

State of Alaska
FY2007 Governor's Operating Budget

Department of Public Safety
Laboratory Services
Component Budget Summary

Component: Laboratory Services

Contribution to Department's Mission

Provide forensic science services to law enforcement agencies.

Core Services

- 1) The Alaska Scientific Crime Detection Laboratory is the only forensic facility available in Alaska to provide forensic services at no charge to all law enforcement agencies.
- 2) Forensic services include the scientific examination and detailed analysis of evidence in criminal cases, assistance with crime scene investigations to include expert testimony in court regarding the results of the testing of evidence, and training of law enforcement officers regarding proper evidence collection and preservation.
- 3) The crime laboratory's areas of expertise are latent fingerprints, trace evidence, shoe print/tire track, controlled substances, blood alcohol analysis, toxicology screening, biological evidence screening, DNA, firearm/tool mark, and crime scene investigations.
- 4) The crime laboratory administers the statewide breath alcohol program, which provides law enforcement agencies with properly calibrated and certified instruments for administering evidential breath tests. Expert testimony in alcohol-related court proceedings and support for non-evidential breath test devices is also provided.
- 5) The Alaska Scientific Crime Detection Laboratory maintains Alaska's DNA Identification System. DNA profiles are routinely uploaded into the National DNA Index System (NDIS) and searched against profiles submitted by other states.
- 6) The Alaska Scientific Crime Detection Laboratory maintains Alaska's Integrated Ballistic Identification System (IBIS). Through the use of the IBIS, digital images of the markings made by a firearm on bullets and cartridge casings are acquired and searched against a database of images of firearms evidence recovered from crime scenes. These images are routinely uploaded into the National Integrated Ballistic Information Network (NIBIN) and searched against images of ballistic evidence submitted by other states.
- 7) Crime laboratory personnel are active members in several organizations that have the responsibility for setting the standards for training and certification of analysts nationally in the various forensic disciplines as well as accreditation standards for crime laboratories.

End Results	Strategies to Achieve Results
<p>A: Improved utility of forensic science to assist statewide law enforcement with their criminal investigations.</p> <p><u>Target #1:</u> 5% increase per year in rate of unsolved criminal investigations entered into DNA data base getting "hits."</p> <p><u>Measure #1:</u> % change in rate of unsolved criminal investigations aided by DNA data base "hits."</p> <p><u>Target #2:</u> 5% increase per year in the number of latent fingerprints identified using the Automated Fingerprint Identification System (AFIS).</p> <p><u>Measure #2:</u> % change in number of fingerprints identified</p>	<p>A1: Expand forensic databases.</p> <p><u>Target #1:</u> 5% increase per year in the number of DNA forensic profiles entered into the DNA data base per year.</p> <p><u>Measure #1:</u> % change in number of profiles entered.</p> <p><u>Target #2:</u> 340% increase in qualified convicted offender profile samples entered into the DNA data base by September 30, 2005.</p> <p><u>Measure #2:</u> % change in qualified convicted offender profile samples entered into the data base by September 30, 2005.</p> <p><u>Target #3:</u> 5% increase per year in the number of latent</p>

using AFIS.	fingerprints submitted by law enforcement officers suitable for entry into AFIS. <u>Measure #3:</u> % change in number of officer-lifted latent fingerprint cards entered into AFIS.
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Major Activities to Advance Strategies

- Enter additional convicted offender profiles
- Enter additional forensic profiles
- Train law enforcement to submit more "no-suspect" cases
- Participate in proficiency testing
- Comply with accreditation by monitoring expert witness testimony
- Maintain and follow the laboratory's quality assurance program
- Provide continuing education for analysts
- Perform audits of laboratory operations
- Perform internal audits of laboratory operations for 4 sequential years, and in the 5th, receive audit by an inspector from the accreditation board
- Provide training to supervisor of Statewide Breath Alcohol Program
- Provide calibration alcohol standards
- Certify DataMaster verification of calibration reports
- As needed, repair or replace instruments used in Statewide Breath Alcohol Program
- Provide necessary supplies and expert testimony to support Statewide Breath Alcohol Program

FY2007 Resources Allocated to Achieve Results

FY2007 Component Budget: \$3,971,500	Personnel:	
	Full time	36
	Part time	0
	Total	36

Performance Measure Detail

A: Result - Improved utility of forensic science to assist statewide law enforcement with their criminal investigations.

Target #1: 5% increase per year in rate of unsolved criminal investigations entered into DNA data base getting "hits."

Measure #1: % change in rate of unsolved criminal investigations aided by DNA data base "hits."

Number of DNA Hits (fiscal year)

Fiscal Year	YTD Total
FY 2004	11
FY 2005	51
	+363.64%

Analysis of results and challenges: The number of total hits includes both hits linking two or more unsolved crime scene DNA profiles in the data base and hits linking a crime scene profile with a qualified convicted offender DNA profile. The key to increasing the number of hits is to increase the size of the data base - both with forensic profiles and qualified convicted offender profiles. The dramatic increase in the number of hits generated in FY2005 can be directly attributed to the large number of new convicted offender DNA profiles entered during this time period.

Source: Crime Lab

Target #2: 5% increase per year in the number of latent fingerprints identified using the Automated Fingerprint Identification System (AFIS).

Measure #2: % change in number of fingerprints identified using AFIS.

Number of Fingerprints Identified using AFIS (fiscal year)

Fiscal Year	YTD Total
FY 2004	66
FY 2005	17 -74.24%

Analysis of results and challenges: In FY2005 fewer cases were processed in AFIS due to vacancy. In FY2006 two new Forensic Technicians are scheduled to be hired in which a major part of their job will be to process and collect fingerprint evidence. These technicians will be assigned to the Palmer and Fairbanks areas and will be responding to crime scenes. It is expected that additional latent fingerprint evidence submitted by these two individuals will result in an increased number of fingerprints identified using AFIS.

Source: Crime Lab

A1: Strategy - Expand forensic databases.

Target #1: 5% increase per year in the number of DNA forensic profiles entered into the DNA data base per year.

Measure #1: % change in number of profiles entered.

DNA Forensic Profiles Entered (fiscal year)

Fiscal Year	YTD Total
FY 2004	93
FY 2005	86 -7.53%

Analysis of results and challenges: The numbers above only represent forensic profiles attributed to unknown individuals that were recovered from crime scene evidence. The number of forensic profiles that will be entered in FY2006 is expected to increase significantly as the laboratory has implemented new higher throughput testing equipment and will be outsourcing selected casework under a National Institute of Justice Forensic DNA Backlog Reduction Program.

Source: Crime Lab

Target #2: 340% increase in qualified convicted offender profile samples entered into the DNA data base by September 30, 2005.

Measure #2: % change in qualified convicted offender profile samples entered into the data base by September 30, 2005.

Convicted Offender Profiles Entered (fiscal year)

Fiscal Year	YTD Total
FY 2004	16
FY 2005	5383 +33543.75%

Analysis of results and challenges: The number of convicted offender profiles increased dramatically in FY2005 due to participation in the National Institute of Justice Convicted Offender Backlog Reduction Program. The total number of convicted offender profiles that are projected to be entered for FY2006 will be significantly less than what was entered in FY2005 because much of the backlog of offender samples have now been processed.

Source: Crime Lab

Target #3: 5% increase per year in the number of latent fingerprints submitted by law enforcement officers suitable for entry into AFIS.

Measure #3: % change in number of officer-lifted latent fingerprint cards entered into AFIS.

Officer Latent Lift Cards Analyzed (fiscal year)

Fiscal Year	YTD Total
FY 2004	785
FY 2005	657 -16.31%

Analysis of results and challenges: One method of increasing the number of latent prints in AFIS is to encourage law enforcement officers to take more latent fingerprints at crime scenes. This requires appropriate training. In addition to its normal training, the crime lab intends to use training videos, training bulletins, articles in law enforcement newsletters, etc., to provide both training information and encouragement regarding the effectiveness of increased law enforcement officer participation in building this data base.

Key Component Challenges

All sections of the lab are experiencing an increase in requests for analysis that has resulted in backlogs of cases waiting for forensic examination. This problem will only grow as law enforcement agencies around the state hire additional officers. The Anchorage Police Department and Department of Public Safety’s stated goal of adding 115 new officers between the two agencies in the next five years represents a 26.8 percent increase in officers for just those agencies alone. This certainly will result in an increase in the number of cases worked by the agencies and an increase in the amount of physical evidence submitted to the laboratory.

The laboratory is near capacity in terms of physical space to house employees and equipment, and is also near capacity for storing case records and retained evidence items. The crime laboratory facility is now twenty years old, and is requiring more maintenance. The roof has leaked during periods of heavy rainfall, and the heating and cooling system often fails to maintain stable temperatures. This not only affects employee comfort, but can also cause problems with the operation of sophisticated laboratory instrumentation and evidence analysis.

The Department of Public Safety will seek funding for a much needed crime lab renovation/expansion. This will allow for employee and equipment expansion to meet future demands coming to the lab. Failure to position the laboratory to meet these future demands will mean increased backlogs in evidence analysis that will hamper criminal investigations and prosecutions.

Increased Demand for DNA Testing

Because of the effectiveness of Alaska’s DNA database and testing program, the number of evidence submittals requesting DNA testing continues to increase, as does the backlog of cases. In order to help address this critical need for increased DNA testing, the crime laboratory has been heavily reliant on one-time federal grant money to fund the purchase of DNA equipment, supplies, and to pay for analyst training.

Federal grant funds were used to purchase equipment to make the analysis of DNA evidence more efficient. A second high-throughput genetic analyzer should be ready to be used on casework midway through FY2006. The laboratory’s other genetic analyzer will be upgraded under the same federal grant. The laboratory will use this technology to increase DNA throughput and reduce analysis time.

A National Institute of Justice Forensic DNA Backlog Reduction Grant federal grant will be used to outsource selected cases to a qualified DNA laboratory for analysis. In addition, this grant will be used to hire a long term non-permanent employee to assist in screening items for the presence of biological evidence. The section involved in screening evidence for the presence of DNA evidence also has a large backlog. It is unknown if federal grant money will be available next fiscal year in order to retain this long term non-permanent screening position.

The Municipality of Anchorage Department of Health and Human Services has a professional services contract with the

crime laboratory that funds a DNA position to analyze sexual assault evidence submitted by the Anchorage Police Department for a period of three years. This position was added in FY2005, and it is unknown if these federal pass-through funds will continue. It is critical to the laboratory's mission that this position be maintained.

There is currently no space in the DNA laboratory to add additional equipment or DNA analysts to help meet the expected increased demand for DNA analysis.

Growth of Alaska's DNA Registration System

The convicted offender DNA database program has experienced tremendous growth after the governor signed legislation in 2003 to greatly expand the number of offenses requiring DNA collection. From 1996 through 2002, a total of 4,358 offender samples were submitted to the laboratory. Since that time, the database has more than tripled in size and now contains well over 13,000 samples. No support staff was added to handle this influx of samples. The laboratory's forensic technicians who were previously assigned to this task are unable to process these extra samples as their other responsibilities in the evidence room have also increased. The Convicted Offender Database program has been extremely effective in helping solve cold cases. Recent congressional approval of a new federal DNA initiative is expected to fully fund the testing of Alaska's convicted offender backlog of samples along with all future samples collected during the next several years.

The crime laboratory is dependant on federal grant money from the National Institute of Justice (NIJ) for outsourcing convicted offender DNA samples to a qualified private laboratory that meets FBI mandated DNA quality assurance standards. NIJ approved \$231,425 for testing a total of 7,500 Alaskan convicted offender DNA samples. 5,383 Convicted Offender DNA profiles were entered into CODIS in FY2005 and 1,185 profiles were entered in July of 2005.

Need for Forensic Technician Support

The laboratory is in need of an additional forensic technician. This technician would be used for the following tasks:

1. Organize and send out convicted offender DNA samples to our contract vendor laboratory
2. Provide technician support the DNA section of the laboratory.
3. Support the Statewide Breath Alcohol Program.
4. Maintain the laboratory's chemical inventory and assist with ordering supplies and other consumables.
5. Provide backup to the laboratory's evidence room in receiving and packaging and shipping of evidence.

The majority of the above tasks are currently being performed by higher paid criminalists. This is inefficient and takes valuable time away from analyzing casework samples.

Increased Demand for Alcohol/Toxicology Testing

In FY2004, the crime laboratory successfully re-implemented toxicology as a service it provides to law enforcement. Blood and urine specimens are screened at the crime lab for the presence of common drugs of abuse. Specimens testing positive are sent to the Washington State Patrol toxicology laboratory (WSP) for confirmation. A grant funded by the Alaska Highway Safety Office (AHSO) is being used to reimburse the WSP laboratory. Between October 1, 2003 and June 30, 2004, forty-four samples were sent to the WSP toxicology lab for drug confirmation. The number of samples sent to WSP for confirmation in FY2005 grew to 220. Because of the success of this program, the number of samples being submitted by law enforcement to the laboratory for toxicology testing continues to grow. An experienced toxicologist is needed to help deal with this increased demand.

The number of requests for blood alcohol analysis has also greatly increased over the past several years.

Calendar Year	Blood Alcohol Reports Issued
2001	149
2002	172
2003	304
2004	682
2005 (seven months only)	550

To help meet this demand, a vacant Aircraft Pilot II position was reclassified to a criminalist position. This position should be filled in the second quarter of FY2006. The position will also be trained to support the State Breath Alcohol Program, which is also severely understaffed.

National Integrated Ballistic Information Network (NIBIN)

The Bureau of Alcohol, Tobacco, and Firearms installed equipment at the crime laboratory that enables the laboratory to participate in the National Integrated Ballistic Information Network (NIBIN). NIBIN uses computer technology to allow law enforcement agencies to compare crime gun evidence. Through the use of the Integrated Ballistic Identification System (IBIS), digital images of the markings made by a firearm on bullets and cartridge casings are acquired and searched against a database of images of firearms evidence recovered from crime scenes. This can yield valuable investigative information. The NIBIN system performs a preliminary automated initial comparison and provides a list of candidate matches that have the potential for linking crimes committed with the same firearm. The crime laboratory's forensic firearms examiner confirms all candidate matches and provides any court testimony that may be required. To be successful, images of cartridge casings and bullets fired from all seized crime guns need to be entered into IBIS along with firearm evidence collected from crime scenes. The Anchorage Police Department's Property and Evidence section currently averages over 1,600 firearms every year. Many additional firearms are seized by law enforcement agencies outside the Anchorage Bowl area. The crime laboratory currently receives only a tiny fraction of these weapons.

A federal Project Safe Neighborhood grant is being used to fund a forensic technician position to make NIBIN entries. NIBIN became operational in Alaska in August of 2005 and 240 items of evidence from 34 different cases were entered in the first five weeks. During this time period, the system generated three "hits" linking evidence from two different homicide scenes to evidence collected from various other crimes. This federal grant is sufficient to fund this position only for a period of one year. The laboratory will not be able to continue entering ballistic evidence into NIBIN should funding for this position disappear.

Multi-Jurisdictional Task Force Grant for Fingerprint Analysis

Federal Byrne grants have been used since 1996 to fund 75 percent of a latent fingerprint examiner position. The funding available for this purpose has been reduced and now only provides for 50 percent of the cost. Federal funding for this program may be further reduced or eliminated altogether in future years.

This fingerprint position is very important to the crime laboratory and the State of Alaska. The first priority of this position is to process critical drug and violent crime cases. This position enables a faster response to "rush" case requests from various agencies throughout the State of Alaska. Without this examiner, there will be a longer turnaround time on rush cases and the casework backlog will increase. This position also processes crime scenes for physical evidence. Without the position, the state crime laboratory will have one less person to send into the field to assist with violent crime investigations. The position also trains officers in physical evidence documentation, processing, and collection. The purpose of this training is to get the highest quality of evidence possible submitted to the crime laboratory. Without the position, there will be slower rush case response, less crime scene assistance and less training for Alaskan law enforcement.

Significant Changes in Results to be Delivered in FY2007

AAFIS (Alaska Automated Fingerprint Identification System) Database Hits

The number of investigations aided through the use of AAFIS is expected to dramatically increase during FY2007. It is anticipated that the forensic technicians assigned to crime scene response will be processing latent fingerprint evidence from numerous burglary and auto theft scenes. Forensic processing of evidence from these types of crimes has been under-utilized in the past.

CODIS (Combined DNA Index System) Database Hits

The percentage of "no suspect" cases yielding DNA database matching to known convicted offenders is expected to continue to increase. By the end of FY2007, the database is expected to contain DNA profiles from a significant number of the criminally active population of Alaska, making the database an even more effective tool for identifying perpetrators.

Major Component Accomplishments in 2005

CODIS (Combined DNA Index System)

Alaska's Combined DNA Index System (CODIS) generated 56 hits in FY2005, a five-fold increase over FY2004. Forty-seven of these hits matched crime scene profiles to convicted offenders and the remaining nine linked two or more cases together. Several hits linked convicted offenders to unsolved homicides. The size of Alaska's DNA Registration

System has more than triple during FY2005. This has had a tremendous impact on the number of cases being solved through the use of the DNA database. On a per capita basis, Alaska has one of the most successful DNA databases in the nation. According to August 2005 FBI statistics, Alaska's database has aided more investigations (123) than 19 other states.

Statutory and Regulatory Authority

- 1) DPS - DNA ID System (AS 44.41.035)
- 2) DPS - Fingerprint System (AS 44.41.025)
- 3) DPS - Powers and duties of department (AS 44.41.020)
- 4) State Troopers - Department to assist Other Agencies (AS 18.65.090)
- 5) State Troopers - Fingerprint Information (AS 18.65.050)
- 6) DPS - Forensic Alcohol Testing Regulations (13 AAC 63)

Contact Information
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**Laboratory Services
Component Financial Summary**

All dollars shown in thousands

	FY2005 Actuals	FY2006 Management Plan	FY2007 Governor
Non-Formula Program:			
Component Expenditures:			
71000 Personal Services	2,081.0	2,693.3	3,067.2
72000 Travel	45.5	96.9	96.9
73000 Services	390.6	563.1	565.4
74000 Commodities	300.0	236.0	240.0
75000 Capital Outlay	25.4	2.0	2.0
77000 Grants, Benefits	0.0	0.0	0.0
78000 Miscellaneous	0.0	0.0	0.0
Expenditure Totals	2,842.5	3,591.3	3,971.5
Funding Sources:			
1002 Federal Receipts	118.3	405.7	407.7
1003 General Fund Match	11.0	13.3	13.3
1004 General Fund Receipts	2,610.9	2,996.8	3,411.6
1007 Inter-Agency Receipts	54.0	100.5	59.5
1108 Statutory Designated Program Receipts	48.3	75.0	79.4
Funding Totals	2,842.5	3,591.3	3,971.5

Estimated Revenue Collections

Description	Master Revenue Account	FY2005 Actuals	FY2006 Management Plan	FY2007 Governor
Unrestricted Revenues				
None.		0.0	0.0	0.0
Unrestricted Total		0.0	0.0	0.0
Restricted Revenues				
Federal Receipts	51010	118.3	405.7	407.7
Interagency Receipts	51015	54.0	100.5	59.5
Statutory Designated Program Receipts	51063	48.3	75.0	79.4
Restricted Total		220.6	581.2	546.6
Total Estimated Revenues		220.6	581.2	546.6

**Summary of Component Budget Changes
From FY2006 Management Plan to FY2007 Governor**

All dollars shown in thousands

	<u>General Funds</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total Funds</u>
FY2006 Management Plan	3,010.1	405.7	175.5	3,591.3
Adjustments which will continue current level of service:				
-FY 07 Wage Increases for Bargaining Units and Non-Covered Employees	45.1	1.1	2.9	49.1
-FY 07 Health Insurance Cost Increases for Bargaining Units and Non-Covered Employees	5.5	0.2	0.5	6.2
-FY 07 Retirement Systems Cost Increase	84.0	0.0	4.1	88.1
Proposed budget decreases:				
-Delete Unrealizable Inter-Agency Receipts	0.0	0.0	-45.8	-45.8
Proposed budget increases:				
-Fund existing forensic technician to increase annual DNA profile database entries	57.0	0.0	0.0	57.0
-Criminalist III for Alcohol/Toxicology Section	82.4	0.0	0.0	82.4
-Establish a Paralegal II position to assist with crime lab operations	69.1	0.0	0.0	69.1
-Replace Loss of Federal Byrne Grant Funds for Drug Enforcement	45.8	0.0	0.0	45.8
-Risk Management Self-Insurance Funding Increase	25.9	0.7	1.7	28.3
FY2007 Governor	3,424.9	407.7	138.9	3,971.5

**Laboratory Services
Personal Services Information**

Authorized Positions		Personal Services Costs		
<u>FY2006</u>				
<u>Management</u>		<u>FY2007</u>		
<u>Plan</u>		<u>Governor</u>		
Full-time	34	36	Annual Salaries	1,959,569
Part-time	0	0	COLA	54,522
Nonpermanent	3	2	Premium Pay	20,533
			Annual Benefits	1,133,054
			<i>Less 4.01% Vacancy Factor</i>	(126,929)
			Lump Sum Premium Pay	26,451
Totals	37	38	Total Personal Services	3,067,200

Position Classification Summary

Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total
Administrative Assistant	1	0	0	0	1
Administrative Clerk II	1	0	0	0	1
Administrative Clerk III	1	0	0	0	1
Criminalist I	2	0	0	0	2
Criminalist II	2	0	0	0	2
Criminalist III	14	0	0	0	14
Criminalist IV	4	0	0	0	4
Forensic Lab Supervisor	1	0	0	0	1
Forensic Technician	4	1	0	1	6
Latent Fingerprint Ex III	3	0	0	0	3
Latent Fingerprint Ex IV	1	0	0	0	1
Maint Spec Bfc Jrny II/Lead	1	0	0	0	1
Paralegal II	1	0	0	0	1
Totals	36	1	0	1	38