



State of Illinois
Illinois State Police
Jonathon E. Monken, Acting Director

FY 2010 DNA Testing Accountability Report



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



Illinois State Police



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OVERVIEW

By statute, the Illinois State Police (ISP), through its Division of Forensic Services, provides forensic science analytical and crime scene services to more than 1,200 state, county, and local criminal justice agencies. These user agencies include local police departments, sheriff's offices, fire marshal's offices, and state's attorney's offices. The ISP forensic science laboratory system, established in 1942, is recognized as the third largest crime laboratory system in the world, after the United Kingdom's Forensic Science Services and the Federal Bureau of Investigation (FBI) in Washington, D.C. The ISP system, comprised of eight operational (caseworking) laboratories and a Research and Development laboratory, analyzes 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 specific geographical region of the state, providing forensic science analysis of evidence collected from crimes in that region. In Fiscal Year 2010, the ISP laboratory system received a total of 112,075 cases and completed analysis on 111,669 cases.

The ISP laboratories have been accredited since 1982, and have been accredited under the International Organization for Standardization (ISO) requirements 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 (FB) cases. The first step in the analysis of these cases is the detection and identification of a biological stain/material using various chemical techniques to identify suitable and probative (i.e., can potentially help solve the case) biological material. For example, looking for the victim's blood on the suspect's clothing is important investigative information, while finding the victim's blood on the victim's clothing may not provide any probative information. If sufficient probative material is identified through the FB processes, the case then becomes a DNA case and undergoes separate, highly-technical analytical processes to obtain a DNA profile from the material.

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 DNA profile is entered into, and searched against, the state and national DNA database known as the Combined DNA Index System (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 evidence matches a known offender's 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." A CODIS hit 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.

CASE SUBMISSION AND PRIORITIZATION

DNA analysis requests had increased steadily over the past five years, but may be showing signs of leveling off in FY2010. In FY 2004, the ISP received 2,386 DNA cases and by FY 2009, this submission figure increased to 5,317 cases. The spike in FY 2009 figures likely resulted from ISP's focused efforts that year to greatly reduce the backlog of FB (screening) cases, resulting in a sudden influx of cases being identified for submission to DNA. The FY 2010 DNA case submission figure of 5,240 cases is only 1% lower than last year, but may be more reflective of normal case submission activity. Still, the FY 2010 rate is 120% higher than the FY 2004 rate and 16% higher than the FY 2008 rate. It should also be noted that the number of DNA cases received in FY 2010 represents only 4.7% of the total cases received for all forensic disciplines within the ISP forensic laboratory system for the year. This figure has remained nearly the same as in FY 2009, when DNA represented 4.6% of total cases received.

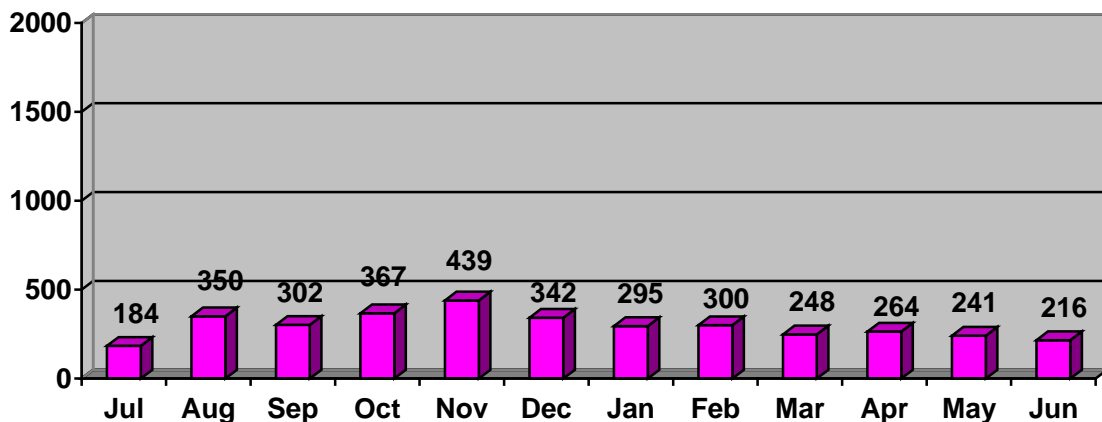
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FORENSIC BIOLOGY AND DNA CASE BACKLOGS

Forensic Scientists performing FB and/or DNA analyses are well-qualified, highly-trained, and require specialized laboratory space and equipment to conduct their tests. Because of various efficiency measures implemented by ISP over the past several years, the FB/DNA section has improved productivity and now completes more cases per month on average than ever before. However, the laboratories do not control the number of cases being submitted for analysis by the agencies. 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. This backlog includes both cases that are currently in-process of analysis and those which are not yet started. Select cases can take longer than 30 days to complete due to any number of factors: the complexity of the case, the number of exhibits in the case, or the number of additional items of evidence submitted over a period of weeks or months, and thus become part of the backlog figures.

The monthly FB backlog for FY2010 is shown in the following chart. The backlog of FB cases 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 FB training program, coupled with the use of federal grant monies for overtime and the filling of forensic vacancies within the FB/DNA section. The impact of these efforts was most pronounced in FY 2009, resulting in a significant drop in the FB backlog to only 128 cases in June 2009 (from a high of 2,604 cases in September 2007). During FY 2010, 5,946 FB cases were received; this is a rate of about 496 cases per month. The backlog level fluctuated slightly each month due to a variety of influences, but the ISP was able to consistently maintain a level equivalent to less than one month’s worth of case submissions. No FB cases were outsourced; all were analyzed in-house (within ISP laboratories). By the end of FY 2010, the FB backlog was 216 cases.

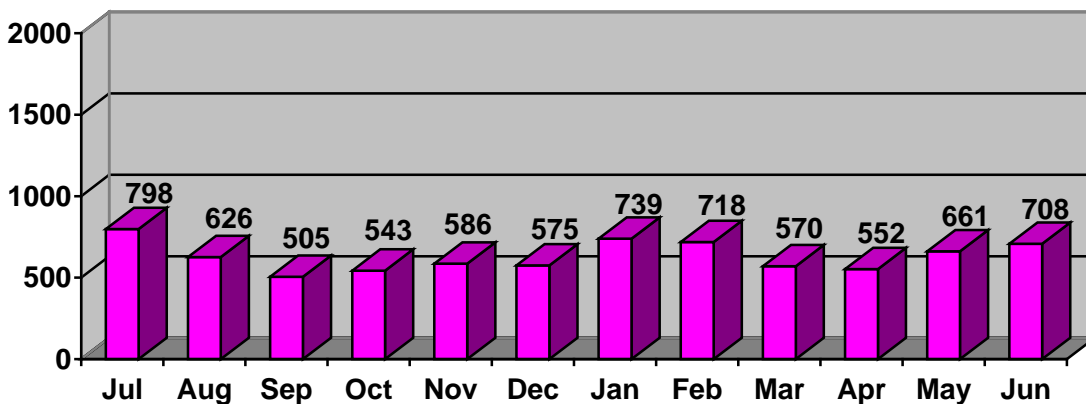
FY 2010 Monthly Forensic Biology Case Backlog (No Cases Outsourced in FY2010)



As FB cases are analyzed, the result is a proportional increase in the number of DNA cases submitted since approximately 65 percent of FB cases are found to have sufficient biological material suitable for DNA analysis. Again in FY 2010, the ISP set a new internal record in the number of DNA cases analyzed in the laboratory system (5,284); this is 15% more than what was accomplished in-house (conducted in ISP laboratories) in FY 2009 (4,590). Overall, the ISP realized a 5% reduction in the DNA backlog compared to FY 2009. This DNA backlog reduction was achieved while simultaneously maintaining a manageable FB case backlog. By the end of FY 2010, due to federal grants received, the ISP completed implementation of some type of automation (i.e., robotics) in the DNA section of each laboratory. Automation of various time-consuming manual steps in the DNA analytical process increases efficiency and will assist in a faster reduction of the DNA backlog. The ISP intends to continue to expand the use of automation within the DNA section to include additional DNA processes during FY 2011.

In FY 2009, the ISP employed outsourcing to a private vendor laboratory as a short-term means to supplement the in-house analysis of DNA cases in an effort to reduce the DNA backlog to a more manageable level. By FY 2010, in-house capacity had increased and the backlog had been reduced to a point that the ISP could discontinue the outsourcing effort. By the end of FY 2010, the ISP in-house DNA backlog was 708 cases. There was no outsourced DNA backlog, as no new cases were outsourced in FY 2010 and all FY 2009 outsourced cases were completed by the vendor prior to the end of that fiscal year. However, if the ISP is unable to fill forensic vacancies, significant budget reductions are implemented, or police agencies submit significant numbers of old cases (such as through the new Sexual Assault Evidence Submission Act, effective 9/01/10), the backlogs are likely to increase substantially and outsourcing would again be needed. The FY2010 monthly backlog of DNA cases is shown on the following case backlog chart.

FY 2010 Monthly DNA Case Backlog (No Cases Outsourced in FY2010)



DNA Backlog and Outsourcing Analysis

	FY 2009	FY 2010
Total pending cases as of June 30 of previous fiscal year (both > and ≤ 30 days)	1,530	1,169
Cases received in the labs**	5,317	5,240
Cases worked in the labs (in-house)	(4,590)	(5,284)
Cases outsourced with grant funding	0	0
Cases outsourced with state funding	(1,088)	0
Total number of pending cases <30 days	420	417
Total number of backlog* cases at ISP (in-house)	749	708
Total number of backlog* cases at vendor laboratory (outsourced)	0	0
TOTAL BACKLOG* CASES (in-house and outsourced)	749	708

* "Backlog" is defined as in-process and unstarted cases in the DNA section for more than 30 days.

** Adjusted data from the Computer Aided Lab Management System (CALMS) raw figures

NOTE REGARDING STATISTICS PROVIDED: All reasonable efforts have been made to ensure the accuracy of the data. However, there are inherent limitations present with the existing search methods of the Computer Aided Lab Management System (CALMS). The data attached herein is as accurate as possible, given the limitations of the current system.

Quality Assurance

As part of the ISP's long-standing 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.

Since 1982, when the laboratories in the ISP system became the first in the world to become accredited through the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB), the laboratories have continuously maintained accreditation under the strictest criteria. During FY 2010, 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.

The Sexual Assault Evidence Submission Act (Public Act 96-1011)

In accordance with ILCS 730 5/5-4-3a, the ISP is to include the number of cases still in the custody of law enforcement agencies which had not yet been submitted to an ISP laboratory, if notified in writing by June 1, 2010. While the ISP has not received notification of evidence under this provision, the department is aware that law enforcement agencies are currently reviewing evidence in their custody in preparation for submission under Section 20 of the new Sexual Assault Evidence Submission Act.

This Act, signed by the Governor on July 6, 2010 becomes effective September 1, 2010. The Act mandates the submission and analysis of all sexual assault cases collected in connection with a criminal investigation, leaving little or no discretion to law enforcement agencies or prosecutors regarding which cases are submitted to the laboratory for analysis. After the September 1 effective date, all criminal sexual assault cases must be submitted to an ISP forensic laboratory (or other designated laboratory) within 10 business days after collection. All sexual assault evidence must then be analyzed by the laboratories within 6 months after submission, if sufficient staffing and resources are available. Additionally, by October 15, 2010, all law enforcement agencies must provide written notification to the ISP stating the number of criminal sexual assault cases in their custody which have not been previously submitted for analysis. Then the laboratory and the agency must make appropriate arrangements for submission of those cases, in a form and manner prescribed by the ISP through Administrative Rules. A recent survey by an outside entity of only 82 Illinois agencies estimates that those agencies alone may have about 4,000 previously unsubmitted cases. With over 1,200 law enforcement agencies in the state, the total number of previously unsubmitted sexual assault cases could be many times that amount. Until the mandated lists are submitted to the ISP by October 15, the actual number of cases cannot be determined.

Once ISP receives the notification of the number of cases agencies must submit, a plan to analyze these cases will be developed and submitted to the Governor, the Attorney General, and both houses of the General Assembly by February 15, 2011. The plan shall include, but is not limited to, a timeline for completion of analysis, a summary of the inventory received, as well as requests for funding and resources necessary to meet the established timeline. Resource requests are likely to include additional staffing and funds for outsourcing. The ISP's current FB/DNA staffing level appears appropriate for handling the current number of case submissions. With overtime, this staff is also able to whittle down the current backlog of FB and DNA cases. While the ISP *may* have sufficient staffing to keep up with new sexual assault case submissions, it certainly does not have the staffing or financial resources to deal with 4,000+ additional sexual assault cases and anticipates outsourcing those cases to a private vendor laboratory in order to continue to focus in-house staff on working current cases to meet court dates and investigative needs. The cost of outsourcing under the ISP's current contract, as well as consideration for overtime for ISP analysts to review outsourcing vendor data and upload appropriate DNA profiles into CODIS, equals approximately \$1,400 per case. The cost to outsource the estimated 4,000 cases will be at least \$5.6M, and with the additional unknown number of cases to be submitted, this figure could double or triple. The limit of how many cases could be outsourced is approximately 1,200 cases per year or 300 per quarter. The ISP currently pursues and receives all available federal grant funding for reducing the DNA backlog and building in-house capacity. Since that funding resource is already being utilized just to address current resource needs, the ISP will need to seek additional funding beyond those federal grant awards to address the impact of this Act.

If the ISP were to receive additional resources for outsourcing and other needs, the anticipated backlog of cases submitted under Section 20 of the Act could likely be addressed within several fiscal years. Without additional funding, the ISP will have to analyze these older cases in

amongst current cases using the existing staffing and funding. Under the latter approach, the overall DNA backlog is expected to be overwhelming for many years to come.

Funding

All funding figures are estimates from March 2010 budget projections since FY 2010 accounting records were not yet closed as of the date of this report. During FY 2010, the ISP spent \$15.8 million in state funds on the DNA program, including both casework and offender samples. This figure is slightly less than the \$16.4 million spent in FY 2009, and is comparable to the \$15.9 million spent in FY 2008. As part of the FY 2010 total, the ISP expended \$3.5 million from the State Offender DNA Identification System Fund; this is comparable to the \$3.4 million spent in FY 2009 and a slight increase from the \$3.0 million spent FY 2008. As it has for many years now, the ISP continued its practice of aggressively pursuing federal dollars to supplement state funding and reduce the DNA backlog while building in-house capacity. This practice helped the ISP keep the increase in expenditures of state funds to a minimum, while still achieving a reduction in the FB and DNA backlogs.

In FY 2010, through various National Institute of Justice (NIJ) grant programs, the ISP spent \$3.7 million in federal funds. This figure is 16% less than the amount of DNA grant funds spent in FY 2009 (\$4.4 million) and 48% more than the \$2.5 million in federal funds utilized in FY 2008. For FY 2010, funding was spent from the following grant programs: NIJ 2007 DNA Forensic Casework Backlog Reduction (\$322,400), NIJ 2008 DNA Forensic Casework Backlog Reduction (\$2,736,300), and NIJ 2009 DNA Forensic Casework Backlog Reduction (\$656,200).

DNA commodities are very expensive. If significant cuts to the budget are made, there will be insufficient funds to purchase the needed DNA commodities, resulting in unworked cases and an increase in the backlog. In addition, during FY 2010 several vendors threatened to stop providing services and goods to the ISP due to lengthy delays in receiving their payments from the Comptroller, and one critical DNA product and services vendor did put the ISP on a credit hold until the payment delay could be addressed. This led to delays in getting an instrument repaired and in ordering essential DNA processing chemicals. If additional stoppages occur, the backlog of cases will increase. An additional hindrance to the purchase of forensic equipment and commodities is the lengthy state procurement process. Steps continue to be added to this state process. DNA commodities have a short expiration date; therefore, large quantities cannot be maintained in the laboratories. Rather, they need to be ordered as necessary. Any delays in the procurement approval process can cause laboratories to run out of critical supplies, stopping analysis and causing an increase in the backlog or even missed court dates.

Personnel

As of June 30, 2010, there were a total of 81 scientists on board and working on cases or case-related assignments. This number of forensic scientists, along with the evidence technicians, technical DNA managers, clerical and maintenance support, appears to be sufficient to continue the progress which has been made in reducing the backlogs in FB and DNA, as long as vacancies are allowed to be filled as they occur. Two experienced (fully-trained) scientists resigned this fiscal year. One additional forensic scientist vacancy is anticipated for early FY 2011.

To fully train an FB/DNA Forensic Scientist Trainee (FST) in both forensic biology and DNA techniques takes approximately 18 months. During FY 2010, there were no new FSTs in training, since the section had adequate staffing. Available headcount was used instead to hire

FSTs for the latent print and firearms sections, both in more desperate need of additional staffing.

During FY 2010, while the ISP was in the process of filling 23 critical vacancies, including 13 evidence technician positions (six for DNA), the state's budget situation halted all hiring. The hiring process was resumed again in late FY 2010. The inability to promptly fill these vacancies, and others as they occur, has a negative impact on any backlog reduction progress made up to that time. Without timely refilling of non-scientific support positions, analysts have to do evidence technician, managerial, and clerical duties rather than analyzing cases. This exact situation resulted in Recommendation #5 in the Office of the Auditor General (OAG) report released in March 2009. Specifically, the OAG stated on page 38, **"Failure to maintain the necessary staffing levels results in cases remaining unsolved and serial criminals could remain free to commit additional crimes. The ISP's inability to fill lost forensic positions has resulted in staff performing work outside of their official duties, which increases the backlog of forensic cases submitted to the labs"**.

This situation will occur not just in FB/DNA, but in all the different disciplines. On average, the ISP loses 20 forensic scientists (approximately six from FB/DNA) each year due to attrition. The ISP had made great progress in reducing the total forensic case backlog from a high in FY 2008 of over 14,000 cases to just fewer than 6,600 cases at the end of FY 2010. This positive trend cannot continue without the ability to immediately fill vacant forensic positions of all titles and to maintain current funding levels. Furlough days, both mandatory and voluntary, have further impacted laboratory operations and the backlog in all disciplines. Increased backlogs equate to criminals going unidentified to commit additional crimes and innocent individuals remaining incarcerated as they await forensic results which could potentially clear them.

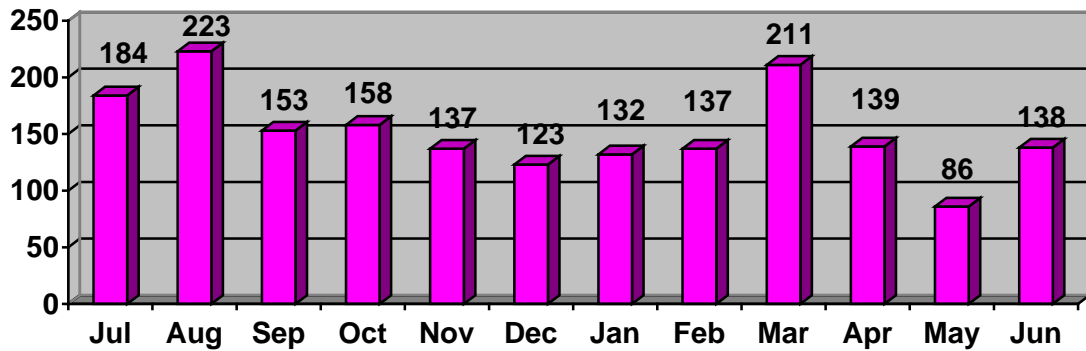
OFFENDER SAMPLE BACKLOG

The Combined DNA Index System (CODIS) is a database program administered by the FBI and implemented by the ISP 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 from across the state to the DNA Indexing Unit of the Springfield Forensic Science Laboratory, where they are analyzed and uploaded to the CODIS database.

In FY 2010, the ISP received 41,440 new offender samples and submitted 33,025 of those samples to CODIS by the end of June 2010. Of all the new samples received, 99.89% of them were uploaded into CODIS within 30 days. A backlog will occur when the number of offender samples submitted exceeds the laboratory's capacity to upload them into CODIS within 30 days of when they are ready for analysis. Back in March 2006, the CODIS backlog was more than 7,800 samples, but during FY 2007 that backlog had been eliminated. Since that time, through sufficient staffing and the extensive use of highly efficient technologies such as robotics, the DNA Indexing Unit has been able to maximize in-house analytical capacity and efficiency in order to keep up with sample submissions. As of the end of FY 2010, the CODIS sample backlog remains zero. The inability to backfill vacancies, significant budgetary cuts, equipment problems, and/or immediate changes to current convicted offender statutes (such as a law which would require all felony arrestees to submit a DNA sample for CODIS), will result in the development of a backlog.

There were 1,821 CODIS hits in FY 2010, as shown on the following chart. This is nearly identical to the total FY 2009 figure of 1,820 hits. As of June 30, 2010, there were a total of 371,258 offender profiles and 27,029 crime scene profiles in the DNA database. There were also a cumulative total of 10,035 CODIS hits, with 8,551 offender-to-case hits and 1,484 case-to-case hits detected. In an offender-to-case hit, a convicted offender's known DNA profile is associated with an unknown DNA profile from a case; this information can provide investigators with the identity of the possible perpetrator. In a case-to-case hit, unknown DNA profiles from two or more cases are associated, thereby linking cases and providing additional information for the investigators to pursue. There have been 1,210 national associations, which are CODIS hits of DNA profiles from Illinois to DNA profiles from other states. All 50 states, plus the FBI and US Army laboratories, participate in CODIS. Through May 2010 (last data available), Illinois ranks third in the nation, behind only Florida and California, in the number of investigations aided by CODIS.

FY2010 Monthly CODIS Hits



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



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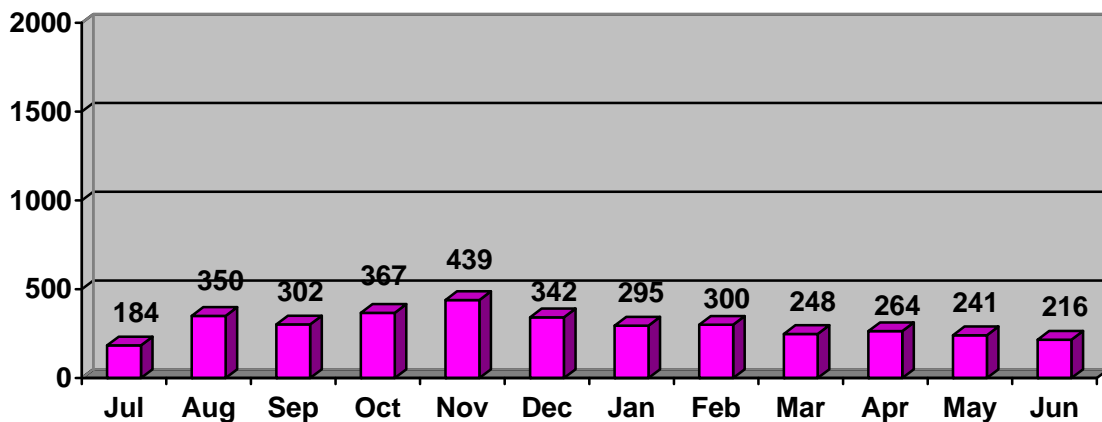
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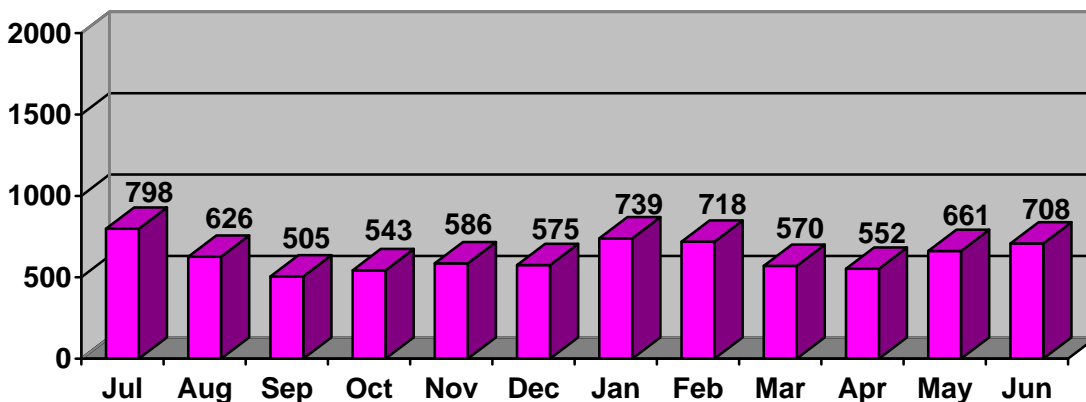
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Total pending cases as of June 30 of previous fiscal year (both > and ≤ 30 days)	1,530	1,169
Cases received in the labs**	5,317	5,240
Cases worked in the labs (in-house)	(4,590)	(5,284)
Cases outsourced with grant funding	0	0
Cases outsourced with state funding	(1,088)	0
Total number of pending cases <30 days	420	417
Total number of backlog* cases at ISP (in-house)	749	708
Total number of backlog* cases at vendor laboratory (outsourced)	0	0
TOTAL BACKLOG* CASES (in-house and outsourced)	749	708

* "Backlog" is defined as in-process and unstarted cases in the DNA section for more than 30 days.

** Adjusted data from the Computer Aided Lab Management System (CALMS) raw figures

NOTE REGARDING STATISTICS PROVIDED: All reasonable efforts have been made to ensure the accuracy of the data. However, there are inherent limitations present with the existing search methods of the Computer Aided Lab Management System (CALMS). The data attached herein is as accurate as possible, given the limitations of the current system.

Quality Assurance

As part of the ISP's long-standing 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.

Since 1982, when the laboratories in the ISP system became the first in the world to become accredited through the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB), the laboratories have continuously maintained accreditation under the strictest criteria. During FY 2010, 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.

The Sexual Assault Evidence Submission Act (Public Act 96-1011)

In accordance with ILCS 730 5/5-4-3a, the ISP is to include the number of cases still in the custody of law enforcement agencies which had not yet been submitted to an ISP laboratory, if notified in writing by June 1, 2010. While the ISP has not received notification of evidence under this provision, the department is aware that law enforcement agencies are currently reviewing evidence in their custody in preparation for submission under Section 20 of the new Sexual Assault Evidence Submission Act.

This Act, signed by the Governor on July 6, 2010 becomes effective September 1, 2010. The Act mandates the submission and analysis of all sexual assault cases collected in connection with a criminal investigation, leaving little or no discretion to law enforcement agencies or prosecutors regarding which cases are submitted to the laboratory for analysis. After the September 1 effective date, all criminal sexual assault cases must be submitted to an ISP forensic laboratory (or other designated laboratory) within 10 business days after collection. All sexual assault evidence must then be analyzed by the laboratories within 6 months after submission, if sufficient staffing and resources are available. Additionally, by October 15, 2010, all law enforcement agencies must provide written notification to the ISP stating the number of criminal sexual assault cases in their custody which have not been previously submitted for analysis. Then the laboratory and the agency must make appropriate arrangements for submission of those cases, in a form and manner prescribed by the ISP through Administrative Rules. A recent survey by an outside entity of only 82 Illinois agencies estimates that those agencies alone may have about 4,000 previously unsubmitted cases. With over 1,200 law enforcement agencies in the state, the total number of previously unsubmitted sexual assault cases could be many times that amount. Until the mandated lists are submitted to the ISP by October 15, the actual number of cases cannot be determined.

Once ISP receives the notification of the number of cases agencies must submit, a plan to analyze these cases will be developed and submitted to the Governor, the Attorney General, and both houses of the General Assembly by February 15, 2011. The plan shall include, but is not limited to, a timeline for completion of analysis, a summary of the inventory received, as well as requests for funding and resources necessary to meet the established timeline. Resource requests are likely to include additional staffing and funds for outsourcing. The ISP's current FB/DNA staffing level appears appropriate for handling the current number of case submissions. With overtime, this staff is also able to whittle down the current backlog of FB and DNA cases. While the ISP *may* have sufficient staffing to keep up with new sexual assault case submissions, it certainly does not have the staffing or financial resources to deal with 4,000+ additional sexual assault cases and anticipates outsourcing those cases to a private vendor laboratory in order to continue to focus in-house staff on working current cases to meet court dates and investigative needs. The cost of outsourcing under the ISP's current contract, as well as consideration for overtime for ISP analysts to review outsourcing vendor data and upload appropriate DNA profiles into CODIS, equals approximately \$1,400 per case. The cost to outsource the estimated 4,000 cases will be at least \$5.6M, and with the additional unknown number of cases to be submitted, this figure could double or triple. The limit of how many cases could be outsourced is approximately 1,200 cases per year or 300 per quarter. The ISP currently pursues and receives all available federal grant funding for reducing the DNA backlog and building in-house capacity. Since that funding resource is already being utilized just to address current resource needs, the ISP will need to seek additional funding beyond those federal grant awards to address the impact of this Act.

If the ISP were to receive additional resources for outsourcing and other needs, the anticipated backlog of cases submitted under Section 20 of the Act could likely be addressed within several fiscal years. Without additional funding, the ISP will have to analyze these older cases in

amongst current cases using the existing staffing and funding. Under the latter approach, the overall DNA backlog is expected to be overwhelming for many years to come.

Funding

All funding figures are estimates from March 2010 budget projections since FY 2010 accounting records were not yet closed as of the date of this report. During FY 2010, the ISP spent \$15.8 million in state funds on the DNA program, including both casework and offender samples. This figure is slightly less than the \$16.4 million spent in FY 2009, and is comparable to the \$15.9 million spent in FY 2008. As part of the FY 2010 total, the ISP expended \$3.5 million from the State Offender DNA Identification System Fund; this is comparable to the \$3.4 million spent in FY 2009 and a slight increase from the \$3.0 million spent FY 2008. As it has for many years now, the ISP continued its practice of aggressively pursuing federal dollars to supplement state funding and reduce the DNA backlog while building in-house capacity. This practice helped the ISP keep the increase in expenditures of state funds to a minimum, while still achieving a reduction in the FB and DNA backlogs.

In FY 2010, through various National Institute of Justice (NIJ) grant programs, the ISP spent \$3.7 million in federal funds. This figure is 16% less than the amount of DNA grant funds spent in FY 2009 (\$4.4 million) and 48% more than the \$2.5 million in federal funds utilized in FY 2008. For FY 2010, funding was spent from the following grant programs: NIJ 2007 DNA Forensic Casework Backlog Reduction (\$322,400), NIJ 2008 DNA Forensic Casework Backlog Reduction (\$2,736,300), and NIJ 2009 DNA Forensic Casework Backlog Reduction (\$656,200).

DNA commodities are very expensive. If significant cuts to the budget are made, there will be insufficient funds to purchase the needed DNA commodities, resulting in unworked cases and an increase in the backlog. In addition, during FY 2010 several vendors threatened to stop providing services and goods to the ISP due to lengthy delays in receiving their payments from the Comptroller, and one critical DNA product and services vendor did put the ISP on a credit hold until the payment delay could be addressed. This led to delays in getting an instrument repaired and in ordering essential DNA processing chemicals. If additional stoppages occur, the backlog of cases will increase. An additional hindrance to the purchase of forensic equipment and commodities is the lengthy state procurement process. Steps continue to be added to this state process. DNA commodities have a short expiration date; therefore, large quantities cannot be maintained in the laboratories. Rather, they need to be ordered as necessary. Any delays in the procurement approval process can cause laboratories to run out of critical supplies, stopping analysis and causing an increase in the backlog or even missed court dates.

Personnel

As of June 30, 2010, there were a total of 81 scientists on board and working on cases or case-related assignments. This number of forensic scientists, along with the evidence technicians, technical DNA managers, clerical and maintenance support, appears to be sufficient to continue the progress which has been made in reducing the backlogs in FB and DNA, as long as vacancies are allowed to be filled as they occur. Two experienced (fully-trained) scientists resigned this fiscal year. One additional forensic scientist vacancy is anticipated for early FY 2011.

To fully train an FB/DNA Forensic Scientist Trainee (FST) in both forensic biology and DNA techniques takes approximately 18 months. During FY 2010, there were no new FSTs in training, since the section had adequate staffing. Available headcount was used instead to hire

FSTs for the latent print and firearms sections, both in more desperate need of additional staffing.

During FY 2010, while the ISP was in the process of filling 23 critical vacancies, including 13 evidence technician positions (six for DNA), the state's budget situation halted all hiring. The hiring process was resumed again in late FY 2010. The inability to promptly fill these vacancies, and others as they occur, has a negative impact on any backlog reduction progress made up to that time. Without timely refilling of non-scientific support positions, analysts have to do evidence technician, managerial, and clerical duties rather than analyzing cases. This exact situation resulted in Recommendation #5 in the Office of the Auditor General (OAG) report released in March 2009. Specifically, the OAG stated on page 38, **"Failure to maintain the necessary staffing levels results in cases remaining unsolved and serial criminals could remain free to commit additional crimes. The ISP's inability to fill lost forensic positions has resulted in staff performing work outside of their official duties, which increases the backlog of forensic cases submitted to the labs"**.

This situation will occur not just in FB/DNA, but in all the different disciplines. On average, the ISP loses 20 forensic scientists (approximately six from FB/DNA) each year due to attrition. The ISP had made great progress in reducing the total forensic case backlog from a high in FY 2008 of over 14,000 cases to just fewer than 6,600 cases at the end of FY 2010. This positive trend cannot continue without the ability to immediately fill vacant forensic positions of all titles and to maintain current funding levels. Furlough days, both mandatory and voluntary, have further impacted laboratory operations and the backlog in all disciplines. Increased backlogs equate to criminals going unidentified to commit additional crimes and innocent individuals remaining incarcerated as they await forensic results which could potentially clear them.

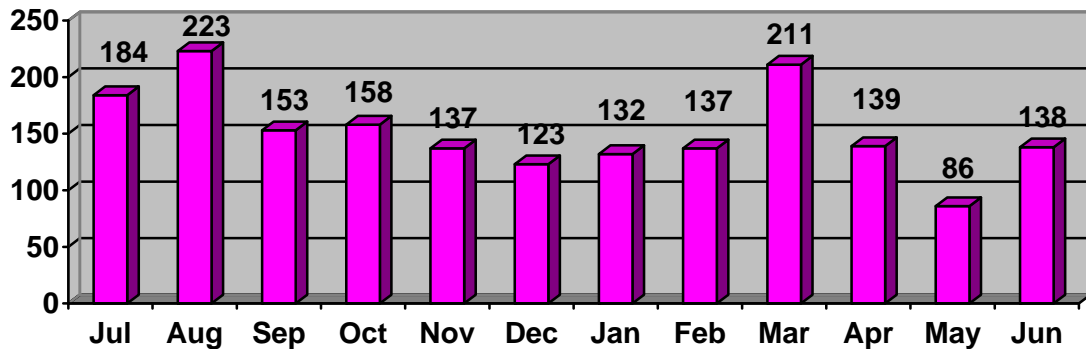
OFFENDER SAMPLE BACKLOG

The Combined DNA Index System (CODIS) is a database program administered by the FBI and implemented by the ISP 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 from across the state to the DNA Indexing Unit of the Springfield Forensic Science Laboratory, where they are analyzed and uploaded to the CODIS database.

In FY 2010, the ISP received 41,440 new offender samples and submitted 33,025 of those samples to CODIS by the end of June 2010. Of all the new samples received, 99.89% of them were uploaded into CODIS within 30 days. A backlog will occur when the number of offender samples submitted exceeds the laboratory's capacity to upload them into CODIS within 30 days of when they are ready for analysis. Back in March 2006, the CODIS backlog was more than 7,800 samples, but during FY 2007 that backlog had been eliminated. Since that time, through sufficient staffing and the extensive use of highly efficient technologies such as robotics, the DNA Indexing Unit has been able to maximize in-house analytical capacity and efficiency in order to keep up with sample submissions. As of the end of FY 2010, the CODIS sample backlog remains zero. The inability to backfill vacancies, significant budgetary cuts, equipment problems, and/or immediate changes to current convicted offender statutes (such as a law which would require all felony arrestees to submit a DNA sample for CODIS), will result in the development of a backlog.

There were 1,821 CODIS hits in FY 2010, as shown on the following chart. This is nearly identical to the total FY 2009 figure of 1,820 hits. As of June 30, 2010, there were a total of 371,258 offender profiles and 27,029 crime scene profiles in the DNA database. There were also a cumulative total of 10,035 CODIS hits, with 8,551 offender-to-case hits and 1,484 case-to-case hits detected. In an offender-to-case hit, a convicted offender's known DNA profile is associated with an unknown DNA profile from a case; this information can provide investigators with the identity of the possible perpetrator. In a case-to-case hit, unknown DNA profiles from two or more cases are associated, thereby linking cases and providing additional information for the investigators to pursue. There have been 1,210 national associations, which are CODIS hits of DNA profiles from Illinois to DNA profiles from other states. All 50 states, plus the FBI and US Army laboratories, participate in CODIS. Through May 2010 (last data available), Illinois ranks third in the nation, behind only Florida and California, in the number of investigations aided by CODIS.

FY2010 Monthly CODIS Hits



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