



FY 2008 DNA Testing Accountability Report



in accordance with ILCS 730 5/5-4-3a





Illinois State Police FY 2008 DNA Testing Accountability Report

OVERVIEW

By statute, the Illinois State Police (ISP) provides forensic science services to about 1,500 state, county, and local criminal justice agencies. The ISP forensic science laboratory system, established in 1942, is recognized as the third largest crime laboratory system in the world, following the Forensic Science Services in Great Britain and the Federal Bureau of Investigation (FBI) in Washington, D.C. The system, encompassing eight operational laboratories as well as a Research and Development laboratory, processes evidence in the following specialty areas: drug chemistry, trace chemistry, toxicology, microscopy, forensic biology/DNA, latent prints, firearms/toolmarks, footwear/tiretracks, and questioned documents. Each operational laboratory serves a particular geographical region of the state, providing forensic science analysis of evidence collected from crimes in that region. In Fiscal Year 2008, the ISP laboratory system received 119,196 cases and completed analysis on 112,644 cases.

The ISP laboratories have been accredited by the International Organization for Standardization (ISO) since 2005. All of the nearly 500 employees assigned to the Forensic Sciences Command – Forensic Scientists, Evidence Technicians, Forensic Science Managers, and support staff – adhere to the ISO accreditation criteria and standards to ensure the laboratories produce quality work.

THE DNA PROGRAM

The ISP DNA Program consists of two components: **casework** and **convicted offenders**. The **casework** component involves the forensic analysis of evidence from crime scene cases submitted to the ISP laboratories by any Illinois law enforcement agency. To ensure the needs of the criminal justice system are met, each ISP laboratory works with the appropriate law enforcement and criminal justice agencies to prioritize cases based on investigative and court needs. Most cases which ultimately undergo DNA analysis are first received into the laboratory as Forensic Biology cases. The first step in the analysis of these cases is the detection and identification of a biological stain using various serological techniques. If suitable and probative biological material is identified through these processes, the case then becomes a DNA case and undergoes separate, highly-technical analytical processes to obtain a DNA profile from the stain. The DNA profile developed from the evidence is then compared to known standards from the victim and suspect to determine the source of the profile. If a suspect is not known, the evidence profile is entered into, and searched against, the state and national DNA database known as the Combined DNA Index System or CODIS. In the **convicted offender** component of the ISP DNA Program, all convicted felons in Illinois are required to submit a biological sample for DNA typing and inclusion in CODIS. In CODIS, when an unknown DNA profile developed from an evidence stain matches a known offender DNA profile, or when an unknown DNA profile from one crime matches an unknown DNA profile from another crime, this is referred to as a “hit.” The above described program gives police the ability to identify possible

suspects to a crime or link crime scenes, thus providing crucial investigative information to help solve the crime.

Over the past several years, interest in the use of DNA in casework has steadily increased. In FY 2003, the ISP received 1,700 DNA cases. In FY 2007, this increased to 3,538 cases. This trend has continued in FY 2008 with 4,515 DNA cases received in ISP operational laboratories. Although the number of DNA cases received in FY 2008 represents only 3.8% of the total cases received in the ISP forensic laboratory system for the year, this figure is up from 2.9% in FY 2007.

PRIORITIZATION OF CASES

To ensure the needs of the criminal justice system are met, each ISP laboratory works with law enforcement and criminal justice agencies to prioritize cases based on investigative and court needs. Factors considered in the prioritization process include whether the case has an established court date, has a subpoena or court order associated with the forensic analysis, is a high profile or rush case, or is a violent crime. This priority system is used to ensure court dates are not missed and rush cases are completed to meet the needs of the agencies.

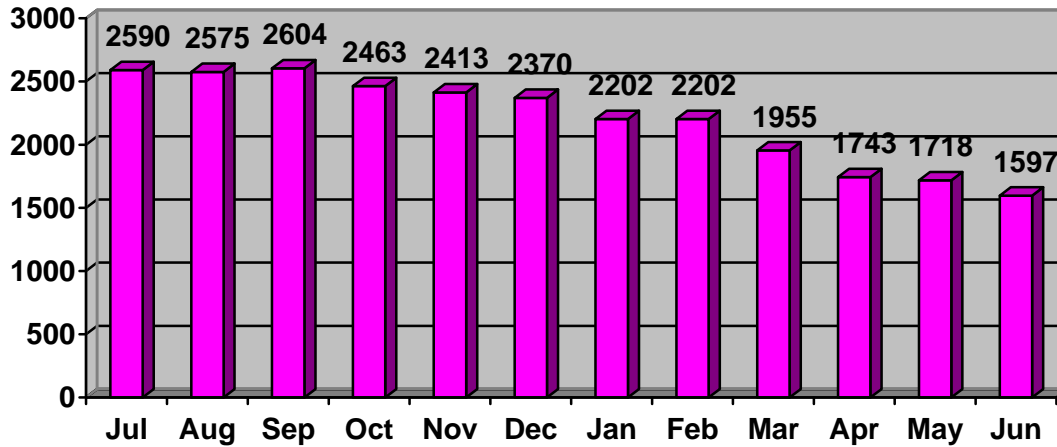
FORENSIC BIOLOGY AND DNA CASE BACKLOGS

Individuals performing either Forensic Biology or DNA analyses are highly-trained and require specialized laboratory space and equipment to conduct their tests. When the number of cases submitted to the laboratory exceeds the capacity of the laboratory staff to conduct the analysis within a 30 day time period, a “backlog” occurs. The monthly Forensic Biology and DNA casework backlogs for FY 2008 are shown in the following charts. The backlog of Forensic Biology cases awaiting analysis began declining in October 2007. This positive trend was largely the result of higher productivity stemming from the implementation of new efficiency measures in the operational laboratories, as well as in the Forensic Biology training program. The Forensic Biology backlog dropped from a high of 2,604 cases in September 2007 to a low of 1,597 cases in June 2008. This backlog figure is the lowest for Forensic Biology cases since May 2006.

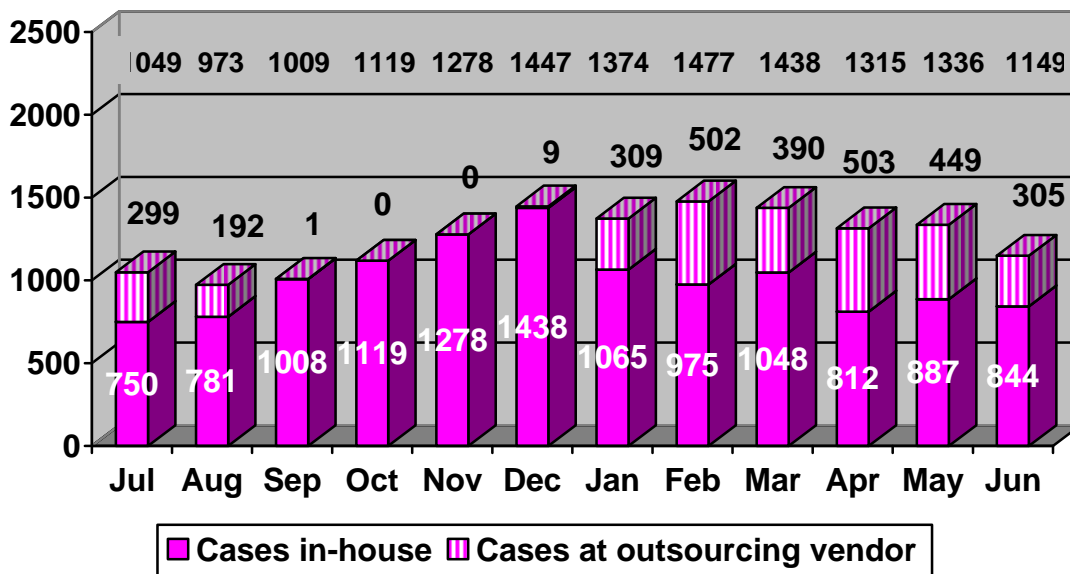
An increase in the number of Forensic Biology cases analyzed results in a proportional increase in the number of DNA cases submitted, since approximately 60 percent of Forensic Biology cases have biological material suitable for DNA analysis. More DNA cases were analyzed in FY 2008 than ever before, however, with the increase in the number of DNA cases submitted this year, the net result was a moderate increase in the backlog. In the latter portion of FY2008, the ISP began to see a simultaneous decrease in both the Forensic Biology and DNA case backlogs.

During FY2008, the DNA backlog was being addressed through a combination of in-house analysis (conducted in ISP laboratories) and outsourcing (analysis conducted by a private vendor laboratory). Outsourcing 812 DNA cases, using CODIS and DNA fee funds, helped ISP in its ongoing effort to decrease the overall DNA backlog in order to provide more timely results to the criminal justice system. By the end of FY2008, the ISP in-house DNA backlog was 844 cases and the outsourced DNA backlog was 305 cases, for a total of 1,149 cases. **Beginning with this FY 2008 report**, the backlog of cases which were at the outsourcing vendor laboratory is also shown on the monthly DNA case backlog chart on the following page.

FY 2008 Monthly Forensic Biology Case Backlog



FY 2008 Monthly DNA Case Backlog (Includes Outsourced Cases)



Quality Assurance

As part of the ISP's commitment to providing high quality services to the law enforcement community, the forensic laboratory system has an extensive Quality Assurance (QA) program to instill confidence in user agencies that the system is performing adequately. The emphasis of the QA program is on prevention and/or correction of analytical problems, and providing a course of action if the quality of work/results is questioned.

During FY 2008, ISP laboratories remained accredited by the International Organization for Standardization (ISO). ISO accreditation was originally granted in 2005 by Forensic Quality Services – International (FQS-I) under ISO/IEC 17025:2005 and FQS-I Forensic Requirements for Accreditation. The ISP laboratories were successfully reaccredited in December, 2007. This accreditation was effective December 28, 2007, and expires October 1, 2011, with periodic on-site visits to ensure continued compliance.

Chicago Police Department Backlog IV Update

In August 2005, the ISP was notified by the Chicago Police Department (CPD) of 1,091 additional sexual assault kits, some dating back to 1996, which had never been submitted by the CPD to the ISP laboratory. Submission of these cases, informally referred to as "Backlog IV", began in 2006 and continued into FY 2007. Analysis of most of these cases was completed in FY 2007, with the remaining 80 cases completed in FY 2008. As of June 30, 2008, no additional backlog cases were reported by CPD.

Harvey Police Department Backlog Update

In April 2007, the ISP was notified by the Cook County State's Attorney's Office (CCSAO) of approximately 300 sexual assault cases investigated by Harvey Police Department which may not have been submitted to the ISP's Joliet Forensic Science Laboratory. Some of these cases dated back to 1997 and were approaching the statute of limitations date. After an audit of 300 case reports by the CCSAO, the estimate was reduced to only 60 cases which had not yet been submitted to the laboratory. As of June 30, 2007, thirty-five of these cases were submitted. All cases from 1997 were completed prior to the statute of limitations expiration. The remaining 25 cases were anticipated for submission in FY 2008, although additional review by the CCSAO was continuing at the time the FY 2007 DNA Testing Accountability Report was completed. The ISP was notified of the existence of these 25 cases prior to June 30, 2007. In accordance with ILCS 730 5/5-4-3a, they were calculated into the figures for FY 2007 even though they were not yet in the custody of the ISP laboratory. During FY 2008, the CCSAO determined only eight of the projected 25 remaining cases actually required analysis and were submitted to the laboratory. As of June 30, 2008, all but three of the 43 Harvey PD cases have been completed. The analysis of the three remaining cases was still in progress as of that date, so those cases are included in the DNA backlog statistics.

Anticipated DNA Cases, Not Yet Submitted

As of June 1, 2008, the ISP had not been notified of any evidence still in the custody of law enforcement agencies. This information is provided in accordance with ILCS 730 5/5-4-3a.

Funding

During FY 2008, the ISP spent \$15.9 million in state funds on the DNA program, including both casework and offender samples. This figure is lower than the \$16.4 million spent in FY 2007 but still slightly higher than the \$15.3 million spent in FY 2004. As part of the FY 2008 total, the ISP expended \$3.0 million from State Offender DNA Identification System Fund; again, a slight decrease from the \$3.1 million FY 2007 figure but \$2.3 million higher than the FY 2004 expenditure of \$0.7 million. Less state funding was used because the ISP continued its practice of aggressively pursuing federal dollars to supplement state funding and reduce the DNA backlog while building in-house capacity.

In fact, through the National Institute of Justice, the ISP in FY 2008 spent more than twice the amount of grant funds than in FY 2007. For FY 2008, nearly \$2.65 million in funding was spent from the following grant programs: NIJ 2004 DNA Casework Backlog Reduction (\$567,500), NIJ 2004 DNA Capacity Enhancement (\$24,700), NIJ 2005 DNA Capacity Enhancement (\$795,100), NIJ 2005 DNA Casework Backlog Reduction (\$758,400), NIJ 2006 DNA Casework Backlog Reduction (\$494,000), and NIJ 2006 DNA Convicted Offender Backlog Reduction (\$9,700). (All funding figures are estimates since FY 2008 accounting records were not yet closed as of the date of this report.)

Hiring and Training

As of June 30, 2008, there were a total of 87 scientists on board: 80 FB/DNA forensic scientists are working on cases or case-related assignments, two are temporarily assigned as training facilitators or acting group supervisors, and five are in training. Only one experienced scientist resigned this fiscal year (January, 2008). However, additional staffing vacancies are anticipated

for early FY 2009, including the resignation of an experienced forensic scientist in August 2008, and the promotion of four forensic scientists into critical, but non-casework positions (two FB/DNA supervisory positions at the Forensic Science Center at Chicago, one DNA Research Coordinator position and one DNA Training Coordinator position). Five trainees were hired on June 16, 2008 to help offset this impact, temporarily raising the headcount to slightly beyond the target of 83 fully-trained scientists.

Training of FB/DNA Forensic Scientist Trainees (FSTs) in both forensic biology and DNA techniques takes approximately 18 months. During this reporting period, 14 FB/DNA FSTs hired in August 2006 completed their training in February 2008. Seven FSTs hired in May 2007 completed the forensic biology portion of their training in November 2007. The additional five FSTs hired in mid-June 2008 are expected to complete their forensic biology training in December 2008.

DNA Backlog and Outsourcing Analysis

	FY03	FY04	FY05	FY06	FY07	FY08
Unworked cases as of June 30 of previous FY	1,460	1,022	175	221	830	912
Cases received in the labs	1,700	2,386	3,505	4,790	3,538	4,515
Cases worked in the labs	(809)	(1,267)	(839)	(2,576)	(2,830)	(3390)
Cases outsourced with grants	(297)	(283)	(174)	(1,026)	(220)*	0*
Cases outsourced with additional state funding	(1,032)	(1,683)	(2,446)	(579)	(406)*	(812)
Total number of pending cases 30 days or less	N/A	N/A	221	204	259**	381
Total number of backlog cases (over 30 days) at ISP (in-house)	1,022	175	0	626	668	844
Total number of backlog cases (over 30 days) at vendor laboratory (outsourced) ***	N/A	N/A	N/A	N/A	N/A	305
TOTAL BACKLOG CASES (in-house and outsourced)	N/A	N/A	N/A	N/A	N/A	1,149

* 299 cases were sent for outsourcing in June 2007 (FY07) but because of when the analysis was to be completed, the vendor was paid from FY08 funds. Of these cases, 220 were paid with FY08 grant funds and the remainder from FY08 state funds. (NOTE: This information is a correction to the original FY 2007 report posted in August 2007.)

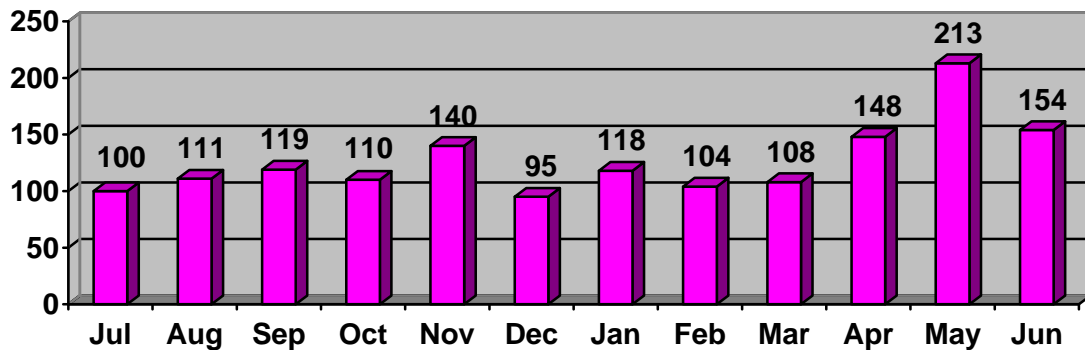
** Approximately 25 additional unsubmitted forensic biology cases were anticipated from Harvey PD, of which 15 were projected to be suitable for DNA analysis. These 15 were added to the pending case total for FY 2007. (NOTE: For the beginning number of unworked cases in FY08, these 15 cases were not included since they had not been submitted to the laboratory.)

*** This data was not included in reports prior to FY 2008.

OFFENDER SAMPLE BACKLOG

The Combined DNA Index System (CODIS) is administered by the FBI and implemented by the Illinois State Police at the state level. The offender portion of this system contains DNA profiles of individuals convicted of felonies as well as a few other eligible offenses. Samples collected from offenders are submitted to the Indexing Unit of the Springfield Forensic Science Laboratory, where they are analyzed and uploaded to the CODIS database. The ISP received 43,849 new offender samples during FY 2008 and completed analysis of 37,937 of those samples by the end of June 2008. There were 1,520 CODIS hits in FY 2008, as shown on the following chart. As of June 30, 2008, there were a total of 302,511 offender profiles and 18,424 crime scene profiles in the DNA database. There were also a total of 6,394 hits with 5,358 possible perpetrators identified (offender to case hits) and 1,036 serial crimes (case to case hits) detected. There have been 760 national associations. All 50 states, plus the FBI and US Army laboratories, participate in CODIS. Through October 2007 (last data available), Illinois remained second in the nation, behind Florida, in the number of investigations aided by CODIS.

FY2008 Monthly CODIS Hits



A backlog occurs when the number of offender samples submitted exceeds the laboratory's capacity to analyze them within 30 days. At one point in FY 2006 (March 2006), there were 7,826 offender samples on the backlog. During FY 2007, the backlog had been eliminated and other than a single sample in July 2007, the offender sample backlog has been maintained at zero since November 2006. This was achieved without outsourcing, through sufficient staffing and the use of highly efficient technologies and practices which maximize in-house analytical capacity. Unless there are unanticipated major personnel losses, equipment problems and/or immediate changes to current convicted offender statutes, the backlog is expected to remain zero.

NOTE: With both Forensic Biology and DNA casework, as well as with convicted offender samples, the backlog is just a snapshot of the workload at any given point in time. Legislation, crime rates, new technology, and available resources all impact this statistic.



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