

## FY2013 Paul Coverdell Forensic Science Improvement Grants Program Abstracts

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**FY13 Recipient Name:** Alaska Department of Public Safety

**Award Number:** 2013-CD-BX-0040

**Award Amount:** \$ 58,186

**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 2013 Coverdell grant funds to provide training for staff who are directly and substantially involved in providing forensic science services, 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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**FY13 Recipient Name:** Alabama Department of Economic and Community Affairs

**Award Number:** 2013-CD-BX-0008

**Award Amount:** \$ 100,360

**Abstract:** FORMULA - The ADFS plans to utilize the FY2013 Paul Coverdell National Forensic Science Improvement Act (NFSIA) "Formula Grant Program" funds to improve its network capability through replacing old Laboratory Information Systems (LIMS) computer work stations, 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) work stations by replacing 15 LIMS computer work stations, (2) aiding in the reduction of case backlogs via the purchase of 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. DISCRETIONARY - The ADFS plans to utilize the FY2013 Paul Coverdell National Forensic Science Improvement Act (NFSIA) "Discretionary Grant Program" funds to purchase a Direct Analysis in Real Time (DART) instrument combined with accurate Time of Flight (TOF) mass spectrometer and auto sampler for use in forensic casework applications such as controlled substance analysis. The addition of the DART/TOF instrument will increase the overall capacity and efficiency of the forensic chemistry section by allowing a greater number of samples to be processed annually. The DART/TOF instrument can provide almost instantaneous (real-time) data and immediately determine chemical composition and high-resolution, accurate mass spectra by simply placing a sample (liquid or powder), in its native form, between the DART ion source and the TOF mass spectrometer inlet. The DART/TOF ionizes a wide variety of sample matrixes including solutions straight from a clandestine lab sample, crude extracts, unknown pills or powders, sticky liquids, vapors, TLC plates, and more. Typically no solvents and little or no sample preparation is required. Currently, ADFS

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has experience using this technology and has two DART/TOF instruments for controlled substance analysis. The DART/TOF couples the facile operation of the DART ion source with the high-resolution, accurate mass capability of the time-of-flight (TOF) mass spectrometer. This instrument allows analyst to rapidly acquire data from mixtures and complete unknowns without sample carryover, and the resulting spectra yield unambiguous assignments, isotopic ratios and elemental compositions. For even more sampling versatility, the standard configuration also includes an orthogonal electrospray (ESI) source. The realization of these efforts is in direct support of the Coverdell NFSIA Program's goals, and clearly maximizes the impact of such federal funding. The ADFS's Chemistry Section continues to face a backlog of over 27,000 cases backlog. While this backlog is due primarily to employee attrition and the lack of funds that would be used to hire replacement staff, the resultant increase in the overall infrastructure of the forensic laboratory through the implementation of this instrument will contribute significantly to the overall goal of reducing the chemistry backlog of forensic casework samples. To counter the reduction in staffing and to benefit further from the consolidation of forensic service areas, the ADFS plans to better utilize automated instrumentation such as the DART/TOF. These backlogs in Drug Chemistry are also due to the complex nature of difficult cases (clandestine lab samples and new illicit synthetic marijuana compounds) a lack of instrumentation capacity for case work analysis. Approximately 10% to 15% of the over 27,000 cases backlog falls into the category of difficult cases (clandestine lab samples and new illicit synthetic marijuana compounds). The addition of another DART/TOF instrument with a robotic auto injector (ALS) would directly impact the backlog of case analyses by increasing the number of controlled substance items analyzed by the estimate of 10 cases per work day.

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**FY13 Recipient Name:** Arkansas Department of Finance and Administration

**Award Number:** 2013-CD-BX-0012

**Award Amount:** \$ 61,379

**Abstract:** COMPETITIVE - The Arkansas State Crime Laboratory (ASCL) is a full service forensic laboratory serving the entire state of Arkansas. This includes 75 counties with a population of approximately 3 million individuals. The ASCL Medical Examiner's Office conducted 1326 autopsies in 2012. The ASCL Medical Examiner's Office is accredited through National Association of Medical Examiners (NAME) and employs six (6) Medical Examiners, seven (7) Field Investigators and seven (7) Morgue Technicians. The autopsy room is located in the basement of the Arkansas State Crime Laboratory. The building housing the autopsy room was built in 1981. Renovations have occurred to the scientific areas in the floors above, but no renovations have been performed in this room. Forensic Pathologists must have adequate lighting in order to document and conduct detailed examination of victims. New construction or renovation of the autopsy room is not in the foreseeable future. The most cost efficient improvement at this time is to supplement the current lighting system with ceiling mounted surgical lighting. The ASCL is requesting funding for purchasing and installing surgical lighting for each autopsy table. Goals of the program: To improve lighting conditions for conducting autopsies Objectives to support the goals: 1. To improve the lighting infrastructure in the Autopsy Room Project Strategy: To achieve the objective, improved lighting will be installed over each autopsy table. Anticipated Outcomes: The installation of lighting in the autopsy rooms will allow the Medical Examiner staff to process and document autopsies with improved viewing and photographing capability. BASE - The Arkansas State Crime Laboratory (ASCL) is a full service forensic laboratory serving the entire state of Arkansas. This includes 75 counties with a population of approximately 3 million individuals. The ASCL is accredited by the American Society of Crime Laboratory Directors - Laboratory Accreditation Board (ASCLD/LAB) in the Legacy Program. Initial accreditation was achieved in 2004 and was renewed in 2009. The ASCL is currently progressing towards application in the ASCLD/LAB International Program. The Medical Examiner's Office received National Association of Medical Examiners (NAME) accreditation in 2010. The ASCL employs eighty-five (85) analysts in the disciplines of COOIS, Forensic DNA, Drug Analysis, Forensic Toxicology, Physical Evidence (Trace and Serology Units), Firearms/Toolmarks, Latent Prints

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and Digital Evidence. In addition, the ASCL has a Medical Examiner's Office that employs five (5) Medical Examiners, six (6) Field Investigators and six (6) Morgue Technicians. The National Academy of Science (NAS) Report, "Strengthening Forensic Science in the United States: A Path Forward" encourages further advances in the forensic science disciplines. One avenue to make advances in the forensic field is for forensic professionals across the nation to collectively meet to discuss current issues and trends. Individuals attending National and Regional meetings in their discipline can collectively discuss with laboratories across the nation improvements to current techniques and introducing new techniques/technologies to the field. This information can then be implemented in the laboratory. This collaboration aids in improving the quality and timeliness of forensic services. Goals of the program: To improve the quality and timeliness of forensic services Objectives to support the goals: 1. To provide professional development opportunities to forensic analysts and Medical Examiner staff 2. To continue the ASCLD/LAB and NAME accreditation programs. Project Strategy: To achieve objective #1, analysts and Medical Examiner staff will attend National/Regional meetings and training seminars related to their discipline. Objective #2 will be achieved by continuing to meet the standards by the accrediting bodies and paying annual accreditation fees. Anticipated Outcomes: Attendees of National/Regional meetings and training seminars will bring back quality and/or timeliness improvements that can be implemented at the ASCL.

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**FY13 Recipient Name:** Arizona Criminal Justice Commission

**Award Number:** 2013-CD-BX-0004

**Award Amount:** \$311,392

**Abstract:** Physical evidence is critical in solving serious crimes and identifying dangerous offenders. The role and the quality of crime laboratories is crucial to the criminal justice system and must be a fundamental investment by federal, state, and local governments. Emphasis is placed on physical evidence taken from crime scenes, increasing the importance of forensic science and the role forensic scientists play within the criminal justice system. Crime laboratory professionals provide the judicial system with expert opinions on evidence by presenting extensive reports explaining their analyses and describing the methods and techniques used to arrive at their conclusions. The quality of each lab report is directly related to the proficiency of the lab professionals processing the evidence. As a result of the increasing importance that forensic science has in America's courtrooms, it is imperative that agencies require the highest professional standards for their laboratory personnel. Through ongoing training, improvements in equipment, and more efficient evidence processing, Arizona's forensic laboratories continue to increase their value to the criminal justice system by delivering competent analyses, more timely results, and testimony based on the latest industry innovations. As the State Administering Agency for Department of Justice funding, the Arizona Criminal Justice Commission (ACJC), is applying to the Paul Coverdell Forensic Science Improvement Grant Program on behalf of the Arizona Department of Public Safety Crime Laboratory, three local forensic laboratories, and one county medical examiner's office in a collaborative effort to standardize the state and local laboratories. Receiving funds from the Paul Coverdell Forensic Science Improvement Grant 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 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, Phoenix, and Scottsdale police department crime laboratories; and the Maricopa County Office of the Medical Examiner. Laboratories will advance components of the state strategic plan for forensic laboratory improvements by supporting recommendations to annually dedicate funding for training programs and overtime to reduce backlogs.

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**FY13 Recipient Name:** California Emergency Management Agency

**Award Number:** 2013-CD-BX-0044

**Award Amount:** \$ 791,752

**Abstract:** BASE - California has achieved national prominence in the forensic services arena. California's prestigious standing can be attributed to its fluid ability to recognize the need for well-trained criminalists and crime laboratories equipped with state-of-the-art technology. 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. 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 2013 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. 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. COMPETITIVE - The California Department of Justice Bureau of Forensic Services (BFS) with the California Criminalistics Institute (CCI) is requesting funding in the amount of \$110,153 to deliver the BFS Controlled Substances Training Curriculum in the format of a "Controlled Substances Academy." This application focuses on providing a comprehensive and cost-effective program for training greater numbers of competent controlled substances analysts to address the need for additional staff in response to increasing laboratory workloads. Completion of the Controlled Substances Academy by 10 BFS trainees will result in an improvement in both the quality and timeliness of controlled substances analyses for BFS client agencies and should substantially reduce the case backlog. CCI has previously adopted an academy approach in the training of DNA analysts and firearms and toolmark examiners that was based upon BFS training curricula and integrated with formal CCI courses in these forensic disciplines. Although most of the training will be accomplished via the traditional methods of instructor-led classroom sessions and practical laboratory exercises, the training program will involve practical exercises that will be performed in the students' field laboratories. Webinar presentations and contacts will be used for delivery of some topics as well as to follow-up with individual students.

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**FY13 Recipient Name:** Los Angeles County Sheriff's Department (CA)

**Award Number:** 2013-CD-BX-0059

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

**Abstract:** The Los Angeles County Sheriff's Department, Scientific Services Bureau is responsible for analyzing evidence from criminal investigations for the entire County, excluding the City of Los Angeles and the area it serves. This responsibility encompasses over 6.5 million residents within 4,000 square miles serving 87 cities and over 100 law enforcement agencies. Due to severe budget constraints, available overtime for the completion of casework has been nearly eliminated. This has placed a burden on the Latent Prints section, resulting in an increased backlog in comparison cases. Budget shortfalls have also had an impact on instrument calibration services and funding needed to provide new and continuing education for testifying examiners, both of which are required to maintain accreditation. The purpose of this proposal is to request funds in the amount of \$175,000 to pursue goals and objectives that will improve the quality and/or timeliness of forensic science services within the county of Los Angeles, as follows: 1.) Reduce the latent print comparison backlog by funding examiner overtime 2.) Provide new

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and continuing education by funding travel and/or course registration 3.) Comply with accreditation requirements by funding supplies and calibration services. During the award period, funds requested for overtime will enable 34 examiners to complete latent print comparison cases and 5 supervisors to conduct case record review. Funds requested for travel and training will enable approximately 124 testifying examiners to attend 30 new and continuing educational training opportunities. Funds requested for supplies and services will allow the purchase of DNA plot cartridges used in casework, and renewal of the Bureau's ISO 17025 accreditation standard user's license. Additionally, these funds will facilitate the calibration of approximately 91 analytical balances, 303 pipettes and 88 microscopes. It is anticipated that the latent print comparison backlog will be reduced by approximately 20% during the award period. New and continuing educational opportunities will contribute to the quality of the work product by providing knowledge and skills to the analyst that may improve their ability to complete casework with more efficiency and greater accuracy. The calibration of balances, pipettes and microscopes will not only meet an accreditation requirement, but will also enable examiners to use these instruments with greater confidence in their operation, reliability and accuracy. Additionally, purchased supplies will enable analysts to complete casework documentation. All of these activities support the objective of improving the quality and/or timeliness of forensic science services provided by the Bureau.

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**FY13 Recipient Name:** Division of Criminal Justice Services (CO)

**Award Number:** 2013-CD-BX-0033

**Award Amount:** \$107,969

**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 agency, the Colorado Bureau of Investigation; and three units of local government, the City of Denver, Denver Police Department, Crime Laboratory Bureau, the City of Colorado Springs, Metro Crime Laboratory, and the Northern Colorado Regional Forensic Laboratory. The Colorado Bureau of Investigation (CBI) is requesting Coverdell base funds for the following objectives: 1.) Provide a mandatory level of training to CBI staff as prescribed in each discipline by sending staff to discipline-specific training and conference events. 2.) Reduce CBI's DNA testing backlog by providing overtime to DNA Scientists for DNA testing. The Denver Police Department (DPD), Crime Laboratory Bureau is requesting Coverdell base funds provide efficient, high-quality service to customers by retaining an administrative assistant for the laboratory who will be responsible for answering phones, greeting customers, providing information, completing case intake, and creating cases in the laboratory's information management system. The Colorado Springs Police Department, Metro Crime Laboratory (MCL) is requesting Coverdell base funds for travel and training to improve the quality and professionalism of the MCL staff. The Northern Colorado Regional Forensic Laboratory (NCRFL) is requesting Coverdell base funds to ensure continued ISO 17025 accreditation efforts by providing a mandatory level of training to staff as prescribed in each discipline, as well as training needed for certification or re-certification.

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**FY13 Recipient Name:** City of Colorado Springs (CO)

**Award Number:** 2013-CD-BX-0057

**Award Amount:** \$170,000

**Abstract:** The Colorado Springs Metro Crime Lab (MCL) is an accredited regional crime laboratory that primarily serves the Colorado Springs Police Department and the El Paso County Sheriff's Office. An average of 2,700 Part I violent crimes are reported in these jurisdictions each year. The MCL has five civilian employees in the forensic disciplines of chemistry, DNA, and firearms. In addition, the agencies share six crime scene technicians, several of whom are cross-trained in other disciplines such as latent print examination, footwear impressions, and blood stain pattern analysis. The forensic disciplines are

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under the leadership of a Laboratory Manager who is qualified to perform technical reviews of DNA. An operational assessment of the Metro Crime Lab conducted in 2012 by the National Forensic Science Technology Center highlighted significant needs related to personnel and technology for lab management. In this project, the Metro Crime Laboratory will purchase and implement a Laboratory Information Management System (LIMS) as recommended by the operational assessment. With this project, the MCL will leverage technology to increase the capacity of its limited personnel to perform forensic services. A LIMS, standard in most crime laboratories across the United States, will be a valuable asset to each forensic discipline in tracking evidence, maintaining chain of custody, customizing workflow for each forensic discipline, prioritizing casework, finalizing forensic analysis, and producing various reports. By improving lab functioning, this funding will assist the MCL in improving the quality and timeliness of its forensic services and in reducing the number of backlogged cases.

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**FY13 Recipient Name:** City and County of Denver (CO)

**Award Number:** 2013-CD-BX-0065

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

**Abstract:** The Denver Police Department Crime Laboratory will make two key investments that will make long-term, quantifiable improvements in the quality and timeliness of provided forensic services. First, the crime laboratory will replace its photo repository system to enable investigators department-wide to upload crime scene photos directly to the system and instantaneously access images. Secondly, the crime laboratory will engage with the BEAST manufacturer, Porter Lee Corporation, to implement automated notification systems for forensic units and investigators regarding completion of forensic analyses, automate the laboratory ordering system, and interface BEAST with the department's personnel system. Last, to ensure the smooth implementation of these improvements (and consequently train all affected users on the new processes), the laboratory will retain an IT liaison for the project's duration. **Project Objectives:** 1.1: Eliminate 25 hours of weekly administrative tasks (9,125 hours per year) for the laboratory's Forensic Imaging Unit, enabling unit staff to focus on priority forensic work. 1.2: Enable instantaneous access to evidentiary images for investigators in instances where multiple units require them. 1.3: Eliminate 40 minutes per case (998 hours annually) of unnecessary administrative steps for investigators to submit digital evidentiary photos. 2.1: Reduce unnecessary lag time in the casework process by 81% (from 26 days to 5 days) for cases that require analyses from multiple forensic units. 2.2: Dramatically decrease the time between the conclusion of forensic analysis and notification to investigators for items of evidence that impact multiple cases. In some cases, notification time will decrease as much as five days. 3.1: Improve efficiencies for ordering laboratory supplies and decrease the associated administrative burden on forensic scientists. 3.2: Save 100 hours annually through the automated update of department personnel system data to yield higher quality forensic processes via reports and forecasting.

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**FY13 Recipient Name:** Department of Emergency Services and Public Protection (CT)

**Award Number:** 2013-CD-BX-0007

**Award Amount:** \$ \$74,725

**Abstract:** Problem and target area/population - The Division of Scientific Services assists numerous agencies: 170 local police departments, 11 state police troops and specialized investigative units, and 189 fire departments and fire marshal's offices, state's attorneys, public defenders, and other State agencies. In addition, we serve other Federal, State, and local law enforcement agencies in Connecticut, the New England area, and around the U.S. We also provide technical support and documentation for crime scene services. The target population will be the State of Connecticut.

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Goals and objectives and expected outcomes and major deliverables - Connecticut has determined that the best and most effective use of the 2013 Coverdell grant is professional development activities (training and conferences). The training and conferences will support staff development for improvement in the quality and timeliness of forensic analysis at the Division of Scientific Services. Project strategy or overall program - The Division of Scientific Services will use grant funds to support compliance with American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB) International standards in the area of professional development (training and conferences). 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 of Scientific Services to enhance his or her scientific skills and to apply these techniques to further the mission and objectives of the Division. Significant partnerships - The Division of Scientific Services will have no formal partnerships in delivery of services under this grant-funded project.

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**FY13 Recipient Name:** District of Columbia Government (DC)

**Award Number:** 2013-CD-BX-0015

**Award Amount:** \$58,186

**Abstract:** BASE - The District of Columbia Office of the Chief Medical Examiner (OCME) operates as an independent government agency within the District of Columbia Government. The agency investigates and certifies all deaths in the District of Columbia that occur as the result of violence as well as those that occur unexpectedly, without medical attention, in custody, or pose a threat to public health. In addition, the agency provides forensic pathology and toxicology services to local and federal government entities. These services improve public health and safety and include consultation, testimony, and laboratory testing of non-fatal sexual assault and driving under the influence specimens. The District of Columbia is seeking funds to obtain continuing medical education and trainings for OCME staff in order to improve the quality and timeliness of services and augment the agency's knowledge base. Funds will be used to send 5 scientific staff members to the 2013 American Academy of Forensic Science (AAFS) meeting in Seattle, Washington. Scientific staff will consist of one medical examiner, one forensic pathology assistant, one medico legal death investigators, one forensic death investigator, and one forensic toxicologist. The AAFS conference offers multiple accredited workshops which address pathology, scene investigation, and toxicology. Training obtained will be used to maintain certifications and licenses (both individual and laboratory), to educate other professionals within OCME, and to inform other local government agencies about medico legal death investigation. Continuing education and seminars provided by the conference can help to improve OCME's overall efficiency and quality of service. This, in turn, helps provides families of the deceased, legal entities, and law enforcement agencies. In addition, education often leads to innovation or implementation of new techniques or strategies which can reduce backlogs and turnaround time. Finally, the provision of professional education helps retain scientific staff in a competitive workplace. This reduces autopsy and toxicology backlogs which frequently occur during staff shortages. COMPETITIVE - In October 2012, the newly created District of Columbia Department of Forensic Sciences (DFS) was opened. Forensic examinations that were previously performed at the District of Columbia Metropolitan Police Department were moved to the DFS; including the Firearms and Tool Mark Examination Unit (FEU). The DFS is seeking funding to assist in the reduction of backlogged forensic firearm evidence cases in the FEU. The FEU currently has 653 backlogged cases awaiting analysis. The FEU presently has three qualified firearms examiners working on current cases while two examiners are completing the training program required by DFS. Due to the high number of cases the FEU receives per year, working backlogged cases has proven to be difficult for full time examiners. The DFS is seeking funding to contract with two qualified firearms examiners to work backlogged cases. By contracting with two examiners, the number of backlogged cases will be reduced while the two examiners in training complete training requirements. Coverdell award funding in the past has greatly benefited the FEU by helping to reduce the number of backlogged

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cases by roughly 50% in a given year. In recent years, firearms examiners were contracted due to the FEU being short staffed, at times only have three examiners total. With the current status at three fully trained examiners and two in training, the contractors can assist in backlog case reduction allowing the two examiners in training to complete all in-house training requirements. Upon completion of training requirements, the FEU will be staffed with five fully trained examiners. At that time, the backlog numbers will be dramatically reduced due to the work provided by proposed contractors; allowing all five staff examiners to focus on incoming cases while managing future backlogs.

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**FY13 Recipient Name:** Executive Office of the Governor of DE

**Award Number:** 2013-CD-BX-0017

**Award Amount:** \$58,186

**Abstract:** The Criminal Justice Council (CJC) is the applicant/fiscal agent for these funds and proposes to utilize the formula grant funding of \$54,000 for FY13 to fund an as of yet unidentified 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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**FY13 Recipient Name:** Florida Department of Law Enforcement

**Award Number:** 2013-CD-BX-0018

**Award Amount:** \$402,054

**Abstract:** Florida is the nation's fourth most populous state; and with more than 85 million annual visitors, it is one of the top tourist destinations in the world. According to Uniform Crime Report statistics, the approximately 500 Florida criminal justice agencies throughout the state reported 769,480 index crimes in 2011, a decrease of .1% from 2010. Despite the decrease, Florida's reported crime volume for 2011 surpassed that of all states except California and Texas. 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 the application for the Paul Coverdell Forensic Science Improvement Grant formula funds 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. 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

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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. **PROJECT GOALS AND OBJECTIVES** 1. Reduce analysis time for cases submitted to state and county crime laboratories; 2. Reduce backlogs in the analysis of non-biology forensic science evidence; 3. Improve timeliness of medical examiner services throughout Florida; and 4. Train forensic laboratory and medical examiner personnel to improve quality and timeliness of services and eliminate case backlogs. **COMPETITIVE -**

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**FY13 Recipient Name:** City of Ocala (FL)

**Award Number:** 2013-CD-BX-0063

**Award Amount:** \$85,241

**Abstract:** The quality of evidence collection and examination contributes to the successful prosecution and conviction of criminals, as well as the exoneration of the innocent. Fingerprint evidence is one of the most positive investigative means of identifying people that can be collected at a crime scene or in the lab from items taken from the crime scene. The Ocala Police Department's Technical Services Section has employees that range in experience from over twenty years to less than one year. In light of years of budget constraints, training is passed from existing Crime Scene Technicians to new Technicians, in place of formal training. This causes a dilution of information and techniques, and a general degradation of effectiveness. Due to the lack of proper training for the technicians, the evidence section has a constant backlog of chemically treated latent print evidence due to prints that have to be resubmitted, more often than not, due to lack of ridge detail in the photographs submitted. Our evidence section currently uses outdated, and in some cases military surplus equipment, for use in the development of forensic evidence. Some of this equipment was not designed for the particular use of evidence collection and has been "modified" to adapt to our basic needs. One of the areas that needs immediate attention is alternate light sources, for both "in-house" and "on-scene" processing which would enhance the observation, collection and imaging of evidence, including latent prints on smooth non-porous surfaces, bites, bruises, blood detection and shoe impressions. Currently our unit uses hand held low powered ultraviolet lights as an alternative light source that were not made for this function. The proposed funding would enhance the capabilities of the Technical Services Section and reduce the significant backlog of forensic evidence, specifically latent prints. The Department's proposal includes overtime for technicians to work to eliminate the backlog, training and certification of Crime Scene Technicians and equipment required for crime scene and in-house processing. Both the raining/certification of the technicians and the updated equipment will contribute to improved turn-around times for latent print examination. The program's effectiveness will be demonstrated by the reduction/elimination of the backlog in processing latent prints and the improved turn-around time for latent prints. Specific data related to performance measures (staff overtime hours, number of items processed from backlog, number of latent prints submitted and percentage successfully compared on first submission) will be tracked on a spreadsheets by the administrative personnel in Technical Services from the data submitted to them from the Latent Print Examiner and Technical Services Supervisor.

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**FY13 Recipient Name:** Georgia Criminal Justice Coordinating Council

**Award Number:** 2013-CD-BX-0016

**Award Amount:** \$206,463

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**Abstract:** FORMULA - 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; the Crime Lab also issues reports to approximately 1,000 criminal justice agencies. Through this grant, the Crime Lab proposes to purchase one multi-head microscope with attached camera for the GBI Medical Examiner Office, nine (9) digital cameras to utilize with existing microscopes within the Medical Examiner Office, forty (40) license upgrades of analytical software used with Liquid Chromatography/Mass Spectrometer/Mass Spectrometer (LCMSMS) instruments, and establish a contract to assist with development of process simulation models using software the laboratory has purchased. The equipment, software, and contract 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: • Enhance and improve the workplace environment to be more conducive to the recruitment and development of Crime Lab employees; • Foster an organizational culture focused on the quality and integrity of forensic analysis; • Analyze incoming evidence submissions in a time frame necessary to meet investigative needs and the requirements of court presentation; and • 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; 2) enable the Crime Lab to provide 90% of laboratory reports within 45 days of evidence submission; and 3) continuously evaluate laboratory operations to identify areas of potential improvement.

COMPETITIVE - The Criminal Justice Coordinating Council (CJCC) submits this competitive 2013 Paul Coverdell Forensic Science Improvement grant on behalf of Bibb County Sheriff's Office Crime Lab. The Bibb County Office of the Sheriff is one of the largest Sheriff's offices in the State of Georgia. On January 1, 2014, the City of Macon will consolidate into Bibb County. Both the Macon Police Department and Bibb County Sheriff's Office will merge to form a single law enforcement agency, expanding from an agency of 300 employees to 700 employees under the leadership of the Bibb County Sheriff's Office. The Bibb County Sheriff's Office Forensic Unit processes crime scenes which include photographs, latent prints and bloodstain pattern analysis. In addition to processing evidence and crimes scenes locally, the Forensic Unit also identifies collects and packages other trace evidence which is then sent to the Georgia Bureau of Investigation (GBI) and Federal Bureau of Investigation for further processing. Of significant concern is the current backlog of cases both locally post-consolidation for the Bibb Forensic Unit as well as regionally with the GBI Middle Georgia branch office. Macon Police Department's Crime Lab has an unknown number of bullets and shell casings, and at least 625 firearms that need to be examined and test-fired by Bibb County Office of the Sheriff's Forensic Unit, post-consolidation of both agencies. In addition, budget cuts have caused the Middle Georgia GBI branch to no longer offer ballistics and toolmarks examinations services, shifting cases to another GBI location and creating a statewide backlog of over 1000 cases with at least 6 months turnaround time. Equipping the Bibb County Sheriff's Office Forensic lab with a Comparison Firearms and Tool marks Microscope, Projectile Recovery System and Barrel Measuring device will enhance the ability of the Forensic Unit to perform ballistics and toolmarks examinations, thus partially relieving case backlog locally and regionally. Paul Coverdell funding will provide the Forensic Unit with the ability to increase crime scene technician efficiency and capabilities through forensic education competence in best practices scientific methods and certifications. As such, the Forensic Crime Lab proposes the support of the following objectives: 1. To provide training and advanced certification for crime scene technicians to work on current and future ballistic and toolmark cases. 2. To reduce backlog of cases in the Macon-Bibb area through utility of compound microscopy, projectile recovery system and barrel measuring device equipment for firearms and toolmark examinations. 3. To test fire and examine backlog of at least 625 guns for IBIS/NIB IN entry. 4. To compare and examine backlog of bullets and shell casings (fired cartridge cases) for IBIS/NIBIN entry.

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## FY2013 Paul Coverdell Forensic Science Improvement Grants Program Abstracts

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**FY13 Recipient Name:** Guam Bureau of Statistics and Plans

**Award Number:** 2013-CD-BX-0006

**Award Amount:** \$58,186

**Abstract:** BASE - The scope of this proposal is to enhance Guam's only Forensic Science Laboratory capability and efficiency in evidence screening and processing of crime scene evidence for the Crime Scene Response Section by acquiring additional crime scene supplies to be used in the collection and preservation of evidence recovered at the crime scene. The objective is to provide crime scene supplies for the Crime Scene Response Section. To address the objective, the Guam Police Department Forensic Science Laboratory will use the grant funds to purchase the following crime scene supplies: nitrile gloves, bloodstain cards, transparent fingerprint lifting tape, evidence tape, and latent print cards to be used to collect and preserve evidence recovered from the crime scene. Support of this proposal will assist the Guam Police Department Forensic Science Laboratory in increasing the Crime Scene Response Section capability and efficiency in evidence screening and processing. The program evaluation criteria will consist of the successful implementation of the crime scene supplies for collecting and preserving evidence recovered from the crime scene for analysis. 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 crime scene supplies. The anticipated outcome of this program is the increased forensic quality of the processed evidence. COMPETITIVE - The scope of this proposal is to enhance and improve the Crime Scene Response Section quality and timeliness in gathering the evidence and documenting the crime scene; and to eliminate the backlog in the analysis of controlled substances in the Drug Analysis Unit. There are two objectives. The first objective is to purchase a 3D crime scene mapping system to quickly document and record the crime scene evidence; and the second objective is to provide support for one Criminalist I position for the Drug Analysis Unit. To meet the scope and objectives, we will purchase 3D Crime Scene Mapping System for the documentation and recordation of images and data from the crime scene for the Crime Scene Response Section. The 3D Crime Scene Mapping System will improve the crime scene investigators' time in quickly documenting and measuring a crime scene that provides for accurate three-dimensional picture of the crime scene. It will also allow investigators to revisit the crime scene in a virtual environment to view items that may have developed evidential value after further investigation. To meet the second objective, the grant will provide personnel and fringe benefits for one Criminalist I position. Currently the Drug Analysis Unit consists of one (1) full time analyst processing drug evidence in cases that are going to Court or are under active investigation. At this time the Drug Analysis Unit is averaging 407 backlogged cases to be analyzed. Due to the Government of Guam's budget cuts, the Guam Police Department is unable to secure a Criminalist for the Forensic Science Laboratory to analyze the drug cases. In light of this, a Criminalist I position is of critical importance to ensure the processing of current and backlog controlled substances evidence in the Drug Analysis Unit. This Criminalist I will assist the senior Criminalist I in conducting analysis of controlled substances of current and backlog forensic drug cases. Meeting these objectives and the scope of this proposal will reduce the Crime Scene Response Section investigators time spent collecting and reconstructing the crime scene; and will increase the Drug Analysis Unit evidence screening and processing of current and backlog forensic drug cases. The program evaluation criteria will consist of the successful implementation of the 3D crime scene mapping system for documenting and recording the evidence from the crime for reconstruction in a virtual environment back at the forensic laboratory; and the successful implementation of the Criminalist I. 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 3D crime scene mapping system and Criminalist I. The anticipated outcome of this program is the increased forensic quality and timeline of the processed crime scene and reduction in the backlog of forensic drug cases.

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## FY2013 Paul Coverdell Forensic Science Improvement Grants Program Abstracts

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**FY13 Recipient Name:** Hawaii Department of the Attorney General

**Award Number:** 2013-CD-BX-0011

**Award Amount:** \$58,186

**Abstract:** The Hawaii Department of the Attorney General will provide FY 2013 Coverdell grants funds to the Hawaii Police Department. The HPD Crime Lab will utilize the funds for personnel professional development training, to achieve the goal of improving and maintaining its forensic science services. Continuous laboratory personnel training is needed to effectively apply and defend the work that they do, and is required by professional certification providers and laboratory accrediting bodies. Knowledge gained from updated training will be shared among laboratory personnel and implemented into current practices and procedures, strengthening laboratory operations. New and updated information will be shared with law enforcement officers via monthly in-service training, and updated/revised recruit class training, strengthening investigative operations. Professional development training would include: American Academy of Forensic Sciences (AAFS) Meeting; Clandestine Laboratory Investigating Chemists (CLIC) Technical Seminar; International Association of Identification (IAI) International Education Conference; ASCLD/LAB - International Measurement Confidence Level 200 Measurement Uncertainty Course; and Hawaii Forensic Laboratory Interagency Training. The participation in the various professional development trainings assists HPD Crime Lab personnel in keeping up to date with pertinent forensic science knowledge and technology, and fulfills requirements to maintain certification. Knowledge gained from professional development training is also valuable in determining which training courses, brought to and shared in Hawaii, would best serve the needs of the forensic science and law enforcement community.

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**FY13 Recipient Name:** Iowa Governor's Office of Drug Control Policy

**Award Number:** 2013-CD-BX-0019

**Award Amount:** \$63,983

**Abstract:** FORMULA - The Coverdell Grant program provides funding to accredited crime labs and medical examiners in Iowa. Funding will be used to help improve the quality and timeliness of forensic science and medical examiner services. Funding will assist in the elimination of backlogs, in the analysis of forensic evidence and to train and employ laboratory personnel. Funding is requested to support the Iowa Department of Public Safety, Division of Criminal Investigation, Crime Laboratory and the Department of Public Health, State Medical Examiner's Office. The 2013 Base Award will be utilized by the Iowa Department of Public Safety, Division of Criminal Investigations, and Criminalistics Laboratory to continue funding for a part-time evidence technician and provide overtime for criminalists to clear cases and reduce the turnaround time. The Iowa Department of Public Health, Iowa State Medical Examiner will utilize funds to continue funding for a part-time Autopsy Technician, to train local medical death investigators and to continue Iowa medical examiner pathologist education and training.

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**FY13 Recipient Name:** Idaho State Police

**Award Number:** 2013-CD-BX-0036

**Award Amount:** \$58,186

**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 objectives of this project are 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). This objective is accomplished by funding a LIMS computer programmer salary (full-time implementation expert) for a period of 1012.45 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

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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 has used funds from the Coverdell 2010 and 2012 grants to pay the salary of the implementation programmer. 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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**FY13 Recipient Name:** Illinois Criminal Justice Information Authority

**Award Number:** 2013-CD-BX-0005

**Award Amount:** \$267,971

**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 test; 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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**FY13 Recipient Name:** Indiana Criminal Justice Institute

**Award Number:** 2013-CD-BX-0031

**Award Amount:** \$136,061

**Abstract:** BASE - Goals: The State plan is to attain a turnaround time of less than 45 days for 90% of submissions, reduce backlogs, and improve the quality of forensic services. Objectives: 1. To improve the timeliness of forensic services and reduce backlogs through the use of overtime pay 2. To improve the quality and timeliness of forensic analysis through equipment upgrades 3. To improve quality and timeliness of analysis through training. Project plans: 1. Utilize paid overtime to improve turnaround time and reduce backlogs 2. Procure, install, and validate upgraded equipment 3. Obtain training on instrument troubleshooting and maintenance Methods: 1. To improve timeliness of forensic services and reduce

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backlogs, paid overtime will be used for forensic analysis and associated tasks. 2. To improve quality and turnaround time in the Drug Unit, an updated mass spectral library will be purchased and a forensic scientist will be trained in troubleshooting and maintenance of the gas chromatograph-mass spectrometer system. 3. To improve quality and turnaround time in the Firearms Unit, software and computers for comparison scopes will be replaced. 4. To improve quality and turnaround time in the Latent Print Unit; monitors, footwear library, and digital camera will be replaced. 5. To improve quality and turnaround time in the Forensic Documents Unit, three Backlight lighting systems will be purchased.

**COMPETITIVE** - Indiana's Automated Fingerprint Identification System (AFIS) and the Federal Bureau of Investigation's Integrated Automated Fingerprint Identification System (IAFIS) are computerized databases that contain fingerprints and palm prints of arrestees. In an effort to identify crime scene prints and to link crimes, AFIS and IAFIS search unidentified prints to the prints of known individuals. In April 2013, the Indiana State Police updated their AFIS and IAFIS to include improved search algorithms and the capability to search palm prints. Prior to this upgrade, AFIS and IAFIS could only search fingerprints, not palm prints. In anticipation of this upgrade, the State of Indiana started collecting palm prints from arrestees in 2010 and has preserved 1,488 unidentified palm prints from 654 cases since 2008. The Indiana State Police Latent Print Unit needs overtime funds to enter these palm prints and any other unidentified prints from cold cases into the upgraded AFIS and IAFIS. Without overtime funds, this project is impossible to implement for the additional casework during normal business hours would increase the turnaround time of current pending cases. In an effort to expedite casework and reduce turnaround time, more advanced equipment is needed for the Latent Print Unit. Additional flatbed scanners would be beneficial so that examiners do not have to wait on each other. The current superglue chambers, which are used to process over 80% of the evidence, are over ten years old. The computerized touch screens on these chambers have become temperamental when adjusting the settings and cause the chamber to take over 20 minutes to reach the proper humidity levels. The newer designed superglue chambers run more efficiently and also contain a cleaning feature to prevent cross-contamination of DNA. In addition to needing updated superglue chambers, the Latent Print Unit is in need of newer Reflective Ultra-Violet Imaging Systems (RUVIS), which are used to visualize latent prints on non-porous evidence. The four RUVIS, bought in 2005, are difficult to focus through the viewfinder when photographing latent prints. In the past eight years, advances to the RUVIS technology have made it a more effective piece of equipment. The new RUVIS also has the optional benefit of viewing the latent print from a larger video screen before photographing. With the Latent Print Unit's backlog rising, it is critical to find means to enter unidentified prints from cold cases into AFIS without affecting turnaround time and to optimize work flow with advanced equipment.

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**FY13 Recipient Name:** Executive Office of the State of Kansas

**Award Number:** 2013-CD-BX-0013

**Award Amount:** \$60,063

**Abstract:** The Johnson County Crime Lab has identified efficiency and evidence enhancements that can be achieved through the purchase of a Reflected Ultra-Violet Imaging System. The system processes will improve quality and speed, are optical with no physical or chemical development, and are mobile and will be utilized in the field and in the laboratory. In a May 2010 National Academy of Science report on forensic science, it was cited that the quality of practice in forensic disciplines varies widely and the conclusions reached by forensic practitioners are not always reliable. The report also stated that one of the contributing factors is a gross shortage of adequate training and continuing education of practitioners. Additionally, the Kansas Bureau of Investigation (KBI) has hired more than 15 new forensic scientists in the past 18 to 24 months, increasing the importance and need for specialized forensic sciences training. **Project Goals:** The goals of the Coverdell grant project are to: Goal 1 – Obtain a full-size Reflected Ultra-Violet Imaging System mobile workstation; Goal 2 – Train forensic scientists and offer continuing education hours for certification; and Goal 3 – Provide a foundation for expertise for scientists when testifying in court. **Strategies, Partnerships and Anticipated Outcomes:** The Coverdell grant will enhance

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technological resources through the purchase of equipment and provide training opportunities for forensic scientists to increase job knowledge and remain current with new technology and certification requirements. This includes: Reduction in time for searching, locating, documenting and recording evidence; Improved quality of photographs and documentation of the enhancement process; Increased knowledge and efficiency of forensic scientists; Exposure to experts in their respective fields not available in KBI laboratory; and Exposure to new technology and integration of that information into current procedures.

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**FY13 Recipient Name:** Kentucky Justice and Public Safety Cabinet

**Award Number:** 2013-CD-BX-0014

**Award Amount:** \$91,169

**Abstract:** BASE - The Kentucky State Police Forensic Laboratories, Automated Fingerprint Identification System (AFIS) Unit, and Medical Examiner's Office request federal funds to improve both the quality of services provided to the Commonwealth of Kentucky, as well as decrease backlogs. These three entities provide all of the death investigations, postmortem examinations, and forensic services to the entire Commonwealth. There are no other providers of forensic services to the criminal justice community in Kentucky. This responsibility is taken seriously by all involved. The Kentucky State Police propose to utilize grant funds for costs associated with attending Forensic conferences and training events to realize better testing quality and the implementation of best practices for improving turnaround times in case completion. The Office of the Medical Examiner proposes to fund Phase II of a statewide death case management system which will allow approximately 38 local county coroner's access this web-based system. Kentucky is in dire need of a .comprehensive method to manage data surrounding death investigations. Easy electronic access to these records is vital to .collaboration, investigation, reporting and testimony in individual cases. Access to a central data base will improve both the efficiency and efficacy of medical examiners' and coroners' record keeping and reporting in a time of severely limited budgets. COMPETITIVE - The Kentucky State Police Forensic Laboratories provide all of the forensic services to the entire Commonwealth. Where there are a variety of Crime Scene Units at local law enforcement agencies, there are no other providers of forensic laboratory services to the criminal justice community in Kentucky. The Firearm and Trace disciplines are frequently confronted in court about the absence of "data" in their comparative microscopic analyses and the subjective nature of their conclusions. The laboratories propose to counter these arguments by adding integrated digital imaging capabilities to the comparison microscopes to strengthen their conclusions and document the analytical process for the juries to see. The Kentucky State Police Central Laboratory Branch seeks funding through this proposal to purchase new comparative microscopes for both disciplines to replace microscopes that are between fifteen and forty years old and do not have built in digital imaging capabilities. The quality of the laboratory analyses, report documentation, and court presentation will be strengthened through this project and turnaround times will be reduced by the elimination of wrangling hand held cameras through the eyepieces. This proposal is straight forward and easily executed upon award. The specifications for the competitive bidding process to purchase the requested microscopes have already been developed. Upon receiving formal approval from the Kentucky SAA, the laboratory will immediately begin the purchasing processes. This will allow the microscopes to be purchased, installed, validated, and utilized in casework within the grant period to allow for the comparison of turnaround times from the start of the project to its successful completion. It is anticipated that both backlog and turnaround times will be reached as a result of this project and the quality of the testing and reporting will be dramatically impacted for the better.

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**FY13 Recipient Name:** Louisiana Commission on Law Enforcement

**Award Number:** 2013-CD-BX-0039

**Award Amount:** \$95,779

**Abstract:** The proposed 2013 Paul Coverdell Forensic Sciences Improvement Grant Program award will be used by Louisiana to continue the work and success of previous years efforts and funding to accomplish the goal of improving the quality and timeliness of forensic science and medical examiner services, eliminating or reducing the backlog of analysis of forensic science evidence, and training of 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 2013 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. Funds will be allocated for 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 expenditure reports and program progress reports as well as on-site monitoring visits of sub awardees. This information will be presented in semiannual progress reports to NIJ. Performance metrics captured include: The average number of days to process a sample at the beginning and end of the grant period, the average number of backlogged cases at the beginning and end of the grant period and the number of forensic science and medical examiner personnel attending training programs. In addition, the Louisiana Coverdell program will continue to place a special emphasis on allegations of serious negligence or serious misconduct should any become known to the Louisiana Commission on Law Enforcement. A mechanism currently exists for an external entity (Louisiana Dept. of Justice- Attorney General's Office), to investigate any such allegations.

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**FY13 Recipient Name:** Massachusetts State Police

**Award Number:** 2013-CD-BX-0003

**Award Amount:** \$312,200

**Abstract:** BASE - 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) Training: To train sworn and civilian members of the Forensic Services Group and the Boston Police Department; 2) Equipment: To purchase a computer for the JEOL-EDAX to be able to process 27 samples instead of seven in one run; to purchase an ATR attachment for the FTIR / continuum microscope in Trace to enhance sample prep and scans; to replace the current standards for the Trace FTIR with a NIST traceable set as well as with software to perform QA/QC functions; to purchase 3 sample prep sets for the Toxicology Unit so the unit can process 100 samples instead of seven with each set; to purchase three small and one large portable pelican light to illuminate crime scenes; to purchase a video camera to record homicides and major crime with more clarity and definition, 3) Software: To purchase forensic software for the Firearms Identification Section to improve the quality of comparison images using spot diffraction pattern analysis, and 4) Overtime: To provide overtime to administrative employees at the OCME to complete autopsy records in the converted LIMS. The anticipated outcome 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. COMPETITIVE - The Massachusetts State Police Forensic Services Group (MSPFSG) is a state government laboratory dedicated to providing quality forensic services within Massachusetts. To improve the quality and timeliness of forensic science, above and beyond what can presently be accomplished, the MSPFSG proposed the following: 1) to purchase three Sharepoint server licenses to be installed on the current state wide network and 2) to purchase 55 computers to analyze the latent prints which will be submitted

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through the newly available portal available due to the installation of the Sharepoint licenses. Most of the cases submitted to the Crime Scene Service Section (CSSS) of the MSPFSG are for latent print examination. A pilot program was undertaken in the spring of 2012 to streamline the submission of this latent print evidence which accounts for 84% of the cases submitted to the CSSS. It was found that case backlogs and turnaround times could be significantly decreased with direct submission by law enforcement agencies of digital images of latent lifters instead of the agency submitting the actual physical evidence to the CSSS. To accomplish the submission of the latent prints electronically state wide, it is proposed to use the existing state servers and network. The purchase of three enterprise licenses for Sharepoint will allow each law enforcement community in the state direct portal access to electronically submit latent digital images to the CSSS. To analyze these images, the MSPFSG is requesting the purchase of 55 computers. Twenty floating software licenses for Morphotrack software have been purchased. The CSSS has zero computers which meet the needed specifications to run the software. There will be only one dedicated workstation in each of six locations of the CSSS and two workstations in the other location that can run the software. These workstations were provided when the system was updated to Morphotrack through a state wide technology upgrade. The new system goes live June 1, 2013. By purchasing new computers, the over fifty members in the CSSS can process evidence in a timely manner instead of waiting for the workstation to be available for use. These system and statewide enhancements will allow the CSSS to significantly decrease turnaround time and backlog, going above and beyond what is possible with existing resources.

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**FY13 Recipient Name:** Governors Office of Crime Control and Prevention (MD)

**Award Number:** 2013-CD-BX-0001

**Award Amount:** \$297,475

**Abstract:** BASE - Maryland's violent crime rate remains significantly higher than the national average. Over the past three years, the state's average annual violent crime rate has been about 28% higher than the national average. The Baltimore City Police Department (BPD) resides in one of the most violent cities in America. 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 abreast on current scientific methods, learn new skills and liaison with other professionals in their field, in addition to maintaining required certification stated by the American Society of Crime/Laboratory Accreditation Board (ASC/LAB). The Baltimore County Police Department (BCoPD) is the sole law enforcement agency within Baltimore County. To maintain and improve the proficiency of forensic examiners, forensic training ensures continued education in order to remain abreast on current scientific methods and learn new skills. The Western Maryland Regional Crime Laboratory (WMRCL) needs to replace their Fourier Transform Infrared Spectrometer (FT/IR). The new FT/IR will enhance case throughput as well as identification capabilities within the laboratory. The Maryland State Police - Forensic Science Division (MSP-FSD) will improve the quality of case documentation through the use of new microscopes with a camera setup. The digital photographs will better demonstrate the formation of the micro crystals developed during the testing of cocaine and heroin samples. The Office of the Chief Medical Examiner (OCME) is a statewide program and is required to complete 90% of all autopsy cases within 60 days from the date of investigation. The purchase of new cameras will replace the Polaroid and low-end digital cameras. Digital cameras will allow the Deputy Medical Examiners (DME's) and Forensic Investigators (FI's) to electronically transmit photographs along with their investigation reports to the OCME to become a permanent part of the case record. The Prince George's County Police Department is the 33rd largest police department in the country. Approximately 1 00 drug cases are thrown out of court weekly because these cases are not being analyzed before the court date. There is also a backlog of 15,000 with ten-print fingerprint cards. These cards require scanning into a computer before analysis of a case is completed. Overtime support will allow them to work on priority projects before the cases go to court. MSP - The Governor's Office of Crime Control & Prevention (GOCCP) being the State Administering Agency (SAA) for the State of Maryland is respectfully submitting this application on behalf of the

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Maryland State Police-Forensic Science Division (MSP-FSD). Maryland's average annual violent crime rate has been about 30% higher than the national average. The Federal Bureau of Investigation annually publishes Crime in the United States as part of the National Uniform Crime Report (UCR) that collects information on specific crimes selected as an "index." These index crimes are murder, rape, robbery, assault, breaking & entering, larceny/theft, motor vehicle theft, and arson. There were 195,517 total index crimes reported in Maryland in 2011. The MSP-FSD serves all 23 counties as well as approximately 100 allied law enforcement agencies. In 2012, 70% of cases submitted to the Latent Print /Impressions Unit (LP/IU) were from allied law enforcement agencies. Over the past four years their backlog has increased from a low of 66 cases in 2008 to its current 1,372 cases. This significant increase has resulted in the average turnaround time to complete a latent print case being 387 days today compared to a low of 12 days in 2008. The use of overtime to complete additional casework, the implementation of a limited examination policy to reduce the amount of work required per case, and the development of a case triage procedure to ensure that only cases actually requiring analysis are examined have prevented any further increase in the backlog. However, additional actions are still needed. The goal of this project is to reduce the existing latent print casework backlog at the MSP-FSD by 825 cases. This will be achieved using a two-pronged approach that proved to be successful in reducing the DNA casework backlog at MSP-FSD. First, the number of new cases will be reduced by 300 via direct outsourcing from Frederick, Wicomico, and Cecil counties which are historically high submitters and also provide a desirable geographic dispersion. The funding for the direct outsourcing has been secured through the State. Second, the number of backlogged cases at MSP-FSD will be reduced by 525 via outsourcing of cases to a contract laboratory using Coverdell grant funds. It is anticipated that simultaneously reducing the number of cases coming into the lab and reducing the number of cases already in the lab will result in a backlog reduction of 60% and a turnaround time reduction of 75%

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**FY13 Recipient Name:** Prince George's County (MD)

**Award Number:** 2013-CD-BX-0072

**Award Amount:** \$173,870

**Abstract:** The Prince George's County Forensic Science Division, an ASCLD-LAB accredited Laboratory is requesting funds under the 2013 Paul Coverdell Forensic Science Improvement Grant for the purpose of purchasing a Laboratory Information Management System (LIMS) that would link the Drug Analysis Unit, the Firearms Examination Unit, and the Regional Automated Fingerprint Identification System (RAFIS) Unit to the existing DNA Unit's LIMS thus integrating the entire Forensic Science Division under one system. The second goal of this project is the purchase of three (3) stereo microscopes, one (1) LED Line Illumination Gen 2 with power supply for current comparison microscope for the Firearms Examination Unit and one (1) integrated camera system with standalone kit. The lack of updated equipment has and is resulting in a work product that is substandard and inefficient at best. Our proximity to the District of Columbia area requires that our operations be top notch and one of the most efficient in the area. The LIMS would facilitate easier communication and tracking of evidence among the Units, as well as casework linked to the DNA Unit's LIMS system, and would allow the Forensic Science Division to all fall under one system. This would create a more efficient management of forensic cases from all Units in the Division. The County's present economic situation, as well as the nationwide economy, has caused the County to take drastic steps to ensure its survival. This includes not replacing worn out equipment. This has left the Firearms Examination Unit with a much longer turnaround time. In addition, the increase in the number of submissions throughout the Department requires the streamlining of the Division's operations through a LIMS. The outcome expected from the LIMS would be felt and noticed throughout the Division in the ability of the various Units to capture evidence transfer from evidence intake through report writing for each Unit. This will also allow for a smooth movement of evidence throughout the Units with a superior tracking system than had previously existed.

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**FY13 Recipient Name:** State of Maine

**Award Number:** 2013-CD-BX-0010

**Award Amount:** \$58,186

**Abstract:** The Maine Department of Public Safety requests funding under the Paul Coverdell Forensic Science Improvement Grants Program to improve the quality and timeliness of forensic science services provided by the Maine State Police (MSP) Crime Lab; the forensic analysis of controlled substances by the Health and Environmental Testing Laboratory (HETL) and medical legal death investigation services by the Office of the Chief Medical Examiner's (OCME). The funds will also be used for specialized training in the forensic disciplines of crime scene investigations and controlled substances. 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. Provide quality, timely and comprehensive analysis of forensic drug and alcohol evidence to all Maine's local and state law enforcement agencies. 3. Decrease the number of days between submission of a sample and delivery of test results to the requesting agency. FFY 2013 Coverdell grant funds will provide training for staff who are directly and substantially involved in providing forensic science services, offset the cost of the related to annual proficiency tests for analysts and provide for contractual services with forensic pathologists to perform autopsies to facilitate timely completion of cases.

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**FY13 Recipient Name:** State of Michigan

**Award Number:** 2013-CD-BX-0049

**Award Amount:** \$205,701

**Abstract:** The Michigan State Police requests FY 2013 Paul Coverdell Forensic Science Improvement Program base funding, to improve the quality and timeliness of service delivery in the Forensic Science Division's Firearms, and Controlled Substances units. The requested funding will be used to continue payroll support for two funded positions in the Firearms and Controlled Substances units.

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**FY13 Recipient Name:** Minnesota Department of Public Safety

**Award Number:** 2013-CD-BX-0009

**Award Amount:** \$111,955

**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.

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**FY13 Recipient Name:** Missouri Department of Public Safety

**Award Number:** 2013-CD-BX-0020

**Award Amount:** \$125,334

**Abstract:** The demands on crime laboratories are ever increasing; making it essential for crime laboratory personnel - in all forensic science disciplines – to be adequately trained, competent and proficient in the latest forensic technologies and methodologies. As a result, training 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

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Department of Public Safety (DPS) will coordinate with the Missouri Association of Crime Laboratory Directors (MACLD) to use Missouri's portion of base funding [\$117,416] from the FY13 Paul Coverdell Forensic Science Improvement Grants Program for providing forensic science training and certification for the personnel of Missouri's crime laboratories and 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 laboratory inspections / assessments. Funding will also allow Missouri's crime laboratories to 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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**FY13 Recipient Name:** Department of Public Safety (MS)

**Award Number:** 2013-CD-BX-0050

**Award Amount:** \$62,124

**Abstract:** The goal of the FY2013 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. Currently, the MCL is not providing all of the forensic services required by the Criminal Justice System of the state in the time frame needed. Budget cuts have prohibited the growth in laboratory capacity that the increasing case load requires. The MCL System currently has eight (8) Firearms/ Toolmark Examiners and only four (4) comparison microscopes. The comparison microscope is essential to almost all examinations performed by the Forensic Examiners in the Firearms/Toolmark Unit. Having more examiners than microscopes produces a bottleneck in the Units workflow and can result in delays in completing casework. The funds available from the 2013 Paul Coverdell Forensic Science Improvement Program will address the problems that the laboratory faces by meeting the objective listed.

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**FY13 Recipient Name:** Montana Board of Crime Control

**Award Number:** 2013-CD-BX-0021

**Award Amount:** \$58,186

**Abstract:** The Montana Department of Justice Forensic Science Division Laboratory is accredited to the International testing standard by the American Society of Crime Lab Directors/Laboratory Accreditation Board (accreditation number: ALI-159-T) and is the sole source of forensic services in the state. The State Medical Examiner's Office is also part of the laboratory. The goals for this funding request include: maintain a half-time forensic toxicology technician position to help with toxicology case turn-around times and backlogs; provide continuing education for our forensic science staff in order to maintain the quality of services and when practicable, the advancement of forensic services; to provide for the accreditation of the Medical Examiner's Office and finally, to continue to fund maintenance for our laboratory information management system. Funding for the part-time forensic toxicology technician will support salary and fringe benefits associated with that position. Funding for continuing education for forensic scientists will support participation at: the 2014 American Academy of Forensic Sciences meeting for two scientists, the 2013 Society of Forensic Toxicologists meeting for two scientists and the 2014 International Association for Identification meeting for two scientists. Funding in support of the State Medical Examiner's Office will be directed towards achieving accreditation through the National Association of Medical Examiners (NAME). Finally, the forensic laboratory makes great use of its laboratory information management system to help generate data regarding case work load, case turn-around times, and backlogs. The laboratory also uses this system to write reports and to maintain the

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chain of custody for evidence throughout the laboratory. Requested funding will be used to support the annual maintenance fee that ensures the system is current and reliable.

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**FY13 Recipient Name:** North Carolina Department of Crime Control and Public Safety

**Award Number:** 2013-CD-BX-0027

**Award Amount:** \$202,969

**Abstract:** Three crime laboratories in North Carolina (the North Carolina State Crime Laboratory, the Iredell County Sheriff's Office Crime Lab, and the Guilford County Sheriff's Office Crime Laboratory) have established a plan to improve forensic services in the state. The member agencies will use the 2013 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. Each laboratory identified the most critical needs and formulated a request for funds based on these needs. The State Crime Laboratory will use this funding to purchase three stereomicroscopes for its Trace Evidence Section. It will also use this funding to purchase three Mini-CrimeScopes for its Latent Evidence Section. The Iredell County Sheriff's Office Crime Laboratory (ICSOCL) currently provides Drug Analysis and Latent Print Examination to five counties which include fourteen agencies. ICSOCL currently receives and analyzes approximately 1300 cases per year. It will utilize these funds to purchase a Chromatography system, which is a must for drug analysis. The Guilford County Sheriff's Office Crime Lab provides services to over a dozen surrounding communities in an area approximately 649 square miles. Services provided by the GCSO Crime Laboratory and AFIS section are to investigate and process crime scenes, collect and analyze physical evidence, forensically examine latent print and footwear impression evidence and forensic photography. For the past few years Guilford County, like most law enforcement agencies in the nation, has suffered a substantial blow to its economic stability. This economic turndown threatens the growth of crucial services necessary to the health of Guilford County's economy and quality of life; public safety being among the most critical of services affected. Laboratory services enhance the public safety sector and aid law enforcement agencies in the investigative process. The GCSO has had limited funds to improve its equipment, which is outdated and unreliable. The GCSO is committed to performing its services with the highest quality and is preparing in the future to be in compliance with ISO 17025 standards.

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**FY13 Recipient Name:** City of Winston-Salem (NC)

**Award Number:** 2013-CD-BX-0067

**Award Amount:** \$55,252

**Abstract:** The Winston-Salem Police Department is requesting \$55,252 in Paul Coverdell Forensic Science Improvement Grant funding to improve the quality and timeliness of forensic services. Funding will be used to upgrade its current LiveScan fingerprinting system; to obtain training for certification in latent print examination of its two latent print examiners; to purchase a new latent fingerprint imaging system for enhanced latent print examination; and to purchase a portable light tower for improved crime scene processing. These activities will enable the Winston-Salem Police Department to:

- Maintain the quality and timeliness of arrestee fingerprinting at the Forsyth County Detention Center by upgrading the current hardware which will be discontinued by the end of 2013; and
- Enhance the agency's analysis of latent fingerprints through required training for certification; and
- Enhance timeliness of latent print examination through the purchase of a new latent print imaging system; and
- Improve the quality and timeliness of outdoor crime scene investigation and processing through the use of a portable light tower and generator.

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

- Continue to quickly and accurately capture fingerprint images electronically and compare those images in a local fingerprint database (as well as the larger databases such as AFIS). The continual use of LiveScan

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technology will help the Winston-Salem Police Department to provide positive identification of an individual. • Improve the overall quality of forensic services through certification training in latent print examination. The Forensic Services Division's two latent print examiners will each complete 80 hours of coursework, part of the requirements for certification in latent print examination through the International Association for Identification. • Reduce the amount of time for incoming latent print examination from one hour (per case) to 20 minutes (per case). This outcome will be achieved through the purchase of a latent print imaging system. • Reduce the time required to prepare illustrative latent fingerprint charts for courtroom testimony from one hour (per print) to 20 minutes (per print). This outcome will also be achieved through the purchase of a latent print imaging system. • Improve the overall quality and timeliness of forensic services. This will be achieved through the purchase of a portable light tower and generator to be used for enhanced visibility while processing outdoor crime scenes.

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**FY13 Recipient Name:** North Dakota

**Award Number:** 2013-CD-BX-0038

**Award Amount:** \$58,186

**Abstract:** The overall objective is to improve the quality and timeliness of the services provided by the Crime Laboratory Division. Funding will be used to purchase a GC/Mass spectrometer using a combination of other funding sources. 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 13,000 criminal cases a year, which include the disciplines of arson/explosive debris analysis, blood/breath alcohol analysis, offender databasing, 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. The North Dakota Office of Attorney General, Crime Laboratory Division is accredited by ASCLD/LAB International program. The accreditation certificate is attached to this application.

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**FY13 Recipient Name:** Nebraska State Patrol

**Award Number:** 2013-CD-BX-0023

**Award Amount:** \$58,186

**Abstract:** The Nebraska State Patrol is the acting State Administering Agency for the State of Nebraska. The Nebraska State Patrol Crime Laboratory (NSPCL) is a division within the Nebraska State Patrol. The NSPCL is accredited by the American Society of Crime Lab Directors/Laboratory Accreditation Board (ASCLD/LAB.) \$54,000 is requested and will be devoted to improving the quality and timeliness of forensic science services and to reduce the number of backlogged cases from 1,062 to 956 in Nebraska. This project will provide the funding necessary for members of the Nebraska State Patrol Crime Laboratory staff to receive job essential training. Trainings include the Association of Forensic Quality Assurance Managers (AFQAM) annual training conference; the American Society of Crime Laboratory Directors (ASCLD/LAB) annual meetings; the joint annual meeting of the Midwest Crime Lab Directors (MCLD) and the Midwest Forensic Resource Center (MFRC); the Association of Firearm and Tool Mark Examiners (AFTE); and the International Association for Identification (IAI) annual educational

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conference. A hydrogen generator will be purchased to replace compressed gas tanks. This single generator will accommodate the oxygen needs for the six (6) gas chromatographs. Work area improvements will be made to create efficiencies in an over-crowded facility. Peer reviews will be scheduled for the Toxicology and Trace sections, of which are single person sections. As the NSPCL moves toward ISO17025 accreditation, having discipline consultants review casework, analytical procedures and other facets is necessary. The Nebraska State Patrol Crime Laboratory will be satisfying the requirement to measure the performance of this project through reporting of specified data. The Laboratory's LIMS system will provide the majority of data reported. The Nebraska State Patrol is experienced in data collection. Several processes are utilized to compile progress and statistical data and ensure the availability and accuracy of necessary data. The time system provides flexibility to code time to specific job task functions and to funding sources. The Lab utilizes the Porter Lee BEAST Laboratory Information Management System (LIMS) to capture data and statistics related to this project.

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**FY13 Recipient Name:** State of New Hampshire

**Award Number:** 2013-CD-BX-0024

**Award Amount:** \$58,186

**Abstract:** The New Hampshire Department of Justice intends on using funding under the National Forensic Science Improvement Act grant to support and enhance services at the New Hampshire State Police Forensic Laboratory and the Office of the Chief Medical Examiner. The goal of this proposal is to provide ongoing support to the Crime Lab and Medical Examiner's Office so as to allow them to continue to provide efficient and effective services in support of law enforcement throughout New Hampshire. 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 to this agency will be used to enhance the capabilities of the laboratory by supporting training for forensic laboratory personnel and for an ongoing ASCLD/LAB maintenance contract fees. The Office of the Chief Medical Examiner is fully NAME certified and will use these funds to continue support for an evidence cataloguing staff position at the office. 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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**FY13 Recipient Name:** New Jersey Department of Law and Public Safety

**Award Number:** 2013-CD-BX-0053

**Award Amount:** \$184,498

**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 begun 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 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 for the NJSP OFS, as well as provide proficiency testing and information technology equipment for the NJSP Ballistics Unit. A competitive process for State, county and local forensic and ballistics laboratories and medical examiner's offices will enable them to obtain funding in support of the statewide goals and the purposes of the FY 2013 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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**FY13 Recipient Name:** State of New Mexico

**Award Number:** 2013-CD-BX-0034

**Award Amount:** \$58,186

**Abstract:** ABSTRACT (BASE FUNDS) INCREASED EFFICIENCY OF EVIDENCE SCREENING, PROCESSING, & REPORT WRITING FOR CRIME SCENE, PROCESSING CASES, & TOXICOLOGY: This application is a collaborative effort to standardize and improve the efficiency of state and local laboratories to constructively process crime scene cases in a steadfast manner. Grant funding will allow the state to facilitate the process of improving the quality and timeliness of forensic science and medical examiner services, as outlined in the State's Strategic Plan for Forensic Laboratory Improvements. The unique partnership of four institutions-the New Mexico Department of Public Safety Crime Laboratory, Albuquerque Police Department Crime Laboratory, New Mexico Department of Health Scientific Laboratories Division, and the University of New Mexico Office of the Medical Investigator, fosters a unified approach and promotes high standards of practice in forensic operations statewide. The goal of this proposal is to drive productivity and enhance efficiency in evidence screening, processing, and report writing, by providing support for training, and personnel, activities to address case backlog concerns. The objectives to meet this goal include: 1. Support for overtime to allow examiners to address the backlog 2. Provide training and continuing education opportunities. The first objective is to provide critical overtime and FICA benefits for analysts to address backlog cases. Analysts will increase the process of screening and processing forensic and blood alcohol percentage casework for biological, firearms and trace evidence. The second objective fulfills the analyst's training requirements for competency and/or to maintain proficiency. Analysts will participate in various out-of-state training conferences and workshops, such as, the International Association of Identification meeting and others. (CLIC, IACT, ASCLD, AFQAM, SWAFS, & AFTE). An in-house training in photographic analysis will also be provided. Support of this proposal will provide overtime for personnel to address the backlog of crime cases. The assurance of qualified, proficient and trained analysts certifies the results are reliable and in accord with forensic standards. ABSTRACT (COMPETITIVE FUNDS) PHASE II: PAPERLESS DEATH INVESTIGATION REPORTING TOOL-DIRT: The Office of the Medical Investigator (OM I) has the statutory duty and authority to investigate sudden, unexpected and/or unnatural deaths that occur throughout the state of New Mexico. The OMI depends on reports produced in the field. At the conclusion of each death investigation, the Chief Medical Investigator synthesizes the data collected from the various forensic analysts to produce a medical diagnosis about the manner and cause of death. Quality work in itself cannot be considered the overarching goal of the OM I. Unless the data produced by death investigators and forensic pathologists is made available in an efficient and timely manner-the value of the data wanes and diminishes impact with time. It is problematic to administer a state-wide system of death investigation from one central location (City of Albuquerque-see map of New Mexico-5th largest state in the nation). It is problematic to enforce the principles of "quality assurance" without direct oversight and rapid feedback from senior officials to field analysts. The goal of this proposal is to complete phase II of a web-based Death Investigation Reporting Tool (DIRT). The DIRT, which was initiated a year ago to mandate categorical collection and reporting of data across the State, provides common categories of death investigation (i.e. unexpected infant death, motor vehicle collisions, suicidal hangings, etc.) to be used for reporting purposes. The tool will streamline and improve the delivery time and quality of death investigation data from the field to a centralized geographic location. The objectives of phase II include: 1. Contract a programmer to complete the computer programming of the second phase of DIRT within one year 2. Optimize workflow of investigators by requiring computerized uniform death scene descriptions. 3. Improve the quality and timeliness of death investigation reports. During phase I, the modular reporting tool was created using ASP.NET and logic (driven by SOL code) through extensive consultation and planning between the database programmer and a board-certified forensic pathologist.

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**FY13 Recipient Name:** Nevada Department of Public Safety

**Award Number:** 2013-CD-BX-0026

**Award Amount:** \$58,186

**Abstract:** The Washoe County Sheriff's Office Forensic Science Division (WCSO-FSD) is in the process of updating their Laboratory Information Management Systems (LIMS) designed over 13 years ago, and replacing it with a new web-based LIMS that can utilize wireless scanners, notebooks, and tablets. Their old program has many flaws including limited compatibility with new technology. If the new system is installed without the wireless laptops, notebooks and bar code reader, many of the efficiencies of the new system will not be realized. WCSO-FSD proposes to utilize funds from the 2013 Coverdell grant to purchase these items and the operating software programs. The use of the new wireless technology and equipment increases the productivity of the analysts and crime scene investigators by providing them with immediate access to vital information; increase accuracy and timeliness when recording the information for use in notes and reports, and reduces the number of errors from transcribing hand written notes to typed reports multiple times. As less time is spent in data entry and duplication of efforts, more time can be spent on activities which decrease the backlog. WCSO-FSD will improve the quality and timeliness of services provided to the using agencies. The Las Vegas Metropolitan Police Department Forensic Laboratory (LVMPD-FL) scientists in the Latent Print Detail routinely testify in both the District and Federal Courts. In recent years, there has been a major shift in philosophy and courtroom testimony with regards to the methodology currently used by latent print examiners and the dawn of possible statistical fingerprint interpretation. Additionally, there has been an increase in admissibility challenges to latent print evidence. Forensic scientists continue to assist local and federal prosecutors responding to these challenges. Additionally, the forensic scientists are frequently asked admissibility-style questions during trial testimony. In order to stay abreast of current research addressing admissibility issues and the evolution of statistical reasoning in fingerprints, continuing education is imperative. LVMPD proposes to bring the training workshop on "Advanced ACE-V Applications for Fingerprint Examiners" in-house so all members of the Latent Print Detail may benefit. They will learn about the latest research on error rates, fingerprint selectivity, statistical interpretation of fingerprint evidence, and admissibility issues which will improve the quality of testimony and the ability to assist the prosecutors' regarding forensic results. LVMPD-FL grant-funded overtime will be used on AFIS screening to improve the timeliness of forensic results.

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**FY13 Recipient Name:** New York State Division of Criminal Justice Services

**Award Number:** 2013-CD-BX-0037

**Award Amount:** \$407,313

**Abstract:** This proposal seeks base funding in the amount of \$343,422 less NYS Division of Criminal Justice Services (DCJS) State administrative costs \$38,157. 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

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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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**FY13 Recipient Name:** Onondaga, County of (NY)

**Award Number:** 2013-CD-BX-0058

**Award Amount:** \$75,000

**Abstract:** The Onondaga County Center for Forensic Sciences (CFS) seeks to obtain funding for the implementation of a Laboratory Lean Six Sigma program within three of its disciplines to improve case throughput and reduce the number of backlogged cases. This program combines the concepts of Lean and Six Sigma developed specifically for the laboratory environment. It revolves around the use of five improvement steps known as DMAIC: Define, Measure, Analyze, Improve and Control. The goal of this project is to redesign the flow of casework to allow for increased efficiency while working with the current technology, staffing, and space constraints. A recent successful implementation of the Laboratory Lean Six Sigma program within the DNA unit led to an increase in throughput of 20%. This increase was the equivalent to adding a full-time experienced analyst to the staff. The section significantly increased the number of cases completed and made progress on reducing the number of backlogged cases assigned to the section. The CFS wishes to further implement the program within the Latent Prints, Firearms, and Forensic Chemistry sections with the goal of obtaining similar results. These sections have reached the limitations of their physical footprint within the building, number of funded analysts, and number of overtime hours. This project presents an opportunity to not only increase productivity but also employee morale; all while maintaining a high level of quality and a neutral operating budget. The CFS will contract with a Laboratory Lean Six Sigma provider with demonstrated forensic laboratory experience having successful project outcomes. The process will consist of in-house training, guided readings and exercises, discipline specific analysis and evaluation, and guidance for implementation of new/modified processes. The expected outcome is an increase in section throughput and a reduction of backlogged cases in each discipline, while sustaining a high level of quality.

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**FY13 Recipient Name:** County of Suffolk (NY)

**Award Number:** 2013-CD-BX-0062

**Award Amount:** \$52,582

**Abstract:** The Suffolk County Police Department's Computer Crimes and Electronic Investigations Sections who are responsible for forensic analysis services throughout Suffolk County are currently working with outdated and timeworn equipment which can no longer keep pace with advancing technology and growing requests for forensic analysis services. The SCPD is a New York Division of Criminal Justice Services accredited police agency operating within Suffolk County, New York, which has a population of 1.5 million and spreads over 912 square miles with a western border only 20 miles from NYC. The Department employs industry-wide recognized practices/procedures in its daily operations which include forensic analysis of electronic devices. The Department is the only law enforcement entity in Suffolk County able to perform forensic analysis on computers, digital storage media, cellular devices, digital video media, and telephonic records and is often called on to assist local law enforcement agencies and various Federal and County agencies. It is vital that the Department keeps its forensic analysis equipment current. Failure to keep equipment current will result in significant reductions in the quality and timeliness of forensic analysis and a corresponding reduction in our ability to produce court approved results not just for the Department but for all of Suffolk County. The project goal is to improve the quality and timeliness of our current forensic output and to avoid future backlogs through the purchase of up-to-date forensic analysis equipment for the Suffolk County Police Department Computer Crimes and the Electronic Investigations Sections replacing the out-of-date, overused and soon to be obsolete equipment currently in use. Our program consists of the purchase of new state-of-the-art

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forensic analysis equipment in order to keep pace with advancements in technology and maintain and improve the quality and timeliness of our forensic analysis operations. We anticipate that the result of this program will be an increase in the amount of analysis we will be able to perform, in the quality and thoroughness of the results of the analysis, and in the timeliness of our results. The ultimate outcome will be that the results derived from this equipment will be of a higher quality than can now be obtained, increasing case investigation clearance rates and criminal trial conviction percentages. The Suffolk County Police Department enjoys a working relationship with all of the law enforcement, State, Federal, and County agencies active in Suffolk County.

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**FY13 Recipient Name:** City of New York, Office of Chief Medical Examiner

**Award Number:** 2013-CD-BX-0066

**Award Amount:** \$174,816

**Abstract:** The OCME Department of Forensic Biology is requesting competitive award funding from the Paul Coverdell Forensic Science Improvement Grant Program in the amount of \$174,815.84. This funding will be utilized to assist in the costs associated with improving the capacity, quality and timeliness of the laboratory's DNA services to its customers. Funding requested through this award will be utilized to purchase 16 full-user LIMS licenses and their accompanying one-year maintenance support plans from LabVantage Solutions, Inc. The purchase of these licenses will provide 16 additional employees with regular accessibility to the LIMS software daily, ultimately increasing workflow capacity, efficiency and timeliness within the department. Funding will also be used to renovate the evidence exam room within the laboratory. Specifically, the current "pass thru" window is planned to be converted into a new corridor with an interior partition and passage doors in an effort to improve laboratory procedural efficiency and timeliness. The funding requested in this award plays an instrumental role in the improvement efforts for capacity, efficiency, quality and timeliness of the laboratory's service to its customers.

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**FY13 Recipient Name:** Ohio Office of Criminal Justice Services

**Award Number:** 2013-CD-BX-0047

**Award Amount:** \$240,269

**Abstract:** FORMULA - In 2008, synthetic drugs were first detected in the U.S. in products seized by U.S. Customs and Border Protection. Since then the increased availability and abuse of synthetic drugs has become a well-known problem. Until recently, synthetic drugs were legal in Ohio and in many states across the country. The passage of Ohio House Bill 64 and amended House Bill 334 has allowed Ohio to ban a multitude of synthetic drugs by naming certain classes of compounds and individual compounds as Schedule I controlled substances, making them illegal. As a result of the enacted laws in 2011, the Ohio Attorney General's Bureau of Criminal Investigation's crime laboratory has seen an increased caseload as more illegal drugs are being confiscated by law enforcement across the state. Analyzing synthetic drugs can be more involved as known standards for new synthetic drug formulations do not exist. Furthermore, since synthetic drugs are man-made and rarely found in a natural state, the number of variations, or analogs, can reach the thousands, which results in more time-consuming and complex analysis of those substances. The increased caseload and variability of substances requires the Laboratory Division to constantly and consistently use sophisticated instrumentation to examine physical evidence to determine the presence or absence of illegal or harmful substances. Because of the need for increased capacity, the Bureau of Criminal Investigation (BCI) will use funding under the FY 2013 Paul Coverdell Forensic Science Improvement Grants Program to purchase four instruments used to examine physical evidence to determine the presence or absence of illegal or harmful substances. Specifically, three gas chromatographs/flame ionization detectors and one gas chromatograph/mass spectrometer detector will be purchased. Since BCI is the state's designated crime laboratory, the impact of this project will benefit law

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enforcement, prosecutors, and victims of crime throughout the entire state of Ohio. The additional instrumentation will increase BCI's capacity to analyze synthetic drugs, and it is anticipated that backlogged cases will be reduced, throughput will be increased, and the current turnaround time will be maintained. BCI anticipates a 40% reduction in the current number of backlogged cases, while also maintaining the current turnaround time that averages 10 to 30 days. Furthermore, BCI's capacity will be increased, resulting in additional output. It is expected that output will increase by 60% based on the additional gas chromatographs/flame ionization detectors and by nearly 6% based on the additional gas chromatograph/mass spectrometer. **COMPETITIVE** - 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, certain standards set by appropriate accrediting entities must be met within such agencies that encompass all aspects of the 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, maintain or purchase certain equipment that allows them to expand current capabilities, and attend training opportunities that will place them on the forefront of forensic science advancement. The goal of the program is to ensure that all eligible crime laboratories in Ohio improve the quality, timeliness, and credibility of forensic sciences services for criminal justice purposes. Employment of qualified personnel to assist in the reduction or elimination of backlog in the area of analysis of forensic science evidence. 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. 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.

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**FY13 Recipient Name:** Oklahoma District Attorneys Council

**Award Number:** 2013-CD-BX-0002

**Award Amount:** \$215,164

**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 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 following chart identifies the forensic science disciplines that are provided by each participating agency: The State of Oklahoma is eligible for \$74,381 under the FY2013 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 \$7,438, 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. The most common use for Formula Coverdell funds is in the Other Budget Category. Three (3) agencies (Broken Arrow, OCME, and OSBI) will be using funds for registration fees to attend professional training conferences and three (3) agencies (Ardmore, Norman, and Tulsa) will be using the grant funds for annual laboratory accreditation fees. Associated with the Other Category, Broken Arrow, OCME, and OSBI have also requested funds in the Travel Category for

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travel expenses related to attending the professional training conferences. Finally, Tnlsa is seeking funding for equipment and OSBI for overtime to reduce case backlog.

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**FY13 Recipient Name:** Oregon State Police

**Award Number:** 2013-CD-BX-0025

**Award Amount:** \$81,156

**Abstract:** Decrease the Latent Fingerprint Backlog Utilizing Overtime The Oregon State Police Forensic Services Division provides scientific, technical and investigative support to the criminal justice system through the forensic analysis of evidence. The Division is comprised of five Forensic Laboratories that are geographically located throughout the state to provide services to all agencies. Those services include the processing and comparison of latent fingerprint evidence. The Forensic Services Division has 16 positions trained to conduct both latent print processing and comparisons and an additional eight positions trained to conduct latent print processing only. The positions are allocated across all five laboratories statewide. In 2012, the Division completed 3,189 of the 3,395 requests received resulting in a 6% increase in the latent print backlog. The pending backlog of cases more than 30 days old at the end of 2012 was 1,993 cases, a 34% increase compared with 2011. The average turn-around-time for latent print casework in 2012 was 78 days. The Division currently monitors the volume of pending latent print cases in each laboratory and moves casework between the labs as necessary to optimize productivity. The Division is also evaluating workflow processes to gain efficiencies where possible. The goal of the Forensic Services Division is to provide timely and accurate latent print fingerprint processing and comparison of evidence to aid in the identification of suspects or to exclude persons during criminal investigations. The objective of this proposal is to use overtime to enable the Division to work additional cases that will reduce the backlogs and provide more timely results. The overtime will be distributed across all the labs to maximize the analytical resources that are available. Analysts are currently completing an average of .13 cases per hour. The Division's anticipated outcome is to use 998 hours of overtime to complete an additional 130 latent print cases that will reduce backlog and improve turn-around-time.

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**FY13 Recipient Name:** County of Washington (OR)

**Award Number:** 2013-CD-BX-0060

**Award Amount:** \$111,002

**Abstract:** The Washington County is requesting \$111,002 under FY 2013 Paul Coverdell Forensic Science Improvement Grants Program for the Washington County Sheriff's Office- Forensic Science Unit (WCSO-FSU) to eliminate the backlog in latent print analysis over its current operation, to maintain and enhance forensic analysts' proficiency and knowledge, and to enhance the efficiency and quality of forensic science services. The WCSO-FSU will use Coverdell Grant Fund to achieve the following objectives: 1. Eliminate or reduce the backlog of current latent print analysis over its current operation by providing overtime hours to three (3) forensic analysts. It is anticipated that by performing a total of 600 overtime hours, an additional 90 Latent Print Comparison (LPC) Cases will be completed by the end of the 12 month grant period and would result in a reduction of the current backlog of LPC Cases by approximately 56%. 2. Maintain and enhance forensic analysts' proficiency and knowledge by providing training and continuing education opportunities. Training will include Advance ACE-V Applications for Fingerprints, International Association for Identification (IAI) Educational Conference, Bloodstain Pattern Analysis, and Finding Latent Evidence with Chemistry and Light. The forensic analysts will furthermore increase competency in the field of latent print analysis, evidence processing, and bloodstain pattern analysis because of this training. 3. Enhance efficiency and quality of forensic science services by obtaining the Green (532 nm) Forensic Laser System to aid in trace evidence detection, particularly of latent finger prints and other trace evidence such as bone fragments, hair fibers and fluids. This equipment will increase the efficiency of evidence processing and prevent future backlogs. The investment made in

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allocating personnel resources for overtime hours, training and purchasing of equipment will allow the WCSO-FSU to achieve the goals and objectives of this grant proposal which will result in increased productivity, better quality, and more timely service to our customers.

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**FY13 Recipient Name:** City of Salem (OR)

**Award Number:** 2013-CD-BX-0061

**Award Amount:** \$85,300

**Abstract:** The City of Salem is requesting \$85,300 in funding from the Paul Coverdell Forensic Science Improvement Grant for the purchase of a regional Automated Fingerprint Identification System (AFIS) as described below. The Salem Police Department (SPD) is the second largest municipal law enforcement agency in the State, and serves the city of Salem with a population of 156,455 citizens and encompasses parts of Marion and Polk County. The AFIS currently used by SPD Crime Lab is at its end of life and does not meet the needs for the city, hampering the Lab's ability to search and identify latent prints in a timely and efficient manner and in receiving quality results. Through acquisition of a regional AFIS, SPD will be able to increase the number of prints identified through AFIS while decreasing redundancy by relieving personnel of the work involved in re-ceding prints for searches in multiple AFIS.

Interoperability, or "Enter Once, Search Many", is the key to achieving the Lab's goal of reducing backlog while achieving a high rate of identifications. The success of this system will be monitored through the collection of statistical data, in which positive results are recorded and compared to 2012 findings. SPD has actively researched available products to assist the Lab in its efforts. A regional AFIS using the most current and accurate matching algorithms, such as the Western Identification Network's (WIN) NEC Global Workstation (Latent/Palm), has been identified as a product that will improve the quality and timeliness of processing latent print cases. Such an AFIS has been proven successful at matching latent prints to candidates when other AFIS have not. Successful identifications via WIN include latent finger and palm prints, ten prints, and unidentified, burned, decomposed, or fragmented prints.

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**FY13 Recipient Name:** Pennsylvania Commission on Crime and Delinquency

**Award Number:** 2013-CD-BX-0056

**Award Amount:** \$265,645

**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. The Pennsylvania Commission on Crime and Delinquency (PCCD) plans to use its FY 2013 Coverdell formula allocation 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. Pennsylvania used its FY 2012 Coverdell formula allocation to support four (4) local projects, selected through a similar competitive process. In addition, under the 2013 Coverdell Competitive portion, the Pennsylvania State Police Bureau of Forensic Science (BFS) is requesting funding to improve laboratory operations through the expansion of the Toxicology Pilot Program into an established service. The BFS proposes using \$175,000 of the grant award along with \$25,000 from the Laboratory User Fee Fund to procure a Liquid Chromatograph Mass Spectrometer-Mass Spectrometer (LC/MS/MS). This versatile scientific instrument will expand the toxicological testing capabilities both quantitatively and qualitatively. LC/MS/MS has been utilized effectively for many years for drug identification in the field of toxicology. The end result will be significant, measurable improvements to the services offered to law enforcement agencies within Pennsylvania.

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**FY13 Recipient Name:** Instituto de Ciencias Forenses (PR)

**Award Number:** 2013-CD-BX-0048

**Award Amount:** \$76,819

**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. FY2013 Paul Coverdell funding will be used to retain a Controlled Substance Analyst and a Firearm/Toolmarks Technician at the PRIFS Ponce site. 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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**FY13 Recipient Name:** Rhode Island Public Safety Grant Administration Office

**Award Number:** 2013-CD-BX-0042

**Award Amount:** \$58,186

**Abstract:** BASE - 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 2013 Coverdell award will fund this position from October 1, 2013 through the federal fiscal year which ends September 30, 2014 at 22.028% percent of the current rate of pay with fringe benefits or \$90,355. The total cost of this position is \$90,355 including \$58,930 in salary and \$31,425 in fringe benefits. The Rhode Island Public Safety Grant Administration Office will retain \$2,229 in administrative funds to contribute to the salary and fringe benefits of the grant administrator. COMPETITIVE - The Rhode Island State Crime Laboratory (RISCL) is seeking funding in the amount of \$175,000 to provide critically necessary upgrades/additions of three (3) pieces of crime laboratory equipment and instrumentation. The timing of this funding is critical, in that the purchase of the new equipment would be most cost effective and efficient to occur during the FY2014 opening of RI's new State Crime Laboratory facility. The University of RI has committed to funding for the renovation of an existing building and the relocation of the laboratory to that site. RI'S NEED FOR CRIME LAB EQUIPMENT REPLACEMENT Coverdell funding would provide RI's state crime laboratory with state-of-the-art forensic evidence analysis. The supplement of this equipment would provide tools for analysis of scientific evidence that is of a higher sensitivity and accuracy, which lends itself to evidence testing results found to be more reliable and trustworthy. 1. Projectile recovery tank -Rhode Island has one (1) state crime laboratory. Currently, there is an urgent need to purchase a new projectile recovery tank or bullet tank. The existing bullet tank was put into

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service in March 1997 and has been in use for over sixteen (16) years. Funding at this time would allow for the bullet tank to be constructed in-place at the new crime laboratory facility in 2014. RI'S NEED FOR NEW CRIME LAB EQUIPMENT 2.RUVIS The Reflected Ultraviolet Imaging System (RUVIS) allows investigators to actually see latent fingerprints on nonporous surfaces before any attempt is made to locate latent prints with powders or chemicals. A crime scene investigator can actually see what evidence is important and of a quality that allows further analysis. Therefore, the RUVIS operator can direct his attention to only those prints that may have forensic value and sample smudges and smears for touch DNA analysis. 3. UV/Vis MSP The UltraViolet/Visible Light Micro-Spectrophotometer (UV/Vis MSP) is an essential tool in the forensic analysis of many kinds of trace evidence, which at this time is not available in the laboratory. It uses either visible and ultraviolet light to measure the light transmission, absorption, or reflectance properties of a target material. This instrument is particularly valuable in the investigation of hair, textile fibers, and paints. The addition of this instrument would provide for a more complete analysis of trace evidence, providing the criminal justice system with up-to-date forensic analysis for prosecution.

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**FY13 Recipient Name:** South Carolina Department of Public Safety

**Award Number:** 201-CD-BX-0052

**Award Amount:** \$98,314

**Abstract:** The South Carolina Law Enforcement Division (SLED) Forensics Laboratory proposes a project to improve the timeliness of forensic toxicology examinations and reduce the backlog of the Toxicology Department by acquiring an Instrument Top Sample Preparation System (ITSP) (Attachment 1). This new technology interfaces directly with the Liquid Chromatograph Tandem Mass Spectrometer (LC/MS/MS). The ITSP is a state of the art instrument that is positioned directly on top of the LC/MS/MS. This configuration allows the instrument to interface with the LC/MS/MS to complete sample preparation and extraction and inject it directly into the LC/MS/MS while another sample is being analyzed. This greatly reduces the time needed to analyze an individual sample. This reduction in analysis time will assist the Toxicology Department in reducing not only the turnaround time but also the backlog in the department. Better enforcement techniques over the years have resulted in a 40% increase in DUI arrests for the period 2002 - 2011 according to the 20 II edition of Crime in South Carolina. This increase in DUI arrests has resulted in a significant increase in DUI cases submitted to the Toxicology Department. Better technology will assist the department in providing faster scientific results to law enforcement and the judicial system.

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**FY13 Recipient Name:** City of Charleston (SC)

**Award Number:** 2013-CD-BX-0069

**Award Amount:** \$46,000

**Abstract:** The goal of the project is to reduce the percentage of backlogged cases to 10% and reduce the number of days from submission to release of the laboratory report of a computer examination by 40%. This will be accomplished by purchasing forensic workstations dedicated to digital evidence analysis. The laboratory will monitor backlog, turnaround time, and grant performance indicators with Forensic Advantage, the laboratory information management system (LIMS). Cases are tracked electronically from the time the request is received through evidence submission, case examination, reporting, and release. Dates and times are recorded automatically which ensures accuracy in workload assessment and statistics. Project Objectives: 1) Purchase two (2) forensic computers for the analysis of digital evidence. 2) Reduce the average turnaround time for the analysis of computer case submissions by 40%. The average turnaround time will be reduced from 80 days to 48 days. 3) Reduce the backlog of digital evidence cases that require over 60 days completing from 18% to 10%. 4) Continue to provide digital examination services to local law enforcement agencies at no cost and without interruption. Project Performance

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Measures: 1) The City of Charleston will purchase two forensic computers expeditiously and in compliance with municipal procurement guidelines. The objective will be satisfied with a closed purchase order transaction. 2) The Forensic Services Division will track turnaround time for digital evidence examinations of computers in Forensic Advantage. The average turnaround time in 2012 will be compared to the average turnaround time at the end of the grant cycle to compute the change in turnaround time. 3) The Forensic Services Division will track the number of digital evidence computer cases in backlog in Forensic Advantage. The percentage of backlogged cases in 2012 will be compared with the percentage of backlogged cases at the end of the grant cycle to compute the change in the size of the backlog. 4) The Forensic Services Division will track the names of the agencies that submit cases for digital evidence examination over the period of the grant. If services are discontinued or fees charged for services, this information will be disclosed via the progress reports. The City of Charleston will fulfill the statutory certification of the Paul Coverdell Forensic Science Improvement Grant. The digital evidence examiners do not need to be trained on the operation of the forensic computers or the software installed on them.

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**FY13 Recipient Name:** Office of the Attorney General (SD)

**Award Number:** 2013-CD-BX-0022

**Award Amount:** \$ 58,186

**Abstract:** FORMULA - South Dakota intends to utilize the award to help with the foundation of improving lab services. The SDFL provides services to all law enforcement in South Dakota, including local, state, federal, and tribal law enforcement. The caseload for examiners has increased over the past several years, including increases of nearly 50% in Biology/Serology, and a near 100% increase in firearms and tool marks. Funding increase requests for additional staff have not been successful, and the SDFL must be more efficient through better time management and improvements in equipment to improve efficiency. Coverdell funding would be used to purchase needed equipment upgrades that will be utilized to improve efficiency, reduce turnaround time, and improve safety of examiners and accuracy of results. The SDFL is requesting Coverdell2013 funding to help fund the purchase of a Remote Trigger Device, a Digital Filar Micrometer Eyepiece, and an upgraded camera for the Firearms/Tool-marks section. Funding is also requested to purchase a Reflective Ultra Violet Imaging System (RUVIS) in the fingerprint section. Anticipated outcomes would be that the equipment purchased would allow for more efficient use of examiner time, allowing for higher productivity. COMPETITIVE - The SDFL is requesting competitive funding to pay for the salary and benefits of our only trained examiner in trace evidence. Without the services of the trained examiner, this much needed specialty would not be made available for the law enforcement officers in the state of South Dakota. The SDFL is requesting FY2013 competitive funding to provide professional training and development for its employees in order to maintain continuing education requirements in their respective discipline, or to obtain or maintain specific certifications in their respective disciplines. The training received through attending professional training conferences/meetings will improve examiner competency, quality of examinations and expert witness testimony and enable examiners to participate in certification and recertification programs offered to the forensic science community. The project goal is to strengthen and improve the effectiveness and service delivery to the stakeholders of the SDFL by continuing to provide forensic services in trace evidence, as well as developing and improving the competency of scientists through training and professional development gained through attending professional training conferences/meetings. This will not only address a national concern expressed by the National Academy of Sciences, but will also improve the level of competency, case work examinations and expert witness services throughout our State. Coverdell2013 funding is also requested to pay for maintenance agreements on the BEAST LIMS system, and the accreditation fees for the ISO audit, required to maintain accreditation.

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**FY13 Recipient Name:** State of Tennessee

**Award Number:** 2013-CD-BX-0028

**Award Amount:** \$134,373

**Abstract:** FORMULA - The State of Tennessee proposes to use FFY 2013 Coverdell Formula funds to support the following program: Tennessee Bureau of Investigation - Forensic Labs Equipment and Training Enhancements. The TBI proposes to use funding from the Federal Fiscal Year 2013 award to purchase and install the following items: one (1) Gas Chromatograph / Fourier Transform Infrared Spectrometer (GC/FTIR). Additionally, the TBI also proposes to provide forensics training in Gunshot Residue Analysis to one employee. The cost for the purchase of the GC/FTIR listed above, along with the specific forensics training, is estimated to cost \$113,295.00. COMPETITIVE - The State of Tennessee proposes to use FFY 2013 Coverdell Formula funds to support the following program: Tennessee Department of Health - Office of State Chief Medical Examiner (OCME) - Statewide Medical Examiner Services Training. Federal funding will be passed through to the Tennessee Department of Health to support the implementation of five regional seminars on death investigation practices in Tennessee. The five seminars will be held at Tennessee State Parks, or local college conference facilities in order to control costs in each of the following regions; Northeast (Johnson City area), East (Knoxville area), Southeast (Chattanooga area), Middle (Nashville area), and West (Jackson area). The target population for attendance at these meeting will be a combination of county medical examiners, county medicolegal death investigator, Sheriff's Department staff, Police Department investigators, representatives of District Attorney's General from local jurisdictions across the State.

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**FY13 Recipient Name:** State of Texas

**Award Number:** 2013-CD-BX-0051

**Award Amount:** \$542,367

**Abstract:** Goal: 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 2013 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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**FY13 Recipient Name:** State of Texas

**Award Number:** 2013-CD-BX-0051

**Award Amount:** \$542,367

**Abstract:** Goal: 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 2013 Coverdell funds to support accredited crime laboratories and medical examiner

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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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**FY13 Recipient Name:** City of Pasadena (TX)

**Award Number:** 2013-CD-BX-0068

**Award Amount:** \$130,000

**Abstract:** The purchase of a new Gas Chromatograph/Mass Spectrometer, or GC/MS, for the Pasadena Police Department Regional Crime Lab will assist the crime lab in achieving its goal of decreasing the number of days between submission of toxicology evidence and the reporting of results.

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**FY13 Recipient Name:** City of Fort Worth (TX)

**Award Number:** 2013-CD-BX-0070

**Award Amount:** \$113,243

**Abstract:** The City of Fort Worth is requesting \$113,243 in funding under the 2013 Paul Coverdell Forensic Science Improvement Grants Program to enhance operations within the Fort Worth Police Department's Crime Laboratory (Crime Lab). The proposed program under this grant will provide the Crime Lab with equipment, and training that will increase the Lab's efficiency and service quality. Backlogs within the Crime Lab continue to exist, while current casework demand increases as well. Demand for crime lab services increased by 19% from 8,832 cases in 2011 to 10,523 cases in 2012. The continual year to year increase in request for forensic services correlates with the increases in population within the City. In 2011, the City of Fort Worth's population rose to 757,810, an increase of 39% or 222,390 residents from 2000. Based on the uniformed crime reporting statistics; Part 1 crimes increased by 5% from 2010 to 2011 within the city. The Crime Lab's objectives under the City of Fort Worth's 2013 Coverdell Grant program are to provide the necessary education and training for Crime Lab personnel to gain and/or maintain current knowledge and standards within the forensics field; replace aging equipment to enable forensic examiners to complete high quality work in the most efficient manner; and monitor and amend quality standards to meet the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB) International Standards, and maintain accreditation status. To meet these objectives, the following funds are requested: \$9,573 for training and travel costs, \$3,670 for associated registration fees; \$85,000 for a Gas Chromatograph-Mass Spectrometer, and \$15,000 for a Hydrogen Gas Generator. Additionally, funds requested under this grant will contribute to the anticipated addition to the scope of services offered by the Crime Lab such as tire tread and shoe print examinations. The City also has the goal of increasing the capacity of the DNA unit to significantly decrease outsourcing costs to private vendors and the turn-around time to process samples. If funds from the 2013 Coverdell grant are awarded, the project will be managed by the Forensic Division Manager, who has extensive experience in the forensics field. Outcomes under this program will be: a reduction in current backlogs; a decrease in the average case turn-around time; a reduction in

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the number of samples sent for outsourcing; an increase in the number of Crime Lab personnel who receive professional development training and hold professional certifications.

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**FY13 Recipient Name:** Harris County (TX)

**Award Number:** 2013-CD-BX-0071

**Award Amount:** \$74,147

**Abstract:** Few formal post-graduate training programs in Forensic Anthropology exist and as a result talented candidates are not being recruited into the field. Concurrently, local and national backlogs of anthropological casework persist. The Harris County Institute of Forensic Sciences (HCIFS) is poised to offer an excellent fellowship program in forensic anthropology. The HCIFS consists of the Pathology and Crime Laboratory Services, is a member of the Texas Medical Center™ Institutions, and offers an ACGME accredited forensic pathology fellowship of which the proposed fellowship program is modeled. HCIFS receives a large and diverse anthropological caseload annually which provides an outstanding training opportunity. In 2011, 3,874 medico legal cases were received by the office of which 3,818 cases resulted in an autopsy. The anthropologists provided bone/cartilage trauma consultations on 171 of the autopsied cases and full skeletal analysis on 26 of the cases. Additionally, they determined 36 cases to be either non-human or non-forensic and attended 29 death scenes. The Forensic Anthropology Division also processes all unidentified decedents received by the office. Currently, HCIFS maintains a backlog of approximately 200 unidentified decedent files. The files are in need of thorough review and processing. In addition to casework, HCIFS has an active research program. HCIFS staff regularly presents at national scientific meetings and publish in leading forensic science journals. In 2012, the Forensic Anthropology Division delivered four presentations at national scientific meetings and published two peer-reviewed manuscripts and one book chapter. Since 2006, the division has been awarded four research grants and one training grants. Under supervision of doctoral level staff, the fellow will analyze specimens, produce written reports and establish competency in standard methods. He/she will also participate in a research project and present the results at a national or regional scientific conference. The forensic anthropology fellow will assist in the reduction of the unidentified decedent backlog. The progress of the fellow will be monitored through casework and file review tally, reduction in case turnaround time, and progress of the research project. The total cost of this program is \$74,147. The cost includes salary, benefits, supplies and travel for the fellows.

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**FY13 Recipient Name:** Utah Department of Public Safety

**Award Number:** 2013-CD-BX-0032

**Award Amount:** \$59,427

**Abstract:** The Utah Bureau of Forensic Services (UBFS) is requesting \$55,672 in 2013 Coverdell grant base/formula funds for the UBFS, Utah Bureau of Forensic Toxicology (UBFT), and the Intermountain West Regional Computer Forensic Laboratory (IWRFCFL). These three laboratories comprise the Utah State forensic laboratory system. The funding would be used to target two of our more pressing issues: manpower and training. Funding is requested to continue a part-time Program Specialist in the IWRFCFL to maintain or decrease the existing case turnaround time. Travel/training and reference materials are also requested by the UBFS and UBFT so analysts can stay current in their respective disciplines and obtain/maintain certification in those disciplines. 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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**FY13 Recipient Name:** Virginia Department of Criminal Justice Services

**Award Number:** 2013-CD-BX-0055

**Award Amount:** \$170,371

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**Abstract:** This proposal involves two agencies in Virginia, the Department of Forensic Science and the Office of the Chief Medical Examiner. The State Administering Agency for this grant is the Virginia Department of Criminal Justice Services. OFFICE OF THE CHIEF MEDICAL EXAMINER (OCME) Statement of the Problem - Currently in the United States there are a limited number of qualified forensic pathologists and a backlog of cases in most medical examiner and coroner offices. On average, it takes one year for a jurisdiction to recruit a qualified board certified forensic pathologist to work cases of violent death. In Virginia, forensic pathology vacancies have been filled by fellows previously trained in Virginia. In addition, fellows who have been trained in the Virginia program have gone to work successfully in other states and localities. There currently is no state funding for this program. Goal - OCME's goal for this project is to increase the number of qualified forensic pathologists in Virginia and the United States, by training and certifying a forensic pathology fellow. Objectives - The achievement of this goal is dependent on meeting instructional objectives set by the ACGME (Accreditation Council for Graduate Medical Education) accreditation. The Virginia OCME has met this instructional accreditation with rigorous program criteria for annual training of forensic pathology fellows. Anticipated Outcomes - Completion of 12 months of training of a forensic pathology fellow to: • Improve effectiveness and speed in medical examiner systems by increasing the pool of qualified forensic pathologists • Improve documentation and evaluation of death investigations and autopsies • Enhance recruitment efforts of medical examiner systems nationally and decrease backlogs DEPARTMENT OF FORENSIC SCIENCE (DFS) Statement of the Problem - As the demand for forensic analysis services from DFS continues to increase, the agency needs to ensure its scientists have the training necessary to accomplish their assigned caseloads efficiently and in conformity with the highest standards of quality, as defined by the ASCLD/LAB-International accreditation program. Goal- Improve the quality and timeliness of forensic science services in Virginia by the DFS Chemical Analysis, Physical Evidence, and Calibration and Training program areas. Objective- Enhance DFS forensic scientists' skills and knowledge base by providing internal and external continuing education opportunities for approximately 136 scientists in various scientific disciplines. Anticipated Outcomes - The anticipated impact of the proposed scientific training is a more knowledgeable scientific staff, translating to forensic services that are more efficient, timely and relevant.

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**FY13 Recipient Name:** City of Harrisonburg

**Award Number:** 2013-CD-BX-0064

**Award Amount:** \$57,847

**Abstract:** The Harrisonburg Police Department (HPD) is the law enforcement agency for the City of Harrisonburg, Virginia. The department's 87 sworn officers serve a city population of approximately 50,000 and the city encompasses an area of 17.4 square miles. The department conducts digital forensic examinations for any digital evidence presented by the HPD. These examinations are conducted by the department's Digital Evidence Forensic Laboratory, which currently has one examiner assigned to the unit. The Digital Evidence Forensic Laboratory also conducts examinations for regional agencies from as far away as one hour from the City of Harrisonburg. These agencies have included federal agencies, state agencies, multiple sheriff's offices, local prosecutors, and numerous surrounding towns. The volume of examination requests, combined with the quality of evidence presented, the inability to narrow the focus of examination requests, and limited laboratory resources place the Harrisonburg Police Department's Digital Evidence Forensic Laboratory in a position where assistance is necessary. This assistance does not only provide valuable resources to the City of Harrisonburg's police department, but for all regional agencies that have, or will request assistance related to digital evidence. The success or shortcoming of the Digital Evidence Forensic Laboratory directly affects HPD's goal of providing honorable, professional and dedicated service to its citizens. Therefore, this grant proposal presents a strategy to ensure that the HPD's Digital Evidence Forensic Laboratory will provide the highest quality service possible. The strategy for providing the highest level of service possible at the laboratory includes the creation of a new part-time Digital Evidence Technician position to assist with laboratory-related tasks.

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The HPD plans to incorporate this position beyond the grant period, taking advantage of the opportunity to grow its laboratory capabilities with grant funding. The department will also allocate overtime funds to the current examiner position in order to help improve the overall quality and efficiency. The HPD will also provide high quality and relevant training to first responders, case agents and prosecutors of not only the HPD, but also regional agencies in order to improve the quality of evidence that officers present. Additionally, this will assist with narrowing the focus of examinations. The Harrisonburg Police Department will provide entry level training to the new technician position, advanced training to the examiner, and greatly improve the available laboratory resources in order to improve the overall quality and efficiency of its Digital Evidence Forensic Laboratory.

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**FY13 Recipient Name:** Vermont Department of Public Safety

**Award Number:** 2013-CD-BX-0035

**Award Amount:** \$58,186

**Abstract:** The Vermont Forensic Laboratory serves the entire State of Vermont and accepts evidence from all state and local law enforcement agencies. During the past year the laboratory has been unable to fill a latent fingerprint analyst position, leading to significant backlogs in that area, both in terms of cases worked and slowdowns caused by the need to arrange appropriate technical review of cases. The state has also added -200 more controlled substances to the list of substances regulated in Vermont. Developing and validating procedures to enable us to test these additional substances has taken time from routine analysis and coupled with the increase in substances that can be submitted, has resulted in backlogs in the controlled substance unit. The efficient processing of cases and analysis of evidence can be improved through grant funds applied to:

- Provide salary for an evidence technician to receive, maintain, and distribute evidence to analytical staff and to assist analysts in evidence inventory/return.
- Overtime for drug analysts to continue to work down the backlogs.
- Funding to maintain and improve our LIMS which is increasingly important in standardizing processes throughout the laboratory
- Funding to contract technical review of latent fingerprint casework while we search for and hire a qualified examiner.
- Continuing educational training for examiners in all analytical areas to maintain the analyst's knowledge of trends and changing methodologies in the field and to ensure the highest quality work.

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**FY13 Recipient Name:** Virgin Islands Department of Justice

**Award Number:** 2013-CD-BX-0054

**Award Amount:** \$58,186

**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. This proposal is seeking \$171,538.17 in competitive federal funding to achieve the project goal. 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

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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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**FY13 Recipient Name:** Washington State Patrol

**Award Number:** 2013-CD-BX-0029

**Award Amount:** \$143,547

**Abstract:** Washington State's 2013 Paul Coverdell grant application is focused on improving the practice of forensic science throughout the state. Grant funds will be used to the benefit of all of the state's 6.8 million citizens. Specifically our goals are to: (1) Improve the quality and timeliness of forensic science and medical examiner services within the state, including those services provided by laboratories operated by the Washington State Patrol (WSP) and those operated by units of local government, and (2) Eliminate 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. The strategy will be to provide funding to: (1) The WSP Missing and Unidentified Persons Unit (MUPU) to be used to process a backlog of over 2,000 unprocessed dental records from missing persons; (2) Purchase Digital Dental X-ray systems for the Clark County and Pierce County Medical Examiners which will provide for the electronic submission of records thereby improving efficiency, quality, and timeliness; and (3) Purchase equipment along with installation for the Lewis County Coroner for communication as well as information processing and storage which will improve efficiency and effectiveness in conducting death investigations. Our grant proposal is submitted on behalf of the Washington State Forensic Investigations Council (FIC). The FIC is composed of individuals representing prosecuting attorneys, sheriffs and police chiefs, elected city and county officials, coroners, and public/private medical examiners. The outcomes anticipated are a reduction in our backlog of unprocessed dental records with a corresponding reduction in our active missing person cases. The counties who purchase digital dental x-ray systems would streamline the process of submitting dental x-rays to MUPU which would also have an impact on the identification of missing persons. Finally, the equipment purchased for Lewis County would result in improved accuracy and reduced turnaround time for death scene recording, investigative reports, and filing of vital records.

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**FY13 Recipient Name:** Wisconsin Department of Justice

**Award Number:** 2013-CD-BX-0041

**Award Amount:** \$119,182

**Abstract:** The Wisconsin Department of Justice, Crime Laboratory Bureau (WI-DOJ CLB), is applying for the 2013 Paul Coverdell Forensic Science Improvement Grant to improve the quality and timeliness of forensic science and medical examiner services in Wisconsin. The participating agencies consist of the WI-DOJ CLB, 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 a continued focus on decreasing forensic case turnaround time by increasing laboratory capacity and capability through the use of technology, modern supplies, and enhanced education, training, and proficiencies of forensic analysts and medical examiner personnel in each agency. All agencies have an existing grant agreement in place and continue to successfully work together to improve the quality and timeliness of forensic and medical examiner services in the State of Wisconsin.

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**FY13 Recipient Name:** West Virginia Division of Justice and Community Services

**Award Number:** 2013-CD-BX-0043

**Award Amount:** \$58,186

**Abstract:** The Office of the Chief Medical Examiner (O.C.M.E.) is mandated under Chapter 61 of the West Virginia Code, to investigate and certify all deaths that occur within the state of West Virginia that are the result of violence, deaths due to accidental causes, deaths that occur during incarceration, deaths that are associated with conditions that pose a hazard to the public safety or health, and unattended or unexplained deaths. The OCME pursues its mission by utilizing the principles of medicolegal death investigation to supplement forensic autopsy expertise, in order to work hand-in-hand with the West Virginia court system and a wide range of state public safety and health agencies towards the overall goal of reducing social violence and other preventable injury, and to monitor the prevalence of certain conditions that threaten the safety and health of all our communities. Considering the mission statement above, the West Virginia Bureau for Public Health, Office of the Chief Medical Examiner (OCME), is proposing to use Fiscal Year 2013 Paul Coverdell Forensic science Improvement Grant Funds to improve/enhance several aspects of technology capabilities through the purchase and implementation of the variety of solutions listed below. While a variety of aspects related to communication delivery has always been at the heart of OCME, enhancing the different types of systems described will provide several significant benefits in the post-mortem examination process; improving the quality and timeliness of medical examiner services and subsequently our overall mission. Addressing the quality and timeliness aspects of the OCME response support systems, internal and external, will lead to getting more complete and accurate information to the right people more quickly, securely and safely. While addressing more complete and accurate information, more flexible infrastructures will allow for the support of multiple modes of communication as well as enhance interagency and cross jurisdictional collaboration. The OCME is also tasked by law to certify certain deaths which occur within a Statewide jurisdiction, utilizing principles of medicolegal death investigation to supplement forensic autopsy expertise in order to address the forensic needs of the WV court system, as well as meet the public health and safety needs of a wide range of state DHHR Agencies; towards the overall goal of reducing social violence and other preventable injury, and to monitor the prevalence of certain conditions that threaten the safety and health of all our communities.

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**FY13 Recipient Name:** Wyoming Office of the Attorney General

**Award Number:** 2013-CD-BX-0030

**Award Amount:** \$58,186

**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 2013 Coverdell program are: Reduction of analysis turn-around times and case backlogs. 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 and 2012 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. c) Within the Trace Evidence Unit by supporting overtime in response to the increasing demand for analysis. 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 period. The goals of the

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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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