

National Institute of Justice

Office of Investigative and Forensic Sciences

Final Reports Submitted Under Forensic DNA Backlog Reduction Program
Fiscal Year 2010 Awards

March 2013

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FY10 Backlog Final Reports

This table is a summary of DNA Backlog Awards issued in FY2010. Following this table are their respective abstracts.

FY10 Recipient Name	Award Number	Award Amount
State of Alaska Department of Public Safety	2010-DN-BX-K061	\$207,143
Alabama Department of Forensic Sciences	2010-DN-BX-K115	\$977,422
Arkansas State Crime Laboratory	2010-DN-BX-K089	\$655,503
Arizona Department of Public Safety	2010-DN-BX-K123	\$529,918
Arizona Criminal Justice Commission	2010-DN-BX-K113	\$815,490
San Diego County, California	2010-DN-BX-K077	\$274,261
Fresno County Sheriff Department, California	2010-DN-BX-K093	\$120,000
Kern County District Attorney, California	2010-DN-BX-K088	\$217,581
County of Ventura, California	2010-DN-BX-K087	\$100,102
City of Los Angeles, California	2010-DN-BX-K104	\$1,246,257
City of San Diego, California	2010-DN-BX-K080	\$283,722
Sacramento County, California	2010-DN-BX-K071	\$435,152
County of San Bernardino, California	2010-DN-BX-K116	\$492,591
California Department of Justice	2010-DN-BX-K050	\$1,937,262
Los Angeles County Sheriff's Department, California	2010-DN-BX-K100	\$1,561,300
County of Alameda, California	2010-DN-BX-K082	\$228,894
County of Santa Clara, California	2010-DN-BX-K064	\$255,873
County of San Mateo, California	2010-DN-BX-K054	\$163,633
Orange County Sheriff-Coroner Department, California	2010-DN-BX-K067	\$358,567
Contra Costa County, California	2010-DN-BX-K127	\$206,267
City And County of San Francisco, California	2010-DN-BX-K124	\$320,274
Oakland Police Department, California	2010-DN-BX-K068	\$371,622
City and County of Denver, Colorado	2010-DN-BX-K158	\$203,992
Colorado Department of Public Safety	2010-DN-BX-K154	\$580,593
Connecticut Department of Public Safety	2010-DN-BX-K066	\$482,762
D.C. Metropolitan Police Department	2010-DN-BX-K108	\$393,960
Delaware Health and Social Services	2010-DN-BX-K057	\$284,323
Palm Beach County Sheriff's Office, Florida	2010-DN-BX-K078	\$403,372
Miami Dade Police Department, Florida	2010-DN-BX-K081	\$1,023,044
Florida Department of Law Enforcement	2010-DN-BX-K101	\$3,460,812
St. Lucie County Sheriff's Office, Florida	2010-DN-BX-K092	\$120,404
Pinellas County, Florida	2010-DN-BX-K128	\$333,220
Broward County Sheriff's Office, Florida	2010-DN-BX-K121	\$491,061
Georgia Bureau of Investigation	2010-DN-BX-K094	\$2,147,541
Honolulu Police Department, Hawaii	2010-DN-BX-K091	\$162,603

Iowa Department of Public Safety	2010-DN-BX-K152	\$247,571
Idaho State Police	2010-DN-BX-K156	\$161,260
Illinois State Police	2010-DN-BX-K166	\$2,567,585
Northeastern Illinois Regional Crime Laboratory	2010-DN-BX-K167	\$285,287
DuPage County Sheriff Department, Illinois	2010-DN-BX-K146	\$285,287
Indiana State Police	2010-DN-BX-K150	\$619,386
Marion County-Indianapolis Forensic Services Agency, Indiana	2010-DN-BX-K200	\$366,000
Johnson County Kansas	2010-DN-BX-K159	\$146,000
Kansas Bureau of Investigation	2010-DN-BX-K172	\$386,672
Commonwealth of Kentucky	2010-DN-BX-K118	\$585,500
Louisiana State Police	2010-DN-BX-K099	\$1,340,084
Massachusetts State Police	2010-DN-BX-K106	\$1,042,765
City of Boston, Massachusetts	2010-DN-BX-K122	\$307,967
Anne Arundel County, Maryland	2010-DN-BX-K126	\$135,682
Maryland State Police	2010-DN-BX-K102	\$359,687
Baltimore County, Maryland	2010-DN-BX-K072	\$228,266
Prince George's County, Maryland	2010-DN-BX-K095	\$342,645
Montgomery County, Maryland	2010-DN-BX-K070	\$103,236
City of Baltimore, Maryland	2010-DN-BX-K105	\$469,149
Maine State Police	2010-DN-BX-K059	\$150,000
Michigan State Police	2010-DN-BX-K153	\$2,322,645
Hennepin County, Minnesota	2010-DN-BX-K155	\$107,965
Minnesota Department of Public Safety	2010-DN-BX-K164	\$527,121
St. Louis County, Missouri	2010-DN-BX-K149	\$170,244
St. Louis Metro Police Department, Missouri	2010-DN-BX-K147	\$350,292
St. Charles County, Missouri	2010-DN-BX-K148	\$36,866
Missouri State Highway Patrol	2010-DN-BX-K173	\$433,826
Board of Police Commissioners, Kansas City, Missouri	2010-DN-BX-K163	\$389,367
Mississippi Department of Public Safety	2010-DN-BX-K044	\$387,663
Montana Department of Justice	2010-DN-BX-K157	\$150,000
Charlotte-Mecklenburg Police Department, North Carolina	2010-DN-BX-K165	\$349,200
North Carolina Department of Crime Control and Public Safety	2010-DN-BX-K198	\$1,646,246
North Dakota Office of the Attorney General	2010-DN-BX-K162	\$150,000
Nebraska State Patrol	2010-DN-BX-K199	\$250,756
New Hampshire Department of Safety	2010-DN-BX-K060	\$150,000
New Jersey Department of Law and Public Safety	2010-DN-BX-K086	\$1,312,628
City of Albuquerque, New Mexico	2010-DN-BX-K107	\$182,756
State of New Mexico	2010-DN-BX-K063	\$410,730
Las Vegas Metropolitan Police Department, Nevada	2010-DN-BX-K076	\$872,138
Suffolk County, New York	2010-DN-BX-K084	\$246,252
County of Westchester, New York	2010-DN-BX-K042	\$220,330

Monroe County, New York	2010-DN-BX-K090	\$238,475
County of Erie, New York	2010-DN-BX-K109	\$526,201
New York State Police, New York	2010-DN-BX-K096	\$982,414
Onondaga County Health Department, New York	2010-DN-BX-K047	\$152,935
Nassau County, New York	2010-DN-BX-K049	\$225,515
City of New York, Office of Chief Medical Examiner	2010-DN-BX-K058	\$1,000,000
City of Columbus, Ohio	2010-DN-BX-K056	\$149,688
City of Mansfield, Ohio	2010-DN-BX-K046	\$305,000
Cuyahoga County Coroner's Office, Ohio	2010-DN-BX-K073	\$105,000
State of Ohio Office of The Attorney General	2010-DN-BX-K111	\$831,053
Montgomery County, Ohio	2010-DN-BX-K085	\$249,688
Stark County, Ohio	2010-DN-BX-K075	\$106,400
Hamilton County, Ohio	2010-DN-BX-K062	\$105,000
Oklahoma State Bureau of Investigation	2010-DN-BX-K051	\$571,115
City Of Tulsa, Oklahoma	2010-DN-BX-K079	\$317,089
Oregon State Police	2010-DN-BX-K161	\$451,278
Allegheny County Forensic Lab Division, Pennsylvania	2010-DN-BX-K065	\$283,541
Pennsylvania State Police	2010-DN-BX-K053	\$1,110,575
City of Philadelphia, Pennsylvania	2010-DN-BX-K114	\$968,799
Instituto de Ciencias Forenses, Puerto Rico	2010-DN-BX-K069	\$439,101
Rhode Island Public Safety Grant Administration Office	2010-DN-BX-K125	\$150,000
County of Richland, South Carolina	2010-DN-BX-K074	\$113,950
South Carolina Law Enforcement Division	2010-DN-BX-K103	\$1,399,617
South Dakota Office of the Attorney General	2010-DN-BX-K175	\$150,000
Tennessee Bureau of Investigations	2010-DN-BX-K098	\$2,069,661
City of Austin, Texas	2010-DN-BX-K045	\$182,097
University of North Texas Health Science Center	2010-DN-BX-K119	\$785,138
Texas Department of Public Safety	2010-DN-BX-K043	\$2,401,320
Harris County, Texas	2010-DN-BX-K097	\$796,580
Tarrant County, Texas	2010-DN-BX-K052	\$280,892
County of Bexar, Texas	2010-DN-BX-K048	\$127,119
City of Houston, Texas	2010-DN-BX-K112	\$1,143,339
Utah Department of Public Safety	2010-DN-BX-K117	\$281,036
Virginia Department of Forensic Science	2010-DN-BX-K120	\$920,520
Vermont Department of Public Safety	2010-DN-BX-K055	\$150,000
Washington State Patrol	2010-DN-BX-K174	\$1,004,276
Wisconsin Department of Justice	2010-DN-BX-K151	\$713,980
West Virginia State Police	2010-DN-BX-K083	\$230,014
Wyoming Office of the Attorney General	2010-DN-BX-K160	\$150,000
TOTAL FUNDING		\$64,811,981

FY10 Recipient Name: State of Alaska Department of Public Safety

Award Number: 2010-DN-BX-K061

Award Amount: \$207,143

Final Report:

GOALS AND OBJECTIVES OF PROJECT:

Goal 1 - To reduce forensic DNA sample turnaround time and increase the throughput of the laboratory, ultimately decreasing the Alaska SCDL's backlog (requests for DNA analysis exceeding 30 days) of forensic DNA casework. Funds from this award are to be used for training database analysts to become fully qualified casework analysts, for analysis of forensic DNA casework requests, and calibration of pipettes used in DNA casework.

PROGRESS REPORT 1: October 1, 2010 – December 31, 2010

The primary goal of this program is to complete analysis of forensic DNA casework requests. The laboratory plans to achieve this goal by using award funds to purchase supplies that will be used in training additional DNA analysts and in analysis of forensic DNA casework samples. As of December 31, 2010, the laboratory has not used any funds from this award and therefore, no cases have been completed with funds from this award.

The laboratory anticipates spending down the FY09 Forensic DNA Backlog Reduction Award during the next reporting period, and then beginning to use funds from the FY10 award for training and analysis of DNA casework.

PROGRESS REPORT 2: January 1, 2011 – June 30, 2011

Goal 1 - To reduce forensic DNA sample turnaround time and increase the throughput of the laboratory, ultimately decreasing the Alaska SCDL's backlog (requests for DNA analysis exceeding 30 days) of forensic DNA casework. Funds from this award are to be used for training database analysts to become fully qualified casework analysts, for analysis of forensic DNA casework requests, and calibration of pipettes used in DNA casework.

Progress Oct-Dec 10 - The laboratory is spending down the FY09 Forensic DNA Backlog Reduction Award. Therefore, no procurements from the FY10 award occurred during this award period and no analyses have been completed using funds from this award.

Progress Jan-June 11 - To date, the laboratory has spent \$1200 for pipette calibrations. The laboratory has also purchased Promega PP16 amplification kits for training, EZ1 DNA Investigator kits for forensic DNA casework, and polymer and consumable supplies for training and analysis of forensic DNA casework.

In determining analysis funded under a particular award, the laboratory tracks lot numbers for PP16 primer, AmpliTaq Gold polymerase and EZ1 Investigator reagent cartridges. Attached to this summary are DNA worksheets showing the use of the PP16 kits [purchased under this award] by the casework trainees. It is anticipated that training will be completed during the next reporting period.

As of the end of this reporting period, no forensic DNA casework requests have been completed using funds from this award. It is anticipated that the recently purchased EZ1 DNA Investigator kits will be used in forensic DNA casework analysis during the next reporting period.

Since the last reporting period, the laboratory has seen a significant increase in the turnaround time for reporting on forensic DNA casework requests. This is owing to the completion of backlogged property crime requests from 2006 and 2007. Now that the laboratory is processing

these cases, the turnaround time is expected to remain lengthy until previous years cases are completed.

It should be noted however, that the lab has observed an increase in the number of samples processed per analyst and a substantial decrease in the backlog of forensic DNA casework requests (a 30% decrease since the beginning of the award period). This is a function of both increased analyst productivity and more active management of the backlog. This is expected to continue in subsequent reporting periods.

PROGRESS REPORT 3: July 1, 2011 – December 31, 2011

During this reporting period, the laboratory has spent additional award funds for pipette calibrations, and reagents and consumable supplies for analysis of forensic DNA casework samples. The laboratory also purchased new CODIS hardware required for a mandatory software upgrade that will be occurring during the next reporting period. Since eligible profiles generated under this award must be entered into CODIS, the hardware purchase supports the original grant objectives.

In determining analysis funded under a particular award, the laboratory tracks lot numbers for PP16 primer, AmpliTaq Gold polymerase and EZ1 Investigator reagent cartridges.

As of the end of this reporting period, the laboratory has completed 136 forensic DNA casework requests using funds from this award. The laboratory anticipates completing a greater number of requests during the next reporting period as the three cross-training analysts begin processing casework requests. It is anticipated that they will complete all phases of their training during the next reporting period.

The laboratory expects to continue experiencing lengthy turnaround times for DNA casework requests as property crimes backlogged for several years are now being processed. As observed during this reporting period, the turnaround time should decrease slightly from one reporting period to the next as the lab gets more current.

At the end of this reporting period, the number of samples processed per analyst per month was only 18.5. This is most likely a result of analysts being away on personal leave at this time of year. During the first half of this reporting period, the number of samples processed per month was 35.6.

Once again, increased analyst productivity and active case management has resulted in a decrease in the backlog of forensic DNA casework requests, down to 224. This is expected to continue in subsequent reporting periods.

PROGRESS REPORT 4: January 1, 2012 – June 30, 2012

During this reporting period, the laboratory has spent additional award funds for pipette calibrations, and reagents and consumable supplies for analysis of forensic DNA casework samples.

In determining analysis funded under a particular award, the laboratory tracks lot numbers for PP16 primer, AmpliTaq Gold polymerase and EZ1 Investigator reagent cartridges.

As of the end of this reporting period, the laboratory has completed 315 forensic DNA casework requests using funds from this award, exceeding the projected number by 50%.

The laboratory expects to continue experiencing lengthy, and possible even longer, turnaround times for DNA casework requests as property crimes backlogged for several years are now being processed. It is anticipated that this number will soon peak and begin decreasing.

Once again, increased analyst productivity and active case management has resulted in a decrease in the backlog of forensic DNA casework requests, down to 107. It is noted however, that the backlog of biological screening requests now exceeds 200. A year ago, biological screening requests were processed within 60 days and there was virtually no backlog. Loss of an experienced biological screening analyst has resulted in a substantial screening backlog, meaning cases are taking longer to move to the DNA section. The laboratory has recently completed training of a new biological screener and is using FY11 award funds to pay overtime to this person. Additionally, two DNA analysts are currently being trained in biological screening. Therefore, the lab may experience a slight increase in the DNA backlog as efforts are made to shift resources to biological screening.

PROGRESS REPORT 5: July 1, 2012 – December 31, 2012

During this reporting period, the laboratory has spent the remaining funds from this award.

In determining analysis funded under a particular award, the laboratory tracks lot numbers for PP16 primer, AmpliTaq Gold polymerase and EZ1 Investigator reagent cartridges.

As of the end of this reporting period, the laboratory has completed 365 forensic DNA casework requests using funds from this award, exceeding the projected number by 75%.

The laboratory expects to continue experiencing lengthy turnaround times for DNA casework requests as property crimes backlogged for several years are now being processed. The turnaround time for major crimes has decreased slightly, resulting in a slight overall decrease in the turnaround time for DNA casework requests. This may increase slightly in the future, owing to the current backlog of screening requests.

The backlog of forensic DNA casework requests is steady, currently at 114. The laboratory did not experience a decrease during this reporting period owing to being offline during June and part of July while relocating to a new facility. It is anticipated that this backlog will continue to decrease, although more slowly than in previous months, as efforts are made to shift resources to biological screening.

The backlog of biological screening requests is now approaching 300. While a new biological screener, funded with the FY11 award, is now processing screening requests full-time, the number of requests received by the laboratory has increased steadily during 2012. The two DNA analysts being trained in biological screening are expected to come online by the end of 2012. The lab plans to cross-train two additional analysts in 2013 to assist with handling the biological screening backlog. Therefore, the lab may experience a slight increase in the DNA backlog.

FY10 Recipient Name: Alabama Department of Forensic Sciences

Award Number: 2010-DN-BX-K115

Award Amount: \$977,422

Final Report:

This project is still in progress

FY10 Recipient Name: Arkansas State Crime Laboratory

Award Number: 2010-DN-BX-K089

Award Amount: \$655,503

Final Report:

GOALS AND OBJECTIVES OF PROJECT:

The goal is to utilize the Forensic Casework DNA Backlog Reduction Program FY 2010 to decrease turnaround time, increase analyst throughput and decrease the number of backlogged DNA cases.

The objectives are to hire 3 additional Physical Evidence-Serologists to screen evidence for blood and semen and 2 additional DNA analysts to process this screened evidence for DNA upgrade the capillary electrophoresis instruments to increase throughput and decrease processing time by purchasing 3 3500xl

PROGRESS REPORT 1: October 1, 2010 – December 31, 2010

The goal is to utilize the Forensic Casework DNA Backlog Reduction Program FY 2010 to decrease turnaround time, increase analyst throughput and decrease the number of backlogged DNA cases.

Progress Oct. - Dec. 10 - The lab has ordered the 3 - 3500xL from Applied Biosystems. They are set to be installed at the end of Jan. The 3500xLs have already been validated and the lab will be ready for the change over once they are installed and performance checked. The 5 forensic scientists have been hired and are set to start in Jan. We expect to begin to see the impact of the new hires within 6 months.

PROGRESS REPORT 2: January 1, 2011 – June 30, 2011

The goal is to utilize the Forensic Casework DNA Backlog Reduction Program FY2010 to decrease turnaround time, increase analyst throughput and decrease the number of backlogged DNA cases. The objectives are to hire 3 additional Physical Evidence-Serologists to screen evidence for blood and semen and 2 additional DNA analysts to process this screened evidence for DNA upgrade the capillary electrophoresis instruments to increase throughput and decrease processing time by purchasing 3 3500xl.

Progress Jan. - Jun 2011: The 3 3500xl from Applied Biosystems have been installed, performance checked, and are being utilized in processing casework. This objective (increasing throughput and decreasing processing time) is complete.

3 Physical Evidence-Serology analysts and 2 DNA analysts were hired and started on Jan.9, 2011. The 3 Physical Evidence-Serology analysts resigned (4/28, 4/29, 4/29/11). The positions have been advertised. One Physical Evidence-Serology analyst has been hired with a start date of 7/11/11. We are in the process of filling the other 2 Physical Evidence-Serology positions. The 2 DNA analysts are currently training under qualified DNA analysts. They are expected to complete their training in August 2011. This objective is not complete.

PROGRESS REPORT 3: July 1, 2011 – December 31, 2011

The goal is to utilize the Forensic Casework DNA Backlog Reduction Program FY2010 to decrease turnaround time, increase analyst throughput and decrease the number of backlogged DNA cases. The objectives are to hire 3 additional Physical Evidence-Serologists

to screen evidence for blood and semen and 2 additional DNA analysts to process this screened evidence for DNA.

The following changes were made to the grant in this period:

1. Because of problems of retaining the new analysts, we were not spending the salary and fringe categories as quickly as expected. A Budget Modification GAN was approved to utilize some of these funds to pay JusticeTrax LIMS maintenance fees for the Forensic Biology licenses and purchase an EZ1xl instrument.

Items completed during this period:

1. The JusticeTrax maintenance fees for the Forensic Biology licenses have been paid. The EZ1xl has been purchased and received. It is currently undergoing performance checks and will be utilized in casework once these are complete.
2. One Physical Evidence analyst was hired on 7/11/11, completed training on 10/17/11 and began processing property cases for serological evidence.
3. One Physical Evidence analyst was hired 9/19/11 and is expected to complete training 1/10/12. This analyst will process property cases for serological evidence once her training is complete.
4. One Physical Evidence analyst was hired 12/12/11 and is expected to complete training in March 2012. This analyst will process property cases for serological evidence once her training is complete.
5. Two new DNA analysts were hired on 11/14/11 (the 2 DNA analysts that we hired in January 2011- one resigned in Aug. 2011 and the other transferred positions Nov. 2011). These analysts are expected to complete training in July 2012.

Challenges faced during this period:

1. Retaining Physical Evidence and DNA analysts once they are hired and trained. This has set us back on our progress for FY10 funding.

Summary: The turnaround time number for the end of this period looks as if the grant funding is not helping our situation but in fact it is. Now that we have one Physical Evidence trained, she is tackling the property crime backlog. These cases are typically the oldest cases in this section dating back to early 2011. Because she is working these older cases, the turnaround time is higher in this reporting period. We anticipate as the other two physical evidence analysts and DNA analyst are trained and processing cases, the property crime backlog and turnaround time will decrease, causing a decrease in the overall turnaround time.

We have completed all objectives and purchased all equipment in this grant and are requesting closeout of this grant.

FY10 Recipient Name: Arizona Department of Public Safety

Award Number: 2010-DN-BX-K123

Award Amount: \$529,918

Final Report:

GOALS AND OBJECTIVES: The goals and objectives of this grant are to improve DNA sample processing, reduce backlogs and improve CODIS hits by purchasing one laser micro-dissection instrument, one integrated sample handling and extraction robot, an upgrade to one existing robot to an integrated sample handling and extraction robot, 37 DNA lab automation computer workstations and 12 Gene Mapper ID-X software licenses. NOTE: The goals and objectives have been updated as a result of a GAN received in December 2011.

PROGRESS REPORT 1: October 1, 2010 – December 31, 2010

The FY10 Forensic DNA Backlog Reduction Program Award was dated October 1, 2010 as the start date. Since this Grant was awarded to purchase DNA equipment for capacity enhancement purposes, no cases have yet been processed through the use of this award. The procurement process has been initiated, but significant time will be required to purchase the equipment, finish installation, complete instrument validation, etc. Therefore, no expenditures have been made during these first three months of this Grant and no equipment purchased.

PROGRESS REPORT 2: January 1, 2011 – June 30, 2011

During this semi-annual period, January 1, 2011 to June 30, 2011, the AZ DPS Crime Laboratory proceeded with the procurement of one advanced capillary electrophoresis system as specified in the grant application. (Note for clarification: A second capillary electrophoresis instrument was purchased at the same time on the FY09 Forensic DNA Backlog Reduction Program) This FY10 instrument has been installed and the instrument manufacturer, Applied Biosystems, has provided training, including hands on applications. Some test samples have been run, but a full validation must still be completed. The training is provided free with the instrument purchase. Also purchased was the capillary electrophoresis software, including the server license and a 10-pack client license. No supplies were purchased in the reporting period, but will be purchased after July 1, 2011 to complete the validation.

Regarding the second part of the grant, the purchase of a laser micro-dissection instrument, the Arizona State Procurement process has begun, but a system has not yet been purchased. Purchase, installation and validation are planned for completion in the next six months by the end of the grant period, March 31, 2012.

The goals and objectives of this grant were to improve DNA sample processing, reduce backlogs and improve CODIS hits by purchasing the one advanced capillary electrophoresis instrument and a laser micro-dissection instrument. The progress toward the goals of purchasing the items is listed above and the performance metrics are listed on the attached performance metrics form. (Note for clarification: In the prior performance metrics portion of the progress report for October to December 2010, the initial backlog reported (2,261) was an inadvertent carry over of the backlog reported on the FY09 grant (2009-DN-BX-K086). The correct backlog for October 1, 2010 of 2,625 DNA cases was reported on the performance metrics portion of the January to June 2011 progress report.)

PROGRESS REPORT 3: July 1, 2011 – December 31, 2011

During this reporting period July 1, 2011 to December 31, 2011 the Arizona Department of Public Safety Crime Laboratory requested a no-cost grant adjustment. This adjustment was required to effectively utilize the awarded funds and to improve DNA capacity.

The original grant award approved one capillary electrophoresis unit for the DPS DNA Database Unit and Gene Mapper ID-X software licenses for DNA databasing. These items were approved for purchase with FY09 monies on Grant 2009-DN-BX-K086. Therefore, this Grant (FY10 funds) was approved for changes as follows:

- Purchase 12 Gene Mapper ID-X software client licenses for DNA Casework, providing the new software to all DPS DNA Casework analysts (25 licenses in FY09 & 12 licenses in FY10 for a total of 37 licenses for all three Regional Crime Labs performing DNA analysis). The Gene Mapper ID-X software has mixture deconvolution and expert system capabilities included, which the current software does not. Since most casework DNA now involves DNA mixtures, mixture deconvolution software is a direct casework capacity enhancement.
- Purchase 37 DNA lab automation computer work stations. This provides a computer workstation for each DNA analyst located at their laboratory bench space for quickly tracking samples with bar codes making sure they are in the correct location, interfacing with the Crime Lab's LIMS and automation systems which integrate the robots and genetic analyzer systems enhancing analysis throughput times.
- Upgrade one existing Qiagen robot for the Central Regional Crime Lab DNA Casework Unit in Phoenix and purchase a companion Qiagen robot for the Southern Regional Crime Lab DNA Casework Unit in Tucson. These large integrated sample handling and extraction robots greatly enhance capabilities to robotically process samples.

In addition to the changes discussed above the AZ DPS Crime Laboratory System continues with other portions of the Grant previously approved. These portions are as follows:

- Purchase and implement a Laser Microdissection (LMD) microscope to improve the throughput of DNA casework samples, particularly violent crimes involving male/female mixed DNA samples. This LMD method will replace traditional differential extractions to separate male and female cells, will replace DNA quantitation analyses and will replace DNA clean-up procedures as DNA inhibitors are left behind during the microdissection process.
- Purchase supplies to validate two AB 3500xl Genetic Analyzers (capillary electrophoresis) units purchased from the FY09 Grant Award (2009-DN-BX-K086), a Laser Microdissection (LMD) microscope and two large integrated sample handling and extraction robots to be purchased on this Grant, 2010-DN-BX-K123.

As of December 31, 2011, the following has been accomplished now that the GAN's were approved in December, 2011.

- The GeneMapper ID-X licenses were purchased and placed in use for DNA analysts.
- The validation supplies for two new AB 3500XL genetic analyzers were purchased and used to complete the validation, by December 31, 2011. The new 3500 XL instruments were then available to be put into use in January, 2012, to provide a significant capacity enhancement for processing DNA database samples.
- 37 DNA lab automation computer workstations have been ordered with receipt anticipated in January, 2012.

- A Sole Source GAN was approved for the purchase of one new DNA Qiagen robot and the upgrade of a second DNA robot. The order has been placed for these DNA robots.
- The purchase of the laser micro-dissection instrument for enhancing the collection of samples and speeding DNA processing, has been progressing through the Arizona Procurement process with a competitive bid. This instrument purchase should be completed prior to March 31, 2012.

PROGRESS REPORT 4: January 1, 2012 – June 30, 2012

Since this grant award ended March 31, 2012, this progress report covers the three months of January 1, 2012 to March 31, 2012.

As of March 31, 2012, the following was accomplished in the final 3 months of the grant period. All remaining capacity enhancement equipment and supplies were purchased and received. These include:

- 37 DNA Automation computer workstations were received and configured to interface with the AZ DPS Crime Laboratory's Laboratory Information and Management System (LIMS) and with the GeneMapper ID-X Software previously purchased on this grant. GeneMapper ID-X was written to interface with Windows XP, but all new computers now come with Windows 7 and Applied Biosystems, the GeneMapper ID-X Software developer, had to provide an upgrade to allow GeneMapper ID-X to interface with Windows 7. This upgrade was completed by Applied Biosystems and available to AZ DPS in March 2012. Therefore, the migration to the new more efficient DNA Automation workstations took place in March, the final month of the grant.
 - The new DNA Qiagen Sample Handling and Extraction Robot was received and installed. Also, the upgrade of an existing Qiagen Robot to a full Sample Handling and Extraction Robot was completed and installed. Both robots required only minor validations as a previously purchased Qiagen Sample Handling and Extraction Robot underwent a full, detailed validation.
 - The Laser Microdissection instrument for enhancing DNA collection from criminal evidence, particularly sex assaults, was received and installed. This instrument also required a manufacturer's upgrade to Windows 7 to become fully functional. The validation supplies were purchased and utilized in the validation.
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FY10 Recipient Name: Arizona Criminal Justice Commission

Award Number: 2010-DN-BX-K113

Award Amount: \$815,490

Final Report:

This project is still in progress

FY10 Recipient Name: San Diego County, California

Award Number: 2010-DN-BX-K077

Award Amount: \$274,261

Final Report:

GOALS AND OBJECTIVES OF PROJECT:

- Goal 1 - Purchase a microscopic imaging system for screening of sexual assault case evidence.
- Goal 2 - Purchase upgraded computer equipment for the Lab's local CODIS system.
- Goal 3 - Use award funds to provide continuing education opportunities to DNA analysts via a variety of seminars that will satisfy the federal continuing education requirements for DNA analysts. Travel and training expenses will not exceed 5 percent of total award funds.
- Goal 4 - Use award funds to finance the validation of the Lab's Tecan EVO-150.
- Goal 5 - The Lab will use award funds to purchase one-year maintenance agreements for six pieces of DNA analysis equipment acquired with last year's award.

PROGRESS REPORT 1: October 1, 2010 – December 31, 2010

- Goal 1: Progress - A request for bids has been issued through the County's Department of Purchasing and Contracting. We expect to receive the responses to this request, and award a contract for the imaging system, early in 2011.
- Goal 2: Progress - We are coordinating the purchase of four CODIS client computers through our Department's data services division. We expect to purchase an upgraded CODIS server toward the end of the award period.
- Goal 3: Progress - Arrangements are being made to have two DNA analysts attend the 2011 meeting of the American Academy of Forensic Sciences using award funds.
- Goal 4: Progress - A request for bids has been issued through the County's Department of Purchasing and Contracting. We expect to receive the responses to this request, and award a contract for the validation service, early in 2011.
- Goal 5: Progress - We are working with suppliers to purchase maintenance agreements for the described equipment. We expect to complete these purchases early in 2011.

PROGRESS REPORT 2: January 1, 2011 – June 30, 2011

- Goal 1: Progress - A contract to provide the imaging system has been awarded to Nikon Instruments and a purchase order has been placed. We expect to take delivery on the system early in the next reporting period.
- Goal 2: Progress - We have completed the purchase and installation of four CODIS client computers through our Department's data services division. We expect to purchase an upgraded CODIS server toward the end of the award period.
- Goal 3: Progress - Two DNA analysts attended the 2011 meeting of the American Academy of Forensic Sciences using award funds. We were planning to have one analyst attend the spring meeting of the California Association of Criminalists, and another the Bode Advanced DNA Technical Workshop - West. Owing to a scheduling conflict, both these analysts attended the Bode meeting.
- Goal 4: Progress - A contract for validation services has been awarded to Sorenson Forensics, and the validation is currently in progress.
- Goal 5: Progress - All of the planned maintenance agreements have been purchased.

PROGRESS REPORT 3: July 1, 2011 – December 31, 2011

- Goal 1: Progress – The imaging system has been installed and is currently in use.
- Goal 2: Progress - We have completed the purchase and installation of four CODIS client computers and a new CODIS server through our Department's data services division.
- Goal 3: Progress - Two DNA analysts attended the 2011 meeting of the American Academy of Forensic Sciences using award funds. We were planning to have one analyst attend the spring meeting of the California Association of Criminalists, and another the Bode Advanced DNA Technical Workshop - West. Owing to a scheduling conflict, both these analysts attended the Bode meeting.
- Goal 4: Progress – The validation is complete, pending receipt and approval of the final documentation.
- Goal 5: Progress - All of the planned maintenance agreements have been purchased.

FINAL REPORT: January 1, 2012 – June 30, 2012

- Goal 1: Progress – The imaging system has been installed and is currently in use.
- Goal 2: Progress - We have completed the purchase and installation of four CODIS client computers and a new CODIS server through our Department's data services division. We have also purchased several computers and printers for our LIMS, using excess funds transferred from other categories of our award budget (please see GAN #3).
- Goal 3: Progress - Two DNA analysts attended the 2011 meeting of the American Academy of Forensic Sciences using award funds. We were planning to have one analyst attend the spring meeting of the California Association of Criminalists, and another the Bode Advanced DNA Technical Workshop - West. Owing to a scheduling conflict, both these analysts attended the Bode meeting.
- Goal 4: Progress – The validation is complete, and the Tecan instrument is currently in use.
- Goal 5: Progress - All of the planned maintenance agreements have been purchased.

A note about the performance metrics – the rather dramatic increase in our average turnaround time during this reporting period was caused by the completion of a number of very old analysis requests, some of them dating back several years. The availability of overtime funds from our 2011 DNA Backlog Program award made it possible for us to address these requests.

FY10 Recipient Name: Fresno County Sheriff Department, California

Award Number: 2010-DN-BX-K093

Award Amount: \$120,000

Final Report:

GOALS AND OBJECTIVES OF PROJECT:

The goal of this grant is to analyze 20 backlogged cases using the funding provided

PROGRESS REPORT 1: October 1, 2010 – December 31, 2010

This grant was awarded on 9/13/2010. The Fresno County Board of Supervisors accepted this award 10/19/2010.

In order to reduce the DNA case backlog the Sheriff's Department Forensic Laboratory is

using accredited/certified DNA laboratories to analyze the backlogged cases. As we have not closed out the 2009 DNA backlog Reduction Grant, no funds have been encumbered or expended using the 2010 grant. The completion of the 2009 grant is expected in January of 2010, this will allow us to start the 2010 grant in late January or early February.

Within the time frame of this progress report zero backlogged DNA cases have been sent out for analysis and zero have been returned from the vendor after analysis. During this reporting period zero cases were sent for upload into CODIS. During this reporting period we have received zero CODIS hits on these cases.

The goal of this grant is to analyze 20 backlogged cases using the funding provided

PROGRESS REPORT 2: January 1, 2011 – June 30, 2011

This grant was awarded on 9/13/2010. The Fresno County Board of Supervisors accepted this award 10/19/2010.

In order to reduce the DNA case backlog the Sheriff's Department Forensic Laboratory is using accredited/certified DNA laboratories to analyze the backlogged cases. During this period we were able to close out the 2009 DNA backlog Reduction Grant, thus freeing up the funding from the 2010 grant and allowing us to start using this year funds to reduce out backlogged DNA cases.

Within the time frame of this progress report 17 backlogged DNA cases have been sent out for analysis and 7 have been returned from the vendor after analysis. During this reporting period two cases were sent for upload into CODIS. During this reporting period we have received no CODIS hits on these cases.

The goal of this grant is to analyze 20 backlogged cases using the funding provided. We are currently well over half way to our goal for this grant, with almost nine more months left in the grant. We should easily be able to meet or surpass the goals set forth in this grant.

PROGRESS REPORT 3: July 1, 2011 – December 31, 2011

This grant was awarded on 9/13/2010. The Fresno County Board of Supervisors accepted this award 10/19/2010.

In order to reduce the DNA case backlog the Sheriff's Department Forensic Laboratory is using accredited/certified DNA laboratories to analyze the backlogged cases.

Within the time frame of this progress report 19 backlogged DNA cases have been sent out for analysis and 22 cases were returned. A total of 36 cases have been sent out for analysis during the life of this grant. During this reporting period seven cases were sent for upload into CODIS. A total of 9 cases have been uploaded into CODIS during the life of this grant. During this reporting period we have received 2 CODIS hits.

In this process we have found that getting the cases out is not an issue, but getting the cases back from our private vendor has been a speed bump in the process. We have been working through these issues with our service providers. They have been very willing to work with us to get the cases completed in order to meet the goal that we have set for ourselves with these funds.

The goal of this grant was to analyze 20 backlogged cases using the funding provided. We have currently sent out a total of 36 cases which meets and exceeds our goals for these funds.

FINAL REPORT:

This grant was awarded on 9/13/2010. The Fresno County Board of Supervisors accepted this award 10/19/2010.

In order to reduce the DNA case backlog the Sheriff's Department Forensic Laboratory is using accredited/certified DNA laboratories to analyze the backlogged cases.

A total of 39 cases were sent out for analysis during the life of this grant. A total of 12 cases have been uploaded into CODIS during the life of this grant. During this grant period, we have received a total of 4 CODIS hits.

Over the life of this grant we have been working through issues with our service providers to get all of the submitted cases analyzed. They have been very willing to work with us and have worked with us to get the cases completed in order to meet and surpass the goal that we have set for ourselves with these funds.

The goal of this grant was to analyze 20 backlogged cases using the funding provided. We were able to send out a total of 39 cases which meets and exceeds our goals for these funds.

FY10 Recipient Name: Kern County District Attorney, California

Award Number: 2010-DN-BX-K088

Award Amount: \$217,581

Final Report:

GOALS AND OBJECTIVES OF PROJECT:

1. To maintain and/or increase capacity; to decrease TAT
2. To continue to participate in and expand the DNA Property Crime Program
3. Elimination of bottleneck at preliminary screening of evidence
4. Reduce and/or eliminate backlog

PROGRESS REPORT 1: October 1, 2010 – December 31, 2010

The following goals and objectives were set for this award:

1. To maintain and/or increase capacity; to decrease TAT:

The goal of continued support of two (2) forensic science personnel has been met. With the funding provided through the NIJ 2010 DNA Backlog Grant, the Lab was in a position to continue to fund these positions for the remainder of the County's fiscal year. This goal has been met.

Turn-around-time increased from the baseline established September 30, 2010. This is largely due to the 3 holidays during the October through December quarter, which is equivalent to approximately 15 days. The Lab anticipates seeing a reduction in the TAT from this matrix, as there will be less interruptions due to the holidays.

Taking into consideration that as DNA proves more and more valuable in both the identification of suspects and prosecution of those suspects, more and more submissions will be made; however, staff size does not have the opportunity to increase to meet demand. For example, the Lab received in excess of 200 submissions during this quarter as indicated by the table below: Samples Submitted by Offense	Oct-Nov 2010
Theft	7
Sexual Assault	123
Burglary	44
Assault	9
Homicide	24
Grand Theft Auto	5
Robberies	4
Officer Involved Shooting	1
Paternity Testing	3
Attempt Homicide	4
Vehicular Manslaughter	1
Total Submissions	223

2. To continue to participate in and expand the DNA Property Crime Program: The Lab is continuing to participate in the Property Crime program and has extended it beyond the initial agency and pilot program. The Property Crime program has been especially successful and has presented excellent opportunities to obtain DNA, enter those profiles into CODIS, obtain a “hit,” or numerous “hits” related to on-going criminal activity.
3. Elimination of bottleneck at preliminary screening of evidence: The Lab had determined that a bottleneck was created at the screening process for DNA, with the removal of a non-functioning microscope. Included in the RFA was a request to purchase a new multi-functional screening microscope. A number of manufacturers were found, features were reviewed and staff determined that a particular microscope would best fit the DNA section’s needs. Five vendors were sent specifications and asked to submit bids. The microscope will be purchased next quarter when the procurement process has been completed.
4. Reduce and/or eliminate backlog: The baseline 179 backlog submissions were increased by 213, and 227 submissions were completed. The Lab anticipates increased submissions and increased Backlog due to the increased demand for DNA analyses. It is the Lab’s goal to effectively and efficiently reduce, if not eliminate that backlog.

PROGRESS REPORT 2: January 1, 2011 – June 30, 2011

1. To maintain and/or increase capacity; to decrease TAT: The first goal of retaining two qualified experience DNA analysts was met and with funding provided by the NIJ 2010 DNA Backlog grant.

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