

## FY2012 Paul Coverdell Forensic Science Improvement Grants Program Abstracts

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**FY12 Recipient Name:** Alaska Department of Public Safety

**Award Number:** 2012-CD-BX-0056

**Award Amount:** \$63,517

**Abstract:** The goals of this project are to improve the quality and timeliness of forensic science and medical legal death investigation services provided by the State of Alaska Department of Public Safety's Scientific Crime Detection Laboratory (SCDL) and State of Alaska Department of Health and Social Services State Medical Examiner's Office (SMEO) to Alaska's law enforcement agencies and to eliminate or drastically reduce backlogs in the analysis of forensic evidence.

The objectives for this project are to:

1. Maintain the accuracy, reliability, and credibility of results obtained through forensic analysis of samples submitted for identification, and the accurate determination of cause and manner of death.
2. Decrease the number of days between submission of a sample and delivery of test results to the requesting agency.
3. Eliminate/reduce the backlog of samples and unidentified human remains awaiting forensic analysis.

The Alaska Scientific Crime Detection Laboratory and State Medical Examiner's Office proposes to use FFY 2012 Coverdell grant funds to provide training for staff who are directly and substantially involved in providing forensic science services, purchase of equipment directly related to scientific analysis, and to offset the cost of the external accreditation assessment and costs related to annual proficiency tests for analysts.

These items and activities will support the achievement of the goals and objectives of this project.

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**FY12 Recipient Name:** Alabama Department of Economic and Community Affairs

**Award Number:** 2012-CD-BX-0006

**Award Amount:** \$109,915

**Abstract:** The ADFS plans to utilize the FY2012 Paul Coverdell National Forensic Science Improvement Act (NFSIA) "Formula Grant Program" funds to improve its network capability through improved communication speed, its analysis capability through additional laboratory supplies, and its technical capability through increased knowledge and skills learned by the ADFS's personnel and updated operations implemented in its laboratories. Specifically, the ADFS plans to use these funds to attain the goals of (1) improving upon the capabilities of the ADFS's laboratory information management system (LIMS) Information Technology (IT) network by replacing five antiquated network switches, (2) aiding in the reduction of case backlogs via the purchase of morgue and laboratory supplies to be utilized performing autopsies and scientific analysis/ casework, and (3) providing cost-effective training for ADFS internal staff, forensic students, and law enforcement agencies by facilitating the transmission of technical forensic information via seminars, administrative conferences, and meetings, as well as providing training for state-level and federal-level court testimony that will allow the ADFS to make an immediate impact on its abilities to correctly address pending court cases, enhance departmental operations, provide local law enforcement agencies with improved crime scene processing, forensic analysis and investigation services, and produce competent work products from its employees. By attaining these goals, the ADFS will continue implementing its plan to provide its personnel and laboratories with sufficient equipment and resource materials that will improve the ADFS's ability to address the forensic science needs throughout the State.

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**FY12 Recipient Name:** Arkansas Department of Finance and Administration

**Award Number:** 2012-CD-BX-0060

**Award Amount:** \$67,238

**Abstract:** The Arkansas State Crime Laboratory is proposing to use the funding received for training of laboratory personnel.

The **objective** is to improve the quality and timeliness of forensic science and medical examiner services.

The **goals** for achieving this objective are:

1. To increase the analysts' knowledge of new methods and instrumentation and keep the analyst abreast with the latest forensic techniques and trends.
2. Fulfill the laboratory's training requirements to remain accredited and demonstrate to the general public and the criminal justice system that the laboratory output is of the highest quality and that the procedures used meet established standards.

The **strategy** for completing this project is to provide funding for analysts/examiners to attend training in their discipline including Combined DNA Index System (CODIS), Digital Evidence, Field Investigation, Firearms/Tool marks, Forensic Biology, Forensic Chemistry, Illicit Labs, Latent Prints, Medical Examiners, Morgue Technicians, Physical Evidence-Serology & Trace Evidence, Quality Assurance and Toxicology.

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**FY12 Recipient Name:** Benton County (AR)

**Award Number:** 2012-CD-BX-0070

**Award Amount:** \$68,207

**Abstract:** Benton County's proposed project consists of improving productivity and enhancing efficiency of death scene investigations by giving our staff the tools and training necessary to meet and exceed the efficiency standards set by our office. The project objectives are: 1) to process death scenes and document findings quicker, and more accurately; and 2) to improve our staff's skills and increase efficiency in data collection and investigation.

The method for meeting the first objective is to provide the staff with the equipment and supplies needed to process a death scene and document findings quicker, and more accurately. Currently the coroner's office has eight people who work death scene investigations and only five laptops. This causes a hardship because some of the laptops have to be shared, meaning that when an incident occurs, staff must drive to the coroner's office, pick up the necessary equipment, and then drive to the scene. In addition, the coroner's office does not have a professional copy machine for making large quantities of copies. The requested equipment and supplies are items that are needed to process death scenes more efficiently. These items will give the coroner's office the capability to prepare and email reports, and more easily provide photo and DNA documentation. The important pieces of equipment and supplies that are needed include: additional laptops, professional copier, additional camera, air purifier, and supplies for copier, blood collection kits, sealed evidence sheets, DNA matrix cards and body bags for human remains.

To meet the second objective, Benton County's plan to provide the staff with the training necessary to improve their skills in order to increase efficiency in data collection and investigation. The coroner and coroner deputies will participate in various training opportunities to fulfill training requirements and to improve proficiency. Attendance at trainings, professional conferences and workshops will also assist the Coroner's office in keeping current with new technologies.

This funding will provide the Coroner's Office with the means to meet the objectives of this project; therefore, improving productivity and enhancing efficiency of death scene investigations. These

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additional resources will increase the efficiency of evidence screening and processing of a death scene. The subsequent expected outcomes will be increased efficiency in processing the death scene, and enhancement in report writing, all of which will lead to increased productivity and more timely quality service. Running the Coroner's Office with more efficiency and added technology enhancements will provide the citizens in our county with a modern, more sophisticated operation at a lower cost to the taxpayers.

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**FY12 Recipient Name:** Arizona Criminal Justice Commission

**Award Number:** 2012-CD-BX-0016

**Award Amount:** \$148,357

**Abstract:** The Arizona Criminal Justice Commission (ACJC), as the State Administering Agency for Department of Justice funding, is applying to the Paul Coverdell Forensic Science Improvement Grant Program on behalf of the Arizona Department of Public Safety Crime Laboratory, two local forensic laboratories, and one county medical examiner's office as a collaborative effort to standardize the state and local laboratories. Following a state strategic plan for the forensic laboratory improvements, the grant funding will further the state's ability to improve the quality and timeliness of forensic science and medical examiner services.

In order to improve crime laboratories throughout the state of Arizona, the Paul Coverdell Grant funds will be used for training and educational opportunities, personnel overtime, and laboratory certification fees. Agencies working in this collaborative effort include Arizona Department of Public Safety Crime Laboratory, Mesa and Phoenix police department crime laboratories and the Maricopa County Office of the Medical Examiner. With the grant funding, laboratories will meet components of the state strategic plan for the forensic laboratory improvements through recommendations to annually dedicate funding for training programs and overtime to reduce backlogs to add efficiency and quicker turnaround times to address caseloads.

The laboratories have an essential need for funding to provide education and certification for the forensic examiners. Newly hired forensic scientists must spend a minimum of six months and as much as two years receiving formal scientific education and training to become proficient in examining evidence; reaching accurate, valid conclusions; and being accepted as an expert witness in Arizona's courts. Current forensic scientists must maintain their credentials as expert witnesses; remain current with the latest techniques as demanded by investigators, prosecutors and courts; and meet and maintain laboratory accreditation guidelines. None of this may be accomplished without training and education. Funding to send examiners to classes, conferences and seminars around the country or by bringing ongoing training to regional locations are priorities of the laboratories as specified in the state strategic plan for the forensic laboratory improvements.

The Arizona Criminal Justice Commission (ACJC) is applying for and will manage grant funds on behalf of each of the four sub-grantee agencies. ACJC provides grant oversight and is responsible for reporting to the National Institute of Justice (NIJ) on grant progress. Upon receipt of grant funds, ACJC will award contracts to each of the four agencies. Funds will be reimbursed quarterly after submission of progress and financial reports by each laboratory.

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**FY12 Recipient Name:** California Emergency Management Agency

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**Award Number:** 2012-CD-BX-0043

**Award Amount:** \$ 862,611

**Abstract:** California's State and local forensic laboratories play an essential role in California's criminal justice system. The credibility of each forensic laboratory and medical examiner's office relies on the quality of forensic results produced, while providing those results to the requesting agency in a timely manner. Individuals in the forensic and medical examiner community must be knowledgeable in the scientific field, technically skilled, and ethically sensitive in order to perform duties at their highest potential. As technology constantly grows and new, more advanced techniques to process evidence are introduced, professional forensic scientists need to be kept abreast on new developments in their respective forensic disciplines through continuing education and training opportunities on a continuous basis.

Among the many challenges facing California's forensic laboratories today, budget cuts and the turnover of qualified personnel to cover core components of forensic analysis have negatively impacted laboratories and medical examiners' offices around the state. The 2012 Paul Coverdell Forensic Sciences Improvement Grant addressed by this application is a comprehensive forensic science improvement program that affords each qualifying forensic laboratory in California an opportunity to improve on their efficiency and effectiveness to provide forensic science services. California seeks to maintain an emphasis on the investigation of crime through the scientific examination of physical evidence and through the ability to recognize the need for well-trained criminalists and effective crime laboratories equipped with state-of-the-art technology. Through the improvement of the quality and timeliness of forensic services, the reduction of the number of backlogged cases, and the sustained education and training of forensic personnel, California's forensic laboratories will continue to provide a valuable tool to law enforcement and prosecutorial agencies throughout the state.

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**FY12 Recipient Name:** Sacramento County (CA)

**Award Number:** 2012-CD-BX-0028

**Award Amount:** \$165,000

**Abstract:** The goal of the Sacramento County District Attorney Laboratory of Forensic Services (hereafter referred to as crime laboratory) 2012 Paul Coverdell Forensic Sciences Improvement Grant program (hereafter referred to as Coverdell) is to improve the quality and timeliness of the forensic laboratory services - in particular improve case turnaround time and reduce or eliminate backlogs of trace evidence cases in the crime laboratory.

The primary objective of the crime laboratory's application for 2012 Coverdell funding is to improve the quality of elemental analysis in trace materials by replacing an laser ablation (LA) system that is rapidly approaching its end of its service life. The present system has been experiencing a significant increase in down time that is increasing turnaround time and backlogs for trace evidence cases needing this type of quantitative elemental analysis. This replacement will allow the laboratory to continue to be the only resource for this type of analysis for the western region of the United States. This objective entails a cost effective upgrade and replacement of existing laboratory equipment to improve overall casework quality and productivity.

Objective 1: Replacement of the crime laboratory's existing laser ablation (LA) system with a more technologically advanced analytical instrument.

At the present time, this laboratory is the only public forensic laboratory in the western region of the United States that has the capability of providing quantitative elemental analysis on trace material using

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laser ablation – inductively coupled plasma mass spectrometry (ICP-MS). The existing laser ablation system is outdated and frequently out of service for weeks and sometimes months at a time.

The existing laser head has already been rebuilt four times. This severely impacts turnaround time for casework samples and increases backlog in trace evidence. Replacement of the laser ablation system will allow the laboratory to continue to analyze trace evidence samples without long delays due to repairs or significant rebuilding of the existing laser system. This should effectively eliminate the backlog for cases requiring this type of analysis, for example glass cases. The crime laboratory has identified the purchase and installation of a new laser ablation system which will trace evidence case turnaround times, and will facilitate the continuation of providing quantitative elemental analysis in this region.

The project timeframe is October 1, 2012 through September 30, 2014

- October 2012 – December 2012 equipment purchases will be completed
- December 2012 – March 2013 validate the new system and train staff on its use
- April 2013 – September 2013 use of the new laser ablation system on casework

The crime laboratory has a solid reputation for successfully completing NIJ funded research projects, DNA backlog grant projects, and Coverdell grant programs. It is expected that this proposal - if funded - will produce similar successes.

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**FY12 Recipient Name:** Division of Criminal Justice Services (CO)

**Award Number:** 2012-CD-BX-0048

**Award Amount:** \$117,102

**Abstract:** Colorado's first and primary objective for these funds is to assist laboratories in their efforts to improve current operations in the quality and/or timeliness of forensic science services provided throughout the state. These funds will specifically support one state department, the Colorado Bureau of Investigation, and four units of local government, the City of Denver, Denver Police Department, Crime Laboratory Bureau, the Arapahoe County Coroner's Office, the Weld County Sheriff's Department, in partnership with the Northern Colorado Regional Forensic Laboratory (NCRFL), and the City of Colorado Springs, Metro Crime Laboratory (MCL).

The **Colorado Bureau of Investigation (CBI)** is requesting Coverdell base funds for the following objectives: 1.) Maintain the current ASCLD-LAB Legacy Accreditation by funding the 2013 accreditation fees for all CBI laboratories; 2.) Provide external proficiency testing to all casework-qualified forensic scientists working in the laboratory system; 3.) Provide discipline-specific training to forensic staff and forensic managers working in the CBI laboratory system.

The **Denver Police Department (DPD)**, Crime Laboratory Bureau is requesting Coverdell base funds to retain an administrative assistant for the laboratory so that the burden of data entry and other administrative tasks for forensic scientists are minimized.

The **Arapahoe County Coroner's Office** is requesting Coverdell base funds for the purchase of an Olympus BX43 LED Brightfield Microscope in order to help them reach their goal of earning accreditation by the National Association of Medical Examiners (NAME).

The **Weld County Sheriff's Department, in partnership with the Northern Colorado Regional Forensic Laboratory (NCRFL)** is requesting Coverdell base funds for travel and training in order to

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provide a mandatory level of training to staff as prescribed in each discipline, as well as training needed for certification or re-certification in support of their continuing ISO 17025 accreditation efforts.

The **Colorado Springs Police Department, Metro Crime Laboratory (MCL)** is requesting Coverdell base funds for travel and training in order to provide training and continuing education to staff, as well as training needed for certification or re-certification.

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**FY12 Recipient Name:** Department of Emergency Services and Public Protection (CT)

**Award Number:** 2012-CD-BX-0005

**Award Amount:** \$81,947

**Abstract:** Connecticut's forensic science laboratory system is administered by the Department of Emergency Services and Public Protection's (DESPP) Division of Scientific Services. The Division of Scientific Services consists of the Forensic Science Laboratory, the Controlled Substances and Toxicology Laboratory, and the Computer Crimes and Electronic Evidence Laboratory.

Connecticut has determined that the best and most effective uses of the 2012 Coverdell grant are:

1. Professional development (training/conferences) activities
2. A new Mideo Systems, Inc. Incoming Evidence Documentation Imaging System (IEDIS) with JusticeTrax Laboratory Information Management System (LIMS) interface for evidence receiving
3. Purchase of an HP ProLiant ML350 Gen8 Rack server (and software) to support the IEDIS

These purchases and activities will support improvement in the quality and timeliness of forensic analysis at the Division of Scientific Services.

As states continue to experience fiscal constraints and financial burdens, one area that is often cut is professional development and training. In an effort to ensure that Division of Scientific Services personnel are learning new advances in the field of forensics, DESPP is requesting Travel and Other funds to send staff to training and conferences. This will include, but not limited to the Association of Firearm and Toolmark Examiners (AFTE), the American Academy of Forensic Sciences (AAFS), the Law Enforcement and Emergency Services Video Association (LEVA), and the International Association for Identification (IAI). DESPP's Division of Scientific Services will use grants funds to support compliance with ISO standards accreditation in the areas of personnel professional development (training/conferences) and equipment purchase (and related expenses). The Division of Scientific Services will continue the professional education of its staff beyond the required in-house competency training and annual proficiency testing, consistent with its quality manual. Training in various venues provides the opportunity for each member of the Division to enhance his or her scientific skills and to apply these techniques to further the mission and objectives of the Division. The new equipment should increase productivity and improve available services. These initiatives will continue state-of-the-art efforts and advancements to enhance service quality and efficiencies to the State's Forensic Science Laboratory and the entire criminal justice system.

The Mideo Systems, Inc. IEDIS is an engineered configuration of an autofocus digital camera, articulated Flexarm, imaging computer, and Mideo EZDoc 2.0 LIMS-Connect Imaging Workflow Software (IWS) with JusticeTrax LIMS interface. Each component is fine-tuned by Mideo Systems, Inc. to work as part of a single solution for image acquisition, documentation, enhancement, comparison, print output, and submission to JusticeTrax LIMS. The IEDIS provides analysts with a seamless method for documenting various types of incoming evidence. Analysts can view live digital image information in real-time on a

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high-resolution display monitor. The digital camera is controlled through an easy-to-use, integrated software interface. The real-time visual display reduces the time it takes an analyst to optimize the evidence image for capture. The IEDIS features the EZDoc 2.0 LIMS-Connect IWS. The LIMS-Connect software was designed from the viewpoint of how digital cameras are used in the crime lab workflow and makes the digital documentation of evidence fast and efficient. The server and software will support the IEDIS.

The Coverdell grant has been instrumental in providing the Forensic Science Laboratory with additional funding it would ordinarily have to invest in capital equipment that advances the field of forensic analysis. Additionally, this funding has augmented our capability to expand and enhance our forensic examiners' professional development.

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**FY12 Recipient Name:** District of Columbia Government

**Award Number:** 2012-CD-BX-0009

**Award Amount:** \$63,517

**Abstract:** The Justice Grants Administration, the District of Columbia State Administrating Agency, is submitting the Coverdell application in collaboration with the Office of the Chief Medical Examiner and the Metropolitan Police Department. The District of Columbia is dedicated to improving the quality and timeliness of forensic science and medical examiner services, and has outlined separate project activities with these two agencies that will help to best accomplish this goal.

### **District of Columbia Office of the Chief Medical Examiner: Driving under the Influence of Drugs and Alcohol Training for Toxicologists.**

Driving under the influence of drugs and alcohol has been recognized as a major public safety issue worldwide. In order to combat impaired driving, individuals and laboratories testing specimens for drugs of abuse and alcohol must be fully educated about effects of alcohol and drugs on the human body. In addition, forensic scientists must continually update their education about current trends in abused substances, the best practices for determining the presence and concentration of those substances, and the legal structures and practices which surround driving under the influence (DUI) and driving under the influence of drugs (DUID) casework.

Preparative training for DUI and DUID testimony is extremely specific and difficult to find. Due to the forensic and scientific nature of DUI and DUID specimen analysis, it is difficult for agencies to obtain internal training resources which can aid a toxicologist in preparing for court room testimony. Indiana University's Center for Studies of Law in Action currently offers two courses which meet these needs: the Medicolegal Death Investigator Training Course on Alcohol and Highway Safety and the Medicolegal Death Investigator Training Course on the Effects of Drugs on Human Performance and Behavior. The District of Columbia Office of the Chief Medical Examiner (OCME) is requesting this training, along with associated travel, for three (3) forensic toxicologists in order to improve the quality and availability of DUI and DUID toxicological testimony in the District of Columbia.

### **District of Columbia Office of the Chief Medical Examiner: Digitization of Medical Examiner Paper Records**

Historic records management is a complex and difficult ongoing project for the D.C. Office of the Chief Medical Examiner (OCME). In order to meet modern investigative and legal demand for information, it is crucial for older systems to adapt to newer technology. Updating the accessibility of medical examiner case files can contribute to vast improvements in the speed and quality of services provided by agencies and individuals requiring historical documents. These agencies and individuals include: next of kin,

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courts, epidemiological researchers, cold-case homicide investigators and many others. In order to improve the quality and timeliness of records retrieval services, in 2010, the OCME began the process of digitizing and indexing agency historical medical examiner case file records from 1972 to present day using contracted services. This application is a request for funds to continue the project.

### **District of Columbia Metropolitan Police Department: Firearms Examiner Contract Support**

The Metropolitan Police Department (MPD) receives on average 2,000 firearms yearly and most of the violent crime committed in the District of Columbia is firearms related. More than half of the firearms processed through the MPD Firearms and Fingerprint Examination Division (FFED) Firearms Examination Section (FES) are semi-automatic weapons with high magazine capacities, and as a result, more items of evidence are submitted for examination. Due to competing local federal agencies, the lack of trained and qualified personnel, the large volume of violence involving a firearm, and a lack of discretionary resources, the MPD, FFED, FES currently has a 617 evidence case backlog and only three (3) qualified firearms examiners to complete the work of all firearms related cases in the District. The MPD is committed to hiring employees to fill the vacant positions once resources become available. However, until these vacancies are filled, it is necessary to have qualified contract firearms examiner(s) that can assist in reducing this backlog so this important evidence can be used to help solve criminal cases.

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**FY12 Recipient Name:** Executive Office of the Governor of DE

**Award Number:** 2012-CD-BX-0052

**Award Amount:** \$63,517

**Abstract:** The Criminal Justice Council (CJC) is the applicant/fiscal agent for these funds and proposes to utilize the formula grant funding of \$63,517 for FY12 to fund an as of yet unknown agency to provide services in conjunction with the intent of the Coverdell funds.

A request for proposals (RFP) will be written and distributed throughout the state through the various CJC listservs and the agency website to ensure thorough dissemination of this funding opportunity. The entirety (100%) of grant funds will be sub-awarded to provide services intended to: improve the quality and timeliness of forensic science and medical examiner services, eliminate backlogs in the analysis of general forensic evidence and/or train and employ forensic laboratory personnel to eliminate backlogs for a period of one year.

Due to the amount of funds available, the CJC has prioritized that funds be used for the elimination of backlogs, personnel, laboratory equipment, computerization and training. Funds will not be used for the renovation or construction of any facilities. At this time, there is one state Office of the Chief Medical Examiner (OCME). For this reason it is inundated with cases and some agencies are beginning to contract with outside agencies for forensic analysis. Although the OCME maintains responsibility for entering cases into CODIS, the actual analysis is being contracted elsewhere. Based on preliminary information gathering, if the funds received are not sub-awarded to the OCME, they will most likely going to a state or local law enforcement agency. Until proposals are received by the Criminal Justice Council, it cannot be stated with certain who will be sub-awarded these grant funds.

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**FY12 Recipient Name:** Florida Department of Law Enforcement

**Award Number:** 2012-CD-BX-0018

**Award Amount:** \$436,148



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**Abstract:** Florida is the nation's fourth most populous state<sup>1</sup>; and with more than 85 million annual visitors, it is one of the top tourist destinations in the world.<sup>2</sup> Residents and visitors are distributed across sixty-seven urban and rural counties, contributing to complex challenges for approximately 500 Florida criminal justice agencies. According to Uniform Crime Report statistics, these agencies reported 770,518 index crimes in 2010, a decrease of 6.6% from 2009. Despite the decrease, Florida's reported crime volume for 2010 surpassed that of all states except California and Texas, and produced 74,979 requests for forensic services in 2011.

Requests for forensic services are handled by seven Florida Department of Law Enforcement (FDLE) regional crime laboratories, and five county laboratories (Miami-Dade, Broward, Palm Beach, Pinellas, and Indian River) that are part of Florida's crime laboratory system. Florida's State Fire Marshal handles arson investigations, and death investigations are handled by one of 24 district medical examiners who are governed by the Florida Medical Examiners Commission (MEC). FDLE serves as staff for the MEC. FDLE will submit application for the Paul Coverdell Forensic Science Improvement Grant formula funds (Coverdell) on behalf of all agency members of Florida's crime laboratory system, State Fire Marshal and MEC. These partners have agreed to a distribution methodology that provides a base amount of funding to Florida's Medical Examiners, with the remaining funds to be distributed to the state and local crime laboratories on the basis of population served. The state share of funds will be distributed between the FDLE crime laboratory system and the Florida State Fire Marshal, Department of Financial Services, Bureau of Forensic Fire and Explosives Analysis based on percentage of population served

Although better case management, streamlined processing, and increased case work capacity, have helped laboratories increase output and reduce backlogs in some disciplines, and slow the growth of backlogs in others, large numbers of pending cases remain throughout the state laboratory system. Medical examiners are facing the challenge of providing timely services to meet the increasing volume of service requests within their respective districts due to outdated technology and limited resources. Through self-assessment, the state and local laboratories and medical examiner offices have identified and prioritized their agencies' needs, and are requesting Coverdell funds for temporary personnel, overtime, equipment, training, supplies and contract services to improve the quality and timeliness of forensic and medical examiner services throughout the State.

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**FY12 Recipient Name:** Broward County (FL)

**Award Number:** 2012-CD-BX-0025

**Award Amount:** \$19,996

**Abstract:** The District 17 Medical Examiner's Office, located in Fort Lauderdale, is part of Florida's statewide medical examiner system and operates as an agency within Broward County government. The Office is tasked with investigating all violent, suspicious, unnatural and unattended deaths, and performing toxicology testing on both medical examiner- and non-fatal law enforcement cases. The annual workload for the toxicology staff consistently ranks in the top three of all Florida counties.

Broward County is requesting funds to obtain continuing medical education, re-certifications, and trainings for the Medical Examiner's staff, in order to enhance their knowledge base and improve the quality and timeliness of services. Funds will be used to send: (A) two forensic pathologists to the 2013 meeting of the National Association of Medical Examiners (NAME) in Milwaukee, Wisconsin; (B) two medico legal death investigators to the American Board of Medico legal Death Investigators (ABMDI), Master 15 Conference, in St. Louis, Missouri; (C) two Forensic Toxicologist II staff to the annual meeting

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of the Society of Forensic Toxicologists (SOFT) in Orlando, Florida; and (D) two medical examiner staff to the American Academy of Forensic Sciences (AAFS) Annual Meeting in Washington, DC. These conferences offer several accredited workshops with specific topics in forensic science and toxicology. The information obtained will be disseminated throughout the Medical Examiner's Office to improve efficiency, readiness, and service to law enforcement, legal authorities, decedents and their families. The provision of additional knowledge for the investigative, toxicology, and physician staff can help move cases along more quickly and reduce potential case backlogs.

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**FY12 Recipient Name:** Miami Dade County (FL)

**Award Number:** 2012-CD-BX-0024

**Award Amount:** \$175,000

**Abstract:** One of the most widespread and increasingly complicated challenges facing postmortem forensic toxicology in the 21st century across the entire nation and especially in South Florida is the detection of designer drugs and potent complex pharmaceuticals in death investigations. Toxicologists are charged with the daunting task of effectively screening and measuring these "new" drugs at low levels in human fluids and tissues in order to best guide the medical examiner in determining the cause of death.

The Miami-Dade County (Florida) Medical Examiner Department, an operation that has been serving the entire South Florida area for more than 50 years, is requesting grant funding support for the purchase of a high tech liquid chromatograph ion trap mass spectrometer (LCMSMS) capable of MS<sup>n</sup> analysis to replace antiquated technology that is currently being used by its team of toxicologists. The new technology will significantly improve the quality and timeliness of the medical examiner services and facilitate the elimination of a backlog in the postmortem forensic toxicology analysis. The increased demand on the Miami-Dade County toxicology laboratory (the "Laboratory") is overwhelming with the surge in drug-related deaths (pharmaceutical and illicit designer) representing more than 80% (1,600) of the 2,000 cases processed last year and with more than 35% of cases requiring extensive analysis/further tests due to the complex combinations of drugs.

The Laboratory will acquire and incorporate the LCMSMS technology into its testing protocols methods to achieve the following program objectives:

1. Detect, identify, and measure low concentrations of complex pharmaceuticals in blood and tissue.
2. Detect, identify and measure low concentrations of the cathinone phenethylamines, piperazines, tryptamines and atypical amphetamine phenethylamines; including stimulants normally associated with "bath salts"
3. Detect, identify and measure low concentrations of cannabinoid analogs normally found in products labeled as "K2" and "Spice".
4. Reduce testing procedures (currently 6 to 10 tests per case) and reduce the turnaround time required to process these complicated cases (currently from 35 to 65 days).

The new technology will yield several positive outcomes, which are tracked in performance measures, including: (1) improved throughput and reduced turnaround; (2) excellent quality of results; and (3) decrease cost for materials. The new technology has an extremely fast scan speed and robust sensitivity yielding the best results in simultaneous identification and quantification. This reduces the need for additional analyses (tests) and improves the overall processing time. Reduced preparation time, comprehensive screening and quantification, and the elimination of redundant analyses are all essential to reducing case turnaround and backlog. The overall characteristics and benefits of this technology make it the optimal choice for meeting the needs of the project.

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**FY12 Recipient Name:** Pinellas County (FL)

**Award Number:** 2012-CD-BX-0030

**Award Amount:** \$84,526

**Abstract:** The Pinellas County Sheriff's Office (PCSO), like many law enforcement agencies across the nation, has had to make agency budget cuts and realignment of personnel as a result of the economic downturn over the last few years. As a direct result, several Divisions within PCSO had positions eliminated and the agency's Latent Fingerprint Section was not spared. One Latent Print Examiner position was eliminated due to budget cuts while another position has been devoted primarily to the examination of evidence in prescription fraud cases as Pinellas County has had a tremendous increase in these types of cases over the past several years. Therefore, PCSO is seeking funds through the Paul Coverdell Forensic Science Improvement Grant to improve the quality and timeliness of the Latent Fingerprint Section through a reduction in backlog cases.

The goal is to increase the quality of services provided to the law enforcement community by eliminating the backlog of cases. The objective is to fund overtime for 7 members of the Latent Fingerprint Section to work on the backlog cases thereby increasing timeliness of services. The plan of action to address the existing backlog is to have the current trained staff of 6 Latent Print Examiners and the Fingerprint Records Manager work on an overtime basis to analyze the backlog cases. The Fingerprint Records Manager, acting as Project Director for *Latent Print Backlog Reduction* will provide oversight, prepare required reports for submission to NIJ, assist in decreasing the backlog and develop a spreadsheet to track the number of backlog cases worked to include: the type of case/crime, the initial date received, the date(s) and overtime hours spent working on the case, and the date of completion. In order to track the anticipated reduction of 75% of the backlog cases, reducing the backlog from 750 cases to 188 cases, the Project Director will log the number of backlog cases at the beginning of the project and the number of backlog cases at the end of the project in order calculate the percentage of reduction for reporting purposes.

PCSO recognizes the importance of timely latent print results in criminal investigations, and if awarded funds through the Coverdell Forensic Science Improvement Grant will improve the quality and timeliness of services to law enforcement by reducing the number of cases in backlog.

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**FY12 Recipient Name:** Georgia Criminal Justice Coordinating Council

**Award Number:** 2012-CD-BX-0063

**Award Amount:** \$224,629

**Abstract:** The Criminal Justice Coordinating Council submits this application on behalf of its partner state agency, the Georgia Bureau of Investigation (GBI). GBI's Division of Forensic Sciences (Crime Lab) operates 7 laboratories located throughout the state. The laboratory system serves the entire state, which has a population of approximately 9.8 million;1 the Crime Lab also issues reports to approximately 1,000 criminal justice agencies.

Through this grant, the Crime Lab proposes to purchase two (2) gas chromatograph/mass spectrometers (GCMS) and a high performance liquid chromatograph (HPLC) for the Chemistry Department. The equipment will work towards the attainment of the goals stated in the Crime Lab's 2012 Strategic Plan. The Strategic Plan outlines the Crime Lab's commitment to:

1. Enhance and improve the workplace environment to be more conducive to the recruitment and development of Crime Lab employees;

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2. Foster an organizational culture focused on the quality and integrity of forensic analysis;
3. Analyze incoming evidence submissions in a time frame necessary to meet investigative needs and the requirements of court presentation; and
4. Expand the lines of communication between laboratory staff, customers and stakeholders.

As identified strategies specified to attain these goals, the equipment will 1) provide adequate, up-to-date, scientific instrumentation to complete analyses as requested and 2) enable the Crime Lab to provide 90% of laboratory reports within 45 days of evidence submission.

The Crime Lab proposes to use 2012 Paul Coverdell grant funds to purchase equipment that will assure quality forensic analysis and further assist the Crime Lab in its responsibility to meet needs specifically related to drug offense investigations. The proposed equipment includes:

- Two (2) gas chromatograph/mass spectrometers (GCMS) to identify the presence of drugs in a sample; and
- One (1) high performance liquid chromatograph (HPLC) to quantify the purity of drugs (e.g., cocaine or methamphetamine) in a sample.

The equipment requested is imperative to attaining the Crime Lab's Strategic Plan goals to provide timely analysis of evidence submissions and to focus on the quality and integrity of forensic analysis.

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**FY12 Recipient Name:** Guam Bureau of Statistics and Plans

**Award Number:** 2012-CD-BX-0044

**Award Amount:** \$63,517

**Abstract:** The scope of this proposal is to help improve and enhance the quality and timeliness of forensic science services in Guam by providing support for laboratory equipment and supplies for DNA Testing, and to assist the laboratory to achieve accreditation under the ISO/IEC 17025 certifying the laboratory's compliance with established technical, quality and security standards.

The objectives are the following:

1. To enhance the Guam Police Department Laboratory ability to conduct DNA testing by providing for DNA testing equipment and supplies; and
2. To contract services with the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD-LAB) and/or Forensic Quality Services (FQS) or other appropriate accrediting bodies to provide accreditation for laboratory under the ISO/IEC 17025 certifying the laboratory's compliance with established technical, quality and security standards.

For objective 1, the Guam Police Department Forensic Sciences Laboratory will purchase two bench top Barnstead Nano pure Diamond Life Sciences UV/UF systems with Total Organic Carbon water purifier, four replacement UV lamps, four final filters, and two replacement diamond cartridge kits supplies to provide for ultra-pure water needed for DNA Testing. The ultra-pure water equipment and supplies will ensure the new DNA laboratory facility will have the essential forensic equipment to process DNA evidence.

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To meet objective 2, the Guam Police Department Forensic Sciences Laboratory will seek contractual services with the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD-LAB) and/or Forensic Quality Services (FQS) or other appropriate accrediting bodies to provide accreditation for laboratory under the ISO/IEC 17025 certifying the laboratory's compliance with established technical, quality and security standards.

Support of this proposal will assist the Guam Police Department Forensic Sciences Laboratory in increasing the laboratory capability and efficiency to conduct DNA processing and to provide accreditation for laboratory under the ISO/IEC 17025 certifying the laboratory's compliance with established technical, quality and security standards. The Guam Police Department Forensic Science Laboratory is being expanded to include a DNA laboratory facility. The new DNA laboratory facility will need to be equipped with forensic DNA equipment to process DNA evidence. Grant funds will be used to implement a water purifier system to enable the DNA facility to produce ultra-pure water for DNA evidence processing. The laboratory is pursuing accreditation; grant funds will be used for contractual services with an appropriate accrediting body to assist the laboratory to achieve accreditation.

The program evaluation criteria will consist of the successful implementation of the equipment and supplies for DNA processing and analysis; and successful implementation of the contractual services to achieve accreditation.

The program outcomes and effectiveness of the project will be based on the efficiencies that the Forensic Science Division will experience with the implementation of the forensic DNA equipment and supplies, and accreditation preparation. The anticipated outcomes of this program are the following:

- Increased forensic quality of processed case evidence; and
- Increased laboratory efforts towards achieving accreditation.

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**FY12 Recipient Name:** Hawaii Department of the Attorney General

**Award Number:** 2012-CD-BX-0047

**Award Amount:** \$63,517

**Abstract:** The Department of the Attorney General, the designated State Administering Agency (SAA), is seeking State formula (base) funding through the 2012 Paul Coverdell Forensic Science Improvement Grants Program (Coverdell) to improve and enhance the quality and timeliness of forensic science services in Hawaii. The Department of Attorney General is requesting \$34,575.00 to support the Department of Public Safety, Narcotics Enforcement Division's Forensic Laboratory (NEDFL).

Thirty-one thousand, one hundred eighteen dollars (\$31, 118.00) will be utilized to support the improvement and enhancement of the NEDFL services. Objectives for the NEDFL's project are: 1) to improve and expand upon the laboratory information management system (LIMS) capabilities, 2) to fulfill NED's commitment to laboratory personnel professional development by providing training opportunities to develop forensic knowledge, abilities, and credibility, thereby maintaining professional certification in forensics, 3) to develop additional analytical methods in the areas of latent print and alcoholic beverage analysis, and 4) to expand the laboratory's scope of accreditation through the addition of forensic services including latent print and alcoholic beverage analysis.

To achieve these objectives, Coverdell funds will be used to cover the use of a contractor who will implement LIMS customization services and other IT support. Other items include the purchase of two additional LIMS user licenses, LIMS backup server and related software, travel and registration costs for two staff to attend four trainings including ASCLD/LAB-International Measurement Confidence Level 200 Measurement Uncertainty Course, Clandestine Laboratory Investigating Chemist Annual Technical

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Seminar, Association of Forensic Quality Assurance Managers, and the Drug Enforcement Administration Symposium; drug standards and laboratory supplies that will assist in the development of analytical methods; and testing and recertification fees in order to increase the NEDFL's scope of accreditation. NEDFL is committed to the maintenance and continual improvement of the quality of forensic services it provides to the law enforcement community. In doing so, NEDFL endeavors to expand the scope of services it provides and to attain internationally recognized accreditation of these new services. NEDFL also plans to maintain and expand the use of its LIMS to incorporate these new services, continue active participation in professional organizations and forensic education opportunities, develop new analytical methods and participate in professional certification programs. These improvement activities are necessary to enhance and positively influence the quality and efficiency of laboratory services.

Three thousand, four hundred fifty-seven dollars (\$3,457.00) will be utilized to support administrative costs for the Department of the Attorney General as the SAA. Funds will support a portion of the salary and associated fringe benefits cost for the staff responsible for overseeing Coverdell funded contracts, and travel costs necessary for neighbor island staff participation in quarterly meetings attended by various forensic science personnel throughout the State of Hawaii.

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**FY12 Recipient Name:** Iowa Governors Office of Drug Control Policy

**Award Number:** 2012-CD-BX-0040

**Award Amount:** \$230,674

**Abstract:** Funding is requested to support the Iowa Department of Public Safety, Division of Criminal Investigation, Criminalistics Laboratory and the Department of Public Health, State Medical Examiner's Office.

The Iowa Department of Public Safety, Division of Criminal Investigation, Criminalistics Laboratory is the only accredited crime lab servicing Iowa's criminal justice system.

The 2012 Base Award will be utilized by the Iowa Department of Public Safety, Division of Criminal Investigations' Criminalistics Laboratory to hire an evidence technician and provide overtime for scientists to clear cases.

Coverdell funding will be used by the Iowa Criminalistics Laboratory to provide continuation funding on a part-time basis for an evidence technician. The evidence technician assists the lab in reducing case turnaround times by eliminating bottlenecks in the evidence room and relieving criminalist of certain evidence management duties.

The evidence technician was hired in the current fiscal year using Coverdell formula grant funds. The technician has participated in on the job training and is now a fully functional and valuable member of the lab team.

Coverdell funding will also be used to support overtime for lab staff to work cases which will reduce backlogs and reduce the average case turnaround time. Grant overtime funding is expected to be prioritized to those sections of the lab with the greatest backlog and highest turnaround times.

The Iowa Office of the State Medical Examiner is a state entity that is physically located in the center of the state and provides autopsy service and death investigation consultation for the County Medical Examiners.

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In addition to autopsies and consultations, the State Medical Examiner's Office is also responsible for establishing death investigation guidelines and training for county Medical Examiner Physicians and County Medical Examiner Investigators. When a death occurs in Iowa that falls under Medical Examiner jurisdiction, by law the County Medical Examiner is called to investigate. Because of the demands on physician's time, many counties have county investigators, non-physicians who are hired by the county and are responsible for actually going to the scene and collecting information and evidence related to the death.

The 2012 Base Award will be utilized by the Iowa Department of Public Health, to provide continuation funding for a part-time Autopsy Technician.

The 2012 Coverdell award will be used to continue the employment of an autopsy technician which was originally hired a year ago with Coverdell funding. Filling this position has improved continuity and timeliness of autopsy services.

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**FY12 Recipient Name:** Idaho State Police

**Award Number:** 2012-CD-BX-0013

**Award Amount:** \$63,517

**Abstract:** The scope of this project is to improve the quality and timeliness of forensic services in Idaho and to reduce the number of backlogged cases in the Idaho State Police Forensic Services laboratories. The objective of this project is to improve the quality and timeliness of casework and decrease backlogs in all laboratory disciplines by fully implementing and custom programming the new ISPFS Laboratory Information Management System (LIMS).

**Idaho State Police' objective** is accomplished by funding a LIMS computer programmer salary (full-time implementation expert) for a period of 720 hours. ISPFS purchased a new LIMS system using 2010 Coverdell funds. ISPFS suspended many laboratory process improvement efforts to decrease backlogs and increase efficiencies in all forensic disciplines pending the implementation of the new LIMS system. The procurement process for the new LIMS was long, and the laboratory has just started to install this new LIMS system. ISPFS does not have funds to pay the LIMS vendor for continuing maintenance of this software, so ISPFS negotiated access to the source code of the software to perform ongoing maintenance using "in-house" ISP computer programmers. ISPFS used savings from other projects on the Coverdell 2010 funds to pay part of the initial salary for the implementation programmer, but additional funds are necessary to retain this position until the Idaho legislature appropriates permanent funding for the position. The programmer will be responsible to get the LIMS system operational and through validation, the data converted from the old system, and the system adapted to the ISPFS workflow. In addition to working with the vendor on initial deployment of the system, the programmer will be the LIMS administrator, will interface the system with laboratory instruments, and will write quality control modules. Once the LIMS system is fully functional and debugged, the programmer will be used to develop a paperless LIMS environment, repair computers (such as instrument computers) that are not supported by the ISP Information Technology (IT) staff, and coordinate with ISP IT to resolve laboratory computer and network related problems. The small ISP IT staff is overwhelmed with requests from the entire department and cannot provide the level of support that Forensic Services needs with the new integrated LIMS system. The LIMS programmer will decrease backlogs, speed turnaround, and increase quality by customizing the system for process efficiency.

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**FY12 Recipient Name:** Twin Falls County (ID)

**Award Number:** 2012-CD-BX-0066

**Award Amount:** \$38,432

**Abstract:** The Twin Falls County Coroner's Office is expected to respond to over 600 calls for service this year but lacks the equipment and trained personnel to conduct autopsies at the county facility. The Ada County Coroner, (located 260 miles round trip from Twin Falls) is the closest entity that will contract for outside autopsies. Last year 27 decedents were transported for autopsies to the Ada County facility at a cost of over \$45,000 for contractual services, related transportation and staff expenses.

Coverdell funds in the amount of \$38,432 are needed to help create a central forensic facility in south-central Idaho to improve the timeliness and quality of forensic science and medical examiner services in the 8 counties of the "Magic Valley." Grant funds are proposed for equipment and supplies needed to perform autopsies and examinations, process, preserve and store physical and biological evidence, and to train two staff as autopsy techs.

The objectives are:

1. Increase the timeliness of autopsies from 36-120 hours to 24-72 hours during the grant.
2. Increase the efficiency of the Coroner's Office by having all appropriate equipment and supplies available to perform examinations and autopsies, process, preserve and store physical and biological evidence, to meet the Coroner's legal requirements and protect staff from injuries and communicable disease.

Twin Falls County's Project Plan is to utilize grant funds to secure needed equipment and supplies to create a central forensic facility to serve south-central Idaho and to train two staff as autopsy techs. County funds will be used to contract with a forensic pathologist as needed to conduct autopsies until it is cost effective to hire a full-time forensic pathologist.

This project will greatly improve the quality and timeliness of forensic and medical examiner services for Twin Falls County and its neighboring counties as follows:

- Expect to reduce delays in autopsies to 24-72 hours from 36-120 hours at present by contracting with a Forensic Pathologist for suspicious deaths and homicide cases.
- Reduce staff and transportation's costs for outside autopsies by \$7,000 per year, eliminating the need to travel to the Ada County Coroner's Office in Boise (260 miles away round trip), for autopsies and suspicious death examinations.
- the cause of death will be determined faster, bringing earlier closure to family members and loved ones, and allows for funeral arrangements to be made sooner and enables more immediate settlement of decedent affairs.
- Evidence in suspicious death and homicide cases will be preserved so law enforcement and the judicial system can work effectively in criminal cases. We expect a reduction in evidence that is lost due to the decaying process, absorption into cells or dissipation from delayed autopsies and examinations.
- Credibility of evidence and expert testimony of the forensic pathologist is likely to improve court cases outcomes, so justice may be served. Lacking a forensic pathologist, lawyers attempt to contest evidence by discrediting pathologists and Coroner's staff in court proceeding to win cases.



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□ Increased capacity of the morgue for cadaver and biological storage enables services to be extended to other counties in the Magic Valley and the increased volume of autopsies is expected to facilitate the hiring of a full-time Forensic Pathologist quicker and improve the sustainability of the project.

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**FY12 Recipient Name:** Illinois Criminal Justice Information Authority

**Award Number:** 2012-CD-BX-0001

**Award Amount:** \$294,523

**Abstract:** This proposal is submitted on behalf of the forensic science laboratories in the State of Illinois. The laboratories represented in this proposal are the nine forensic science laboratories that comprise the Illinois State Police (ISP) Division of Forensic Services-Forensic Sciences Command (FSC), the DuPage County Forensic Science Center (DCFSC) and the Northern Illinois Regional Crime Laboratory (NIRCL). The consolidated state plan for the forensic science laboratories in Illinois has focused on improving the quality, accuracy and timeliness of forensic sciences services to the criminal justice system and citizens of the State of Illinois. The consolidated plan has been in effect since 2002 and the continued demand for forensic sciences services dictates the need for the forensic science laboratories in Illinois to continue focusing their efforts and resources on improving the quality of forensic science services.

Funding from previous years' National Forensic Sciences Improvement Act programs have been used to purchase new analytical equipment and/or upgrades for existing analytical equipment; to maintain laboratory accreditation standards by purchasing required external proficiency tests; and to provide appropriate internal and external training opportunities to staff that assists with the end goal of improving the timeliness and quality of forensic services offered by the forensic sciences laboratories in Illinois. The aforementioned actions have had a positive impact on the labs' ability to address case backlogs, maintain required accreditation standards and improve forensic services.

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**FY12 Recipient Name:** Cook County (IL)

**Award Number:** 2012-CD-BX-0027

**Award Amount:** \$175,000

**Abstract:** The Office of the Cook County Medical Examiner (CCME) requests funding in the sum of \$175,000 to purchase a greatly needed electronic data management system. CCME is relying on antiquated systems to track the bodies that come through the facilities. The current system consists of paper documentation and an archaic, near-obsolete computer system developed in the mid-1980s. An updated electronic system will allow employees to input, process, and store information more quickly and efficiently, significantly improving the quality and timeliness of Medical Examiner's Office operations.

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**FY12 Recipient Name:** Indiana Criminal Justice Institute

**Award Number:** 2012-CD-BX-0039

**Award Amount:** \$313,037

**Abstract:** Indiana Criminal Justice Institute had requested the funding amount of \$149,145 for the Coverdell base funds and requested the funding amount of \$163,892 for the competitive funds.

**GOAL:** The State plan is to provide a turnaround time of less than 45 days for 90% of submissions and maintain or improve the quality of forensic services.

Base Funds:

Objectives:

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1. To improve the timeliness of forensic services through the use of overtime pay
2. To improve the quality and timeliness of drug examinations through equipment upgrades

Project plans:

1. Utilize paid overtime to improve casework turnaround time
2. Procure, install, and validate upgraded equipment

Methods:

1. Past use of paid overtime has shown it to be effective in improving turnaround time.
2. To improve quality and turnaround time in the Indianapolis Laboratory's Drug Unit, an Ultraviolet Spectrophotometer will be replaced.
3. To improve quality and turnaround time in the Lowell Laboratory's Drug Unit, a Fourier Transform Infrared Spectrophotometer will be replaced.
4. To improve quality and turnaround time in the Evansville Laboratory's Drug Unit, a Fourier Transform Infrared Spectrophotometer will be replaced.

Competitive funds:

Objective: To improve the quality and timeliness of forensic services through the addition of new equipment

Project plans: Procure, install, and validate additional equipment

Methods:

To improve quality and turnaround time in the Drug Unit, a Gas Chromatograph with Fourier Transform Infrared Detector (GC-FTIR) will be added.

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**FY12 Recipient Name:** Executive Office of the State of Kansas

**Award Number:** 2012-CD-BX-0012

**Award Amount:** \$65,710

**Abstract:** The Sedgwick County Regional Forensic Science Center (Center) serves as the Crime Laboratory (Laboratory) for all of Sedgwick County, Kansas Law Enforcement agencies and provides forensic services to many contiguous counties.

The most significant challenge to the forensic science crime laboratories in Kansas is the increase in caseload and demand for forensic analyses without a compensatory increase in resources, in particular human resources. Since 2002, the case load in the Toxicology Laboratory has increased 40 percent. Prior to the hiring of an additional toxicology position, the Forensic Science Center was not meeting National Association of Medical Examiners (NAME) guidelines for turnaround times or scientists per caseload, and was in danger of losing its accreditation. The delay in forensic analyses by the Laboratory was also a significant bottleneck in the investigation and prosecution of Driving under the Influence of Alcohol and/or Drugs (DUI/DUID) cases.

The request for funding is for salary, benefits, and required training to continue the scientist (Toxicologist) position. The position is responsible for postmortem toxicology work and allows other scientists to focus more time on DUI/DUID casework. Continuation of the position would maintain the current case backlog and turnaround times (Toxicology), allowing the Laboratory to remain in compliance with NAME guidelines and meet the needs of law enforcement partners in the investigation of DUI/DUID cases. A small amount of the funds will be used to support continuing education of the Toxicology scientist position (via a Regional Training conference) and in-house training for all staff (PowerPoint projector). Fulfilling the training component will assist the Center in meeting the accreditation requirements of both NAME and ASCLD/LAB.

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The project's primary goal is to maintain the Toxicology Section's ability to provide timely and accurate toxicological analyses in accordance with NAME and ASCLD/LAB guidelines.

The primary objective is to retain a qualified toxicology scientist to facilitate meeting the project's primary goal.

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**FY12 Recipient Name:** Kentucky Justice and Public Safety Cabinet

**Award Number:** 2012-CD-BX-0007

**Award Amount:** \$99,996

**Abstract:** The Kentucky Office of the Medical Examiner's four regional labs request federal funds to improve services provided to the Commonwealth of Kentucky. The Kentucky Office of the Medical Examiner's Office provides all forensic services to the entire Commonwealth. No other providers of these services exist to the criminal justice community in Kentucky and this responsibility is taken very seriously. Maintaining current equipment, replacing outdated equipment, and maintaining adequate staffing to prevent backlog are critical to our mission. Through these funds the Kentucky Medical Examiner's Office will be able to replace outdated equipment and purchase items which will increase efficiency and safety as well as save costs.

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**FY12 Recipient Name:** Louisiana Commission on Law Enforcement

**Award Number:** 2012-CD-BX-0046

**Award Amount:** \$104,699

**Abstract:** The proposed 2012 Paul Coverdell Forensic Sciences Improvement Grant Program award will be used by Louisiana to continue the work of previous years efforts, and previous years' and current goal of improving the quality and timeliness of forensic science and medical examiner services, eliminate or reduce the backlog of analysis of forensic science evidence and to train forensic science personnel in order to improve the quality and timeliness of these services. Louisiana proposes to accomplish this goal by the sub awarding of grant monies to eight local and regional forensic laboratories as well as the State Police Crime Lab. These funds will be used for specific objectives supporting the above stated goal and include overtime, travel and training expenses, equipment and supply purchases and equipment maintenance agreements. Evidence of such activity will manifest itself through the use of quarterly fiscal and program progress reports and an on-site monitoring visit of sub awardees. This information will be presented in semiannual progress reports to USDOJ.

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**FY12 Recipient Name:** State of Maine

**Award Number:** 2012-CD-BX-0034

**Award Amount:** \$63,517

**Abstract:** Coverdell funds will provide the Health and Environmental Testing Laboratory (HETL) and the Maine State Police Crime Lab with needed supplies, continuation of lab maintenance agreements and training that will improve the current operations in the quality and timeliness of forensic science services provided in the State of Maine. The Office of Chief Medical Examiner (OCME) will use Coverdell funds to contract with two forensic pathologists to perform additional autopsies. These improvements will promote accreditation and certification for the State of Maine facilities that provide forensic science services.

The project objectives are:

1. Maintain accreditation through ASCLD/LAB Accreditation such as calibrations, proficiency testing, proper instrument maintenance, reagents, controls and supplies.

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2. The Maine State Police Crime Laboratory will use Coverdell funds to send 8 forensic analysts to 7 different trainings/conferences in 2013. Each training/conference will be in the field of expertise of the analyst. Specifically we would like to send the Quality Manager to Association of Forensic Quality Assurance Managers conference, one DNA analyst to the Promega International Symposium on Human Identification (or equivalent training such as the BODE DNA conference, one latent print examiner to the International Association of Identification conference, one firearms examiner to the American Firearms and Toolmark Examiners conference, one DNA analyst to the New England Association of Forensic Scientists, two forensic chemists to the American Academy of Forensic Sciences conference and one crime scene expert (Evidence Response Team member) to the International Association of Bloodstain Pattern Analysis conference.

3. Reduce the backlog of autopsies by 30.

The **Maine Health and Environmental Testing Laboratory's (HETL)** is an ASCLD/LAB® accredited forensic operation laboratory. The HETL will provide analytical, technical, and enforcement capability to help control the abuse of alcohol and drugs and the attendant public health consequences. Forensic analysis provided by the HETL includes controlled substances, clandestine laboratory processing, blood alcohol concentration determination and DUI urine drug testing. Funds will be used to: fund staff, fees for maintaining accreditation through ASCLD/LAB Accreditation, proficiency testing, proper instrument maintenance; and supplies for preserving evidence.

The **Maine State Police Crime Laboratory** is a full service crime laboratory providing free services to all local, county, state and federal law enforcement agencies in the State of Maine. The laboratory is accredited in the areas of trace evidence, latent prints, firearms/tool marks and forensic biology (DNA). It is the only accredited crime laboratory in Maine that provides all of these services. The laboratory employs 16 forensic analysts.

Training is the one area that is hardest to fund and previous year's Coverdell funding allowed for staff members to attend training which some are just starting to attend now. With this additional funding we would ensure that the remainder of the professional staff would be able to attend training or a conference in their field of expertise in 2013. This will improve the quality of the Lab's testing processes and they will learn new efficiencies by attending conferences for each professional unit in the laboratory.

The **Office of Chief Medical Examiner (OCME)** is a statewide system that is charged with the investigation of sudden, unexpected and violent deaths. The office was established as a state agency in July 1968. The staff consists of 2 forensic pathologists, including the current Chief Medical Examiner Dr. Margaret Greenwald and the Deputy Chief Medical Examiner Dr. Marguerite DeWitt. The pathologists are supported by 7 staff members. Over 200 physicians volunteer to serve the state and are appointed by the Chief Medical Examiner to function in their local communities. The OCME will use Coverdell funding to contract with 2 forensic pathologists to perform additional autopsies to help reduce the backlog. Approximately, 30 additional autopsies will be performed.

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**FY12 Recipient Name:** Governors Office of Crime Control and Prevention (MD)

**Award Number:** 2012-CD-BX-0017

**Award Amount:** \$133,385

**Abstract:** Maryland's violent crime rate has been, and remains, significantly higher than the national average. Over the past three years, the state's average annual violent crime rate has been about 30% higher than the national average.

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The Baltimore County Police Department (BCoPD) is the sole law enforcement agency within Baltimore County, Maryland. To maintain and improve the proficiency of the forensic examiners including the fulfillment of ASCLD/LAB accreditation which mandates and requires certifications, two trainings will take place:

1. Provide Law Enforcement & Emergency Services Video Association (LEVA) trainings level I – III for one of the Forensic Examiners, and
2. Provide Microscopy training for one Trace Evidence Unit Examiner.

The Baltimore City Police Department reported that last year, the homicide rate reached its lowest since 1977; a 17% drop in the last two years which translates into 679 fewer victims of violence. The Firearms Unit has a backlog of 720 cases and the Latent Print Unit has a backlog of 5,969 cases. Overtime will be utilized to reduce the backlog by 6.7%. Although it is difficult to quantify or measure the value of training, it is imperative that lab personnel have the opportunity to continue their education in order to remain up-to-date on current scientific methods, learn new skills and liaison with other professional in their field. Laboratory scientists will attend three trainings for continuing education in their respected fields:

1. The International Association for Identification (IAI),
2. The Drug Enforcement Agency (DEA) seminar, and
3. The Regional Meeting of the Association of Firearms and Toolmark Examiners (AFTE).

In addition, there are impending regulations from the Department of Health and Mental Hygiene that require the storage of drug cases for 10 years. The scanner will be used to create electronic case files.

The Western Maryland Regional Crime Laboratory (WMRCL) was awarded funding to purchase “Qualtrax” Quality Management Software through the 2011 Coverdell award. This software will assist the laboratory personnel by allowing ASCLD/LAB-ISO accreditation-related tracking of documents, training and compliance functions. The purchase of a computer tablet will allow remote data capture and download into the Qualtrax system for a variety of ASCLD/LAB ISO accreditation related duties. They are also seeking to purchase a digital imaging system for microscopic documentation. This system will be used for training and to document chemistry-related forensic evidence. The American Society of Crime Laboratory Director’s meeting will be attended by one staff member. Topics dealing with problems and issues facing crime laboratories are extensively discussed.

The Office of the Chief Medical Examiner (OCME) is a statewide program and is responsible for the death investigation of all medical examiner cases defined by Maryland Statute. In order to maintain full accreditation, without any violations, it is required to complete 90% of all autopsy cases within 60 days from the date of investigation. The purchase of new computers will allow better interface to assist with the timely completion of autopsy reports.

The Prince George’s County Police Department is the 33<sup>rd</sup> largest police department in the country, with an approximate population of 830,000. Like many law enforcement agencies, they have endured severe budget constraints. This hampers the ability to analyze drug cases in a timely manner. The purchase of three Stereomicroscopes will ensure the quality of analysis for marijuana and effective court testimony. The existing stereomicroscopes are older have poor resolution thus take longer to process and identify.

The Maryland State Police- Forensic Science Division (MSP-FSD) has a current backlog of 1,581 Latent Print cases. Overtime support will allow them to reduce this backlog.

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**FY12 Recipient Name:** City of Baltimore (MD)

**Award Number:** 2012-CD-BX-0069

**Award Amount:** \$175,000

**Abstract:** The Trace SEM Project goal is to improve the quality and reduce the backlog of the Trace Analysis Unit of the Baltimore City Police Department Crime Laboratory (BPD-CL), increasing the timeliness of forensic science services. The primary objective used to reach the goal is the upgrading both Scanning Electron Microscopes (SEM) currently in use at the BPD-CL, replacing detection and data processing parts, rebuilding the existing equipment. Once rebuilt, the SEMs will use new detector equipment and data collection components to enhance performance on all validated procedures, assisting in the processing of backlogged physical evidence cases. With this added capacity and capability, the citizens of Baltimore City would enjoy more timely forensic services to compliment the violent crime reduction strategy implemented to improve quality of life.

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**FY12 Recipient Name:** Massachusetts State Police

**Award Number:** 2012-CD-BX-0002

**Award Amount:** \$150,761

**Abstract:** The Massachusetts State Police Forensic Services Group (MSPFSG) is a state government laboratory dedicated to providing quality forensic services within Massachusetts. The Boston Police Department Forensic Technology Division (BPD) and the Office of the Chief Medical Examiner (OCME) together with the MSPFSG propose the following initiatives to reduce forensic case backlogs, to decrease turnaround time and to provide timelier forensic services.

The goal of this proposal is to: 1) reduce case backlogs; 2) increase capacity; and 3) train forensic examiners to provide more timely services to our clients. To accomplish these goals, the following initiatives are proposed: 1) to train sworn and civilian members of the Forensic Services Group and the Boston Police Department; 2) to purchase an evidence refrigerator for the Toxicology Unit and 3) to purchase forensic software for Digital Evidence and Multimedia Section at the Forensic Services Group.

The goal is that these collective initiatives will decrease the case backlog and turnaround time of forensic examinations at the respective laboratories state-wide while increasing the capacity at each agency.

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**FY12 Recipient Name:** City of Boston (MA)

**Award Number:** 2012-CD-BX-0073

**Award Amount:** \$63,546

**Abstract:** The Boston Police Department (BPD) Physical Comparison Unit (PCU), a part of the larger BPD Forensic Group, is responsible for providing clearances for priority violent crimes with ballistic analyses, analyzing evidence of shots fired at locations identified by ShotSpotter, searching items for latent prints, and ensuring successful prosecution in related cases with high-quality analysis. Over the last few years, the BPD has enjoyed acclaim and distinction for other units in the Forensic Group, particularly its Crime Laboratory, whose DNA section was the first NFSTC accredited public DNA laboratory in New England. The Latent Print Unit has also recently gained accreditation through the use of contracted specialists funded through past Coverdell grants awarded to the BPD. Having seen firsthand the benefits of instituting comprehensive improvements to its forensic analysis, the BPD are committed to extending this level of high-quality and cutting-edge forensic service to the Firearms Analysis Section and applying for accreditation in 2013.

The BPD has initiated a three-phase plan for the Section, commencing with an external audit by FoCoSS Forensics using in-kind funds. Their report identified four key areas for Section improvement: Training,

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Technical Expertise and Review, Operational Policies and Procedures, and Quality Assurance and Control. The BPD seeks Coverdell funding for the final phases of its strategy, centering on completing the training plans of individual firearm examiners, and a final audit to ensure that BPD not only meets but exceeds the standards needed for accreditation.

The BPD carries out a significant amount of forensic analysis as a large portion of Massachusetts criminal incidents fall within the City of Boston's jurisdiction. After a significant decline during the late 1990's, the City has faced a somewhat steady increase in homicides and nonfatal shootings. In response to the violence, firearm arrests have increased, with 980 firearm offenders being arrested in 2011 alone. Responding to increased caseloads as well as the City's increasing reliance on forensic capabilities to investigate and prosecute violent criminals, the BPD is applying for critically needed funds to support a firearms-focused Latent Print Examiner, whose assistance is expected to reduce the PCU backlog by 10-12%.

Finally, the BPD is seeking to continue employing a Forensic System Administrator who has been instrumental in the implementation of a Laboratory Information Management System (LIMS) in the BPD Forensic Group. The FSA would continue to maintain the LIMS, as BPD does not have the funds to purchase a support contract from the vendor at this time. Furthermore, the FSA is currently working on programming and developing a customized Digital Imaging Management System (DIMS) for the BPD Forensic Group. Given chain of custody, evidence integrity, and physical space issues, this is critical to the success of the Forensic Group's analysis. Additionally, the improvement of BPD information systems allows forensic examiners to spend less time writing reports and more time dedicated to forensic analysis. Critical to both the maintenance of a safe community and to the credibility and accountability of a police department to the community it serves, is the department's ability to respond to a crime scene, and analyze and process evidence with the highest standards, quality assurances and expertise. Without FY12 Coverdell Forensic Science Improvement funding, the BPD will not be able to apply for the Firearm Analysis Section's accreditation in 2013, nor will the BPD will be able to meet the demands currently placed upon its Forensic Group. A delay in attaining accreditation and a decrease in vitally important Forensic Group personnel would have an acutely negative impact on violent crime investigation in the City of Boston.

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**FY12 Recipient Name:** State of Michigan

**Award Number:** 2012-CD-BX-0049

**Award Amount:** \$226,025

**Abstract:** The Michigan State Police will utilize grant funding to improve the quality and timeliness of service delivery in the Forensic Science Division's Firearms, Controlled Substances, Latent Prints, and Trace Evidence units.

The requested funding will be used to continue payroll support for two funded positions in the Firearms and Controlled Substances units. This will support Michigan's consolidated plan for forensic laboratories, aligning specifically with the following goals:

1. Determine baseline resources required to keep pace with increasing service needs.
2. Develop and provide quality selection criteria, training, and career development.

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**FY12 Recipient Name:** Minnesota Department of Public Safety

**Award Number:** 2012-CD-BX-0011

**Award Amount:** \$122,321

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**Abstract:** Forensic Science services are provided to the citizens of Minnesota primarily by three ASCLD-LAB accredited laboratories, the MN BCA Forensic Science Service, the Hennepin County Sheriff's Office Laboratory and the Minneapolis Police Department Laboratory. The directors of the three laboratories met and agreed on a state plan that divides the funds available in the base grant based on the population served by each agency. In general, the state plan for use of Coverdell funding is to support laboratory accreditation, continuing education of scientific staff, the purchase of supplies used to perform daily work, and overtime hours to allow staff to work on reducing the case backlog and improve timeliness of reports. Ten percent of the state allocation will be used by the Minnesota Office of Justice Programs for grant administration and compliance.

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**FY12 Recipient Name:** Missouri Department of Public Safety

**Award Number:** 2012-CD-BX-0003

**Award Amount:** \$137,559

**Abstract:** As the demands on crime laboratories increase, it is essential that crime laboratory personnel - in all forensic science disciplines - are adequately trained, competent and proficient in the latest forensic technologies and methodologies. As a result, training, education and certification are keys to Missouri's statewide plan to improve the delivery and quality of forensic science services its crime laboratories provide to the law enforcement communities they serve. Additionally, laboratory accreditation is paramount to the overall success of Missouri's crime laboratories.

The Missouri Department of Public Safety (DPS) will coordinate with the Missouri Association of Crime Laboratory Directors (MACLD) to use Missouri's portion of base funding [\$138,857] from the FY12 Paul Coverdell Forensic Science Improvement Grants Program for:

- providing forensic science training and education for the personnel of Missouri's crime laboratories
- maintenance of laboratory accreditation.

This is a continuing Coverdell-funded program that will provide professional training in a variety of forensic science disciplines including DNA testing, firearms, impression & pattern evidence, drug/toxicology, trace evidence, arson and drug chemistry as well as areas such as ISO accreditation, management, process mapping, auditing, and inspections/assessments. Funding will also allow crime laboratories to prepare for and maintain accreditation.

This program will directly improve the quality and timeliness of forensic science services provided to the law enforcement community of Missouri by increasing examiner proficiency, competency, knowledge, skills and abilities. This program involves all of Missouri's crime laboratories - those operated by units of local government and those operated by the State - and will be administered by Missouri's State Administrating Agency - the Missouri Department of Public Safety.

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**FY12 Recipient Name:** Department of Public Safety (MS)

**Award Number:** 2012-CD-BX-0054

**Award Amount:** \$68,166

**Abstract:** The goal of the FY2012 Paul Coverdell Forensic Science Improvement Grants Program is to provide laboratories with the tools needed to improve the quality and timeliness of forensic services that they provide.



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The Mississippi Crime Laboratory (MCL) proposes to accomplish the goal of the Program by meeting the following objective:

The objective of the proposal being submitted is to improve the quality and timeliness of Toxicological Analyses provided to the Criminal Justice System in Mississippi by the purchase of a new Dual Capillary Gas Chromatography System with Nitrogen Phosphorus Detectors and Autosampler to replace the current instrument which was installed in 1992 and has become obsolete.

Achieving the objective will require the purchase of a new Dual Capillary Gas Chromatography System with Nitrogen Phosphorus Detectors, Autosampler and Data System to replace the current instrument which was installed in 1992 and has become obsolete. This will provide the toxicologists with the reliable instrumentation necessary to accomplish their tasks. Specifications will be supplied for instrumentation upon request. Acquisition of instruments will comply with the State of Mississippi policies for purchasing. Where there is justification to purchase from a single source, approval will be sought at state and federal levels to do so.

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**FY12 Recipient Name:** Harrison County Sheriff's Office (MS)

**Award Number:** 2012-CD-BX-0071

**Award Amount:** \$67,323

**Abstract:** The goal of this project is to improve the HCSO Forensic Science Unit's current operations by providing additional personnel, training for the additional personnel, evidence management software, and expendable laboratory supplies which are all necessary to improve the quality, effectiveness and efficiency through the use of the HCSO's Forensic Laboratory. The objectives will be met by drastically increasing the amount of time the forensic technician will be able to spend on forensic processing in the HCSO Forensic Laboratory. Currently the average number of days between a request for forensic processing and the issuing of a report is about 9 days. This is far too long for Investigators to wait for vital evidence analysis; especially when the HCSO has an in house forensic laboratory with state of the art forensic equipment. Also, the for the first 3 full months of 2012 HCSO has only utilized forensic processing for 26 cases, and that includes latent print evaluation and laboratory processing. This number could be significantly increased with the addition of personnel.

The funds requested in this proposal will be utilized for the salary, benefits package, office hardware, and training for the one year employment of an Evidence Custodian. The funds will also be utilized for the purchase of comprehensive evidence tracking software and barcode system to ensure the chain of custody for all evidence will be accurately and efficiently maintained from collection to final disposal. Also, the funds will be used for expendable supplies needed to utilize the most current generally accepted laboratory forensic processing techniques. The description, uses and impact include:

1. The employment of an Evidence Custodian: The everyday handling of evidence is a very time consuming responsibility and leaves little time for forensic functions. The nature of forensic work is meticulous, tedious, and the forensic technician must take the appropriate amount of time necessary to ensure accurate examination and evaluation of evidence. Due to the fact that one person is responsible for all forensic and evidence functions, these forensic functions can be delayed by a matter of days, weeks, or in some cases, months. The addition of personnel would allow for the separation of duties; one Forensic Technician, and one Evidence Custodian, thus freeing up the current Technician to focus solely on forensic functions. This would increase the effectiveness and timeliness of all forensic functions dramatically. Also, the separation of duties would ensure that the same person cannot freely walk about the evidence vault, process scenes,

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process evidence, dispose of evidence, etc. A separation of duties would ensure a checks and balances system that is paramount to maintaining the integrity of the chain-of-custody.

- a. The funds would also be used for the computer, computer accessories (monitor, keyboard, mouse, and software) the Evidence Custodian would utilize in everyday work related duties. Also, training is an integral part of ensuring proper procedures and generally accepted practices are being strictly followed. A portion of funds would be used for the registration fee, travel, lodging, and per diem for the Evidence Custodian to attend a two day training course specific to the duties of an Evidence and Property Custodian. This would be beneficial to both the Evidence Custodian and the HCSO.
2. The purchase of comprehensive evidence tracking software and barcode system: Currently the HCSO utilizes paper property invoices generated on a Word document. The Deputy or Investigator submitting evidence must type in all the necessary fields for each property invoice, then describe the items being submitted to the vault, the Evidence Custodian then signs the chain-of-custody section, assigning the item a location in the vault, and files the paper. Every time the items location gets changed (e.g. submission to and return from the Mississippi Crime Laboratory) the paper must be pulled from the filing cabinet and the chain of custody section must be signed indicating the property's whereabouts. This process is very time consuming and could be expedited tremendously with the addition of a software system specifically designed to track evidence with the click of a button or the scan of a barcode. The system is able to generate detailed, transparent, and auditable chain of custody records from collection to final disposal which will only improve confidence and credibility of evidence in court. The system also allows for date-time stamps on all changes and electronic signatures for security. This software system is an essential solution devised specifically for the life-cycle management of evidence.
3. The purchase of expendable laboratory supplies: The HCSO has recently acquired state of the art forensic laboratory equipment. The use of this equipment requires supplies that are expendable and are a large cost to agencies under a strict budget. Some of the laboratory supplies that will be purchased include: blood detection chemicals (bluestar, amido black), serological evidence collection kits and supplies (swabs, swab boxes, distilled water), presumptive test kits (blood and semen), latent print processing and collection supplies (lift tape, gel lifters, various chemicals, fingerprint powders, photographic scales, trace evidence collection (tweezers and scalpels), and a firearms serial number restoration kit.

The addition of the above listed personnel and evidence management system will give the HCSO the ability to increase efficiency in all aspects of evidence management and forensic processing. This increased efficiency for the Forensic Technician will allow for a reduction in backlogged casework. It will also allow for the decrease in the number of days taken to process an item of evidence and generate a report; thus getting Investigators important information much faster.

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**FY12 Recipient Name:** Montana Board of Crime Control

**Award Number:** 2012-CD-BX-0045

**Award Amount:** \$63,517

**Abstract:** The Forensic Science Division Laboratory (FSDL) is the only laboratory in the State of Montana and provides forensic services to all the law enforcement agencies in the State. The State

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Medical Examiner's Office is also a part of the laboratory. The four main project goals include: Maintain accreditation by the American Society of Crime Laboratory Directors/ Laboratory Advisory Board (ASCLD/LAB); Maintain accreditation by the American Board of Forensic Toxicologists (ABFT); Provide training and continuing education for our staff; and is to have a 30-day turnaround in sections of the lab, while maintaining a 60 day turn around in the DNA section. These goals will be achieved through meeting various objectives such as: Providing professional testimony in every court appearance; Expanding technology and improving investigative and analytical capabilities; Provide for an efficient and effective death investigative system; Maintain professionalism, teamwork, courtesy and competence; and recognize the value of laboratory staff and consider them the most important asset of the organization. The methods to achieve the goals and objectives will be through various expenditures in staff travel and training, contracted services and personnel services.

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**FY12 Recipient Name:** Nebraska State Patrol

**Award Number:** 2012-CD-BX-0057

**Award Amount:** \$63,517

**Abstract:** The Nebraska Commission on Law Enforcement and Criminal Justice, the State Administering Agency, has delegated the administration of this grant project to the Nebraska State Patrol.

The Nebraska State Patrol Crime Laboratory (NSPCL) and the University of Nebraska Medical Center – Human DNA Identification Laboratory (UNMC/HDIL) are the only two accredited laboratories in Nebraska. Medical examiners are appointed by county attorneys as needed.

A state plan was collaboratively developed in 2002 between the NSPCL and the UNMC/HDIL which authored a collaborative plan to increase forensic laboratory efficiencies. Since that time, the UNMC/HDIL and the NSPCL have renewed their commitment to provide exemplary forensic laboratory services. To further that effort, FY12 Coverdell funds will be utilized by both state laboratories to improve the quality and timeliness of forensic services statewide and reduce backlog.

As with most states, Nebraska has been experiencing budget shortfalls. Agencies have not filled vacancies and are operating on reduced budgets. These economic strains are compounded by increased expenses which has hindered their ability to maintain case turn around and/or take advantage of technological advances. The need to replace outdated laboratory equipment and update management processes strains the budget further. Budgets related to continuing education opportunities continue to be reduced and/or eliminated.

The objective of this project is to improve the quality and timeliness of forensic laboratory services available within the state of Nebraska.

Specifically, FY12 Coverdell funds will be shared by the Nebraska State Patrol Crime Laboratory and the UNMC/HDIL. \$18,856 has been allocated to UNMC/HDIL and the remaining funds to the NSPCL. UNMC/HDIL will use the funds to purchase a Sperm Hy-Liter, maintain accreditation status, and travel for continuing education opportunities. The NSPCL will use the funds to provide continuing education opportunities and purchase a document management system. To fund these priorities, budgets for travel, supplies, equipment and contracted services are included.

The Nebraska State Patrol Crime Laboratory utilizes a time reporting system and the Porter Lee Best Laboratory Information Management System (LIMS) to monitor statistics related to this project. UNMC/HDIL will be required to submit a progress report on a regular basis. The data collected relating to these matrices will be reported on semi-annual progress reports and the final progress report upon completion of the project.

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**FY12 Recipient Name:** Nevada Department of Public Safety

**Award Number:** 2012-CD-BX-0041

**Award Amount:** \$63,517

**Abstract:** The Nevada Department of Public Safety (NDPS) supports the Washoe County Sheriff's Office Forensic Science Division's (WCSO-FSD) plan to reduce the backlog in the analysis of forensic science evidence with respect to firearms examinations. Virtually all State, Local and Federal agencies with a combined total of 80 agencies throughout northern Nevada depend on the results of firearms tests conducted by the Forensic Science Division. This represents 14 counties and according to the 2010 Census, a population of 743,150 citizens. The Firearms Section has been short-staffed since the end of 2010, and has made efforts to improve the timeliness of forensic science services through the Firearms Section Capacity Enhancement Project funded by the 2010 and 2011 Paul Coverdell Forensic Science Improvement grants.

The Firearms Section Capacity Enhancement Project provides for the services of a highly skilled and experienced Firearms Examiner, through a contract with Noedel Scientific, who has been able to train a new Firearms Examiner trainee, perform verification of identifications and technical review of firearms casework, and perform firearms examination and comparison casework. The project has been successful in making steps toward a fully staffed and trained Firearms Section, however with Nevada's status as having the number one unemployment rate in the country and a struggling economy throughout Nevada, budget cuts at the local county level resulted in the complete elimination of one permanent fulltime Firearms Examiner position that was within weeks of being filled. WCSO-FSD has neither the funds nor the internal personnel to keep up with the demands to examine firearms evidence in a timely manner, and the Firearms Section is faced with the possibility of falling further behind without the funding to continue the Firearms Section Capacity Enhancement Project. Page 3 of 12 2012 Coverdell FSI Grant: Firearms Section Capacity Enhancement Project WCSO-FSD plans to utilize the 2012 Coverdell funding to continue the contract with Noedel Scientific for the services of an experienced Firearms Examiner with these three objectives:

- a) Train the newly hired Firearms Examiner Trainee utilizing an intensive, accelerated program,
- b) Perform verification of identifications and technical review of firearms casework,
- c) Perform firearms examination and comparison casework. His participation allows the Division to increase the capacity of firearms casework and continue to provide service to our client agencies while preparing the Firearms Examiner Trainee to provide those services in the future. Funding for an additional year of this project will allow the Contract firearms Examiner to act in the capacity of a mentor for the newly trained Firearms Examiner in addition to continuing to assist with firearms casework and provide technical review and verification for the newly trained Firearms Examiner and the Supervising Criminalist.

The Firearms Section of the Division is currently staffed at one full-time Firearms Examiner trainee, two part-time IBIS (Integrated Ballistic Identification System) Technicians (both which are completely funded through Coverdell Grants), a part-time contracted Firearms Examiner (funded through the Coverdell Grant) and a Supervising Criminalist. The addition of an IBIS Technician in the first year of the Firearms Section Capacity Enhancement Project and the addition of the contracted Firearms Examiner have been instrumental in the laboratories ability to increase the amount of casework completed and decrease the backlog of cases in the Firearms Section.

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**FY12 Recipient Name:** State of New Hampshire

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**Award Number:** 2012-CD-BX-0062

**Award Amount:** \$63,517

**Abstract:** Funding under the National Forensic Science Improvement Act grant will be used to enhance the ongoing activities of the New Hampshire State Police Forensic Laboratory and the Office of the Chief Medical Examiner. The New Hampshire State Police Forensic Laboratory is currently the sole provider of traditional forensic laboratory services in New Hampshire and is fully ASCLD/LAB accredited. Funding, under this formula program will be used to enhance the capabilities of the laboratory by arranging for training for forensic laboratory personnel and for an ongoing ASCLD/LAB maintenance contract.

The Office of the Chief Medical Examiner will use these funds to continue support for evidence cataloguing staff position at the office, to contract with medical professionals in order to maintain the continuity of operations in the medical examiner's office, to allow for required morgue usage and to support the maintenance of medical examiner communications. The staff position is a continuation of a previously funded grant position that assists the office with the cataloguing of evidence and the overall enhancement of the operation of the Office of the Chief Medical Examiner. That position has proven invaluable in making the overall office more efficient and allowing other staff members to concentrate on their respective jobs.

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**FY12 Recipient Name:** City of Dover (NH)

**Award Number:** 2012-CD-BX-0026

**Award Amount:** \$129,860

**Abstract:** The funds from the Paul Coverdell Forensic Science Improvement Grants Program will be used to improve the overall capabilities of the Dover Police Department's Crime Scene Unit in several ways. The first is to enhance the department's ability to examine footwear, latent print evidence and biological evidence in the Dover Police Department's laboratory through the purchase of new equipment and software. The funds would also be used to raise the level of expertise of the department's Crime Scene Unit by providing training and certifications for Crime Scene Unit personnel. The purchase of a new Digital Information Management System (DIMS), will certainly improve the timeliness and quality of digital evidence and storage. Lastly, the funds will assist the Dover Police Department by decreasing the backlog of cases involving footwear by enabling a member of the Crime Scene Unit to obtain IAI certification as a footwear examiner.

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**FY12 Recipient Name:** State of New Mexico

**Award Number:** 2012-CD-BX-0036

**Award Amount:** \$63,517

**Abstract:** The State of New Mexico has seen fiscal economic impacts through the last 5 years. Included in those impacts has been the continual dwindling of major grant program funds. There has been a strategic collaborative effort throughout the state to maximize the benefits of funds allotted by program grants such as Paul Coverdell for use in forensic labs. The State of New Mexico has generated a collaborative Statewide Forensic Science Services Plan (NM-FSSP) which addresses the needs of all forensic labs in the state.

The New Mexico Department of Public Safety is the State Administrating Agency (SAA) for the state of New Mexico. As the SAA, we utilized the NM-FSSP to plan the priority initiatives. These priorities include the continued goal to help improve the quality and timeliness of forensic science and medical examiner services. Funds will be used to eliminate a current backlog in the analysis of forensic evidence and to train and employ forensic personnel to eliminate such backlog.

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One of the major components of any successful forensic laboratory to operate effectively and efficiently is through its personnel base. These forensic analysts are required to analyze samples to produce credible evidence for criminal cases through their analytical and technical skills. This requires rigorous training and experience standards in order to provide reliable, accurate, and unbiased forensic science analysis. Therefore, the most important element of the laboratory will focus on the support from the Paul Coverdell funds to maintain well qualified staff within the four laboratories to insure precise and unfailing laboratory results to all the major stakeholders of New Mexico's forensic labs. The other focus will concentrate on providing overtime to the analysts to address ongoing efforts to improve turnaround times and reduce the current backlog issues.

This application has been prepared with the assistance of the following Forensic Laboratory partners: NM Department of Public Safety (NMDPS) Forensic Laboratories, which operates three labs, one located in the northern New Mexico, one in southern NM, and a third located in the southeast corner of the state; the Albuquerque Police Department (APD) Crime Lab, the New Mexico Office of the Medical Investigator (OMI) which is overseen by the University of New Mexico (UNM), and the New Mexico Department of Health's (NMDOH) Scientific Laboratory Division (SLD).

The Department of Public Safety has elected to divide available competitive funding with 58% going to the Department of Public Safety's Laboratory system, 19% going to the APD Crime Lab, 19% going to the New Mexico Office of the Medical Investigator, and 4% going to the New Mexico Department of Health's SLD. This application contains the individual abstracts, narratives, project plans, budgets, and certifications of each NM-FSSP.

The Paul Coverdell Base Formula grant funds are utilized to support the Statewide Forensic Science Services Plan which meets the needs of forensic laboratory stakeholders throughout the State of New Mexico

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**FY12 Recipient Name:** New Jersey Department of Law and Public Safety

**Award Number:** 2012-CD-BX-0035

**Award Amount:** \$293,334

**Abstract:** Utilizing funds provided under the formula allocation, the New Jersey State Police (NJSP) Office of Forensic Sciences (OFS) proposes to further develop and enhance forensic capabilities among State and local agencies. As a long term plan began under previous Coverdell Grant awards, funding from this year's grant will supply the resources to provide New Jersey's forensic practitioners with the necessary knowledge, skills and capabilities to ensure high quality, timely forensic services throughout the State.

Procurement of essential equipment and training will aid in achieving and maintaining accreditation and ultimately ensure that services and analyses provided by all the State's agencies are of the highest standard. Funds from this grant will be used to replace outdated but essential equipment, as well as provide proficiency testing and training opportunities for the NJSP OFS and NJSP Ballistics Unit.

A competitive process for State, county and local forensic and ballistics laboratories and medical examiners offices will enable them to obtain funding in support of the statewide goals and the purposes of the FY 2012 Paul Coverdell Grant. Training and equipment necessary to increase productivity, timeliness and quality of forensic sciences will be a consideration under this initiative.

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**FY12 Recipient Name:** New York State Division of Criminal Justice Services

**Award Number:** 2012-CD-BX-0008

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**Award Amount:** \$445,477

**Abstract:** This proposal seeks base funding in the amount of **\$404,712 less** NYS Division of Criminal Justice Services (DCJS) State administrative costs **\$44,968**. Funding will provide applicants with resources to help continue to improve the quality and timeliness of public forensic and medical examiner services (medical examiner services refers to Toxicology only for the purpose of this application). As the state administering agency, DCJS is working closely with New York State's forensic and medical examiner Laboratories to improve each laboratory's efficiency and effectiveness in the delivery of forensic analysis services to their client agencies. As a requirement to receive funding under this grant announcement, laboratories were required to submit to DCJS a certification stating that they had an improvement plan detailing how Coverdell funding would help to reduce/eliminate backlogs and improve overall timeliness and quality of forensic and medical examiner services. In addition to the laboratory improvement plan, all laboratories within NYS are required to participate in technical working groups whose purpose it is to improve the quality of forensic sciences within NYS. As presented in the program narrative and budget, much of the Coverdell funds requested will support laboratory equipment and personnel/fringe expenses.

The former will primarily help to increase lab efficiency and allow lab staff to complete multiple tasks simultaneously while the latter will support staff hours to help reduce/eliminate case backlogs and to allow more time for the lab to process time sensitive cases. Specific project goals, objectives, tasks, etc. are included in the program narrative portion of the application.

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**FY12 Recipient Name:** Monroe County (NY)

**Award Number:** 2012-CD-BX-0029

**Award Amount:** \$71,622

**Abstract:** The Monroe County Office of the Medical Examiner (MCOME) is a regional office that provides forensic death investigation and autopsy services for a twelve county region of New York State. In 2011, we were awarded Coverdell funding to replace aging equipment and to provide continuing education for our staff. As we progress toward our goals of delivering the highest quality of forensic services possible and becoming accredited by the National Association of Medical Examiners (NAME), it is imperative that we streamline our operation by taking advantage of digital technology, and by updating the training of the staff. This application addresses the present state of our operation and the areas that can be improved within the twelve month period of the grant.

The goals of this project are to:

- Streamline our services by taking advantage of digital technology, including replacement of an obsolete computed radiography (CR) X-ray system, and transitioning from paper to digital death scene documentation.
- Advance the knowledge and expertise of our staff by providing continuing education for pathologists and investigators.
- Provide supplies for collection and retention of DNA samples, and reenactment dolls for investigation of sudden infant deaths.

Coordination of all available resources is essential for the current and future success of forensic operations at the Monroe County Office of the Medical Examiner. The Office's operational budget covers personnel, some supplies, and vehicles that are the most essential to our legally mandated functions. We do not have the resources to purchase major pieces of equipment, or to send our staff to the most relevant training available. The proposed project cannot happen without grant funding.

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**FY12 Recipient Name:** North Carolina Department of Crime Control and Public Safety

**Award Number:** 2012-CD-BX-0058

**Award Amount:** \$220,995

**Abstract:** Two crime laboratories in North Carolina (the North Carolina State Crime Laboratory and the City-County Bureau of Identification Crime Laboratory) and the Office of the Chief Medical Examiner have established a plan to improve forensic services in the state.

The member agencies will use the 2012 funding to address bottlenecks to improve efficiency in forensic casework. As the technology base for forensic science increases, the need for highly sophisticated instrumentation increases; local and state budgets cannot address all equipment needs because of a lack of resources. This funding will allow such equipment to be purchased, thereby increasing the capabilities and efficiency of the participating laboratories.

Funding will be used for the training of analysts, including registration costs and associated travel, to facilitate the increased professionalism and knowledge base of the forensic staff.

Each laboratory identified the most critical needs and formulated a request for funds based on these needs.

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**FY12 Recipient Name:** City of Winston-Salem (NC)

**Award Number:** 2012-CD-BX-0032

**Award Amount:** \$34,186

**Abstract:** Located in Forsyth County, North Carolina, the City of Winston-Salem is the largest city in the county and the fourth largest city in the state. According to 2010 United States Census Data, the population of Winston-Salem is 229,617. Its law enforcement agency, the Winston-Salem Police Department, is the primary law enforcement agency for the county. The Police Department's Forensic Services Division performs forensic services that include (but are not limited to) videotaping, photographing, and sketching the crime scene; identifying, collecting, and preserving evidence; and locating, developing, and preserving latent prints. The Forensic Services Division responds to an average of 5,800 calls annually.

The Winston-Salem Police Department is requesting \$34,186 in Paul Coverdell Forensic Science Improvement Grant funding to improve the quality and timeliness of forensic services. Funding will be used to train and certify a member of the Forensic Services Division in firearm and tool mark examination; to purchase a stereo microscope and a magnetic particle inspection kit to provide new analytical capabilities, including serial number restoration; and to upgrade the agency's Live Scan fingerprinting system to allow for quicker and more accurate searching of possible matches in both local and regional arrestee fingerprint databases. These activities will enable the Winston-Salem Police Department to:

1. Enhance the quality and timeliness of forensic services by eliminating a backlog in the analysis of firearm evidence;
2. Train a Forensic Services Division member in firearm examination, enabling firearm analysis to be conducted locally; and
3. Strengthen the quality and timeliness of forensic services by providing for more accurate fingerprint reading technology, while enabling fingerprints to be searched and compared to local and regional databases

The Winston-Salem Police Department will use Coverdell Grant funding to:



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1. Reduce the amount of time for firearms to be examined and identified from 21 days to 3 days. This outcome will be achieved through the training of a Forensic Services Division member in firearm and tool mark examination and the purchase of a magnetic particle inspection kit for serial number restoration.
  2. Reduce the amount of time for prisoner fingerprinting and identification from 86 minutes to 30 minutes. This outcome will be achieved by upgrading the current Live Scan fingerprinting system.
  3. Improve the overall quality of forensic services through training in firearm and tool mark examination. One Forensic Services Division member will attend the National Firearms Examination Academy during the grant's one-year period.
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**FY12 Recipient Name:** North Dakota

**Award Number:** 2012-CD-BX-0053

**Award Amount:** \$63,517

**Abstract:** The Office of Attorney General, Crime Laboratory Division provides scientific support to the state's criminal justice system by use of accepted techniques in the analysis, identification, and comparison of physical and toxicological evidence involved in the investigation and prosecution of criminal offenses. The ND Crime Laboratory currently has eighteen employees. The ND Crime Laboratory is a full service Laboratory that processes over 10,000 criminal cases a year, which include the disciplines of arson/explosive debris analysis, blood/breath alcohol analysis, offender data basing, DNA casework, drug analysis, firearms/toolmarks examinations, latent fingerprint development, and toxicological analysis. The Crime Laboratory staff also holds training classes to assist law enforcement agencies in pursuit of their daily duties.

The only government agency that will receive Coverdell award funds is the North Dakota Office of Attorney General, Crime Laboratory Division. The North Dakota Attorney General has general investigatory powers relative to actions or omissions of state agencies. Investigations of such allegations are conducted by the North Dakota Bureau of Criminal Investigation. In addition, the North Dakota Bureau of Criminal Investigation Division has a memorandum of understanding with South Dakota Bureau of Criminal Investigation to perform external investigation if requested. Funding will be used to complete two objectives:

- 1) To hire a temporary Forensic Scientist and
- 2) Provide funding for the annual accreditation fee.

The overall objective is to improve the quality and timeliness of the services provided by the Crime Laboratory Division.

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**FY12 Recipient Name:** Ohio Office of Criminal Justice Services

**Award Number:** 2012-CD-BX-0061

**Award Amount:** \$264,216

**Abstract:** In the ever-evolving world of forensics, it is vital that trained scientists, pathologists, medical examiners, and coroners' offices are equipped with the most ground-breaking technology, equipment, and data possible. This is true for two reasons: these personnel must be on the cutting-edge of their field in order to best serve their communities by providing the most effective services possible. Additionally,

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certain standards set by appropriate accrediting entities must be met within such agencies that encompass all aspects of laboratory operations. In order to meet these principles, it is important that forensic organizations have the ability to employ qualified staff who can reduce or eliminate analysis of forensic science evidence backlog. Also, it is necessary that agencies have the means to calibrate and maintain certain equipment, purchase equipment that allows them to expand current capabilities, and attend training opportunities that will place them on the forefront of forensic science advancement.

Goal:

To ensure that all eligible crime laboratories in Ohio improve the quality, timeliness, and credibility of forensic sciences services for criminal justice purposes.

Objectives:

1. For employment of qualified personnel to assist in the reduction or elimination of backlog in the area of analysis of forensic science evidence.
2. For scientists and pathologists to obtain the most recent information available on forensic analysis through professional conferences, instrument manufacturers, training agencies, and networking with colleagues.
3. Obtain and upgrade equipment and computer technology that will maintain or enhance laboratory accreditation, quality assurance, and analytical ability. Also, obtain important supplies such as proficiency tests and reference books for use by laboratory personnel.
4. Contract with experienced vendors who offer essential forensic training and technical assistance to maintain the standards of ASCLD/LAB accreditation.

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**FY12 Recipient Name:** Montgomery County (OH)

**Award Number:** 2012-CD-BX-0065

**Award Amount:** \$95,500

**Abstract:** The Miami Valley Regional Crime Laboratory (MVRCL) is submitting this proposal for the purpose of improving the quality of our trace evidence analysis services to law enforcement agencies in southwestern Ohio. If awarded, funds would be used to purchase a comparison microscope for use in the Trace Evidence Section of the Laboratory. The objective of purchasing this microscope is to replace an existing comparison microscope which is more than 25 years old. The optics in the current comparison microscope has failed making it inadequate and difficult to use. Our goal with the purchase of a new microscope is to increase the timeliness of hair and fiber comparison requests.

The purchase of the comparison microscope will include additional objectives and filters; computer and monitor; a tablet; a microscope camera; a polarizer; installation; and training. This unit will be used by the scientists in the Trace Evidence Section. The analysts will use the microscope to identify and compare hairs and fibers in a variety of criminal cases. The computer and tablet will be used for training, confirmation of positive comparisons and consultation between the scientists in the section.

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**FY12 Recipient Name:** Oklahoma District Attorneys Council

**Award Number:** 2012-CD-BX-0004

**Award Amount:** \$86,772

**Abstract:** In Oklahoma numerous law enforcement agencies provide forensic science and/or medical examiner services in one, or more than one, of the most common forensic science disciplines. The State of Oklahoma respectfully requests to utilize the Paul Coverdell Forensic Science Improvement Formula Grant

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to improve the quality and timeliness of forensic science and medical examiner services for the criminal justice system in the State of Oklahoma and to reduce or eliminate the backlog of evidence in forensic science cases by funding six (6) state and local forensic science labs. The labs in this proposal include the Oklahoma State Bureau of Investigation (OSBI), the Tulsa Police Department (TPD), the Office of the Medical Examiner (OCME), the Broken Arrow Police Department (BAPD), the Ardmore Police Department (APD), and the Norman Police Department (NPD).

The State of Oklahoma is eligible for \$87,590 under the FY2012 Coverdell Forensic Science Improvement Formula Grant Program. As the state administering agency for the Coverdell Grants, the Oklahoma District Attorneys Council will use ten percent (10%), or \$8,759, of the allocated funds for personnel costs and operating expenses needed to implement the grant program. The remaining funds will be allocated to the six (6) participating labs based on the number of full-time analysts at the individual lab compared to the total number of analysts for all participating labs.

Because of deep budget cuts at the local and state levels, the most common use for Coverdell Formula Grant funds is for continuing education and training. Continuing education and training improve the quality and timeliness of forensic science and medical examiner services through increased knowledge and expertise, as well as the development of new techniques, sample prep, and analysis that help reduce backlogs and bring new more effective, time-saving processes to the various laboratories.

In addition, funding will be used by the OSBI for personnel and benefits to pay the overtime for personnel to process case backlogs and APD will utilize funds to pay accreditation fees and assessment costs.

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**FY12 Recipient Name:** Oregon State Police

**Award Number:** 2012-CD-BX-0050

**Award Amount:** \$88,611

**Abstract:** The scope of this proposal is to decrease the latent print backlog through the use of overtime and increase the efficiency in all forensic disciplines through continuing education and training. The objectives are (1.) to provide overtime for latent print examiners to assist in reducing the backlog and (2.) to provide training and continuing education opportunities to all forensic scientists to assist with maintaining proficiency or obtaining competency.

For objective 1, we will use overtime in latent prints (LP). We currently have 18.5 analyst assigned to the latent print discipline, with 14 working full time doing latent print processing and comparisons and 4.5 proficient to perform latent print processing only. In 2011, two forensic scientists were training in latent print comparisons and one LP examiner retired. We received 3303 latent print requests in 2011, ~275 per month. The latent print backlog (>30 days old) at the beginning of 2011 was 871 with 652 requests greater than 30 days old. The current backlog, as of April 30, 2012, was 794 requests with 619 requests being greater than 30 days old. During 2011, the average number of requests per analyst was ~15 requests per month. Thus, with 18.5 analysts, we can work ~277.5 requests per month and reduce the backlog by 2.5 requests per month. Using overtime, we should be able to reduce the backlog by an additional 40 requests in a 12 month period. In addition to overtime, we will use process mapping to evaluate the workflow and identify areas for efficiency improvements. We will increase the number of examiners dedicated to working latent print requests full time as we are currently training two analysts to perform comparisons and we will utilize overtime to address the backlog. We anticipate being able to reduce the backlog to ~ 536 requests by the end of the project period.

To meet objective 2, analysts will participate in various training opportunities to either fulfill training requirements for competency or to maintain proficiency. Training may include attendance at professional conferences (e.g., CLIC, SOFT, & AAFS) or workshops. Attendance at meetings, conferences and

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workshops will assist analysts in meeting requirements to obtain competency or maintain proficiency and keep current with new technologies. In addition, we will provide training opportunities to maintain a proficient, confident workforce. The subsequent expected outcome will be increased productivity, decreased turnaround times and thus, more timely quality service to our customers.

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**FY12 Recipient Name:** City of Salem (OR)

**Award Number:** 2012-CD-BX-0023

**Award Amount:** \$78,300

**Abstract:** The Salem Police Department Crime Lab's ability to find and capture physical evidence in the least destructive manner possible and to provide high quality, timely results is hampered by its current available resources. The need for better quality equipment has been recognized. The Department has actively researched available products to assist the Crime Lab in their efforts. A 532nm Green Forensic Laser System, such as that produced by Coherent, has been identified as a product that will improve the quality and timeliness of processing forensic evidence. Such a laser has been proven successful at detecting evidence not detected by other equipment. This evidence includes but is not limited to: fingerprints, hairs, fibers, physiological fluids, blood, bruising, arson residues and cleaners. The City of Salem is requesting \$78,300 in funding from the Paul Coverdell Forensic Science Improvement Grant for the purchase of a 532nm Green Forensic Laser System, to include an 8W unit and a 4W unit.

Through acquisition of a 532nm Green Forensic Laser System, the Department will be able to increase the amount of physical evidence detected both in the field and in the laboratory, and reduce the amount of more aggressive sequential processing steps required to develop evidence and successfully incorporate desired chemical development techniques which have failed to yield positive results with the current equipment. The success of this piece of equipment will be monitored through the collection of statistical data, in which use and positive results are recorded and compared to 2011 findings.

If funding is awarded, Salem Police Department intends to purchase a larger unit to remain in the Crime Lab to be used on a daily basis and taken to crime scenes as needed. A smaller, more compact unit will also be purchased to be kept at the Salem Police Department which will be used by units within the Department as well as loaned out to other law enforcement agencies in the area.

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**FY12 Recipient Name:** City of Portland (OR)

**Award Number:** 2012-CD-BX-0031

**Award Amount:** \$49,675

**Abstract:** The Portland Police Bureau is the largest police agency in the state of Oregon. The Bureau, with over 900 sworn officers and nearly 300 non-sworn members, serves a metropolitan population of 538,776. One of the key goals of the bureau is to continuously improve work processes.

With the assistance of previously awarded Coverdell grants the bureau's Forensic Evidence Division (FED) has converted to digital imaging technology for its capture, storage and processing of crime scene photography and other evidence. The FED has developed the following goals and objectives:

*Project goals and objectives:*

Goal 1: Improve the Portland Police Bureau Forensic Evidence Division's work processes.

Objective 1: Reduce the time it takes to process forensic quality digital evidence.

Objective 2: Increase the efficiency of the workflow of crime scene investigators

Objective 3: Increase the efficiency of the photo processing and printing procedure.

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Goal 2: Increase the level of service to the bureau's members, stakeholders and the public.

Objective 1: Make the process for obtaining crime victims photographs quicker.

Objective 2: Implement a system that reproduces digital images more efficiently.

Objective 3: Increase the availability of digital cameras for internal/office processing of evidence and victims.

To meet these goals FED would like to obtain additional digital cameras so crime victim photographs and digital evidence may be processed more efficiently and quickly; add individual workstations for its crime scene staff so they may perform work at their desks for better organization of evidence; and purchase a CD/DVD Blu-ray disc burning system to facilitate requests for digital images.

The acquisition of additional supplies and equipment will allow FED to meet their goals and objectives by streamlining workflow processes and organizational methods of evidence processing. Output of digital images may be accomplished more quickly and will free up photo lab technicians to work on other digital evidence projects.

In order to achieve the Bureau's goals, the City of Portland is requesting \$49,675 in funding from the FY 2012 Paul Coverdell Forensic Science Improvement Grant.

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**FY12 Recipient Name:** Pennsylvania Commission on Crime and Delinquency

**Award Number:** 2012-CD-BX-0038

**Award Amount:** \$291,631

**Abstract:** The Pennsylvania Commission on Crime and Delinquency (PCCD) plans to support projects intended to improve the quality and timeliness of forensic lab services, in addition to county medical examiner and coroner office services, throughout Pennsylvania, through a competitive solicitation.

As with past Coverdell funding, the focus of these funds will be to reduce or eliminate evidence backlogs and in doing so, reduce the processing time, so that cases can be expedited through the state and local criminal justice systems.

With the bulk of its FY 2011 formula allocation, PCCD is building upon the earlier developed and implemented web based laboratory pre-logging application capable of electronically recording receipt and transmission of findings, to now interface with existing criminal justice records management systems. With this funding, Pennsylvania's Open Laboratory pre-Log Service (POLLS) project will further extend the web-based pre-log application (developed under FY 2007 & 2008 Coverdell funding) to include support for open automated electronic data sharing between multiple vendor provided local police Evidence Management Systems (EMS) and Records Management Systems (RMS) and the Pennsylvania State Police hosted statewide LIMS pre-logging application. A small portion of our FY 2011 formula was also used for a competitive solicitation.

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**FY12 Recipient Name:** Instituto de Ciencias Forenses

**Award Number:** 2012-CD-BX-0051

**Award Amount:** \$84,830

**Abstract:** The PRIFS is an ASCLD-LAB-, FBI-, ACGME-, FQS-, and NAME-accredited, full-service forensic facility that has served the citizens of Puerto Rico since 1985. FY2012 Paul Coverdell funding will be used to provide continuity to consulting services received by a qualified forensic Laboratory

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Information Management System (LIMS) Database consultant with forensic science experience. This valuable resource will continue providing oversight and technical assistance as part of the implementation of the Web-Based Star LIMS v.10 application with the aim of 1) drastically enhancing our electronic information sharing environment capabilities with criminal-justice-system stakeholders at the Local and Federal level; 2) enhancing our information sharing with the Puerto Rico Primary Fusion Center; 3) generating turn-around time/throughput and other performance indicator data/productivity statistics for process enhancement in an automatic fashion; 4) generating audit-trail log files; 5) generating crystal reports; 6) assuring quality assurance measures are executed on a timely fashion; and many other important accountability promoting functions. Additionally, funding will be used to retain a Firearm/Toolmarks Examiner's trainer who will continue providing highly cost effective in-house training to five (5) future Firearm/Toolmark examiners at the PRIFS. File Maker Pro will be used to obtain performance metrics data of interest to the NIJ for all forensic disciplines at the PRIFS. Project execution will be carried out through the support of an Organizational Structure that includes one Project Coordinator, who will ensure that all the Programmatic goals identified in this proposal are achieved on a timely fashion. Quarterly Financial Status Reports (FSRs) will be prepared by the Finances Director and submitted on a timely fashion through GMS. A Grants Specialist, who will work closely with operational and administrative divisions, will be responsible for: 1) submitting semiannual progress reports; 2) identifying difficulties hindering progress; 3) maintaining a binder with all the pertinent documentation for any future Grant Progress Assessment (GPA); and 4) submitting the Performance Metric Data required by NIJ on a timely fashion.

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**FY12 Recipient Name:** Rhode Island Public Safety Grant Administration Office

**Award Number:** 2012-CD-BX-0020

**Award Amount:** \$63,517

**Abstract:** Rhode Island has used its Coverdell funding to embark on an accreditation readiness program. Rhode Island laboratories began the accreditation process with the Coverdell 2002 award. The exercise has required that the State Crime Laboratory at the University of Rhode Island and the State Forensic Science Laboratory at the Department of Health meet or exceed the required forensic laboratory standards that have been identified by international accreditation standards (ISO 17025).

Effective April 9, 2007, the State Crime Laboratory was assessed and found to comply with the requirements of ISO/IEC 17025:2005 and forensic requirements for accreditation. That accreditation expired April 9, 2011. The Laboratory underwent an ISO audit inspection by FQS, Inc. in March of 2011 and was re-accredited for a second four year term: May 25, 2011 to May 25, 2015.

To maintain accreditation, the Laboratory must be vigilant in quality control on a daily basis and submit to an annual audit by FQS. It is necessary to have a Quality Assurance Officer available in the Laboratory for this purpose. As of January 2010 the Laboratory made this a full time position by using funds from the Coverdell appropriation and from the state budget appropriation to the Laboratory for its operation. The FY 2012 Coverdell award will fund this position from October 1, 2012 through the federal fiscal year which ends September 30, 2013 at 26.4800% percent of the current rate of pay with fringe benefits or \$63,767. The total cost of this position is \$89,860 including \$57,407 in salary and \$32,453 in fringe benefits.

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**FY12 Recipient Name:** South Carolina Department of Public Safety

**Award Number:** 2012-CD-BX-0033

**Award Amount:** \$107,088

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**Abstract:** The South Carolina Department of Public Safety (DPS) is the State Administrative Agency for the Forensics Sciences Formula Grant Program. Prior to FY2005, the State Law Enforcement Division (SLED) had received the entirety of the Forensic Science funds. SLED provides the criminal justice community with a full-service state of the art forensic laboratory and is tasked with analyzing samples submitted by law enforcement agencies and coroner's offices throughout the state. To assist regional forensic laboratories that provide forensic services to surrounding law enforcement agencies, DPS expanded the solicitation beginning in FY2005 to include all forensic labs that would be eligible under the guidelines.

The need to decrease the number of backlogged cases at SLED, as well as in regional laboratories, is evidenced by the numbers of cases that have not been processed. SLED processes approximately 65,000 requests yearly. At present they have a backlog of 5,702 cases in six separate forensic departments. Based on the needs of the individual departments, overtime hours will be needed to reduce these backlogs.

Regional laboratories are also experiencing backlogs due to the number of cases they are receiving from local law enforcement agencies in their areas. These laboratories typically have one chemist who is responsible for all of the forensic cases that are processed. With the increase in drug arrests in the regions where these facilities exist, more cases are being sent directly to these labs rather than SLED and they are now beginning to experience backlogs as well. These labs strive to process all drug cases within a week to ten days, but this turnaround time has now increased due to the influx of cases.

All the forensic labs strive to increase productivity and efficiency. To accomplish this, the laboratories must purchase instrumentation in keeping with current technology standards. Upgrading old and outdated equipment will allow for the more rapid processing of evidence, faster case turn around and quicker apprehension prosecution and conviction of criminal subjects.

### Project Goals and Objectives

- (1) To reduce the number of backlogged cases in the SLED forensic laboratory by 50%.
- (2) To reduce the number of backlogged cases in regional forensic laboratories by 50%.
- (3) Acquire and install equipment in forensic laboratories to reduce backlogs as well and increase the productivity of cases processed.

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**FY12 Recipient Name:** Charleston County (SC)

**Award Number:** 2012-CD-BX-0068

**Award Amount:** \$155,266

**Abstract:** The "Preservation of Forensic Science Evidence Initiative" will be used to improve the quality and timeliness of forensic science services in the Charleston County Coroner's Office (Coroner's Office) by ensuring that all physical evidence and biological material is preserved for the proper amount of time, with legal chain of custody, with sufficient documentation to locate the physical evidence and biological material and under conditions reasonably designed to preserve the forensic value of the physical evidence and biological material. This initiative will ensure all physical evidence and biological material, for backlogged cases and those cases hence forth, are properly stored and maintained to ensure the forensic quality of the evidence.

The primary goal of the project is to develop, implement and maintain an evidence management system which will improve the quality of forensic evidence in the custody of the Coroner's Office. The

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objectives which will be met include: (1) 25% reduction in the number of backlogged and cold case articles of evidence which have not been properly documented, tracked and stored (2) Ensure that a process is established so that 100% of all new articles of evidence are entered in to a new data/evidence management software system and into a secured evidence room. In order to meet these objective the following methods will be utilized; (1) A full-time evidence technician will be employed to set up an evidence room; (2) Equipment and supplies, to include a refrigerated cooler, will be purchased in order to properly set up the evidence room; (3) Forensic data management computerization and software will be purchased to ensure that articles of evidence are properly labeled, documented and tracked in the evidence room; (4) A consultant forensic anthropologist and consultant forensic odontologist (dentist) will be funded to process skeletal and dental evidence.

A secondary goal of this project is for the Charleston County Coroner's Office to apply for and receive accreditation from the International Association of Coroners and Medical Examiners (IAC&ME) by 2014. Successful completion of the primary goal will make it possible for the Charleston County Coroner's Office to be able to meet the required standards of operation which have been established for those seeking office accreditation through the IAC&ME. Once those required standards are met, the office will be able to set up the required on-site inspections required for accreditation.

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**FY12 Recipient Name:** City of Charleston (SC)

**Award Number:** 2012-CD-BX-0067

**Award Amount:** \$114,837

**Abstract:** The goal of this project is to improve the efficiency, effectiveness and timeliness of laboratory services.

The City of Charleston Police Forensic Services Division will purchase a universal forensic extraction device (UFED) for cell phone examinations and replace the Gas/Chromatograph Mass Spectrometer in use since 2001 for controlled substance analysis and fire debris.

The Forensic Laboratory seeks to:

- 1) Reduce maintenance costs, instrument downtime and obsolescence;
- 2) Acquire improved technology to increase effectiveness and;
- 3) decrease turnaround time, avoid backlog and improve the timeliness of reporting;
- 4) Increase the number and type of cell phones that data can be recovered from; and
- 5) Enhance the reporting output for mobile device examinations.

Five (5) objectives have been identified for this project:

- 1) To run six thousand (6000) drug samples on GC/MS;
- 2) To run three hundred (300) fire debris samples on GC/MS;
- 3) To add one hundred (100) samples to the user-created GC/MS library;
- 4) to provide an average of a ten (10) day turnaround for controlled substance analysis, fire debris and cell phone examinations; and
- 5) To reduce the number of cases in which cell phone data extraction failed due to hardware or software incompatibility with forensic tools.

The Project Director will assess the success of the project in improving the effectiveness, efficiency and timeliness of laboratory services. This will be accomplished through feedback from the examiners, measurement of turnaround time, and improved services. The Forensic Services Division uses a Laboratory Information Management System (LIMS) which offers the flexibility and reliability necessary



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to gather information on cases submitted, examination results and turnaround time. Its query and statistical reporting capabilities will be used to monitor measure and report the performance outcomes of the grant/project.

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**FY12 Recipient Name:** Office of the Attorney General (SD)

**Award Number:** 2012-CD-BX-0015

**Award Amount:** \$63,517

**Abstract:** The South Dakota Forensic Laboratory (SDFL) actively upholds laboratory accreditation requirements. The SDFL was most recently assessed in August 2010 by the Forensic Quality Services-International Division of Forensic Quality Services, Inc and found to comply with the requirements of ISO/IEC 17025:2005 in the categories of Biology, Digital and Multimedia Evidence, Trace Materials (Fibers, Hairs and Fire Debris), Firearms/Tool Marks and Latent Prints. The SDFL is scheduled for re-accreditation in the Fall of 2012.

With the release of the National Academy of Sciences (NAS) Report on Strengthening Forensic Science in the United States, the SDFL is requiring all employees to obtain professional certifications in their respective forensic disciplines of practice. Most every one of these professional certification programs require a defined amount of credit hours for qualifying training in order to be eligible to take these certification examinations. In addition, all these programs have a re-certification timeline requiring continuing professional development through training and professional meeting attendance. All but two scientists of the SDFL staff, with pending applications for certification, had received certification as certified Crime Scene Investigators through the International Association for Identification. Several others hold individual certifications (AFTE, ABC-Diplomat, etc.). The SDFL is requesting FY2012 funding to provide professional training and development for its employees in order to become certified and maintain certification.

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**FY12 Recipient Name:** State of Tennessee

**Award Number:** 2012-CD-BX-0010

**Award Amount:** \$146,546

**Abstract:** The Office of Criminal Justice Programs (OCJP) has been designated by the Governor of Tennessee as the State Administering Agency (SAA) for funds from the U.S. Department of Justice. OCJP has identified two (2) entities that provide forensic science services for criminal justice purposes throughout the state. These entities are the State Medical Examiner's Office and the Tennessee Bureau of Investigation.

The Department of Health has a combined state and county medical examiner system under the State Medical Examiner's Office for the operation of the medical examiner system over the whole state. This includes all county medical examiners, medico legal death investigators, medical examiner laboratories, and forensic pathologists.

The Tennessee Bureau of Investigation (TBI) has a Forensic Services Division (Crime Laboratory System) that provides forensic science services to any law enforcement agency or medical examiner in the state. The TBI and the State Medical Examiner's Office remain the agencies that are tasked with providing statewide criminal forensic services to state and local agencies. All examinations and evidence go through one or both of these two agencies.

Representatives from the Tennessee Bureau of Investigation's Forensic Services Division and from the Medical Examiner's Office coordinated with the Office of Criminal Justice Programs to formulate a

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consolidated state plan to utilize NIJ funds from the FY 2012 Paul Coverdell Forensic Sciences Improvement Grant Program. The consolidated plan includes providing opportunities for professional enhancement and the purchase of laboratory equipment.

The Office of Criminal Justice Programs will utilize a portion of the total award to administer the Coverdell funds awarded to the State. OCJP intends to sub-grant funds to the State Medical Examiner's Office and to the Tennessee Bureau of Investigation to implement the projects identified below.

The State Medical Examiner's Office has identified professional enhancement as a primary need for their professionals across the State. They intend to use base Coverdell funds, if awarded to the state, to send representatives from the five regional forensic offices to a national training in St. Louis, Missouri with the goal of improving the quality of forensic science and medical examiner services throughout the state of Tennessee.

The Tennessee Bureau Investigation has identified that their major needs include the acquisition of new laboratory instruments and forensics training. The TBI intends to use base Coverdell funds, if awarded to the state, to purchase a comparison microscope and several Precision Balances. Additionally, they intend to send employees from the regional labs for forensics training with the goal of improving the timeliness of processing forensic samples. Furthermore, the TBI proposes to use competitive Coverdell funds, if awarded to the state, to purchase a gas chromatograph / mass spectrometer, a Noritsu printer, and a Fourier Transform Infrared Spectrometer for the Nashville Lab.

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**FY12 Recipient Name:** State of Texas

**Award Number:** 2012-CD-BX-0042

**Award Amount:** \$587,586

**Abstract:** The goal is to reduce the backlog in processing non-DNA forensic evidence.

Objectives:

1. Accurate and timely processing of forensic evidence.
2. Support accredited laboratories with equipment and resources that enhance their ability to process evidence.

The Governor's Criminal Justice Division (CJD) proposes to use its 2012 Coverdell funds to support accredited crime laboratories and medical examiner offices in reducing the backlog in processing non-DNA forensic evidence. Grant funds will enhance the ability of laboratories operated by state and local units of government to maintain the integrity of evidence they examine. Funds may be used to pay overtime to forensic scientists, to contract for external processing of evidence or contract with qualified scientists to address backlogs and to acquire new or replacement equipment that will improve operations of the laboratory and support a reduction in the backlog of evidence. State statutes require all crime laboratories operating in the state to be accredited through the Texas Department of Public Safety (DPS). Statutes also address the requirements for admissibility of evidence in criminal proceedings and require that in order to be considered admissible; the evidence must have been examined by a laboratory that was accredited at the time the evidence was processed. DPS and the Texas Forensic Science Commission are statutorily authorized to conduct investigations into complaints about laboratory negligence or misconduct affecting the integrity of the forensic results.

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**FY12 Recipient Name:** Dallas County (TX)

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**Award Number:** 2012-CD-BX-0072

**Award Amount:** \$174,410

**Abstract:** Efforts will be undertaken to improve the quality and timeliness of forensic laboratory and medical examiner services at a local medical examiner/crime lab facility. The project will benefit several areas of operations: medical examiner/death investigation, forensic toxicology analysis, controlled substance analysis, firearm & tool mark analysis, and trace evidence analysis. The goals of the project will be: 1) to purchase and install several low-volume document scanners to improve the ability of the medical examiner's office to transfer documents to the LIMS database; 2) to purchase and install equipment for automated logging of temperatures from refrigerators, freezers and body coolers to eliminate the need for staff to perform manual temperature logging; 3) to purchase and install large format computer monitors to improve the ability of laboratory staff to utilize the laboratory information system; 4) to purchase and validate a microprocessor-based instrument for automated refractive index measurement, to improve the quality of analysis performed by the Trace Evidence laboratory; 5) purchase and install a digital fingerprint capture device to enhance decedent identification and to enable more timely communication with investigators; 6) to provide continuing education and training to staff of the crime laboratory and medical examiner's office.

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**FY12 Recipient Name:** Utah Department of Public Safety

**Award Number:** 2012-CD-BX-0055

**Award Amount:** \$64,474

**Abstract:** The Utah Bureau of Forensic Services (BFS) is requesting \$65,083 in 2012 Coverdell grant base/formula funds for the Bureau of Forensic Services, Utah Bureau of Forensic Toxicology (BFT), and the Intermountain West Regional Computer Forensic Laboratory (IWRCFL). These three laboratories comprise the Utah State forensic laboratory system. The funding would be used to target three of our more pressing issues: manpower, training and equipment. Funding is requested to continue a part-time Program Specialist in the IWRCFL to maintain or decrease the existing case turnaround time. Travel/training is also requested by the BFS and BFT so analysts can stay current in their respective disciplines and obtain/maintain certification in those disciplines. Additionally, the BFT is requesting funding for equipment to replace standing equipment that is either outdated or insufficient for handling existing case volume. Utilizing Coverdell funds in these sections of the laboratory system will help to improve the quality, efficiency and timeliness of forensic science services for the State of Utah.

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**FY12 Recipient Name:** Vermont Department of Public Safety

**Award Number:** 2012-CD-BX-0014

**Award Amount:** \$63,517

**Abstract:** The Vermont Forensic Laboratory is the only forensic laboratory in the State of Vermont and accepts evidence from law enforcement agencies throughout the state, from local police departments to the Vermont State Police investigators. During the past year the laboratory has encountered some changes that have resulted in reduced efficiency. The laboratory has seen significant staff changes, has gained new programs and carries a large number of vacancies.

The efficient processing of cases and analysis of evidence can be improved through grant funds applied to:

- An evidence technician/LIMS administrator to receive and distribute evidence and maintain the LIMS
- Funding to maintain and improve our LIMS which is increasingly important in standardizing processes throughout the laboratory
- Training of examiners, both new and experienced.

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The goals of this proposal are to provide salary for an evidence technician/LIMS administrator, and provide funding to maintain and improve our LIMS. The funding will also allow continuing educational training for experienced staff and training for new staff as they are hired to fill vacancies.

It is critical for each analyst to maintain current knowledge and training in his/her area of expertise. It is also important to ensure that the methods and processes in place in each discipline are current and meet the standard in the field. The Forensic Laboratory will send analysts to meetings and training programs to in their area of expertise acquire state-of-the-art information and skills. Opportunities to meet with peers are an important component of remaining current and developing peer resources. The laboratory is composed of four units- the chemistry, biology, physical comparison and newly acquired blood/breath alcohol units. The physical comparison unit examiners will attend classes related to fingerprints, firearms and digital photography. These classes will include the national training offered by the IAI and AFTE. The photography technician will attend classes related to digital processing and may need to attend classes relative to new instrumentation purchased by the laboratory. The chemistry and biology units will attend a yearly New England Association of Forensic Sciences regional meeting to refresh their skills, make connections with local peers and meet accreditation requirements. Attendance at the CODIS Users meeting, and the Promega meeting will allow our CODIS manager and one DNA analysts to keep up to date in their professions. Attendance at the CO DIS meeting is valuable to DNA casework analysts to better understand CODIS eligibility and changing laws. The ASCLD meeting provides training for laboratory managers and the OSHA training allows our safety officer to learn new procedures and mandates concerning laboratory safety.

Funding will support the salary of the evidence technician/LIMS administrator. Employing this individual ensures that analysts do not have to spend time at this task and will ensure evidence is consistently received and properly documented by the evidence technician. Evidence submission does not occur throughout the day, this individual Prior to having an evidence technician, laboratory analysts also provided evidence receipt. This was inefficient and less consistent. The evidence tech position will also provide LIMS administrator functions which will allow a smooth operation of our LIMS and reduces down time in the laboratory. The Department and laboratory has become more tech-intensive, and this individual provides training on and troubleshooting of the various new electronic systems put in place, this individual will also be the liaison between the LIMS system new module, and the newly acquired breath alcohol program instruments (Data Master-DMT) located throughout the state. Funding will support of a service and maintenance contract for the LIMS system. There are updates that are received from the provider and occasion problems that require their assistance. Having a contract in place assures we will not experience any serious delays in service. The funding will also support a contract with Focus Forensics to provide technical review and occasional casework in the latent fingerprint and firearms areas. The latent print section has only a single examiner. We are in the process of recruiting another examiner, but until a second examiner is in place, we are outsourcing the technical review of the latent print casework. This situation will remain until new staffs are fully trained.

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**FY12 Recipient Name:** Department of Criminal Justice Services

**Award Number:** 2012-CD-BX-0022

**Award Amount:** \$185,297

**Abstract:** This grant request involves two agencies within the State of Virginia, the Department of Forensic Science and the Office of the Chief Medical Examiner, Department of Health. The Virginia

## **FY2012 Paul Coverdell Forensic Science Improvement Grants Program Abstracts**

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State Administering Agency for this grant is the Department of Criminal Justice Services and it intends to pass through the funds to the Department of Forensic Science and the Office of the Chief Medical Examiner, Virginia Department of Health. The Department of Forensic Science is requesting discipline specific training, equipment, and instrumentation to improve the quality and timeliness of forensic services and the Office of the Chief Medical Examiner is requesting funds to train a forensic pathology fellow to increase the number of qualified forensic pathologists in Virginia and the nation to improve timeliness and quality of death investigation.

### **VIRGINIA OFFICE OF THE CHIEF MEDICAL EXAMINER (OCME)**

The purpose of this grant request is to improve the quality, thoroughness, and timeliness of death investigation by increasing the number of qualified trained forensic pathologists in Virginia and the United States. This also improves the competent performance of forensic autopsies and evidence collection.

One goal is to increase the number of qualified forensic pathologists in Virginia and the United States, by training and certifying a forensic pathology fellow in the Office of the Chief Medical Examiner in Virginia to prepare them to take their Forensic Pathology Board examinations.

The achievement of this goal is dependent on meeting instructional objectives set by the ACGME (Accreditation Council for Graduate Medical Education) accreditation. The Office of the Chief Medical Examiner in Virginia has met this instructional accreditation with rigorous program criteria for an annual training of forensic pathology fellows.

The fellowship training year runs from July 1, 2013 to June 30, 2014. A nine month no-cost extension would be requested to be able to fulfill the objectives of the grant since the grant period ends September 30, 2013. There is no State supplied funding for this program.

### **VIRGINIA DEPARTMENT OF FORENSIC SCIENCE (DFS)**

The mission of the Department of Forensic Science (DFS) is to protect the public's safety, support law enforcement and the judicial system, and advance the growth and understanding of forensic science. The quality of service provided by DFS has a significant impact on the weight that courts place upon the results of examinations conducted by DFS. Therefore, DFS must continue to provide timely and reliable services of the highest caliber to law enforcement agencies and others, as specified by law. These services are vital to support public safety and ensure confidence in the criminal justice system in Virginia.

The primary goal of this proposal is to improve the quality and timeliness of forensic science services in the Commonwealth of Virginia provided by the DFS Chemical Analysis, Physical Evidence, and Calibration and Training program areas.

To accomplish this goal, DFS proposes the following objectives:

1. Enhance DFS forensic scientists' skills and knowledge base by providing training opportunities for scientists in various scientific disciplines within the Physical Evidence, Chemical Analysis, and Calibration and Training program areas.
2. Increase productivity and reduce turn-around times in the Firearms and Toxicology sections by acquiring equipment for use in these two areas.

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**FY12 Recipient Name:** Virgin Islands Department of Justice

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**Award Number:** 2012-CD-BX-0037

**Award Amount:** \$63,517

**Abstract:** This proposal will facilitate the improvement of the forensic services in the United States Virgin Islands. The purpose of this proposal is to use funds to improve the quality, quantity and timeliness of forensic science services in the territory. This proposal seeks to affect institutional changes that would demonstrate improvements over current operations. Currently, there is no crime lab in the Virgin Islands. The overall impact of not having a crime lab in the territory is evident by the delayed trials because the evidence is not being processed in a timely manner. The successful investigation and prosecution of crimes requires, in most cases, the collection, preservation and forensic analysis of evidence, which can be crucial to demonstrations of guilt or innocence.

The overall project goal is to provide expert forensic science and medical examiner support services to law enforcement agencies within the jurisdiction of the territory. Forensic Science is a labor intensive undertaking, in which the quality, experience, and technical currency of the personnel performing the analyses are paramount. Neglecting on-going staff training and professional development can lead to organizational failure to meet the Department's service goals and the lab's quality requirements. Therefore, it is essential that a reasonable foundation be put in place to offset the direct and indirect costs of training, professional development, travel costs, personnel costs, equipment, supplies, and other services. Implementation of this framework for achieving and maintaining professional competency will extend learning opportunities, promote high standards of professional practice, and will provide assistance to increase the quality and timeliness of forensic science and medical examiner services to the territory of the USVI.

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**FY12 Recipient Name:** Washington State Patrol

**Award Number:** 2012-CD-BX-0064

**Award Amount:** \$156,311

**Abstract:** The Washington State Forensic Investigations Council promotes the achievement of excellence in the delivery of forensic science services at the state and local level for the citizens of the state of Washington. The Council requests funding from the FY 2012 Paul Coverdell Forensic Science Improvement Grants Program for the following prioritized projects designed to develop and enhance the professional standards of practice for forensic analysis and death investigation:

1. Grant County Coroner: Laboratory Equipment - \$9,908
2. Washington State Patrol – Crime Laboratory Division: Crime Scene Response Team Equipment - \$116,981
3. Washington State Patrol – Missing and Unidentified Persons Unit: Dental Records Backlog Reduction- \$30,897

These projects, if funded, will improve the practice of forensic science in Washington State by:

- Improving the quality and timeliness of forensic science and medical examiner services in Washington State, including those services provided by laboratories operated by the Washington State Patrol and those operated by units of local government within Washington State; and
- Eliminating a backlog in the analysis of forensic science evidence, including, among other things, a backlog with respect to latent prints, forensic pathology, and trace evidence.

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**FY12 Recipient Name:** City of Tacoma

**Award Number:** 2012-CD-BX-0074

**Award Amount:** \$119,900

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**Abstract:** Protecting citizens and identifying criminals puts a tremendous strain on the City of Tacoma and regional budgets. The demands of servicing a large transient population have become even more of a challenge during the economic downturn, due to budget cuts.

The purpose of the Tacoma Police Department's Forensic Services Section is to provide timely and accurate scientific, technical and investigative support to the criminal justice system through forensic analysis. The Forensic Services Section currently provides services in latent prints and crime scene investigations. Forensic Services responds to approximately 4,000 crime scenes per year for processing and averages around 1500 requests for laboratory analysis. In addition, the section receives an average of 1300 latent print comparison requests. The Tacoma Police Department has demonstrated a commitment to cost effective criminal investigation strategies by investing in a professional civilian Forensic Services Section for over 40 years. Latent Print Examiners and Forensic Specialists are facing more and more challenges to latent print testimony in court. Crime Scene Technicians are struggling with a backlog of evidence to process due the loss of two positions cut from the budget. For these reasons, TPD is applying for the National Institute of Justice Paul Coverdell Forensic Science Grant to improve the timeliness and quality of the analysis of evidence processed by the Forensic Services Section.

The TPD is seeking \$119,900.00 to prepare the Latent Print Unit and Crime Scene Unit for Accreditation through Forensic Quality Source under ISO 17020; to provide additional training for Forensics staff in court testimony, shooting reconstruction, effective recovery of footwear and tire tracks and to prepare experienced personnel eligible for IAI certification in latent prints and crime scene analysis an opportunity to evaluate their skills and abilities in a testing environment. In addition, TPD is seeking funds to purchase a large capacity cyanoacrylate fuming chamber to process evidence such as doors, tires, bicycles, flat screen televisions, etc. that are regularly processed by staff.

To prepare for Accreditation, the TPD would use the Coverdell grant to hire a consultant from Ron Smith and Associates, Inc. (RSA), to assist personnel prepare for the accreditation of the crime scene and latent print units under ISO 17020. Due to a heavy workload on current staff, TPD proposes hiring journey level employees on an overtime basis to work with the consultant to bring policies and procedures and other documentation up to accreditation standards.

Training funded by the Coverdell grant will improve the skills of our crime scene technicians and also improve the quality of court testimony provided by latent print examiners and forensic specialists in latent prints. The IAI test preparation classes will allow staff to evaluate their skills and abilities in a testing environment and on the last day of the course, allow the forensic specialists to take the certification test in latent prints and crime scene analysis; the crime scene technicians will be able to take the IAI certification test in crime scene analysis. By hosting these training classes at TPD, we will be able to provide training to the majority of staff without the added travel costs. The large capacity cyanoacrylate fuming chamber allows technicians to process not only large items for latent prints but we can process large amounts of evidence on a regular basis at the same time, thereby reducing the time from submission of evidence to delivery of results.

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**FY12 Recipient Name:** West Virginia Division of Justice and Community Services

**Award Number:** 2012-CD-BX-0019

**Award Amount:** \$63,517

**Abstract:** The West Virginia State Police (WVSP) Forensic Laboratory is an ASCLD/LAB accredited;

## FY2012 Paul Coverdell Forensic Science Improvement Grants Program Abstracts

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full service facility which is responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies. Services are provided, free of charge, to any police agency (including federal) within the 55 counties of West Virginia. The Laboratory serves a population base of approximately 1.8 million people.

The Laboratory is composed of eight specialized sections: Trace Evidence, Drug Identification, Toxicology, Biochemistry (DNA), Firearm/Toolmark, Latent Prints, Questioned Documents, and Evidence Processing. In addition, the Laboratory has a Central Evidence Receiving section for receipt and storage of items of evidence. The Laboratory's full time staff includes thirty three (33) analysts/examiners, four (4) technicians, two (2) secretaries, one (1) quality assurance manager, and a director. The Laboratory routinely receives approximately 6,300 cases and examines 40,000 to 50,000 items of evidence per year. The cases received include everything from capital crimes (homicides, sexual assaults) to misdemeanor property crimes.

In accordance with the State's *Consolidated Forensic Science Plan* goal to generally improve and advance forensic services, this project is designed to request funding for overtime to increase timeliness of services and to provide continued education to forensic analysts through specialized training to further improve the quality of our services.

The WVSP Laboratory is facing budgetary constraints to fund overtime and continued education. The Laboratory has experienced in 2011 a surge in submissions of Drug cases as a result of dangerous synthetic designer drugs such as synthetic cannabinoids (K2) and synthetic cathinones (Bath Salts) flooding the market. The Federal funding from this award will be used for the following goals:

- 1- Provide overtime to forensic drug chemists to test new formulations of synthetic drugs and reduce the backlog of drug cases.
- 2- Provide continued education recommended by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB), the Laboratory's accrediting body.
- 3- Provide continued education to forensic examiners to maintain their certification.

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**FY12 Recipient Name:** Wisconsin Department of Justice

**Award Number:** 2012-CD-BX-0059

**Award Amount:** \$130,718

**Abstract:** The Wisconsin Department of Justice, Division of Law Enforcement Services, State Crime Laboratory System (WI-DOJ DLES/SCLS), is applying for the 2012 Paul Coverdell Forensic Science Improvement Grants to continue to maintain, as well as improve, the quality and timeliness of forensic science services. The participating agencies consist of the WI-DOJ DLES/SCLS, Milwaukee County Medical Examiner's Office (MCME), Wisconsin State Laboratory of Hygiene (WSLH), and the Kenosha County Department of Human Services-Division of Health Laboratory (KCDHS). All of these agencies will continue to take part in a State plan to improve forensic science and medical examiner services in Wisconsin as a result of this grant opportunity. This will be accomplished by continuing to decrease forensic case turnaround time by increasing capacity through the use of technology, modern equipment, and enhancing the education, training, and proficiencies of forensic analysts in each agency. All agencies have an existing grant agreement in place and have successfully worked together to improve forensic and medical examiner services in the State of Wisconsin.

### Agencies Participating

Wisconsin Department of Justice, Division of Law Enforcement Services, State Crime Laboratory System (WI-DOJ DLES/SCLS)



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- Crime Laboratory - Madison
- Crime Laboratory - Milwaukee
- Crime Laboratory – Wausau

Milwaukee County Medical Examiner's (MCME) Laboratory

Wisconsin State Laboratory of Hygiene (WSLH)

Kenosha County Department of Human Services- Division of Health (KCDHS) Laboratory

### Participating Agency Capabilities/Competencies

The agencies participating in this formulation of a state plan acknowledge the importance of cooperating to establish a statewide program with quality assurance and accreditation playing key roles. To that end, agencies which participate in the state plan to improve forensic science and medical examiner services in Wisconsin will be accredited and will correct any deficiencies in essential areas identified during accreditation inspections in the furtherance of maintaining generally acceptable laboratory practices.

Each participating agency also has a government entity and an appropriate process to conduct an independent external investigation into allegations of serious negligence or misconduct substantially affecting the integrity of the forensic results committed by employees or contractors.

The WI-DOJ DLES/SCLS is accredited by the American Society of Crime Laboratory Directors / Laboratory Accreditation Board (ASCLD/LAB). The most recent accreditation inspection was performed in March of 2012. As a part of accreditation, the crime laboratories perform yearly audits of their operations in each functional area. These audits are used as the basis for yearly reports regarding performance in adhering to the accreditation criteria. Investigations into serious negligence or misconduct substantially affecting the integrity of the forensic results would be investigated independently by the Wisconsin Department of Justice, Division of Criminal Investigation (DCI). The State Crime Laboratory Director is Kevin Jones.

The Milwaukee County Medical Examiner's Laboratory is accredited by the National Association of Medical Examiners (NAME) and the American College of Graduate Medical Education (ACGME) programs. Investigations into serious negligence or misconduct substantially affecting the integrity of the forensic results would be investigated independently by the Milwaukee County District Attorney's Office. Dr. Brian L. Peterson is the Medical Examiner for Milwaukee County.

The Wisconsin State Laboratory of Hygiene is accredited by the American Board of Forensic Toxicology (ABTF). Investigations into serious negligence or misconduct substantially affecting the integrity of the forensic results would be investigated independently by the University of Wisconsin-Madison Police Department. The Director of WSLH is Dr. Charles D. Brokopp.

The Kenosha County Health Laboratory is accredited by ASCLD/LAB. Investigations into serious negligence or misconduct substantially affecting the integrity of the forensic results would be investigated independently by the Kenosha County District Attorney's Office. The Director of the Kenosha County Health Laboratory is Carlton Cowie.

The WI-DOJ DLES/SCLS, Milwaukee County Medical Examiner's Laboratory, Wisconsin State Laboratory of Hygiene, and the Kenosha County Health Laboratory use laboratory practices and procedures established by their accrediting organizations.

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**FY12 Recipient Name:** Kenosha County Department of Human (WI)

**Award Number:** 2012-CD-BX-0075

## FY2012 Paul Coverdell Forensic Science Improvement Grants Program Abstracts

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**Award Amount:** \$175,000

**Abstract:** The Kenosha County Division of Health – Public Health Laboratory is applying for a 2012 Paul Coverdell Forensic Science Improvement grant to continue to improve the quality and timeliness of forensic services by upgrading technology through the purchase of equipment, assistance with the annual ASLCD/LAB accreditation fee, a part-time forensic chemist, and staff development opportunities for Laboratory staff. The Medical Examiner's Office will improve forensic operations by purchase of a freezer, iPads, database enhancements, and staff development opportunities.

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**FY12 Recipient Name:** Wyoming Office of the Attorney General

**Award Number:** 2012-CD-BX-0021

**Award Amount:** \$63,517

**Abstract:** The Wyoming State Crime Laboratory, (WSCL), an operational section of the Wyoming Office of the Attorney General, Division of Criminal Investigation, is located in Cheyenne, Wyoming, and is the only full service forensic laboratory in the State that provides examinations in Chemistry, Biology, Firearms/Tool Marks, Latent Prints and Trace Evidence. The fundamental mission of the WSCL is to provide, in a timely manner, a full range of forensic services to state and local law enforcement agencies and the Wyoming Office of the State Public Defender as mandated by State Statute.

This laboratory's goals for the 2012 Coverdell program are:

1. Reduction of analysis turn-around times

- a) Within the Drug Chemistry Unit by supporting overtime in response to the increased demand for analysis. This increase was specifically associated with the passage of statutory language in the spring of 2011 that added additional compounds to the list of controlled substances.
- b) Within the Firearms/Toolmark Unit by supporting overtime in response to the increasing demand for analysis and by supporting a contract for services that provides a qualified examiner to assist with case analysis on a part-time, temporary basis.

This laboratory's goal for the 2012 Coverdell Competitive Program is:

1. To strengthen the sustainability of a reduction in analysis times and reduce the pending casework backlogs throughout the entire laboratory through an improvement in the WSCL's Laboratory Information Management System (LIMS).

- a) Connecting our customer agencies directly to the Laboratory's LIMS system would allow direct, electronic, reporting of results to both the submitting agencies and the prosecutor's offices.
- b) To assist with decreasing testing turn-around times the prosecutor's offices would submit information concerning cases reaching disposition. Stopping or eliminating testing processes on these cases would have a significant impact on the WSCL's overall turn-around times.
- c) Allow direct pre-logging of evidence and reference samples to eliminate manual data entry within the laboratory. This will result in a significant time savings contributing to the laboratory's goal of a reduction in the number of backlogged cases, reduce overall turn-around times and improve the availability of forensic services to our customer agencies.

Consistent with the Coverdell Grant Program Goals of improving service timeliness and the reduction of backlogs, evaluation of this project will be measured by the reduction in the number of days between evidence submission and completion of the forensic reports associated with that evidence. Backlogs will be measured by the numbers of cases awaiting analysis throughout the project time-span with the additional information of the number of cases submitted during that same time. Evaluation of this funding project as to the levels achieved in reducing turn-around times and backlogs will be measured by the reduction in the number of days between evidence submission and completion of

## **FY2012 Paul Coverdell Forensic Science Improvement Grants Program Abstracts**

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the forensic reports associated with that evidence. Backlogs will be measured by the numbers of cases awaiting analysis throughout the project time-span with the additional information of the number of cases submitted.

The goals of the Wyoming State Crime Laboratory's application are consistent with the Coverdell Grant Program Goals of improving service timeliness as well as decreasing the backlog of cases awaiting analysis.

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