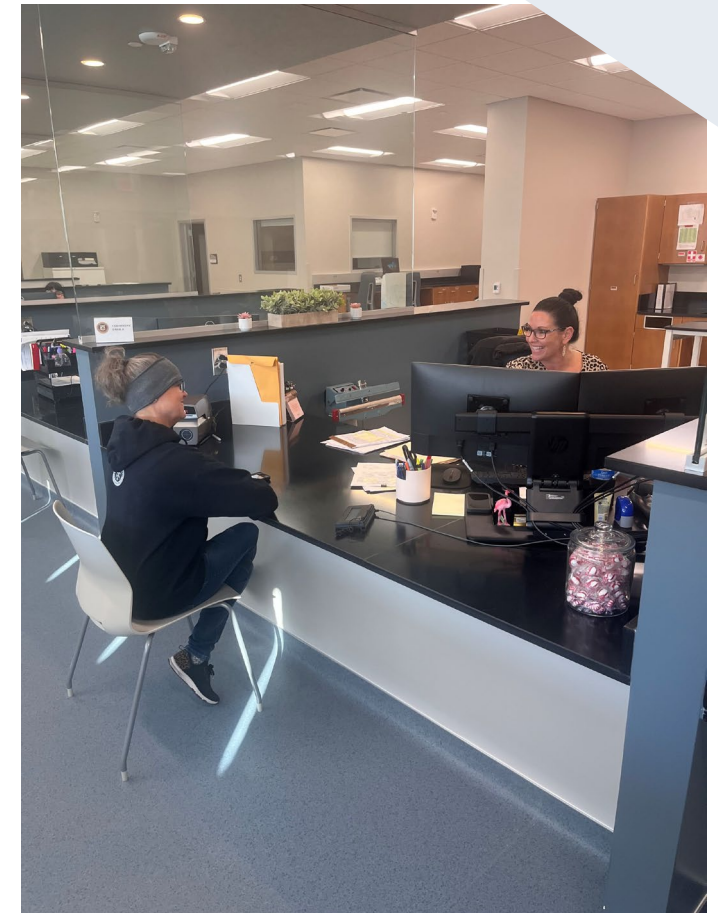


Achievements/Process Improvements:

- New employees have trained efficiently and routinely maintain the submission backlog at 0%.

Challenges Faced:

- **Staff retention:** In the last five years, eleven staff members have separated from the department due to promotion, reassignment, retirement, or other agency separation. The average experience of current staff members is 2.5 years.
- **Bulk Evidence Submissions for Marijuana:** The storage of large evidence submissions for Marijuana is a challenge for the department. These submissions often arrive to the laboratory in large boxes and/or rolling suitcases. Due to the varying sizes of these items, organized storage is a challenge within spaces equipped with additional security for drugs.
- **Disposition of Evidence:** Case status updates are essential for maintaining organization in the Evidence Room. Receiving updates on a routine basis from submitting agencies and staff conducting research into case dispositions remains a challenge for this department.



QUALITY AND SAFETY



Staffing:

Criminalists:	3
Safety Manager:	1 (Vacant)

Department Metrics FY 2024-25:

Proficiency Tests Administered	Forensic Testimonies Documented	Requests Completed for Laboratory Documentation
211	204	584

Services and Capabilities:

- Maintains Accreditation Compliance and conformance to established criteria for ANAB and CALEA
- Coordinates internal audits to include Laboratory Safety Inspection, Workplace Audit, and the annual Internal Quality Audit
- Coordinates FOIA/Discovery requests for information
- Monitors overall laboratory safety protocols, proficiency testing requirements, and testimony evaluations

QUALITY AND SAFETY



Achievements/Process Improvements:

- Continuation of ANAB Accreditation received in January 2025. Next assessment is October 2025.
- FBI QAS assessment was completed in September 2024. Next assessment is September 2025.
- Successful completion of 2 CALEA Annual Audits of Evidentiary Property and 2 Semi-Annual Evidence Inspections.
- Partnered with the SC Commission on Prosecution Coordination, for the third year, in a New Prosecutor Boot Camp for forensic trainees to gain testimony experience.

Challenges Faced:

- The volume of incoming FOIA and Discovery requests received, and the limited advance notice given to produce documents for trial is a recurring challenge.



CONCLUSION & QUESTIONS



SLED FORENSIC SERVICES



Lieutenant (Lt.) Stephanie Stanley
Quality Manager/Evidence Control

EVIDENCE CONTROL - SUPERVISION



Lieutenant Stephanie Stanley

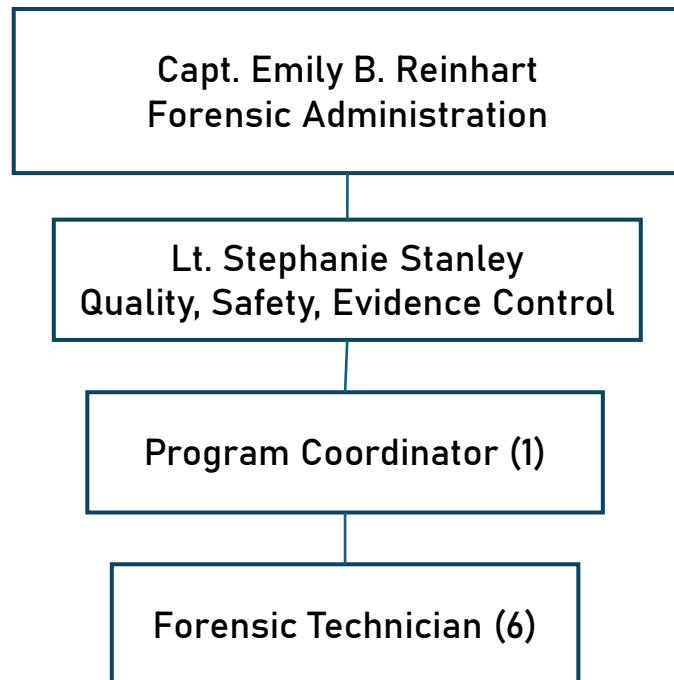
- Education
 - BS Biological Sciences – Clemson University
- Work History
 - Forensic Technician – DNA Casework (Feb. 2005–Sept. 2005)
 - DNA Analyst – DNA Casework (Sept. 2005 – May 2021)
 - Promoted to Lieutenant – Quality and Safety (May 2021 – Present) and Evidence Control (Jan. 2024 – Present)



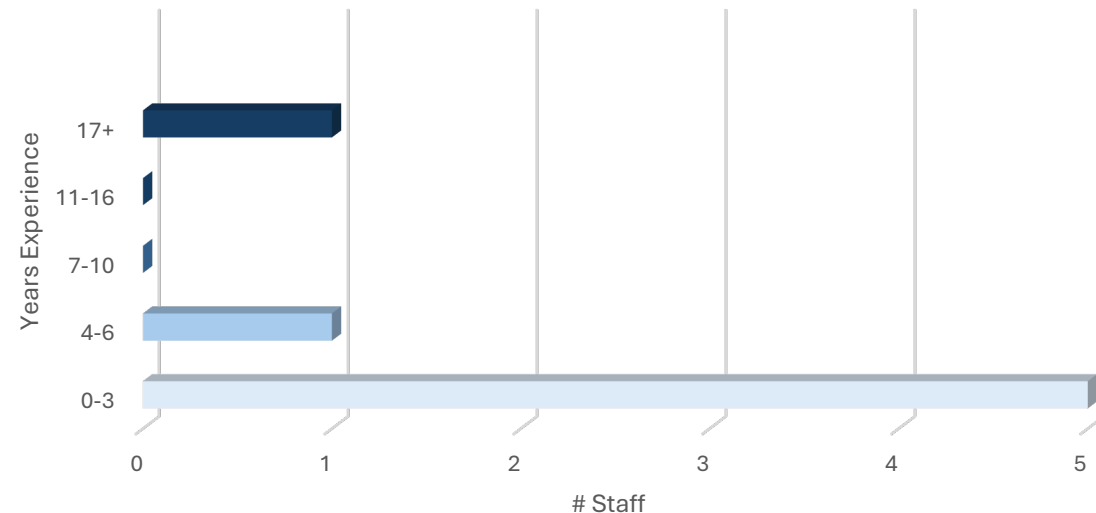


EVIDENCE CONTROL - ORGANIZATION

- 7 Full Time Employees (FTEs)
 - 1 Program Coordinator
 - 6 Forensic Technician I



Evidence Control Staff - Years Experience



EVIDENCE CONTROL - SERVICES



- Assists law enforcement officers throughout the state, both in person and via the iLab internet pre-log system, with the submission of physical evidence involved in criminal investigations.
- Distributes evidence collection kits to local law enforcement, to include BEST Kits, Blood/Urine Collection Kits, and DNA Buccal Swab Collection Kits.

The image shows the back of a brown cardboard envelope for the BEST (Best Evidence Sample Testing) Kit. It features the SLED logo and the text "B. E. S. T. BEST EVIDENCE SAMPLE TESTING INSTRUCTIONS". Below this, it says "DRUG EVIDENCE ONLY". A list of nine instructions is provided, detailing the steps for opening the envelope, handling the evidence, and completing the necessary forms. The instructions are numbered and include warnings about not using the plastic security envelope if it is damaged or if sharp objects are present.

BEST Kit

The image shows the back of a white cardboard envelope for the Blood/Urine Collection Kit. It features a "FROM:" section with lines for the sender's name, organization, street address, and city/state/zip code. There is also an "AFFIX POSTAGE HERE" label. The "TO:" section is addressed to the South Carolina Law Enforcement Division Forensic Services Laboratory, P.O. Box 21398, Columbia, SC 29221-1398. A biohazard symbol is visible on the left side of the envelope.

Blood/Urine Collection Kit

The image shows the front of a DNA Buccal Swab Collection Kit form. It includes a section for the sender's name, date, time, and SLED lab number. There is a dashed box labeled "AFFIX BIOHAZARD LABEL HERE". The form also features a "STATE OF SOUTH CAROLINA LAW ENFORCEMENT DIVISION" logo and a "BUCCAL SWAB COLLECTION KIT" title. A "FOR POLICE PERSONNEL CHAIN OF POSSESSION" table is present, with columns for "FROM", "TO", and "DATE/TIME". The table has multiple rows for recording the chain of custody. At the bottom, it says "DELIVER TO THE CRIME LABORATORY IMMEDIATELY".

DNA Buccal Swab Collection Kit

EVIDENCE CONTROL — SUBMISSION PROCESS



- Evidence is submitted to the laboratory through evidence submission lockers or by direct assistance from a staff member.



Customer Lobby



Evidence Lockers



Technician Workstation



EVIDENCE CONTROL — EVIDENCE STORAGE

- Evidence Control manages daily operations of the Evidence Room, to include the transfer of all evidence for analysis to forensic personnel and the return of evidence back to submitting agencies. As of July 2025, there are 36,871 cases stored in the Evidence Room, which includes 122,866 items of evidence.



The Evidence Room is equipped with high density, mobile storage units with additional security for drugs, weapons, and valuables for compliance with CALEA accreditation standards.





EVIDENCE CONTROL — EVIDENCE DESTRUCTION

- Assists SLED and other law enforcement agencies with destruction of drug evidence on closed/adjudicated cases.



Incinerator

EVIDENCE CONTROL — SC Preservation of Evidence Act



(Section 17-18-20) Custodian of Evidence:

- An agency or political subdivision of the State including, but not limited to, a law enforcement agency, a solicitor's office, the Attorney General's Office, a county clerk of court, or a state grand jury that possesses and is responsible for the control of evidence during a criminal investigation or proceeding, or a person ordered by a court to take custody of evidence during a criminal investigation or proceeding

(Section 17-28-320 C): Length of Time Evidence Must be Preserved:

- Trial Convictions: For defendants convicted by bench or jury trial, the physical evidence and biological material must be preserved until the person is released from incarceration, dies while incarcerated, or is executed for the offense enumerated in subsection (A).
- Conviction by Plea: For defendants convicted or adjudicated on a guilty or nolo contendere plea for the offense enumerated in subsection (A), the physical evidence and biological material must be preserved for seven years from the date of sentencing, or until the person is released from incarceration, dies while incarcerated, or is executed for the offense enumerated in subsection (A), whichever comes first.

Evidence Control preserves qualifying evidence at the direction of SLED Agents assigned to a case.



EVIDENCE CONTROL - GOALS

- Staff Retention
 - Maintain staff members to ensure trained individuals are available to complete submission process of cases and internal transfers of evidence for forensic employees.
- Backlog
 - Ensure login process is completed on evidence submissions without delay. New employees have trained efficiently and routinely maintain the submission backlog at 0%. The login process is being completed on the same day evidence is submitted.
- Destruction
 - An incinerator for the destruction of drug cases was installed at the laboratory. This equipment allows the department to conduct destruction of drug evidence for SLED and other law enforcement agencies on a weekly basis.



EVIDENCE CONTROL - CHALLENGES

- Staff Retention
 - Retaining trained staff members has been a challenge for the department. In the last five years, eleven staff members have separated from the department due to promotion, reassignment, retirement, or other agency separation. Average experience of current Evidence Control staff members is 2.5 years.
- Bulk Evidence Submissions for Marijuana
 - The storage of large evidence submissions for Marijuana is a challenge for the department. These submissions often arrive to the laboratory in large boxes and/or rolling suitcases. Due to the varying sizes of these items, organized storage is a challenge within spaces equipped with additional security that is required for drug evidence in accordance with accreditation standards.
- Disposition of Evidence
 - Case status updates are essential for maintaining organization in the Evidence Room. Receiving updates on a routine basis from submitting agencies and staff conducting research into case dispositions remains a challenge for this department.



EVIDENCE CONTROL — RELATIONSHIPS WITH CUSTOMERS

- The department has daily interaction with law enforcement agencies across the entire state.
- Law enforcement agencies will often call with questions on proper packaging of evidence items and are guided by staff members.
- The Chain of Custody for evidence items begins with the Evidence Control Department during the submission process. Staff members participate in the judicial process by providing testimony in court.
- Evidence Control staff assists law enforcement with sexual assault kit tracking system (Track-Kit™). Technicians ensure the agency is registered and kits have been properly tracked in the system.

CONCLUSION & QUESTIONS



SLED FORENSIC SERVICES



Lieutenant Suzann F. Cromer
Forensic Firearms and Toolmarks

FIREARMS & TOOLMARKS - SUPERVISION



Lieutenant Suzann F. Cromer

- **Education**
 - Bachelor's Degree - Psychology - Clemson University (1997)
 - Graduate Studies - Criminal Justice - University of South Carolina (1997-2000)
- **Work History**
 - Firearms & Toolmarks (1998) Intern
 - Firearms & Toolmarks (1998-2000) Administrative Assistant
 - Firearms & Toolmarks (2000-2023) Examiner
 - Firearms & Toolmarks (2023-present) Lieutenant



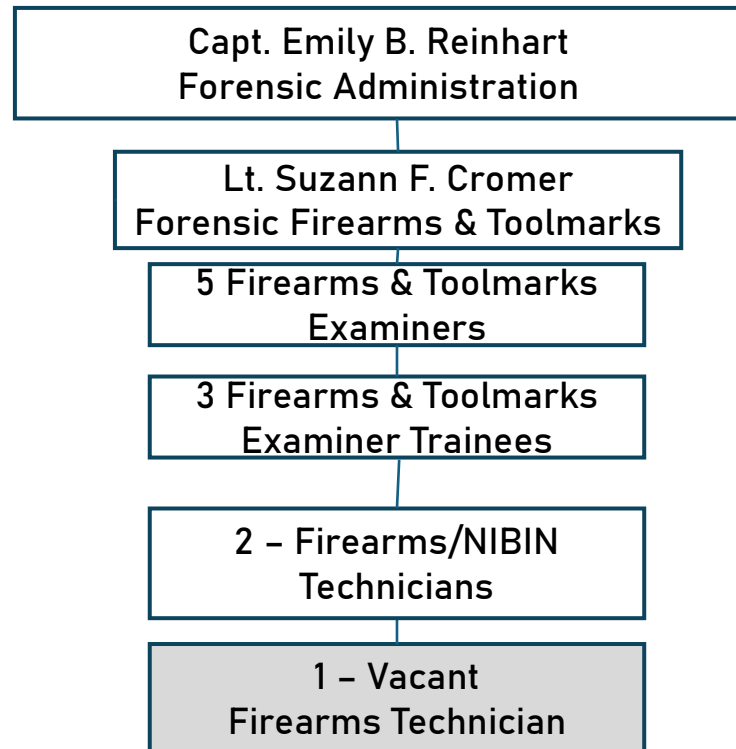


FIREARMS & TOOLMARKS - ORGANIZATION

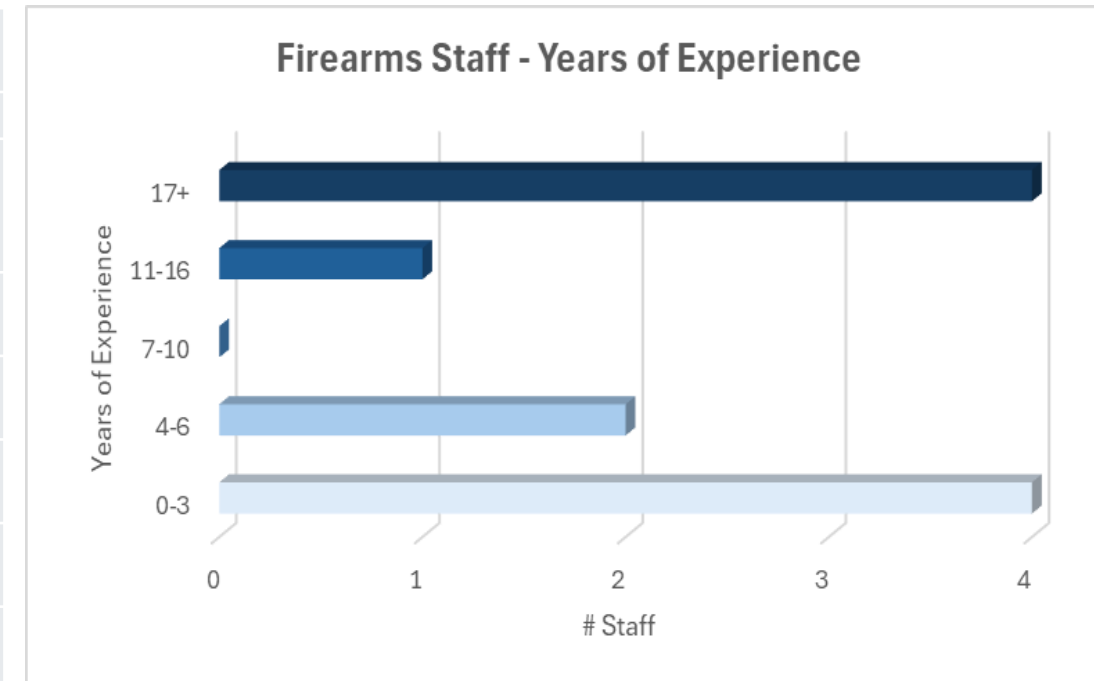
- 12 FULL TIME EMPLOYEES (FTEs)

- 9 Firearms/Toolmarks Examiners
- 2 Forensic Technicians II
- 1 Vacant Position – Forensic Technician II

- 1 Shared Question Document Examiner/NIBIN Assistance
- 1 Columbia Police Department NIBIN Tech (Non-Forensic Staff)



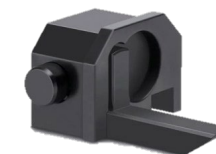
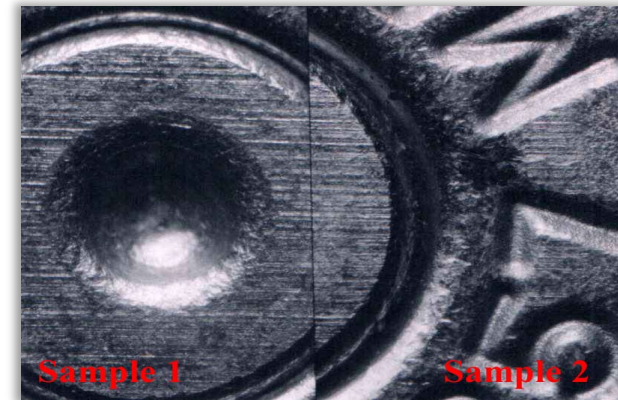
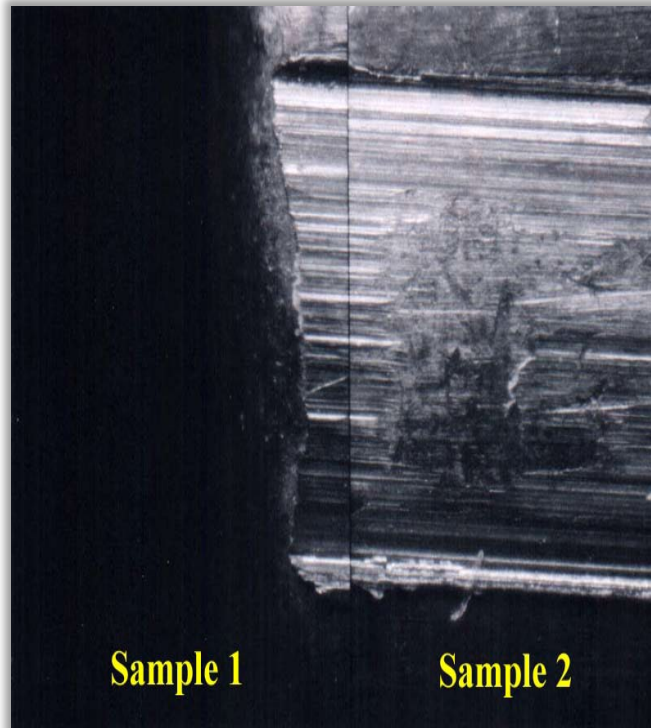
Firearms & Toolmarks	
Years Experience	# Staff
0-3	4
4-6	2
7-10	0
11-16	1
17+	4





FIREARMS & TOOLMARKS - SERVICES

- **FIREARMS IDENTIFICATION** — Microscopic comparisons of fired bullets, cartridge cases, and other ammunition components with each other and/or with suspect firearm(s).
- **FIREARMS FUNCTION TESTING** — Determine operability or modifications on firearms.
- **SERIAL NUMBER RESTORATION** — When a serial number has intentionally been removed, altered, and/or obliterated, it can sometimes be restored to legible condition using acid etching techniques.





Capabilities & Services — Firearms Identification

- **Firearms Identification**
 - Microscopic comparisons of fired bullets, cartridge cases, and other ammunition components with each other and/or with suspect firearm(s).
 - Forms the bulk of the examinations.
 - Based on the condition and amount of evidence, examinations may take a few hours, several days, or weeks.
 - This discipline is known as **Firearm Identification**. It is often erroneously called Ballistics, which is the science of the projectile in motion.



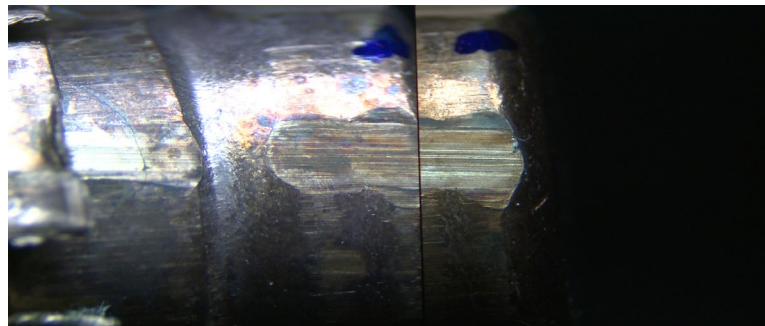
Capabilities & Services — Firearms Identification

- **Examples of Firearm Identification Exams**

- Matching a bullet from a victim to a firearm recovered from a suspect.
- Matching a cartridge case at a crime scene to a firearm recovered from a suspect.
- Comparing multiple fired bullets or cartridge cases to determine if they were all fired by one or more firearms, in the absence of a submitted firearm.

- **General Rifling Characteristic Exam (GRC)**

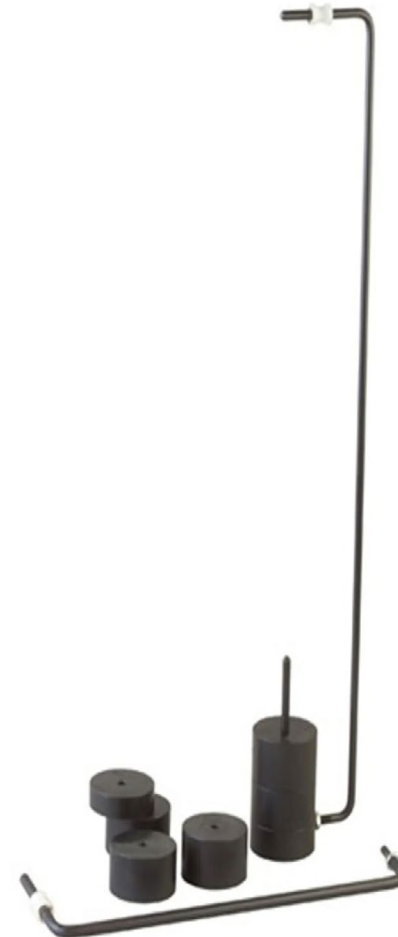
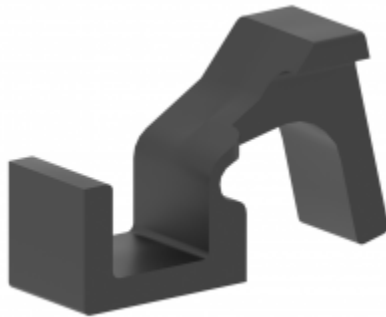
- Performed when a bullet is received without a firearm or without the correct suspect firearm.
- Provides a list of the possible manufacturers and/or origins of the suspect firearm to be used as an investigative tool.
- The list included is not intended to be complete or all inclusive as new firearm models are continuously being produced.





Capabilities & Services — Function Testing

- **Function Testing**
 - ✓ Does the firearm function properly?
 - ✓ Are the safeties functional?
 - ✓ What is the trigger pull weight of the firearm?
 - ✓ Is the rifle or shotgun too short for legal limits?
 - ✓ Has this firearm been altered to function full-auto?





Capabilities & Services — Serial Number Restoration

- **Serial Number Restoration**

- When a serial number has intentionally been removed, altered, and/or obliterated, it can sometimes be restored to a legible condition using chemical etching techniques.

- **Factors That Can Influence Serial Number Restoration Success**

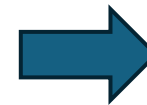
- The manner in which the characters were originally applied
- The technique(s)/method(s) used to attack, alter, or obliterate the serial number
- The amount of metal removed during both the obliteration efforts and the examiner's preparations
- The composition of the metal in the firearm or serial number plate





FIREARMS & TOOLMARKS - SERVICES

- **DESTRUCTION OF FIREARMS** — Firearms, knives, and other metal items are submitted to the Department where they are inventoried and evaluated for destruction or retention in the Firearms Reference Collection. Items are submitted in accordance with the SLED Authorization for Destruction form and the SC Preservation of Evidence Act. SC Code § 17-28-70
- **FIREARMS REFERENCE COLLECTION** — Firearms retained for the collection are utilized by Firearms & Toolmarks Examiners to assist with training and casework. SC Code § 16-23-405.
- **TOOLMARK EXAMINATION** — Microscopic comparisons of toolmarks on components with a suspect tool(s).



SOUTH CAROLINA LAW ENFORCEMENT DIVISION



Capabilities & Services — Toolmark Identification

- **Toolmark Identification**

- Toolmarks can be caused when one object is marked or damaged by a harder object. Toolmarks can be static (a hammer hitting a nail) or dynamic (cutting with shears).
- The examination and identification of fired bullets and cartridge cases is nothing more than a specialized toolmark examination.
- Toolmarks differ from firearms in that there are more surfaces to look at. On a screwdriver, for instance, there are two sides to look at for possible marks. On a cutting tool there are four sides of the jaws.
- **Due to our evidence submission guidelines, no examinations will be conducted unless a suspect tool is recovered *and* that tool can be linked to a particular suspect via possession, latent prints, DNA, etc.**



Capabilities & Services — Destruction of Firearms

- **Destruction of Firearms**
 - The Firearms Department will destroy all types of firearms for agencies within the state.
 - The submitting agency must have a completed SLED Authorization for Destruction form. This is to ensure compliance with the Evidence Preservation Act. SC Code § 17-28-70
 - From Destruct cases, SLED can keep any seized firearm for use by its Forensic Laboratory. SC Code § 16-23-405.



Capabilities & Services — Reference Collection

- Provides parts for repair of evidence firearms.
- Provides standards for serial number restorations.
- Provides training aids. (Since most training is done in-house.)
- Currently, the FRC contains just under 6,000 firearms.



Old Laboratory

New Laboratory

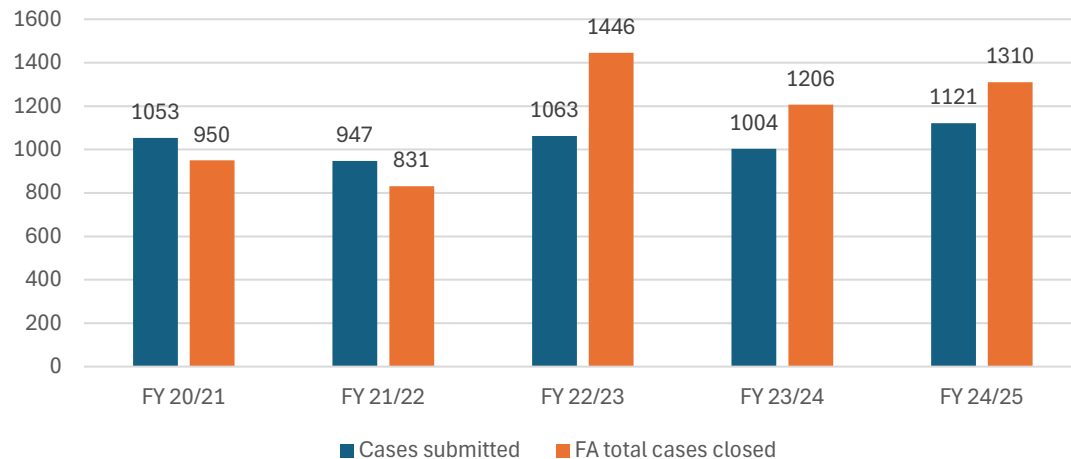


FIREARMS & TOOLMARKS - CASEWORK

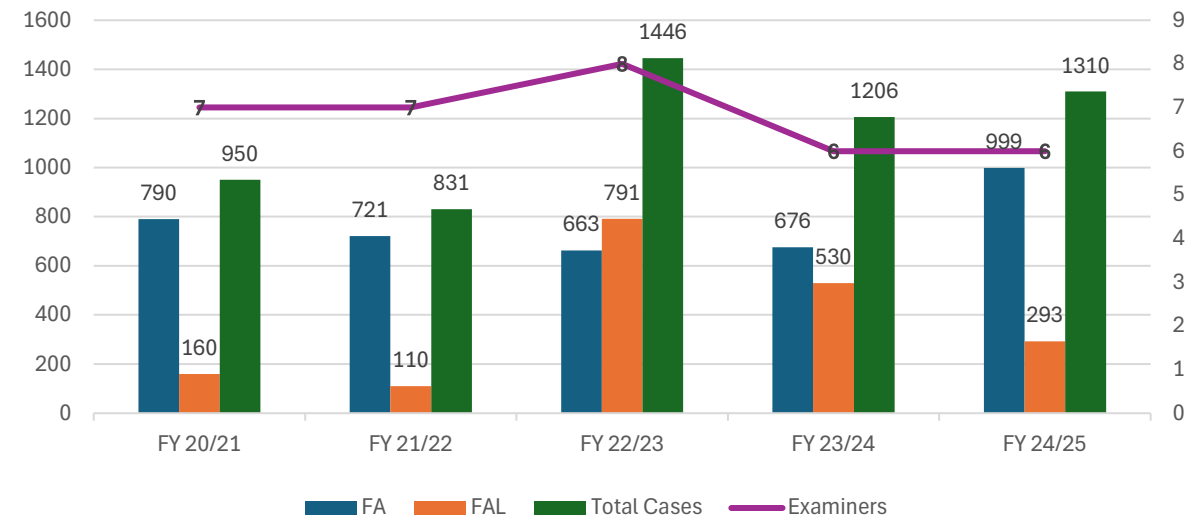


- The department has approximately 1,778 open cases with 17,508 items to be processed.
 - Six Examiners (2 of which are on reduced caseload due to supervisory or training assignments.)
 - Three Examiner trainees.
 - **SLED's In-house training program for Firearms & Toolmarks Examiners can take between 2 ½ to 3 years.**
- Over the last 5 Fiscal Years, 2 Firearms Examiners separated, (including the Supervisor), one trainee resigned, and one trainee completed the training program.
- Last Fiscal Year (FY 24/25) each examiner averaged between 6 and 21 cases per month. Closing 1,310 cases, while receiving 1,121 cases.

Firearms Cases
Intake/Output



Firearms Department FY Productivity

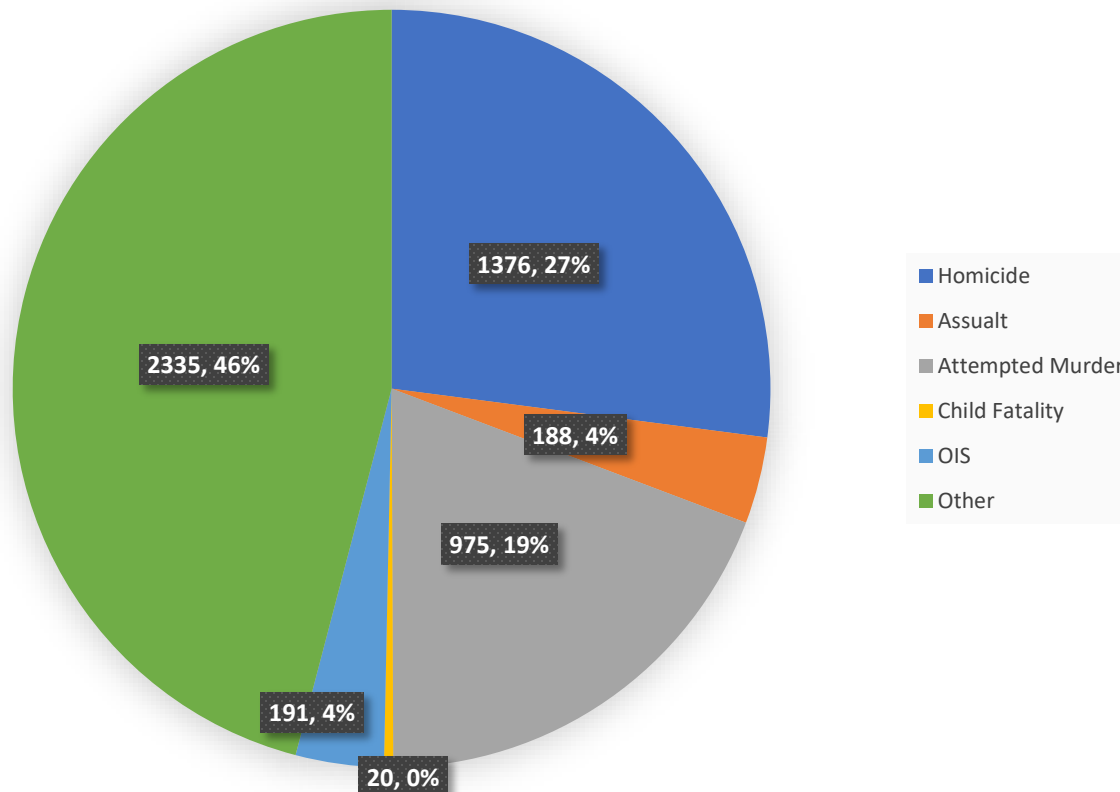




FIREARMS & TOOLMARK — PRIORITY CASEWORK

DUE TO THE NATURE OF FIREARMS, MOST CASES ARE CONSIDERED VIOLENT CRIME.

FY 20/21 - FY 24/25
5085 FA Cases Submitted

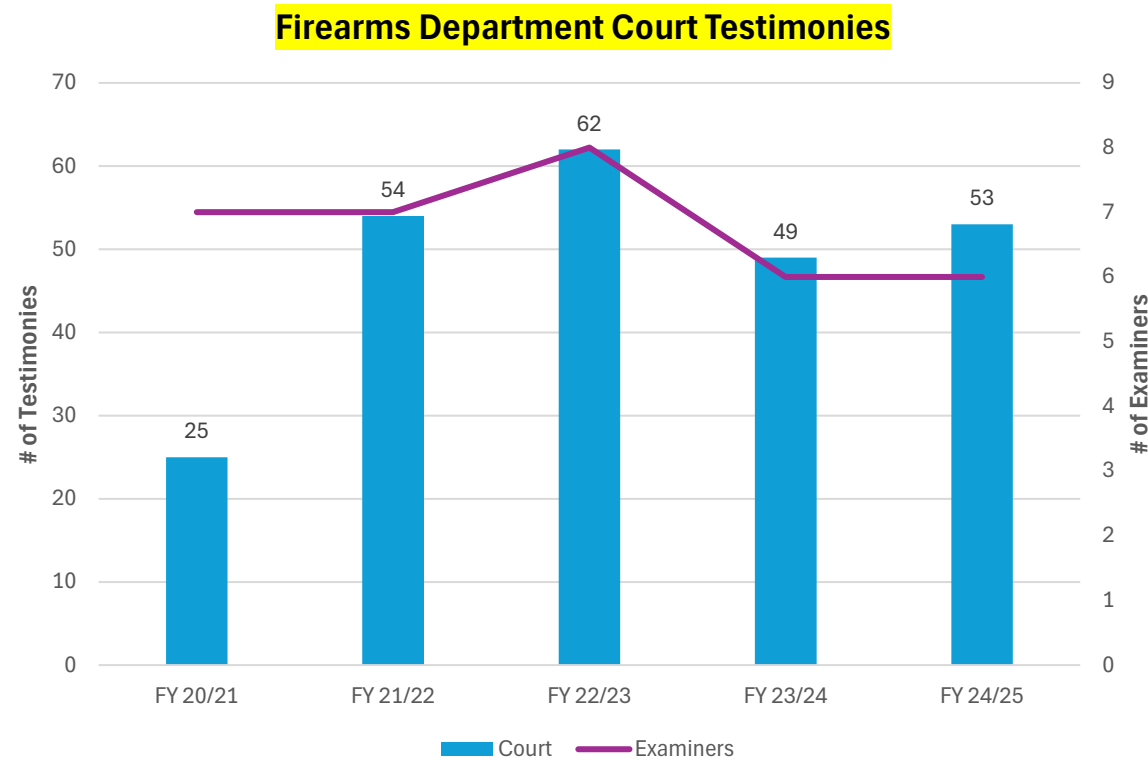


- 54% OF CASES SUBMITTED IN THE PAST 4 FISCAL YEARS WERE:
 - Homicide 27%
 - Assault 4%
 - Attempted Murder 19%
 - Child Fatalities 0%
 - Officer Involved Shootings.. 4%
- OTHER CASES INCLUDED:
 - Death Investigation – These could evolve into Homicides.
 - Shooting Incidents – These could also include Assaults.
 - Weapon Offenses

FIREARMS & TOOLMARKS - SERVICES



- **COURT TESTIMONY** — SLED Firearms Examiners testify in court about the results of their forensic testing.



FIREARMS & TOOLMARKS - SERVICES



- **NATIONAL INTEGRATED BALLISTICS INFORMATION NETWORK (NIBIN)** – Searchable national database of fired cartridge cases designed to link crimes to a common firearm and develop investigative leads. The database is owned/operated by the Bureau of Alcohol, Tobacco, Firearms, and Explosives (BATFE) and is operated by SLED.
- **NIBIN ENTRY BY APPOINTMENT (EBA) PROGRAM** – Started in 2014 to assist the agencies/departments of this state with timely NIBIN entry.
- The SLED NIBIN Program is consistently ranked in the **Top 10 NIBIN sites** across the nation for entries and the **Top 15 for NIBIN Leads** reported. Recently, **SLED was ranked Number 2** in the nation for number of entries.



Capabilities & Services — National Integrated Ballistic Information Network (NIBIN)



❖ NIBIN

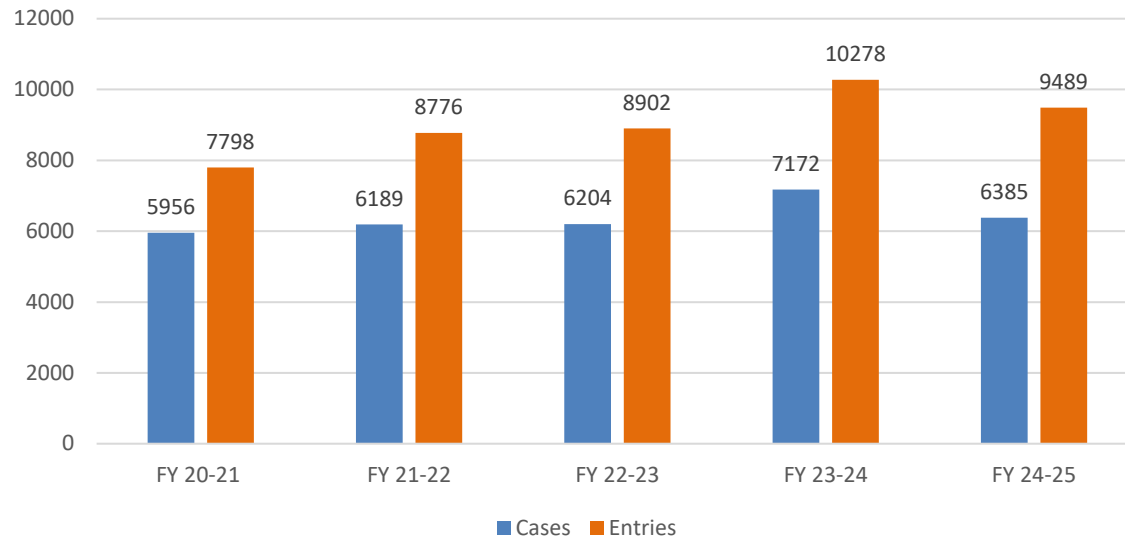
- Searchable national database of fired cartridge cases designed to link crimes to a common firearm and develop investigative leads.
- Network owned by the Bureau of Alcohol, Tobacco, Firearms, and Explosives (BATFE) and is operated by SLED.
- The SLED has two acquisition and two correlation terminals on the National Integrated Ballistics Information Network (NIBIN).
- Essentially described as an “*AFIS/CODIS for cartridge cases.*”



FIREARMS & TOOLMARKS — NIBIN PROGRAM



SLED NIBIN FY ENTRY STATS



- SLED and ATF partnered with the South Carolina Highway Patrol to test fire their backlog of confiscated firearms for NIBIN entry.
- Over 760 firearms were cataloged, test fired, and entered into the NIBIN database – resulting in 72 leads in NC, SC, GA, and VA.

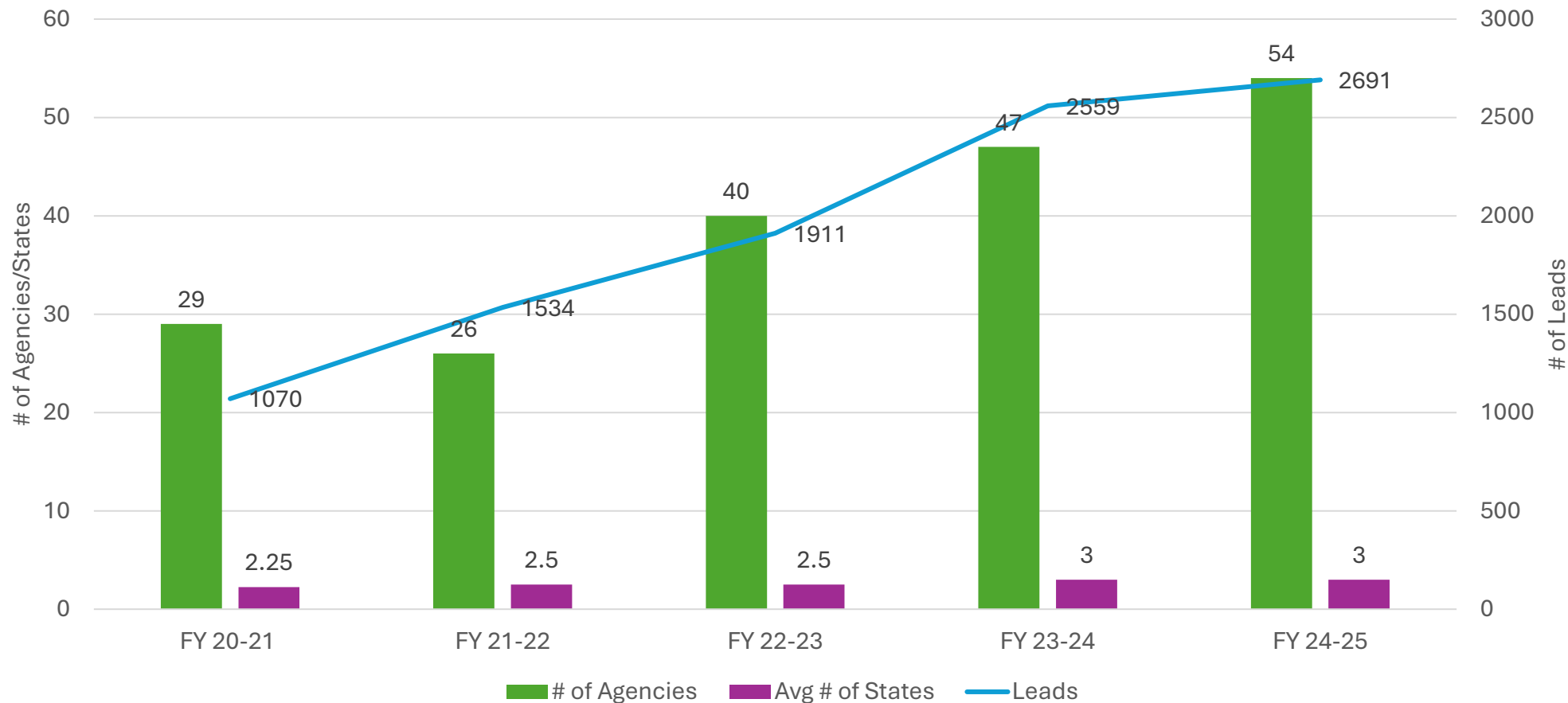
- In 2020, the NIBIN Program Administrator presented in a nationally aired webinar series on SLED's NIBIN Program.
- SLED's Entry By Appointment Program has become a model for other agencies.



FIREARMS & TOOLMARKS — NIBIN PROGRAM



SLED NIBIN LEADS



Capabilities & Services — NIBIN Entry By Appointment Program



❖ Program Goals

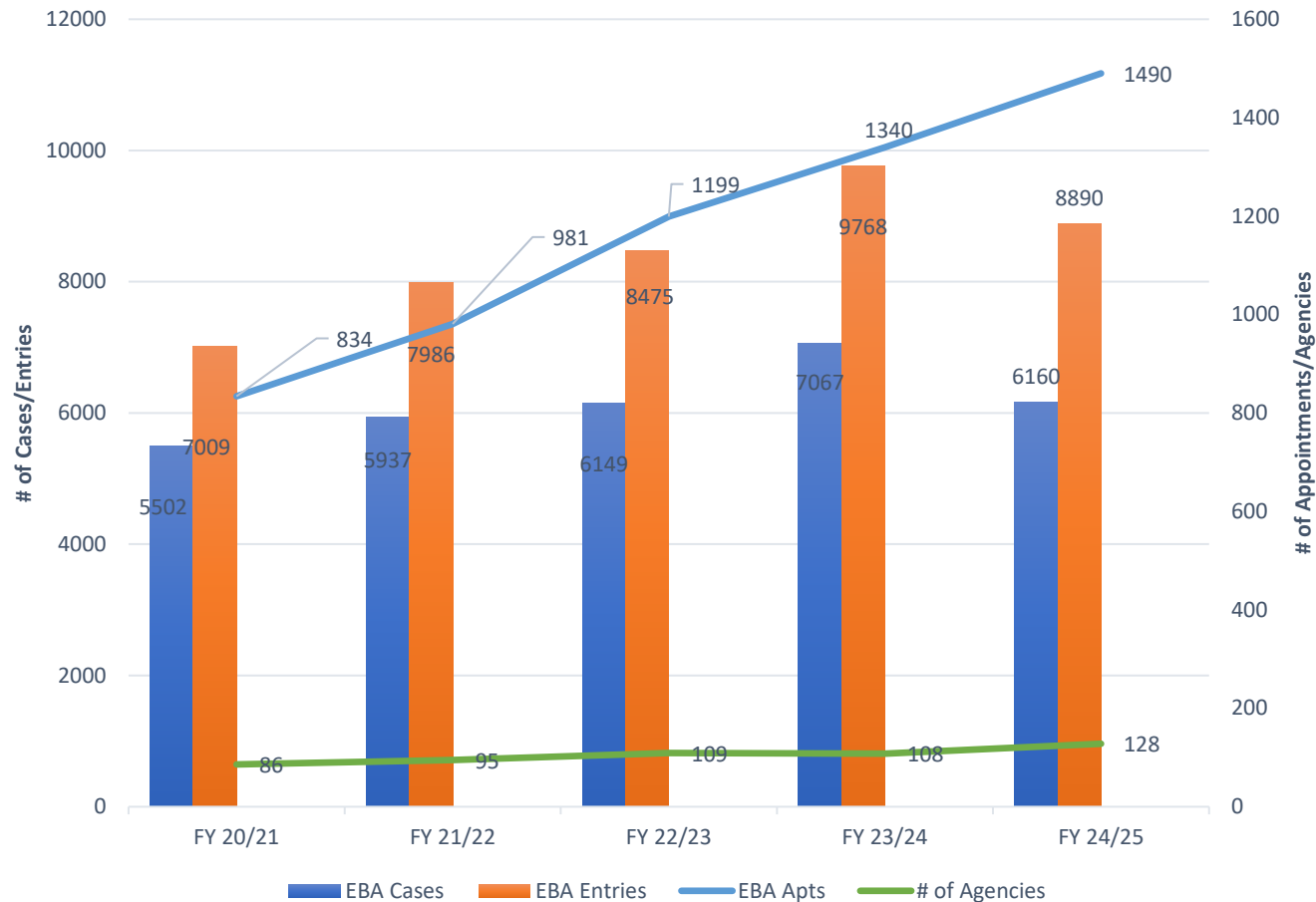
✓ To assist the agencies/departments of this state with timely NIBIN entry

- Entry of firearms related evidence from crime scenes (comprehensive collection)
- Entry into NIBIN < 48 hours from arrival at laboratory
 - EBA evidence is entered the day it is brought to the SLED Laboratory
- To identify and report NIBIN Leads to Investigators
 - Link multiple crimes as fast as possible
- Agencies/departments can use the NIBIN Leads to investigate and solve gun crime
 - Develop investigatory leads while leads are still hot
 - Interview witnesses while information is still fresh in their mind

FIREARMS & TOOLMARKS — NIBIN/EBA PROGRAM



Entry By Appointment Program FY Stats



PROGRAM GOALS

- To assist the agencies/departments of this state with timely NIBIN entry.
- To identify and report NIBIN Leads to Investigators.
- Agencies/departments can use the NIBIN Leads to investigate and solve gun crime.



FIREARMS & TOOLMARKS — TRAINING OTHERS

- **SOUTH CAROLINA NIBIN USERS GROUP MEETING**

- In 2023, the SLED Firearms Department hosted the meeting at the Forensic Services Laboratory.
- AUSA Justin Holloway, AUSA Stacey Haynes, and speakers from Ultra Forensic Technology (now LEEDS Online), BATFE, and the National Policing Institute presented.

- **PRIVATELY MADE FIREARMS**

- In 2024, the SLED Firearms Department and AUSA Stacey Haynes hosted the ATF Presentation of two classes on Privately Made Firearms – Ghost Guns, Machinegun Conversion Devices, and 3D Printing.

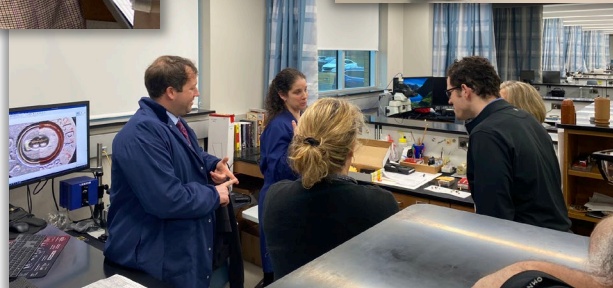


FIREARMS & TOOLMARKS — TRAINING OTHERS



- SOUTH CAROLINA COMMISSION ON PROSECUTION COORDINATION**

- In 2024, the SLED Firearms Department was asked to develop a day of training for the South Carolina Commission on Prosecution Coordination.
- Agenda included Firearms & Ammunition 101, History of Firearms Identification, NIBIN Operations, Working a Firearms Case, and four different demonstration stations.



FIREARMS & TOOLMARKS — FUTURE GOALS — TRAINING



- ✓ On-board and start training new FTE.
- ✓ Complete training of three current trainees.
 - Offer a Toolmark Training class at SLED from an external vendor
- ✓ Be able to send examiners to more external training.
 - Association of Firearms & Tool Mark Examiners (AFTE) Annual Conference
 - SHOT Show
 - Regional AFTE Meetings
 - Tour Firearm and Ammunition Manufacturing Plants

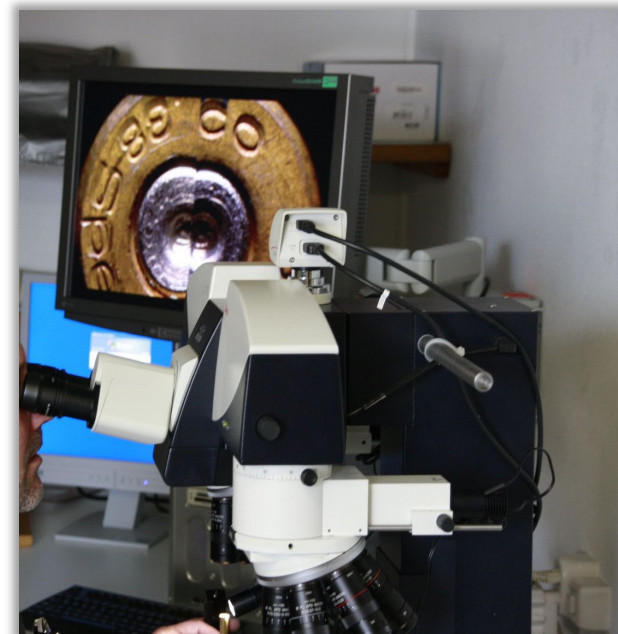
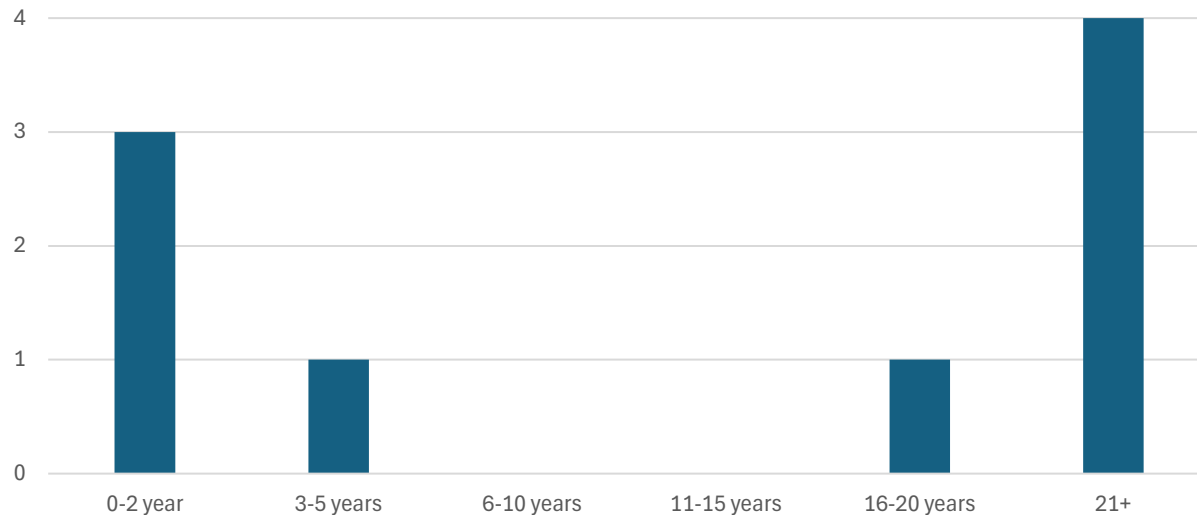




FIREARMS & TOOLMARKS — FUTURE GOALS

- Replaced four analog microscope camera/software systems with digital systems in FY 24/25, with goal to replace one more.
- Acquire FTE – Firearms Examiner and start training in preparation of retirement of current staff. (Training a new examiner takes 2 to 3 years.)

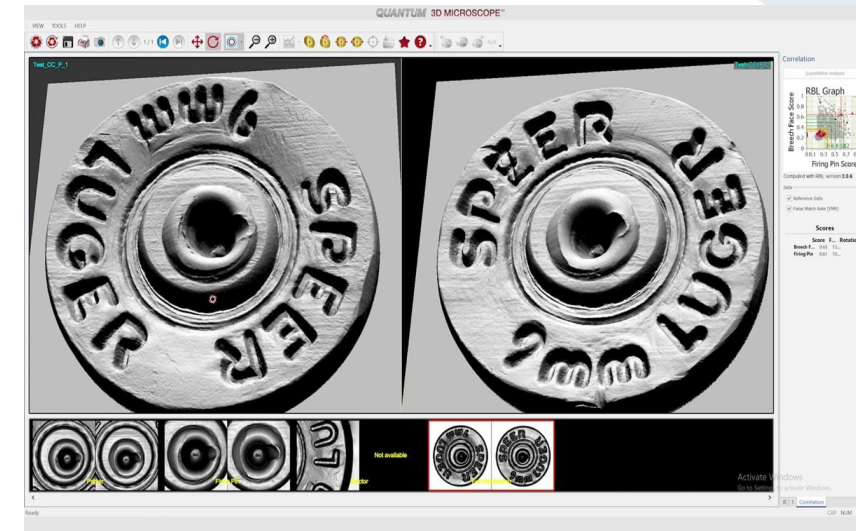
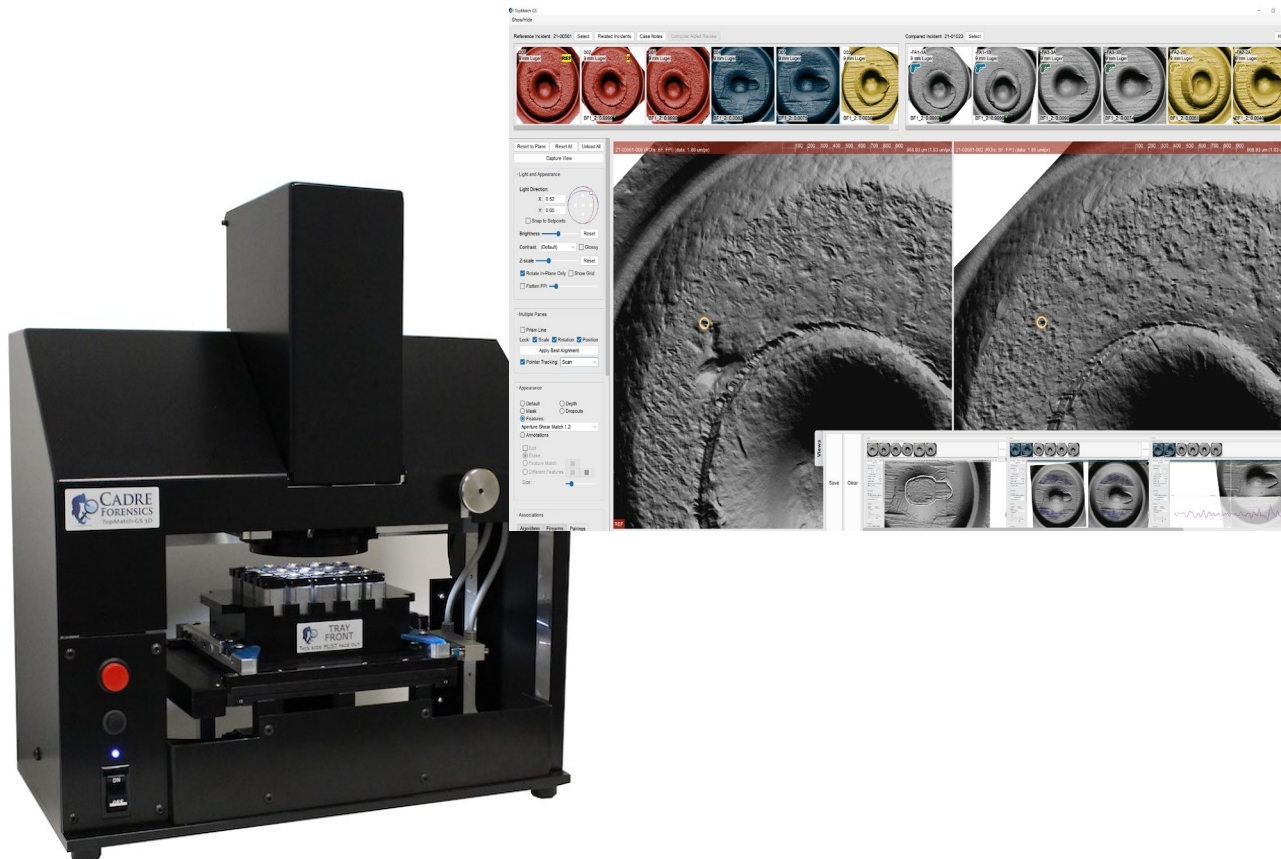
Firearms Examiners Years Until Retirement



FIREARMS & TOOLMARKS — FUTURE GOALS



- Complete evaluations and purchase a 3D Microscope system – the new equipment for Firearms Examination in the Future.



CONCLUSION & QUESTIONS



SLED FORENSIC SERVICES



Lieutenant (Lt.) Rhonda Fields
DNA Database Department

DNA DATABASE- SUPERVISION



Lieutenant Rhonda Fields

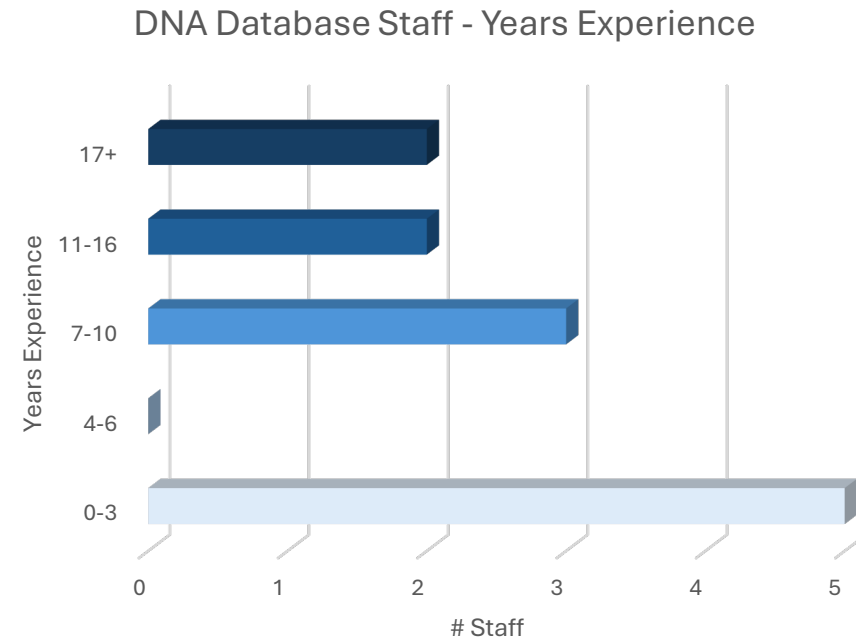
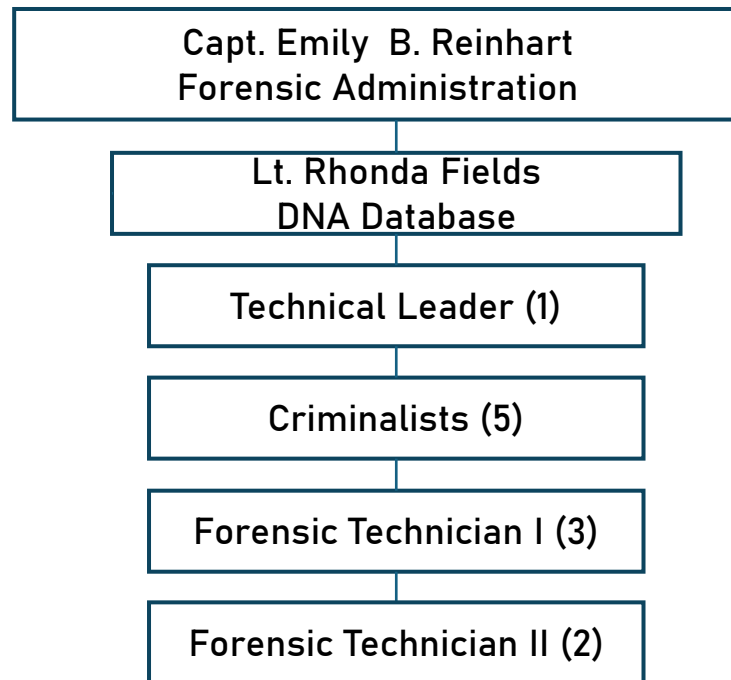
- Education
 - B.S. Biochemistry – Clemson University
- Work History
 - DNA Department (1999-2001)–Technician
 - DNA Database Department (2001-2008 and 2010-2013)–Analyst
 - Crime Scene (2008-2010)–Investigator
 - Promoted to Lieutenant of DNA Database - February 2013
 - Serve as S.C. State CODIS Administrator–February 2013–Present





DNA DATABASE- ORGANIZATION

- 12 Full Time Employees (FTEs)



DNA DATABASE - DEPARTMENTAL STAFFING ROLES



- Supervisor/State CODIS Administrator (1) – responsible for overseeing departmental and CODIS operations and is a currently qualified DNA analyst
- One Technical Leader (1) – responsible for overseeing the technical operations of the department and is a currently qualified DNA analyst
- DNA analysts (5) – responsible for analyzing database samples, issuing CODIS hit letters, and performing administrative functions of CODIS
- DNA technicians (5) – responsible for processing expungement requests and database samples; two technicians also perform the laboratory portion of database sample analysis.

DNA DATABASE - GOVERNING STATUTE



S.C. Code Ann. §23-3-620 — When DNA Samples Required

- Authorizes collection of a DNA reference sample for inclusion in the State DNA Database, except juveniles, following a lawful custodial arrest, the service of a courtesy summons, or a direct indictment for:
 - A felony offense or an offense punishable by a sentence of five years or more; or
 - Eavesdropping, peeping or stalking, any of which are committed in this State
- Any person, including any juvenile, ordered to do so by a court and any juvenile convicted or adjudicated delinquent for any above listed offenses must also provide a DNA reference sample for inclusion in the State DNA Database

DNA DATABASE - GOVERNING STATUTE



S.C. Code Ann. §23-3-660 — Expungement of DNA record; grounds for requesting

- A person whose DNA record or DNA profile has been included in the State DNA Database must have his DNA record and his DNA profile expunged if:
 - The charges pending against the person who has been arrested or ordered to submit a sample:
 - Have been nolle prossed;
 - Have been dismissed; or
 - Have been reduced below the requirement for inclusion in the State DNA Database; or
 - The person has been found not guilty, or the person's conviction has been reversed, set aside, or vacated.
- The solicitor in the county in which the person was charged must notify SLED when the person becomes eligible to have his DNA record and DNA profile expunged. Upon receiving this notification, SLED must begin the expungement procedure.



DNA DATABASE - SERVICES

- Provide investigative leads for unsolved cases through the use of the Combined DNA Index System (CODIS). CODIS is a repository where law enforcement agencies can share DNA information to:
 - ✓ Identify suspects in unsolved cases (an offender or an arrestee hit)
 - ✓ Link unsolved crimes (forensic hit)
- Identify remains or missing persons through the use of CODIS.
- Process DNA expungement requests in accordance with S.C. Code Ann. §23- 3-660



DNA DATABASE - PERSONNEL WORKLOADS

❖ FY24-25

- Completed analysis of 14,485 database samples through upload to CODIS
- Issued 542 CODIS hit letters
- Dispositioned 6,875 CODIS matches
- Processed 2,233 Expungement Requests
- The workload is manageable for the current staffing level and services offered by the DNA Database Department. The average turnaround time of database samples for FY24-25 was 7 days and on 07/01/2025, only 4 samples were backlogged with no overtime needed to achieve these metrics.



DNA DATABASE - GRANT FUNDING

- **DNA Capacity Enhancement For Backlog Reduction (CEBR) Program– Formula Grant**
 - Funding allocated to DNA Database and DNA Casework Departments
 - Allocations over the last 5 years (SC award split between CODIS labs in the state):

Year	South Carolina Award	SLED Allocation
2020	\$1,313,483	\$528,483
2021	\$1,574,305	\$754,309
2022	\$1,780,301	\$780,301
2023	\$2,017,040	\$1,136,367
2024	\$1,626,979	\$642,403

- **Activities typically funded by the CEBR Program**
 - Overtime and fringe benefits
 - Travel and registration fees for training/conferences
 - Equipment
 - Outsourcing analysis of DNA cases
 - Outsourcing validations
 - Instrument software
 - Service contracts
 - FBI Quality Assurance Audits

DNA DATABASE — CASE OF INTEREST



DNA leads to arrest in 1980 murder, sexual assault, robbery | The State

Page 1 of 3

SOUTH CAROLINA AUGUST 10, 2016 7:09 PM

DNA leads to arrest in 1980 murder, sexual assault, robbery



BY CAITLIN TURNER
cturner@islandpacket.com

Nearly 40 years after a man was shot to death and a woman sexual assaulted and robbed in Beaufort, the Beaufort County Sheriff's Office has arrested a suspect after DNA linked him to the crime.

Isaiah Gadson Jr., 63, of Burton, was charged with murder, first-degree criminal sexual conduct, kidnapping and armed robbery Wednesday afternoon in connection with the shooting death of 18-year-old David Krulewicz on Jan. 6, 1980, according to a Sheriff's Office release.

On the day of Krulewicz's death, deputies were sent to a dirt path off Old Salem Point Road where they found Krulewicz shot to death. Several bullets had struck his body, the release said.

A juvenile female told investigators she and Krulewicz, her boyfriend, had parked his van on the path around 11:45 p.m. Jan. 5.

An African-American man approached and fired several shots into the van with a

- On January 6, 1980, 18-year old David Krulewicz was fatally shot and his 15-year old girlfriend was raped by an unidentified suspect.
- A DNA profile was entered in CODIS from evidence in this case in January 2003.
- On June 10, 2016, a DNA sample was collected from Isaiah Gadson for an Attempted Murder charge.
- Since arrestee collection was implemented in South Carolina in 2013, a DNA sample could be collected at arrest.
- Isaiah Gadson's profile was entered into CODIS on July 25, 2016 and a hit resulted on July 27, 2016.
- A CODIS hit letter was issued to Beaufort County Sheriff's Office on August 2, 2016, resulting in his arrest and ultimate conviction for the 1980 Murder/Rape case. He was sentenced to 50 years for the murder and 30 years each for criminal sexual conduct, armed robbery and kidnapping.

<http://www.thestate.com/news/state/south-carolina/article94926467.html>

9/19/2016



DNA DATABASE - ARRESTEE SUCCESS STORY

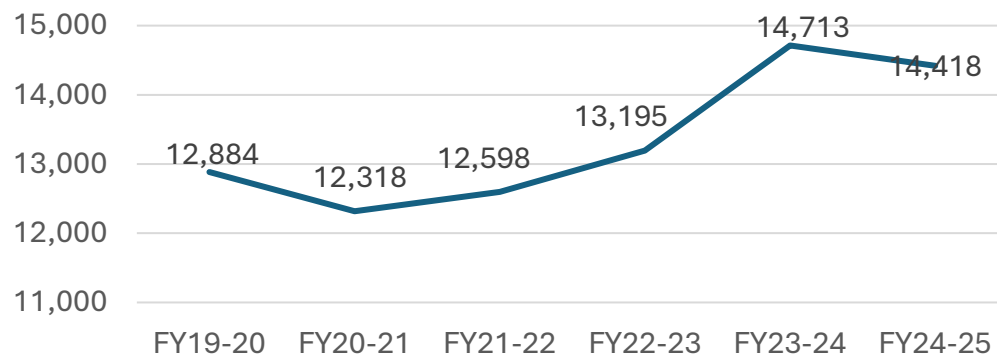
❖ Takeaways

- ✓ Without DNA collection at arrest, this case may have never been solved - The qualifying charge may have been dismissed. Since conviction of a qualifying offense was previously the requirement for inclusion in the State DNA Database, if Isaiah Gadson wasn't convicted, his profile would have never been entered into the State DNA Database.
- ✓ It is important for the turnaround time of database samples to remain low - If profiles developed from arrestee samples are not entered into CODIS before an expungement request is received from the Solicitor's Office with jurisdiction over the qualifying offense, then the benefit of arrestee collection is lost. If an expungement request had been received for Isaiah Gadson prior to his profile being entered, his profile would not have been entered into CODIS and this CODIS hit would not have occurred.

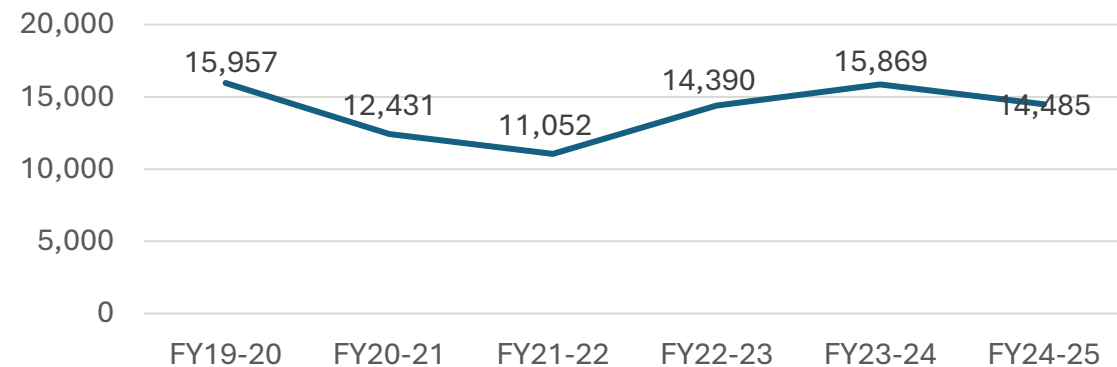


DNA DATABASE DEPARTMENT - SAMPLE METRICS

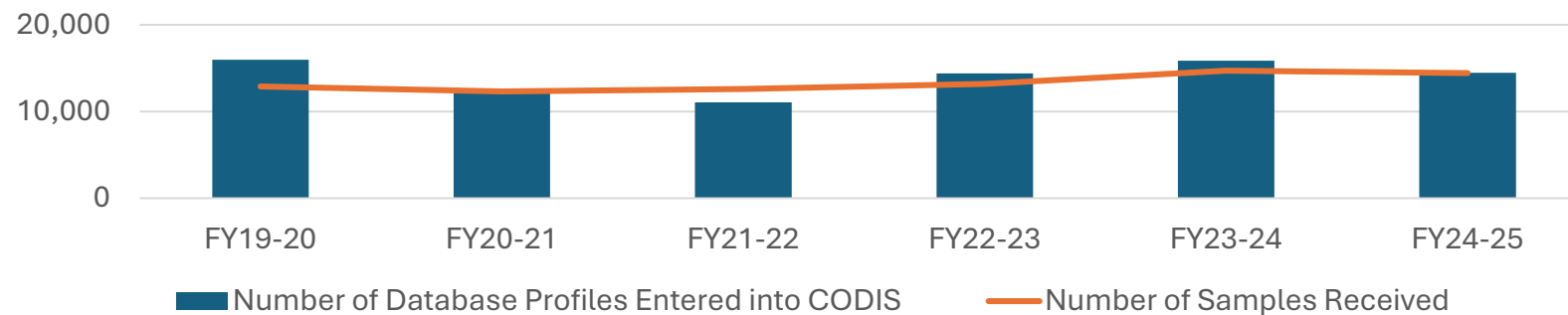
Number of Samples Received



Number of Database Profiles Entered into CODIS



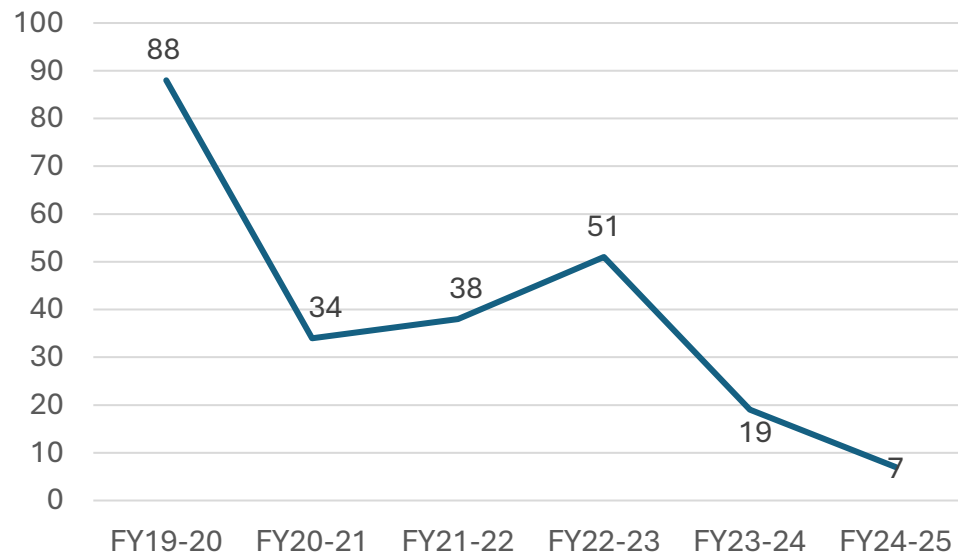
Number of Samples Received vs. Profiles Entered into CODIS



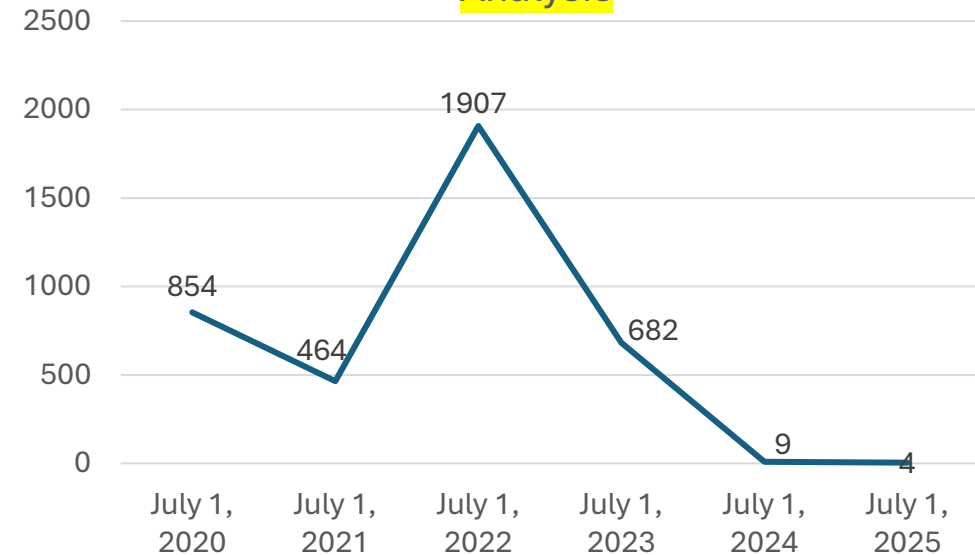
DNA DATABASE DEPARTMENT - SAMPLE METRICS



Turnaround Time



Backlog of Database Samples Awaiting Analysis





DNA DATABASE DEPARTMENT - TRENDS EXPLAINED

- The backlog (samples in-house more than 30 days without a profile in CODIS) of database samples awaiting analysis were impacted by the following :
 - COVID schedules (March 2020-March 2021) had a positive impact on the backlog because it limited the number of people that could be in the laboratory at the same time, which minimized distractions and eliminated instrumentation bottlenecks. The department was able to reduce the backlog, even with a significant increase in the number of CODIS hits reported.
 - During the FY2021-22 year, the backlog increased significantly due to personnel events. One of the three analysts primarily responsible for analyzing database samples was promoted to Technical Leader, causing duties to shift focus from database sample analysis to Technical Leader related duties while the remaining analysts were tasked with training two new analysts (positions created with the FY2020-2021 state budget). During this time, one analyst was also on extended leave.



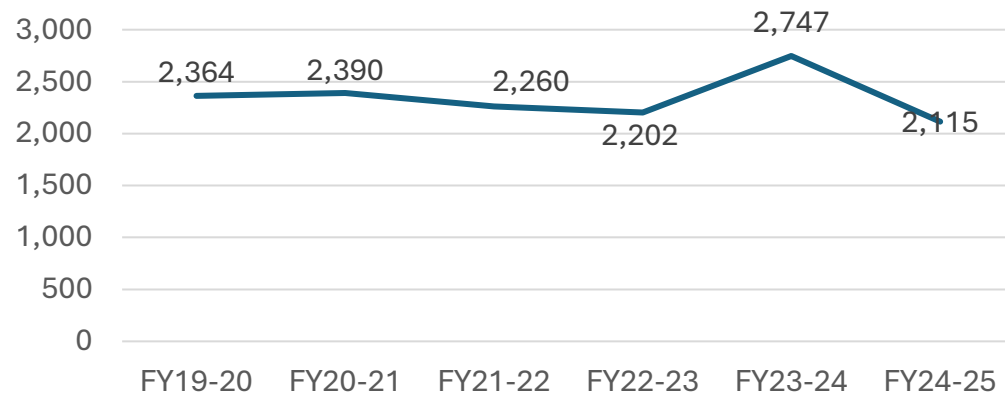
DATABASE SAMPLES - TRENDS EXPLAINED

- **During the FY22-23 fiscal year, the laboratory move** had the biggest impact on backlog since the operation was at half instrument capacity and personnel time was divided between routine duties and moving activities. This impact would have been a lot more significant, but an analyst in training was authorized to independently analyze database samples within the same time frame, increasing the personnel dedicated to this role by 25%. Loss of laboratory support personnel and forensic technicians, as well as poor quality submissions also impacted the backlog.
- **During the FY23-24 fiscal year**, all vacancies were filled, and two analysts completed their training; demonstrating that at full personnel and instrument capacity, database samples can be processed within 30 days of receipt, which is critical so the profiles can get searched prior to possibly being subject to expungement.
- **During the FY24-25 fiscal year**, continued operation at full staffing levels of qualified personnel enabled the DNA Database Department to maintain a minimal backlog.

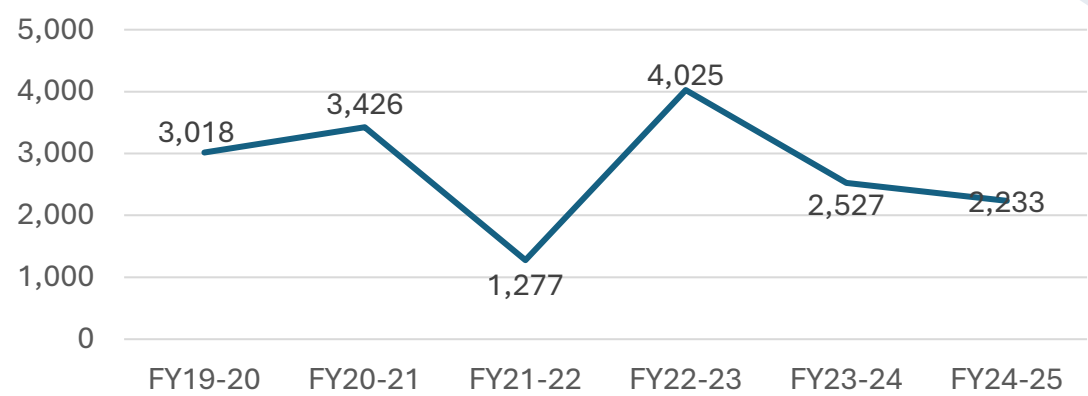


DNA DATABASE - EXPUNGEMENT METRICS

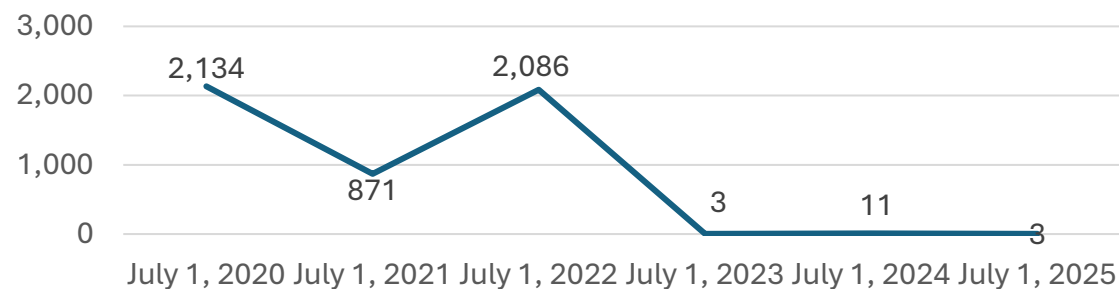
Expungements Received



Expungements Completed



Expungement Processing Backlog



DNA DATABASE EXPUNGEMENTS

TRENDS EXPLAINED

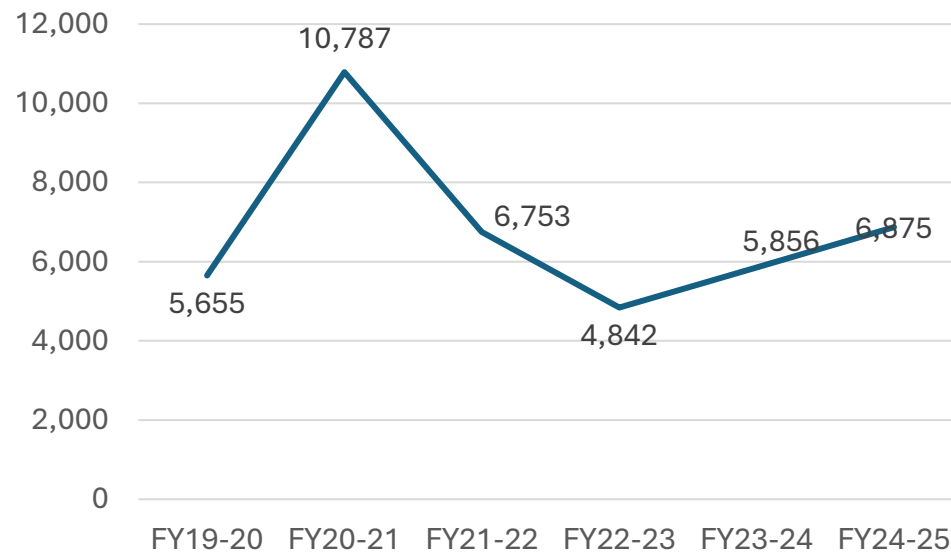


- The backlog of DNA expungements increased significantly in FY21-22 due to the loss of two individuals whose primary responsibilities were expungement processing.
- In FY22-23 and beyond, the vacancies were filled, which started having a positive impact on the expungement backlog.
- It is important for the department to stay current on processing expungement requests to avoid a legal challenge if a DNA profile that should have been expunged hits to an unsolved case.

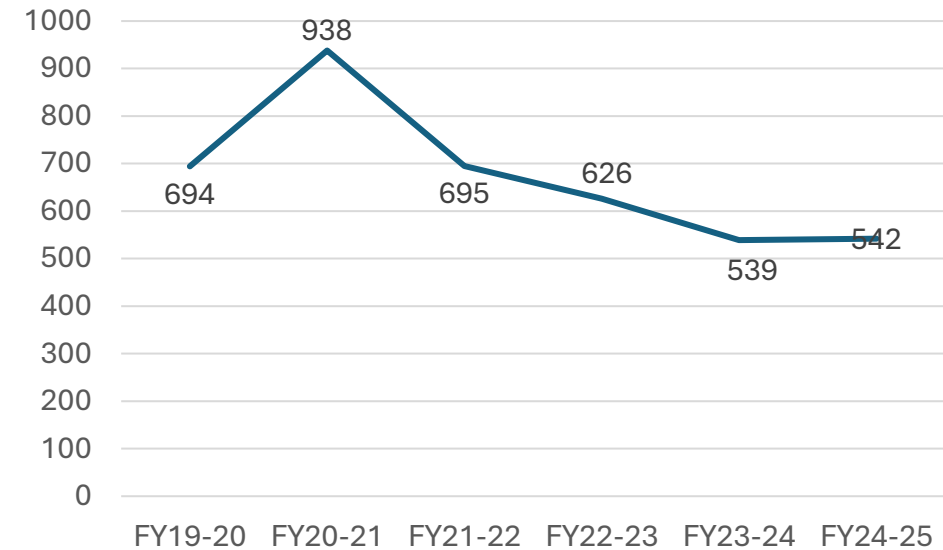
DNA DATABASE DEPARTMENT - CODIS METRICS



Matches Dispositioned



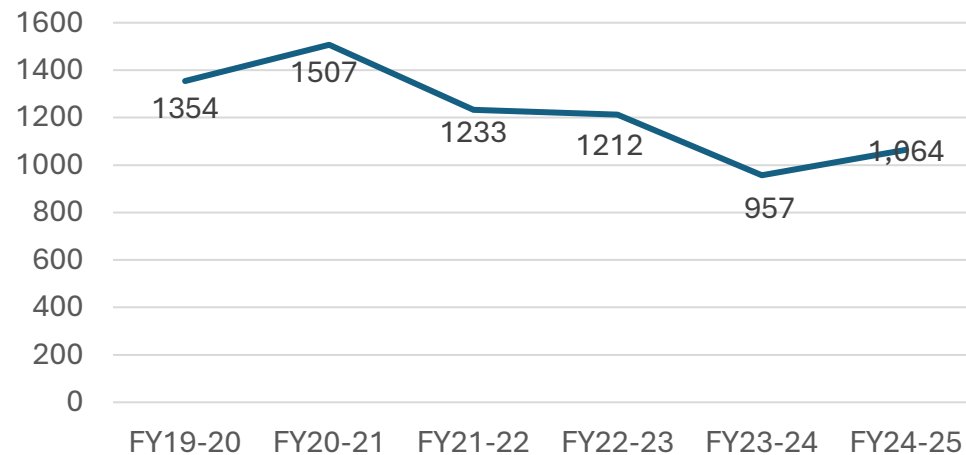
Number of CODIS Hits



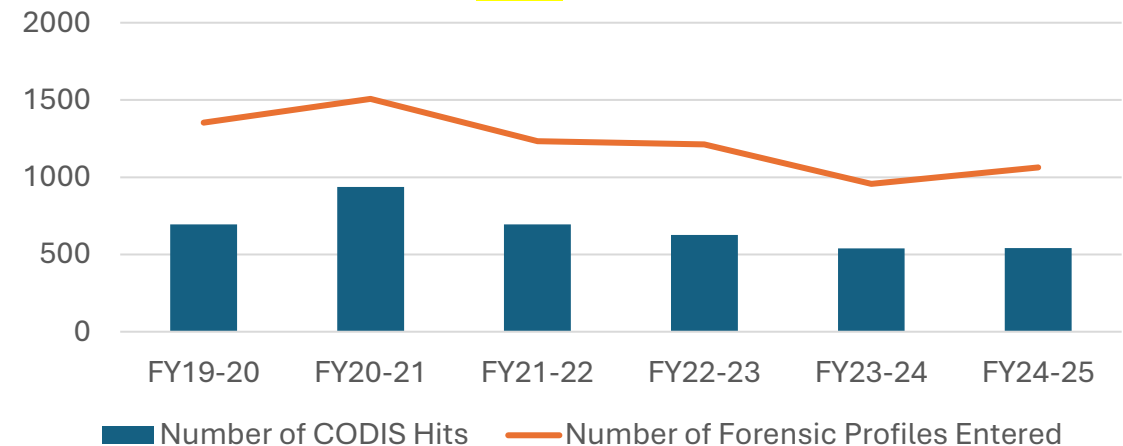


DNA DATABASE DEPARTMENT - CODIS METRICS

Number of Forensic Profiles Entered
by all DNA Laboratories in South
Carolina



Correlation Between Number of Forensic
Profiles Entered and Number of CODIS
Hits



DNA DATABASE DEPARTMENT - CODIS METRICS

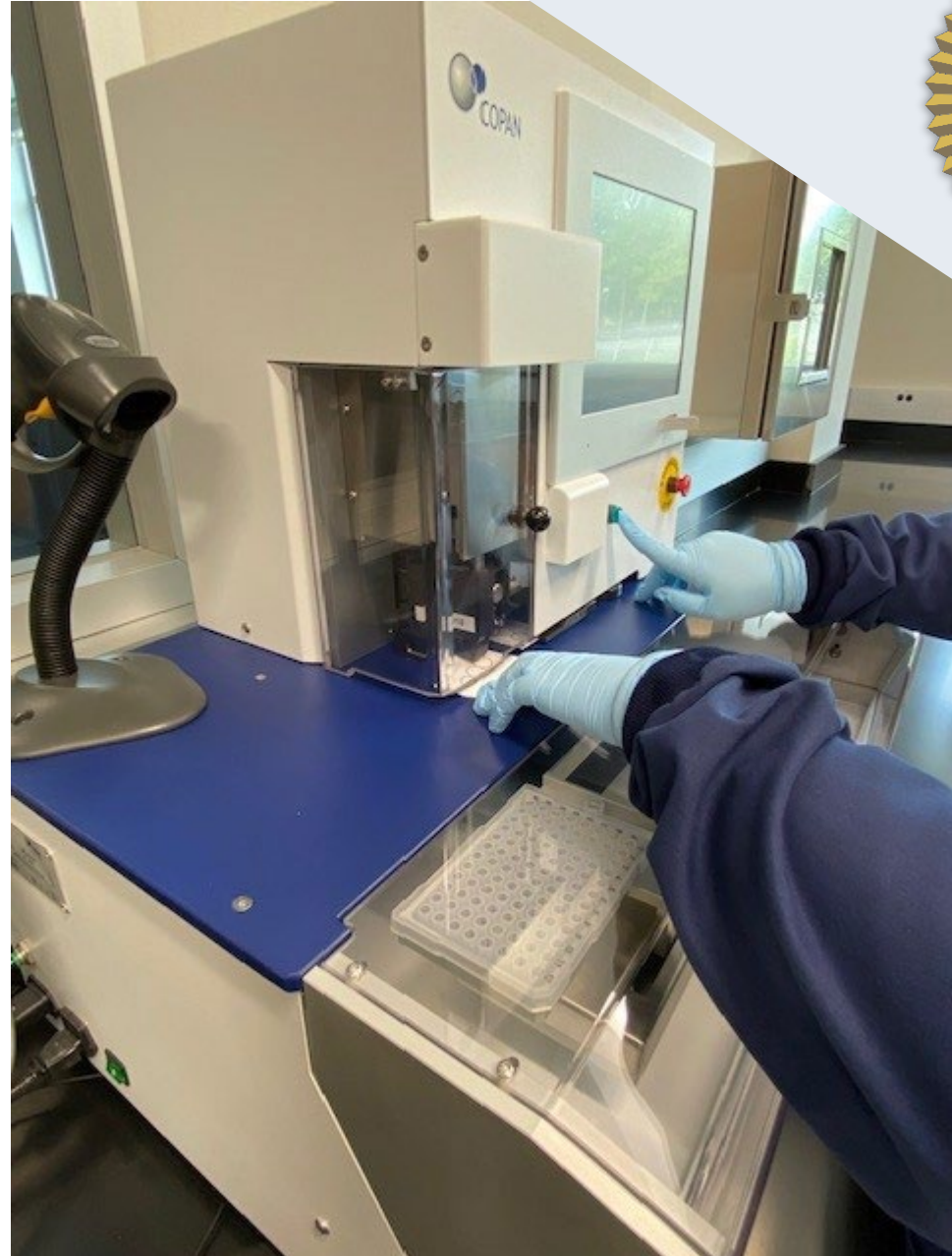


- All CODIS matches returned from the CODIS software are not hits. **Over the last 5 years, approximately 10% of CODIS matches were reported as hits.** All matches must be evaluated by a qualified analyst before reporting a match as a hit.
- The number of forensic (evidence) profiles entered into CODIS has a significant impact on the number of CODIS hits reported.
- The number of forensic profiles entered into CODIS are impacted by the number of cases outsourced, number of local laboratories that upload profiles to South Carolina's State Database (currently there are 5), and the number of casework analysts entering profiles into CODIS.

DNA DATABASE - EQUIPMENT

❖ CPA 200 punch instruments

- Number of instruments: 3
- Age: 9, 6, and 4 years
- Cost: Approximately \$55,000 each
- Use: Punches 1.2 mm sample from card containing arrestee's DNA and tracks its placement in the 96 well plate for downstream processing.



DNA DATABASE - EQUIPMENT

❖ Advanced EZ1xl

- Number of instruments: 1
- Age: 6 years
- Cost: Approximately \$60,000
- Use: Performs purification step of DNA analysis to isolate DNA from other cellular debris



DNA DATABASE - EQUIPMENT



❖ Proflex thermal cyclers

- Number of instruments: 6
- Age: 5 years
- Cost: \$8,500 each
- Use: Replicates and fluorescently tags specific strands of DNA.

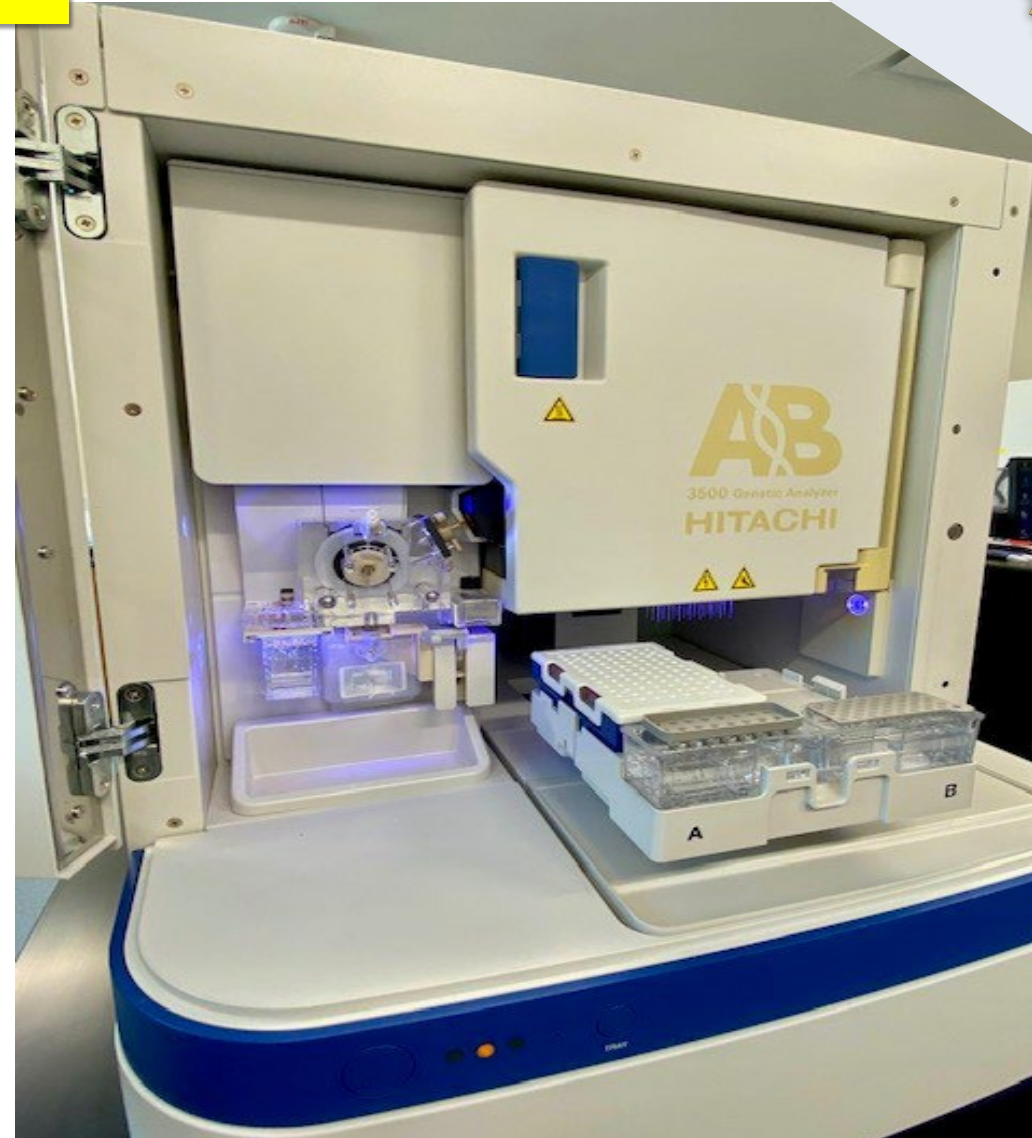


DNA DATABASE - EQUIPMENT



❖ 3500xl genetic analyzers

- Number of instruments: 2
- Age: 11 and 15 years
- Cost: \$205,000
- Use: analyzes DNA fragments



DNA DATABASE - EQUIPMENT



❖ RapidHit ID

- Number of instruments: 1
- Age: 4 years
- Cost: \$120,000
- Use: develops DNA profiles with minimal human interaction in 90 minutes.



DNA DATABASE CHALLENGES — DNA COLLECTION



- Poor quality DNA sample submissions is one of the biggest challenges in the DNA Database Department. It can impact:
 - ✓ Turnaround time for the analysis of the affected samples
 - ✓ Accuracy of records
 - ✓ Acceptability of the sample
- Approximately 30% of the database samples lack essential information required for processing, leading to their rejection or delayed entry into the system.

FOCUS AREAS/CHALLENGES — DNA COLLECTION



- To address this issue, regional in-person DNA collection training events were provided throughout the state at the end of 2023.
- In FY24-25, individual agency training was provided to 21 collection agencies.
- Since some of the critical information needed for the collection of DNA samples is obtained from LIVESCAN instruments, the DNA Database Department partners with the CJIS LIVESCAN trainers for these training events. This helps ensure that LIVESCAN issues are not an obstacle to obtaining information needed for the collection of DNA database samples.
- Another way our agency is combatting this issue is by working with our Laboratory Information Management System vendor to develop a prelog program where the individuals collecting arrestee samples would be required to enter information in mandatory fields before they would be able to complete a submission, guaranteeing pertinent information is provided to the laboratory.

FOCUS AREAS/CHALLENGES — **FORENSIC RAPID DNA**



- Rapid DNA analysis is a fully automated (hands free) process of developing a DNA profile without human intervention. This means that any DNA profile developed on an FBI approved Rapid instrument from an item that meets all other CODIS eligibility requirements and passes all quality flags can be immediately uploaded to CODIS.
- New Quality Assurance Standards issued by the FBI for laboratories and partner agencies using Rapid DNA analysis were effective on July 1, 2025.
- Rapid DNA systems are approved for use by the FBI on reference samples.
- The FBI is currently evaluating Rapid Systems for use on forensic samples.
- Once the FBI approves Rapid systems for use on forensic samples, SLED will begin validation of their Rapid DNA instruments.
- Per FBI standards, modified Rapid DNA analysis is required for all forensic samples. Modified Rapid DNA analysis requires interpretation and review of the Rapid DNA data by qualified laboratory personnel prior to upload or search in CODIS. SLED is considering partnering with other law enforcement agencies to offer interpretation, review, and CODIS upload services for profiles developed using Rapid DNA instruments by the partner agency.

FOCUS AREAS/CHALLENGES — **FORENSIC RAPID DNA**



Current status of Rapid in South Carolina

- There are currently no Rapid booking stations in South Carolina
- SLED's DNA Database Department utilizes a Rapid DNA instrument for processing reference samples from qualifying convicted offenders and arrestees. Qualifying profiles are uploaded to CODIS. The instrument is also used as part of the confirmation process when there is a CODIS hit to an expedite case. This can help provide an investigative lead faster.
- The South Carolina Coroner's Association has purchased three Rapid instruments for the identification of remains.
- A few counties have applied for congressional funding for Rapid program implementation at their agency.

RAPID DNA

❖ Instrument: Applied Biosystems

❖ RapidHIT ID

- Sample capacity: 1 sample
- Cost per sample: \$225
- Current instrument cost: \$200,000



RAPID DNA



❖ Instrument: ANDE 60

- Sample capacity: 4 samples
- Cost per sample: \$250
- Current Instrument cost: \$200,000



DNA DATABASE - FOCUS AREA/CHALLENGES



Expert System:

- An expert system is a software program designed to interpret single source DNA data in accordance with laboratory defined quality assurance rules and identify DNA data not satisfying laboratory defined quality defined quality assurance rules, without human intervention (FBI's Quality Assurance Standards, Definitions).
- The DNA Database Department is currently validating an existing software program as an expert system.
- For profiles that pass all quality flags, this will reduce the turnaround time of database samples by eliminating the data interpretation and review requirement for profiles to be uploaded to CODIS. Profiles that violate quality rules will still have to undergo interpretation and review by a qualified analyst. It is anticipated that approximately 60% of profiles will pass all quality flags.

DNA DATABASE - DEPARTMENTAL NEEDS



Equipment

- Replace Genetic Analyzer due to age of equipment; two Genetic Analyzers will remain in service and expanded capacity of new equipment will help accommodate the growing demands of the department.
- DNA Capacity Enhancement Backlog Reduction (CEBR) Program will be considered as an alternative funding source.

CONCLUSION & QUESTIONS



SLED FORENSIC SERVICES



Lieutenant (Lt.) Donna Money
DNA Casework Department

DNA CASEWORK - SUPERVISION

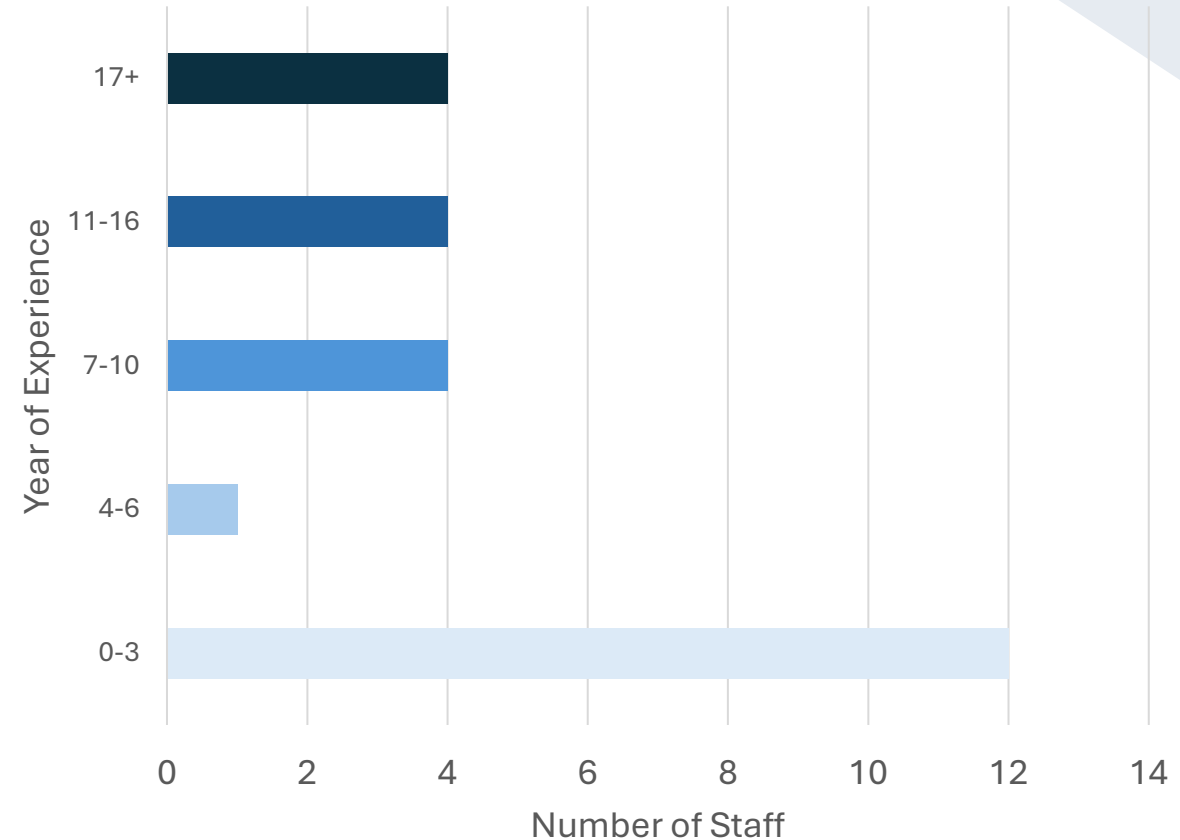
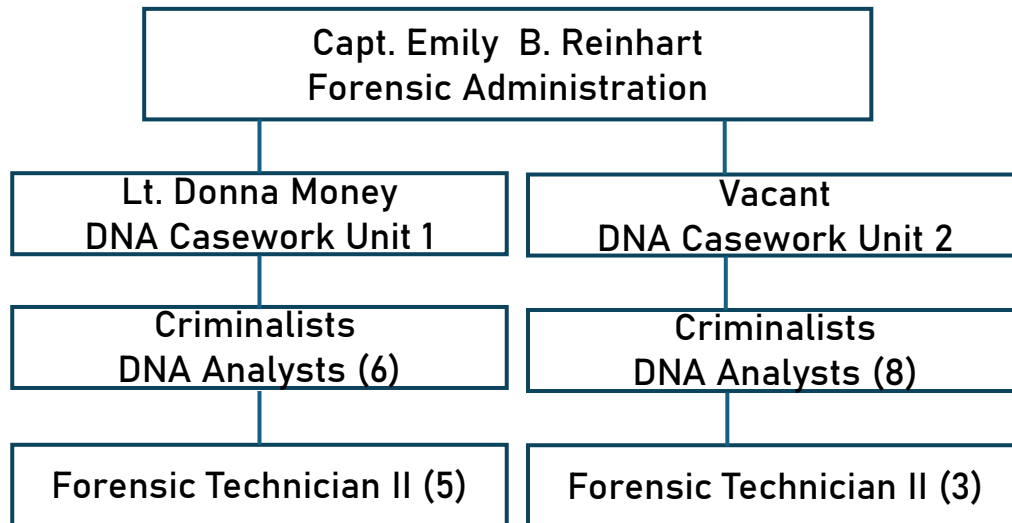


Lieutenant Donna Money

- Education
 - B.S. Forensic Science – The Pennsylvania State University
- Work History
 - DNA Casework – Criminalist (2012-2024)
 - Promoted to Lieutenant of DNA Casework in July 2024
- Professional Affiliations
 - SLED representative on the Statewide Forensic Nurse Examiner (FNE) Task Force (2021-Present)
 - American Society of Crime Laboratory Directors (ASCLD) Leadership Academy, Level I (2025)



DNA CASEWORK DEPARTMENT - ORGANIZATION



DNA CASEWORK DEPARTMENT

FISCAL YEAR 2021-2022 NEW POSITIONS



- **9 Criminalists**

- As of August 4, 2025, there is one (1) vacancy in the process of being filled

- **4 Forensic Technicians**

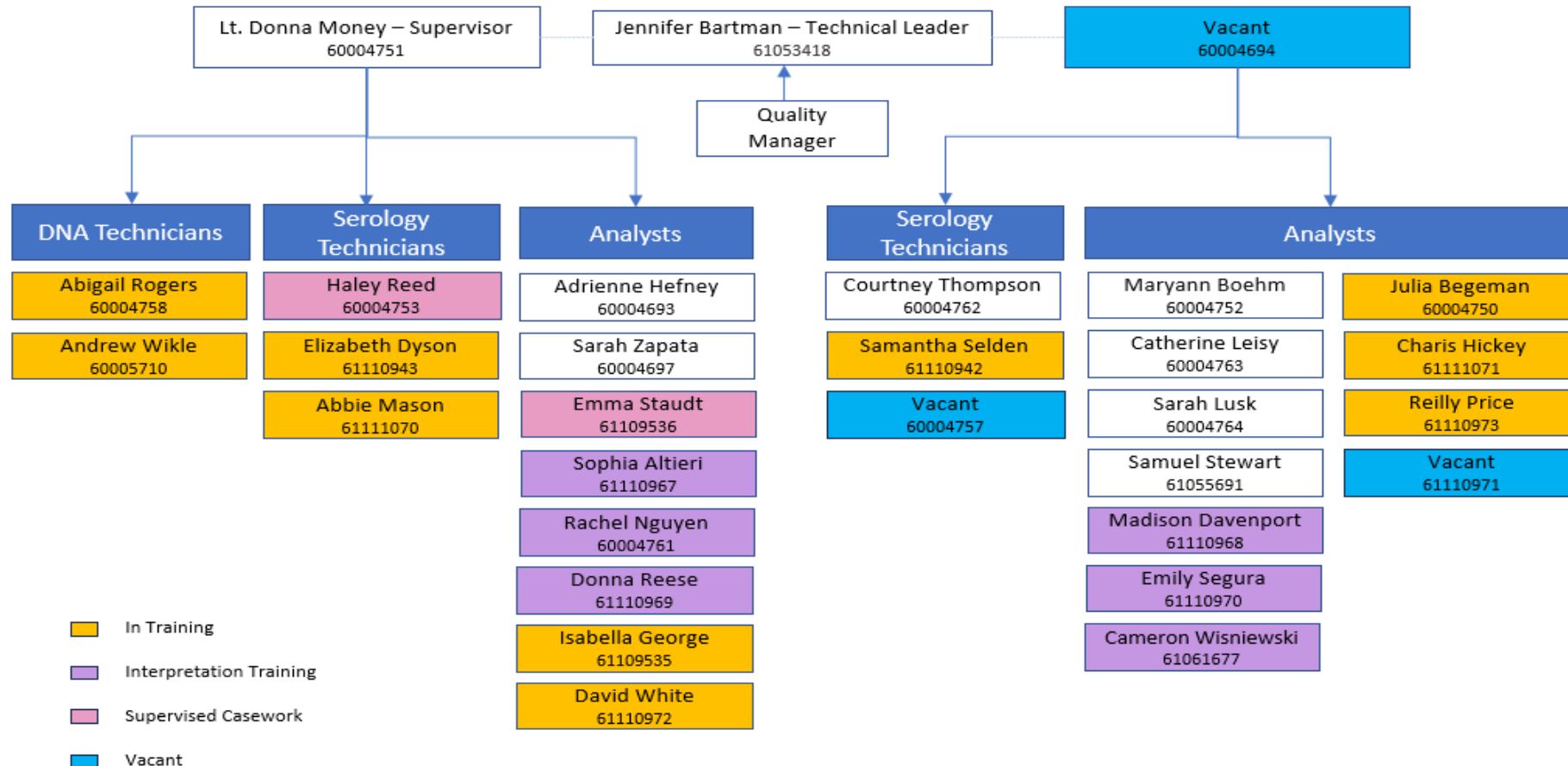
- As of August 4, 2025, there is one (1) vacancy, in the process of being filled

DNA CASEWORK DEPARTMENT — RESTRUCTURE

In July 2024, DNA Casework was restructured to enhance the management of additional FTE's and coordination of case assignments.



DNA CASEWORK ORGANIZATIONAL CHART
Effective August 4, 2025



DEPARTMENTAL STAFFING



Organizational structure – 30 total personnel

- Supervisor (2) – responsible for overseeing departmental unit operations and is a currently qualified DNA analyst
- Technical Leader (1) – responsible for overseeing the technical operations of the department and is a currently qualified DNA analyst.
- DNA analysts (20) – responsible for analyzing and interpreting casework samples, performing statistics, entering profiles into CODIS, writing DNA reports, and performing technical and administrative reviews
- Serologists (6) – responsible for evidence processing, serology testing and the first part of the DNA analysis process
- DNA technicians (2) – responsible for quality control, ordering supplies and instrument maintenance.

FATALITIES AND VIOLENT CRIMES CASE TYPES



- Accidental Death
- Accidental Shooting
- Arson
- Arson with Death
- Assault
- Attempted Murder
- Attempted Suicide
- BUI
- BUI with Death
- Child Abuse
- Child Fatality-Undetermined
- Carjacking
- Death Investigation
- Death in Custody
- DUI
- Explosives
- Felony DUI
- Felony DUI with Death
- Harassment
- Hit and Run
- Home Invasion
- Homicide
- Homicide by Child Abuse
- Kidnapping
- Lynching
- Missing Persons
- Officer Involved Shooting
- Patient Abuse
- Poisoning or Attempted Poisoning
- Robbery
- Shooting Incident
- Suicide
- Threat
- Traffic Fatality
- Unexplained Death
- WMD



SEXUAL ASSAULT CASE TYPES

- Contributing to the Delinquency of a Minor
- CSC with a Minor
- Human Trafficking
- Lewd Act Upon a Child
- Sexual Assault
- Voyeurism



NON-VIOLENT CRIME CASE TYPES

- Breach of Trust
- Bribery
- Burglary
- Contraband
- Counterfeiting
- Damage/Destruction of Property
- Drug Evidence
- Embezzlement
- Ethics Violation
- Extortion
- Failure to Stop for Blue Light
- Forgery
- Found/Recovered Property
- Fraud
- Larceny
- Malicious Injury to Property
- Official Misconduct
- Receiving Stolen Goods
- Suspicious Activity
- Vandalism
- Vehicle Crime
- Weapon Offense

HISTORY OF DNA TECHNOLOGY



- ABO Blood Typing performed at SLED in 1970's and 1980's
- RFLP analysis implemented at SLED in 1991
- Serology/DNA Casework Department started at SLED in 1993
- STR analysis implemented at SLED in 1999
- Y-STR analysis implemented at SLED in 2011
- STR analysis with expanded loci implemented at SLED in 2016
- STRmix™ probabilistic genotyping software implemented at SLED in 2018
- Direct to DNA workflow implemented at SLED in 2020



DNA CASEWORK - SERVICES

- **Evidence Processing**

- Examination of items of evidence for the potential presence of biological stains (such as blood, semen, and saliva), hairs, or other informative evidence.

- **Serology**

- Testing to indicate or identify the presence of body fluids (blood, semen, and saliva).

- **DNA Analysis**

- Multi-step process performed on evidentiary samples and known standards to develop DNA profiles. Profile developed from the sample is compared to DNA profiles developed from individuals involved in the case to determine inclusion or exclusion of the person identified as a possible source of the profile in question. Statistical analysis provides weight or meaning to the associations.
 - Short Tandem Repeat (STR)
 - Y-Short Tandem Repeat (Y-STR)

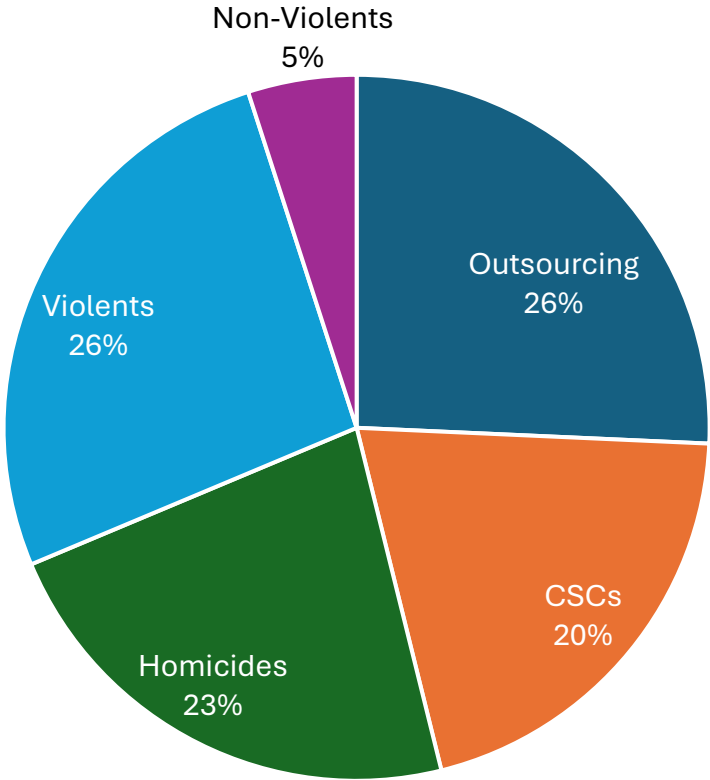
DNA CASEWORK - COMPLETED CASES BY CASE TYPE



The SLED Forensic Services DNA Laboratory prioritizes the analysis of Homicide and Sexual Assault Cases

Case Types Completed FY 24-25

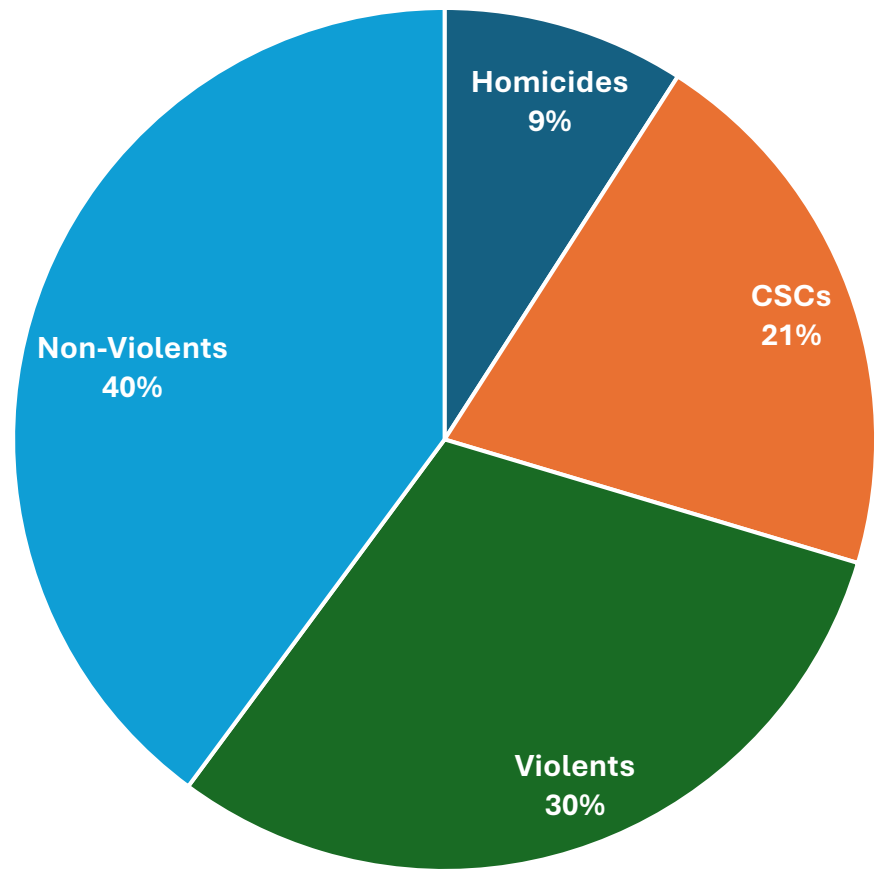
Case Type	Number of Approved Cases
CSC	193
Homicide	213
Violent	249
Non-Violent	47
Outsourcing	177 Non-Violent 2 Violent 64 CSC



DNA CASEWORK - BACKLOG OF CASES BY CASE TYPE



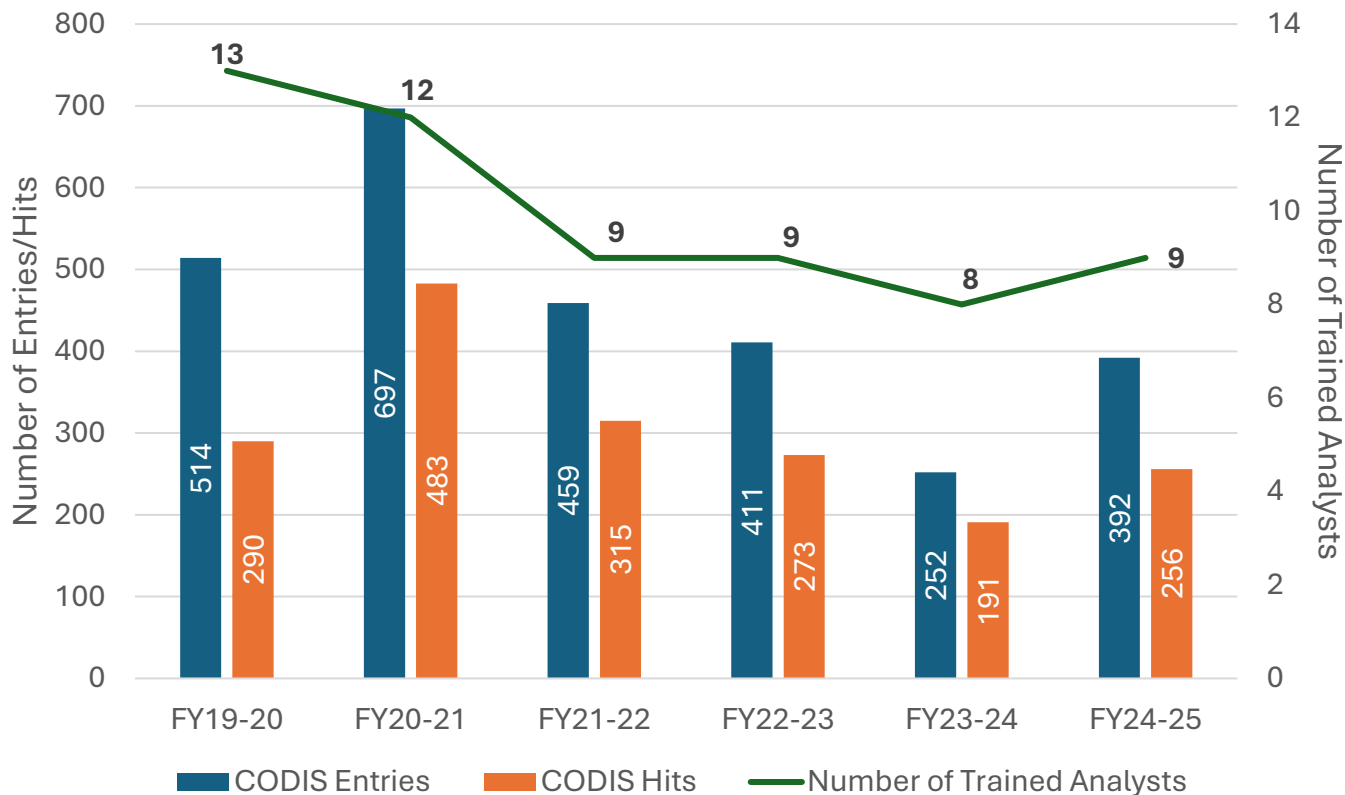
BACKLOG BY CASE TYPE



COMBINED DNA INDEX SYSTEM (CODIS) TRENDS PER FISCAL YEAR (2019-2025)



CODIS Trends per Fiscal Year



- COVID schedules (March 2020-March 2021) had a positive impact on the number of samples entered in CODIS.
- Work times were staggered to allow for the ease of instrument availability.
- Telecommuting also allowed analysts to work with minimal interruptions.
- In addition, court appearances significantly decreased and allowed staff more time to complete casework.
- The department experienced a decrease in overall productivity from 2019-2023 due to a decrease in fully trained staff and the amount of time invested in the training of new analysts and technicians.



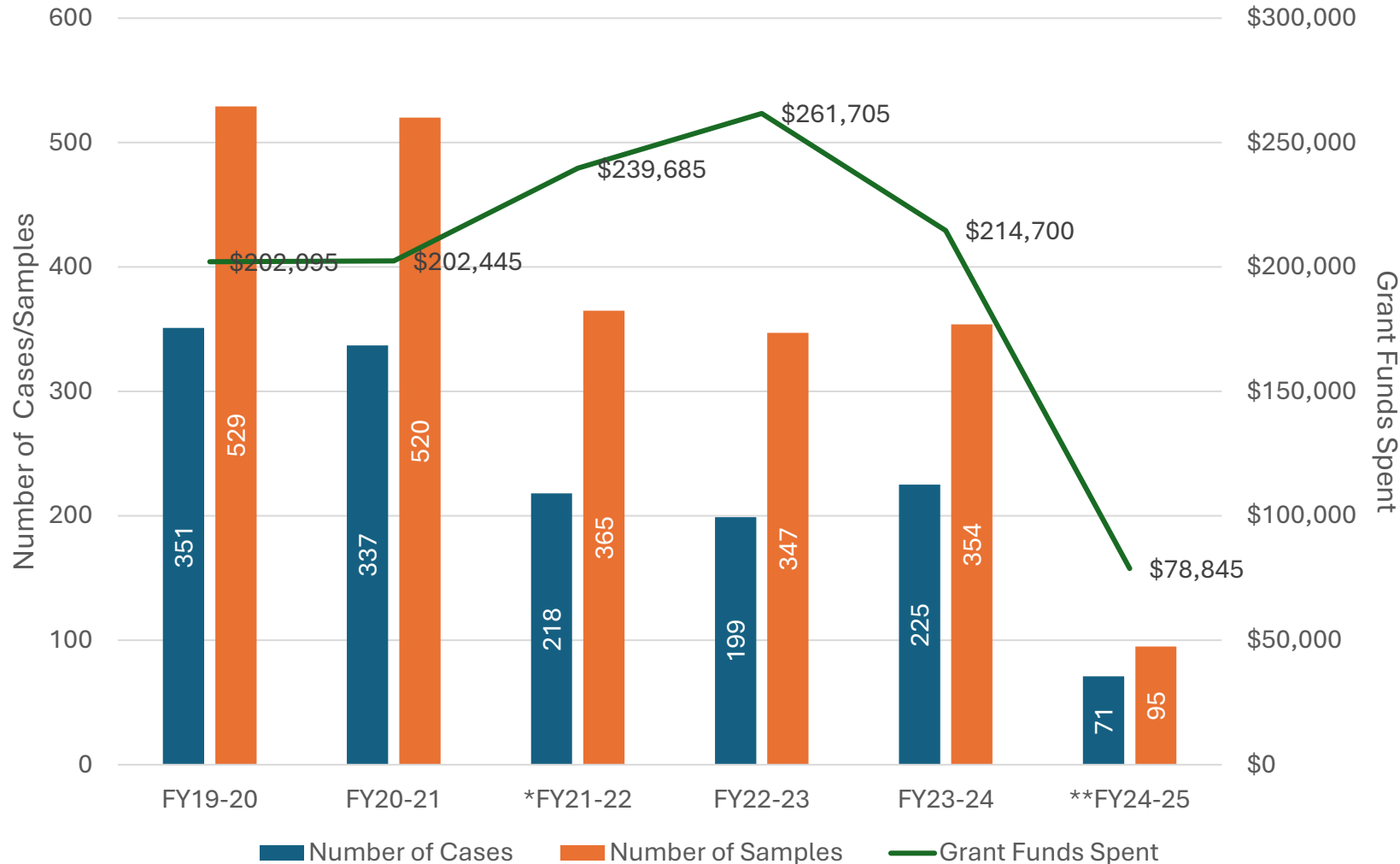
DNA CASEWORK - OUTSOURCING PROGRAM

- SLED outsourcing program was established in 2011
 - Funded by DNA Capacity Enhancement For Backlog Reduction (CEBR) Program grants
 - Private vendor laboratories utilized must be accredited and must process casework samples in accordance with the *FBI Quality Assurance Standards for Forensic DNA Testing Laboratories*.
- Non-touch DNA property crimes have been outsourced from 2011 to present
 - Non-touch robberies and home invasions were added as eligible case types in 2021
- Sexual assault kit outsourcing started October 2024

DNA CASEWORK - PROPERTY CRIMES OUTSOURCED



Outsourcing Trends per Fiscal Year



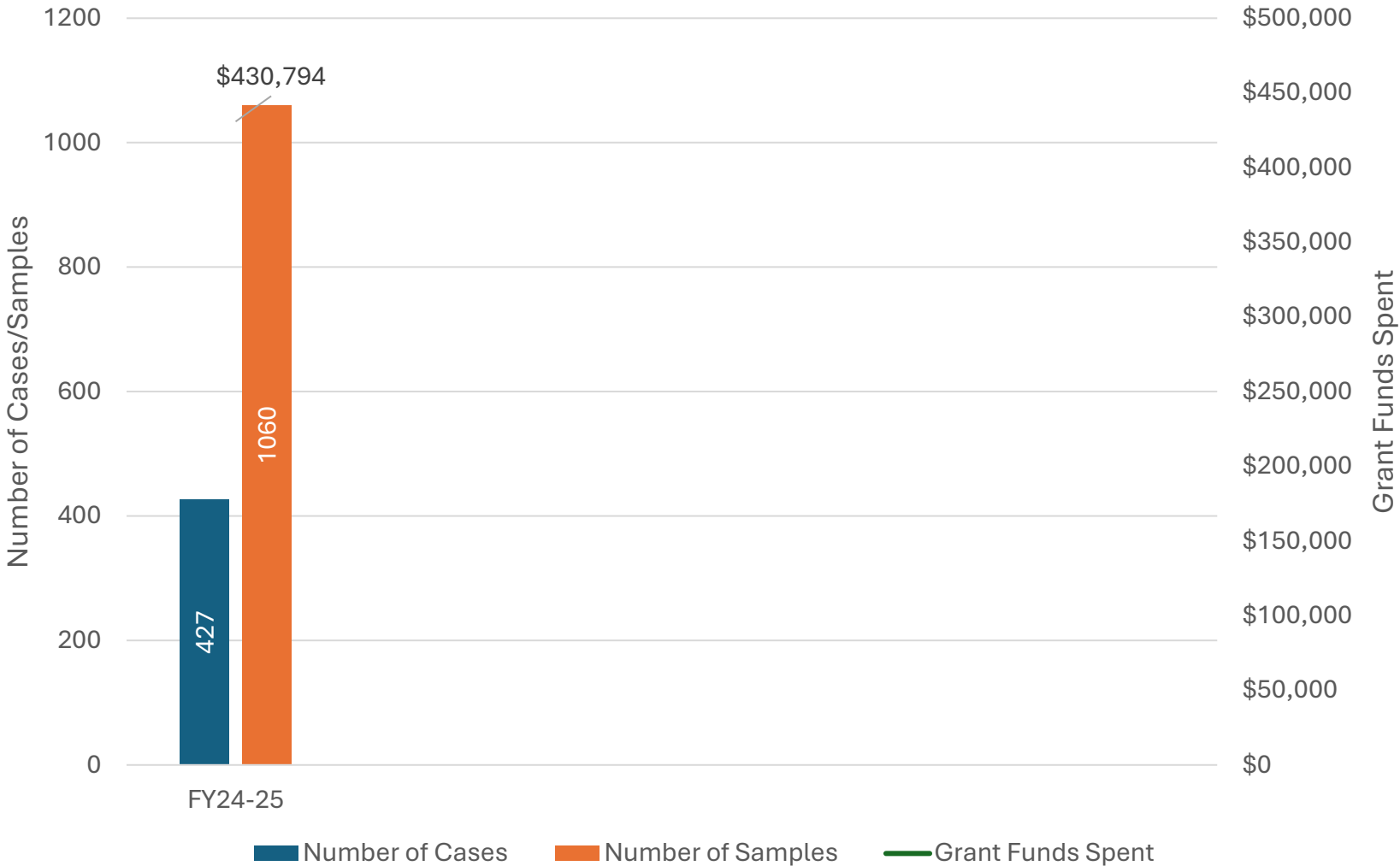
***Cost per sample increased from \$375 to \$760 with new contract awarded Q4 of 2021**

****Number of cases decreased due to funding re-allocated to sexual assault kit outsourcing contract**

DNA CASEWORK — SEXUAL ASSAULT CRIMES OUTSOURCED



Outsourcing Trends per Fiscal Year



DNA CASEWORK LABORATORY — PROCESSING ROOMS



- Four (4) processing rooms are located in the DNA Casework laboratory



EVIDENCE PROCESSING EQUIPMENT



Alternate Light Source (ALS)



The ALS is used for identifying areas of biological fluorescence

M-Vac[®]



The M-Vac[®] wet vacuum device is used for collecting DNA from rough or porous surfaces (ex. rock, rope, wood)

DNA EQUIPMENT — EXTRACTION INSTRUMENTS



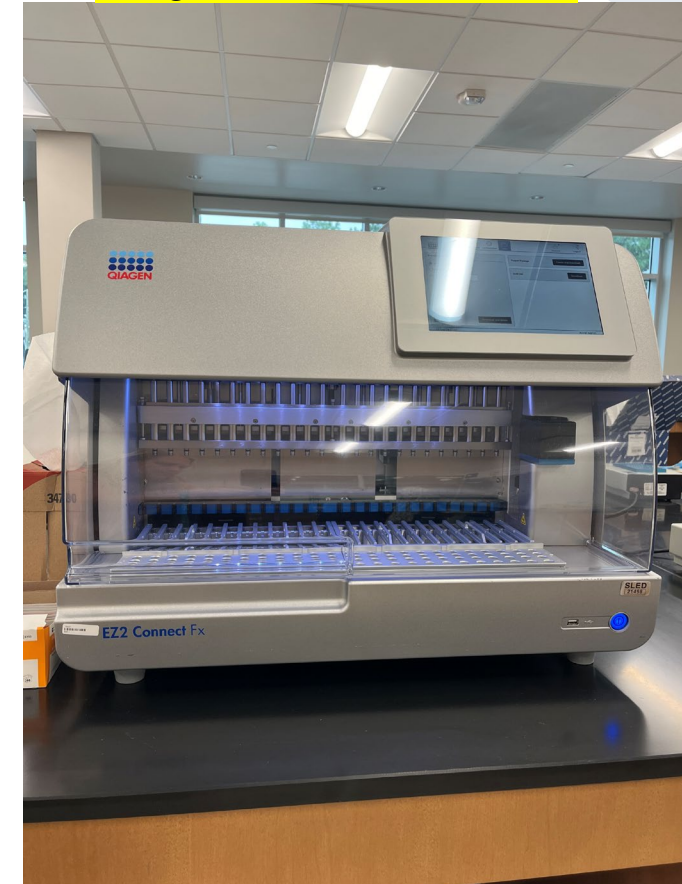
Qiagen EZ1 Advanced



Qiagen EZ1 Advanced XL



Qiagen EZ1 Connect Fx



These instruments are used to extract and purify DNA from casework samples

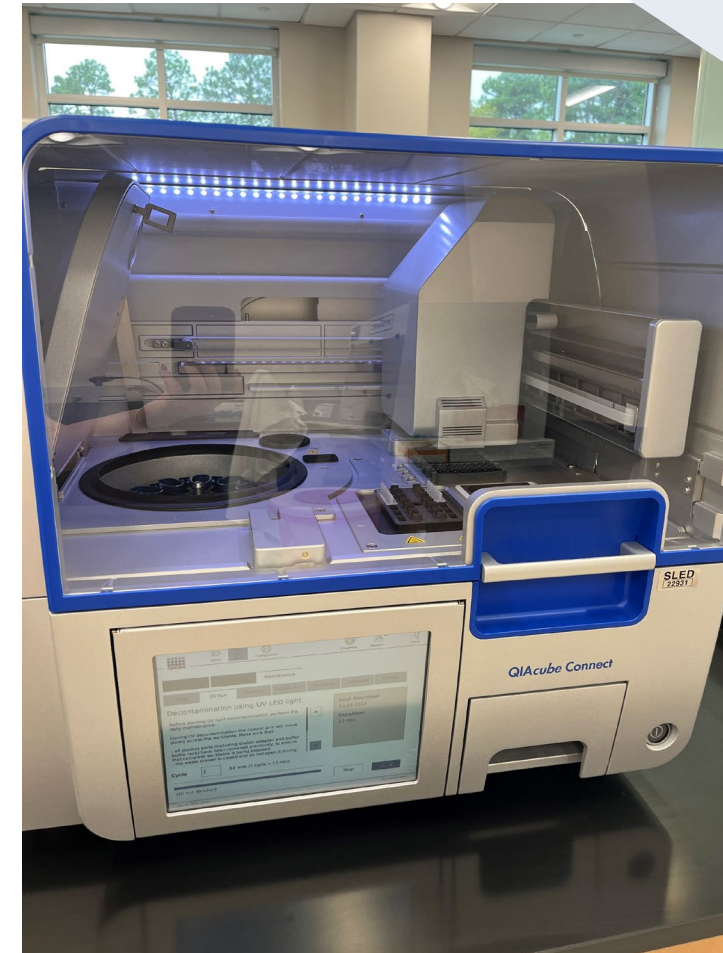
DNA EQUIPMENT — EXTRACTION INSTRUMENTS

Qiagen QIAcube



These instruments are used to separate non-sperm and sperm cells in casework samples.

Qiagen QIAcube Connect



DNA EQUIPMENT — QUANTITATION AND AMPLIFICATION INSTRUMENTS



Applied Biosystems Real Time PCR System



This instrument is used for quantifying the amount of DNA in casework samples.

Applied Biosystems ProFlex Thermal Cycler

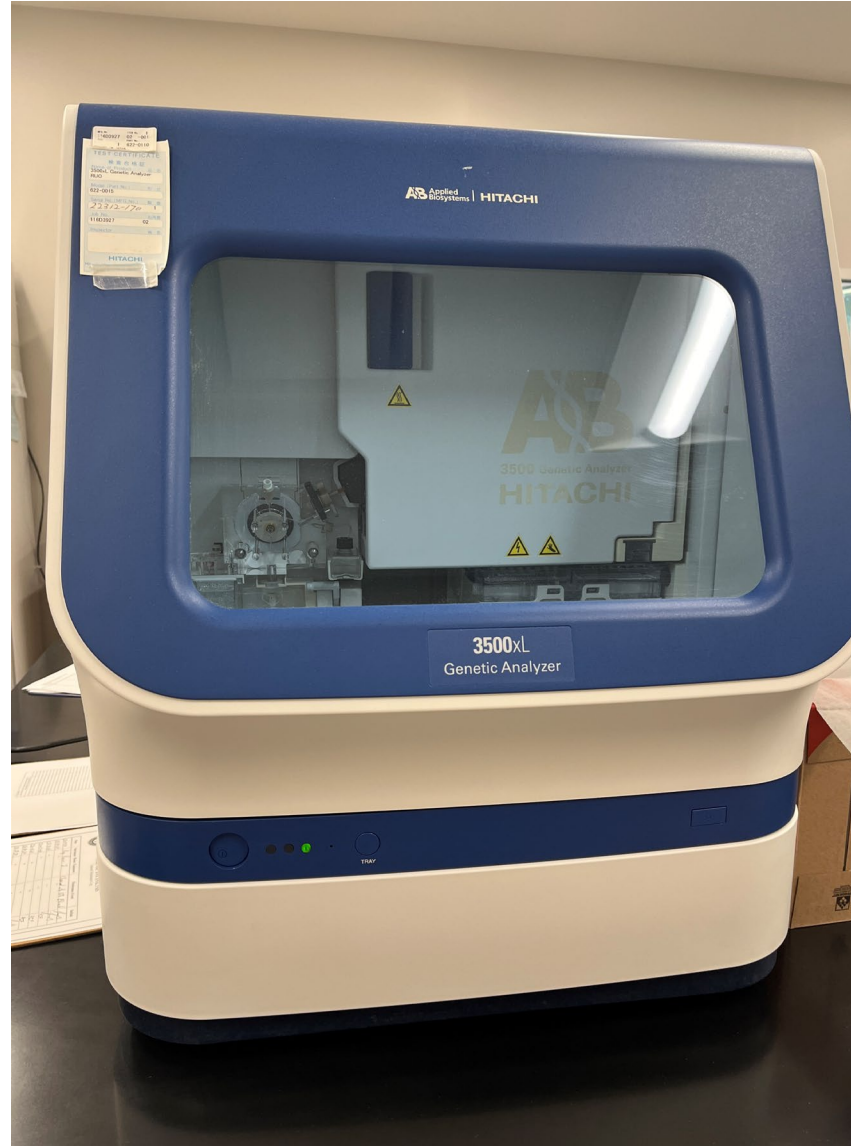


This instrument is used for amplifying DNA in casework samples.

DNA EQUIPMENT — CAPILLARY ELECTROPHORESIS INSTRUMENTS

Applied Biosystems 3500xL

This instrument separates the DNA fragments based on size. Data generated from this instrument is used for interpretation of a DNA profile.





DNA CASEWORK - GRANT FUNDING

- **DNA Capacity Enhancement For Backlog Reduction (CEBR) Program– Formula Grant**
 - Funding allocated to DNA Database and DNA Casework Departments
 - **Allocations over the last 5 years** (SC award split between CODIS labs in the state):

Year	South Carolina Award	SLED Allocation
2020	\$1,313,483	\$528,483
2021	\$1,574,305	\$754,309
2022	\$1,780,301	\$780,301
2023	\$2,017,040	\$1,136,367
2024	\$1,626,979	\$642,403

- **Activities typically funded by the CEBR Program**
 - Overtime and fringe benefits
 - Travel and registration fees for training/conferences
 - Equipment
 - Outsourcing analysis of DNA cases
 - Outsourcing validations
 - Instrument software
 - Service contracts
 - FBI Quality Assurance Audits



DNA CASEWORK - KEY POINTS AND CHALLENGES

- **Increased costs of reagents, consumables, and equipment**
 - SLED awarded \$838,807 from the 2024 Capacity Enhancement Backlog Reduction (CEBR) Competitive Grant which has allowed for the purchasing and validation of new equipment (extraction instruments and capillary electrophoresis instrument).
- **DNA Analysts have been tasked with training new analysts as well as maintaining their caseload**
 - FY 25-26 eight (8) DNA Analysts currently in training will be authorized to perform casework and will help to reduce the current backlog

Sexual Assault Kit Tracking System - Track-Kit™



- **S.C. Code Ann. § 23-3-1300**

- The State Law Enforcement Division (SLED) shall create and operate a statewide sexual assault kit tracking system.
- All medical facilities, law enforcement agencies, forensic laboratories, or other persons or entities that collect evidence for, or receive, store analyze, maintain, or preserve sexual assault kits must participate in the statewide sexual assault kit tracking system for the purpose of tracking the location and status of all sexual assault kits in their custody.

- **Track-Kit™ was implemented by Region across SC beginning in December 2023. All Regions of SC were live with Track-Kit™ by February 2024.**



SLED-Issued Sexual Assault Kit (DNA) Kit Components



 For Crime Lab Personnel Only

Lab Number: _____

Item Number: _____

DNA EVIDENCE

Victim Name or Anonymous ID #:

If this is an anonymous collection DO NOT label this envelope with the victim's name.

- 1) Place the following items in this envelope:

PLACE BIOHAZARD LABEL HERE

 - _____ DNA Evidence Distribution Envelope
 - _____ Underwear (if collected)
 - _____ Debris Collection (if collected)
- 2) Ensure this envelope is sealed properly and add evidence tape across seal.
- 3) Place this envelope in the plastic zip-style bag provided.

Chain of Custody

FROM:	PRINT NAME	SIGNATURE	DATE/TIME
TO:	PRINT NAME	SIGNATURE	DATE/TIME
TO:	PRINT NAME	SIGNATURE	DATE/TIME
TO:	PRINT NAME	SIGNATURE	DATE/TIME
TO:	PRINT NAME	SIGNATURE	DATE/TIME

 RE7SC-DNAENV.2 4/22

OUTER CLOTHING BAG

VICTIM'S NAME: _____

LIST CLOTHING ENCLOSED:

AJ _____

B _____

C _____

D _____

FOR CRIME LAB PERSONNEL ONLY

LAB NO.: _____

ITEM NO.: _____



DEBRIS COLLECTION

VICTIM'S NAME: _____

COLLECTED BY: _____

DATE: _____ AND TIME: _____ PM OF COLLECTION

WAS SAMPLE COLLECTED? ☐ YES ☐ NO

IF NO, WHY NOT? _____

FOR CRIME LAB PERSONNEL ONLY

LAB NO.: _____

ITEM NO.: _____

KNOWN DNA STANDARD - BUCCAL SWABS

COLLECTION OF THIS SAMPLE IS REQUIRED

Victim's Name _____

Collector's Initials _____ Date _____ Time _____

RE7SC-KDNA.1 4/2020

UNDERWEAR
(PLACE IN KIT BOX)

VICTIM'S NAME: _____

COLLECTED BY: _____

DATE: _____ AND TIME: _____ PM OF COLLECTION

WAS SAMPLE COLLECTED? ☐ YES ☐ NO

IF NO, WHY NOT? _____

FOR CRIME LAB PERSONNEL ONLY

LAB NO.: _____

ITEM NO.: _____

VAGINAL / PENILE SWABS

Victim's Name _____

Collector's Initials _____ Date _____ Time _____

Was sample collected? ☐ Yes ☐ No

If no, why not? _____

RE7SC-VPS.1 3/2020

RECTAL SWABS

Victim's Name _____

Collector's Initials _____ Date _____ Time _____

Was sample collected? ☐ Yes ☐ No

If no, why not? _____

RE7SC-RS.1 3/2020

PUBIC HAIR COMBINGS

Victim's Name _____

Collector's Initials _____ Date _____ Time _____

Was sample collected? ☐ Yes ☐ No

If no, why not? _____

RE7SC-PHC.1 3/2020

FINGERNAIL SWABS - LEFT

Victim's Name _____

Collector's Initials _____ Date _____ Time _____

Was sample collected? ☐ Yes ☐ No

If no, why not? _____

RE7SC-FSL.1 3/2020

ORAL SWABS

Victim's Name _____

Collector's Initials _____ Date _____ Time _____

Was sample collected? ☐ Yes ☐ No

If no, why not? _____

RE7SC-OS.1 3/2020

MISCELLANEOUS MATERIALS

Victim's Name _____

Collector's Initials _____ Date _____ Time _____

Was sample collected? ☐ Yes ☐ No

If no, why not? _____

RE7SC-MM.1 3/2020

FINGERNAIL SWABS - RIGHT

Victim's Name _____

Collector's Initials _____ Date _____ Time _____

Was sample collected? ☐ Yes ☐ No

If no, why not? _____

RE7SC-FSR.1 3/2020

SUSPECTED BODY FLUID

Victim's Name _____

Collector's Initials _____ Date _____ Time _____

Was sample collected? ☐ Yes ☐ No

If no, why not? _____

RE7SC-SBF.1 3/2020

SUSPECTED SALIVA

Any non-genital area where the suspect may have licked, kissed, or bitten the victim. Note on the back of this envelope the location of sample collection. Allow swabs to air dry thoroughly before packaging.

Victim's Name _____

Collector's Initials _____ Date _____ Time _____

Was sample collected? ☐ Yes ☐ No

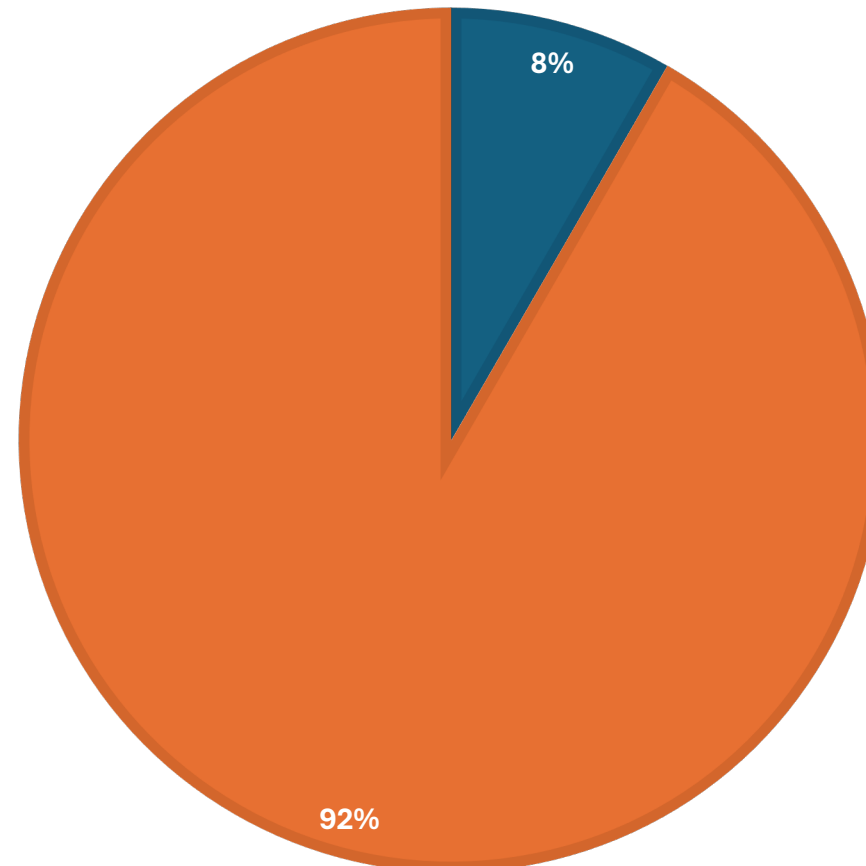
If no, why not? _____

RE7SC-SLS.1 3/2020

Track-Kit™
Barcode

CLASSIFICATION OF COLLECTED SEXUAL ASSAULT KITS IN SYSTEM

■ Anonymous ■ Reported to Law Enforcement



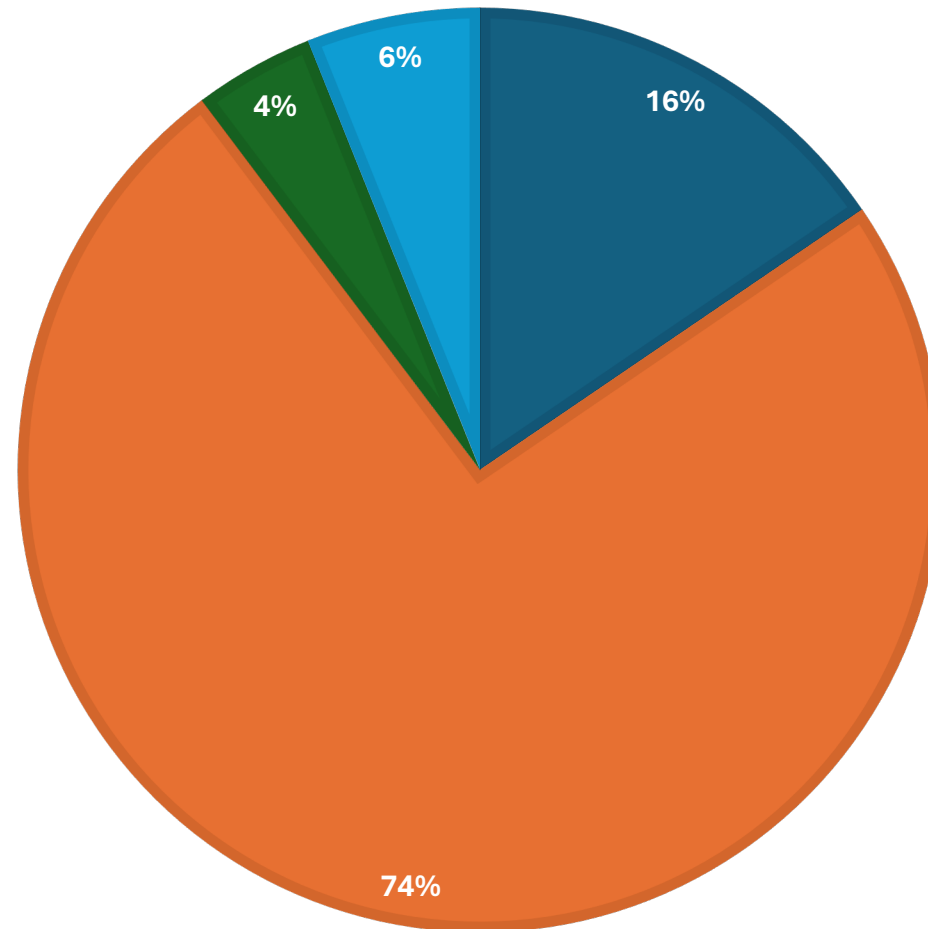
Total number of
sexual assault kits
entered in to Track-
Kit™: 2,748

Track-Kit™



REGISTERED TRACK-KIT™ USERS

■ Medical Facility ■ Law Enforcement ■ Forensic Laboratory ■ Prosecutor



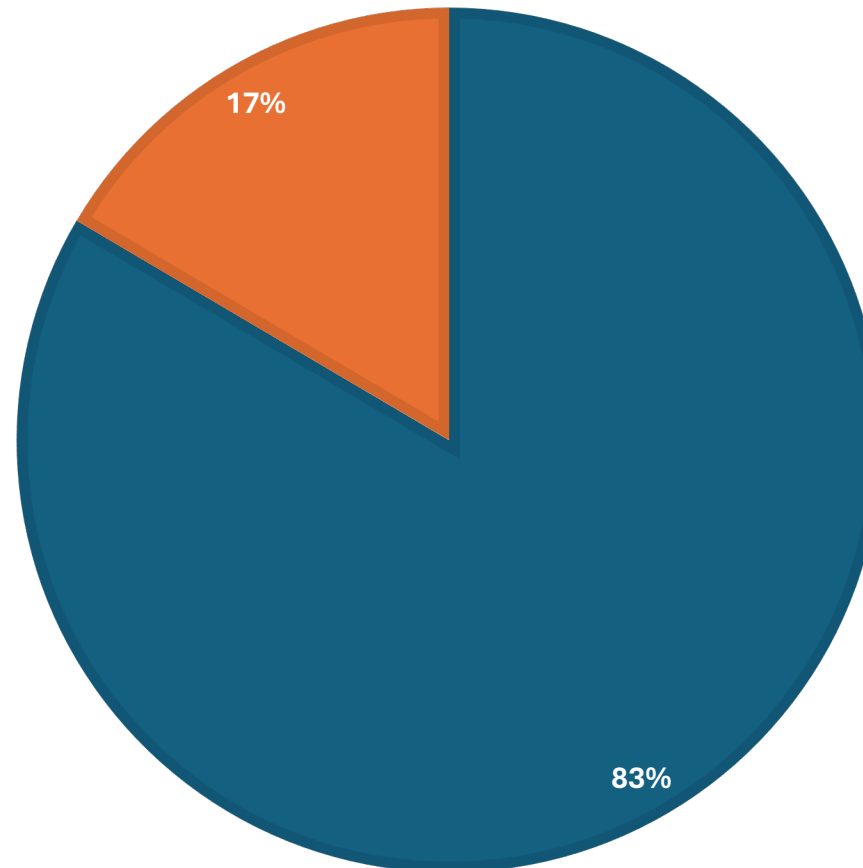
Total number of
registered users:
2,195

Track-Kit™



PROCESSING STATUS OF SEXUAL ASSAULT KITS IN TRACK-KIT™

■ In Process ■ Completed



Total number of Track-Kit™ sexual assault kits in laboratory possession: 1,356



DNA CASEWORK - FUTURE KEY POINTS

- **Rapid DNA**
 - Currently only approved by the FBI for use in booking stations or FBI approved laboratories to process reference samples
 - FBI is actively working on the approval of Rapid systems for crime scene samples
- **SeqStudio Genetic Analyzer**
 - Newer version of the current genetic analyzers
 - Capable of sequencing and fragment analysis by capillary electrophoresis
- **2025 FBI Quality Assurance Standards (QAS) for Forensic Testing Laboratories**
 - Will address Rapid DNA requirements and include updates to standards related to personnel, validations, and audits

CONCLUSION & QUESTIONS



FORENSIC INVESTIGATIVE SUPPORT



Summary of Units

Captain Samuel C. "Cal" Reighley Jr.
SLED Forensic Services Division



SLED FORENSIC SERVICES

Captain Samuel C. "Cal" Reighley Jr., M.A.



- Education:

- BS Biology – Western Carolina University
- M.A. Criminal Justice – Columbia College
- FBI National Academy – Session 262
- Forensic Management Academy – West Virginia University

- Work History: 27 Year SLED Career

- Captain, Forensic Services – Forensic Investigative Support (2015-present)
- Captain, SC Information and Intelligence Center (SCIIC) (2012-2015)
- Lieutenant, SCIIC (2007-2012)
- Senior Agent, Protective Services/Emergency Management (2006-2007)
- Special Agent/Forensic Scientist Toxicology Department (1998-2006)

- Committees:

- Major Case Review Committee (2015-Present)
- Cold Case Review Committee (2015-Present)

- Specialty Teams:

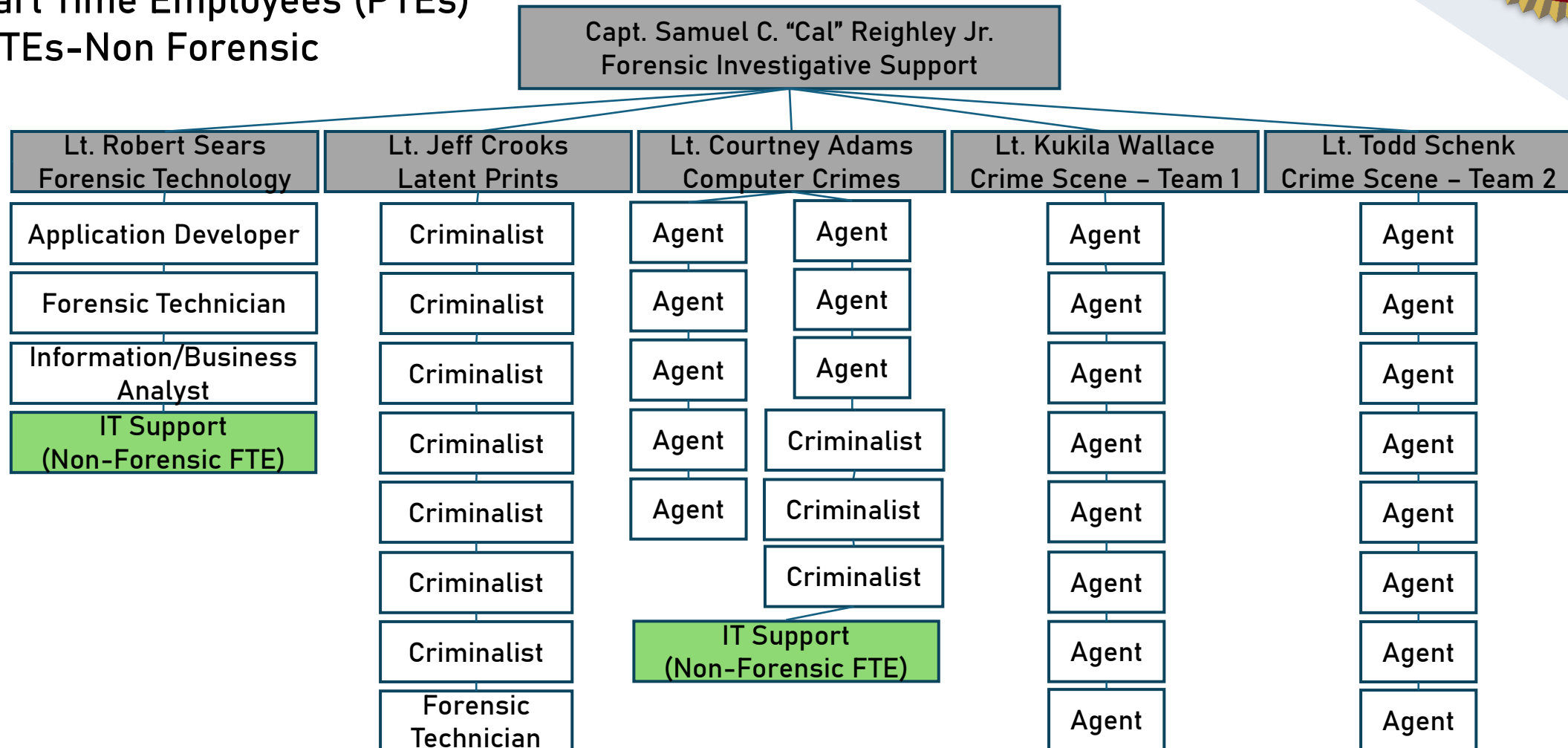
- SLED SWAT Team (2005-2012)
- State Weapons of Mass Destruction Team (WMD) (1999-2012)



FORENSIC INVESTIGATIVE SUPPORT - ORGANIZATION



- 42 Full Time Employees (FTEs)
- 1 Part Time Employees (PTEs)
- 2 FTEs-Non Forensic



COMPUTER CRIMES



Staffing:

Agents:	9
Criminalists:	3
IT Support:	1

Department Metrics FY 2024-25:

Assignments Received	Assignments Completed	Department Backlog at end of FY24-25
496	466	378

Services and Capabilities:

- Encompasses the preservation, processing, and analysis of evidence in an analog or digital format and audio and video analysis.
- Provides expertise to local, state, and federal law enforcement agencies in the scientific examination, repair (if possible), analysis and/or evaluation of electronically stored information contained on a wide variety of data storage devices.

COMPUTER CRIMES



Achievements/Process Improvements:

- South Carolina Computer Crimes (SC3C) processed over 145.567 TB of data during FY23-24.
- Developed a program for the tracing and seizing of cryptocurrency.
- Assisted a federal (US Secret Service) and a local agency (Hampton County School District) in the seizure and recovery of approximately \$950,000.
- Presented locally and nationally on Cyber Security, Cyber Crime, and Artificial Intelligence (AI).

Challenges Faced:

- The rapidly changing technology of cell phones and vehicles continues to be a challenge. The new training and equipment to stay current on the newest technology is considerable.
- The increase in data size per cell phone and computer and the length of time it takes to complete a full examination is increasing.
- Recruitment and retention of qualified staff.



CRIME SCENE



Staffing:

Agents:	18
---------	----

Department Metrics FY 2024-25:

Assignments Received	Assignments Completed	Department Backlog at end of FY24-25
282	276	16

Services and Capabilities:

- Provides assistance to local, state, and federal law enforcement agencies in the investigation of crime scenes and provides expertise in Bloodstain Pattern Analysis/Crime Scene Reconstruction, and Advanced Digital Photography.

CRIME SCENE



Achievements/Process Improvements:

- **Procurement of two drones.** The drone program is currently being developed. The unit has five Federal Aviation Administration (FAA) certified drone pilots, with the remaining members of the unit finishing up training for FAA certification.
- **Procurement of two Crime-lite Autos,** a multispectral alternate light source. Crime scene agents have utilized the Crime-lite Autos on multiple scenes yielding positive results.
- The unit supervisors are continually working to improve teamwork and cooperation. This is accomplished by continuously evaluating on-call rotations to maximize efficiency of staff to reduce the potential for burn-out.

Challenges Faced:

- The **average years of experience** within the unit continues to be a challenge in relation to assigning Field Training Agents to new hires.
- Maintaining current staff to increase the years of investigation experience within the unit.
- Recruitment of trained and experienced candidates for Scene Investigation.



FORENSIC TECHNOLOGY



Staffing:

Agent:	1
Technician:	1
Application Developer:	1
Information/Business Analyst:	1
IT Support	1

Department Metrics FY 2024-25:

BEAST USERS	iLab USERS	Track-Kit™ USERS
179	2,459	2,195

Services and Capabilities:

- Administers the Bar Code Evidence Analysis and Statistics Tracking (BEAST), Laboratory Information Management System (LIMS) program, which tracks case metrics and allows for reporting of results.
- Administers the iLab internet information system, where customers submit evidence, check case status, and download test reports and conclusions.
- Administers the Sexual Assault Kit Tracking System (Track-Kit™), which tracks the location and status of sexual assault kits throughout the criminal justice process.
- Assists law enforcement officers throughout the state, both in person and via the web-based evidence pre-log system, with the submission of physical evidence involved in criminal investigations.

FORENSIC TECHNOLOGY

Achievements/Process Improvements:

- Hired a new employee to assist with the implementation and support of the sexual assault kit tracking software (Track-Kit™).
- Completed Track-Kit user training and initiated training for ilab support. The department continues to register new end users who provide required information for portal access to Track-Kit™.

Challenges Faced:

- Challenge to stay abreast of new technologies and how, if adopted, they could improve workflow, productivity, and employee job satisfaction.
- A significant amount of the computer peripherals (i.e. barcode printers, barcode scanners) utilized in forensics are aging and will need to be upgraded/replaced in the coming year.



LATENT PRINTS



Staffing:

Criminalists:	9
Technician:	1

Department Metrics FY 2024-25:

Assignments Received	Assignments Completed	Department Backlog at end of FY24-25
869	831	163

Services and Capabilities:

- Utilizes various techniques for the development and enhancement of latent fingerprints on submitted evidence.
- Conducts examinations of developed and/or submitted latent prints to known standards, conducts Automated Fingerprint Identification System (AFIS) searches.
- Conducts examinations of known and unknown Footwear/Tire Tread impressions.

LATENT PRINTS

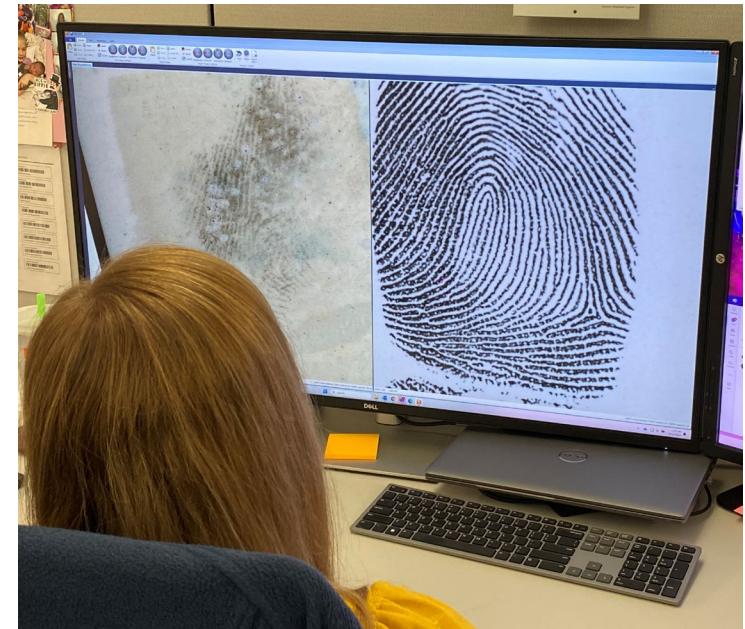


Achievements/Process Improvements:

- An electronic overlay method for impression evidence was created and implemented. This method allows for the examination of footwear and tire tread evidence on a computer with Photoshop software.
- A new Forensic Technician was hired, and the training process is in progress.
- A department SharePoint page was created to improve communication and document management.

Challenges Faced:

- Two department employees began training during the fiscal year. These training requirements negatively impact case production and will increase training needs and costs.



SLED FORENSIC SERVICES



Lieutenant (Lt.) Robert Sears
Forensic Technology



FORENSIC TECHNOLOGY - SUPERVISION

Lieutenant Robert M. Sears, Ph.D. F-ABFT

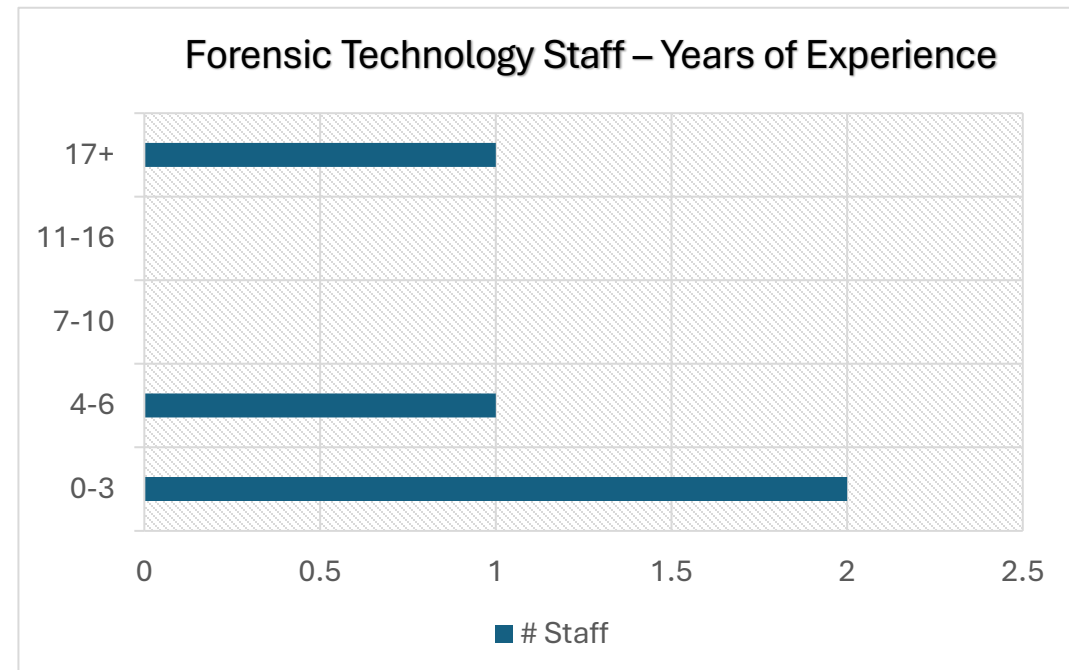
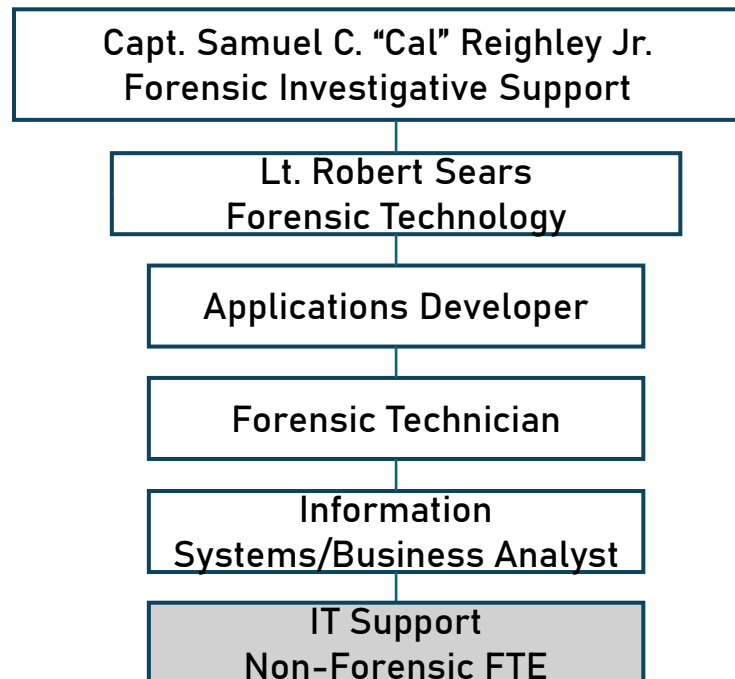
- Education
 - BS Chemistry - Francis Marion College
 - M.S. Medicinal Chemistry - University of South Carolina
 - Ph.D. Pharmaceutical Sciences - University of South Carolina
- Work History
 - Forensic Toxicology (1988 - 2016) – Toxicologist
 - Promoted to Lieutenant in Forensic Technology February 2016
 - Forensic Technology (2016 - Present)





FORENSIC TECHNOLOGY - ORGANIZATION

- **4 Full Time Employees (FTEs)**
 - 1 Vacant Position – Information Systems/Business Analyst I
- 1 Information Technology Support (Non-Forensic Staff)





FORENSIC TECHNOLOGY -SERVICES

- Administers the Laboratory Information Management System (LIMS) for Forensic Services
- Administers the iLab system, a web-based system for pre-logging cases for submission to the laboratory
- Administers the Track-Kit™ System, providing real time tracking of sexual assault kits
- General support of computer software and hardware used in laboratory



FORENSIC TECHNOLOGY - BEAST



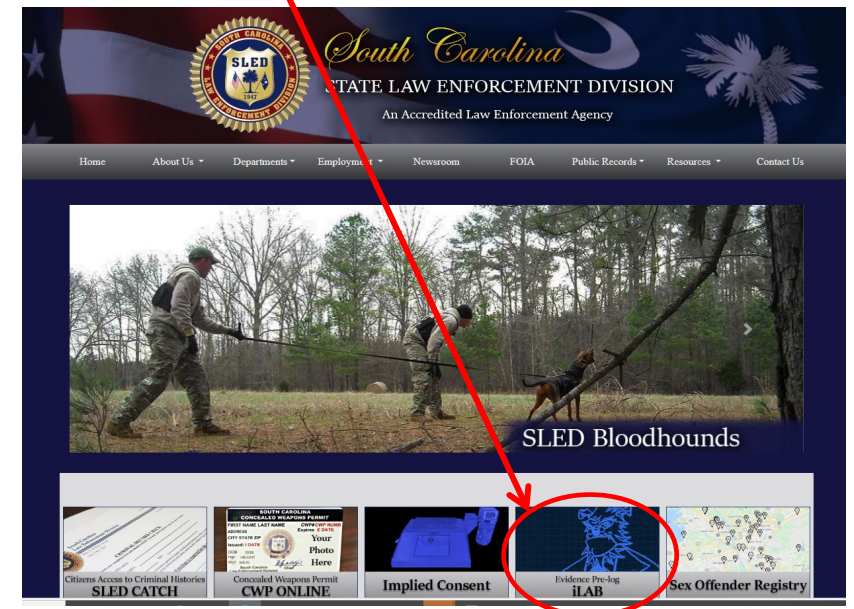
- BEAST (Bar Coded Evidence Analysis Statistics and Tracking) used to track evidence from submission to return
 - Login
 - Evidence tracking
 - Results entry
 - Generation of formal reports
 - Return of evidence to submitting agency
 - Custody records
 - Laboratory Asset Monitoring (LAM)
- Developed by Porter Lee Corporation, Schaumburg, IL



FORENSIC TECHNOLOGY - iLAB



- iLAB is a web-based system located securely on the SLED Website. It enables users the ability to pre-log cases for submission to the SLED Forensics Lab, download completed reports and view current information on cases already submitted to the laboratory.
- Developed by Porter Lee Corporation, Schaumburg, IL





FORENSIC TECHNOLOGY — Track-Kit™

- Track-Kit™ is a cloud-based system used to track sexual assault kits from receipt through collection, testing, and return to submitting agency. Track-Kit™ provides those involved in the case the ability to view status and location of kit in real time
- Staggered go live by regions with first region implementation on 12/11/23 and final region implementation 2/20/24
- Developed by InVita Healthcare Technologies, Inc. with corporate offices in Baltimore, MD and Los Angeles, CA



CURRENTLY IN DEVELOPMENT

- Direct interface between iLab and MDILog
 - MDILOG is a case management software used by coroners and medical examiners.
- Direct interface between iLab and ACISS
 - ACISS is the case management software utilized by SLED

Goal for both projects is to have an interface/interoperability to reduce time spent entering information in multiple computer systems and to reduce potential transcription errors



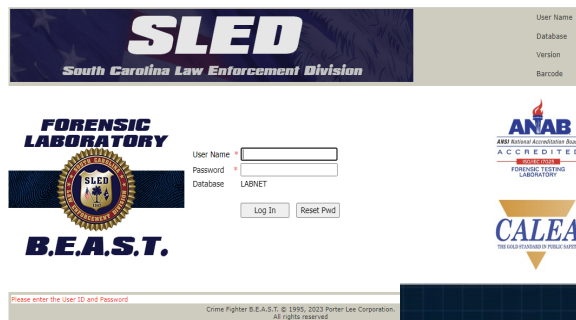
CURRENTLY IN DEVELOPMENT

- CODNA prelog and interface with IDEMIA's AFIS MBIS system (formerly Morphotrack)
- Development of PDF reporting for instrumental results in Toxicology and Drug Identification
 - Goal of the project is to develop a paperless report process (Electronic Casefiles)



FORENSIC TECHNOLOGY - METRICS

- BEAST
 - 179 Users
- iLab
 - 2,459 Users
 - 627 State and local agencies
 - 74 Out of state agencies
 - 74 active federal agencies
- Track-Kit
 - 2,195 Users
 - 222 Law enforcement agencies
 - 35 Medical facilities
 - 15 Solicitors offices
 - 7 DNA Laboratories



QUESTIONS?



SLED FORENSIC SERVICES



Lieutenant Jeffrey A. Crooks
Latent Prints Department



LATENT PRINTS DEPARTMENT - SUPERVISOR

Lieutenant Jeffrey A. Crooks

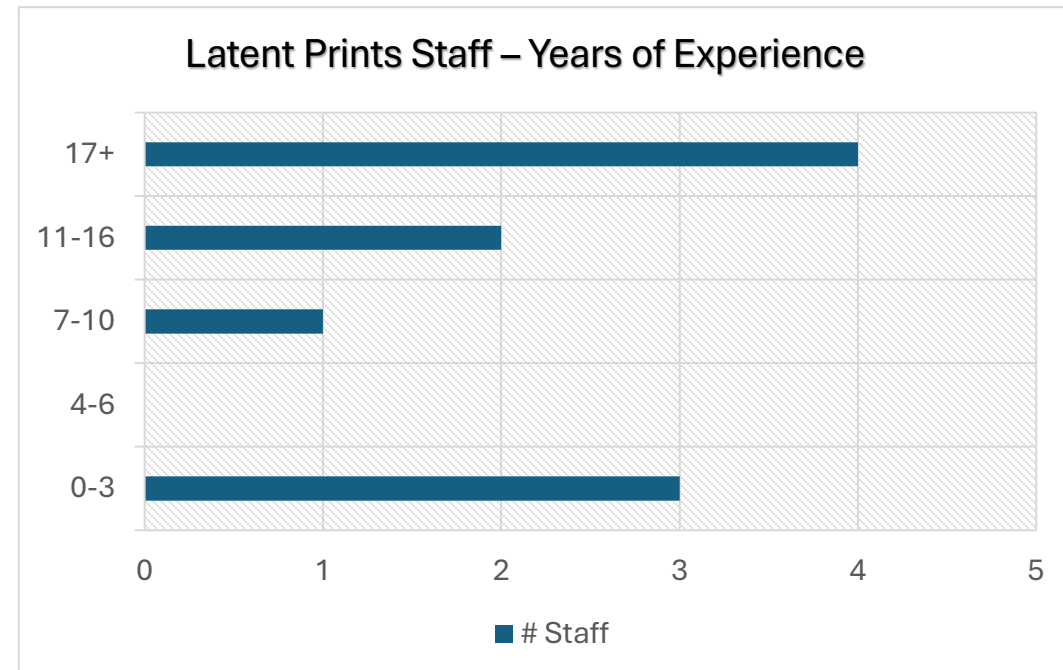
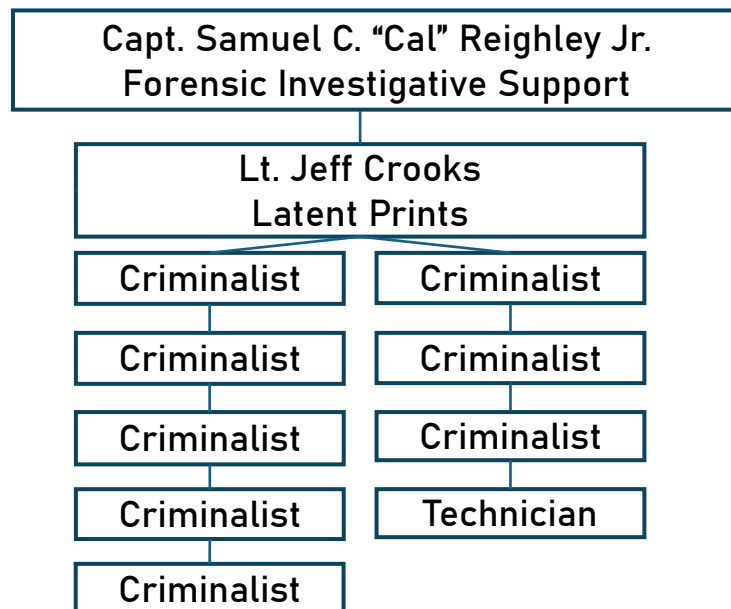
- Education
 - BS Business Administration – The Citadel (1993)
- Work History
 - Lexington County Sheriff's Office (1993 – 1997)
 - SLED (1997 – Present)
 - Special Agent (1997 – 2011)
 - Crime Scene Unit
 - Investigator – Piedmont Region
 - Lieutenant (2011 – Present)
 - Crime Scene Unit
 - Latent Prints Department





LATENT PRINTS DEPARTMENT - ORGANIZATION

- 9 Full Time Employee (FTE) Positions
 - 7 Impression Evidence Examiners
 - 1 Studio Photographer
 - 1 AFIS Technician
- 1 Temporary Full-Time Position
 - 1 Impression Evidence Examiner





LATENT PRINTS DEPARTMENT - HISTORY

- Fingerprint examinations have been conducted at SLED since the 1940s and was the responsibility of Crime Scene Agents, as was footwear/tire tread examination.
- In 2014, fingerprint work was separated from the Crime Scene Unit and the Latent Prints Department was formed.
- In 2021, the Latent Prints Department assumed footwear/tire tread examination responsibility.



(Lt. Millard N. Cate, SLED Laboratory Founder)

LATENT PRINTS DEPARTMENT — SERVICES



The Latent Prints Department provides the following services to law enforcement agencies statewide:

- Process physical evidence for the presence of unknown fingerprints.
- Conduct examinations of unknown fingerprints to the known standards of individuals.
- Conduct AFIS searches of unknown fingerprints against the state and federal known standards databases.
- Support the DNA Database Department by conducting hit confirmations and confirming duplicate submissions.
- Conduct examinations of unknown shoe and tire impressions to known shoe and tire standards.
- Provide technical photography support to departments within the Forensic Services Laboratory.



LATENT PRINTS DEPARTMENT - PROCESSING

- The Latent Prints Department utilizes various chemical processing techniques to locate fingerprint evidence that cannot be seen with the naked eye.
- Types of evidence that can be processed include firearms, paper, tape, and plastic.
- Fingerprint evidence is often located using alternate light source technology and documented through photography.

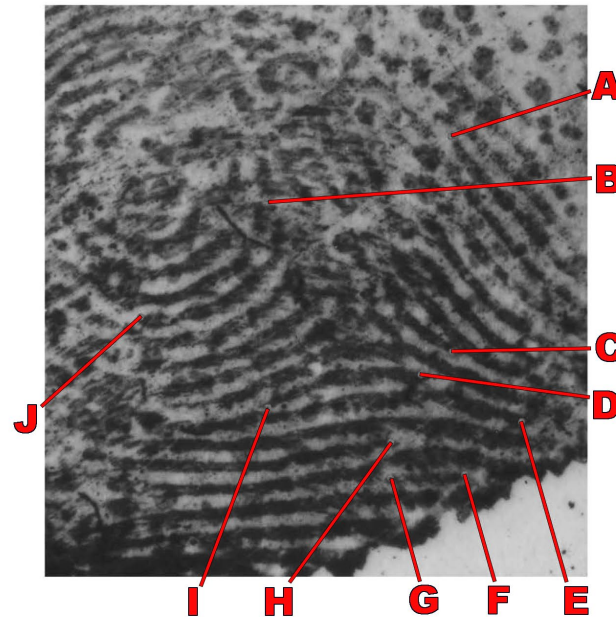




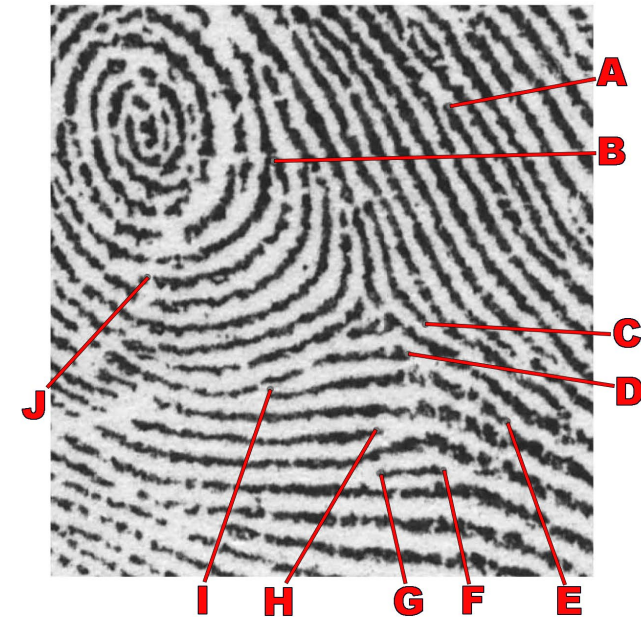
LATENT PRINTS DEPARTMENT - EXAMINATION

- Department examiners and technicians must successfully complete an internal training program in their respective discipline(s). Internal training is supplemented with external training courses.
- Once training has been completed, examiners and technicians must demonstrate proficiency through yearly testing.
- Training program durations:
 - Latent Print Examiner – 18 months
 - Footwear/Tire Tread Examiner – 12 months
 - AFIS Technician – 12 months
 - Studio Photography – 6 months

UNKNOWN



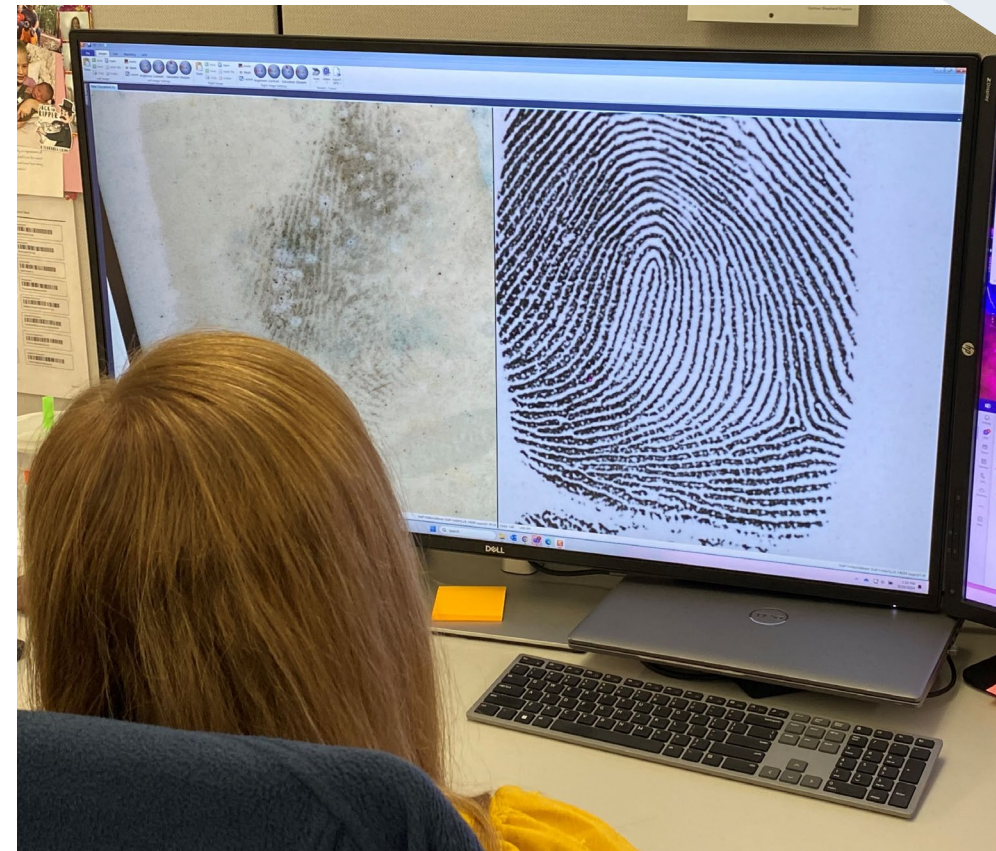
KNOWN



LATENT PRINTS DEPARTMENT - EXAMINATION



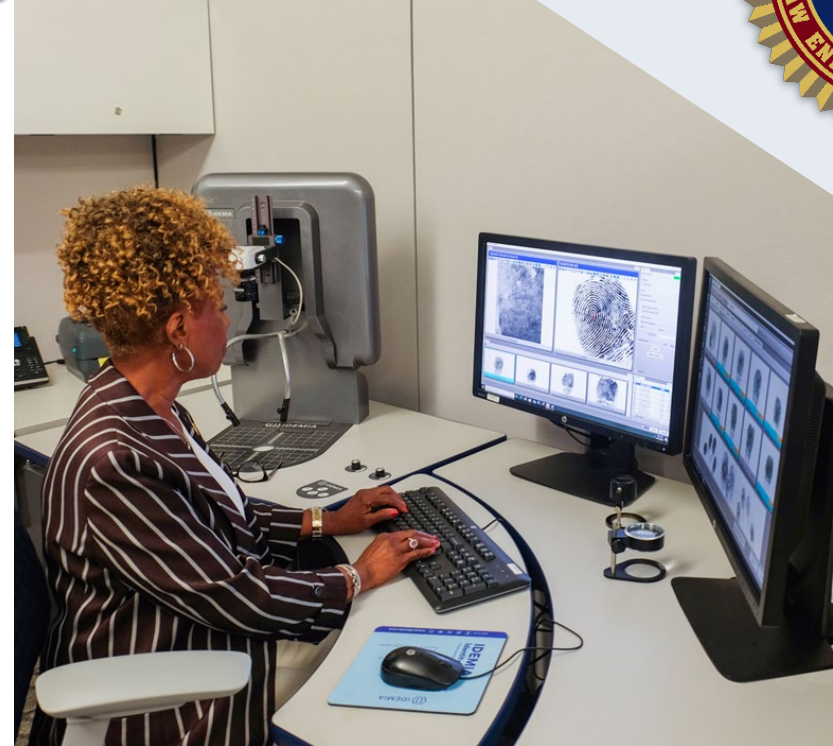
- Examiners utilize software such as FCS® and Photoshop® to enhance evidence and conduct examinations. The software greatly increases examiner's effectiveness compared to traditional methods.
- All examination cases are reviewed by a second qualified examiner who must agree with the examination results before a report can be issued.





LATENT PRINTS DEPARTMENT - AFIS

- The Automated Fingerprint Identification System (AFIS) allows for the search of unknown fingerprints against the state (SCAFIS) and the federal (NGI) databases.
- AFIS helps to identify individuals to cases that were previously unknown and determine the identity of unidentified deceased persons.
- The Latent Print Department maintains two AFIS terminals. One terminal is assigned to a technician dedicated to conducting AFIS searches. The second terminal is shared by fingerprint examiners who are also trained as AFIS operators.



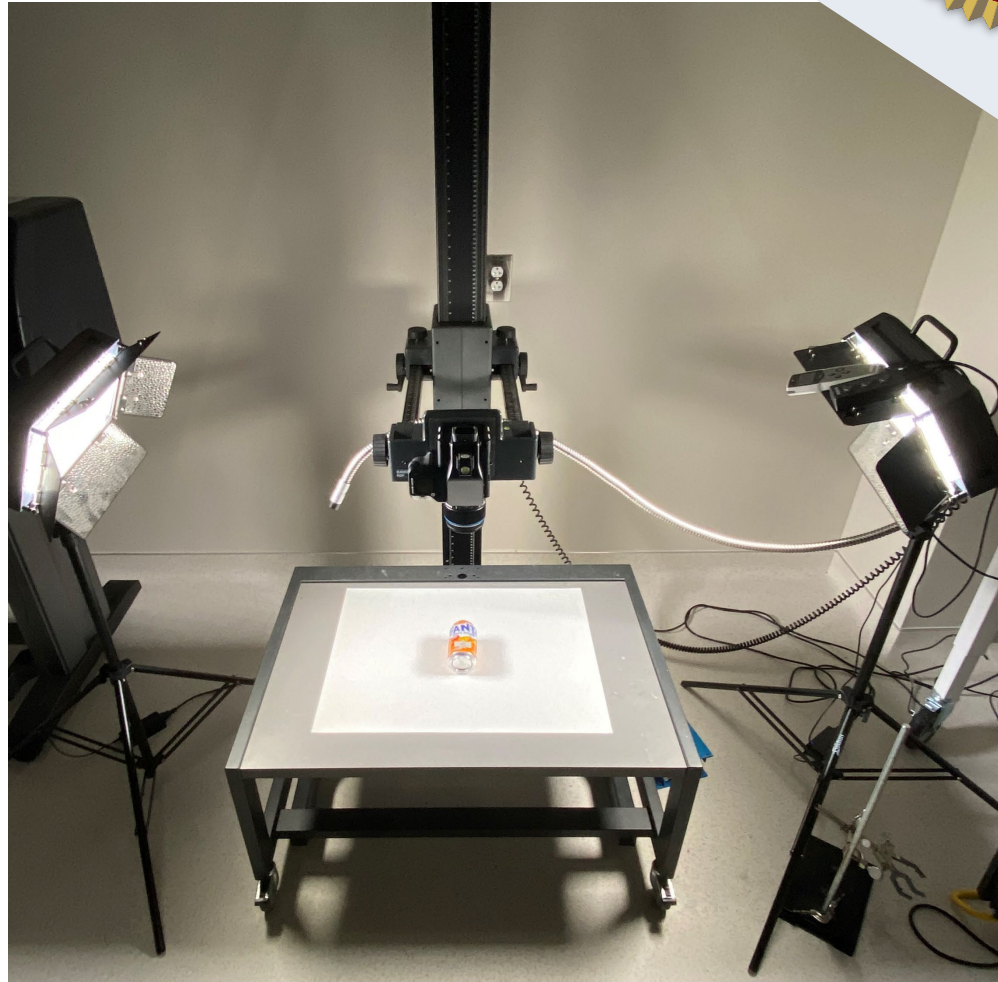
FY 2024-2025 – AFIS STATISTICS

Cases Completed	HITS	REVERSE SEARCH (RS) HITS	TOTAL SEARCHES	TOTAL ITEMS
434	504	131	3,138	2,153

LATENT PRINTS DEPARTMENT — PHOTOGRAPHY STUDIO



- The Photography Studio's primary function is to photograph impressions developed on processed evidence and provide digital images that examiners can use to conduct comparisons.
- The studio also provides technical expertise to other laboratory departments when requested.

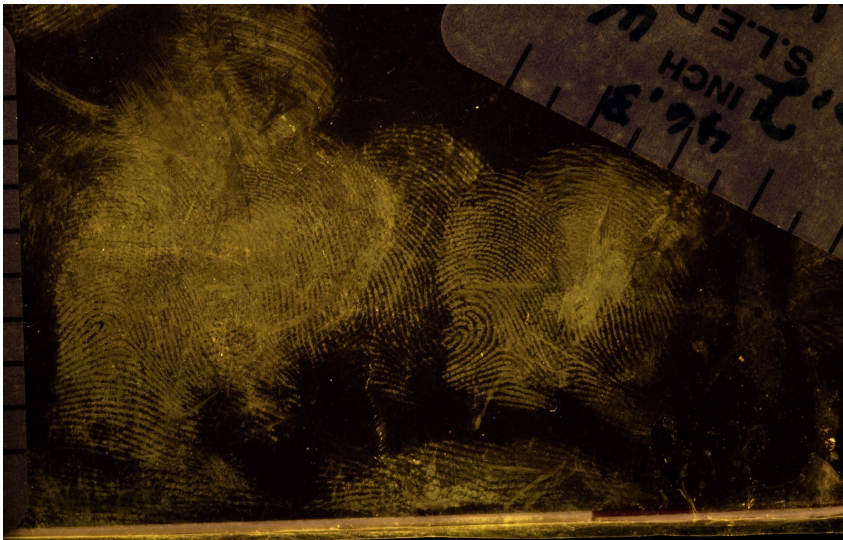


LATENT PRINTS DEPARTMENT — PHOTOGRAPHY STUDIO



Capabilities of the studio include:

- High resolution photography and image printing
- Alternate light source, infrared, and ultraviolet photography
- Digital image enhancement
- Scanning/Digitizing developed film



FOOTWEAR IMPRESSION BEFORE PHOTO ENHANCEMENT	FOOTWEAR IMPRESSION AFTER PHOTO ENHANCEMENT
4. TUBERCULIN PPD Required - (within past year) - Results _____ mm _____ <i>Red</i> Note: If PPD positive, a chest x-ray is required 3 months prior to class enrollment. Copy of x-ray results must be sent to Limestone College Student Health Services. 5. HEPATITIS B #1 <i>9.5.93</i> #2 <i>11.3.93</i> #3 <i>3.3.94</i> 6. MENINGITIS - (May receive at Limestone College Health Services - Cost varies. May call for pricing. No insurance will be filed.) <i>MO</i> <i>7</i> Day <i>18</i> Yr <i>13</i> I certify the above information is correct. <i>[Signature]</i> Physician's Signature or Clinic Stamp Required	4. TUBERCULIN PPD Required - (within past year) - Results _____ mm _____ <i>Red</i> Note: If PPD positive, a chest x-ray is required 3 months prior to class enrollment. Copy of x-ray results must be sent to Limestone College Student Health Services. 5. HEPATITIS B #1 <i>9.5.93</i> #2 <i>11.3.93</i> #3 <i>3.3.94</i> 6. MENINGITIS - (May receive at Limestone College Health Services - Cost varies. May call for pricing. No insurance will be filed.) <i>MO</i> <i>7</i> Day <i>18</i> Yr <i>13</i> I certify the above information is correct. <i>[Signature]</i> Physician's Signature or Clinic Stamp Required



LATENT PRINTS DEPARTMENT — TECHNOLOGY

The Latent Prints Department continuously seeks, evaluates, and employs technology that can improve its capabilities. The following technologies are currently in use:

- **Forensic Comparison Software (FCS)®**
Paired with large, high-resolution monitors, the software allows examiners to conduct side by side comparisons on computer screens, improves documentation capability of the examinations conducted, and reduces physical strain on examiners.
- **Case AFIS**
A component of FCS, it allows examiners to search unknown impressions to known standards at the case level. This technology can improve turnaround time for large volume fingerprint cases.
- **Photoshop®**
Utilized for the enhancement of impression evidence images and for conducting on screen comparisons of footwear and tire tread evidence.
- **Adobe Acrobat®**
Enables the use of digital documents for casework, increasing efficiency while decreasing paper waste.



LATENT PRINTS DEPARTMENT — PROGRAMS

The Latent Prints Department offers the following programs to agencies statewide:

- **AFIS Certification Program**
Allows AFIS operators throughout the state to obtain a certification from SLED in AFIS operation. Certification is achieved by successfully completing a series of tests and demonstrating proper operation of the AFIS system.
- **Electronic Submission Program**
Allows agencies to submit fingerprint evidence electronically without having to travel to the laboratory. Evidence is submitted digitally utilizing Evidence.com®.
- **Footwear Database Search**
Footwear examiners can search shoe outsole images through the SoleMate® database to try and identify shoe brands and models that may have created the impression.



LATENT PRINTS DEPARTMENT — METRICS

- The Latent Prints Department received an average of 1,396 cases and 7,740 items of evidence per year over the last five years (FY).

Fiscal Year Totals	20-21	21-22	22-23	23-24	24-25
Total Items Received	9522	7694	6985	7391	7109
Total Cases Received	1632	1374	1318	1377	1279
Total Assignments Received	1666	1374	1354	1407	1313

- The Latent Prints Department completed an average of 1,522 cases and 10,761 items of evidence per year over the last five years (FY).

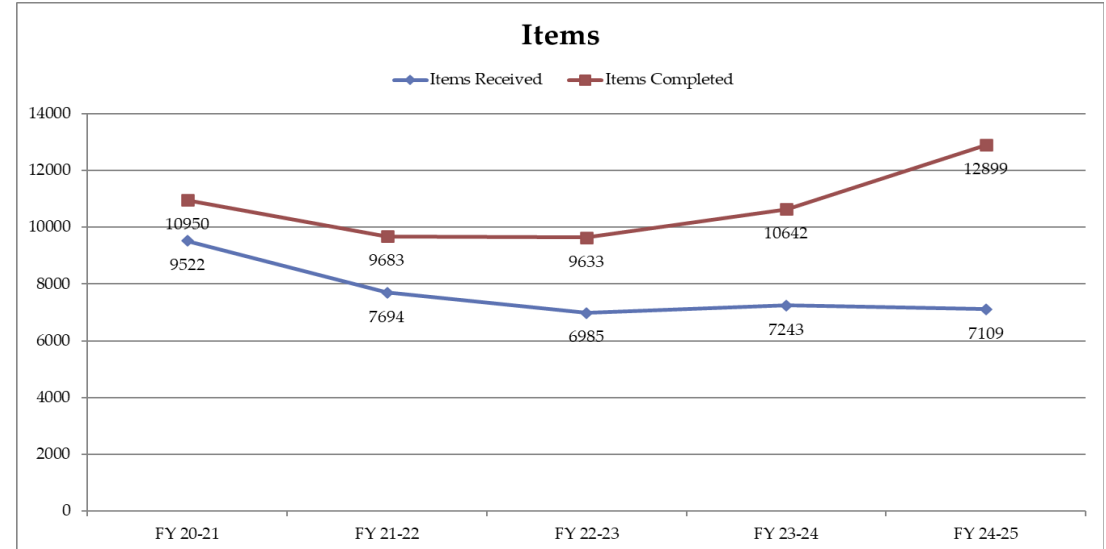
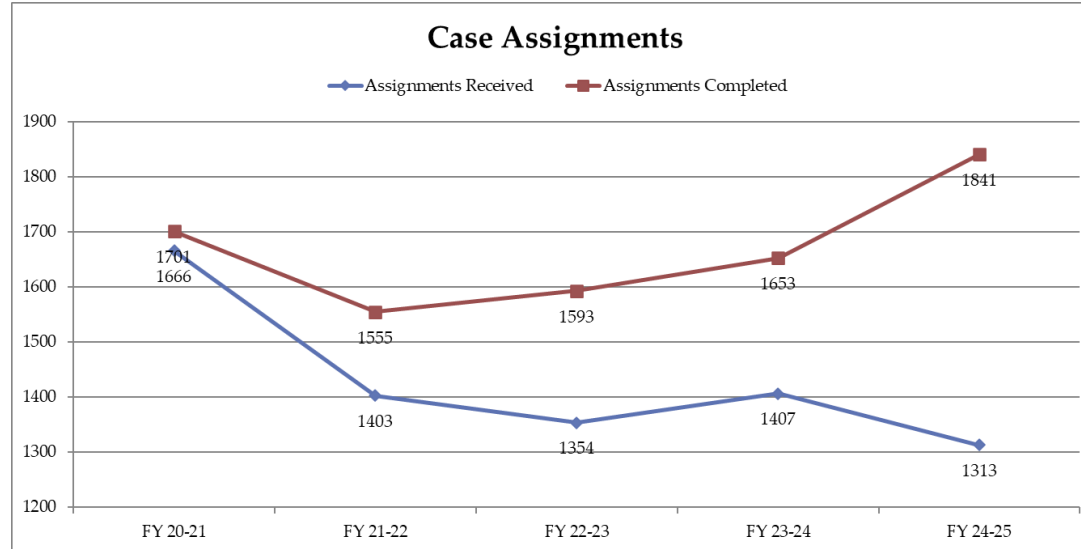
Fiscal Year Totals	20-21	21-22	22-23	23-24	24-25
Total Items Completed	10950	9683	9633	10642	12899
Total Cases Completed	1484	1351	1380	1507	1889
Total Assignments Completed	1701	1555	1593	1779	1841



LATENT PRINTS DEPARTMENT — METRICS

- Department case production has outpaced submissions, resulting in backlog reduction.

	(FY) 20-21	21-22	22-23	23-24	24-25
Total Cases Pending	136	138	219	213	198
Total Assignments Pending	144	143	229	221	208



QUESTIONS?

