



AUDIT OF THE FEDERAL BUREAU OF INVESTIGATION LABORATORY'S FORENSIC DNA CASE BACKLOG

U.S. Department of Justice
Office of the Inspector General
Audit Division

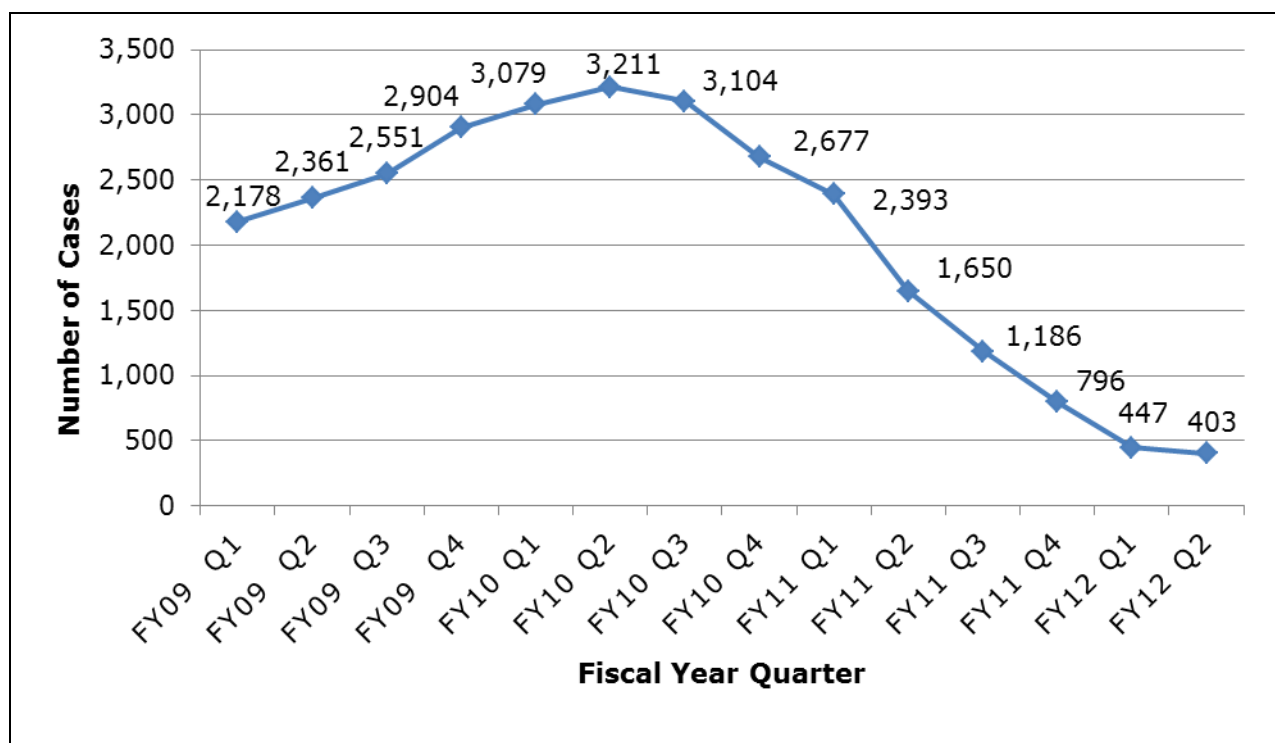
Audit Report 12-39
September 2012

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Executive Summary

This report is a follow-up to the U.S. Department of Justice Office of the Inspector General's (OIG) August 2010 review of the Federal Bureau of Investigation (FBI) Laboratory's progress in reducing the overall forensic DNA case backlog.¹ We previously reported that as of March 2010, the FBI Laboratory had a total forensic DNA case backlog of 3,211 cases. In this audit we determined that, as of March 2012, the FBI Laboratory significantly reduced its total forensic DNA case backlog to 403 cases, as shown in Exhibit 1.

EXHIBIT 1: NUMBER OF CASES IN THE FORENSIC DNA CASE BACKLOG BY QUARTER FOR FYs 2009 – SECOND QUARTER 2012



Source: The FBI Laboratory, Nuclear and Mitochondrial DNA Units' case management systems

The FBI's forensic DNA backlog is comprised of cases in the Nuclear and Mitochondrial DNA Units. Nuclear DNA analysis may generate a DNA

¹ U.S. Department of Justice Office of the Inspector General, *Review of the Federal Bureau of Investigation Laboratory's Forensic DNA Case Backlog*, Report 10-39 (August 2010).

profile sufficiently rare to be associated to a single individual within a reasonable degree of scientific certainty. In contrast, because mitochondrial DNA is maternally inherited, multiple individuals can have the same mitochondrial DNA profile, and unique identifications are not possible. However, mitochondrial DNA analysis can often generate a DNA profile from evidence that may not be suitable for nuclear DNA examinations, such as highly degraded bone fragments, teeth, and hair.

We found that the decrease in the FBI Laboratory's forensic DNA case backlog can be primarily attributed to automation efforts and additional personnel in the Nuclear DNA Unit. The Nuclear DNA Unit's backlog decreased from 2,722 cases in March 2010 to 110 cases as of March 2012, thus effectively eliminating the backlog. The 110 cases in the Nuclear DNA Unit as of March 2012 are now considered a monthly work-in-process. We concluded that the effective elimination of the backlog by the Nuclear DNA Unit is a significant achievement.

Our prior review revealed that the backlog in the Mitochondrial DNA Unit was not as large as the Nuclear DNA Unit's backlog; however, we note that the unit continues to have a backlog. The number of cases in the Mitochondrial DNA Unit's backlog decreased from 489 cases in March 2010 to 293 cases as of March 2012. We found that rather than an increase in the number of cases completed, the decrease in the Mitochondrial DNA Unit's backlog can be attributed to the unit's revision to its calculation of backlogged cases and changes to the unit's Terrorist Explosive Device Analytical Center (TEDAC) case acceptance policy, which reduced the number of cases submitted to the unit.

According to the FBI, historical TEDAC submissions for mitochondrial DNA examinations included all hairs identified on improvised explosive devices and the Mitochondrial DNA Unit would provide analysis on every sample submitted. However, the FBI told us that there have been no documented instances for which probative results were generated from these mitochondrial DNA examinations. As a result, the Mitochondrial DNA Unit worked together with TEDAC to revise the unit's case acceptance policy so that new submissions to the unit are more likely to yield probative information. As a part of this revision, the Mitochondrial DNA Unit discontinued approximately 300 TEDAC submissions from its backlog.² While it appears to be appropriate to not routinely conduct mitochondrial DNA examinations in cases that are highly unlikely to generate probative results, we note that the decision not to conduct examinations in these type of cases

² The FBI Laboratory currently maintains all submissions to TEDAC, and, if needed, could analyze older submissions for mitochondrial or nuclear DNA analysis.

accounts for the majority of the decrease in the Mitochondrial DNA Unit's backlog beginning in the first quarter of 2011.³

We also found that the length of time it takes evidence to be processed in other case working units before entering either the Nuclear DNA Unit or the Mitochondrial DNA unit appears to be increasing. We believe the implementation of a laboratory information management system will provide the FBI Laboratory with the information necessary to identify the cause of any unnecessary delays.

We previously reported that the FBI Laboratory did not have a laboratory information management system capable of electronically managing laboratory operations. As of June 2012, the FBI Laboratory still lacked this capability, despite having spent at least \$14 million since 2003 in two unsuccessful attempts to develop and implement a laboratory information management system. The FBI Laboratory is in the preliminary stages of developing a new laboratory information management system.

Our report makes one recommendation to assist the FBI in the successful implementation of a laboratory information management system. The following sections of our report contain detailed information on the full results of our audit.

³ In a related matter, the FBI Laboratory is working with the FBI Office of General Counsel, the Department of Justice, the Innocence Project, and others to prepare a plan for the review of historical cases involving microscopic hair examinations. This plan is not yet finalized, but should DNA examinations be requested and certain conditions are met, the FBI has stated that it is available to provide mitochondrial DNA testing on the relevant hair evidence. According to the FBI Laboratory, until a plan is finalized and DNA examinations are requested, it would be impossible to estimate the effect that this review might have on the Mitochondrial DNA or Nuclear DNA Units of the FBI Laboratory.

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AUDIT OF THE FEDERAL BUREAU OF INVESTIGATION LABORATORY'S FORENSIC DNA CASE BACKLOG

Introduction

The Federal Bureau of Investigation (FBI) Laboratory plays an important role in the analysis of forensic DNA cases. Contributors from FBI field offices, other federal agencies, and state and local agencies that do not have a forensic laboratory in their jurisdiction send cases for forensic examination to the FBI Laboratory. The FBI Laboratory provides forensic examinations and reports, technical support, expert witness testimony, and training to federal, state, and local law enforcement agencies.

Forensic DNA casework testing involves the evaluation of biological evidence using DNA technologies. Forensic DNA analysis is a vital tool in law enforcement and counterterrorism investigations. DNA collection and analysis gives the criminal justice field a powerful tool for convicting the guilty and exonerating the innocent. DNA analysis can be used to implicate or eliminate a suspect, solve cases that had previously been thought of as unsolvable, link evidence from different crime scenes, or aid in the identification of victims.

Forensic DNA can be obtained from crime scenes or evidentiary items such as envelopes, clothing, and drinking glasses and compared to samples collected from known persons in an attempt to link a perpetrator to a crime. A single forensic case can contain multiple pieces of evidence, each of which may yield several samples for forensic testing, including DNA analysis.

OIG Audit Approach

This report is a follow-up to the U.S. Department of Justice Office of the Inspector General's (OIG) review of the FBI Laboratory's progress in reducing its overall forensic DNA case backlog.¹ Our August 2010 report focused on the FBI's efforts to reduce the forensic DNA case backlog and minimize workflow bottlenecks. The FBI Laboratory pursued various strategies, such as implementing a laboratory information management system, adding human resources, and engaging in cooperative agreements. We found that these strategies were ongoing, and had not yet reduced the forensic DNA case backlog at the FBI Laboratory.

¹ U.S. Department of Justice Office of the Inspector General, *Review of the Federal Bureau of Investigation Laboratory's Forensic DNA Case Backlog*, Report 10-39 (August 2010).

Our previous report contained five recommendations to the FBI to help improve laboratory operations, such as standardizing an FBI Laboratory-wide definition for calculating backlog within caseworking units, ensuring FBI Laboratory users had access to a laboratory information management system, and examining the effect of cooperative agreements on the overall backlog and the amount of time contributors wait for test results. The FBI concurred, and as discussed further in this report, generally implemented these recommendations.

The OIG conducted this audit to assess the FBI Laboratory's continued efforts to reduce the backlog of forensic DNA cases. Specifically, the objectives of this audit were to: (1) verify the total number of forensic DNA cases that remain unprocessed by the FBI Laboratory, (2) evaluate the status of the implementation of a laboratory information management system, (3) examine the effect of outsourcing agreements on the overall DNA forensic casework backlog, and (4) assess any impending external factors that may impact the ability of the forensic DNA units to maintain their workload.

In this report, we define "backlog" as the number of forensic DNA cases that are active at any given time in the Nuclear and Mitochondrial DNA Units, the two caseworking units that provide forensic DNA examinations at the FBI Laboratory, because the forensic DNA units at the FBI Laboratory do not have a uniform definition for calculating backlog.² We reviewed case acceptance statistics in the Nuclear and Mitochondrial DNA Units for fiscal years (FYs) 2008 through 2011, and backlog statistics from FY 2009 through the second quarter of FY 2012. To assess the FBI Laboratory's effort to reduce the backlog, we interviewed officials associated with the FBI Laboratory's forensic DNA programs. In addition, we reviewed laboratory information management system implementation efforts, backlog reduction plans, staffing levels, new automation efforts, and cooperative agreements. Appendix I contains a more detailed description of our audit objectives, scope, and methodology.

² The number of active cases includes all cases in the unit that do not have a status of completed. This definition is consistent with the definition used in our prior report.

Background

The FBI Laboratory is comprised of nine caseworking units, with the Nuclear DNA Unit and the Mitochondrial DNA Unit responsible for performing DNA analysis.³ Nuclear DNA analysis generates a DNA profile sufficiently rare enough to be associated to a single individual within a reasonable degree of scientific certainty. In contrast, because mitochondrial DNA is maternally inherited, multiple individuals can have the same mitochondrial DNA profile, and unique identifications are not possible. However, mitochondrial DNA analysis can often generate a DNA profile from evidence that may not be suitable for nuclear DNA examinations, such as highly degraded bone fragments, teeth, and hair. Therefore, mitochondrial DNA can be useful for obtaining information in cases in which nuclear DNA analysis is not feasible.

In addition to collecting forensic DNA evidence from crime scenes, evidentiary items, or victims, DNA samples can be collected from persons who have been charged or convicted of certain crimes – this type of DNA sample is not considered evidence. Convicted offender DNA samples are uploaded into the Combined DNA Index System (CODIS) to be compared with DNA profiles generated from evidence collected from crime scenes in an attempt to identify perpetrators.⁴

Historically, the FBI Laboratory has had a backlog of both forensic DNA cases and convicted offender samples. The OIG conducted an audit of the FBI's convicted offender, arrestee, and detainee backlog and found that, as of September 2010, the FBI Laboratory had effectively eliminated its backlog of convicted offender, arrestee, and detainee DNA samples.⁵ The OIG determined that the FBI reduced its backlog from over 312,000 samples in

³ The FBI Laboratory's nine caseworking units are the Nuclear DNA, Mitochondrial DNA, Trace Evidence, Firearms and Toolmarks, Latent Print Operations, Questioned Documents, Chemistry, Cryptanalysis and Racketeering Records, and Explosives Units.

⁴ CODIS is a database of local, state, and national DNA profiles from convicted offenders, unsolved crime scene evidence, and missing persons. Every state has a statutory provision establishing a DNA database that allows for the collection of DNA profiles from offenders convicted of particular crimes. CODIS software enables local, state, and national law enforcement crime laboratories to compare DNA profiles electronically, thereby linking crimes to each other and identifying suspects by matching DNA profiles from crime scenes with profiles from convicted offenders. As of April 2012, there are over 11 million offender and forensic profiles in the National DNA Index System, which is the national database in CODIS.

⁵ U.S. Department of Justice Office of the Inspector General, *Audit of the Federal Bureau of Investigation's Convicted Offender, Arrestee, and Detainee DNA Backlog*, Audit Report 11-39 (September 2011).

December 2009 to a workload of approximately 14,000 samples in May 2011. The FBI Laboratory's backlog in analyzing and uploading convicted offender samples was mainly caused by recent federal legislation that expanded the scope of DNA sample collection from violent convicted federal offenders to include anyone who commits a federal offense, as well as non-U.S. citizens who are detained in the United States.⁶ The FBI achieved these results by implementing a backlog reduction strategy, hiring additional human resources, using high throughput robotics, implementing Expert System software for a semi-automated review of DNA profiles after completion of analysis, and reconfiguring laboratory space for more efficient processing.

We previously reported that the forensic DNA units at the FBI Laboratory did not have a uniform definition for calculating backlog, and recommended that the FBI standardize Laboratory-wide definitions for calculating backlog within all caseworking units. As of August 2012, the FBI Laboratory had not yet developed a uniform definition. FBI Laboratory officials explained that they have not applied a universal definition of backlog because the FBI Laboratory does not want to publish an official FBI position on the definition of backlog before there is consensus within the forensic community.

The Nuclear and Mitochondrial DNA Units are required to report their workload to FBI management using monthly scorecards, which serve as a status report. The scorecards contain unit-specific information such as the number of cases the unit received, completed, and total backlog. To verify that the statistics reported in the status updates were accurate, we selected four historical points in time to compare a full active case listing to the number of active cases reported in the monthly scorecard. Based on our testing, we found that both the Nuclear and Mitochondrial DNA Units were accurately reporting the backlog within their respective units.

The Nuclear DNA Unit primarily examines biological fluid stains, such as blood and semen, whereas the Mitochondrial DNA Unit tests evidence that is not suitable for nuclear DNA testing, such as naturally shed hairs, hair fragments, bones, and teeth. Exhibit 2 outlines the Nuclear and Mitochondrial DNA Unit's classification of cases by program type.

⁶ Legislation that defines the scope of DNA collection includes the 2001 *USA PATRIOT Act*, which added qualifying offenses to the collection of DNA samples from convicted offenders; the *Justice for All Act* of 2004, which expanded the offenses for convicted offenders to include any federal offense; and the *DNA Fingerprint Act* of 2005, which directed that the Attorney General may collect DNA samples from individuals who are arrested and from non-United States persons who are detained under the authority of the United States.

EXHIBIT 2: PROGRAM TYPE DEFINITIONS

Program	Definition
Criminal	Traditional FBI law enforcement jurisdiction, such as violent crime, public corruption, organized crime, and civil rights violations
Missing Persons	Cases in which DNA profiles of missing and unidentified persons' remains are compared to biological relatives for identification
Indian Country	Cases consisting of evidence from federally recognized tribes, including death investigations, child sexual and physical abuse, violent felony assault, drug and gang activity, and financial crimes
District of Columbia Metropolitan Police Department (MPD)	Cases that were part of a FYs 2008 through 2011 agreement between the FBI and MPD that were outsourced to a private laboratory; only cases submitted prior to September 30, 2011, were eligible for processing
Terrorist Explosive Device Analytical Center (TEDAC)	Improvised Explosive Devices sent from warzones worldwide as a means to gather intelligence ⁷
Intelligence (INTEL)	Counterterrorism cases, including domestic terrorism, INTEL cases exclude TEDAC submissions

Source: The FBI Laboratory

The process of requesting forensic analysis services from the FBI Laboratory begins with contributors submitting a case to the laboratory. Cases are usually comprised of numerous pieces of evidence. At the FBI Laboratory, the Evidence Control Unit accepts these cases and creates an examination plan that details which items should be forwarded to which examination unit.⁸ Evidence can require testing in multiple caseworking units, but some pieces of evidence from a case may not require any DNA testing. Evidence Control Unit personnel physically transport evidence to and from the caseworking units for testing and maintain paper-based chain-

⁷ TEDAC was conceived in response to the need to combat improvised explosive devices (IED) in Iraq and Afghanistan. According to the FBI, the mission of TEDAC is to coordinate and manage the unified effort of law enforcement, intelligence, and military assets for the forensic and technical exploitation of IEDs of interest to the government worldwide, in an effort to provide actionable intelligence to the offensive missions against terrorism and to the Force Protection mission. Among the possible reasons TEDAC requests DNA analysis is to help determine the source of an IED.

⁸ TEDAC submissions are not handled through the Evidence Control Unit; instead, submissions are delivered directly to caseworking units by TEDAC personnel.

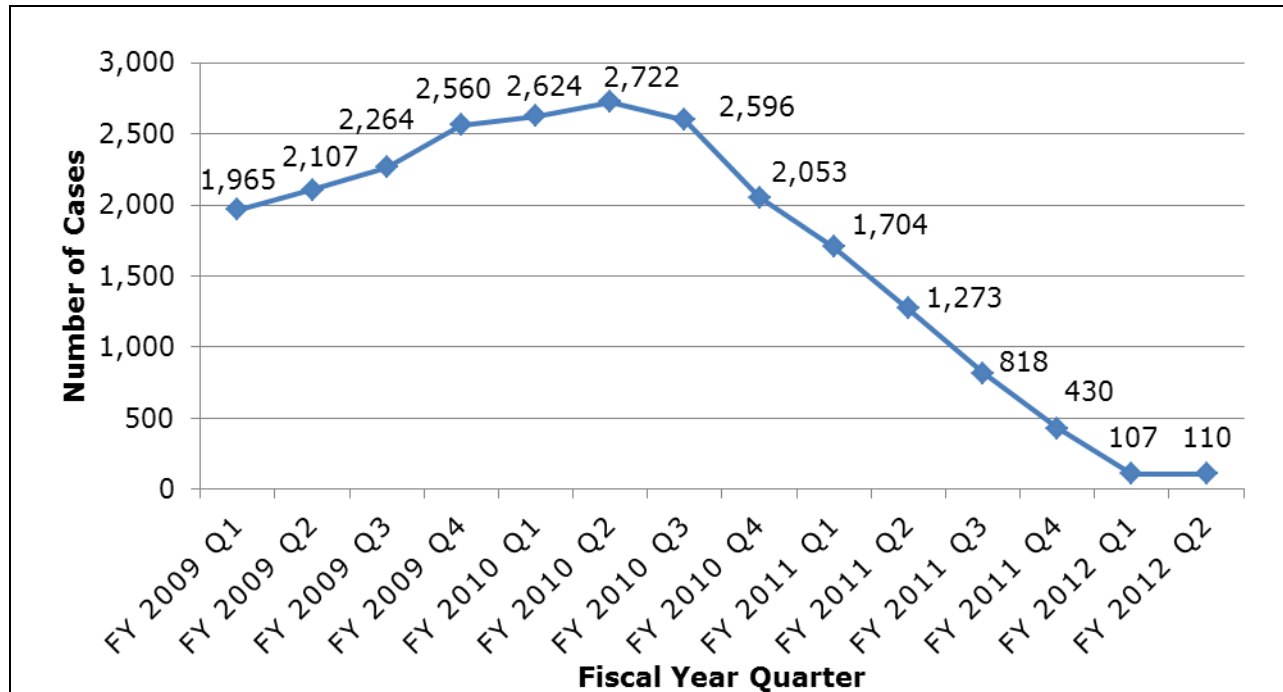
of-custody documentation to record inter-unit exchanges of evidence. Once received by a unit, the forensic examiner within the caseworking unit determines what type of forensic testing is required for each piece of evidence within a case. Evidence sent to a DNA unit is tested by a unit biologist, and a unit examiner analyzes test results and issues a report to the case contributor.

Nuclear DNA Unit Backlog Reduction

To verify the number of forensic DNA cases in the Nuclear DNA Unit's backlog, we compared case listings to backlog statistics reported by the Nuclear DNA Unit. We calculated the backlog by adding all of the cases that were received in a particular quarter and subtracting all of the cases that were completed in the same quarter. We applied this method from FY 2009 – second quarter FY 2012. Our calculation of the Nuclear DNA Unit's backlog is similar to what the unit reported in its monthly scorecards. We noted a small difference of cases considered to be a part of the Nuclear DNA Unit's backlog due to a “wobble” in the case management data – which is a result of DNA cases being reopened or cases being in-between processes.

Based on our testing, we found that the Nuclear DNA Unit is accurately reporting the backlog. Our audit determined that, as of March 2012, the backlog of cases in the Nuclear DNA Unit had been reduced significantly, and the unit has shifted its backlog of cases to a monthly work-in-process. The unit's backlog decreased from 2,722 cases in March 2010 to 110 cases as of March 2012. This constitutes a 96 percent reduction in the Nuclear DNA Unit's backlog. Exhibit 3 illustrates the Nuclear DNA Unit's reported backlog for FYs 2009 – second quarter FY 2012.

EXHIBIT 3: FBI REPORTED BACKLOG OF CASES IN THE NUCLEAR DNA UNIT FOR FYs 2009 – SECOND QUARTER 2012



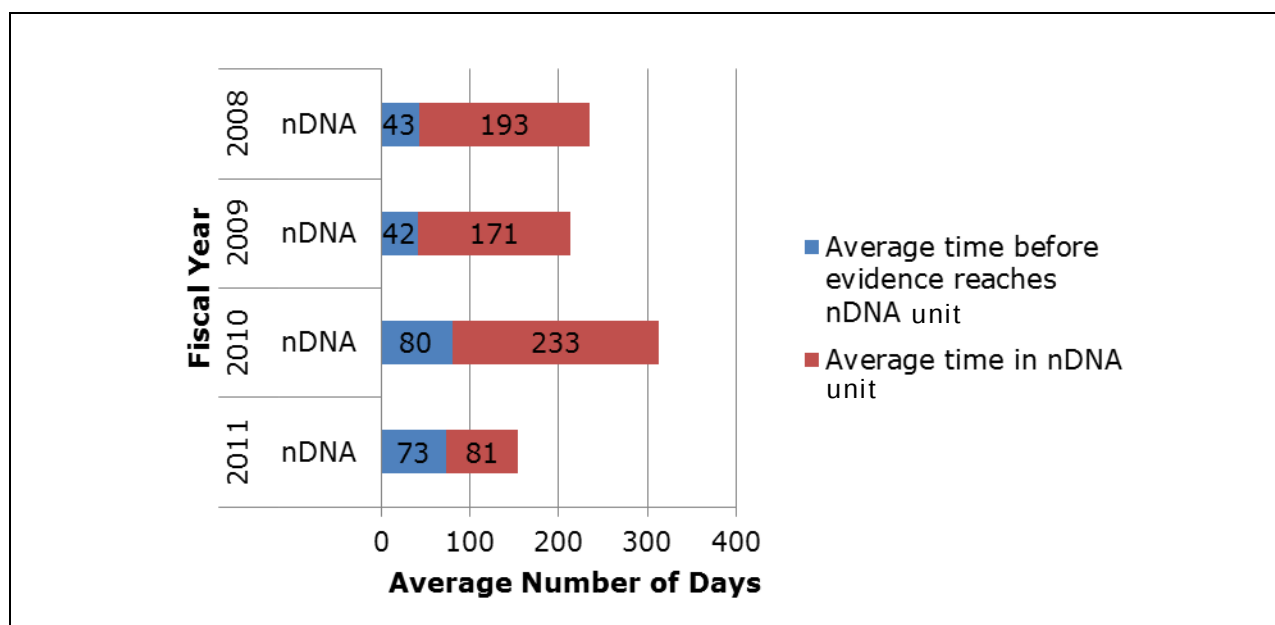
Source: The FBI Laboratory, Nuclear DNA Unit's case management system

We also sought to determine whether the FBI Laboratory was able to decrease the total length of time contributors wait for results. Prior to the elimination of the Nuclear DNA Unit's backlog, the unit had 10 to 15 cases with approaching trial dates at all times, and it was difficult for the unit to work on cases that were not driven by trial dates. In combination with the large backlog, this prioritization method resulted in longer in-unit turnaround times for cases that were not of the highest priority.

Our analysis of the overall turnaround time includes: (1) the average time from when a case is received by the FBI Laboratory and arrives at the Nuclear DNA Unit, and (2) the average time taken within the Nuclear DNA Unit to perform analysis and report results. To perform this analysis, we compared case acceptance and completion data for FYs 2010 and 2011 to data from our previous report. Exhibit 4 details for FYs 2008 through 2011 the average turnaround time from when a case was accepted at the FBI Laboratory until the Nuclear DNA Unit completed the cases and results were communicated to the contributor. The time spent in the Nuclear DNA Unit is decreasing; however, the length of time it takes evidence to enter the Nuclear DNA Unit appears to be increasing.

The length of time evidence spends in other caseworking units depends on the type of evidence, number of pieces of evidence, nature of the crime committed, and the workload and resources of the other caseworking units. We did not analyze the time period before cases enter the Nuclear DNA Unit; and given the multiple variables, we are unable to determine a cause for the increased turnaround time. However, we believe the implementation of a laboratory information management system will provide the FBI Laboratory with the information necessary to identify the source of any systemic backlogs or bottlenecks.

EXHIBIT 4: AVERAGE TURNAROUND TIME FOR COMPLETED NUCLEAR DNA UNIT CASES FOR FYS 2008 – 2011⁹



Source: The FBI Laboratory, Nuclear DNA (nDNA) Unit's case management system

According to the FBI Laboratory, very old cases within the Nuclear DNA Unit skew the calculation of average turnaround time for the time periods reported here. However, the FBI Laboratory believes the turnaround time statistic will be a more effective performance measure for future time periods now that the backlog has been eliminated in the Nuclear DNA Unit. With the Nuclear DNA Unit's effective elimination of the backlog in December 2011, the unit is now focusing on prioritizing cases to ensure contributors receive results within the unit's target of 30 days. The unit revised its definition of backlog to be any case in the unit more than 30 days old. Of

⁹ We calculated the average turnaround time for completed cases in the DNA units using the cases received in each FY. However, cases may enter the FBI Laboratory in a different year than the case enters a DNA unit, and they may be completed in a year later than when they were received in a DNA unit.

the 110 active cases in the Nuclear DNA Unit as of March 2012, only 41 cases had been in the unit longer than 30 days, therefore, using this definition, the Nuclear DNA Unit has a backlog of 41 cases.

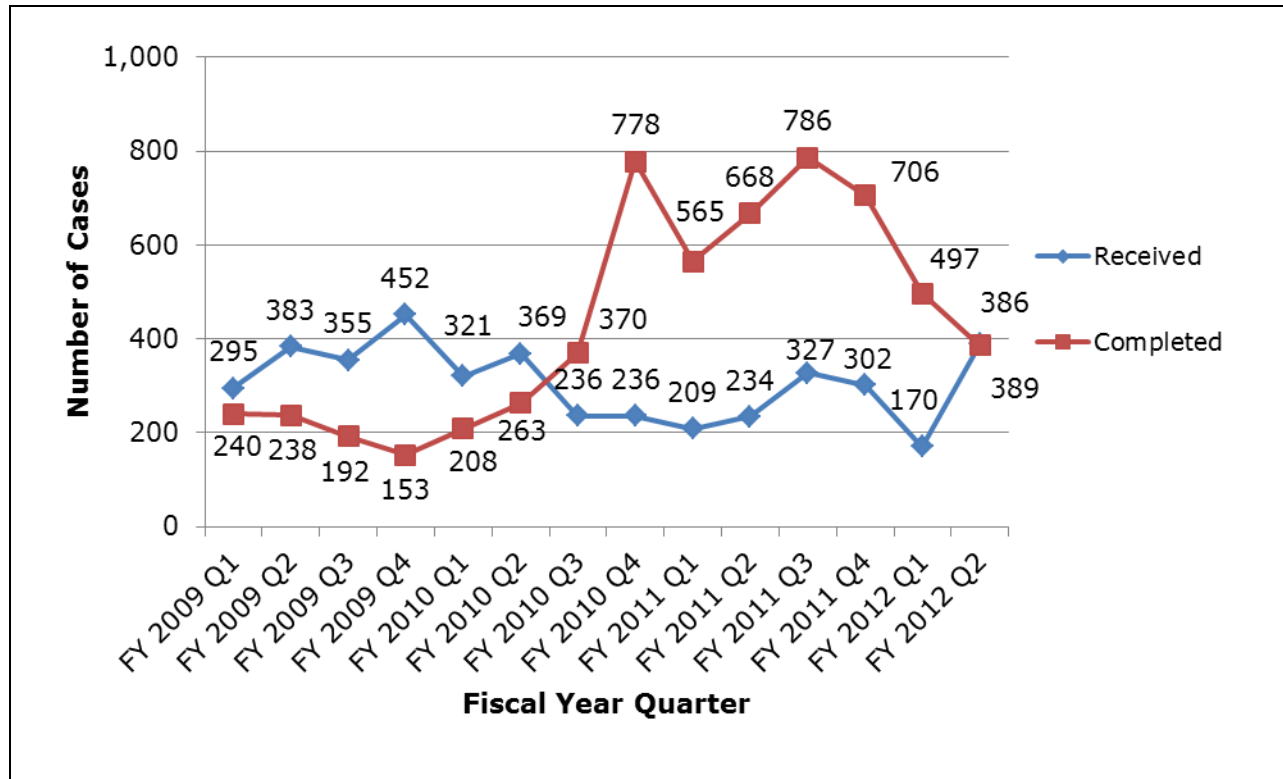
Backlog Mitigation Efforts

In August 2009, the Nuclear DNA Unit developed a Backlog Mitigation Plan to address the unit's backlog.¹⁰ The 23 goals detailed in this plan generally relate to processing enhancements to increase the number of cases completed and the submission of cases into the Nuclear DNA Unit.

In order to determine the primary causes of the backlog elimination, we analyzed the number of cases received and completed by the Nuclear DNA Unit. We found that while the Nuclear DNA Unit received fewer cases from FYs 2009 through 2011, the unit more than tripled its output of completed cases during the same timeframe. The number of cases the Nuclear DNA Unit received and completed for FYs 2008 through the second quarter of 2012 is shown in Exhibit 5.

¹⁰ According to the FBI, as of March 2012, 21 of the 23 goals were either successfully completed or in progress. The pending two goals focus on exploring new methods for DNA processing.

EXHIBIT 5: CASES RECEIVED AND COMPLETED IN THE NUCLEAR DNA UNIT FROM FYs 2009 – SECOND QUARTER 2012



Source: The FBI Laboratory, Nuclear DNA Unit's case management system

Based on our analysis of the number of cases the Nuclear DNA Unit received and completed for FYs 2008 through the second quarter of 2012, we determined that the decrease in the number of cases the unit received contributed to the backlog elimination. However, we found that the more significant factor contributing to the reduction of the Nuclear DNA Unit's backlog was the increase in the number of cases the unit completed. In order to make these determinations, we reviewed the effect of the processing enhancements that increased the number of cases completed as well as changes to the unit's case submission policies.

Processing Enhancements

According to the FBI Laboratory Assistant Director and the Nuclear DNA Unit Chief, the most significant factors in reducing the backlog were the unit's automation efforts and increases in personnel. Both automation efforts and hiring and training personnel were goals included in the unit's Backlog Mitigation Plan and these efforts significantly affected the number of Nuclear DNA Unit cases completed since our 2010 report.

Automation Efforts. To help improve DNA processing times and to streamline workflows, the Nuclear DNA Unit implemented automation efforts. According to the FBI Laboratory, in May 2010, the Nuclear DNA Unit began to automate parts of its DNA processing. Specifically, the unit has automated the DNA quantification and typing process.¹¹ Additionally, in February 2011 the Nuclear DNA Unit automated the processing of reference samples.¹² These automation efforts mean that the Nuclear DNA Unit can now batch, or group, samples for some of its DNA analysis processes. However, because of the nature of casework DNA analysis, the Nuclear DNA Unit must still perform some manual testing. For example, the serology portion of nuclear DNA analysis is not automated.¹³

According to the FBI, automation efforts have led to a higher output of DNA cases for the Nuclear DNA Unit. We analyzed the number of cases the Nuclear DNA Unit completed from FYs 2009 through 2011 and found that automation efforts have led to a higher output of cases for the Nuclear DNA Unit. For example, in FY 2009, the unit completed 823 cases whereas in FY 2011, the unit completed 2,725 cases. This represents a 231 percent increase in cases completed. In Exhibit 6 below, we isolated FY 2010 Nuclear DNA Unit case completion statistics to illustrate the unit's case completion data before and after automation was implemented in May 2010. In the quarter after implementation of automation (Quarter 4), we noted an almost 200 percent increase in cases completed as compared to the quarter prior to automation implementation (Quarter 2).

EXHIBIT 6: NUCLEAR DNA UNIT COMPLETED CASES – FY 2010

Fiscal Year 2010	Number of Cases Completed
Quarter 1 (October– December 2009)	208
Quarter 2 (January – March 2010)	263
Quarter 3 (April – June 2010)	370
Quarter 4 (July – September 2010)	778

Source: The FBI Laboratory, Nuclear DNA Unit's case management system

¹¹ DNA quantification is the measurement of the concentration of DNA in a sample. DNA typing is the process by which a DNA sample is examined and a DNA profile is produced.

¹² A reference sample is biological material obtained from a known individual and collected for purposes of comparison to forensic samples.

¹³ The Nuclear DNA Unit performs a serology analysis to detect blood and semen in biological stains or evidentiary items. This analysis typically is conducted prior to conducting any nuclear DNA testing on a sample.

Human Resources. In our previous report, we noted that the FBI stated that hiring and qualifying additional staff would help to reduce the backlog. Examiners in the Nuclear DNA Unit are responsible for conducting reviews of DNA analysis and performing supervisory functions.¹⁴ Our prior report detailed 21 examiner positions in the unit, 9 of which were on-board, qualified examiners; 8 were examiners-in-training; and 4 were examiner candidates undergoing background investigations.¹⁵ New hires are required to undergo a background investigation in addition to completing a 12-18 month training program before they can conduct casework. Considering the on-board and training process, it can take approximately 2 years before a new hire can significantly affect the output of a DNA unit. Since the issuance of our prior report, the Nuclear DNA Unit qualified eight additional examiners and has four in training. Exhibit 7 displays a comparison of examiners in the Nuclear DNA Unit in August 2010 versus March 2012.

EXHIBIT 7: COMPARISON OF STAFFING LEVELS IN THE NUCLEAR DNA UNIT

Status	August 2010	March 2012
Examiners On-board	9	17
Examiners-in-Training	8	4
Examiner Candidates	4	-
Vacancies	-	-
Total Examiner Positions	21	21

Source: The FBI Laboratory, Nuclear DNA Unit

According to the FBI, having additional, on-board personnel to analyze the DNA profiles allowed the unit to focus on casework duties and complete more cases per year. Our analysis revealed that the combination of automation efforts and increased personnel have led to a higher output of DNA cases for the Nuclear DNA Unit. These efforts have significantly

¹⁴ In our prior report, we stated that less than 50 percent of a Nuclear DNA Unit examiner's time was spent analyzing DNA evidence. We found that the balance of their time was spent performing supervisory and managerial tasks; making phone calls to contributors to obtain case specific information and to provide status updates; testifying in court; and providing DNA training to other federal components. Prior to July 2009, examiners in the Nuclear and Mitochondrial DNA Units did not record their time, and after July 2009, examiners used an informal method to record their time. We recommended that the FBI Laboratory establish formal time tracking procedures, which the FBI Laboratory implemented in both DNA units – in January 2011 for the Nuclear DNA Unit and in March 2011 for the Mitochondrial DNA Unit.

¹⁵ Qualified examiners are FBI Laboratory personnel who successfully complete a unit's training program, pass a competency test, and participate in the FBI Laboratory Proficiency Testing Program.

increased the unit's output of completed cases from FYs 2009 to 2011. This increase in the number of cases the Nuclear DNA Unit has been able to complete has been a vital factor in the reduction of the backlog.

Submission of Cases to the Nuclear DNA Unit

The Nuclear DNA Unit has received fewer cases per quarter since our prior report. The number of cases the unit received decreased from an average of 363 in October 2008 - March 2010, to 263 from April 2010 - March 2012. Based on our analysis, several factors contributed to the decrease in the number of cases the Nuclear DNA Unit received over this time period. The Backlog Mitigation Plan outlined three initiatives (1) the Nuclear DNA Unit limited Terrorist Explosive Device Analytical Center (TEDAC) submissions, (2) the unit entered into a cooperative agreement to analyze some missing persons cases because technical difficulties prevented it from processing bone evidence, and (3) the unit had an agreement with the District of Columbia Metropolitan Police Department (MPD) to process DNA cases. Additionally, FBI Headquarters redirected Indian Country evidence from Indian reservations in two states to state laboratories.

TEDAC Submissions. TEDAC was conceived in response to combat the threat of improvised explosive devices (IEDs) in Iraq and Afghanistan. According to the FBI, the mission of TEDAC is to coordinate and manage the unified effort of law enforcement, intelligence, and military assets for the forensic and technical exploitation of IEDs of interest to the government worldwide, in an effort to provide actionable intelligence to the offensive missions against terrorism. Among the reasons TEDAC requests DNA analysis is to help determine the source of an IED.

Since 2003, the FBI Laboratory has supported the efforts of TEDAC. However, because TEDAC submissions were drawing examiners away from the FBI Laboratory's traditional law enforcement casework duties, one of the Nuclear DNA Unit's goals with the Backlog Mitigation Plan was to limit the number of TEDAC submissions that the unit accepted until the unit eliminated its backlog. In November 2009, the Nuclear DNA Unit worked with TEDAC to return 60 unprocessed cases, and to limit the number of cases accepted per year.¹⁶ This decision helped the Nuclear DNA Unit reduce the number of total cases accepted each year and allowed examiners to work on the unit's existing backlog. The Nuclear DNA Unit estimated that

¹⁶ TEDAC also uses a contract laboratory to perform DNA testing. According to the TEDAC Director, any submission for which TEDAC requires testing will either be processed by the FBI Laboratory or the contract laboratory.

limiting the number of TEDAC cases would decrease the number of submissions to the unit by approximately 10 per month.

With its backlog of cases now significantly reduced, the Nuclear DNA Unit plans to analyze TEDAC submissions, on a limited basis, so that the unit does not find itself in a backlogged situation again. According to an FBI electronic communication, as of November 2011, the Nuclear DNA Unit will accept no more than 50 TEDAC submissions per month, and no more than 600 submissions per year, unless the unit agrees in writing to accept more.

Indian Country. In June 2009, the Attorney General launched a Department-wide initiative to enhance public safety in Indian Country. FBI and tribal officials brought up concerns about the long turnaround times for Indian Country forensic cases when submitted to the FBI Laboratory. As a result, the FBI Headquarters established agreements with the Arizona Department of Public Safety in May 2010 and the South Dakota Division of Criminal Investigation Forensic Laboratories in August 2010, to process forensic evidence from criminal cases originating on Indian reservations in Arizona and South Dakota.¹⁷ The agreements indicate that the laboratories will work cases that involve certain federal crimes, including, but not limited to, violent crimes committed on Indian reservations and crimes involving Native Americans in which the FBI has investigative jurisdiction. The laboratories submit monthly statistical reports to the FBI, which are tracked at the FBI Indian Country Crimes Unit.¹⁸ The FBI Laboratory continues to receive all other Indian Country cases not covered under the Arizona or South Dakota agreements.

The FBI funds the Arizona Department of Public Safety Crime Laboratory and the South Dakota Division of Criminal Investigation to examine crime scene evidence submitted by Tribal Law Enforcement authorities and the FBI.¹⁹ According to the FBI, this partnership between federal, state, and tribal law enforcement will enhance the criminal investigations within Indian Country by improving the timeliness for evidence examinations and results. In turn, this will allow the U.S.

¹⁷ The Arizona and South Dakota agreements support the investigation of crimes occurring within the States of Arizona (including the portion of the Navajo reservation in New Mexico) and South Dakota.

¹⁸ The monthly statistical reports do not identify the number of DNA cases; instead, they report the number of pieces of evidence received and examined. Since cases can contain multiple pieces of evidence, we cannot determine how many cases that the Arizona and South Dakota laboratories analyzed.

¹⁹ According to the FBI Indian Country Crimes Unit, funding for the Arizona and South Dakota agreements comes from Safe Streets programs.

Attorney's Office to pursue timely prosecution of violent criminal matters. Additionally, American Indian Communities in Arizona and South Dakota will be served more efficiently and effectively when it comes to public safety matters.

FBI personnel in the Indian Country Crimes Unit are pleased with the results of the agreements. FBI field offices in the Arizona and South Dakota areas cited faster turnaround times, closer proximity of laboratories for larger pieces of evidence, and a facilitation of a working relationship between the FBI and local law enforcement personnel. With the agreements in place, the FBI Laboratory does not anticipate receiving the Arizona or South Dakota Indian Country cases in the future.

Cooperative Agreement for Missing Persons Cases. During FY 2009, the Nuclear DNA Program suffered technical difficulties that prevented it from processing bone evidence. Bone is often the only evidentiary item available in a missing persons investigation; therefore, this technical deficiency greatly diminished the ability of the Nuclear DNA Unit to analyze missing persons cases. To address this deficiency, the Nuclear DNA Unit funded a cooperative agreement with the Minnesota Department of Public Safety Laboratory to provide nuclear DNA testing services of missing persons cases for FY 2011 at a cost of \$1 million.²⁰

The Nuclear DNA Unit sent cases to the Minnesota laboratory on a monthly basis and the Minnesota laboratory completed testing and entered any eligible profiles into CODIS. Once the Nuclear DNA Unit sent a case to the Minnesota laboratory, it was considered closed and no longer a part of the unit's backlog. By outsourcing missing persons cases and removing these cases from the Nuclear DNA Unit's backlog at transfer, the unit was able to report a reduction in its case backlog prior to the completion of DNA testing on this evidence. Ideally, the Nuclear DNA Unit should have included the outsourced cases in its backlog until the Minnesota laboratory completed testing.

The cooperative agreement estimated that the Minnesota laboratory would complete 720 cases over the course of the year. By May 2011, the Nuclear DNA Unit stopped sending cases to the Minnesota laboratory because the Minnesota laboratory had received as many cases as it could

²⁰ The agreement with the Minnesota laboratory specified that the FBI Laboratory would provide up to \$1 million dollars to reimburse the laboratory for expenses such as salaries and equipment. The 720 estimated number of missing persons cases anticipated to be completed by the Minnesota laboratory was a good faith estimate and not an enforceable metric in the agreement. The Minnesota laboratory was not reimbursed based on the number of completed cases.

handle that year. Ultimately, the Minnesota laboratory was only able to complete approximately 240 cases during FY 2011.

An FBI Laboratory official explained that the agreement lacked an enforcement mechanism to ensure that expected case completion metrics are met. However, this same official explained that because the Nuclear DNA Unit was unable to process any missing persons cases at the time, the Nuclear DNA Unit's cooperative agreement did provide a necessary service. Subsequently, the Nuclear DNA Unit has addressed its technical deficiencies in processing bone evidence and now completes all nuclear DNA missing persons casework within the unit. Given its success in eliminating its backlog, the Nuclear DNA Unit does not foresee developing cooperative agreements in the future.

District of Columbia Metropolitan Police Department (MPD). In 2004, the FBI Laboratory signed an agreement with the MPD to provide laboratory facilities and services and to help the MPD establish its own forensic DNA analysis capabilities. However, in September 2008, because of space constraints at the FBI Laboratory, the FBI and the MPD signed a new agreement stating that the FBI would: (1) provide the MPD with laboratory space at another facility to conduct its own casework and (2) outsource MPD nuclear DNA cases to a private laboratory. According to the FBI Laboratory, this agreement was established in an effort to reduce the Nuclear DNA Unit's existing backlog of MPD cases, as well as support the creation of an MPD DNA casework laboratory.

Under the 2008 agreement, the MPD would send a request to the FBI Laboratory Nuclear DNA Unit to create a new case and send the evidence associated with the case to the private laboratory. After analysis was completed at the private laboratory, a copy of the case file would be sent to the FBI Laboratory for final review. The Nuclear DNA Unit included all outsourced MPD cases in its backlog calculation.

According to FBI Laboratory personnel, there were instances in which the MPD was requesting a case be opened, but was not sending the evidence to the private laboratory. After comparing active MPD cases in the Nuclear DNA Unit's backlog to cases that the private laboratory had received, the Nuclear DNA Unit found that there were about 160 MPD cases in the unit's backlog for which MPD had not sent evidence to the private laboratory. These 160 cases comprised over one third of the MPD cases in the Nuclear DNA Unit's March 2010 backlog.

We recommended that the FBI Laboratory coordinate with the MPD to resolve the instances of missing case evidence. As a result, the Nuclear DNA

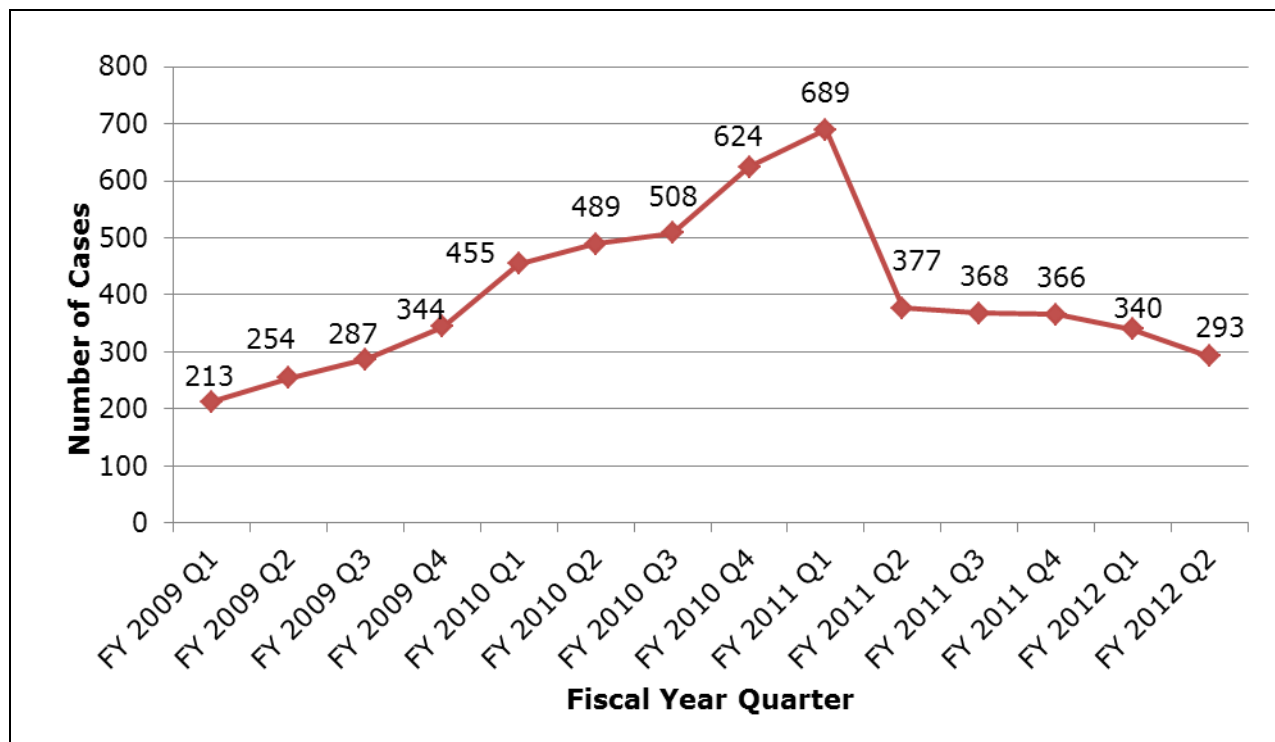
Unit worked with the MPD to review these 160 cases and the MPD confirmed that it was not able to forward evidence for testing. These cases were then closed by the Nuclear DNA Unit and removed from the unit's backlog. The closure of these cases does not preclude MPD from resubmitting cases if evidence from these 160 cases is located in the future.

The agreement between the FBI and the MPD to outsource backlogged MPD cases to a private laboratory, which began in 2008, expired in September 2011. As of March 31, 2012, all cases that were part of the 2008 agreement have been completed.

Mitochondrial DNA Unit Backlog Reduction Statistics

We compared case listings to backlog statistics reported by the Mitochondrial DNA Unit to verify the number of forensic DNA cases in the Mitochondrial DNA Unit's backlog. We found that the Mitochondrial DNA Unit is accurately reporting the backlog. While our prior review revealed that the backlog in the Mitochondrial DNA Unit was not as large as the Nuclear DNA Unit's backlog, we note that the number of cases has decreased from 489 cases in March 2010 to 293 cases as of March 2012, representing a 40 percent reduction in the backlog. Exhibit 8 illustrates the unit's reported backlog of cases for FYs 2009 – second quarter FY 2012.

**EXHIBIT 8: FBI REPORTED BACKLOG OF CASES IN THE
MITOCHONDRIAL DNA UNIT FOR FYS 2009 – SECOND QUARTER 2012**



Source: The FBI Laboratory, Mitochondrial DNA Unit's case management system

In reviewing Exhibit 8, we note a significant drop of over 300 cases in the Mitochondrial DNA Unit's backlog between the first and second quarters of FY 2011. In February 2011 (second quarter), the Mitochondrial DNA Unit altered its method for calculating its backlog. Prior to February 2011, the Mitochondrial DNA Unit classified backlogged cases as any case that was not completed. In February 2011, the unit determined that discontinued cases and TEDAC submissions sent to a regional laboratory for analysis would no longer be included in the unit's backlog calculation.²¹

According to the FBI, historical TEDAC submissions for mitochondrial DNA exams included all hairs identified on improvised explosive devices and the Mitochondrial DNA Unit would provide analysis on every sample

²¹ According to the Mitochondrial DNA Unit, when a case has a status of discontinued, there is no further analysis that can be performed on the case. The case is then considered completed and returned to the contributor with a report to document that the case has been discontinued. Discontinued cases generally occur in instances in which the Mitochondrial DNA Unit is unable to generate a mitochondrial DNA profile from the evidence provided in the case. Most of the discontinued cases are TEDAC submissions, since they are often times collected from the remnants of detonated IEDs, therefore the quality of genetic material yielded is highly degraded.

submitted. However, the FBI told us that there have been no documented instances for which probative results were generated from these mitochondrial DNA examinations. As a result, the Mitochondrial DNA Unit worked together with TEDAC to revise the unit's case acceptance policy so that new submissions to the unit are more likely to yield probative information.²² As a part of this revision, the Mitochondrial DNA Unit discontinued approximately 300 TEDAC submissions from its backlog. While it appears to be appropriate to not routinely conduct mitochondrial DNA examinations in cases that are highly unlikely to generate probative results, we note that the decision not to conduct examinations in these type of cases accounts for the majority of the decrease in the Mitochondrial DNA Unit's backlog beginning in the first quarter of 2011.²³

In a related matter, the FBI Laboratory is working with the FBI Office of General Counsel, the Department of Justice, the Innocence Project, and others to prepare a plan for the review of historical cases involving microscopic hair examinations. This plan is not yet finalized, but should DNA examinations be requested and certain conditions are met, the FBI Laboratory has stated that it is available to provide mitochondrial DNA testing on the relevant hair evidence. According to the FBI Laboratory, until a plan is finalized and DNA examinations are requested, it would be impossible to estimate the effect that this review might have on the Mitochondrial DNA or Nuclear DNA Units of the FBI Laboratory.

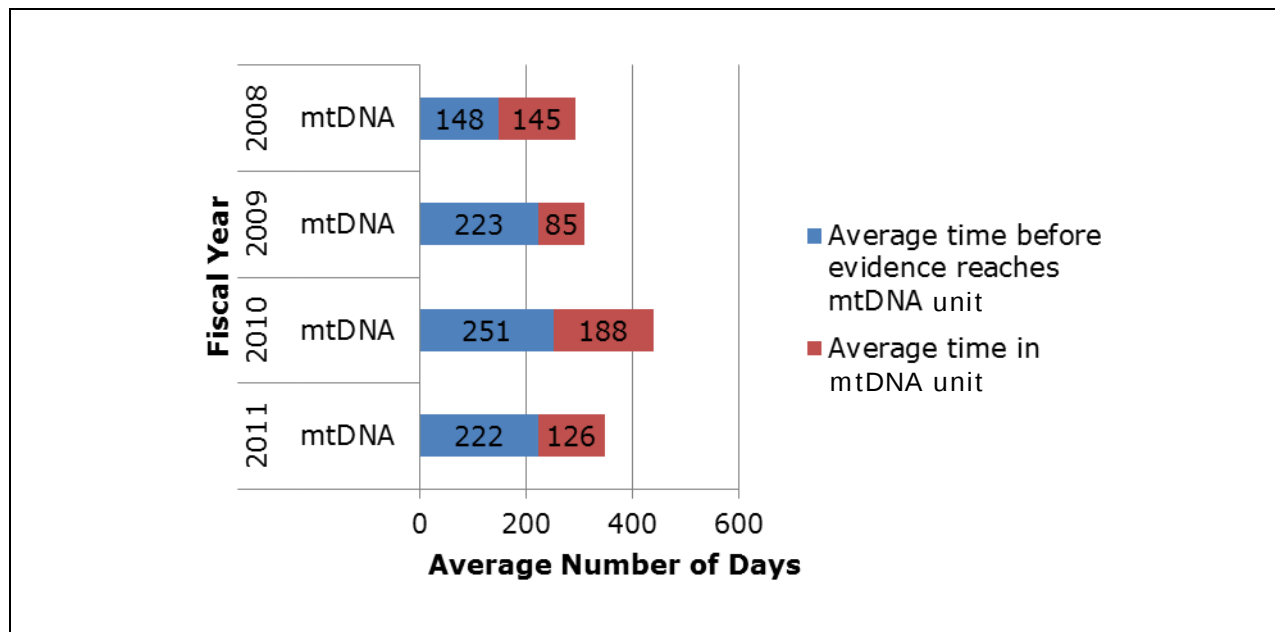
As a part of our analysis of the Mitochondrial DNA Unit's backlog, we also sought to determine whether the FBI Laboratory was able to decrease the total length of time contributors wait for mitochondrial DNA test results. Our analysis of the overall turnaround time includes: (1) the average time from when a case is received by the FBI Laboratory and arrives at the Mitochondrial DNA Unit and (2) the average time taken within the Mitochondrial DNA Unit to perform analysis and report results. To perform this analysis, we compared case acceptance and completion data for FYs 2010 and 2011 to data from our previous report. Exhibit 9 details for FYs 2008 through 2011 the average turnaround time from when a case was

²² The FBI Laboratory currently maintains all submissions to TEDAC, and if needed, could analyze older submissions for mitochondrial or nuclear DNA analysis.

²³ Prior to February 2011, we were unable to identify the number of discontinued cases or TEDAC cases assigned to a regional laboratory that were included in the Mitochondrial DNA Unit's backlog because of the inability of the Mitochondrial DNA Unit's case management system to query historical data. According to the Mitochondrial DNA Unit Chief, the unit's case management system is continuously updated with case information; as a result, the system does not archive historic workload status statistics.

accepted at the FBI Laboratory until the Mitochondrial DNA Unit completed the cases and results were communicated to the contributor.

EXHIBIT 9: AVERAGE TURNAROUND TIME FOR COMPLETED MITOCHONDRIAL DNA UNIT CASES FOR FYS 2008 – 2011



Source: The FBI Laboratory Mitochondrial DNA (mtDNA) Unit's case management system

Our prior report noted a significant turnaround time at the FBI Laboratory for DNA testing. Based on our review of the FYS 2008 through 2011 statistics, the turnaround time peaked in FY 2010 at 439 days and decreased to 348 days in FY 2011. However, the FY 2011 average turnaround time is still higher than the FY 2008 to 2009 average of 300 days. While the time a case was in the Mitochondrial DNA Unit appears to be decreasing, the time it takes for a case to be received at the Mitochondrial DNA Unit is generally increasing.²⁴ According to the FBI Laboratory, with the existence of a backlog, the turnaround time statistic lacks explanatory value since very old cases within the Mitochondrial Unit

²⁴ Our audit did not specifically test the causes for the length of time evidence spends in other units prior to being received at the Mitochondrial DNA Unit. The length of time evidence spends in other caseworking units prior to receipt at the DNA units depends on the type of evidence, number of pieces of evidence, and nature of the crime committed. Given the multiple variables that dictate necessary forensic tests, we are unable to conclusively determine a cause for delays in delivering evidence to the DNA units. However, we believe the implementation of a laboratory information management system will provide the FBI Laboratory with the data necessary to improve workflows and increase efficiency in evidence tracking and forensic test planning.

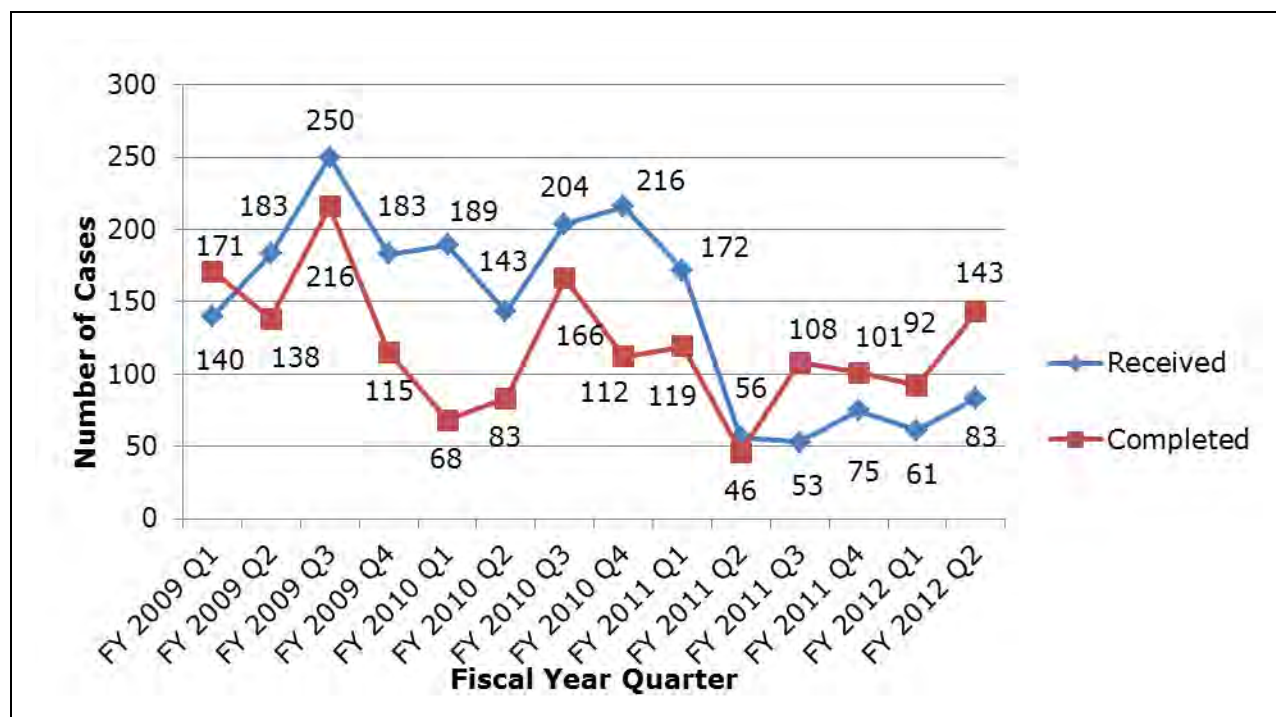
skew the calculation of average turnaround time for the time periods reported.

Backlog Mitigation Efforts

Recognizing the need to improve efficiency within the Mitochondrial DNA Unit, the Unit Chief implemented a formal Backlog Mitigation Plan in April 2012. The plan includes 23 goals for improving case acceptance policies, staffing, and DNA processing. However, since the plan was recently put in place, we are unable to evaluate the effectiveness of the plan.

We reviewed the number of cases received and completed by the Mitochondrial DNA Unit. We found that despite a reduction in the number of cases the unit received, there has not been a significant reduction in the backlog. As shown in Exhibit 10, the number of cases the unit completed from FYs 2009 – second quarter 2012 has consistently decreased. Specifically, we found that the unit's case completion has declined from 640 cases completed in FY 2009 to 374 cases in FY 2011, a decrease of 42 percent.

**EXHIBIT 10: CASES RECEIVED AND COMPLETED IN THE
MITOCHONDRIAL DNA UNIT FROM
FYs 2009 – SECOND QUARTER 2012**



Source: The FBI Laboratory, Mitochondrial DNA Unit's case management system

We reviewed both case submission changes and factors affecting the ability of the unit to complete cases. The number of cases the Mitochondrial DNA Unit received decreased in part because of a November 2011 agreement with TEDAC to limit the number of TEDAC submissions accepted per year. Further, the Mitochondrial DNA Unit experienced a decrease in the number of qualified examiners, which contributed to the decrease in the number of cases the unit completed. However, the Mitochondrial DNA Unit is in the process of implementing enhancements that may increase the completion of cases.

TEDAC Agreement

Since 2003, the FBI Laboratory has supported the efforts of TEDAC. However, the large number of TEDAC submissions was drawing examiners away from the Mitochondrial DNA Unit's traditional law enforcement casework duties. We spoke with the Director of TEDAC who added that prior to his appointment in 2011, TEDAC would send large volume submissions to the Mitochondrial DNA Unit in hopes of generating an intelligence lead from a mitochondrial DNA profile generated from these submissions. In Exhibit 11, we provide a breakdown of the number of TEDAC submissions the Mitochondrial DNA Unit accepted in FYs 2008 through 2011.

EXHIBIT 11: TEDAC SUBMISSIONS ACCEPTED BY THE MITOCHONDRIAL DNA UNIT BY FISCAL YEAR

Fiscal Year	Mitochondrial DNA Unit
2008	309
2009	344
2010	441
2011	136

Source: The FBI Laboratory, Mitochondrial DNA Unit's case management system

The TEDAC Director told us that over time, TEDAC has learned that it does not need to provide the same volume of submissions to the Mitochondrial DNA Unit and TEDAC is better served to send only those submissions that it believes can provide additional leads to an existing intelligence collection effort. Both the Unit Chief of the Mitochondrial DNA Unit and the Director of TEDAC agreed that both parties could make better use of its collective resources by reevaluating case acceptance policies for TEDAC submissions to the Mitochondrial DNA Unit.

As a result of the Mitochondrial DNA Unit's reevaluation of submission acceptance policies for TEDAC submissions, in November 2011, the Mitochondrial DNA Unit and TEDAC mutually agreed that TEDAC would

submit no more than 100 submissions per year to the Mitochondrial DNA Unit. The limited number of TEDAC submissions the Mitochondrial DNA Unit receives will decrease the overall number of DNA samples the unit must analyze.

Qualified Examiners

In our previous report, we noted that the FBI stated that hiring and qualifying additional staff would help to reduce the backlog. The Mitochondrial DNA Unit has suffered a loss of qualified examiners in the unit since FY 2010. However, as of March 2012, the unit has two examiner candidates identified and three examiners-in-training. Until the Mitochondrial DNA Unit has more on-board examiners, the unit cannot dedicate examiners solely to case working duties. According to FBI personnel, training and qualifying the additional examiners will assist the Mitochondrial DNA Unit in reducing its backlog. Exhibit 12 compares examiner staffing levels from August 2010 and March 2012 in the Mitochondrial DNA Unit.

EXHIBIT 12: COMPARISON OF STAFFING LEVELS IN THE MITOCHONDRIAL DNA UNIT

Status	August 2010	March 2012
Examiners On-board	6	3
Examiners-in-Training	2	3
Examiner Candidates	2	2
Vacancies	-	1
Total Examiner Positions	10	9

Source: The FBI Laboratory, Mitochondrial DNA Unit

Future Enhancements

The Mitochondrial DNA Unit is in the process of implementing limited automation to help improve DNA processing times. Mitochondrial DNA analysis has a higher risk of contaminating the sample than nuclear DNA analysis, therefore the Mitochondrial DNA Unit has focused its automation efforts on batching familial reference samples used to generate mitochondrial DNA profiles, instead of batching the easily contaminated

evidentiary samples.²⁵ The FBI believes implementing batched reference samples will show a significant time savings for the unit's operations.

Additionally, because the Nuclear and Mitochondrial DNA Units extract DNA from bone evidence, the Mitochondrial DNA Unit is also pursuing a plan to collaborate with the Nuclear DNA Unit's research team to reduce the duplication of time spent by both units on bone analysis. Further, the Mitochondrial DNA Unit plans to implement a new case management system to track the in-unit workflow. According to Mitochondrial DNA Unit officials, the new system is already used successfully in a non-caseworking unit, the Federal DNA Database Unit, and is in the process of being implemented in the Nuclear DNA Unit. Once implemented, the new case management system will generate data that can interface with a laboratory-wide information management system.

²⁵ The maternal inheritance of mitochondrial DNA allows scientists to compare the mitochondrial DNA profile of a set of remains to that of reference samples from individuals such as the mother, brother, sister, or any other maternally related individuals of a missing person. These samples should have the same mitochondrial DNA profiles because all maternal relatives inherit the same mitochondrial DNA.

The FBI's Cooperative Agreements for DNA Analysis

Since 2003, in an attempt to minimize the workload of the FBI Laboratory's Mitochondrial DNA Unit and to improve state-level DNA testing capacity, the FBI has developed cooperative agreements with regional laboratories to test non-federal mitochondrial DNA cases.

Regional Mitochondrial DNA Program

In FY 2003, Congress included authority and funding for the FBI to maintain or establish four regional mitochondrial DNA forensic laboratories in affiliation with the FBI Laboratory. The program's mandate is to provide analysis of human remains and other evidence to assist law enforcement in the identification of missing persons and criminal perpetrators. Beginning in FY 2003, the FBI Laboratory established cooperative agreements with four regional forensic laboratories to provide mitochondrial DNA analysis to other federal, state, and local law enforcement agencies. These cooperative agreements cover the expenses, including salaries, of mitochondrial DNA processing at the regional laboratories. Each agreement provides a regional laboratory with nine positions, at least two of which must be examiner positions. The Regional Mitochondrial DNA Program offers considerable benefits to state and local law enforcement by providing free mitochondrial DNA services which otherwise likely would be unavailable; the FBI Laboratory is not responsible for conducting non-federal mitochondrial DNA analysis.

As part of the Regional Mitochondrial DNA Program, the FBI Laboratory had cooperative agreements with the state forensic laboratories in Arizona, Minnesota, Connecticut, and New Jersey. As part of the agreements, each laboratory was projected to complete 120 mitochondrial DNA cases a year. These cases are sent directly to the regional laboratories from law enforcement contributors and are tracked by the FBI Laboratory.²⁶ Exhibit 13 details budgeted funding for the regional laboratories for FYs 2010 - 2012.

²⁶ At the end of FY 2009, the FBI Laboratory and the Connecticut Department of Public Safety ended their agreement because of quality concerns identified in its annual audit and poor administration.

**EXHIBIT 13: REGIONAL MITOCHONDRIAL DNA PROGRAM
LABORATORY BUDGETED FUNDING FOR FYs 2010 – 2012²⁷**

Fiscal Year	Arizona	Minnesota	New Jersey	Total
2010	\$1,005,000	\$1,005,000	\$1,005,000	\$3,015,000
2011	\$1,005,000	\$1,005,000	\$1,005,000	\$3,015,000
2012	\$1,125,000	\$1,125,000	-	\$2,250,000
Total Budgeted Funding				\$8,280,000

Source: The FBI Laboratory's Regional Mitochondrial DNA Program

From July 1, 2010 through June 30, 2011, the Arizona laboratory reported on 94 mitochondrial DNA cases while the Minnesota laboratory reported on 138 cases. However, during the same time period, the New Jersey laboratory did not conduct any mitochondrial DNA testing because of unforeseen staffing deficiencies.²⁸ Despite its inability to provide mitochondrial DNA testing services, New Jersey laboratory personnel attended training and validated studies on new technology. Based on the FBI's experiences with the New Jersey laboratory, the FBI ended its agreement with the New Jersey laboratory, and has strengthened the regional agreements by specifying performance metrics. The metrics were incorporated into the agreements in order to provide the FBI an enforcement mechanism to ensure the regional laboratories meet anticipated performance levels.²⁹

²⁷ The FBI's Regional Mitochondrial DNA Program has been allotted dedicated funding since it was first authorized by Congress in FY 2003. This funding was originally established at \$1 million per laboratory per year. Once the Connecticut Department of Public Safety was removed from the Regional Mitochondrial DNA Program, its funding was redirected. This allowed for each of the three remaining laboratories to be provided \$1,005,000.

²⁸ FBI Laboratory personnel told us that mitochondrial DNA casework was halted in the New Jersey laboratory because both of the examiners went on maternity leave around the same time. Although one examiner later returned, quality assurance standards necessitate that two examiners are required for the issuance of a results report; one to work the case and produce the report, and the second to review the work of the first examiner. We were told that the FBI Laboratory paid to train biologists at the New Jersey laboratory to perform examinations, but none of the biologists were able to successfully complete the examiner training.

²⁹ According to the FBI Laboratory, two regional mitochondrial DNA laboratories can sufficiently process the yearly number of state submissions. Therefore, the FBI Laboratory does not foresee expanding this program.

The 120 cases–per-year metric was intended to be a good faith estimate; however, in its FY 2012 cooperative agreements with both the Minnesota and Arizona laboratories, the FBI Laboratory developed a mechanism to minimize payments in the event of a future unforeseen stoppage of work at the regional laboratories. In the agreements, the FBI Laboratory reserves the right to withhold a percentage of the reimbursement for salary, supplies, or other items if a regional laboratory becomes unable to conduct mitochondrial DNA analysis. Exhibit 14 explains the tiered approach that would be implemented in this scenario.

EXHIBIT 14: PERCENTAGE OF FUNDING WITHHELD IN THE EVENT OF A STOPPAGE OF WORK

Period of Time Without Mitochondrial DNA Analysis:	Percentage of Funding Withheld:
90 Days (3 months)	25%
180 Days (6 months)	50%
270+Days (9 months or more)	100%

Source: The FBI Laboratory's Regional Mitochondrial DNA Program Agreements

Laboratory Information Management System Efforts

As of June 2012, the FBI Laboratory does not have an automated or electronic means to track evidence or capture forensic examination data. The FBI Laboratory manages the flow of evidence throughout the laboratory in a largely paper-based process, with a limited “in and out” electronic database that tracks when an item enters the laboratory for testing, when analyses are performed, and when the item leaves the laboratory. However this electronic database does not track when evidence enters and exits specific units.

According to the FBI Laboratory, the lack of a laboratory information management system hinders its ability to provide service to FBI field agents, other Department of Justice components, and domestic and international law enforcement partners. Specifically, the FBI Laboratory states that the inability to electronically monitor business activity and laboratory processes generates customer response delays and allows the sources of delays and backlogs to remain undetected. Further, the FBI Laboratory asserts that the time consuming evidence-tracking process is a burden on all levels of FBI personnel and external partners. Therefore, we believe that this burden can negatively affect the identification of missing persons, prosecution of criminals, and identification of terrorist threats.

Since 2003, the FBI Laboratory has spent at least \$14 million in pursuit of a laboratory information management system. In September 2003, the FBI awarded a contract to implement a commercial off-the-shelf system to JusticeTrax, Inc. However, in March 2006, the FBI terminated the contract because the contractor could not meet specific FBI security requirements. This resulted in a loss of nearly \$1.2 million in development costs.³⁰ Exhibit 15 details the FBI Laboratory's total estimated expenditures on the JusticeTrax project from September 2003 – March 2006.

EXHIBIT 15: THE FBI LABORATORY'S TOTAL PAYMENTS TO JUSTICETRAX FROM SEPTEMBER 2003 – MARCH 2006

Expense	Amount
Personnel and Training	\$651,083
Equipment	\$205,136
Termination Agreement	\$523,932
Equipment Salvaged	(\$205,136)
Total Loss Incurred by the FBI	\$1,175,015

Source: U.S. Department of Justice Office of the Inspector General, *The Federal Bureau of Investigation's Implementation of the Laboratory Information Management System*, Audit Report 06-33 (June 2006), 16.

Following the attempt to implement a commercial off-the-shelf system, the FBI Laboratory decided to develop its own laboratory information management system, known as INNOVARi. In our previous report, we noted INNOVARi was experiencing numerous problems, including stop-work delays, information portal deficiencies, and failures during pilot testing, disagreements between the FBI Laboratory and the FBI's Office of the Chief Information Officer, and claims that a contractor supporting a portion of the information portal project was not providing an adequate level of customer support. As of December 2011, nearly \$13.3 million was spent on the INNOVARi project. Exhibit 16 details the FBI Laboratory's total estimated expenditures on the INNOVARi project in FYs 2005 through 2011.

³⁰ U.S. Department of Justice Office of the Inspector General, *The Federal Bureau of Investigation's Implementation of the Laboratory Information Management System*, Audit Report 06-33 (June 2006), i.

**EXHIBIT 16: THE FBI LABORATORY'S ESTIMATED TOTAL INNOVARI
EXPENSES FROM FYs 2005 THROUGH 2011³¹**

Expense	Amount
Transfer from the FBI Laboratory	\$1,000,000
Business Process Mapping Expenses	\$11,007,079
Contractor Support	\$984,000
Hardware	\$108,397
Software	\$154,180
Total Estimated Expenses	\$13,253,656

Source: The FBI Laboratory as of December 2011

In April 2010, the FBI Laboratory performed an assessment of laboratory information management systems. The objective of the assessment was to determine the feasibility of a commercial off-the-shelf solution for the FBI Laboratory, and to compare the commercial solutions to existing internal solutions. This assessment concluded that despite advances in INNOVARI, it was not in the FBI Laboratory's best interest to continue with INNOVARI. The assessment also determined that the FBI Laboratory should not be developing software if other laboratory management software already exists. Despite this assessment, the FBI Laboratory continued INNOVARI development and exercised the FY 2011 option on the INNOVARI service contract at a cost of over \$2.8 million. Ultimately, FBI Laboratory management decided to end INNOVARI development by not exercising the FY 2012 option year for the INNOVARI service contract.

In October 2011, the FBI Laboratory Assistant Director told us that the FBI Laboratory ended the INNOVARI project because of the projected costs of developing, implementing, and maintaining the project. He said that the INNOVARI platform was not an ideal solution for the FBI Laboratory because it was not initially developed for laboratory use, but rather was based on business process mapping software that was retrofitted to perform

³¹ The estimates were calculated by the Contracting Officer Technical Representative, who based the estimates on the purchase orders under the INNOVARI contract. In our prior report, we identified a \$1 million transfer from the FBI Laboratory to the Chief Information Officer. According to the INNOVARI Program Manager, the transfer was essential to securing INNOVARI development funds and was used to purchase licenses for business process management software. The Contracting Officer Technical Representative excluded the \$1 million transfer from the FBI Laboratory because the representative did not know how the transfer was applied to INNOVARI. Because the INNOVARI Program Manager identified this cost as a project cost and indicated it was essential to the INNOVARI development, we included the \$1 million transfer as part of the INNOVARI costs.

laboratory information management system functions. The FBI Laboratory Assistant Director explained that INNOVARi's business process mapping and workflow modeling was too specific at the forensic unit level for an effective initial implementation. Further, the FBI Laboratory Assistant Director emphasized that laboratory information management system software must focus on tracking evidence, whereas INNOVARi focused primarily on managing FBI Laboratory's resources.

The FBI Laboratory Assistant Director told us that despite the decision to cancel future development of INNOVARi, the FBI Laboratory can extract several value-added benefits from the project. Specifically, the INNOVARi project developed many business process maps of specific laboratory units, as well as a generic work-flow map that will assist in the development of a new laboratory information management system. However, the FBI Laboratory Assistant Director could not estimate the dollar amount of these benefits.

According to the FBI, one of the central problems undermining the INNOVARi project was the lack of a rigorously applied FBI Information Technology Governance Framework during the initial phases of the project.³² Therefore, according to the FBI, the new laboratory information management system effort - eLAB - will follow the FBI's Lifecycle Management Framework, which is intended to provide a standardized, repeatable, and sustainable process for the "cradle to grave" management, acquisition, development, operations and maintenance, and disposal of FBI information technology systems.

³² The FBI's Information Technology Governance Framework is a formal mechanism that regulates the management of information technology investments and projects by ensuring that they are prioritized, comply with the FBI's Lifecycle Management Framework, and are properly controlled and monitored. According to the FBI, the Information Technology Governance Framework requires reviews at key lifecycle milestones. The reviews include evaluations of technical requirements, financial feasibility, and project management. Milestones, sometimes referred to as "gates," mark critical transition points in the product development life cycle and collectively are used as the mechanism for executive management control and direction, decision-making, coordination, and confirmation of successful information technology project performance.

eLAB Implementation Process

The FBI Laboratory assigned a program manager with previous success implementing an FBI information technology system to oversee the eLAB project.³³ The program manager is fully responsible for the execution of the project, including developing a strategy, building a team, executing the contract, managing the contract, and ensuring the project's successful completion.

In November 2011, the eLAB Program Manager submitted a mission needs statement to FBI information technology management, which is responsible for ensuring that the project addresses a genuine gap in FBI business operations, and that the FBI Laboratory has identified the resources necessary to support the future project. FBI management subsequently determined that eLAB will address a genuine gap in FBI business operations, provide end-to-end electronic evidence tracking capability, and improve the FBI Laboratory's management of evidence tracking and forensic examinations.³⁴

The FBI Laboratory is in the early stages of developing eLAB and in June 2012 issued a request for proposals for the development of eLAB, which includes eLAB project requirements. Further, the FBI Laboratory's FY 2012 budget includes \$4 million for the development of eLAB. The program manager estimated that a contract for a commercial off-the-shelf product should be awarded by the summer of 2012 and that the first phase of eLAB can be delivered to the FBI Laboratory 6 to 9 months after the contract is awarded.

According to the FBI, the inclusion of an experienced program manager and adherence to the structure of both the Information Technology Governance Framework and the Lifecycle Management Framework will improve the likelihood of project success. While the FBI Laboratory's

³³ Prior to November 2011, the program manager worked in the CODIS Unit where he managed the development of new capabilities to the National DNA Index System database.

³⁴ According to the FBI Laboratory, additional benefits of eLAB will include: (1) a reduction of time spent executing manual processes in every aspect of the forensic analysis lifecycle; (2) decreased administrative time associated with the analysis process; (3) the ability to evaluate trends in evidence and casework to support resource reallocations among FBI Laboratory forensic disciplines; (4) enhanced evidence prioritization to improve FBI Laboratory response times; (5) information necessary to manage turnaround times, backlogs, and inventory more effectively; (6) information exchange with Sentinel, the FBI's new enterprise wide case management system; and (7) an overall increase in the FBI Laboratory's capacity to produce quality results.

approach to eLAB appears to be more structured than previous attempts to implement a laboratory information management system, we have concerns based on the past unsuccessful efforts to develop such a system, and based on the FBI Laboratory's INNOVARi service contract expenditures made after the FBI Laboratory's own assessment determined that it should cease INNOVARi development. To improve the likelihood of success, we recommend that the FBI ensure that the eLAB project has an approved budget, software package, and implementation timeline.

External Factors Potentially Affecting the DNA Units

A recent decision of the U.S. Supreme Court may affect the ability of forensic laboratories to maintain their workload. In *Williams v. Illinois*, 567 U.S. ____ (2012), the Court held that a defendant's right to confront the witnesses against him, which is guaranteed by the Sixth Amendment to the Constitution, was not violated when an expert witness for the prosecution based an opinion in part on a laboratory report prepared by non-testifying analysts, even though the report was not admitted into evidence and the defense was not provided an opportunity to confront the analysts who prepared it. The Court did not have a unified rationale for its decision, which was decided by a narrow majority.

FBI Laboratory officials told us that, prior to the Court's decision, the *Williams* case had created a significant amount of uncertainty about the circumstances under which an expert witness may base an opinion on laboratory results about which the expert has no firsthand knowledge, and that this issue affects how the FBI Laboratory processes DNA evidence. Traditionally, biologists (analysts) in the FBI Laboratory forensic DNA units have removed genetic material from evidentiary items and performed necessary tests on these genetic materials to generate DNA profiles. Examiners (expert witnesses) then review and interpret the profiles, and they issue reports based on their analysis. As of June 2012, for the majority of its cases, the FBI used a "pool" system for biologists where many different biologists work on a particular piece of evidence, but only one examiner analyzes the DNA profile generated. The FBI has found this method to be an efficient way to manage the DNA units' workflows.

However, FBI Laboratory officials said that they took precautions while the *Williams* decision was pending so that they would have been prepared were the Supreme Court to have ruled that all persons who process a piece of forensic evidence could be required to testify when their work is used by an expert witness to draw a conclusion at trial. Specifically, these officials told us that as early as October 2011, both DNA units began training examiners to conduct their own DNA testing and to perform the analysis

from the profiles generated from the exam, thus limiting the number of personnel working on a particular piece of evidence.³⁵ According to the FBI, the cross-training takes approximately 2-3 months per individual, and the new method for analysis and review decreases the number of DNA profiles an examiner can analyze and report each month by approximately half. To compensate, the DNA units plan to increase the number of examiners on staff in order to ensure that the units maintain their current turnaround times and case output.

When we asked FBI Laboratory officials for their initial reaction to the Supreme Court decision, they told us that they intend to continue cross-training examiners as biologists. Specifically, they stated that the *Williams* decision leaves a significant degree of uncertainty which could increase the likelihood in which the “pool” system for DNA processing will continue to be questioned in court cases and subsequent appeals. As such, FBI Laboratory officials believe that having examiners perform both the DNA analysis and review can simplify the prosecutor’s presentation of DNA results when they are introduced at trial, while simultaneously helping the FBI Laboratory to reduce processing disruptions. The FBI Laboratory expects to have fully cross-trained examiners by June 2013.

Additionally, in May 2010, the FBI Laboratory created a CODIS Core Loci Working Group to evaluate the necessity for additional loci. As a result, the FBI has recommended the expansion of the number of “core loci” in CODIS from 13 to 24. As of May 2012, CODIS uses a set of 13 genetic markers - the core loci - to generate individual DNA profiles. We note that due to differing DNA analysis techniques, the expansion of the number of core loci is only relevant for nuclear DNA testing. According to the FBI, the addition of new core loci will reduce the likelihood that individuals with a similar genetic composition are mistakenly identified in both criminal and missing person cases. Furthermore, the additional core loci will enhance compatibility with international standards. The CODIS database custodian specified that the additional loci would not necessitate the lengthy validation process that the original loci underwent because the additional loci have been validated by other U.S. state and international forensic laboratories. Based on research and discussion with an FBI subject matter expert we think it is unlikely that increasing the number of core loci will have an effect on the DNA processing speed in the Nuclear DNA Unit.

³⁵ This training refreshed and recertified examiners on necessary skills required to perform their own biological testing of evidence and DNA samples.

Conclusion and Recommendation

The FBI Laboratory's forensic DNA casework backlog has been significantly reduced since our prior report. We found that the FBI Laboratory has effectively eliminated the Nuclear DNA Unit case backlog, which we note is a significant achievement. This progress can be attributed primarily to efficiency improvements and the addition of personnel. However, while the Mitochondrial DNA Unit's backlog decreased, we found that the decrease can be attributed to a decision to no longer automatically conduct Mitochondrial DNA analysis on all hairs identified on improvised explosive devices. The FBI said it took these cases out of the queue for automatic examination because there have been no documented instances for which probative results were generated from these mitochondrial DNA examinations. Instead, the Mitochondrial DNA Unit worked together with TEDAC to revise the unit's case acceptance policy so that new submissions to the unit are more likely to yield probative information. These changes to the TEDAC case acceptance policy, rather than an increase in the number of cases completed, accounted for the decrease in the backlog.³⁶

Through March 2012, the FBI Laboratory spent more than \$14 million in previous attempts to implement a laboratory information management system. The FBI's latest effort, eLAB, has an experienced program manager, has secured initial funding of \$4 million, and has adopted the FBI Information Technology Governance Framework. While we are encouraged by the initial planning efforts, we seek additional information on the commercial off-the-shelf software selected, the cost, and specific project timeline.

Overall, the FBI Laboratory has undertaken several strategies to support case contributors and reduce its forensic DNA backlog. However, because of past difficulties in efforts to implement a laboratory information management system, we are making one recommendation to improve FBI Laboratory operations.

We recommend that the FBI:

1. Ensure that the eLAB project has an approved budget, software package, and implementation timeline.

³⁶ According to the FBI Laboratory, it is preparing a plan for reviewing historical cases involving microscopic hairs. Until this plan is finalized, the FBI Laboratory stated that it is impossible to estimate the effect this review might have on the Mitochondrial DNA or Nuclear DNA Units.

STATEMENT ON INTERNAL CONTROLS

As required by the *Government Auditing Standards*, we tested, as appropriate, internal controls significant within the context of our audit objectives. A deficiency in an internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to timely prevent or detect: (1) impairments to the effectiveness and efficiency of operations, (2) misstatements in financial or performance information, or (3) violations of laws and regulations. Our evaluation of the Federal Bureau of Investigation (FBI) Laboratory's internal controls was *not* made for the purpose of providing assurance on its internal control structure as a whole. FBI management is responsible for the establishment and maintenance of internal controls.

Through our audit testing, we did not identify any deficiencies in the FBI Laboratory's internal controls that are significant within the context of the audit objectives or, based upon the audit work performed, that we believe would affect the FBI's ability to effectively and efficiently operate, to correctly state financial and performance information, or to ensure compliance with laws and regulations.

Because we are not expressing an opinion on the FBI Laboratory's internal control structure as a whole, this statement is intended solely for the information and use of the FBI Laboratory. This restriction is not intended to limit the distribution of this report, which is a matter of public record.

STATEMENT ON COMPLIANCE WITH LAWS AND REGULATIONS

As required by the *Government Auditing Standards* we tested, as appropriate given our audit scope and objectives, records, procedures, and practices to obtain reasonable assurance that FBI management complied with federal laws and regulations for which noncompliance, in our judgment, could have a material effect on the results of our audit. FBI management is responsible for ensuring compliance with applicable federal laws. In planning our audit, we identified the following laws and regulations that concerned the operations of the auditee and that were significant within the context of the audit objectives:

- 42 U.S.C. §14132 (2006).
- 42 U.S.C. §14133 (2004).

Our audit included examining, on a test basis, the FBI's compliance with the aforementioned laws that could have a material effect on FBI operations, through interviewing personnel at the FBI Laboratory, Information Technology Branch, and Indian Country Crimes Unit; analyzing forensic DNA case backlog data; reviewing cooperative agreements and backlog reduction plans; and calculating statistics on the forensic DNA units' backlog and turnaround times. Nothing came to our attention that caused us to believe that the FBI was not in compliance with the aforementioned laws.

APPENDIX I

OBJECTIVES, SCOPE, AND METHODOLOGY

Objectives

We audited the FBI Laboratory's backlog of forensic DNA cases. The objectives of this audit were to: (1) verify the total number of forensic DNA cases that remain unprocessed by the FBI Laboratory, (2) evaluate the status of the implementation of a laboratory information management system, (3) examine the effect of outsourcing agreements on the overall DNA forensic casework backlog, and (4) assess any impending external factors that may impact the ability of the forensic DNA units to maintain their workload.

Scope and Methodology

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.

We reviewed historical performance data, information technology system implementation efforts, backlog mitigation plans, case acceptance policies, and cooperative agreements at the FBI Laboratory's forensic DNA units designed to reduce the FBI Laboratory's forensic DNA backlog. The audit generally covered, but was not limited to, FBI Laboratory forensic DNA statistics from October 2007 through March 2012.

Audit work was conducted at both FBI headquarters in Washington, D.C., and the FBI Laboratory located in Quantico, Virginia. We interviewed FBI Laboratory senior management and FBI Laboratory Division personnel involved with the Nuclear and Mitochondrial DNA Units. We discussed backlog statistics, turnaround times, automation efforts, cooperative agreements, case acceptance policies, INNOVARi, eLAB, and staffing enhancements. We interviewed personnel from the Indian Country Crimes Unit concerning the Memorandums of Agreement with the Arizona Department of Public Safety and the South Dakota Division of Criminal Forensic Laboratory. We spoke with FBI Information Technology Branch

personnel and the eLAB Program Manager concerning INNOVARi and the successor system, eLAB. We also interviewed the TEDAC Director about changes to case acceptance policies governing which samples the DNA units will analyze.

In order to determine the number of forensic DNA cases that remained unprocessed at the FBI Laboratory, we selected four historical points in time to compare a full active case listing for each unit to the number of cases reported to FBI management on the monthly scorecard. We relied on computer-generated data from the Nuclear and Mitochondrial DNA Unit's in-unit case management systems. Based on our testing, we found that both the Nuclear and Mitochondrial DNA Units had less than a 3 percent margin of error when reporting their backlog statistics to management; therefore, we determined that both the Nuclear and Mitochondrial DNA Units are accurately reporting the backlog within their respective units. We relied on the unit-provided statistics when our own testing was not conducted. Although we did not assess each unit's information system's control or reliability, we do not believe our reliance on these systems' information significantly affects the findings and recommendations offered by this report.

To determine average turnaround time for completed cases, we tested all cases that were received in each unit from FYs 2008 through 2011. We calculated the average turnaround time for completed cases in the DNA units using the cases received by each unit in each fiscal year. We note that cases may have entered the FBI Laboratory in a different year than the case enters a DNA unit. We also note that cases may be completed in a later year than it was received in a DNA unit. For example, the FY 2010 average turnaround time in the Nuclear DNA Unit includes all cases that were received in the unit in FY 2010; however, cases that the unit received in FY 2010 may have been accepted at the FBI Laboratory in any prior fiscal year and may not be completed until FY 2011. The average time in the unit was calculated by subtracting the date the unit received the evidence from the date it was reported. The average time evidence is in the FBI Laboratory before it is received by the unit was calculated by subtracting the date it entered the FBI Laboratory from the date the unit received the evidence. FBI Laboratory personnel agreed that the methodology we used fairly represented the data.

We compared both the Nuclear and Mitochondrial DNA Units' staffing levels in August 2010 to March 2012 by using unit organizational charts and by interviewing unit managers.

APPENDIX II

THE FEDERAL BUREAU OF INVESTIGATION'S RESPONSE TO THE OFFICE OF THE INSPECTOR GENERAL'S AUDIT REPORT RECOMMENDATION



U.S. Department of Justice

Federal Bureau of Investigation

Washington, D. C. 20535-0001

September 20, 2012

The Honorable Michael E. Horowitz
Inspector General
Office of the Inspector General
U.S. Department of Justice
950 Pennsylvania Avenue, Northwest
Washington, D.C. 20530

Dear Mr. Horowitz:

The Federal Bureau of Investigation (FBI) appreciates the opportunity to review and respond to your office's report entitled, *Audit of the Federal Bureau of Investigation Laboratory's Forensic DNA Case Backlog*.

We are pleased your office concluded the FBI Laboratory's effective elimination of the backlog by the Nuclear DNA Unit was a "significant achievement." As noted, the FBI Laboratory also has made strategic revisions to the case acceptance policy to decrease the Mitochondrial DNA backlog. The FBI remains committed to ensuring the Laboratory promptly evaluates evidence suitable for DNA examination.

In conclusion, the FBI concurs with your one recommendation. We appreciate the professionalism exhibited by your staff as they worked to complete this review.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "D. Hassell", is positioned above the typed name of the Assistant Director.

D. Christian Hassell
Assistant Director
Laboratory Division

Enclosure

Audit of the Federal Bureau of Investigation Laboratory's Forensic DNA Case Backlog

Recommendation #1 - "Ensure the eLab project as an approved budget, software package, and implementation timeline."

FBI Response to Recommendation #1: Concur – The FBI Laboratory is currently undergoing source selection for the eLAB project. Once awarded, the FBI Laboratory will provide the OIG with information about the software package selected, the planned budget for the award, and the timeline for implementation of the software into Laboratory operations.

APPENDIX III

OFFICE OF THE INSPECTOR GENERAL ANALYSIS AND SUMMARY OF ACTIONS NECESSARY TO CLOSE THE REPORT

The OIG provided a draft of this audit report to the FBI. The FBI's response is incorporated in Appendix II of this final report. The following provides the summary of actions necessary to close the report.

Summary of Actions Necessary to Close the Report

1. **Resolved.** The FBI concurred with our recommendation to ensure the eLAB project has an approved budget, software package, and implementation timeline. The FBI stated in its response that it is currently undergoing source selection for the eLAB project. Once awarded, the FBI Laboratory will provide the OIG with information about the software package selected, the planned budget for the award, and the timeline for implementation of the software.

This recommendation can be closed when we receive and review the approved budget, software package, and implementation timeline for the eLAB project.