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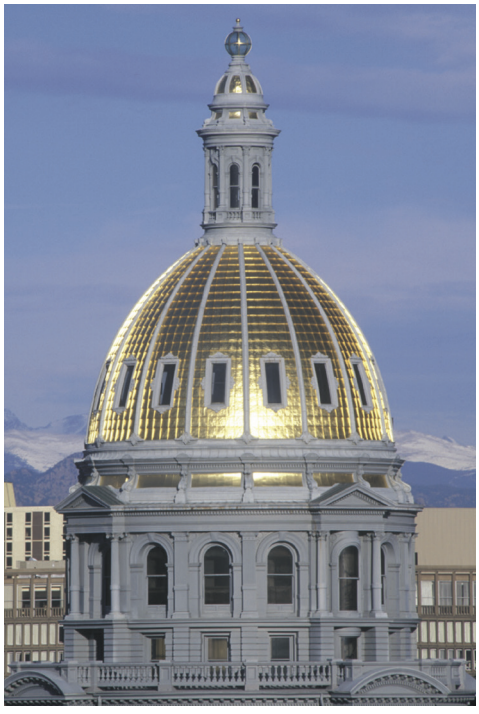
Department of Public Safety
Colorado Bureau of Investigation

Forensic Services Section DNA Evidence Testing

Performance Audit
February 2026
2552P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KERRI L. HUNTER, CPA, CFE • STATE AUDITOR

February 18, 2026

Members of the Legislative Audit Committee:

This report contains the results of a performance audit of the Colorado Bureau of Investigation's (CBI) Forensic Services Section within the Department of Public Safety. The audit was conducted pursuant to Section 2-3-108, C.R.S., which requires the State Auditor to conduct a special audit requested by a member of the General Assembly or the Governor, when approved by a majority vote of the Legislative Audit Committee. The Legislative Audit Committee approved this audit in response to a legislative request, which expressed concerns regarding CBI's testing of DNA evidence, including sexual assault kits. This audit was also conducted pursuant to Sections 2-3-103(9) and 2-7-204(5), C.R.S., which require the State Auditor to conduct performance audits under the State Measurement for Accountable, Responsive, and Transparent (SMART) Government Act. The report presents our findings, conclusions, and recommendations, and the responses of the Colorado Bureau of Investigation.

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Key Concern

Since February 2025, CBI has made substantial progress in reducing the time it takes to provide DNA testing results. However, at the time of the audit, CBI had not reached its DNA testing timeliness goals and we identified several risk areas and information systems issues that could reduce CBI's ability to achieve and maintain timely DNA testing.

Key Findings

- CBI's average time to complete DNA testing for sexual assault cases decreased from 450 days in June 2025 to 190 days in January 2026, a 58 percent reduction, but still substantially above CBI's internal 90-day goal and statute's 60-day goal.

- CBI's plan to address the timeliness of its testing results, which includes outsourcing about 1,900 sexual assault cases to private labs, and increasing the number of in-house scientists it has available to complete DNA tests, appears reasonable. However, CBI is still vulnerable to several risks that could impact its ability to complete timely testing, including staff turnover and extended leave, and increased testing submissions from law enforcement agencies. Further, with the number of scientists at CBI labs increasing, CBI may need additional staff to manage the scientists and provide training.

- CBI could improve its information systems used for DNA testing by assessing options to address several issues we identified, which included delays caused by software compatibility issues and older equipment that can take CBI staff away from their testing duties, and case management system limitations that reduce management's ability to pull data to monitor operational trends and performance.

Background

- The Forensic Services Section within CBI is responsible for testing evidence, including DNA evidence, submitted by law enforcement agencies in Colorado. CBI operates four labs across the state and in Fiscal Year 2026, the Forensic Services Section was appropriated 139 full-time equivalent staff, 39 of which were scientists specializing in DNA testing.

- CBI's DNA testing times, including for sexual assault cases, increased substantially in Calendar Years 2023 through 2024, largely due to CBI's need to review a large volume of cases after the discovery of alleged misconduct by a former CBI DNA scientist.

Audit Recommendations Made	Agency Responses		
	Agree	Partially Agree	Disagree
8	8	0	0

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Chapter 1

Overview of CBI's Forensic Services Section

The Colorado Bureau of Investigation (CBI) within the Department of Public Safety (Department) has the authority to assist in the investigation and detection of crime when any sheriff, chief of police, district attorney, head of a state agency, or chief law enforcement officer in the state requests assistance [Section 24-33.5-412(1)(a), C.R.S.]. CBI also has statutory authority to initiate investigations of organized crime, identity theft, gaming violations, and cybercrimes; as well as investigate and apprehend fugitives. CBI is organized into three primary sections: Forensic Services, Investigative Services, and Criminal Record and Data Management Services. This audit focused on CBI's Forensic Services Section.

The Forensic Services Section is responsible for the scientific testing of evidence that CBI receives from local law enforcement, CBI investigators, and other state agencies. According to the U.S. Bureau of Justice Statistics, there are more than 200 state and local law enforcement agencies in Colorado, including municipal police departments, county sheriffs' offices, and RTD's Transit Police—all of which can request forensic services from CBI. Statute does not require CBI to accept all evidence testing requests it receives from law enforcement agencies; however, in practice, CBI indicated that it accepts all evidence testing requests, as long as the request falls within the submission guidelines established by CBI, which are discussed further in Chapter 2. The Forensic Services Section has laboratories in Denver, Pueblo, Grand Junction, and Greeley, and, additionally, it contracts with private laboratories to perform some testing. For Fiscal Year 2026, the Forensic Services Section was appropriated 139 full-time equivalent staff (FTE), which includes scientists, support staff, and management. The Forensic Services Section has the following nine units responsible for testing a variety of evidence:

- Biological sciences—analysis of body fluids and other items for the presence of genetic material used for identification purposes. This includes testing of sexual assault DNA evidence collection kits and other sources of DNA evidence collected at crime scenes and developing DNA profiles that can be used to identify suspects and for entry into the DNA database (CODIS).

- DNA Database (CODIS)—analysis of DNA samples collected from individuals arrested for and/or convicted of felonies, as required by Colorado law. This unit maintains the State of Colorado's Combined DNA Index System (CODIS), a federally administered database system that links offender DNA databases maintained by law enforcement agencies nationwide. CBI staff facilitate DNA profile searches; verify and disseminate profile match information; process DNA expungement (i.e., the process of removing a person's DNA profile from the DNA database) requests; and serve as the liaison between local DNA laboratories, the FBI, and other state labs.

- Digital evidence—analysis of computer hard drives, thumb drives, cell phones, and other data storage devices.
- Drug chemistry—analysis of cannabis and all controlled substances.
- Firearms, ammunition, and toolmarks—analysis of weapons, ammunition, and tools, and comparison to evidence found at a crime scene.
- Footwear and tire tracks—analysis of shoes/tires and comparison to tracks found at a crime scene.
- Latent fingerprints—analysis of fingerprints found at a crime scene and comparison to the fingerprints of an individual.
- Toxicology—analysis of biological fluids for the presence of drugs or alcohol.
- Trace chemistry—analysis of substances such as fire debris and gunshot residue. This unit is also responsible for analysis of wood, fibers, paints, tapes, airbag residues, polymers, metal fragments, and other unknown materials.

Exhibit 1.1 provides information on the number of cases CBI received and completed in Calendar Year 2025.

Exhibit 1.1
Cases Tested by Forensic Services Unit
Calendar Year 2025

Unit	2025 Cases Received	2025 Cases Completed[1]
Biological Sciences (DNA)[2]	2,342	3,651
Digital Evidence	88	81
Drug Chemistry	3,196	3,193
Firearms, Ammunition, Tool Marks	544	541
Footwear and Tire Tracks	15	16
Latent Fingerprints	1,320	1,569
Toxicology	10,607	10,043
Trace Chemistry	183	154
Total Cases[3]	**18,295**	**19,248**

Source: Office of the State Auditor analysis of information provided by the Colorado Bureau of Investigation.
[1]Completed cases could have been received prior to 2025.
[2]Although some Biological Sciences cases had profiles that were entered into CODIS, because CBI does not track DNA Database (CODIS) activities on a cases received and cases completed basis it is not included in the exhibit.
[3]Some cases were submitted to and/or tested by more than one unit, so this total duplicates cases that received more than one type of testing.

Organizational Roles in the CBI Lab System

Although CBI's four labs range in size from 58 FTE in the Denver lab to 35 FTE in the Pueblo lab, each lab has staff in the following roles:

- A **lab director** who oversees lab operations. Lab directors work with Forensic Services Section management to implement lab policies, ensure lab operations meet applicable requirements, manage lab staff, including between three and five managers who report directly to the director, and manage the physical lab space.

- **Lab managers** who each supervise about 9 to 13 staff, including forensic scientists, evidence technicians, and case coordinators. Lab managers typically oversee scientists in more than one discipline; for example, a single manager may oversee scientists conducting DNA testing as well as latent fingerprint testing. Lab managers are also responsible for performing administrative reviews of testing reports and may have other administrative duties, such as coordinating staff training and addressing information systems needs.

- **Forensic scientists** who test evidence and interpret results in the forensic disciplines. Scientists primarily conduct testing within one of the scientific discipline units discussed above, although a few scientists may perform work across disciplines. Before scientists can begin testing cases independently, they must successfully complete a substantial training program and skills assessment to obtain testing authorization within their discipline.

- **Evidence technicians** who accept the physical evidence from law enforcement agencies and manage the tracking and storage of evidence while in CBI custody. They are also responsible for transporting evidence between CBI's labs.

- **Case coordinators** who provide additional administrative support to document case details, ensure that law enforcement agencies requesting testing have submitted all of the necessary information and physical evidence, organize testing requests across more than one discipline, and track the status of criminal cases, including plea agreements and upcoming court dates to help CBI prioritize cases so that it can provide testing results in time to be used in court.

- **Program Assistants** who support staff operations at CBI's labs. Program assistants coordinate administrative functions for lab staff; assemble, calculate, and circulate forensic statistics; collect, evaluate, and research data; interpret policy and procedure, and provide ordering, accounting, and budgetary support.

- **Quality Unit staff** oversee quality management for the entire CBI lab system. This includes reviewing scientists' testing to ensure that they followed applicable standards, administering routine performance tests required for accreditation, and identifying areas for additional training.

- A **DNA technical lead**, which is a role within the Quality Unit that is required by the FBI's Quality Assurance Standards for Forensic DNA Testing Laboratories. The DNA technical lead

oversees all DNA testing operations in the lab system, working with scientists to ensure quality and provide technical guidance when issues arise. The DNA technical lead has two assistant technical leads who work on quality management and training in addition to performing casework as biological forensic scientists.

DNA Testing within CBI Forensic Services

Our audit primarily focused on DNA evidence testing within the Biological Sciences Unit of CBI's Forensic Services Section. As of January 2026, CBI had a total of 39 DNA scientists working across its four labs, with 12 scientists in Denver, 11 in Grand Junction, 9 in Pueblo, and 7 in Greeley. CBI had also contracted with three private labs from March 2025 to June 2026 to perform additional DNA testing to help CBI work through its substantial DNA case backlog (i.e., cases with evidence submitted to CBI that had not yet been tested).

Generally, in order to submit evidence to CBI for testing, law enforcement agencies must provide CBI with detailed information about the evidence and associated cases, and deliver the evidence to one of CBI's labs. Once CBI staff receive and log the evidence, staff place the case in the queue for testing. CBI does not charge law enforcement agencies for its DNA testing services. Although CBI charging for its testing services is not addressed by statute, CBI management indicated that it considers performing evidence testing to be part of its mission of supporting public safety by assisting law enforcement with investigations.

DNA testing within CBI typically involves several stages, including performing serology, which consists of careful evidence examination to identify the presence of bodily fluids or other materials that could contain DNA; lab work to identify DNA within the evidence; analysis using computer software to identify unique DNA profiles that can be used to identify potential suspects; and entry of suspects' DNA profiles into CODIS, which can link perpetrators' DNA profiles to other cases submitted by law enforcement agencies or to known offenders across the United States. Generally, CBI's process for DNA testing takes about 4 to 6 weeks once testing begins, but because CBI has a large backlog of cases, most cases wait for a significant amount of time before testing begins as scientists work through cases that were submitted at an earlier time. We describe this process in more detail in Chapter 2.

Overall, CBI performs about half of the DNA evidence testing in the state. The remaining testing is completed by five additional forensic labs operated by local governments and law enforcement agencies. Although CBI accepts evidence testing requests from all law enforcement agencies in the state, the locally-operated labs generally serve only law enforcement agencies within their jurisdiction or with which they have established agreements to perform testing. For this reason, while some law enforcement agencies in the state have a choice of sending DNA evidence to CBI or a local lab, others must send evidence to CBI because it is their only option. As of December 2025, the following local labs were operating in the state:

- Adams County Sheriff's Office DNA Laboratory
- Colorado Springs Metro Crime Laboratory
- Denver Crime Laboratory
- Jefferson County Regional Crime Laboratory
- Unified Forensic Laboratory (Arapahoe County, Douglas County, City of Aurora)

Additionally, CBI's Greeley lab location, which is known as the Northern Colorado Regional Forensic Laboratory, operates under a memorandum of understanding (MOU) between CBI and Weld County Sheriff's Office, Larimer County Sheriff's Office, the Greeley Police Department, Fort Collins Police Services, and the Loveland Police Department. Under the MOU, CBI shares resources for the lab's operation with the partner law enforcement agencies, and 3 of the 7 DNA scientists at this lab are employed by the partner law enforcement agencies. These scientists operate under CBI's testing procedures, work alongside scientists directly employed by CBI, and handle cases from all law enforcement agencies that submit evidence to the lab. Like CBI's other labs, the Greeley lab also serves any law enforcement agency that submits evidence to it and does not limit services to just the law enforcement agencies that are part of the MOU.

Accreditation

In order to access CODIS and to ensure that their testing results are admissible in court, forensic labs, including CBI, must meet the following accreditation standards:

ISO/IEC 17025. The International Organization for Standards (ISO) and the International Electrotechnical Commission (IEC) have jointly established international standards for various professional fields. ISO/IEC 17025 is a standard for laboratories that conduct forensic testing and includes requirements to ensure that labs follow processes that meet established industry standards and provide high-quality, reliable results. To demonstrate adherence to this international standard, labs must undergo independent reviews, which can be conducted by several organizations. Colorado forensic laboratories, including CBI, primarily utilize the American National Standards Institute's (ANSI) National Accreditation Board (ANAB) to perform the external reviews for their accreditation.

FBI QAS. In order for a laboratory to access CODIS, it must adhere to the FBI's Quality Assurance Standards (QAS) for Forensic DNA Testing Laboratories. Once accreditation is established, laboratories maintain their accreditation through performing annual internal or external reviews. Notably, although laboratories owned by private companies can conduct testing, they cannot receive FBI QAS accreditation and are unable to enter DNA profiles into the CODIS database. This includes the private labs that CBI contracted with during Fiscal Years 2025 and 2026 to complete DNA testing.

Staff Authorization. Further, as part of both of these requirements, individual scientists who perform testing must undergo an extensive training and authorization process. For DNA testing

within the Biological Sciences Unit, this includes separate training and authorization processes for serology, DNA testing, and CODIS entry.

Funding

CBI's Forensic Services Section is primarily funded through state general funds, although it also receives some federal funding through grant awards. As shown in Exhibit 1.2, revenues and expenditures for the Forensic Services Section have grown substantially from Fiscal Year 2023 through 2025.

Exhibit 1.2

CBI Forensic Services Section Revenue and Expenditures, Fiscal Years 2023 through 2025

		FY 2023	FY 2024	FY 2025	Percent Change FY 2023 to FY 2025
Revenue	General Funds	$15,979,000	$19,125,000	$25,109,000	57%
	Federal Funds	$1,146,000	$677,000	$1,834,000	60%
	Total	**$17,125,000**	**$19,802,000**	**$26,943,000**	**57%**
Expenditures	Personnel	$12,473,000	$14,427,000	$17,072,000	37%
	Operations	$4,652,000	$5,191,000	$7,356,000	58%
	Lab Expansion	$0	$184,000	$2,515,000	n/a
	Total	**$17,125,000**	**$19,802,000**	**$26,943,000**	**57%**

Source: Office of the State Auditor review of Colorado Operations Resource Engine (CORE) data for Fiscal Years 2023 through 2025.

Much of the growth in CBI's Forensic Services expenditures from Fiscal Year 2023 to 2025 is due to a "right-sizing" effort, under which the Department requested and received incremental increases to its appropriations, beginning in Fiscal Year 2023, as part of an effort to expand its testing capacity across its scientific units, including DNA testing. Additionally, in Fiscal Year 2024, CBI received an ongoing appropriation for one additional DNA scientist and a one-time appropriation of about $7.4 million to address the impact of alleged manipulation of testing data by a former DNA scientist (we provide more information on this in Chapter 2). Of the $7.4 million, $3 million was to contract with private labs for retesting DNA cases worked on by this former DNA scientist and $4.4 million was to reimburse district attorneys for their costs associated with post-conviction review and retrial of the cases that may have been impacted. However, CBI did not receive a significant number of requests for retesting in Fiscal Year 2025, leaving almost all of the $3 million appropriation for retesting unused. For Fiscal Years 2025 and 2026, CBI requested that the $3 million in funding be rolled over and used to outsource cases to private labs to complete testing for additional DNA cases and reduce its backlog in DNA cases awaiting testing. The General Assembly approved this request through Senate Bill 25-105. CBI contracted with three private labs to perform this testing between March 2025 and June 2026, at an average cost of about $2,000 per case. The combined total of the

contracts was about $2.8 million, of which CBI had expended about $2.1 million through November 2025. As of December 31, 2025, the contract labs had completed testing on about 1,300 cases. Originally, CBI had expected to outsource about 1,400 cases under these contracts; however, in January 2026, CBI reported to us that it had identified additional funds to use for outsourcing cases and expected to outsource a total of about 1,900 cases.

Based on its right-sizing appropriations, and in order to address the need for retesting cases, CBI planned to increase the number of authorized DNA scientists in its labs from 17 in Fiscal Year 2022 to 31 in Calendar Year 2027. Additionally, independent of its right-sizing initiative, the Department requested and received an additional ongoing appropriation of 6.4 FTE for Fiscal Year 2025, growing to 10 FTE in Fiscal Year 2026, to hire eight additional DNA scientists and two managers to establish a Forensic Auto Theft Prevention Team within the Forensic Services Section. This team's purpose is to significantly expand DNA testing for cases related to automobile theft, which supports the Department's strategic plan goal of reducing auto theft in the state. As of January 2026, CBI had hired these scientists, who are still undergoing training, and was accepting auto theft cases and outsourcing them to a private laboratory. Once these scientists are fully trained, CBI plans to have 39 DNA scientists working cases, with 31 available to address its ongoing caseload and 8 available for additional auto theft cases.

Additionally, CBI has received federal funding from three grants in recent years, which are awarded by the Bureau of Justice Assistance within the U.S. Department of Justice:

- **Coverdell Forensic Science Improvement Grant** to support non-DNA continuing education, overtime, and proficiency test purchases.

- **Justice Assistance Grant** to support overtime for latent print and firearm testing, and firearm testing equipment.

- **DNA Capacity Enhancement for Backlog Reduction (CEBR)** to support DNA scientists working overtime, service contracts for DNA instruments, purchases of DNA testing instruments, validation of the new instruments, outsourcing some testing for property crime cases, and to contract with Florida International University to assist with training a group of DNA scientists.

Of the three grants, CBI has only used CEBR to directly support its DNA testing operations. Exhibit 1.3 shows CBI's CEBR grant awards for Federal Fiscal Years 2022 through 2024 and spending for State Fiscal Years 2023 through 2025. CEBR awards are available for a 2-year period; therefore, CBI spending under each grant runs across multiple state fiscal years.

Exhibit 1.3

CBI CEBR Grant Awards and Spending

CBI CEBR Grant Awards

Federal Fiscal Year 2022	Federal Fiscal Year 2023	Federal Fiscal Year 2024
$893,156	$820,920	$627,214
Spending Period: October 2022 through September 2024	Spending Period: October 2023 through September 2025	Spending Period: October 2024 through September 2026

CBI CEBR Grant Expenditures[1]

State Fiscal Year 2023	State Fiscal Year 2024	State Fiscal Year 2025
$739,805	$388,204	$1,580,418

Source: Office of the State Auditor review of CEBR grant award information provided by CBI and Colorado Operations Resource Engine (CORE) data from State Fiscal Years 2023 through 2025.
[1]Because grant awards can be expended over a 2-year period and are awarded on a federal fiscal-year cycle, grant expenditures can stretch over 3 state fiscal years and can exceed grant award amounts for the year.

Audit Purpose, Scope, and Methodology

We conducted this performance audit pursuant to Section 2-3-108, C.R.S., which requires the State Auditor to conduct a special audit requested by a member of the General Assembly or the Governor, when approved by a majority vote of the Legislative Audit Committee. The Legislative Audit Committee approved this audit in March 2025 in response to a February 2025 legislative request, which expressed concerns with significant delays at CBI's labs in the processing of DNA evidence submitted from sexual assault evidence kits. Audit work was performed from April 2025 to February 2026. We appreciate the cooperation and assistance provided by the management and staff of CBI and the Department during this audit.

In April 2025, the Department informed our office that there was a risk that, depending on the scope of our review, our audit work could impact an ongoing criminal case against the former CBI scientist who is alleged to have manipulated DNA testing data. Based on this risk and after consultation with legal counsel from the Attorney General's Office, we submitted a memo to the Legislative Audit Committee proposing limitations to our scope of review to avoid collecting audit evidence that could have an impact on the ongoing criminal case. The Legislative Audit Committee approved this modified scope of review for the audit in June 2025. As a result, we did not evaluate the allegations against the former CBI scientist or the effectiveness of CBI's efforts to review cases potentially impacted by the former scientist during the audit. While we did consider the broader impact of the alleged manipulation of DNA testing data on CBI's operations and describe CBI's efforts to address this situation in this report, we based our discussion in this area on evidence that was publicly available, such as CBI press releases, documents provided to the General Assembly, and testimony provided during legislative hearings.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The key audit objectives were to determine how CBI is addressing its current backlog and lengthy turnaround times for sexual assault DNA cases and to determine best practices that exist for forensic DNA laboratories to address the need for timely testing of these cases.

To accomplish our audit objectives, we performed the following audit work:

- Reviewed relevant federal and state statutes, rules, and grant requirements related to CBI's DNA testing.
- Performed site visits at each of CBI's four forensic labs.
- Interviewed Department and CBI management and staff to understand the Forensic Service Section's operations and goals, budget processes, information systems, and reporting requirements.
- Reviewed available CBI data, management reports, and public dashboard reports for January 2023 through January 2026, to assess key performance metrics related to CBI's DNA evidence testing and compliance with applicable reporting requirements.
- Reviewed Department budget requests and appropriations for CBI for Fiscal Years 2023 through 2026 and the CBI Forensic Services Section's revenues and expenditures for Fiscal Years 2023 through 2025.
- Analyzed timekeeping data for Fiscal Years 2023 through 2025 and CBI's records of when scientists had completed sufficient training for them to start performing casework.
- Reviewed CBI's outsourcing of DNA cases to private labs from March 2025 through December 2025, including CBI's operational requirements for outsourced cases, the procurement of contractors, use of funding available for outsourcing, and the number of cases completed by contractors.
- Reviewed a 2025 evaluation of CBI's Forensic Services Section completed by Forward Resolutions, a private consulting firm hired by the Department.
- Reviewed CBI's accreditation reports from 2022 to 2025.
- Interviewed and surveyed stakeholders, which included nonprofit organizations representing crime victims, district attorneys, the State Public Defender's Office and Alternate Defense Counsel, and law enforcement agencies.

- Reviewed the DNA testing operations of the five forensic laboratories in Colorado run by local governments (Adams County Sheriff's Office DNA Laboratory, Colorado Springs Metro Crime Laboratory, Denver Crime Laboratory, Jefferson County Regional Crime Laboratory, and Unified Forensic Laboratory), which included interviewing representatives from each lab and performing in-person site visits at four of the local labs and a virtual tour at the fifth local lab.

- Reviewed the DNA operations of and received information from eight state-run forensic laboratory systems in other states (California, Delaware, Iowa, Louisiana, Tennessee, Utah, Wisconsin, and Washington).

- Performed a literature review of national best practices for forensic DNA labs, and specifically for testing sexual assault evidence kits.

We relied on sampling techniques to support some of our audit work. We sent a survey to a sample of 12 law enforcement agencies and selected a sample of eight other state forensic laboratory systems to review.

- As part of our work to contact stakeholders, and to obtain broader input from law enforcement agencies across the state, we selected a sample of 12 out of 172 law enforcement agencies that had submitted cases to CBI for testing in Fiscal Year 2025 that were awaiting testing at the time of the audit. The law enforcement agencies we chose to review were judgmentally selected based on having a higher number of cases submitted to CBI, the geographic location of the agency within the state, and to include agencies that had publicly reported taking cases back from CBI's backlog. From the 12 law enforcement agencies, we received five responses. The purpose of this sample review was to better understand how these law enforcement agencies work with CBI and whether or how their casework has been impacted by CBI's DNA case backlog.

- We performed a review of publicly available information about forensic laboratories in all 50 states. From this review, we judgmentally selected the eight states reviewed based on whether they had reported lower turnaround times than CBI around the time of the audit, had little to no backlog, or had previously outsourced sexual assault evidence kits. The purpose of this sample review was to understand DNA operations in other state forensic laboratories.

The results of our sample testing cannot be projected to the entire population. However, the sample review results, along with the other audit work performed, are valid for providing contextual information related to our audit objectives, assessing stakeholder needs, and providing information on operations in other states, and provide sufficient, reliable evidence for our conclusions, findings, and recommendations.

As required by auditing standards, we planned our audit work to assess the effectiveness of those internal controls that were significant to our audit objectives. Details about the audit work supporting our conclusions and findings—including any deficiencies in internal controls that were significant to our audit objectives—are described in the reminder of this report.

A draft of this report was reviewed by the Department and CBI staff. Obtaining the views of responsible officials is an important part of the Office of the State Auditor's (OSA) commitment to ensuring that the report is accurate, complete, and objective. The OSA was solely responsible for determining whether and how to revise the report, if appropriate, based on the Department's and CBI's comments. The written responses to the recommendations and the related implementation dates were the sole responsibility of the Department and CBI.

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Chapter 2
DNA Evidence Testing at CBI Labs

The Biological Sciences Unit within the Colorado Bureau of Investigation's (CBI) Forensic Services Section is responsible for testing DNA evidence submitted by law enforcement agencies. CBI's forensic testing of DNA evidence begins when an investigator from a Colorado law enforcement agency submits evidence to one of CBI's four labs in the state. Because a single case can have multiple types of evidence, CBI evidence intake staff work with the law enforcement agency to catalog the type of evidence being submitted, ensure it is properly stored (e.g., some types of evidence must be refrigerated), and route the evidence to the appropriate unit for testing. CBI maintains an information system, Laboratory Information Management System (LIMS), to track and manage its testing of evidence. Evidence intake staff are responsible for recording the cases that CBI receives in LIMS, which places the cases in CBI's listing of evidence awaiting testing.

DNA evidence can come in multiple forms. For example, evidence for most sexual assault cases includes a sexual assault kit. A sexual assault kit, sometimes referred to as "forensic medical evidence" in the Colorado Revised Statutes, is used by trained health care staff in a medical facility to gather evidence in the form of swabs taken from the victim's body, which may provide the suspect's DNA. In addition to sexual assault kits, evidence for sexual assault cases and other types of crimes can come from the crime scene itself; for example, it can include articles of clothing; bodily fluid samples taken from carpet, furniture, or bedding; and skin or hairs found at the crime scene. If a suspect has been apprehended, law enforcement may also provide buccal swabs, which collect DNA from the suspect's mouth, in order to match the suspect's DNA with DNA from evidence collected using a sexual assault kit or at the crime scene. Additionally, DNA cases typically include reference samples taken from victims and in some cases other non-suspects, such as spouses and others living in the same household, to differentiate their DNA from a potential suspect's DNA. Due to the variety of DNA evidence that can be collected on cases, the number of samples and testing required for each case can vary substantially.

DNA testing generally involves several steps, as follows:

Serology. In the first stage of the DNA testing process, known as serology, a DNA scientist will examine the evidence in order to identify potential bodily fluids, skin, or hair that could contain DNA. The scientist then removes a portion of the potential DNA material from the physical evidence, such as a swab or a piece of fabric (preserving part of the sample for later testing if needed), and puts the potential DNA material into a test tube.

DNA Extraction and Quantification. The scientist prepares samples and refines the sample material using chemicals that strip away and isolate DNA from other materials collected. The

scientist then performs testing using specialized instruments to determine if enough DNA material exists in the sample to potentially generate a reliable DNA profile.

Amplification. Based on the amount of DNA identified, samples undergo another process, known as amplification. During amplification, the scientist uses enzymes and a heating process to reproduce specific parts of the DNA sequence in the sample to increase the quantity of DNA available for testing. Scientists perform the amplification process using specialized instruments that can heat the test tubes through a precise temperature cycle that is needed to increase the quantity of the selected DNA parts.

Electrophoresis. In this stage, instruments use an electric current to pass the amplified DNA sample through a medium, such as a gel, which allows the instrument to produce readable data that scientists can use to develop DNA profiles in the data analysis step.

Data Analysis. The goal of this phase of testing is to develop DNA profiles from the DNA data resulting from the testing process. This includes identifying DNA fragments in analysis software to comprise the DNA profile in a sample tested. To develop a profile, forensic DNA testing focuses on DNA parts from several places within the human DNA sequence, which are standardized based on guidelines developed by the Federal Bureau of Investigation (FBI). These are places within human DNA where different individuals tend to possess variable genetic markers, which allows scientists to distinguish different individuals' DNA that may occur in the same sample and match DNA collected from different sources without attempting to match the entire DNA sequence. During this process, CBI scientists also use software, called STRmix, to assist with the interpretation of DNA profiles that may have more than one contributor based on the samples tested in the case. Depending on the evidence submitted, scientists may have to develop profiles for multiple individuals (e.g., the victim, the suspect, and known non-suspects, who have submitted DNA reference samples for the purpose of exclusion) for multiple samples in the same case. Depending on the quality of the DNA collected, the scientist may not be able to create a profile at all of the genetic markers/locations in the human DNA sequence that are used for testing, but a complete profile is not necessary to be usable in a case. Instead, scientists use STRmix to perform a statistical analysis based on the quality of the profiles they were able to develop to determine the probability that a developed DNA profile from an evidentiary sample (e.g., a profile from a sample collected in a sexual assault kit) could have come from the same source as a DNA profile developed from a sample collected from a known suspect.

Review and Reporting. At the conclusion of the data analysis process, the scientist prepares a report detailing their analysis and results. The analysis and reported results then undergo a technical review by another CBI forensic DNA scientist and an administrative review by a manager. Once the review process is complete, CBI sends the report to the requesting law enforcement agency. Additionally, if a district attorney decides to bring criminal charges against a suspect using CBI's testing results as evidence, the CBI scientists who worked on the testing may be required to appear in court and testify as expert witnesses.

Combined DNA Index System (CODIS). The FBI created CODIS to link DNA profile databases at the local, state, and national levels. CODIS contains DNA profiles collected from suspects arrested in felony cases and DNA profiles collected from crime scenes or sexual assault kits from unknown suspects from across the United States. Law enforcement agencies can use the system to exchange and compare DNA profiles electronically to link crimes together and identify suspects. For DNA testing that yields a usable DNA profile for a suspect, CBI scientists enter the results in CODIS. If the profile CBI enters matches the profile of a known individual or a profile from an unknown individual from a different case, CBI notifies the relevant law enforcement agencies of the match. Notably, although CBI can use contractors to perform DNA testing, contractors are not authorized by the FBI to enter information in CODIS; therefore, CBI scientists must perform this step for DNA evidence that is tested by a contractor.

To perform casework, scientists must complete training and successfully complete a skills assessment to be authorized to complete all steps in the testing process, which for DNA testing typically includes separate training programs and authorizations for serology and DNA analysis. Generally, CBI conducts training in-house, with experienced staff and/or managers responsible for providing the training. Trainers or trainees may travel between CBI lab locations to receive training. Because the full training process for a scientist can take about 2 years, scientists may begin performing casework as they are trained and authorized to perform parts of the process. For example, a scientist might only complete serology on cases once they are authorized to perform that type of work. Additionally, some scientists complete CODIS application and eligibility training in order to be authorized to enter DNA profiles into CODIS. Some scientists complete additional CODIS administrator training in order to be authorized to administer the local CODIS, but not every scientist needs to become a CODIS administrator since only a limited number of these roles are needed at each lab.

According to CBI, its preferred process is for all of the testing phases for a single case to be performed by a single scientist. However, at times, based on available scientist staffing and authorizations, CBI has used an approach where multiple scientists will work on a case (e.g., one scientist completes serology and another completes DNA testing on the samples prepared from the serology phase). Additionally, with the exception of the Forensic Auto Theft Team, DNA scientists do not specialize in specific types of DNA evidence testing or cases. For example, the same scientists test both sexual assault kits for sexual assault cases and other forms of DNA evidence collected for other felony-level crimes, such as homicides and assaults. CBI maintains separate lab space for each phase of the testing process and scientists trade off using parts of the lab and equipment for their cases. Generally, scientists select a new batch, or group, of cases to test each month from a listing of cases awaiting testing, typically prioritizing older cases and cases that have an upcoming court date. Scientists then perform each phase of testing for all of the evidence for the cases in their batch at around the same time. Because DNA testing equipment is capable of processing about 80 evidence samples at the same time, to select their monthly batch of cases, CBI scientists estimate the number of evidence samples that they will need to test for each case and then they select cases to get a combined total of about 80 samples in the batch. Scientists then perform testing on their batch of cases for about 1 month. For example, a scientist may spend a week working all of the evidence in the cases in their batch through the serology phase, before moving on

to extraction and amplification. CBI explained that each stage could take multiple days, resulting in a process that takes about 4 to 6 weeks to complete each batch once testing begins. Although it is possible for CBI to complete testing for a single case in under a week, using a monthly batch process with multiple cases allows its scientists to use testing equipment efficiently, since the instruments have the capacity to process samples from multiple cases at the same time. Additionally, this approach allows scientists to stagger their testing schedules in order to share lab space and equipment.

Based on our review of CBI's DNA testing process and interviews with CBI management and scientists, its ability to complete timely DNA testing is dependent on several key factors, which include:

- **Staff Resources**—Although instrumentation can automate some aspects of the DNA testing process, it is a labor-intensive process that relies heavily on the judgment and expertise of scientists to determine how to best prepare and examine evidence submitted for each case and interpret results, which can vary substantially. Further, as discussed in Chapter 1 of this report, to meet accreditation standards, new scientists require extensive training and must be authorized by CBI's DNA technical lead, which can take about 2 years before they can perform DNA testing. Labs must also maintain a robust quality control system, which requires significant time. For these reasons, having an adequate number of trained, authorized, and experienced scientists is a crucial factor for completing testing in a timely manner and ensuring high-quality results.

- **Efficiency of Testing Processes**—According to CBI management and scientists, certain types of evidence are more or less likely to yield results that can be used to support a criminal case; therefore, it is important that scientists focus their efforts on testing evidence that is most likely to be probative. Additionally, in building batches of cases to test each month, it is important for scientists to select the number of cases and samples that will allow them to use equipment efficiently. Further, it is important that law enforcement submit complete evidence, since a lack of evidence, such as reference samples from known suspects, victims, and/or known non-suspects can delay testing.

- **Lab Space and Equipment**—DNA testing requires lab space and equipment. Testing equipment is costly and labs require special environmental controls, such as proper temperatures and negative air pressure in testing rooms, to maintain evidence and avoid contamination. Because DNA scientists spend around half of their time using computer software to analyze results and writing reports, labs also need a sufficient number of workstations and computers, in addition to spaces used for physical testing.

- **Ability to Outsource Cases**—Outsourcing cases through contracts with private labs can help CBI work more quickly through cases awaiting testing and reduce the amount of time it takes to provide testing results. However, as discussed further in the following sections, outsourcing cases can be expensive and still requires significant in-house staff resources to prepare evidence to send to private labs, review results, and enter the testing results into CODIS. At times, CBI uses funding from federal grants to support outsourcing projects.

- **Amount of Evidence Submitted to CBI for Testing**—CBI accepts cases from all law enforcement agencies in the state. Although the amount of evidence submitted by these law enforcement agencies from month-to-month can vary significantly, over the long-term, CBI must maintain the capacity to test at least the same volume of evidence as is submitted by law enforcement to avoid a growing backlog of cases. To limit the amount of evidence law enforcement agencies can submit, CBI has established submission guidelines and works with agencies to prioritize testing. For example, under its submission guidelines, CBI only accepts evidence for DNA testing on more serious cases, such as violent crimes and felony property crimes, and generally limits the number of evidence samples it will test per case to between 2 and 10 samples, depending on the type of case. CBI also works with law enforcement agencies on specific cases to determine the appropriate items and number of samples to test that will be more likely to generate DNA testing results that will support their case while avoiding testing that is likely to be less valuable.

- **Size of Any Existing Backlog**—CBI completes most cases in the order in which it receives them; for this reason, the amount of time it takes for CBI to provide testing results is largely correlated with the size of any case backlog (i.e., the number of previously submitted cases awaiting testing). If a significant backlog exists—which was the case at the time of our audit—the time to complete testing will remain high even if scientists are able to complete the same number of cases as are received each month. Additionally, even if scientists complete more cases than the number received, which will decrease the size of a backlog over time, the time to complete cases can be slow to decline if the backlog is large.

- **Prioritization of Cases**—CBI regularly prioritizes some cases, such as those with set court dates, which it will move ahead of other cases in its backlog to ensure DNA testing results can be used at trial. CBI management also reported that scientists prioritize more serious cases, such as sexual assaults and homicides, over property crime cases. Less commonly, CBI will perform rush testing for cases where there is an ongoing public safety risk. For these cases, CBI suspends its normal process of batching cases in order to complete the cases as soon as possible. For these reasons, some cases may take significantly less time to complete than what is typical of most cases; however, prioritizing these cases causes other non-priority cases to take longer to complete.

We reviewed CBI's DNA testing operations to assess its efforts to provide timely DNA testing results and to identify issues that could impact its ability to meet statutory and internal DNA testing goals, in particular for sexual assault kits. Overall, we found that CBI has made substantial progress in reducing the time it takes to provide DNA testing results, but has not yet achieved its goals. Furthermore, we identified several risk areas and information systems issues that could reduce CBI's ability to achieve and maintain timely DNA testing results. We discuss our findings and recommendation in the rest of this chapter.

Finding 1—Monitoring DNA Testing Capacity and Demands to Reduce Turnaround Times and Case Backlogs

In recent years, CBI's Forensic Services Section has reported a large backlog for DNA evidence testing and long turnaround times for processing cases, including for sexual assault cases that include sexual assault kits. In February 2025, when our office received the legislative request to conduct this audit, CBI reported a backlog of 2,448 DNA cases—of which 1,462 (59 percent) were related to a reported sexual assault—waiting for testing. CBI includes a case in its backlog figures if a law enforcement agency has submitted the evidence for the case to CBI and CBI has not yet completed testing and reported results back to the submitting agency. In February 2025, CBI reported estimated turnaround times for processing cases of well over 500 days, which it measures as the number of days between when law enforcement submits evidence to CBI to when CBI provides results to the law enforcement agency (we discuss CBI's method for reporting overall turnaround times in detail below).

According to CBI, a variety of factors led to the large backlog of cases that has caused and continues to cause long turnaround times; however, a driving factor—detailed further in this Finding—was the discovery in September 2023 that a now former CBI scientist had allegedly manipulated data during DNA testing. This scientist had worked at CBI for 29 years and, during that time, had worked on about 10,800 DNA cases. Due to the nature of the issues discovered, CBI determined that it needed to perform a review of all of these cases to identify each case where the alleged misconduct occurred, which took a substantial portion of its scientists' time away from DNA testing in 2023 and 2024. To reduce the backlog and turnaround times for testing on DNA cases, and sexual assault cases in particular, CBI developed a plan as part of its Fiscal Year 2025 supplemental budget request, the details of which it submitted to the General Assembly in the form of a white paper in February 2025.

In addition to developing a plan to address the backlog and turnaround times, CBI contracted with an outside firm, Forward Resolutions, to conduct an evaluation of its labs, operational structure, and processes for forensic testing. The scope of this review included operations across all four of CBI's labs and its testing disciplines, including DNA testing. At the time of our audit, CBI was assessing the recommendations from that evaluation and developing a multi-year plan to address them.

What audit work was performed and what was the purpose?

We interviewed CBI management to understand the organization and operation of the Forensic Services Section and each of CBI's four labs. We also interviewed CBI management on its plans for addressing the backlog and long turnaround times for DNA testing, including how CBI monitors the number of cases completed, estimates its ongoing staffing needs, and projects target dates for achieving its turnaround time goals. To understand the DNA testing process and lab operations, we performed site visits at each of CBI's four labs and interviewed nearly all CBI management and staff that have a role in DNA testing, which included interviews with five DNA managers and 31 biological scientists. We also interviewed CBI support staff, including evidence intake staff and case

managers, to understand how the labs handle evidence and provide customer service to law enforcement agencies that submit evidence.

In addition, we interviewed representatives from all five local forensic labs in Colorado, which are run by local governments and law enforcement agencies—Adams County Sheriff's Office DNA Laboratory, Colorado Springs Metro Crime Lab, Denver Crime Laboratory, Jefferson County Regional Crime Laboratory, and Unified Laboratory (Arapahoe County, Douglas County, and City of Aurora)—and conducted in-person site visits at four of these labs and a virtual tour at one. Finally, we interviewed staff or received written responses to questions from labs in eight other states (California, Delaware, Iowa, Louisiana, Tennessee, Utah, Washington, and Wisconsin). We used information from these labs to identify typical practices among forensic labs and common challenges labs face related to DNA testing.

In addition, we reviewed CBI's data on DNA testing and staffing, which included:

- Reports from CBI on the number of DNA cases submitted by law enforcement agencies for Calendar Years 2023 through 2025.
- Case data CBI used to monitor and report on its DNA testing process, including data on the DNA case backlog, and turnaround times for January 2023 through June 2025.
- Information CBI reported on its public dashboard regarding its DNA testing process from December 2024 through January 2026.
- Timekeeping data from CBI to measure the work hours and the amount of leave taken by DNA scientists for Fiscal Years 2023 through 2025.
- Records provided by CBI showing staff availability for Fiscal Years 2023 through 2025, including when staff were authorized for serology and DNA testing, to understand the labs' capacity for testing.

Finally, we reviewed the Forward Resolutions report and recommendations to learn about potential areas for improvement the contractor identified related to CBI's testing of DNA evidence.

The purpose of our audit work was to evaluate CBI's efforts to address its backlog and lengthy turnaround times for DNA testing, including testing of sexual assault kits, and to evaluate risks that could affect CBI's ability to reduce the backlog and turnaround times.

How were the results of the audit work measured?

Since 2013, there have been two statewide benchmarks for all accredited forensic labs in the state, including CBI's labs, regarding the timeliness of sexual assault kit testing; both of these benchmarks are specific to sexual assault kit testing and do not apply to other forms of DNA testing.

- In 2013, as directed by House Bill 13-1020, the Department of Public Safety (Department) promulgated a rule providing a benchmark for CBI's and other labs' turnaround time for testing sexual assault kits, which states, "Upon submission to an accredited crime laboratory, that laboratory must strive to analyze and, when appropriate, upload the information into CODIS within six (6) months of receipt of the forensic medical evidence [sexual assault kits] being submitted, assuming the laboratory has sufficient resources" [8 CCR 1507-29, Forensic Analysis].

- In 2025, Senate Bill 25-304 significantly decreased the benchmark timeline for CBI's and other labs' turnaround time for sexual assault kit testing to 60 days, stating that an "accredited crime laboratory must endeavor, subject to available capacity, funding and personnel, to analyze and, when appropriate, upload the information into [CODIS] within sixty days" [Section 24-33.5-113(6)(a), C.R.S.].

Notably, both criteria do not establish strict mandates for labs, but are constructed as goals, subject to labs having adequate resources.

According to CBI management, it does not currently expect to be able to meet the 60-day benchmark for sexual assault kits set by Senate Bill 25-304 within its existing resources and it has established interim internal goals for forensic testing beyond the state benchmark. Specifically, CBI aims to achieve and maintain a 90-day average turnaround time for all DNA cases, including testing sexual assault kits, and also achieve and maintain an average 90-day turnaround time for all forensic testing across disciplines. As of December 2025, CBI projected that it would be able to reach its internal 90-day average turnaround time goal for sexual assault cases, which includes all cases with sexual assault kits, by September 2026.

As part of reaching its DNA testing goals, CBI needs to routinely monitor and report turnaround time and evidence submissions relative to its testing capacity. Beginning in June 2025 and continuing on a permanent basis, Section 24-33.5-432(4)(c), C.R.S., requires CBI to maintain a public dashboard on its website showing monthly updates for several key metrics regarding its DNA testing, including the size of its case backlog, the number of cases completed, the number of cases submitted by law enforcement, average turnaround time, and estimated timelines for reaching its 90-day average turnaround time goal for sexual assault kits. To comply with this requirement, CBI has established and maintained a public "Eliminating the Backlog" dashboard on its website.

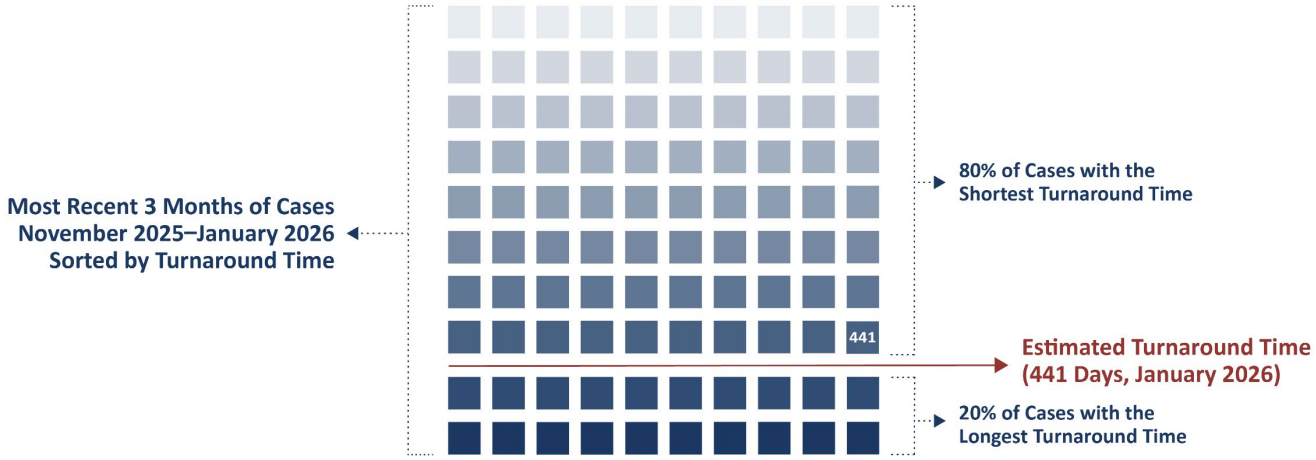
Under Section 24-33.5-432(4)(d), C.R.S., CBI is also required to report the information on its "Eliminating the Backlog" dashboard to the General Assembly on a monthly basis from March 2025 through June 2026, as well as updates on any difficulties it is experiencing with completing testing of DNA cases outsourced to a contract lab, and any issues that may cause CBI to not meet its projections from its February 2025 white paper provided to the General Assembly.

CBI's Calculation of Turnaround Times

As discussed, CBI measures turnaround time for an individual case as starting when a law enforcement agency submits evidence to a CBI lab and ending when CBI reports testing results back to the law enforcement agency. CBI monitors and reports turnaround time across all completed DNA cases on a monthly basis using two metrics, estimated turnaround time and average turnaround time.

Estimated Turnaround Time. CBI bases its estimated turnaround time on the turnaround times for the most recent 3 months of completed cases. To calculate estimated turnaround time, CBI compiles a report listing all of its completed cases from the previous 3 months with turnaround times for each case. It then reports estimated turnaround time using the 80th percentile turnaround time for all cases in the 3-month period (i.e., 80 percent of cases in this period had a turnaround time equivalent to or less than the reported estimated turnaround time). For example, CBI reported an estimated turnaround time of 441 days for all DNA cases, as of January 2026. This indicates that 80 percent of the cases that it completed between November 1, 2025 and January 31, 2026 were completed in 441 days or less. Exhibit 2.1 shows CBI's method for calculating estimated turnaround time.

Exhibit 2.1
CBI Estimated Turnaround Time Method (showing January 2026)



Source: Office of the State Auditor review of Colorado Bureau of Investigation estimated turnaround time method.

CBI indicated that it uses this method to estimate turnaround time because calculating turnaround time as an average can result in misleading results. This occurs because CBI tests some cases, such as those with a set court date, much sooner than other cases that may have been in the backlog for a longer time, which results in an average turnaround time that is shorter than what stakeholders, such as law enforcement agencies and victims, should expect for a typical case. Additionally, CBI uses the last 3 months of completed cases to measure turnaround times instead of just the most recent

month because monthly testing volume can vary substantially and cause turnaround times to be less representative of what stakeholders should expect.

Average Turnaround Time. CBI also bases its average turnaround time on completed cases from the most recent 3-month period. The figure CBI reports each month is calculated as the average turnaround time for all cases completed in the most recent 3 months. For example, CBI reported an average turnaround time of 266 days as of January 31, 2026, which indicates that the cases it completed between November 1, 2025 and January 31, 2026 were completed in 266 days, on average. According to CBI, the method used to calculate this figure is similar to what is used by most other labs in the state and nationally to report average turnaround time. Prior to June 2025, CBI did not track this metric. However, Senate Bill 25-304, effective June 2025, requires CBI to report the average turnaround time for DNA cases.

What problems did the audit work identify and why did they occur?

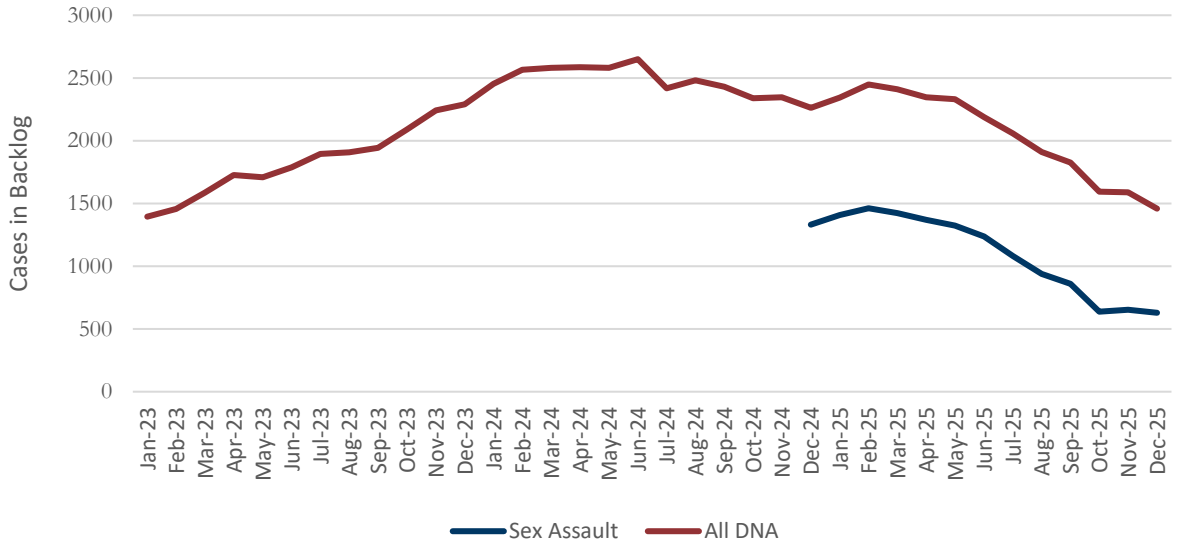
Overall, we found that CBI is following a reasonable plan to address its lengthy turnaround times for DNA testing, including the testing of sexual assault kits, and is making substantial progress towards reducing its case backlog and meeting its turnaround time goals. However, at the time of our audit, CBI had not yet reached its targets and we identified several risks that could impact CBI's ability to achieve and maintain its 90-day average turnaround time goal for DNA testing and the 60-day benchmark for sexual assault kits established in Senate Bill 25-304. Additionally, we found that CBI could clarify its expectations regarding scientists' productivity and workloads, and evaluate the need for additional management and training roles to support the increased number of scientists working in the Biological Sciences Unit.

Backlog and Turnaround Time

CBI's DNA case backlog and turnaround times remain elevated, but it has made significant progress since February 2025 in reducing the backlog, which should allow CBI to continue to reduce the turnaround time for testing that is currently in progress. As shown in Exhibit 2.2, CBI has had a substantial case backlog for DNA testing in recent years, including for sexual assault cases, which it began separately tracking in December 2024. However, by outsourcing sexual assault cases to private labs, CBI has significantly reduced its case backlog for sexual assault cases since February 2025. Although the backlog for all DNA cases has also decreased since February 2025, this figure includes sexual assault cases, and most of this reduction is also due to sexual assault cases being tested through outsourcing. As of December 2025, CBI reported a 629-case backlog for sexual assault cases and a 1,459-case backlog for all DNA cases—representing an overall reduction of 833 sexual assault cases and 989 DNA cases in total since February 2025.

Exhibit 2.2

CBI Forensic Labs DNA Testing Case Backlogs, Calendar Years 2023 through 2025[1]



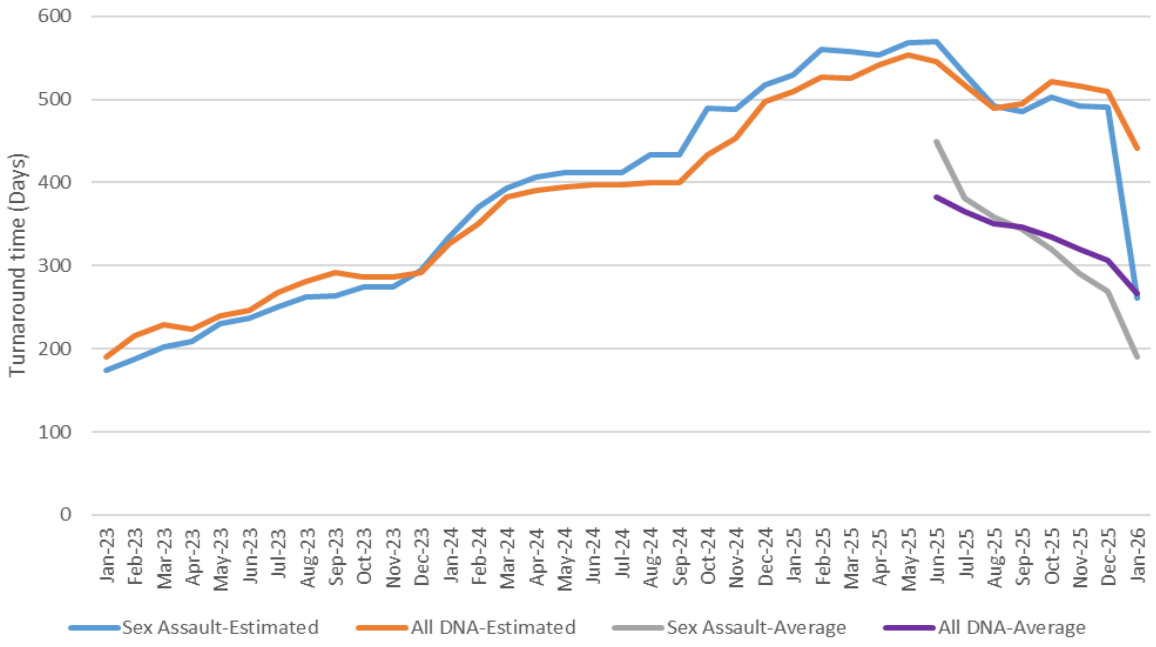
Source: Office of the State Auditor review of Colorado Bureau of Investigation data and monthly dashboard reports.
[1]CBI began tracking sexual assault case backlogs in December 2024.

As shown in Exhibit 2.3, CBI has also had lengthy turnaround times for DNA testing, including DNA testing on sexual assault cases, for the last several years. As of January 2026, CBI's average turnaround time for all DNA cases was 266 days and for sexual assault cases was 190 days, both significantly longer than its 90-day internal goal and the 60-day statutory goal. However, average turnaround times have been declining since June 2025, when CBI began reporting average turnaround time. Although estimated turnaround times only declined slightly from February 2025 until a sharp decline in January 2026, as discussed further, CBI's large outsourcing project likely impacted this reporting method, such that improvements in performance were not reflected in the figures reported for several months.

Exhibit 2.3

CBI Forensic Labs Estimated and Average Turnaround Times[1] for DNA Testing

January 2023 through January 2026



Source: Office of the State Auditor review of Colorado Bureau of Investigation data and monthly dashboard reports.
[1]CBI began reporting average turnaround times in June 2025.

According to Governors' Office of State Planning and Budgeting and Joint Budget Committee budget documents, in 2021, the Department reported that CBI lacked sufficient staffing to keep up with forensic testing because the demand for testing from law enforcement agencies had grown in recent years, while its staffing levels had not kept pace with the increased demand. For this reason, as part of a broader "right-sizing" initiative across CBI's divisions, it received an appropriation for a large increase in forensic scientists, with incremental increases spread across Fiscal Years 2023 through 2025. Due to the increases being spread over 3 years and the time needed to train new scientists, at the time of our audit, CBI was still in the process of implementing its right-sizing efforts within its forensic labs. In total, based on this appropriation and factoring in the need to train staff, CBI expected to increase the number of fully authorized DNA scientists working cases from 17 in 2022 to 31 by 2027. According to CBI, in mid-2022, when it first began to hire additional staff as part of this right-sizing effort, its turnaround time for all DNA testing was 145 days and was rising—at that time, CBI did not separately track DNA testing turnaround times for sexual assault cases.

CBI's efforts to increase its testing capacity stalled in late 2022, when two experienced DNA scientists resigned, and then in 2023, when seven DNA scientists went on extended protected leave for parts of the year. By mid-2023, the turnaround time for all DNA cases had grown to 281 days, with a turnaround time of 263 days for sexual assault cases. Around that time, CBI contracted with

private labs to complete DNA testing on about 600 property crime cases using federal grant funds; however, turnaround times continued to grow.

CBI reported that in Fall 2023, an intern working on a data analysis project discovered data irregularities in CBI's DNA testing data, which they reported to management. In reviewing this data, CBI discovered that a scientist who had been working for CBI for 29 years had allegedly manipulated data in some cases. Due to the nature of the problems identified, CBI determined that it needed to perform a review of about 10,800 cases that the scientist had worked on during their career. According to CBI, it needed to address these problems as soon as possible to identify any testing results that may have been compromised and to ensure that it would not lose its accreditation—which would compromise the admissibility of its testing results in court and cause it to lose access to CODIS. To complete this large-scale review, CBI redirected most of its DNA scientists from testing current cases in November and December of 2023 and, instead, had them review the scientist in question's cases. CBI continued to use about half of its DNA scientists' time to review cases in question during Calendar Year 2024. During this time, CBI's plans to train new staff were also delayed, which further impacted its ongoing effort to build its testing capacity. Due to these issues, by February 2025, the average turnaround time for all DNA cases had grown to 527 days, with the average turnaround time for sexual assault cases at 560 days. At that time, CBI reported that it had 16 DNA scientists doing casework and another 15 scientists who were still in training and not actively working cases.

As discussed, to reduce its backlog and turnaround times for testing on DNA cases, and sexual assault cases in particular, CBI developed a plan that was submitted as part of its Fiscal Year 2025 supplemental budget request. This plan was detailed further in a white paper provided to the General Assembly in February 2025. The plan included a request that the General Assembly roll over about $3 million that CBI had received—but not spent—in Fiscal Year 2025 to retest cases impacted by its former scientist's alleged misconduct, and allow CBI to use these funds to outsource testing for about 1,000 sexual assault kits in the backlog to private labs. The General Assembly approved this request during the 2025 Legislative Session. Additionally, CBI planned to continue to fill open scientist positions and complete training for newer staff to increase the number of CBI scientists authorized to perform serology and DNA testing and build its long-term capacity to complete testing. In February 2025, CBI reported that it expected to reduce the average turnaround time for sexual assault kits to 90 days by April 2027.

As of December 2025, CBI reported substantial progress in its efforts to address its backlogs for DNA testing and projected that it would be able to reduce average turnaround times for sexual assault cases to 90 days sooner than originally anticipated. CBI's turnaround times, in particular for sexual assault cases, have decreased. Exhibits 2.4 and 2.5 compare key metrics related to CBI's efforts to reduce turnaround times for DNA testing since February 2025. At the time of the audit, CBI had reported the information in Exhibit 2.4 through December 2025 and the information in Exhibit 2.5 through January 2026.

Exhibit 2.4

Change in Key DNA Testing Metrics at CBI between February 2025 and December 2025

Metric	End of February 2025	End of December 2025	Percent Change
Backlog for sexual assault DNA cases	1,462 cases	629 cases	-57%
Backlog for all DNA cases	2,448 cases	1,459 cases	-40%
Total number of DNA scientists working cases	16	19	19%
Estimated month to reach 90-day average turnaround time for sexual assault cases	April 2027	September 2026	-27%

Source: Office of the State Auditor review of CBI dashboard data and reports submitted to the General Assembly.

Exhibit 2.5

Change in Turnaround Times for DNA Testing at CBI between February 2025 and January 2026

Turnaround Times	End of February 2025	End of January 2026	Percent Change
Estimated turnaround time for DNA testing on sexual assault cases	560 days	261 days	-53%
Estimated turnaround time for DNA testing on all cases	527 days	441 days	-16%
Average turnaround time for DNA Testing on sexual assault cases	Not Available[1]	190 days	N/A
Average turnaround time for DNA testing on all cases	Not Available[1]	266 days	N/A

Source: Office of the State Auditor review of CBI dashboard data and reports submitted to the General Assembly.
[1]CBI did not compile and report data on average turnaround time prior to June 2025.

As shown in Exhibits 2.3 and 2.5, CBI reported only slight improvements to its estimated turnaround times between February 2025 and December 2025, before reporting large decreases for January 2026, in particular for sexual assault cases. It is important to note that this trend likely does not reflect the actual amount of time law enforcement agencies and other stakeholders should have expected CBI to take for cases submitted during February 2025 through January 2026. Specifically, CBI's method for calculating estimated turnaround times, as described in detail in the previous section, results in reasonable estimates when CBI's testing operations are relatively stable. However, it also results in a lagging indicator that can take several months to reflect changes in performance, in particular when a large volume of backlogged cases is being completed. At the time of the audit, many cases from CBI's backlog were being completed by contractors, including many older cases. For this reason, the estimated turnaround times reported during this period appear to be reflective of the age of cases in the backlog rather than the time stakeholders should have expected CBI to take to test cases currently being submitted, with the actual turnaround times likely to be substantially less than the estimated turnaround times. Additionally, both the estimated turnaround time and average turnaround time figures are based on a 3-month average, which means that when

there is a large backlog reduction, it takes at least 3 months to see the full impact of that reduction in the turnaround times. Based on our review of CBI's methods for reporting estimated turnaround time, as it completes the outsourcing project, its estimated turnaround time figures should continue to decline and then stabilize and be more reflective of how much time law enforcement and stakeholders should expect DNA testing to take.

CBI could potentially provide a more current estimate of turnaround time by assessing the current backlog size, projecting the number of cases that will be submitted, and projecting its capacity to complete cases. However, CBI's management reported that it prefers its current method of calculating estimated turnaround time because it is based on actual performance and not projections, making it less subjective. Also, CBI has found this method to be reasonably accurate when its operations are stable and it is not outsourcing a large number of cases and it would like to maintain the continuity of this metric with past results, which would be lost if it changed its method. While it is reasonable that management would not want to adjust its reporting method to accommodate the current outsourcing project, which is temporary, it has not noted this issue on its dashboard, so stakeholders may be led to believe it will take longer to complete testing than is actually the case.

CBI's plan to address the backlog and reduce turnaround times is reasonable and turnaround times will likely decrease, but we could not determine whether it will be able to reach its internal and statutory turnaround time goals. To assess CBI's efforts to reduce turnaround times, we reviewed CBI management's plans and information relevant to CBI's testing capacity, submitted case volume, and the potential size of ongoing backlogs. Although it appears likely that estimated and average turnaround times for DNA cases will decrease substantially in the coming months, because CBI's operations have been in a state of significant change since Fiscal Year 2023, there were not representative data on CBI's testing capacity during normal operations that would allow us to more definitively assess whether CBI will be able to achieve its 60-day and 90-day turnaround time goals within its current and expected resources.

Testing Capacity. As discussed, the number of DNA tests CBI can complete is dependent on the number of fully trained and authorized staff that it employs and how much testing each scientist can complete. As of December 2025, CBI reported having 19 scientists who had completed training and were authorized to work cases. However, at that time, one of the 19 scientists was expected to be requesting protected leave intermittently on an as-needed basis through June 2026, potentially reducing the number of scientists working on cases at times during that period. CBI reported that it expects seven additional scientists to be fully trained and authorized to work cases in early 2026. Once these seven scientists complete training and authorization, CBI expects to have about 26 scientists working DNA cases. It then expects five additional scientists to complete training by late 2027, increasing the number of scientists working DNA cases to 31. It is important to note that these staffing expectations do not include 8 additional DNA scientists that were appropriated beginning in Fiscal Years 2025 and 2026 to expand CBI's testing of DNA evidence related to auto theft cases. As of December 2025, CBI had hired these scientists who are undergoing training and was accepting auto theft cases and outsourcing them to a private laboratory. According to CBI, it plans to use these additional scientists to take on additional auto theft testing that it was not

completing at the time of the audit; therefore, they are not expected to impact CBI's ability to reduce its DNA case backlogs and their work will not impact turnaround times for DNA cases during Calendar Year 2026.

It is difficult to accurately estimate the productivity of CBI scientists going forward due to the substantial disruptions to CBI's normal operations in recent years, along with its ongoing efforts to increase staffing levels and train new scientists. However, we attempted to assess CBI's capacity to complete DNA testing by considering projections from CBI management as well as the typical productivity of scientists in other forensic labs. According to CBI management, when projecting its resource needs, it expects each scientist to complete about 90 to 100 DNA cases per year (7.5-8.3 cases per month), factoring in regular leave and holidays. This estimated productivity level is consistent with other forensic labs, based on the Project Foresight 2023-2024 Annual Report, published in 2025 (Project Foresight), which indicated that the middle 50 percent of labs reported staff completing between 77 and 125 DNA cases per year, with 100 cases per year being the median. Project Foresight is a research initiative run through West Virginia University that collects key self-reported performance metrics from forensic labs, including 220 labs in its 2025 report (CBI's forensic labs did not submit information for this project).

While CBI management's estimate of staff productivity is around the median reported by Project Foresight, if actual productivity levels were closer to the upper or lower end of the range provided by labs reporting to Project Foresight, CBI's testing capacity could vary substantially. Exhibit 2.6 shows hypothetical productivity levels based on varying assumptions on how many cases scientists may be able to complete.

Exhibit 2.6

Projected CBI DNA Testing Capacity, Based on Productivity Assumptions

	Annual Cases Completed Per Scientist →	**Multiply by** ↓ Estimated Scientists Working DNA Cases in Calendar Year 2026 →	**Equals** ↓ Annual DNA cases completed in Calendar Year 2026 **(Divide by 12→)**	**Equals** ↓ **Monthly cases completed in Calendar Year 2026**
CBI management productivity estimate	90-100	26	2,340-2,600	195-217
Project Foresight reported productivity for 25th percentile lab	77		2,002	167
Project Foresight reported productivity levels for median lab	100		2,600	217
Project Foresight reported Productivity for 75th percentile lab	125		3,250	271

Source: Office of the State Auditor calculation of CBI DNA testing capacity based on productivity estimates provided by CBI and reported productivity for labs as reported by Project Foresight.

Submitted Case Volume Versus CBI Capacity. CBI reports indicate that during Calendar Year 2025, it received about 180 DNA cases per month, of which 101 were sexual assault cases. Based on CBI management's staff productivity expectations discussed previously, in 2026, its staff should be able to complete about 195 to 217 DNA cases per month, which would allow them to keep up with demand at 180 cases per month and slowly continue to reduce the backlog of cases, assuming that submitted case volume stays relatively steady. By late 2027, if it has 31 fully-trained scientists working cases as planned, CBI should be able to complete around 233 to 258 DNA cases per month based on management's productivity estimates. This additional capacity could help CBI work more quickly through any existing backlog and provide a margin to accommodate increases in case volume and staff turnover and leave.

Backlog Size. As discussed, at the end of December 2025, CBI had a 1,459-case backlog for all DNA cases combined, which included a backlog of 629 sexual assault cases. At that time, CBI had completed 1,304 of the 1,900 sexual assault cases (69 percent) that it expected to outsource to private labs, meaning that there were about another 600 backlog cases that it expected to be completed through its outsourcing project, which is about the same number of cases as are included the current sexual assault case backlog. Subtracting these cases from the backlog would leave a total backlog of about 859 DNA cases that CBI scientists will need to complete. This means that CBI

scientists will need to process more DNA cases each month during Calendar Year 2026 than the number of new cases received in order to continue to reduce CBI's backlog.

Potential Reduction in Turnaround Times. Depending on CBI's testing capacity, number of submitted cases, and backlog size, CBI could potentially reduce its turnaround time to 90 days for sexual assault cases during Calendar Year 2026. For example, if CBI is able to reduce its sexual assault case backlog to 200 cases, it could achieve a turnaround time of about 90 days if its scientists complete about 100 sexual assault cases per month, as calculated in Exhibit 2.7.

Exhibit 2.7
Calculation of Turnaround Time for Sexual Assault Cases Using Assumed Backlog Size, Cases Submitted, and Testing Capacity

Based on our review of CBI's data and plan for outsourcing additional sexual assault cases, if it continues its current progress, it could achieve this backlog size and testing capacity during Calendar Year 2026, which would allow it to complete sexual assault cases within 90 days, on average.

CBI may also be able to reach a 90-day turnaround time for all DNA testing by the end of Calendar Year 2026. However, because it is only outsourcing sexual assault DNA cases to private labs, CBI will likely take longer to achieve its 90-day goal for all DNA cases. For example, if the backlog for all DNA cases—excluding those that are outsourced to private labs—is around 859 at the beginning of 2026; if CBI is able to increase its in-house testing capacity to about 217 cases per month—which is consistent with CBI management's current estimates—and if CBI continues to receive about 180 DNA case submissions each month, CBI would reduce its backlog by about 440 cases over the course of the year, leaving a backlog of about 419 by the end of 2026. Based on these assumptions and as shown in the calculation below, we estimate that CBI may be able to complete all DNA cases in 90 days by the end of 2026.

Exhibit 2.8
Calculation of Turnaround Time for DNA Cases Using Assumed Backlog Size, Cases Submitted, and Testing Capacity

It is important to note that our calculations simplify the turnaround time calculation in order to illustrate the impact of various factors on turnaround time and provide an approximation of CBI's potential to meet its internal turnaround time goals. In practice, turnaround times are influenced by additional factors that are not accounted for in our calculations, such as CBI prioritizing certain

cases, the age of the existing backlog, and the number of samples included in each case. Additionally, as discussed, CBI's methods of calculating turnaround times use the cases completed over the most recent 3-month period and the 80th percentile of cases for estimated turnaround time, which is not accounted for in our calculations. Further, the calculations rest on assumed productivity levels and case submissions and, although we attempted to use projections that are consistent with expected productivity levels CBI reported and CBI's historical case submission data, changes to any of these assumptions would change the results. As discussed in the next section, there are risks that could impact CBI's ability to reach a 90-day average turnaround time.

We identified a number of risks that could prevent or delay CBI's achievement of its internal 90-day and statutory 60-day turnaround time goals. Specifically, as discussed in the following sections, we identified several risks that could impact either CBI's testing capacity or the number of cases submitted.

CBI is vulnerable to long-term reductions in testing capacity due to staff turnover and extended leave. As discussed, staff shortfalls have caused CBI's DNA testing backlog to grow in the past and remain a significant risk area. CBI is particularly vulnerable to staff turnover because it takes about 2 years to hire and train a new scientist to be fully authorized to complete serology and DNA analysis. Our discussions with other labs in Colorado and in other states indicated that this is a consistent challenge among forensic labs because of the extensive training that is required for authorization under national accreditation standards. Although CBI has occasionally hired staff with experience in recent years, they still must undergo extensive training and get authorized using CBI lab equipment before they can complete casework, which takes at least 6 months, but more typically about a year. As discussed, CBI management expects scientists to complete about 100 cases per year, which means that for every scientist that leaves CBI and must be replaced, CBI's annual capacity is reduced by about 100 cases for at least 6 months, but more typically for 2 years. Further, it is likely that CBI will experience at least some decrease in testing capacity due to staff turnover. For example, if CBI's labs experience a 10 percent attrition rate among scientists, which based on data reported by the Department of Personnel & Administration would be slightly less than the average across the Department of Public Safety in Fiscal Year 2024, CBI would need to replace about 3 of its 31 DNA scientists each year, and would potentially have about 6 scientists in training who cannot complete casework at any given time. This would reduce its staff available to conduct testing by about 19 percent (not counting the extra time fully trained scientists might need to spend on training new staff). If several staff leave at the same time, the impact could be more severe.

CBI is also vulnerable to decreases in testing capacity due to scientists taking long-term protected leave as provided under the State's leave policies. As discussed, CBI had seven staff take extended protected leave for parts of 2023, and as of January 2026, it expected one staff to take intermittent protected leave through June 2026. When scientists go on extended leave, CBI generally does not have the ability to hire temporary staff to fill in for them due to the highly technical nature of the work performed, which reduces its testing capacity for the time that the scientists are out on leave. Although the impact of extended protected leave is highly variable based on when staff need to take it, when several staff take extended leave during the course of a year, the impact can be significant. For example, if four staff take 12 weeks of leave over the course of the year, it is equivalent to CBI

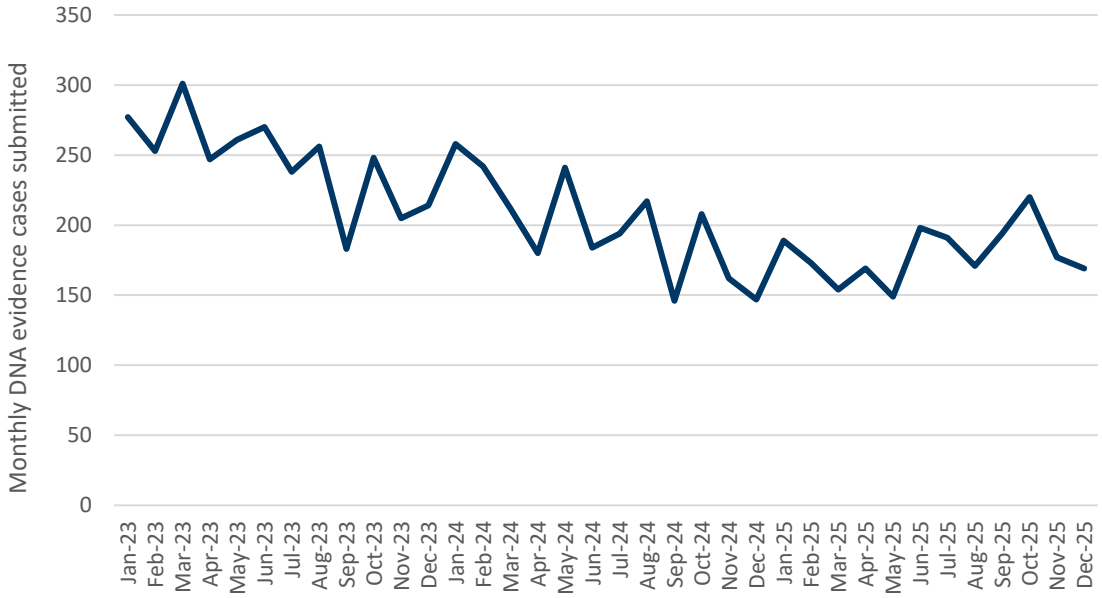
losing about one scientist for the year. Currently, eligible state employees can take up to 12 weeks of Family Medical Leave (FML) and one week of State Family Medical Leave in a rolling 12-month period for qualifying events; 160 hours (4 weeks) of that leave is paid. Eligible employees may also qualify for 12 weeks of partially-paid leave under the Family and Medical Leave Insurance Program (FAMLI), which is intended to run concurrently with FML for the same qualifying event, but in practice is often run sequentially. Employees can also be approved for up to 6 months of short-term disability during a 12-month period, which is also intended to run concurrently with FAMLI and FML for the same qualifying event, but can run sequentially. This is in addition to their annual leave and regular sick leave, among other unpaid and paid leave options.

CBI is vulnerable to increases in demand for testing. CBI's forensic labs serve all law enforcement agencies in Colorado that choose to submit evidence for testing and provide this service free of charge. While CBI completes about half of the DNA testing in the state, the number of DNA cases submitted to CBI is subject to change based on local labs' capacity and law enforcement agencies' decisions on where to submit cases. If the local labs experience increases in testing volume, or reductions in resources that impact their ability to test cases, CBI can be required to fill in the gap, causing an increase in submissions to CBI. For example, in 2025, one local lab experienced staffing turnover and determined that it no longer had the resources to accept DNA evidence for sexual assault cases and law enforcement would need to route this evidence to CBI until the local lab hired and trained new DNA staff. Additionally, some local labs we visited explained that due to CBI's long turnaround times for DNA tests, the local labs had increased their capacity to complete DNA testing, in some cases charging law enforcement agencies from other jurisdictions to take on additional DNA tests. However, they indicated that law enforcement will likely start to send more cases to CBI if it is able to make substantial reductions in its turnaround time.

Our review of CBI case submission data from Calendar Years 2023 through 2025 shows that DNA testing submissions to CBI have decreased in recent years, potentially due to the impact of lengthy turnaround times, and due to local labs building their capacity to perform tests. As shown in Exhibit 2.9, during Calendar Year 2023, CBI consistently received more than 200 DNA cases for testing each month, averaging 247 cases per month that year. Submission volume then decreased to about 180 cases per month in 2025. Although it is uncertain whether demand for testing will return to Calendar Year 2023 levels, as discussed above, CBI only expects to have the capacity to test about 217 cases per month in 2026, increasing to about 258 by late 2027, assuming no staff turnover or extended leave. Therefore, if submissions increase, and depending on the timing of the increase, CBI may not be able to keep up with demand for DNA tests, which would impact its ability to achieve and maintain a 90-day or 60-day turnaround time.

Exhibit 2.9

Number of DNA cases submitted to CBI monthly, Calendar Years 2023 through 2025



Source: Office of the State Auditor review of CBI reports showing DNA case submissions from law enforcement agencies.

In addition to the number of cases submitted, CBI's testing volume is also dependent on the types of cases it receives, the amount of evidence submitted for each case, and whether scientists have to testify in court. For this reason, the DNA scientists and managers who we interviewed said that the amount of staff time needed for a case varies significantly. For example, for the most serious crimes, such as a homicide or sexual assault, law enforcement may submit more evidence and request testing on more samples. In addition, some crime scenes may be more complicated and require CBI scientists to spend more time in the serology phase to prepare more samples for testing. Additionally, when scientists are subpoenaed to testify in court, it can significantly increase the amount of time they must spend on the case. Scientists may have to travel across the state for the trial since CBI accepts cases from jurisdictions across the state, and they have to prepare for their testimony. Therefore, variations in the types of evidence CBI receives and additional duties, such as testifying in court, can affect the amount of time staff must spend on each case and CBI's overall capacity to complete cases.

CBI may also have increased testing volume in the coming years due to retesting evidence at the request of district attorneys for some cases CBI's investigation identified as being impacted by its former scientist's alleged misconduct. In September 2025, pursuant to House Bill 25-1275, CBI provided the results of its review of cases impacted by the former scientist's alleged misconduct to district attorneys who handled the cases. This law requires district attorneys to notify defendants if the scientist who engaged in misconduct worked on their case. Under the bill, by December 2025, the district attorneys needed to provide this information to defendants who were impacted by the cases reported by CBI in September. This could create the need to retest the evidence in these cases.

For example, if defendants appeal their convictions on the basis of the former scientist's alleged misconduct and their conviction is overturned, the district attorney with jurisdiction over the case may request that CBI retest the evidence to help them determine whether to retry the case. According to CBI, it identified about 10,800 cases that were tested by the former scientist and determined that about 1,000 of those were impacted by the alleged misconduct. Although CBI does not have an estimate of how many cases it will need to retest, it indicated that it expects less than half to ultimately need retesting. As discussed, in order to avoid collecting evidence that could impact an ongoing criminal case against the former scientist, we did not obtain or review information from CBI related to CBI's review of these cases.

Representatives from the Office of the State Public Defender and Office of the Alternate Defense Counsel—which combined represent more than 80 percent of criminal defendants in the state—told us that their agencies were in the process of reviewing the cases that CBI identified for defendants that they represented. They were uncertain of how many cases they would need to appeal for clients, but indicated that they were expecting it to be a substantial number. In their Fiscal Year 2026 budget request, the offices requested $2 million combined to evaluate the information and appeal cases. As discussed, CBI received an appropriation of about $3 million in Fiscal Year 2025 to perform retesting on the impacted cases, but because it received few requests for retesting and did not spend the funds, it requested that these funds be rolled over and used to outsource sexual assault testing to private labs during Fiscal Year 2026. As a result, these funds are no longer available as a resource to complete additional testing requests CBI may receive.

CBI cannot consistently rely on outsourcing cases to private labs to address long-term staffing shortages or increases in testing demand. Although outsourcing cases to private labs can help CBI reduce large case backlogs, CBI leadership identified the following issues with outsourcing that make it difficult to use private labs to address long-term resource needs.

- Outsourcing can be costly and CBI must have available funds to pay outside contractors. During its current outsourcing project, CBI spent about $2,000 per case to have private labs complete testing. At this cost, CBI would need to have about $1 million to outsource 500 cases. While federal grants are sometimes available for this purpose, CBI reported that it cannot rely on this funding being available and it takes time to apply for and be awarded grants, during which time backlogs can continue to grow.

- Procuring contractors can take several months and, to achieve reasonable contract terms, CBI generally needs to have a relatively large number of cases that it wants to send to contract labs. Although for the current outsourcing project CBI was able to procure three vendors to perform testing relatively quickly, this was because it had recently procured testing from the same vendors and was approved by the Office of the State Controller for a special exception from the normal procurement process in order to expedite the process. However, under normal circumstances, CBI reported that it takes at least 6 months to procure services from contract labs. Additionally, in order to set standardized testing rates for the contract and control costs,

CBI may need to limit the type of cases it submits to private labs. For example, for its current outsourcing project CBI limited cases submitted to the private labs to those with a sexual assault kit.

- Staff must spend time preparing cases to send to contract labs, reviewing their results, and entering profiles into CODIS. CBI reported that for its current outsourcing project it pulled seven scientists off their regular testing assignments for most of Calendar Year 2025 to review outsourced cases and enter profiles into CODIS, which private labs cannot do under FBI regulations. This means that those seven scientists were not able to conduct their own testing during this time. As discussed, on average, CBI scientists are each able to test about 100 cases per year.

For these reasons, CBI management reported that although outsourcing was necessary to address its current large backlog, it is more effective to build long-term capacity in-house, rather than using contract labs.

Based on the risks we identified, CBI will need to continue closely monitoring its progress and potential risks that could cause it to not meet its testing goals. It is also important that CBI inform the General Assembly and stakeholders if it identifies issues that could delay its progress. Due to the time needed to increase the number of scientists who are authorized to conduct DNA tests, CBI will need to monitor its testing capacity, productivity levels, and case submission volume closely as it continues to build its capacity for testing and request additional resources or make operational changes as soon as possible if it determines that it lacks the capacity to keep up with case submissions. Further, as discussed in Finding 2, we found that CBI's information systems currently have limitations that reduce the amount of information available for management to track performance and assess risks. CBI may be able to improve its ability to monitor its progress and identify issues by addressing information systems limitations.

We found that scientists did not have a consistent understanding of management's expectations regarding how many cases they should complete. Scientists we interviewed indicated their commitment to delivering high-quality results, but did not have a consistent understanding of CBI management's productivity expectations, with some saying that they had to meet quotas and others saying that although they had productivity goals, these were not something that management strictly enforced. Several scientists said that quotas based on the number of cases completed did not always reflect their true workload because the amount of work needed on a given case can vary substantially. Some scientists also indicated that they felt that it was difficult to meet testing quotas due to other administrative duties they have, while others indicated that their managers had made reasonable adjustments to their performance expectations to account for their other duties. Several scientists also reported feeling pressure to complete more work than what they felt was reasonable and that it was having a negative impact on their morale and work-life balance. According to management, it intends that scientists put the highest priority on providing high-quality testing results that meet the strict standards required of forensic labs, rather than meeting productivity targets. It has communicated productivity targets as a way to provide benchmarks for scientists to understand management's general expectations, but does not intend for these targets to

function as strict quotas that staff must meet. However, CBI does not have a written policy or guidelines for its lab managers or scientists on its productivity expectations and how scientists should balance testing quality with the need to complete the large volume of cases CBI receives and has in its backlog.

With the number of scientists at CBI labs increasing, there may be a need for additional management and training roles to support additional staff. Management and staff we interviewed indicated that management may be spread thin between the number of direct reports they have and other administrative duties. As the number of staff reporting to managers has increased, staff reported that there are sometimes bottlenecks at the manager level when staff need them to complete reviews and managers may not always have enough time to provide support and communication to staff. We found that CBI managers in the Forensic Services Section have between 9 to 13 direct reports each, which includes scientists and other support staff, and is substantial considering the technical nature of the work and need to maintain strict quality standards. The Forward Resolutions evaluation, conducted by evaluators with experience in lab operations, found similar issues and reported that managers within the Forensic Services Section had a span of control that exceeded industry standards.

Additionally, CBI does not currently have dedicated training staff and has relied on experienced scientists to take on training responsibilities. Some newer scientists that we interviewed, who had recently completed authorization training, gave mixed reviews of their training experience. Although they generally indicated that they felt prepared to take on cases, some said training sometimes felt disorganized and slower than necessary and that trainers were not always available to provide support due to competing responsibilities. Other scientists indicated that trainers seemed overwhelmed with other duties at times, which impacted the quality of training they could provide. Given the number of CBI scientists hired by the Forensic Services Section since 2022 and the extensive training required for scientists to be authorized to conduct testing, it is likely that there will be a consistent need to train new scientists. Once CBI is staffed with 39 DNA scientists, if it experiences a 10 percent attrition rate each year, it would consistently have about eight DNA scientists in training, assuming the training takes about 2 years.

Although CBI management indicated that it has considered adding additional roles as part of its efforts to increase capacity, it has not fully assessed its needs in these areas. Further, because managers and staff have had to take on extra work in recent years due to the addition of new staff, ongoing investigations, efforts to improve quality assurance processes, and the large outsourcing project, it is possible that some of the issues reported by staff will subside as CBI resumes more normal operations. However, as discussed, the evaluation conducted by Forward Resolutions found similar issues and recommended that CBI add management and training roles to better support its forensic labs. CBI reported that it is currently evaluating this recommendation.

Why do these problems matter?

CBI's labs are a critical resource for law enforcement agencies in the state and support public safety by allowing law enforcement to identify, and district attorneys to prosecute, individuals who commit

crimes. According to law enforcement agencies we contacted, which included five law enforcement agencies that responded to our survey of 12 of the 172 law enforcement agencies that had submitted cases to CBI for testing in Fiscal Year 2025, while they appreciate CBI as a partner in investigating crimes and its efforts to prioritize cases with court dates set, lengthy turnaround times for DNA testing interfere with their ability to identify suspects and complete investigations. Similarly, district attorneys' offices we spoke with indicated that depending on the circumstances, DNA evidence can be highly impactful to their cases, and that when they are not able to get testing results in a timely manner, they are forced to delay prosecutions, request that courts move trial dates back, or move forward in cases without DNA evidence. While cases are delayed, suspects may remain out of custody, increasing the risk that they will commit another crime. Additionally, when criminal investigations are delayed, victims of crimes may not get closure and may be or feel unsafe if a suspect is still at large.

For sexual assault cases, after experiencing the trauma of the crime itself, victims often must undergo an invasive process to collect sexual assault kit evidence for DNA testing. Therefore, lengthy turnaround times for DNA cases can have a particularly severe impact on victims in these cases and may give the appearance that CBI and law enforcement are not adequately prioritizing their cases. According to one district attorney's office we spoke with, lengthy delays in cases may also cause some victims to no longer want to keep their cases active so that they can move on with their lives. Further, our interviews with CBI's DNA scientists indicate that they are highly driven in their mission to support criminal investigations and deliver high-quality results and that long case backlogs and turnaround times create additional pressure to complete cases and have a negative impact on their morale. Therefore, it is important that CBI continue to work to address the current backlog and reduce turnaround times for DNA testing as quickly as possible.

Finally, CBI's labs have been growing significantly in recent years in order to increase their capacity to complete testing. Based on this growth, CBI may be able to improve its operations by assessing its distribution of positions providing management, training, and administrative support and determining whether additional staff in these roles or reassignment of staff would improve its labs' ability to support staff and meet CBI's productivity and quality goals.

Recommendation 1

The Colorado Bureau of Investigation should continue working to address its turnaround times, case backlogs, and risks that could impact its ability to reach its internal and statutory turnaround time goals for DNA testing, and ensure that the General Assembly and stakeholders are informed of the current status of backlogs and turnaround times by:

A. Monitoring its backlogs and turnaround times for all DNA cases, including sexual assault cases, regularly assessing risks that could impact its ability to achieve its testing goals, and taking action if it determines that it will not be able to meet its goals, such as informing the General Assembly and stakeholders of the issue, requesting additional resources, and/or making changes to its operations.

B. Providing additional information on its dashboard and reports to the General Assembly when metrics on its dashboard do not fully represent its current performance, such as metrics related to turnaround times, which may be impacted by its outsourcing project and are based on the prior 3 months.

Response

Colorado Bureau of Investigation

A. Agree
Implementation Date: December 2027

The CBI is committed to continued transparency about testing backlogs and turnaround times. CBI will continue to monitor and report these metrics with the processes currently in place. This includes regular assessment of case submissions, completions, analyst work assignments, and monthly reporting of key metrics. CBI anticipates meeting the 90 day turnaround time goal for sexual assault cases in September 2026. CBI will continue to reduce turnaround time for all DNA testing through 2027.

B. Agree
Implementation Date: May 2026

CBI will assess the best way to provide a better reflection of the current performance of our turnaround time for all DNA testing and sexual assault cases. CBI will evaluate all options, to include adding clarifying information or an additional metric to our dashboard and monthly reports to make sure the current performance is better understood.

Recommendation 2

The Colorado Bureau of Investigation should ensure that its scientists have a clear understanding of management's expectations regarding productivity by establishing and communicating written guidance regarding the volume of testing it expects scientists to complete. This guidance should take into consideration the size, as well as the number of cases scientists complete, and the need to complete high-quality work and balance testing with other non-testing duties.

Response

Colorado Bureau of Investigation

Agree
Implementation Date: June 2026

The CBI management will draft a policy or guidance document about productivity and expectations. Management will work with scientists on edits and adjustments in order to ensure understanding and alignment between scientists and managers on these expectations. This will include consideration for

the types of cases, complexity of cases, and samples tested in each case. This document will provide clarity regarding the productivity expectations for each month and year.

Recommendation 3

The Colorado Bureau of Investigation should, as part of implementing its plan to increase testing capacity and grow the size of its staff, ensure that it has an adequate number of staff in management and training roles by:

A. Assessing the need for additional management, training, and other staff roles to support its testing operations, whether current staff resources are adequate to fill these roles, and whether additional resources are necessary.

B. Based on its assessment in Part A, develop and implement a plan to address any needs identified.

Response

Colorado Bureau of Investigation

A. Agree
Implementation Date: June 2026

This recommendation aligns with recommendations by Forward Resolutions. CBI will collaborate with staff and managers to assess its staffing needs related to management, training, and other necessary staff roles. Through this process CBI will identify whether additional resources are needed.

B. Agree
Implementation Date: June 2026

Following the assessment completed in Part A, CBI will develop an implementation plan. This plan will include how the needed resources can be obtained, what approvals are required, request deadlines to request the resources, and if approved when they will be implemented.

Finding 2 – CBI Forensic Labs' Information Systems

CBI's forensic labs rely on the Laboratory Information Management System (LIMS) to store case information, monitor the status of cases, record testing information and results, and report to management and other stakeholders. The Forensic Services Section uses LIMS as its case management system for all of its testing types, including DNA testing. CBI purchased the system from a vendor, Forensic Advantage, and has an ongoing service contract with Forensic Advantage for system support and periodic updates. According to CBI management, the system is primarily designed to provide point-in-time information as cases progress through the testing process and staff update their status and enter results. However, the system also allows management to run a number of reports to provide metrics, such as turnaround times, backlog size, number of cases completed, and number of cases submitted.

Additionally, the Department uses UKG Workforce Management (UKG) as its timekeeping system across its divisions, including the Forensic Services Section. Staff enter timekeeping information, such as work hours, overtime, and leave, into UKG, and managers and supervisors use the system to review and approve staff time. The Department's human resources office administers UKG.

For system support, the Forensic Services Section relies on one IT staff, who is employed by the Department of Public Safety and serves all of CBI's sections. Additionally, CBI works with the Governor's Office of Information Technology (OIT) for system support and, at times, works with OIT to create additional reports in LIMS. In addition to working with Forensic Advantage, CBI's labs also work with equipment and software vendors to maintain and repair its lab equipment, update software, and connect its lab equipment to its computer network.

What audit work was performed and what was the purpose?

We reviewed CBI data and reports on DNA testing and staffing, which included:

- LIMS reports containing testing records for all cases completed from Fiscal Years 2023 through 2025.
- Management reports prepared using LIMS showing DNA case backlogs, turnaround times, cases completed, and cases submitted by law enforcement for Fiscal Years 2023 through 2025.
- Monthly online dashboard figures on DNA testing posted on CBI's website between December 2024 and December 2025 and reports CBI sent the General Assembly from March 2025 through September 2025.
- Timekeeping data for staff in CBI's Biological Services Unit for Fiscal Years 2023 through 2025.

Additionally, during our site visits at CBI's four labs, we interviewed CBI management and staff within the Forensic Service Section regarding the LIMS system, lab equipment, and IT support they

receive. We also interviewed IT staff who provide systems support across all of CBI's divisions and CBI human resources staff responsible for overseeing UKG, CBI's timekeeping system.

The purpose of our audit work was to assess CBI's information systems to determine whether they are adequate to support CBI's testing operations, and its monitoring and reporting of key information regarding DNA testing.

How were the results of the audit work measured?

As part of reaching its DNA testing goals, CBI needs to routinely monitor and report turnaround time and the number of case submissions relative to its testing capacity. Beginning in June 2025 and continuing on a permanent basis, Section 24-33.5-432(4)(c), C.R.S., requires CBI to maintain a public dashboard on its website showing monthly updates for key metrics regarding its DNA testing, including:

- Total caseload numbers subject to the backlog.
- Total fiscal-year caseload numbers subject to the backlog.
- Total number of cases with pending DNA evidence tests.
- Total number of sexual assault cases.
- Total number of cases with a pending DNA evidence sample collected with attached or independently submitted forensic medical evidence (i.e., sexual assault kits).
- Total number of cases with a pending DNA evidence sample collected from a crime scene involving sexual assault for which no forensic medical evidence has been submitted.
- Current average turnaround time for a DNA evidence test.
- Current average turnaround time for a forensic medical evidence test (i.e., sexual assault kit).
- Total number of tests that CBI has completed in the previous 30 days.
- Total number of tests that laboratories with which CBI has contracted have completed in the previous 30 days.
- Total number of new DNA tests and forensic medical evidence tests received within the previous 30 days.
- Anticipated timeline for CBI to achieve an average 90-day turnaround time for forensic medical evidence tests.
- Information concerning CBI lab analyst staffing levels.

- The information required pursuant to Section 24-33.5-113.5(4) C.R.S., which beginning January 30, 2026 and every 6 months thereafter, requires the Department to report to the General Assembly the number of sexual assault kits submitted, tested, and pending at all Colorado labs, including CBI and labs administered by local governments.

Under Section 24-33.5-432(4)(d), C.R.S., CBI is also required to report all of this information to the General Assembly, as well as provide updates on any difficulties with completing DNA cases outsourced to contract labs, and any issues that may cause CBI to not meet its projections in its February 2025 white paper provided to the General Assembly, on a monthly basis from March 2025 through June 2026.

Further, Standards for Internal Control in the Federal Government (commonly known as the Green Book) provides guidance related to the control system that management employs to provide reasonable assurance that an organization's objectives will be achieved. These standards represent an accepted best practice for internal control systems in governmental organizations and are required for all of Colorado's executive branch agencies. According to the Green Book:

- Management should design general control activities over information technology to mitigate risks to achieving the entity's objectives to acceptable levels [Principle 11, 11.01].

- Management should obtain or generate relevant, quality information and use it to support the functioning of the internal control system. [Principle 13, 13.01].

Based on these criteria, we reviewed CBI's information systems and processes to assess whether they allow for accurate reporting based on statutory requirements and adequately support the needs of CBI management and staff.

What problems did the audit work identify and why did they occur?

Overall, we found that CBI's information systems and processes generally allow for accurate reporting for its statutorily-required dashboard and reports to the General Assembly. However, CBI could improve its monitoring of performance and risks with improvements to its information systems. Additionally, LIMS and CBI's testing equipment are susceptible to IT issues that take them offline, delaying testing.

CBI has a limited ability to monitor risks and performance. Because CBI's labs are subject to a variety of factors that could impact their ability to meet turnaround time goals for DNA testing while ensuring high-quality work, it is important that CBI management closely monitor its testing process. Although some risks we identified in Finding 1 are outside of CBI's control, by monitoring staff productivity and workload, and identifying issues that could impact testing as soon as possible, management can take actions to mitigate the impact on testing and plan for its long-term staffing and equipment needs. While we found that CBI has generally complied with statutory reporting requirements, we identified several opportunities for improvements to its information systems that

would enhance its ability to monitor its DNA testing, assess its performance, and measure its resource needs.

We found that LIMS, CBI's information system for managing forensic testing, lacks the ability to track some important metrics related to workloads and turnaround times. Specifically:

- LIMS lacks the ability to generate reports on key information from cases. For example, CBI management cannot generate a report showing the type and volume of evidence submitted for all cases awaiting testing or for cases completed during a specific time period. Although CBI reported that this information is available in individual case records, it cannot be systematically pulled across sets of cases in order to perform aggregate analyses. Because the type and volume of evidence in a case can impact scientists' workload, being able to systematically review this information could help inform CBI's assessment of staffing needs.

- LIMS has a limited ability to generate reports showing the type of crime(s) associated with cases completed. CBI can run some reports that distinguish between completed sexual assault cases and non-sexual assault cases, but for non-sexual assault cases, it cannot run reports showing the specific type of crimes associated with each case. The specific case files in LIMS include more detailed information on the crimes associated with each case and there are reports available to CBI management and scientists showing the types of crime for cases that are in the backlog. However, if LIMS was able to comprehensively track the types of crimes associated with completed cases, CBI management could more systematically assess how staff are prioritizing cases (e.g., violent crimes versus property crimes) and would have a better understanding of the volume of testing that was completed since CBI allows more evidence to be submitted for serious crimes. At the time of the audit, CBI management indicated that it was working on expanding its LIMS reporting on crime types for completed cases.

- The reports available in LIMS require management to perform manual steps to prepare figures for the "Eliminating the Backlog" dashboard on CBI's website. For example, if one scientist completes serology testing on a case and then another scientist does the DNA analysis, this will appear as two records in reports generated by LIMS, but cases where one scientist completed both testing stages will typically appear as only one record. For the totals reported on CBI's Eliminating the Backlog dashboard, this requires CBI management to manually identify and subtract the number of completed serology lab records from the total number of completed tests included in the standard reports.

- LIMS does not maintain records of the underlying data used to calculate benchmarks in management reports. Since 2023, CBI has maintained records showing the results of its monthly monitoring of key benchmarks such as turnaround times, case backlogs, cases completed, and cases submitted. However, because the underlying data was not available, we could not confirm the accuracy of the reports. To assess the reliability of CBI's reported metrics on its Eliminating the Backlog dashboard, we reviewed CBI's method and internal management reports used for its August 2025 dashboard reporting. Although we determined that CBI's method provides figures

that reasonably reflect its performance and we did not identify significant inaccuracies in the reports that we reviewed, as a manual process with several steps, there is an increased risk of errors.

According to CBI, although it could work with Forensic Advantage to capture additional information within LIMS and improve the availability of case tracking data, these kinds of changes would require CBI to contract with Forensic Advantage to perform the additional work to make additions to the system. Further, CBI is currently using an older version of Forensic Advantage's LIMS system and could potentially address some of the issues we identified by upgrading to the new version. Additionally, there are other systems available to forensic labs, which CBI could consider. However, switching to a different vendor's system would be a substantial undertaking and require significant resources. CBI has worked with staff from OIT to develop some of the standard reports it uses to extract information from LIMS and it could potentially work with OIT to program additional reports to improve its ability to track and monitor testing. However, according to CBI management, because OIT has limited staff resources available to perform this work, CBI must limit its requests for additional report programming to its highest priority needs.

CBI does not track detailed information on how its DNA scientists use their time. The Forensic Services Section uses CBI's timekeeping system, UKG, to track work, leave, and overtime hours for its staff. However, staff do not record some details about their work hours in UKG, such as time testing cases, time completing administrative tasks, and time in training, that would be helpful for monitoring how much time staff spend testing cases and determining the impact of other duties on CBI's testing capacity. For example, several of the more experienced staff we interviewed indicated that they had administrative and training responsibilities that significantly reduced the amount of time they have available for testing cases. However, without time records breaking out how staff use their working time, it is difficult to accurately assess the impact that these other duties may have on testing capacity. Similarly, several staff we interviewed indicated that the amount of time they spend preparing and traveling to testify in court had increased in recent years. Although CBI scientists have tracked this information within LIMS, management indicated that it cannot extract comprehensive data on staff court time for analysis and this information is not tracked in UKG. CBI could also utilize more detailed time records in addition to the scheduled leave requests recorded in UKG to refine its staff capacity expectations and improve its communications with stakeholders. According to CBI, at the time of the audit, it was developing reports in LIMS that would allow management to gather more comprehensive data on the time scientists use for testifying in court.

IT issues delay testing and cost management and staff time. During our site visits, one of the most common concerns CBI scientists raised when asked about problems that slow down their ability to complete tests was IT issues that delayed testing. According to CBI staff, they can temporarily lose access to LIMS because of compatibility issues when other system updates occur. For example, updates to security software can result in staff being blocked from accessing LIMS. In these cases, CBI management and staff must work with OIT or Forensic Advantage to address the issue, but while that is occurring, testing may be delayed. Additionally, for some of CBI's DNA testing equipment, the equipment vendors no longer provide software updates to keep the

equipment compatible with the newest version of the Windows operating system, which has caused delays and requires workarounds, such as the equipment being removed from CBI's network. Although this keeps instruments operational, it makes information from the equipment inaccessible to scientists who are not physically in the lab (e.g., working at home or traveling to testify in court).

According to CBI management, some of these issues could potentially be addressed by CBI upgrading to a newer version of LIMS and/or purchasing new equipment. However, the time and cost to make these changes could be substantial. Based on the delays reported to us by staff and the system issues that limit CBI's ability to monitor performance and risks, it appears that CBI would benefit from a more comprehensive assessment of its information systems and equipment needs to address these issues. This could include evaluating what changes it could make within current resources and determining whether it needs to seek additional resources to improve the performance of its systems.

Additionally, although forensic testing requires a substantial amount of testing equipment, a large database (LIMS), and other software applications to run tests and analyze data, the Forensic Services Section does not have dedicated IT support staff, so its managers and staff must spend time working with CBI's shared single IT support staff and, in some cases, OIT staff. These ongoing IT issues can be particularly burdensome. FBI standards for forensic labs also require time-intensive validation processes be performed when there are changes to equipment or software, which CBI must also consider when planning improvements. Several managers and staff indicated that given the complexity of their systems, having IT staff dedicated to the Forensic Services Section could improve the quality of their systems and reduce the amount of time managers must spend addressing IT issues. Additionally, the evaluation conducted by Forward Resolutions found similar issues and recommended that CBI add IT staff to better support its forensic labs. CBI reported that it is currently evaluating this recommendation.

Why do these problems matter?

By addressing IT issues and optimizing its ability to monitor performance and risks, CBI management could be in a better position to respond to problems when they occur, avoid delays, and identify improvements to its processes. For example, CBI currently sets staff productivity guidelines based on the number of cases staff complete, but because cases can vary significantly in the amount of evidence submitted that must be tested, some staff we interviewed indicated that current productivity targets did not adequately recognize the additional effort needed for larger cases. If CBI had the ability to systematically review the type of evidence submitted for cases submitted and completed, it could improve its assessment of the amount of work staff complete and set more effective productivity targets.

Additionally, because LIMS cannot systematically pull reports showing the type of evidence received in a case, it is difficult for CBI to track metrics specific to cases for which a sexual assault kit was submitted. Although Section 24-33.5-432(4), C.R.S., requires CBI to report several metrics specific to cases with sexual assault kits, CBI has instead reported metrics on sexual assault cases generally for most of these metrics. Because about 96 percent of sexual assault cases in CBI's case backlog

have a sexual assault kit submitted as evidence, it is unlikely that there would a substantial difference in the information reported for sexual assault cases versus sexual assault kits; however, CBI's limited system capabilities prevent it from providing precise information on its testing of sexual assault kits.

Further, due to the issues we identified, CBI follows a cumbersome process to track and report performance metrics required by statute and that its management uses for monitoring performance. Specifically, in order to report performance information required by statute on a monthly basis, CBI must pull key data, such as the cases in the current backlog, cases completed, and turnaround times, at the beginning of each month to minimize the potential for additional case activity to impact its records used to compile performance metrics. Management must then perform several manual steps to compile the metrics, such as removing duplicate entries and serology records (which do not reflect a completed case), and identifying cases completed by contract labs. System improvements could help reduce the amount of time needed to compile performance information and reduce the risk of manual errors.

Finally, improving its monitoring of risks and its progress towards its performance goals would help CBI better communicate with stakeholders and policymakers. For example, if problems occur that may impact CBI's plan to reduce turnaround times, better tracking of case data would allow it to provide more detail to stakeholders about the reasons for the problems and the cases that are affected. Further, by collecting more information such as details on how staff spend their work hours, the volume and kind of testing they complete, and tracking factors that could reduce their time working cases, CBI can develop more robust information on its staffing needs that it could use to inform policymakers and support future requests for additional staff if needed.

Recommendation 4

The Colorado Bureau of Investigation should make improvements to its information systems to support its ability to monitor DNA testing performance and avoid testing delays by:

A. Performing an assessment of the information systems and equipment used for DNA testing to determine the resources necessary and the feasibility of changes that would avoid testing delays due to system and equipment issues; and improve management's ability to track performance, assess risks, and communicate with stakeholders.

B. Assessing the need for dedicated IT staff to support its testing operations and performance monitoring; whether current staff resources are adequate to fill these roles; and whether additional staff are necessary.

C. Based on its assessment in Parts A and B, develop and implement a plan to make the improvements identified.

Response

Colorado Bureau of Investigation

A. Agree
Implementation Date: December 2026

CBI is regularly monitoring this information. CBI will first identify all elements needed to fully assess the information systems and equipment. CBI will gather and assess the information and then produce a document to formalize the assessment.

B. Agree
Implementation Date: December 2026

CBI will evaluate the time forensic services staff spend addressing IT issues, the time waiting for OIT support, and continued OIT issues. These data points will be used to evaluate if additional, dedicated IT staff are necessary.

C. Agree
Implementation Date: December 2027

CBI will develop a plan based on the assessment in Parts A and B. This plan will include how the needed resources can be obtained, what approvals are required, request deadlines to request the resources, and if approved when they will be implemented.

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Chapter 3

DNA Testing at Local Colorado Labs and in Other States

In order to identify best practices and compare issues we discuss in Chapter 2 related to CBI's labs with issues faced by other labs, both locally and nationally, we reviewed DNA testing practices and performance outcomes for other forensic laboratories within Colorado and in other states. Overall, we found that other labs, both inside and outside of Colorado, use processes to test DNA evidence that are similar to those used by CBI and they face similar risks to providing acceptable turnaround times for the law enforcement agencies they serve. Because practices and performance outcomes vary based on the demand for testing and resources available at each lab, the needs of the law enforcement agencies they serve, and priorities of policymakers, we did not identify any additional recommendations for CBI based on this review. However, we did identify information regarding other forensic labs' organization, size, operational practices, and performance that may be of interest to CBI and policymakers.

Forensic Testing in Colorado

CBI and local labs share responsibility for forensic DNA testing in Colorado. As discussed, in addition to CBI, there are five local forensic labs in Colorado, all of which provide DNA testing. These include:

- Adams County Sheriff's Office DNA Lab
- Colorado Springs Metro Crime Lab
- Denver Crime Laboratory
- Jefferson County Regional Crime Laboratory
- Unified Forensic Laboratory (Arapahoe County, Douglas County, City of Aurora)

These labs operate independently from the State and CBI, and are primarily funded by local governments, law enforcement agencies, and federal grants. Generally, the local labs that serve multiple law enforcement agencies operate under memorandums of understanding (MOU) or intergovernmental agreements between the local governments and law enforcement agencies that administer and use the labs that specify how costs and administrative responsibilities are shared across the jurisdictions. While CBI accepts evidence from all law enforcement agencies in the state, the local labs generally only accept cases from their own law enforcement agency and/or nearby

participating law enforcement agencies with which they have entered into a MOU or other agreement. For example, the Jefferson County Regional Laboratory accepts cases from the Jefferson County Sheriff's Office, which administers the lab, and also accepts cases from the Arvada Police Department, Golden Police Department, Lakewood Police Department, Wheat Ridge Police Department, and Boulder County Sheriff's Office. Law enforcement agencies served by a local lab may still choose to send some evidence to CBI for testing. Additionally, the local labs generally do not provide all of the types of forensic testing offered by CBI, so law enforcement in these jurisdictions still rely on CBI for some tests; for example, CBI has the only lab in the state that performs toxicology testing for alcohol and drugs.

We conducted site visits or remote interviews with representatives from each of the five local labs in Colorado to gather information on the labs' organizational structure, staffing, evidence intake and testing processes, training, and turnaround time performance relevant to DNA testing. To assess the relative demand for DNA testing, capacity, and cases completed by local labs and CBI, we collected and reviewed DNA testing information from each of the states' five local labs for the most recent year for which they had available data, ranging between Calendar Years 2023 and 2025, and compared this to CBI testing information for Calendar Year 2025. We also reviewed the Project Foresight 2023-2024 Annual Report (Project Foresight), published in 2025, for national-level performance indicators for forensic service providers. As discussed previously, Project Foresight is administered by West Virginia University and involves the collection and reporting of data from more than 200 participating forensic labs, including those operating at the national, state, and local level, as well as several international labs.

We found that, combined, CBI and local labs in the state reported receiving roughly 5,833 DNA cases annually, of which about 2,408 (41 percent) were sexual assault cases. Of this total, local labs received about 60 percent of all DNA cases and about 49 percent of sexual assault cases. In comparison, CBI received about 40 percent of all DNA cases and 51 percent of sexual assault cases, indicating that a relatively larger share of CBI's cases was related to sexual assaults. Among the local labs, the Denver Crime Laboratory and Jefferson County Regional Crime Laboratory receive the largest share of DNA cases; combined, these two labs received about 81 percent of the total number of DNA cases received by local labs.

Additionally, although it is difficult to precisely compare the number of DNA scientists working at each local lab due to some scientists splitting DNA testing with other roles, we found that in Fall 2025, the five local labs employed a total of about 31 authorized DNA scientists who were actively working cases—with CBI employing 18 authorized scientists—for a total of 49 authorized scientists statewide. Similar to CBI, the local labs reported that over about the next 2 years they expected to increase the number of scientists they have working DNA cases by hiring additional staff and completing training for current staff so that they can obtain authorization to independently work DNA cases. If all of the labs in the state are able to fill all of their available positions with authorized DNA scientists as planned, the local labs would have about 43 scientists and CBI labs would have 39 scientists, for a total of about 82 authorized DNA scientists for the state. Notably, of the 39 DNA scientists working at CBI labs, three scientists all working at CBI's Greeley lab location (known as the Northern Colorado Regional Forensic Laboratory) are employed by local

governments. This lab operates under MOUs between CBI and the Weld County Sheriff's Office, Larimer County Sheriff's Office, the Greeley Police Department, Fort Collins Police Services, and the Loveland Police Department. Although the MOU partner agencies all share resources to operate the lab, scientists in the lab perform testing according to CBI testing procedures and the lab accepts cases from all law enforcement agencies in the state.

Exhibit 3.1 provides details on CBI's and local labs' DNA testing and staff resources. Although the information presented in the table provides a reasonable approximation of local labs' annual DNA testing activities, as discussed in the footnotes to the table, because of reporting differences between labs, the figures are not precise.

Exhibit 3.1
CBI and Colorado Local Labs Annual[1] Case Information and DNA Scientist Staffing

	CBI Labs	Local Labs	Total
DNA cases received[2]	2,342 (40 percent)	3,491 (60 percent)	5,833
DNA cases completed	3,651 (51 percent)	3,552 (49 percent)	7,203
Sexual assault DNA cases/kits[3] received[2]	1,217 (51 percent)	1,191 (49 percent)	2,408
Sexual assault DNA cases/kits completed	2,099[4] (72 percent)	828 (28 percent)	2,927
Approximate annual DNA cases received per scientist, based on Fall 2025 staffing	130	113	119
Approximate annual DNA cases completed per scientist, based on Fall 2025 staffing	203[4]	115	147
Number of authorized DNA scientists working cases, Fall 2025	18 (37 percent)	31 (63 percent)	49
Projected number of authorized DNA scientists working cases when fully staffed, End of Calendar Year 2027	39[5] (48 percent)	43 (52 percent)	82

Source: CBI dashboard reports on cases received and employment and local labs' responses to Office of the State Auditor requests for information regarding DNA testing volume and staffing.

[1]We used Calendar Year 2025 totals for CBI; however, not all labs had Calendar Year 2025 information available at the time of the audit and we used the most recent Calendar Year they had available at the time of the audit, which ranged between Calendar Year 2024 and 2025.

[2]Two local labs only reported information on completed cases, so for these labs we used completed cases as an approximation of received cases in preparing the total for local labs. Because these two labs completed about 16 percent of all local lab cases, the impact of this issue is likely relatively small.

[3]Some labs were able to specifically report DNA cases with sexual assault kits, but CBI and several local labs could only report DNA cases that involved a sexual assault. Based on our review of CBI's case data, about 96 percent of sexual assault cases include kits, indicating that these figures are likely close, but there are likely slight differences in totals due to this distinction. Additionally, one local lab, which completed about 5 percent of all local lab cases, did not report the number of sexual assault cases or kits among its completed cases; therefore, the totals in the table likely undercount slightly the total number of sexual assault cases/kits received and completed.

[4]CBI's case completion totals include 1,304 sexual assault DNA cases from its case backlog that were completed by contract labs. Therefore, CBI's case completion totals and cases completed per scientist are substantially higher than CBI would have been able to complete using only its in-house testing capacity.

[5]Of the 39 DNA scientists CBI expects to have working in its labs, it plans to use 8 to staff a newly created team that will be dedicated to auto theft cases.

Based on the testing volume and capacity of the forensic labs in the state shown in Exhibit 3.1, both CBI and local labs rely on each other to provide timely DNA testing to law enforcement agencies in the most populated areas of the state, where law enforcement has access to both local and CBI labs (Denver and Colorado Springs Metro areas). According to local labs, the current backlogs and high turnaround times at CBI have caused law enforcement agencies to submit more cases to local labs and has led to local labs needing to increase their staffing. On the other hand, CBI reported that when local labs lack adequate capacity to test cases, the local labs can direct law enforcement to send cases to CBI instead, which may help keep local labs' turnaround times shorter, but increases the number of cases CBI must complete. Since both CBI's labs and local labs lack the capacity on their own to test all of the DNA cases submitted by law enforcement in the state, the labs rely on each other to complete enough cases to serve the needs of law enforcement and other stakeholders, such as district attorneys and victims in cases. Additionally, law enforcement agencies may have to pay the local labs to process their cases but they do not have to pay CBI for testing. As a result, law enforcement agencies may choose to send more cases to CBI even though they have access to testing through a local lab. This can lead to resource issues at the local level having an impact on the number of cases CBI receives and its ability to provide timely results. Further, in less populated areas of the state, CBI's labs are generally the only option law enforcement agencies have for forensic evidence testing. Most local governments and law enforcement agencies do not have the resources to create their own forensic labs and must rely on CBI for testing, which means that they may face a greater impact when CBI's labs have long turnaround times for testing.

Local Lab Benefits/Costs. Based on our interviews with staff from the local labs and review of their processes, we identified several benefits that local labs provide as compared to a statewide lab structure.

- Local laboratories, which serve far fewer law enforcement agencies than CBI, can often establish closer working relationships with the law enforcement agencies they serve. For example, sometimes the scientist and the law enforcement contact working the same case may work out of the same building, so if questions come up about the evidence, a scientist can quickly receive a response from a law enforcement contact. Some of the local labs also reported that they hold trainings with investigators from the law enforcement agencies they serve, which can help investigators better understand and adjust their practices to collect evidence from crime scenes that will be the most likely to yield usable DNA profiles. Although CBI also works to provide guidelines and training to law enforcement regarding DNA evidence testing, because it serves over 200 law enforcement agencies across the state, it has less ability to tailor its approach to specific agencies.

- Some of the local labs are relatively small, which makes it easier for supervisors to manage productivity and provide support to their staff. For example, several of the local labs did not use productivity quotas to set expectations for staff since supervisors work closely with each of their scientists and can provide targeted feedback if they see that a scientist is not working efficiently or could improve the quality of their testing.

- There is less travel time for local lab scientists when they testify in court, since in most cases the courthouse is in close proximity to the forensic lab. Similarly, law enforcement does not need to travel long distances to transport evidence to labs for testing, with some laboratories housed in the same building as law enforcement.

- In recent years, local labs have generally been able to provide faster turnaround times for DNA testing due to the issues at CBI, as discussed in Chapter 2. More broadly, by operating and funding their own lab, local governments have more control over the lab resources available to law enforcement in their jurisdictions.

Along with these potential benefits offered by local labs performing DNA testing, we identified several potential drawbacks to testing evidence through smaller, local labs.

- Establishing a lab requires significant funding. Lab instruments and software for DNA tests are costly and require ongoing service contracts with vendors to maintain and repair the instruments and keep software updated. Additionally, scientists need sufficient lab space, and testing areas need to be equipped with environmental controls to avoid contamination and properly store evidence. One local lab that recently began operations reported about $1.2 million in start-up costs to establish a lab that started with two DNA scientists.

- According to Project Foresight, larger labs that test more DNA cases tend to report having lower costs per case compared to smaller labs. For example, labs that completed around 50 DNA cases per year, reported an average cost per case around $3,862, while those that completed 2,500 cases per year reported a cost per case of about $1,579. The most efficient labs in the Project Foresight report tested about 9,500 DNA cases per year at a cost of about $789 per case. Because the Colorado labs we reviewed do not have a consistent method for tracking and/or reporting cost information specific to DNA testing, data on DNA testing costs were not available for us to directly compare the Project Foresight efficiency figures with CBI and Colorado's local labs. However, this general relationship between lab testing volume and costs per case, along with labs' relatively high start-up costs, helps explain why local labs have only been established in the more populated areas of the state, where there are an adequate number of cases to make a lab cost-effective.

- Smaller, local labs' performance is also more vulnerable to fluctuations in case volume or changes to capacity based on staff turnover and budget availability. For example, one local lab we interviewed indicated that its turnaround time had increased because 2 of its 7 staff resigned around the same time. Another lab explained that 2 of its 3 DNA scientists are funded by federal grants. Although these positions have been grant funded for the last 10 years, funding for them may not be as reliable as steady local funding streams. Several labs indicated concerns that with the change in federal administration, grant policies and funding may change.

- As mentioned, local labs are able to establish closer working relationships with law enforcement agencies, since many of the local labs are located within or are funded by law enforcement agencies. However, according to the Forward Resolutions evaluation of CBI, it is important for

forensic labs to maintain independence from law enforcement agencies to avoid any actual or apparent conflicts of interest that could influence the objectivity and credibility of labs' work. For this reason, the report prepared by Forward Resolutions, a contractor hired by the Department to evaluate the Forensic Services Section, recommended that CBI's Forensic Services Section no longer be administratively housed within CBI, a recommendation that the Department was evaluating at the time of our audit.

Timeliness of Testing Results. As discussed, Senate Bill 25-304 established a goal for every forensic lab in the state, including CBI's Forensic Services Section, to complete testing of sexual assault kits within 60 days of the lab receiving the evidence. Although we did not review the methods used to calculate or the reliability of turnaround times reported by local labs in the state, local labs generally reported average turnaround times for sexual assault kits between 40 and 184 days, compared to a 190-day average turnaround time reported by CBI as of January 2026. While several labs indicated that they would be able to meet and/or maintain the 60-day goal, others indicated that they would have difficulty meeting the goal within available staffing and resource constraints. For the most part, it appears that the variation in turnaround times between CBI and the local labs is a function of the number of scientists the labs have available to complete testing, the number of cases they receive, and the size of any existing case backlog. Similar to CBI, the local labs that reported higher turnaround times tended to have larger case backlogs, and some reported reductions in testing capacity due to staff turnover, and having new staff that were not authorized to work cases independently until they complete training and are authorized for DNA testing.

Forensic Testing in Other States

States use a variety of approaches to administer forensic lab testing. Similar to Colorado, some states share responsibility for testing between a state-run lab (or labs) and several local labs, while in other states, a state-run lab (or system of state labs) conducts all of the forensic testing in the state. To conduct our review of other states' forensic labs, we interviewed representatives from labs in eight states to gain an understanding of their lab structures, DNA testing processes, and performance. To select the sample of states, we conducted a review of publicly-available information about forensic laboratories in all 50 states. From this review, we selected the eight states based on those that had lower turnaround times, smaller backlogs, and/or had previously outsourced sexual assault kits. Exhibit 3.2 shows the eight states we selected and information on how forensic testing is administered in each state.

Exhibit 3.2

States Contacted during Audit and Lab Administration Information

State	State/Local Administration
California	11 state-run labs and 17 local labs
Delaware	1 state-run lab
Iowa	1 state-run lab
Louisiana	1 state-run lab serves only the southeast region of the state, 6 local labs serve other areas
Tennessee	3 state run labs and one local lab
Utah	3 state-run labs
Washington	6 state-run labs
Wisconsin	3 state-run labs

Source: Office of the State Auditor interviews with representatives from state labs and information reported by state labs.

Additionally, we reviewed reports on operations and best practices for forensic labs to identify common practices, issues, and performance indicators for labs. This included the Project Foresight 2023-2024 Annual Report that was issued in 2025 and publications from the U.S. Department of Justice on best practices and common issues experienced in forensic labs.

We found that, nationally, forensic labs are facing issues similar to CBI's labs, such as case backlogs, increasing workloads, and the need for additional trained and authorized staff. However, we also identified differences in labs' organization and practices in several areas, as follows.

Labs reported similar issues as CBI regarding staffing deficits in recent years. Several of the state labs we contacted indicated that they lacked an adequate number of appropriated FTE for DNA testing, had a significant number of new staff completing training who could not yet work cases, and/or had open positions they had not yet filled. Some labs noted that while they currently had enough scientists, they could improve performance with more staff. Similar to CBI, the states we contacted reported that it takes 1 to 2 years to train new staff, which causes staff turnover to have a long-term impact on their testing capacity. Further, according to a 2020 National Institute of Justice Report to Congress, which analyzed data through 2017, understaffing at forensic labs was a problem across states, with the report indicating that, at that time labs needed more than 900 additional forensic scientists across disciplines to keep up with rising caseloads. Of the states we contacted, some had undertaken efforts in recent years to grow the size of their labs and increase testing capacity, which had improved their performance; however, as discussed, others continue to lack enough staff to keep up with the demand for DNA testing.

Evidence submission guidelines vary across state labs. Of the eight states we contacted, six reported that they limit the amount of evidence they will allow law enforcement to submit for each case. Similar to Colorado, these six states' submission guidelines limited the number of samples per case to between 2 and 10 samples, with labs generally allowing more samples to be submitted for more serious cases, such as homicides and sexual assaults, and allowing less for property crimes, such as vehicle thefts or burglaries. The two other states indicated that they did not have a limit on

the amount of evidence they will accept, although they generally indicated that they worked with law enforcement to try to focus on the most probative evidence available. According to Project Foresight, labs reported testing a median of about five samples per DNA case.

The division of labor varies between labs. While the testing procedures and instruments used for DNA testing were similar across states, labs varied in how they assigned cases to a scientist. Of the eight states we contacted, five states were similar to CBI's preferred practice for labs in that their scientists usually perform testing on evidence from start to finish, completing each step of the testing process. However, in three of the states, scientists divide the steps in the testing process. For example, these labs may have one scientist complete serology on a case, and then have another scientist perform lab work or interpretation to develop DNA profiles.

Labs where scientists perform all steps in the process indicated that they preferred this approach because it allows the scientist to have a more complete understanding of the case, which could improve the quality of their results. Additionally, some of these labs indicated that having one scientist complete the case reduces the number of staff who may be called to testify in court, which saves staff time. On the other hand, labs that divided the work indicated that this approach allows for more efficient lab work and for new staff to begin working cases sooner. For example, a new hire might only complete the training necessary to be authorized to perform serology, which takes less time than if they went through the training and certification for both serology and DNA analysis. However, within each state, managers used a pragmatic approach to divide work among staff and varied their approach based on testing needs and availability of staff.

Labs reported differences in how they manage staff productivity. Of the eight states we contacted, three indicated that, like CBI, they provide staff with quantifiable targets to establish productivity expectations, although this varied, as some states based their targets on case completions, while others targeted the number of samples or items scientists test. The other five states indicated that they do not set targets or quotas for staff, but instead monitor the overall quality and volume of work to identify when staff may need additional training or support to improve performance.

Labs' turnaround times varied based on their testing capacity, backlog, and system for prioritizing cases. The eight states we contacted reported turnaround times for sexual assault kits of between 44 and 144 days and turnaround times for all DNA cases of between 50 and 270 days. As discussed, in January 2026, CBI reported an average turnaround time of 190 days for sexual assault cases, which include sexual assault kits, and 266 days for all DNA cases. It is important to note that the other states' methods for calculating turnaround time could vary from CBI's and we did not review the reliability of the turnaround times provided by other states. The states with the longest turnaround times also tended to have case backlogs and some lacked sufficient staff capacity to keep up with the volume of cases. Additionally, some of the labs we contacted reported operating under a mandate to test sexual assault kits within a certain time, which ranged from 45 days to 120 days. Some of these labs had successfully met targets for sexual assault kit turnaround times by prioritizing these cases ahead of evidence for other crimes, but had a wide disparity between cases with sexual assault kits and other DNA cases. For example, one state lab reported completing sexual

assault kits in under 80 days, on average, but taking more than 1 year in some cases to complete DNA testing for property crimes. According to Project Foresight, the reported average DNA case testing turnaround time, measured from the time a lab receives the first item of evidence to when it reports results to law enforcement, was 141 days for the median lab, and ranged from 112 to 164 days for the middle 50 percent of labs.

Other State Efficiencies. From our conversations with other states, we learned about a few practices state labs had implemented to improve the timeliness of their testing. While it would need to be determined whether these practices would be feasible for Colorado, the states we spoke with noted these practices as a way they had successfully implemented efficiencies within their own lab systems. For example:

- California incorporated a rapid testing program that allows for hospital examiners to send swabs directly to the lab without the need for law enforcement to take possession and submit at a later date.

- Washington has a lab location and DNA scientist team dedicated to sexual assault kit testing in order to meet their state mandate of a 45-day turnaround time for sexual assault kits. While all of their locations are able to test and receive sexual assault kits, this dedicated lab includes a scientist team that is specifically trained on sexual assault kits. This reduces their training time, since the scientist is only trained to test sexual assault kits versus training for a scientist that could handle testing for anything that could come in from a crime scene. Additionally, this allows the scientist to be authorized to start working on kits sooner. During times when the lab is caught up on pending cases and/or there are fewer submissions, it will offer scientists who had previously only trained to do sexual assault kits the opportunity to be trained on DNA work overall so they can perform testing for any case type.

- Tennessee, Wisconsin, and Washington do not routinely perform serology testing to determine the type of bodily fluid that DNA came from and instead move directly to procedures to quantify the amount of DNA available. This can save time and still provide evidence linking DNA to potential suspects. CBI works with law enforcement and district attorneys' offices across the state, which can have different needs and priorities, which may include wanting evidence confirming the type of bodily fluid that the DNA came from. Therefore, if CBI did not conduct serology during the initial testing process, it could later be requested to do so.

Although CBI and policymakers may wish to consider approaches used by labs in other states in designing operations for DNA testing in Colorado, there are differences in priorities, resources, and testing needs in each state that must be considered when setting policies or establishing new procedures. Overall, due to the issues discussed in Chapter 2—which included the need to pull a significant portion of its scientists away from testing new cases in Calendar Years 2023 and 2024 to review cases impacted by alleged misconduct by a former scientist—CBI's DNA testing turnaround time at the time of the audit was significantly longer than other state labs. However, based on our review, CBI's labs appear to operate similarly to labs in other states and face similar risks, and we did not have any formal recommendations for CBI in this area.

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