

Special Report

Legislative Joint Auditing Committee

April 10, 2009

Case Prioritization and Turnaround

Arkansas State Crime Laboratory

INTRODUCTION

This report is being issued to inform the Legislative Joint Auditing Committee of the procedures used by the Arkansas State Crime Laboratory in classifying and prioritizing its caseload and the agency's compliance with those procedures. The Agency's written prioritization policy states, *"All cases may be prioritized based upon a system that allows for a timely response. Unless priority requests are made by the Investigative Agency or by a Court Officer, cases should be analyzed in chronological order."* However, audit testing revealed cases were frequently analyzed out of sequence without documentation of a priority request.

This report focuses solely on the policies and practices regarding turnaround of cases and does not question, address, or affect the quality or evidentiary value of the Arkansas State Crime Laboratory's analyses and findings. Therefore, this report should not be used to question or impeach the admissibility of any evidence offered by the Arkansas State Crime Laboratory in any trial or proceeding.

OBJECTIVES

The objectives of the review were to:

- Determine if and how the Arkansas State Crime Laboratory prioritizes and/ or classifies incoming cases;
- Determine the turnaround of cases by prioritization and/or classification; and
- Review national studies and/or like-sized laboratories to determine if similar prioritization and/or classification and case turnaround for the Arkansas State Crime Laboratory is comparable.

SCOPE AND METHODOLOGY

The review was performed for the period January 1, 2007 through December 31, 2008. Data relating to policy manuals, case load, and case turnaround was examined. In addition, cases submitted to the Arkansas State Crime Laboratory were traced on a sample basis through internal procedures to completion of laboratory work.

The methodology used in preparing this report was developed uniquely to address our stated objectives and therefore is more limited in scope than an audit or attestation engagement performed in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States.

BACKGROUND

The Arkansas State Crime Laboratory (Crime Lab) was created in 1977 by Act 517. The Crime Laboratory Board was created by Act 383 of 1991 and has policy-making powers as to the operation of the Crime Lab and has the authority to hire and terminate the Chief Medical Examiner. The Executive Director of the Crime Lab is appointed

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POINTS OF INTEREST:

- Testing identified several instances where case prioritization was not documented as being made by an investigative agency or by a court officer as stated in the Agency’s Quality Manual. (Page 3)
- Case turnaround rates provided by the Crime Lab could not be verified due to inaccurate request dates entered into the Crime Lab’s Laboratory Information Management System (LIMS) or changed during the conversion to the new LIMS. (Page 3)
- Studies devoted to case turnaround times or prioritization policies at other crime laboratories could not be located for inclusion in this report. (Page 4)

by the Governor. The Crime Lab has 11 sections which process evidence:

1. CODIS (Combined DNA Index System, computer system storing DNA profiles from convicted offender and crime scene evidence from the State of Arkansas. These profiles are uploaded to NDIS (National DNA Index System));
2. Digital Evidence;
3. Firearms and Toolmarks;
4. Forensic DNA (Develops deoxyribonucleic acid (DNA) profiles from evidence samples submitted to the laboratory);
5. Forensic Chemistry;
6. Forensic Toxicology;
7. Hope Regional Laboratory;
8. Illicit Labs;
9. Latent Prints;
10. Medical Examiner; and
11. Physical Evidence.

Evidence is submitted to the Crime Lab by the investigating agencies and logged by the Evidence Receiving Section and stored until the evidence is retrieved by the appropriate Section to be processed. Once the analysts have processed the evidence, it is returned to the Evidence Receiving Section. Drug related evidence may be tested in only one Section. Non-drug related evidence is typically tested in multiple Sections of the laboratory.

CASE PRIORITIZATION

The agency’s prioritization policy, as written in the Arkansas State Crime Laboratory Quality Manual, states:

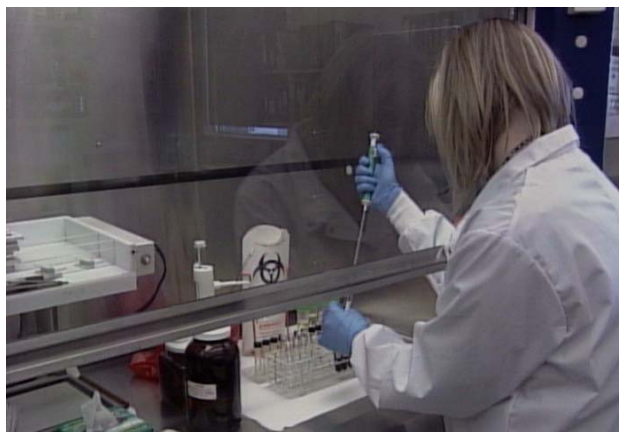
“All cases may be prioritized based upon a system that allows for a timely response. Unless priority requests are made by the Investigative Agency or by a Court Officer, cases should be analyzed in chronological order.”

Although not written, the Agency states it has implemented an informal policy allowing cases to be prioritized based on the type of crime. Cases routinely given priority include rush requests from prosecutors and law enforcement agencies, pending court dates, violent crimes against persons (homicide or rape), the possibility of a continued threat to public safety due to an unknown suspect, and police officer related shootings. Prioritization requires no direct approval from upper management and the Crime Lab does not track or identify cases that have been prioritized.

To determine if the agency followed its formal, written prioritization policy, case turnaround times for randomly selected cases for which reports were issued were reviewed from three of the agency’s Sections – Forensic Chemistry (including testing performed at the Hope Regional Laboratory), Forensic DNA, and Physical Evidence. The turnaround time (time between the date the test was requested and the date the final report was issued) was compared to the average turnaround time to identify cases which may have been given priority over other cases. For those with lower than average turnaround times, information at the agency was reviewed to determine if the case file indicated priority was given over other cases and, if priority was given, the reason why the case was prioritized.

Sample 1: Forensic Chemistry Section

The Forensic Chemistry Section performs drug testing to identify and report the presence of



controlled substances and/or other chemicals in submitted evidence. The auditor selected 83 cases from a total of 32,688 cases for which reports were issued for drug testing, including tests performed in the Forensic Chemistry Section of the Crime Lab Headquarters in Little Rock and the Hope Regional Laboratory during calendar years 2007 and 2008. Sixteen cases were identified as completed in 1/2 of the average time taken to complete similar cases. No instances of cases being prioritized were identified during this review. Testing results are summarized in **Exhibit I on page 4.**

Sample 2: Forensic DNA Section

The Forensic DNA Section processes biological evidence submitted by other Sections of the Crime Lab or investigating agencies. The evidence is processed to obtain a DNA profile. This profile is then entered into the CODIS database which is compared against DNA profiles from convicted offenders and crime scene evidence.

The auditor selected 83 cases from a total of 2,979 for which DNA testing was requested during the audit period. Twenty-six cases were identified as completed in 1/2 of the average time taken to complete similar cases. For the 26 cases reviewed:

- 9 were prioritized due to requests from the submitting agency or a court official;
- 2 cases were prioritized based on the type of crime and/ or whether or not a suspect had been identified;
- 3 were prioritized because earlier test results matched test results included in the CODIS database; and
- 10 were not documented as prioritized.

Complete testing results are summarized in **Exhibit I on page 4.**

Sample 3: Physical Evidence Section

The Physical Evidence Section performs many different types of analysis including identifying body fluids (e.g. blood, semen, skin cells, urine, saliva) on items such as clothing, bedding, weapons, paper, and vehicles. The Section also analyses paint, gunshot residue, glass, hair, and ignitable liquids.

The auditor selected 83 cases from a total of 3,814 cases for which physical evidence testing was completed during the audit period. Seventeen cases were identified as completed in 1/2 of the average time taken to complete similar cases. For the 17 cases reviewed:

- 4 were prioritized due to requests from the submitting agency or a court official;
- 7 cases were prioritized based on the type of crime and/ or whether or not a suspect had been identified; and
- 4 were not documented as prioritized.

Complete testing results are summarized in **Exhibit I on page 4.**

Audit Conclusion

Testing identified several instances where case prioritization was not documented as being made by an investigative agency or by a court officer as stated in the Agency's Quality Manual. [We recommend the Crime Lab formalize the criteria and process used in selecting and documenting priority cases.](#)

Management Response:

The Arkansas State Crime Laboratory has formalized our policy on case prioritization to include the types of cases that may be prioritized and the documentation process. All cases may be prioritized based upon a system that allows for a timely response. Priority may be made for the following reasons: Investigating Officer request; Court Official request (including court dates and court orders); and threat to public safety (homicides, rapes, and violent crimes). Other cases or types of cases may be prioritized at the request of the Section Chief, Scientific Operations Director, Chief Medical Examiner, or the Executive Director. All priority requests will be documented in the Laboratory Information Management System (LIMS) under the "Request Tab" with a brief description of the prioritization request.

CASE TURNAROUND

The Crime Lab states its target turnaround time is 30 days. The average case turnaround time varies significantly among the Sections and among the different types of testing performed by each Section. The turnaround times are affected by the type of evidence being processed, the type of testing conducted, and the number of items submitted for testing. Turnaround times in some Sections have also been greatly affected by employee turnover. The training period can vary from three months to two years depending upon the Section. The DNA Section currently has four analysts who are training five employees.

While the Crime Lab tracks turnaround rates by Section, audit testing revealed the rates provided by the Crime Lab could not be verified because some inaccurate request dates were entered into the Crime Lab's Laboratory Information Management System (LIMS) or changed during

the conversion to the new LIMS. Case turnaround times with inaccurate request dates were identified for 1 of 83 cases (1%) in the Forensic Chemistry Section, 30 of 83 cases (36%) in the Forensic DNA Section, and 5 of 83 cases (6%) in the Physical Evidence Section. [To assist management in its decision-making process, we recommend the Crime Lab consider implementing controls to ensure the accuracy of turnaround information.](#)

Management Response:

The Arkansas State Crime Laboratory has added a criterion on our Case Review form. This will require the "Date of Request" to be checked during the Administrative Review process.

OTHER STATES

Studies devoted to case turnaround times or prioritization policies at other crime laboratories

could not be located for inclusion in this report. Crime laboratory systems vary greatly between states. Some states have one centralized location that performs all testing. Other states have multiple regional laboratories which specialize in various types of testing. In addition, many major cities have their own crime laboratories.

Five laboratories similar to Arkansas's in size and type of testing were contacted regarding prioritization policies and case turnaround times. Each noted some type of priority policy. Common characteristics for each included prioritizing cases based on the type of crime, the possibility of a continued threat to public safety, requests from law enforcement or court officials, and court date schedules. However, the turnaround data received from the laboratories contacted was not detailed enough to provide a meaningful comparison.

Exhibit I

**Summary of Cases Tested to Determine If the Arkansas State Crime Laboratory Adheres to its Quality Manual's Requirement to Process Cases in Chronological Order
Cases Selected for Testing were Processed in Calendar Years 2007 and 2008**

<i>Section Selected for Testing</i>	Forensic Chemistry	Forensic DNA	Physical Evidence
<i>Number of Cases Selected for Testing</i>	83	83	83
<i>Number of Tested Cases Completed in less than 1/2 the Average Turnaround</i>	16 19%	26 31%	17 21%
<i>Priority Requested from Submitting Agency or Court Official</i>	0 0%	9 35%	4 24%
<i>Priority Given Due to Type of Crime and/or Suspect Not Identified</i>	0 0%	2 8%	7 40%
<i>Priority Given Because Results Matched Other Testing Results in the CODIS Database</i>	0 0%	3 12%	0 0%
<i>Auditor was Not Able to Determine the Cause for the Priority Given</i>	0 0%	1 4%	0 0%
<i>Priority Given for Other Reasons</i>	0 0%	1 4%	2 12%
<i>No Priority Determined</i>	16 100%	10 37%	4 24%

CODIS - Combined DNA Index System

DNA - Deoxyribonucleic acid

Source: Arkansas State Crime Laboratory