FY2011 Paul Coverdell Forensic Science Improvement Grants Program Abstracts

FY11 Recipient Name: Alaska Department of Public Safety
Award Number: 2011-CD-BX-0016
Award Amount: $166,108
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 2011 Coverdell grant funds to provide training for staff who are directly and substantially involved in providing forensic science services, purchase of equipment directly related to scientific analysis, and to offset the cost of the external accreditation assessment and costs related to annual proficiency tests for analysts.

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

FY11 Recipient Name: Municipality of Anchorage (AK)
Award Number: 2011-CD-BX-0092
Award Amount: $175,000
Abstract: The Anchorage Police Department is the primary law enforcement agency with responsibility for the Municipality of Anchorage, the largest metropolitan area in the State of Alaska. The local jurisdictional area is comprised of 278,000 citizens (42% of the population of the state) spread over a service area of 160 square miles. The department accomplishes its mission with a staff of 357 sworn officers and 167 nonsworn support and administrative personnel. The department reports 13,090 instances (5 year average) of major crime each year as reported in the Uniform Crime Report (UCR). Major crime, as stated includes murder, rape, robbery, aggravated assault, burglary, theft, and motor vehicle theft. Historically, the Forensic Sciences Crime Laboratory has received an average of 2,000 forensic cases per year that cumulate in over 10,000 pieces of evidence to be processed annually. In the past few years, due in part to the benefits of the Paul Coverdell Forensic Science Grant, the Crime Laboratory has reduced the backlog of case evidence and has reduced the time to review and process new case evidence.

The Forensic Crime Lab is staffed by a Forensic Examiner Supervisor, a Forensic Evidence Specialist, a Forensic Identification Specialist, and a Forensic Imaging Specialist. The crime lab processes latent print collection/evaluation, DNA collection, trace evidence collection, crime scene investigation, firearms serial number restoration, questioned document examination, foot and tire prints, clandestine labs and digital evidence collection. The department expanded the lab staff by an additional Forensic Evidence Specialist in June of 2006 through an internal selection process that left a vacancy in the Forensic Photography unit that was filled in April of 2007. The department wishes to again expand the personnel compliment of the lab by adding two (2) additional Forensic Technicians. The funding for one of these

technicians is requested herein and the other is planned to be added in the 2012 annual police operating budget.

The Anchorage Police Department Forensic Crime Laboratory recognizes that it must begin the accreditation process to meet the International Organization for Standardization (ISO) requirements. Accreditation will provide the department an independent, impartial and objective system by which the facility will benefit from a total organizational review. It will additionally demonstrate and reassure the local justice system and the served community that quality laboratory services are being provided. The process of accreditation will ensure continuing quality assurance, education and annual audits. The budget submitted in this grant application identifies specific areas of concern that must be addressed prior to and during the accreditation process.

FY11 Recipient Name: Alabama Department of Economic and Community Affairs
Award Number: 2011-CD-BX-0002
Award Amount: $289,148
Abstract: The ADFS plans to utilize the FY2011 Paul Coverdell National Forensic Science Improvement Act (NFSIA) "Formula Grant Program" funds to improve the analysis capability, data storage capacity, and technical knowledge of the ADFS's laboratories and personnel. Specifically, the ADFS's Firearms Section plans to improve its ability to conduct advanced testing of evidence bullets and cartridge casings. The ADFS's proposal is focused on developing an *objective* 3D topographical imaging tool and a *quantifiable* method that will allow firearms examiners throughout the State to benefit from a faster, more widely applicable, more rugged, and less labor intensive analytical approach to their examinations upon impressed markings from fired bullets and cartridge casings within the forensic laboratory, all in direct support of the NFSIA solicitation's goals.

To assist with operating this system, the FY2011 funds will be utilized to pay for (i) instrumentation that will enhance the analysis capability of the ADFS's Firearms Section (Confocal Interferometer 3D Optical Profiler), (ii) a Storage Area Network (SAN) to increase the storage capacity of the Laboratory Information Management System (LIMS) for case work data and case images, (iii) additional morgue and laboratory supplies to be utilized during the performance of autopsies and scientific analyses, and (iv) training and travel costs associated with providing ADFS personnel with training and educational opportunities.

The ADFS will purchase a SAN to improve its statewide LIMS computer network by providing additional casework data storage space which will include instrumental data files and digital images from Death Investigation cases and crime scene photographs. In addition, many of the medical examiner facilities are using outdated equipment (including autopsy saws, cots, desks, etc.), and these resources are in need of upgrades to be made to autopsy facilities and medical examiner offices. Also, needed equipment and supplies will be purchased to aid the ADFS with preparing to meet the National Association of Medical Examiners (NAME) accreditation standards.

The ADFS also plans to utilize the funds to improve the training and educational opportunities for staff and to facilitate the transmission of information for personnel training and continuing education seminars, administrative conferences and meetings, casework reviews, and State-level and federal-level court testimony. Through the use of funds for training and associated travel, the ADFS will more thoroughly train its scientists and provide continuing education for current personnel, thus making an immediate impact on the ADFS's abilities to correctly address pending court cases, enhance its departmental operations, provide local law enforcement agencies with improved crime scene processing/forensic analysis/investigation services, and produce competent work products from its employees.

The goals and objectives of this "Formula Grant Program" initiative are: (1) to improve on the capabilities of the ADFS's laboratory information management system (LIMS) network data storage capacity, (2) to purchase instrumentation to be used to enhance the ADFS Firearms analysis capability (Confocal Interferometer 3D Optical Profiler), (3) to provide more cost-effective opportunities for training and continuing education for ADFS personnel, and (4) to purchase needed morgue and laboratory supplies to aid in the reduction of case backlogs. By implementing these strategies, the ADFS will continue implementing its plan to provide its facilities with sufficient equipment and resource materials that will improve the ADFS's ability to address the forensic science needs throughout the State.

FY11 Recipient Name: Arkansas Department of Finance and Administration
Award Number: 2011-CD-BX-0007
Award Amount: $177,918
Abstract: The Arkansas State Crime Laboratory is proposing to use the funding received for training of laboratory personnel, training for the coroners in Arkansas, to pay accreditation and certification fees, to support interns and to purchase mobile morgue refrigerator units.

The **objective** is to improve the quality and timeliness of forensic science and medical examiner services. The **goals** for achieving this objective are: 1. To increase the analysts' knowledge of new methods and instrumentation and keep the analyst abreast with the latest forensic techniques and trends, 2. Fulfill the laboratory's training requirements to remain accredited and demonstrate to the general public and the criminal justice system that the laboratory output is of the highest quality and that the procedures used meet established standards, 3. Certify analysts in their respective discipline, 4. Keep coroners in Arkansas up to date on medical legal issues as it relates to deaths in Arkansas and 5. Ensure that counties have adequate refrigeration equipment for post-mortem storage to preserve evidence. 6. To educate and support interns in the forensic field.

The **strategy** for completing this project is to provide funding for analysts/examiners to attend training in their discipline including Combined DNA Index System (CODIS), Digital Evidence, Field Investigation, Firearms/Toolmarks, Forensic Biology, Forensic Chemistry, Illicit Labs, Latent Prints, Medical Examiners, Morgue Technicians, Physical Evidence-Serology & Trace Evidence, Quality Assurance and Toxicology. The Arkansas State Crime Laboratory will use a portion of the funding to provide training for the coroners in Arkansas. Annual accreditation and certification fees will be paid to the American Society of Crime Laboratory Directors – Laboratory Accreditation Board (ASCLD/LAB) and to the National Association of Medical Examiners (NAME). The Arkansas State Crime Laboratory will support four interns in the summer internship program for college students interested in forensic science. In addition, the ASCL will purchase three (3) portable morgue refrigeration units to place in counties in Arkansas that do not have a refrigerated area to store post-mortem bodies until transport to the Arkansas State Crime Laboratory. The total projected cost of the project is $179,080.00.

FY11 Recipient Name: Benton County (AR)
Award Number: 2011-CD-BX-0102
Award Amount: $53,273
Abstract: The overall scope of this project is to optimize productivity and enhance efficiency in death scene investigations by improving our tools for the safe gathering and screening of evidence, for processing and report writing, and for the safe storage of forensic samples. Also, another key objective is to improve the education for Coroner's Office staff by providing support for training of personnel. The objectives are: 1) provide the Coroner's Office with equipment and supplies needed to process a death scene and document findings so as to provide quicker and more accurate data collection and information sharing; 2) provide a safer work condition while on the death scene, so as to protect coroner employees

from possible air borne contaminants and toxins; 3) provide a safe forensic storage area for collected DNA, fingerprints, and other evidence as well as personal property of the deceased; and 4) provide training and continuing education opportunities.

To meet objective 1, the requested equipment and supplies are items that are needed to process death scenes more efficiently – we will gain the capability to prepare and email reports and database information, make more accurate measurements, and more easily provide photo and DNA documentation. The critical pieces we need are additional laptops, state-of-the-art camera equipment, DNA cards, and mortuary cots.

To meet objective 2, we will purchase Self Contained Breathing Apparatuses (SCBAs) and Scott respirators will be purchased to use while removing and processing human remains at the scene. This would lessen the possibility of exposure to toxins, pathogens, and other types of airborne contaminants, which could be present from decomposed remains, areas with noxious and/or toxic chemicals present, or excessively dusty environments.

To meet objective 3, we will purchase a fire and water proof safe to protect and secure evidence, DNA, fingerprints, chain of custody, and any personal property of the deceased.

To meet objective 4, the Coroner and coroner deputies will participate in various in-state and out-of-state training opportunities to fulfill training requirements and to maintain proficiency. Attendance at in-state or out-of-state meetings, professional conferences and workshops will assist the Coroner's office in keeping current with new technologies.

Support of this proposal will allow us to meet the objectives of this Project, and therefore will provide needed training opportunities, give us badly needed equipment to improve the efficiency of evidence screening, and yield a much safer work environment. Meeting the objectives will result in Benton County being able to maintain a proficient, confident workforce. Additional resources will increase the efficiency of evidence screening, processing of the death scene, and safe storage of evidence. The subsequent expected outcomes will be increased efficiency of evidence screening, increased efficiency in processing the death scene, and enhancements in report writing, all of which will lead to increased productivity and more timely quality service to all of our shareholders – the families of the deceased, Law Enforcement, the State Crime Lab, and to all citizens of Benton County. Running the Coroner's Office with more efficiency and added technology enhancements will provide the citizens of our county with a modern, more sophisticated operation at lower cost to the taxpayer.

FY11 Recipient Name: Arizona Criminal Justice Commission
Award Number: 2011-CD-BX-0019
Award Amount: $408,176
Abstract: Physical evidence is critical in solving serious crimes and identifying dangerous offenders. Thus, the role and the quality of crime laboratories is critical 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 providing extensive reports explaining their analyses and describing the methods and techniques used to arrive at their conclusions. The quality of that report is directly related to the proficiency of the lab professionals processing the evidence. Because 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. With 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.

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

In order to improve crime laboratories throughout the state of Arizona, the Paul Coverdell Grant funds will be used for training and educational opportunities, equipment and supply needs, and laboratory certification fees. Agencies working in this collaborative effort include Arizona Department of Public Safety Crime Laboratory, Mesa, Phoenix, Scottsdale and Tucson police department crime laboratories and the Maricopa County Office of the Medical Examiner.

With the grant funding, laboratories will meet components of the state strategic plan for the forensic laboratory improvements through recommendations to annually dedicate funding for training programs and for the purchases of the necessary equipment and supplies to add efficiency and quicker turnaround times to address caseloads.

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

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

FY11 Recipient Name: California Emergency Management Agency
Award Number: 2011-CD-BX-0009
Award Amount: $2,278,298
Abstract: California's State and local forensic laboratories play an essential role in California's criminal justice system. The credibility of the 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. Forensic individuals and medical examiner personnel must be scientifically knowledgeable, technically skilled, and ethically sensitive in order to perform their duties at their highest potential. As technology constantly grows and new, more advanced techniques to process evidence are introduced, professional forensic scientists need to be kept up to date 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 reduction of qualified personnel to cover core components of forensic analysis have negatively impacted laboratories and medical examiners' offices around the state. The 2011 Paul Coverdell Forensic Sciences Improvement Grant addressed by this proposal is a comprehensive forensic science improvement program that affords each qualifying forensic laboratory in California an opportunity to improve on the efficiency and effectiveness of forensic science services. California seeks to maintain an emphasis on the investigation of crime through the scientific examination of physical evidence and through the ability to recognize the need for well-trained criminalists and effective crime laboratories equipped with state-of-the-art technology. Through the improvement of the quality and timeliness of forensic services, the reduction of the number of backlogged cases, and the sustained education and training of forensic personnel, California's forensic laboratories continue to provide a valuable tool for the investigation and prosecution of criminal acts, as well as the exoneration of the innocent.

FY11 Recipient Name: City of Long Beach (CA)
Award Number: 2011-CD-BX-0067
Award Amount: $175,000
Abstract: The City of Long Beach (Long Beach) is the seventh largest city in the state of California. Long Beach has a population of nearly half a million and covers 50 square miles. With a police staff of over 800 officers, Long Beach hosts a World Trade Center, an airport, an international cruise line, is home to the busiest cargo port on the West coast and attracts approximately 5 million visitors each year.

The Long Beach Police Department (LBPD) Crime Laboratory (Crime Lab) provides services to multiple agencies, and is made up of 15 technical staff. In 2010, Long Beach reported 14,451 Part I Crimes, of which the Crime Lab handled 3,962 crime scenes, performed 1,579 latent AFIS entries, performed 947 latent print comparisons, analyzed 3,889 controlled substance items, and examined 405 firearms cases.

Due to the current fiscal times and challenges, the LBPD Crime Lab struggles to maintain essential operations and faces multiple obstacles, including the current transition process from ASCLD/LAB Legacy accreditation to ASCLD/LAB International accreditation, as well as maintaining turnaround times and providing training to employees. Over time, the Crime Lab has had several positions eliminated and has had its overtime budget cut by 47%.

The Crime Lab proposes to improve the quality and timeliness of services provided through grant funding for computer software to evolve currently capabilities. This new software will support and enhance existing software and will include programs to completely document ACE-V examinations for latent print comparisons, provide training for new latent print examiners, and will expand documentation capabilities and audit trails for all staff with an overall improvement in the final work product.

FY11 Recipient Name: County of Los Angeles (CA)
Award Number: 2011-CD-BX-0065
Award Amount: $174,200
Abstract: Machine-readable labeling systems have improved efficiency and reduced errors in hospital laboratories and other settings. Medical examiner's offices, to our knowledge, do not use these systems to improve work processes involving property. This project will plan and implement an enhancement to the existing machine-readable labeling system at the Los Angeles County Coroner, a large medical examiner's office providing services to Los Angeles County.

Implementation of this system enhancement will improve the timeliness of forensic services by reducing the number of backlogged property letters not sent to next of kin within 30 days, and the number of unclaimed property cases not processed for disposal within 60 days. The project will improve quality by

reducing the time taken to resolve discrepancies between physical items of property and their documentation.

In this project, a contractor will work with Coroner's staff to examine each relevant work process, prepare a functional requirements document, and design, test, and implement the property labeling system. Coroner's staff will train employees in the use of the system.

The Department will monitor changes in timeliness by measuring the average number of unclaimed property cases that are ready for disposal in 60 days, and the number of property letters sent to the next of kin within 30 days. We will monitor changes in quality by measuring the average time taken to resolve property labeling discrepancies and the number of staff members trained in the use of the labeling system.

The overall objective of the project is to reduce the time taken and the error rate in processing items of property and related documents that the Coroner receives. Machine-readable labeling systems may be useful in many medical examiner's and coroner's offices.

FY11 Recipient Name: County of Riverside (CA)
Award Number: 2011-CD-BX-0069
Award Amount: $56,708
Abstract: As of 2010, Riverside County had a population of nearly 2.2 million people. As one of the fastest growing regions in the state, this number is expected to continue to increase. As the population increases, so then does the number of deaths, most of which require the involvement of the Riverside County Sheriff-Coroner Bureau. The total number of reportable cases to the Coroner's Bureau in 2010 was over 10,000. It is crucial that the Coroner's Bureau be able to provide the quality and timely forensic services required to properly and accurately determine cause of death.

The Sheriff-Coroner Bureau intends to utilize the funds to purchase equipment essential to the containment of biological samples as well as the improvement of laboratory procedures, decreasing their average turnaround time, while increasing overall accuracy in death determination.

One of the most critical and sensitive types of cases we investigate are sudden unexpected infant deaths (SIDS). Not only do these specific deaths pose a challenge for forensic pathologists, they also have far reaching consequences if not thoroughly and accurately investigated. The Legislature finds SIDS to be the leading cause of death for children under age one and a serious problem within the state of California, thus determining that it is within the public's interest to research and study the cause of death. Pursuant to Government Code section 27491.41, coroners are to investigate and autopsy infants as outlined by the Standardized Autopsy Protocol developed by the State Department of Health Services. Specific criteria are outlined for tissue sampling and testing, several of which require fluid and tissue to be maintained in a -70 degree environment. The Riverside County Sheriff-Coroner's Bureau is currently unable to comply with the requirements due to the lack of a laboratory freezer with such temperature specifications. This reduces the ability of the forensic pathologist to perform all available testing on fluid and tissue samples thus resulting in an inability to provide the most thorough and quality forensic services available.

In addition to playing a vital role in SIDS autopsies, a laboratory freezer with extreme temperature is key in dealing with genetic diseases or DNA issues. The temperature capabilities can assist in determining potential genetic cardiac diseases in younger persons. Cardiac tissues can be frozen and sent out for genetic testing purposes, thus allowing a more expeditious and accurate determination of cause of death.

The Riverside County Sheriff-Coroner plays a critical role in decedent identification. Identification made through photographic comparison or fingerprint identification is not always possible, as persons are often times victims of homicides or other traumatic deaths. Persons who are decomposed, charred,

dismembered, or otherwise unrecognizable require a sophisticated means of identification. When photographic and fingerprint identifications are not possible, dental comparison can bridge the gap between a tentative identification and a positive identification. Expeditious identification plays a vital role in the investigation and prosecution of criminal acts as well as bringing closure for the victim's family.

Advancement in technology has allowed for the expeditious attainment of postmortem digital x-rays, as well as the uploading and storage of ante-mortem x-rays with DEXIS (Digital Radiography and Imaging System). These dental radiographs are able to be sent to WinID, the forensic identification software, which allows for identification of missing persons. Acquisition of the Dexis system will ensure the swift identification of decedents, decrease backlog due to pending identifications, and allow family members to make swift disposition of remains.

FY11 Recipient Name: Imperial County (CA)
Award Number: 2011-CD-BX-0061
Award Amount: $45,641
Abstract: The title of the project is Forensic and Coroner Service Improvement Plan. The Goal of the Paul Coverdell Forensic Science Improvement Program is to improve the quality of public service when conducting death investigations by the Sheriff/Coroner's Office required by law. X-ray equipment will be purchased through the Paul Coverdell Forensic Science Improvement grant Program and will be assigned to the Coroner Division. Training, included and provided with purchases, will be provided to all deputy coroners allowing for proper application and use of the equipment. The Sheriff's office will meet internally to ensure that equipment is being used properly and efficiently to ensure all obligations listed in the proposed grant are met.

FY11 Recipient Name: Sacramento County (CA)
Award Number: 2011-CD-BX-0055
Award Amount: $100,625
Abstract: The goal of the Sacramento County District Attorney Laboratory of Forensic Services (hereafter referred to as crime laboratory) 2011 Paul Coverdell Forensic Sciences Improvement Grant program (hereafter referred to as Coverdell) is to improve forensic laboratory services – in particular improve case turnaround time and reduce or eliminate backlogs of gunshot residue (GSR) and controlled substances cases in the crime laboratory.

A significant strain on the resources of the courts, prosecution and police is the lack of timeliness of crime laboratory analyses. Police investigations are hampered, prosecution's preparation for trial is oftentimes delayed, and court delays and rescheduling of trials are all related in some way to the timely analyses and reporting of results by the crime laboratory.

There are two objectives relative to the crime laboratory's application for 2011 Coverdell funding to be used to improve turnaround time and reduce backlogs for GSR and controlled substances cases. Both objectives entail a cost effective upgrade or replacement of existing laboratory equipment to improve overall casework productivity.

Objective 1: Upgrade the crime laboratory's existing SEM/EDS with silicon drift detector (SDD) technology.

Objective 2: Replace obsolescent FTIR instruments in the Chemistry Unit with modern technologically advanced analytical instruments.

To improve the case turnaround time and coincidently reduce the backlog of GSR and controlled substances cases pending analyses, the crime laboratory proposes infrastructure improvements that directly affect casework productivity. The crime laboratory has identified the purchase and installation of two (2) FTIR instruments to improve controlled substances case turnaround times; and, the upgrade of the existing crime laboratory's SEM/EDS to silicon drift detector technology to efficiently and effectively deliver GSR analytical results in a significantly shorter time period then current technology allows.

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

FY11 Recipient Name: San Louis Obispo County (CA)
Award Number: 2011-CD-BX-0059
Award Amount: $174,850
Abstract: The San Luis Obispo County Sheriff-Coroner's Office has a backlog of 45 to 60 cases per month pending toxicology reports. Currently, the Coroner's Office sends post mortem samples to an out-of-county toxicology laboratory for drug and metabolite testing. As a result, the agency is waiting from 4 to 5 weeks for toxicology reports, which in turn, means cases cannot be closed in a timely manner.

The Forensic Toxicology and Chemistry section (FTCL) of the San Luis Obispo County Sheriff-Coroner's Office Crime Laboratory intends on using the Paul Coverdell Forensic Science Improvements grant to begin testing these types of samples in-house. The purpose of this project would be to decrease turnaround time for sample processing from 4 to 5 weeks down to 1 week. Case backlog for the Coroner's office is expected to decrease from 45 to 60 cases per month down to 10 to 15 cases per month, an approximate 80 percent reduction.

This goal will be accomplished by using grant funds to purchase a new Gas Chromatographer Mass Spectrometer, a new Rapid Trace Solid Phase Extraction module, and consumables such as drug standards, derivitizing agents, solid phase extraction columns and auto sample vials. Grant funds will also be used to contract a temporary Forensic Chemist, increase hours for a part-time Laboratory Assistant and allow a Supervising Laboratory Technologist to temporarily work overtime hours. The additions to FTCL will allow for extra resources necessary to establish in-house methods for 20 drugs and their metabolites through validation studies of toxicological extractions and quantitative analysis of Coroner's Office postmortem samples. Upon completion of method validation and correlation studies, standard operating procedures for these new in-house methods, including those for Quality Control and Quality Assurance, will be added to FTCL's existing program.

FY11 Recipient Name: Colorado Division of Criminal Justice Services
Award Number: 2011-CD-BX-0006
Award Amount: $311,502
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 two state departments, the Colorado Bureau of Investigation and the Colorado Department of Public Health and Environment, and two units of local government, the City of Denver, Denver Police Department, Crime Laboratory Bureau, and the Weld County Sheriff's Department, in partnership with the Northern Colorado Regional Forensic Laboratory (NCRFL).

The **Colorado Bureau of Investigation (CBI)** is requesting Coverdell base funds for the following objectives: 1.) Maintain the current ASCLD-LAB Legacy Accreditation by funding the 2012 accreditation fees for all CBI laboratories; 2.) Provide external proficiency testing to all casework-qualified forensic scientists working in the laboratory system; 3.) Provide discipline-specific training to at least 30 forensic staff and forensic managers working in the CBI laboratory system; 4.) Reduce the backlog in the Chemistry, Crime Scene Investigation, Firearms/Toolmarks, Imprint/Impression, Latent Prints, and Trace Evidence disciplines.

The CBI is requesting Coverdell competitive funds to carry out all or a substantial part of a program intended to improve the quality and timeliness of forensic services in the State of Colorado and the Rocky Mountain region. CBI is requesting Coverdell competitive funds for the following objectives:

1. To provide three days of training to all CBI Forensic Science employees to enhance their knowledge of and aid in the preparation for ISO 17025 accreditation.
2. To host the University of West Virginia's "Forensic Management Academy"; inviting laboratory managers and supervisors from Arizona, Colorado, Idaho, Kansas, Montana, New Mexico, North Dakota, Oklahoma, South Dakota, Utah, and Wyoming to attend this training.

The **Colorado Department of Public Health and Environment (CDPHE)** is requesting Coverdell base funds to purchase two fume hoods. The CDPHE Toxicology Laboratory is currently seeking to obtain national accreditation from the American Board of Forensic Toxicology (ABFT). Following an audit in October, 2010, the ABFT suggested that the Toxicology Unit be separated from the Chemistry Unit and provide secure access for toxicology personnel. CDPHE plans to move forward with the ABFT suggestions, and in so doing will need to purchase one fume hood for the laboratory.

The **Denver Police Department (DPD)**, Crime Laboratory Bureau is requesting Coverdell base funds for the following objectives: 1.) Retain an administrative assistant for the laboratory so that the burden of data entry and other administrative tasks for forensic scientists are minimized; 2.) Implement a document repository and grant project management software to improve efficiencies; 3.) Provide advanced training to casework forensic scientists to achieve certification and assist the lab in meeting ISO accreditation requirements; 4.) 2012 annual ISO 17025: 2005 accreditation fees and efforts.

The **Weld County Sheriff's Department, in partnership with the Northern Colorado Regional Forensic Laboratory (NCRFL)** is requesting Coverdell base funds for the following objectives: 1.) Provide a mandatory level of training to staff as prescribed in each discipline, as well as training needed for certification or re-certification.; 2.) Provide membership and meeting opportunities for the Lab Director in planning and preparation for ISO 17205 accreditation.

FY11 Recipient Name: City and County of Denver (CO)
Award Number: 2011-CD-BX-0054
Award Amount: $110,970
Abstract: The Denver Police Department (DPD) Crime Laboratory Bureau will implement an efficiency study using process mapping, simulation and multi-dimensional modeling to improve the functioning of its Latent Prints Unit. The Project Efficiency Manager will work closely with unit staff to identify bottlenecks and areas for improvement, test new ideas, and understand system performance to make meaningful changes to yield improvements in case turnaround time and case backlogs.

The crime laboratory will also purchase a shoe and tire impression database system that will reduce the risk of human error in identification and will greatly increase the amount of analyst time available for casework. Lastly, Coverdell grant funds will support the purchase of a document sequencer to further reduce analyst time spent on administrative tasks, and an additional year of software support/maintenance for Simul8, the primary resource to be used for the simulation proposed here.

The following outcomes are expected results of this investment:

- DPD Crime Laboratory Latent Print Unit overall case turnaround time will improve by 5 days;
- DPD Crime Laboratory Latent Print Unit case turnaround time specific to shoe wear cases will decrease by at least 10 days;
- DPD Crime Laboratory Latent Print Unit backlogged cases will decrease by at least 20 cases; and
- Laboratory-wide, analyst time required for case pagination will decrease by 83%.

These results are minimum projected improvements to the efficiency of the crime laboratory. However, the innovative practice of conducting efficiency studies for non-DNA forensic disciplines using multi-dimensional modeling systems has the potential to yield many additional efficiency improvements. The areas of improvement that are identified can have a tangible impact on case turnaround and existing case backlogs.

Enhancing efficiencies in non-DNA disciplines of the DPD Crime Laboratory has the support of the Denver District Attorney's Office and Colorado's Congressional delegation.

FY11 Recipient Name: City of Colorado Springs (CO)
Award Number: 2011-CD-BX-0094
Award Amount: $137,706
Abstract: The Colorado Springs Metro Crime Laboratory (MCL) is a regional, multi-agency crime laboratory. When fully staffed, the MCL has 14 civilian employees from both the Colorado Springs Police Department (CSPD) and the El Paso County Sheriff's Office (EPSO). Over the last five years, the MCL has undergone a number of positive changes that have increased the range, quality, and efficiency of forensic analyses performed. These changes include: the creation of both Firearms Examination and forensic DNA units, hiring of a civilian Crime Laboratory Manager; and the successful attainment of accreditation to ISO Standard 17025 through Forensic Quality Services-International (FQS-I), which includes Biological Screening and DNA Analysis disciplines. We are applying for Coverdell funding to further improve the level and quality of forensic services offered by the MCL.

Funding will:

1. Compensate a highly trained and proficient contract Firearms Examiner on a limited, part-time basis to assist and perform peer reviews for our newly trained Firearms Examiner and to provide a second review of cases as per ISO accreditation standards. This support will enable the MCL to continue to offer this discipline to our law enforcement customers and meet accreditation standards;
2. Send laboratory personnel to relevant training and continuing education to ensure the laboratory can continue to offer specific forensic services, and to allow laboratory personnel to remain at the forefront of important developments in their respective forensic disciplines;
3. Pay for the costs associated with maintaining ISO 17025 accreditation via an accreditation assessment by representatives from FQS-I in 2012; and
4. Purchase equipment for the Firearms Examination Unit, the Chemistry Unit and the Crime Scene Technicians to enhance the effectiveness, efficiency and quality of work produced.

This funding, overall, will assist the MCL in improving the quality and timeliness of its forensic services and in reducing the number of backlogged cases.

FY11 Recipient Name: Weld County (CO)
Award Number: 2011-CD-BX-0070
Award Amount: $130,900
Abstract: Larimer and Weld County Colorado have large populations (298,000 and 255,000 respectively) that are spread over rural and municipal law enforcement jurisdictions. The area includes three major cities: Fort Collins (136,000), Greeley (91,000) and Loveland (65,000). Two of the communities also have medium to large public colleges, Colorado State University and the University of Northern Colorado (enrollment 24,000 and 13,000 respectively). There is much diversity in our respective communities, including how we police. Over the past two decades much has been accomplished in terms of sharing resources. Drug Task Forces and Special Weapons and Tactics teams work together, as well as the existence of joint Emergency Management plans. Until recently, however, little has been discussed about what we have and what could be shared in the area of forensic investigative services.

Five law enforcement agencies within the two counties created the Northern Region Lab Group to address the Forensic Service needs of the region. The group created the Northern Colorado Regional Forensic Lab (NCRFL), combining the lab staff from the five agencies to form a forensic laboratory, providing forensic service to the Northern Colorado region. In addition, the Colorado Bureau of Investigation (CBI) provided three staff members to participate in the laboratory. The lab is working toward ISO 17025 accreditation, and the Colorado Bureau of Investigation (CBI), as a member, is assisting the lab in the process of achieving this goal. Essential in this cooperation is access by the regional lab staff to the CBI's Laboratory information Management System (LIMS). The CBI has agreed to provide all of the software and support for the LIMS so that the Laboratory can achieve ISO 17025 accreditation in a timely manner and continue to provide quality forensic service to the Northern Colorado Region. Critical to this process is providing the NCRFL analysts with computers and the associated hardware necessary to receive evidence, track the evidence throughout the laboratory, collect data and notes on analyses performed, and generate lab reports. Computer tablets are a means of providing the versatility needed in the lab, so an analyst can move from desk, to bench, to desk with a computer, taking notes, preparing reports and accessing the information source for SOPs and policies. In addition, the accessories requested will allow for the docking of the tablets at the different sites (desk and bench) in the lab, without contamination of sites or analysts. Two additional requests to allow the laboratory to provide quality service to the community are for a Forensic Recovery of Evidence Device server (FRED-C) for the digital media analysts and software for the footwear and tire tread section to create and use a database specific for their discipline.

FY11 Recipient Name: Department of Public Safety (CT)
Award Number: 2011-CD-BX-0001
Award Amount: $215,620
Abstract: Connecticut's forensic laboratory system is administered by the Connecticut Department of Public Safety's Division of Scientific Services. The Laboratories consist of the Forensic Science Laboratory, the Controlled Substance and Toxicology Laboratory, and the Computer Crimes and Electronic Evidence Laboratory.

The State of Connecticut has determined that the best and most effective use of the Fiscal Year 2011 Coverdell grant is to support ASCLD/ISO 17025 accreditation activities for the combined Division of Scientific Services Laboratories and Automated Fingerprint Identification System (AFIS) equipment upgrades and professional development activities. ASCLD/ISO accreditation for the Division of Scientific Services will ensure the service quality and efficiencies for the Division of Scientific Services.

This year, the Connecticut Department of Public Safety's Division of Scientific Services will apply grants funds to support compliance with ISO standards accreditation in the areas of personnel professional

development and instrumentation upgrades. The Division of Scientific Services will continue the professional education of its staff beyond the required in-house competency training and annual proficiency testing, consistent with its quality manual. Training in various venues provides the opportunity for each member of the Division to enhance his or her scientific skills and to apply these techniques to further the mission and objectives of the Division. The instrumentation at the Forensic Science Laboratory and the Controlled Substance and Toxicology Laboratory will be upgraded, which should increase productivity, reduce downtime for repairs, and improve available services. These initiatives will continue state-of-the-art efforts and advancements to enhance service quality and efficiencies to the State's Forensic Science Laboratory and the entire criminal justice system.

FY11 Recipient Name: District of Columbia Government
Award Number: 2011-CD-BX-0010
Award Amount: $166,108
Abstract: The Justice Grants Administration, the District of Columbia State Administrating Agency, is submitting the Coverdell application in collaboration with the Office of the Chief Medical Examiner and the Metropolitan Police Department. The District of Columbia is dedicated to improving the quality and timeliness of forensic science and medical examiner services, and has outlined separate project activities with these two agencies that will help to best accomplish this goal.

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

Preparative training for DUI and DUID testimony is extremely specific and difficult to find. Due to the forensic and scientific nature of DUI and DUID specimen analysis, it is difficult for agencies to obtain internal training resources which can aid a toxicologist in preparing for court room testimony. Indiana University's Center for Studies of Law in Action currently offers two courses which meet these needs: the Robert F. Borkenstein Course on Alcohol and Highway Safety and the Robert F. Borkenstein Course on the Effects of Drugs on Human Performance and Behavior.

The District of Columbia Office of the Chief Medical Examiner (OCME) is requesting this training, along with associated travel, for three (3) forensic toxicologists in order to improve the quality and availability of DUI and DUID toxicological testimony in the District of Columbia.

District of Columbia Office of the Chief Medical Examiner: Digitization of Medical Examiner Paper Records
Historic records management is a complex and difficult ongoing project for the D.C. Office of the Chief Medical Examiner (OCME). In order to meet modern investigative and legal demand for information, it is crucial for older systems to adapt to newer technology. Updating the accessibility of medical examiner case files can contribute to vast improvements in the speed and quality of services provided by agencies and individuals requiring historical documents. These agencies and individuals include: next of kin, courts, epidemiological researchers, cold-case homicide investigators and many others. In order to improve the quality and timeliness of records retrieval services, in 2010, the OCME began the process of

digitizing and indexing agency historical medical examiner case file records from 1972 to present day using contracted services. This application is a request for funds to continue the project.

FY11 Recipient Name: Delaware Criminal Justice Council
Award Number: 2011-CD-BX-0013
Award Amount: $166,108
Abstract: The Delaware Office of the Chief Medical Examiner (OCME) seeks $59,763.00 to purchase equipment for the Histopathology Unit, OCME ISO 17025 re-accreditation, and to provide training for analysts through attendance at professional meetings.

The goal of the OCME is to improve the quality and timeliness of forensic sciences services provided by the OCME – Forensic Sciences Laboratory. This includes streamlining the submittal, processing, analysis, and release of data of samples that are received by the Forensic Sciences Laboratory (DNA Unit, Controlled Substances Unit, Toxicology Unit, Arson Unit, and Histopathology Unit).

The requested funds will be used to purchase equipment to optimize how the Histopathology unit processes tissue removed at autopsy, providing OCME pathologists assistance in their determination of a cause of death.

Additionally, the requested funds will be used for the re-accreditation fees for the OCME – Forensic Sciences Laboratory (DNA Unit, Toxicology Unit, and Controlled Substances Unit) by Forensic Quality Services – International as well as to provide continuing education training for OCME personnel.

The OCME will accomplish this goal by meeting the following objectives:

1. Improve the OCME's quality and timeliness of medical examiner services over current operations, resulting in the ability to adjudicate cases more efficiently.
2. Eliminate the backlog in the analysis of forensic science evidence in forensic pathology.

FY11 Recipient Name: Florida Department of Law Enforcement
Award Number: 2011-CD-BX-0026
Award Amount: $1,316,885
Abstract: Florida is the nation's fourth most populous state; and with more than 82 million annual visitors, it is one of the top tourist destinations in the world. Residents and visitors are distributed across sixty-seven urban and rural counties, contributing to complex challenges for approximately 500 Florida criminal justice agencies. According to Uniform Crime Report statistics, these agencies reported 770,518 index crimes in 2010, a decrease of 6.6% from 2009. Despite the decrease, Florida's reported crime volume for 2009 surpassed that of all states except California and Texas, and produced 76,801 requests for forensic services in 2010.

Requests for forensic service are handled by seven Florida Department of Law Enforcement (FDLE) regional crime laboratories, and five county laboratories (Miami-Dade, Broward, Palm Beach, Pinellas, and Indian River) that are part of Florida's crime laboratory system. Florida's State Fire Marshal handles arson investigations, and death investigations are handled by one of 24 district medical examiners who are governed by the Florida Medical Examiners Commission (MEC). FDLE serves as staff for the MEC.

FDLE will submit application for the Paul Coverdell Forensic Science Improvement Grant formula funds (Coverdell) on behalf of all agency members of Florida's crime laboratory system, State Fire Marshal and MEC. These partners have agreed to a distribution methodology that provides a base amount of funding to Florida's Medical Examiners, with the remaining funds to be distributed to the state and local crime

laboratories on the basis of population served. The state share of funds will be distributed between the FDLE crime laboratory system and the Florida State Fire Marshal, Department of Financial Services, Bureau of Forensic Fire and Explosives Analysis based on percentage of population served.

Although better case management, streamlined processing, and increased case work capacity, have helped laboratories increase output and reduce backlogs in some disciplines, and slow the growth of backlogs in others, large numbers of pending cases remain throughout the state laboratory system. Medical examiners are facing the challenge of providing timely services to meet the increasing volume of service requests within their respective districts due to outdated technology and limited resources.

Through self-assessment, the state and local laboratories and medical examiner offices have identified and prioritized their agencies' needs, and are requesting Coverdell funds for temporary personnel, overtime, equipment, training, supplies and contract services to improve the quality and timeliness of forensic and medical examiner services throughout the State.

In addition to the state application for Florida's formula allocation, FDLE will submit an independent application for Coverdell Competitive funds to purchase equipment that will enhance FDLE's crime scene services by reducing the time required for scene documentation, better preserve crime scene evidence, and improve safety for FDLE's crime scene personnel. The project goals and objectives are: to reduce analysis time for cases submitted to state and county crime laboratories; to reduce backlogs in the analysis of non-biology forensic science evidence; to improve timeliness of medical examiner services throughout Florida; and to train forensic laboratory and medical examiner personnel to improve quality and timeliness of services and eliminate case backlogs.

FY11 Recipient Name: Broward County (FL)
Award Number: 2011-CD-BX-0064
Award Amount: $148,778
Abstract: The District 17 Medical Examiner's Office, located in Fort Lauderdale, is part of Florida's statewide medical examiner system and operates as an agency within Broward County government. The Office is tasked with investigating all violent, suspicious, unnatural and unattended deaths, and performing toxicology testing for police and health departments.

The annual workload for the toxicology staff consistently ranks in the top three of all Florida counties. Due to a recent laboratory renovation and a shortage of available personnel, the toxicology case backlog has increased to about 300 cases, with a turnaround time of 4 to 6 months. This application requests Coverdell grant funding in the amount of $148,778 to help eliminate this backlog and improve the quality of services provided to Broward County residents.

Our requests may be broken down into three sections: (1) Travel expenses for a national meeting for two pathologists, as well as for certification for three investigators and re-certification for one other investigator; (2) Autopsy, photographic, and investigative equipment; and (3) Consultant service for toxicology backlog elimination. There are no requests for personnel, fringe benefits, supplies, or construction.

Travel expenses consist of sending two pathologists to the 2012 meeting of the National Association of Medical Examiners (N.A.M.E.) in Baltimore Maryland, which will provide each physician approximately 30 credits of CME as well as updates on the current literature in forensic pathology, forensic toxicology and death investigation. Travel expenses also include sending four investigators for either certification (three investigators) or re-certification (one investigator) for the ABMDI in St. Louis Missouri in order to either establish or maintain nationally recognized expertise in death investigation. Due to County

budgetary constraints, it is unlikely that these activities for professional development will be funded in 2012.

Autopsy equipment includes four electric autopsy saws and ten autopsy tables. Electric autopsy saws are required for craniotomies and for removal of bone segments for dissections which forensic pathologists perform daily. The autopsy tables will be used to add to the current number of useable autopsy tables, to replace older tables with limited utility, and to integrate with a body storage system we have just purchased. Photography equipment includes two large boards to provide a clean background for whole body photographs taken at autopsy in order to reduce background images, which may compromise the view ability of the photographs being taken. Investigative equipment includes a prescription counting machine for the efficient numeration of the prescription medications our office receives on a daily basis.

The largest expenditure is for the elimination of the toxicology backlog ($99,050), which entails outsourcing complex laboratory testing of tissues and fluids recovered at autopsy to National Medical Services (NMS) reference laboratory in order to determine the presence and concentration of intoxicating substances in order to assist in the certification of death. Currently, the toxicology section has an open staff toxicologist position, as well as another senior toxicologist who will be on medical leave for at least two months (June and July, 2011). The resulting staffing deficit will affect our final toxicology report turn-around time.

The aforementioned items will allow us to augment the service we offer the citizens of South Florida and will help us to optimize office efficiency and service to law enforcement, legal authorities, decedents and their families.

FY11 Recipient Name: City of Fort Lauderdale (FL)
Award Number: 2011-CD-BX-0072
Award Amount: $174,950
Abstract: Two Latent Examiner positions are assigned to the Fort Lauderdale Police Forensics Unit. Together, they are responsible for evaluating latent prints lifted from evidence for over 11,000 Part I crimes committed annually in just our jurisdiction alone. Yet, sixteen months ago, our Department faced an unanticipated 50% reduction in seasoned Latent Examiners.

Given sustained unemployment rates between 9 –11.5% and housing foreclosure rates that have been among the highest in the nation since late 2008, our Department anticipates related spikes in various crime categories in fiscal year 2011/12. With only one filled Latent Examiner position and nearly a 9-month backlog in forensic evidence processing, even minimal increases in crime will add to the already substantial backlog of 350 prints awaiting processing and 700 latent prints awaiting evaluation and entry into AFIS.

The Fort Lauderdale Police Department (FLPD) is requesting funding under the 2011 Paul Coverdell Forensic Science Improvement Grants Program to assist in our efforts to reduce current, and prevent future, backlogs in the processing of latent fingerprints. Awarded Coverdell Grant Funds will be used to contract Short-term Latent Examination assistance through a Forensic Consulting Firm, hire a part-time Latent Examiner for one year, train a Latent Examiner Trainee, and purchase upgraded computer workstations and print review software. Through these planned activities, the FLPD expects to increase efficiency and timeliness of evidence processing and significantly reduce processing backlogs of latent prints.

FY11 Recipient Name: City of Lauderhill (FL)

Award Number: 2011-CD-BX-0084
Award Amount: $118,785
Abstract: The Lauderhill Police Department currently has two Crime Scene Technicians who are charged with the responsibility to identify and process all crime scenes in the City of Lauderhill. In the past three years the department has investigated 15 homicides, 268 robberies with weapons and 937 aggravated assaults. All of these scenes involved the identification, collection and processing of DNA evidence along with forensic evidence including fingerprints. In addition, fingerprints are captured at almost every crime scene by members of the patrol force in their initial investigation of crimes occurring here.

This grant will greatly assist the Lauderhill Police Department to improve in a number of areas where funding for such improvements is almost non-existent in the regular city budgets. With this grant the Lauderhill Police Department will train the Crime Scene personnel to make them more effective and efficient in identifying, collecting and submitting DNA evidence. The department will improve the abilities of the technicians by upgrading existing equipment and purchasing new equipment and supplies that are critical to DNA evidence collection.

Finally the grant will help the department to reduce our backlog in DNA testing; DNA evidence that has been collected and is being held for processing at the County Lab will be sent to a private testing site. Sheer volumes of evidence processing requests have led to extensive wait times to get non-homicide DNA evidence tested by the county lab. Because of those volumes the county facility has had to implement procedures where they will only process non-homicide DNA evidence if the department has established a suspect and has collected a DNA suspect sample for comparison. Funding from the grant will enable the department to partner with a local DNA test site that will be used to process non-homicide DNA evidence. On-going analysis and reporting will ensure that we meet all goals associated with this grant.

FY11 Recipient Name: City of Miami (FL)
Award Number: 2011-CD-BX-0096
Award Amount: $175,000
Abstract: The City of Miami Police Department (MPD) requests funding under the Paul Coverdell Forensic Science Improvement Grants Program to reduce the current backlog of crime scene photographic evidence as well as to be able to curtail future backlogs related to the archiving and acquisition of said evidence. Additionally, the same grant funding will be used for the improvement of latent fingerprint evidence management so as to withstand court challenges and therefore assist in the investigators ability to prosecute cases through identifications. This funding request in the amount of $175,000.00 will be used in the following manner and with the following expected results:

- A total of $57,958.00 (made up of $52,565 for overtime and $5,393.00 for Fringe Benefits) would be allocated for approximately 950 man hours for the reduction of the backlog of the photographic evidence. This will provide the Crime Scene Investigators I and II (CSI I and CSI II), Identification Aides, Public Service Aides, Forensic Investigations Supervisor, Police Lieutenant and typist clerk III (TC III) the ability to digitize and manage film/CD crime scene evidence for permanent storage into the recently acquired Law Enforcement Digital Photographic Laboratory System. This would entail the conversion of film/digital cases not previously archived in the system before June of 2010. There is a backlog of cases dating to the 1960's including approximately 500 rolls of film that were taken per month equivalent to 6,000 rolls per year, or some 144,000 images taken by the Crime Scene Unit. Our goal is to reduce the current backlog of cases by category of crimes starting with the higher crimes such as homicide and working our way down to the lesser crimes within the statute of limitations. The expectation would be to

reduce the backlog by a minimum of 60%, and be able to import into the new digital system approximately 86,400 images or the equivalent of 3,600 rolls.

- A total of $82,042.00 would be allocated for additional software and their corresponding licenses for the Law Enforcement Digital Photographic Laboratory System to properly store, file and search for the digital crime scene photographic evidence for examination and or dissemination to the investigators, the courts and other law enforcement agencies. This funding will also incorporate a software and hardware upgrade to the Latent Print Detail to acquire an ACE-V Module for their current Automated Fingerprint Identification System (AFIS) and workflow in which they can track the progress by easily documenting their findings utilizing the ACE-V methodology of the current latent fingerprint identifications in order to withstand court challenges. The upgrade will include licenses and software to for both the Photo Lab and the Latent Details. Lastly, the upgrades will afford additional software and hardware which will reduce the turnaround time for the detectives to view digital crime scene photographic evidence. Currently the turnaround time is approximately two days from the moment an image is captured and processed for a detective to examine it. If the image is a backlogged image, the turnaround is normally four to five days for the image to be retrieved from storage, digitized, and then disseminated to the detective. With the above mentioned software solutions and manpower we would expect to reduce the turnaround time for detectives to examine digitally captured evidence within a 24 hour period, and backlogged evidence also within the same 24 hour period. And lastly, the acquisition of office furniture for the current and new above mentioned equipment. This would entail approximately nine desks to properly house the additional and current equipment in order to be used for their intended scanning, digital acquisition and verification of the evidence.

FY11 Recipient Name: City of Sarasota Police Department (FL)
Award Number: 2011-CD-BX-0089
Award Amount: $30,767
Abstract: The Sarasota Police Department Criminalistics Unit in capturing video will be governed by several key principles. The first of which is to provide timely forensic video analysis. Time is of the essence in many law enforcement investigations. The ability to quickly analyze a video or still images and get that information back into the hands of the investigators or patrol officers can be the difference between an unsolved case and an arrest, and sometimes even between life and death.

Accuracy is the second goal of this program. The courts have only recently started addressing cases where video evidence has been analyzed or enhanced using these advanced systems. The need to enhance the video without altering the original data is paramount. Professional grade video analysis systems designed specifically with law enforcement in mind take this into account. Not only will the operator be able to present the enhanced image to the court, but he or she can also present the unaltered original and explain the analysis process. The Sarasota Police Department Criminalistics Unit will follow the best guidelines from the Federal Bureau of Investigators and the Scientific Working Group on Imaging Technologies (SWGIT). The unit will also use the Law Enforcement/Emergency Services Video Association (LEVA) "Guidelines for the Best Practices in the Forensics Analysis of Video Evidence, as set forth in their publications and website.

The third goal is to make this technology available to outside law enforcement agencies. Request for assistance will be routed through the appropriate staff member for approval. Once approval has been granted, the case will be prioritized against other pending cases as well as the operator's normal case load. Assigning a priority to each case ensures that all video evidence receives the proper amount of attention in the quickest time possible based on the nature of the crime. All four (4) technicians, as well as the supervisor, will be trained in the proper use of this equipment.

The City of Sarasota, located in Sarasota County, FL, is the retail trade, medical, educational, entertainment, social service and tourism center of the Gulf Coast of Florida. The City's population is approximately 53,000, but is home to the Ringling School of Art and Design, University of South Florida, New College and several private colleges along with retail and service businesses. The daytime population exceeds 100,000.

The Sarasota Police Department provides comprehensive and progressive law enforcement services to what is by far the most unique and diverse community in the Gulf Coast region. The department employs 170 sworn officers and 96 civilian employees (54 fulltime, 42 part-time) in providing these services. The Sarasota Police Department operates under the command of Chief of Police Mikel Hollaway and four (4) Captains of Police. The department is State of Florida accredited, with its most recent re-accreditation in 2008. This designation demonstrates an on-going commitment to excellence in the law enforcement community. That commitment is reflected in the department's efforts to continue providing top notch forensic services and crime scene investigation to the community.

The Sarasota Police Department's Criminalistics operates under the command of Captain of Criminal Investigations Division Wade McVay. Mgr. Jocelyn Masten supervises forensic services under the realm of the Criminalistics Unit. The unit is comprised of four (4) Crime Scene Technicians. The Crime Scene Technicians conduct most major crime scene investigations. Historically, the Technician has been trained in basic collection of evidence including fingerprints, palm prints, blood and other fluids, fingerprint comparison, crime scene photography, blood spatter interpretation, medico legal death investigation to a limited degree. Crime Scene Technicians receive training in evidence collection including print lifting, forensic lab operations, crime scene photography, tool and footwear impressions and blood spatter interpretation. The technicians are assigned a regular tour of duty and conduct scene investigations as they occur during their respective shifts.

As one of the largest and most progressive Police Agency on the Gulf coast, the Sarasota Police Department's Investigations and Criminalistics Units may be called upon by surrounding agencies to assist with cases. The meetings include investigators from surrounding agencies and provide the opportunity for information sharing. The City of Sarasota and surrounding communities share the same "criminal element" and often find persons are committing crimes in more than one community.

The Sarasota Police Department maintains a close working relationship with the surrounding police departments; Sarasota County Sheriff's Office, Venice Police Department, North Port Police Department, Longboat Key Police Department, Sarasota-Bradenton Airport Police Department and the University of South Florida Police Department. These police departments work side by side during any major event which may take place in the city limits or at the university.

The Sarasota Police Department was first accredited by the Commission on Florida Accreditation for Law Enforcement Agencies (CFA) in 2002 and most recently re-accredited in 2008. The Department's continuing commitment to maintaining its accredited status is a testament to the high quality law enforcement service offered in the community, and it's willingness to forge relationships with other agencies and organizations. The Coverdell grant project will be an opportunity for the department to continue its mission of providing quality police service to the community it serves.

FY11 Recipient Name: Manatee County Sheriff's Office (FL)
Award Number: 2011-CD-BX-0058
Award Amount: $90,990
Abstract: Manatee County Sheriff's Office is seeking funds through the Paul Coverdell Forensic Science Improvement Grant Program to improve the quality and timeliness of work of Forensic Services. Having worked through the accreditation process for one of the three units of Forensic

Services, the Sheriff's goal is to have all three units fully accredited and certified. Grant funds will enable the Crime Scene Unit to streamline evidence processing and move through the accreditation process while reducing the backlog of cases. Crime Scene Unit staff will seek ISO 17020 accreditation with Forensic Quality Services International. In addition, the Chemistry Lab's ISO 17025 accreditation will be expanded to include Fire Debris.

The Crime Scene Unit follows standard protocols to process evidence received. However the Unit needs formal accreditation and the staff needs to obtain certification to ensure that all pieces of the quality triangle are in place. This will provide the courts with a seal of quality for lab-processed evidence presented in court. Working through the accreditation process will also enable us to improve the timeliness of processing evidence.

Accreditation will begin with a Pre-Assessment of the Crime Scene Unit's operation. The findings of the pre-assessment will enable the staff to address the areas needing improvement, resulting in improved quality for processing evidence. Funds will be used to hire a temporary employee with forensic experience to work during the accreditation year. The additional employee will be able to assist with processing evidence in the lab as well as help with accreditation requirements such as producing a written manual of standard procedures in the lab.
Other costs associated with accreditation will also be paid with Coverdell funds. Fees will be paid to Forensic Quality Services – International, including annual fees for both ISO17025 and ISO 17020 and the additional assessor fees charged for the site-visits done as part of both the Pre-Assessment and the Assessment.

A laptop will be purchased to enable staffers to use technology to log evidence into the lab. A barcode reader and printer will also be added to streamline the process of tracking the evidence as it moves from Property and Evidence to the Crime Scene Unit and back to Property and Evidence. The result will be an improvement in the amount of time required to process evidence, which will help to reduce the backlog of cases. Performance measures for the Sheriff's project are based on improving the quality and timeliness of forensic results. They are:

1) The Crime Scene Unit will be fully accredited by Forensic Quality Services-International (FQS-I) by end of the project period, and Fire Debris will be added to the scope of the Chemistry Unit's accreditation.

2) Seven Crime Scene Technicians will have achieved certification.

3) By the end of the project period the average number of days between submission of an evidence sample to the Crime Scene Unit to the time the results are delivered to the requester will be reduced from the current average of 15 days to 11 days for a total reduction of 27%.

4) By the end of the project period the backlog of evidence will be reduced by 25%, from the 120 pieces currently waiting to 90.

FY11 Recipient Name: Miami Dade County (FL)
Award Number: 2011-CD-BX-0071
Award Amount: $175,000
Abstract: The Miami-Dade Police Department (MDPD) Forensic Services Bureau (FSB), requests funding from the FY2011 Paul Coverdell Forensic Science Improvement Grants Program in the amount of $175,000, to enhance the efficiency of its forensic operations. The FSB provides forensic services for the MDPD as well as for all municipal, state and federal law enforcement agencies within Miami-Dade

County. In 2010, the MDPD FSB received approximately 12,000 drug and trace evidence submissions, 3,330 firearm and tool mark submissions and 8,000 latent cases. As a result, the FSB continues to seek ways to improve the efficiency of its operation in order to provide timely forensic services and meet the needs of the judicial system.

The first objective of this proposal is to replace aging equipment including a Gas Chromatograph Flame Ionization Detector (GC/FID), a polarizing microscope and an Authenticated Digital Asset Management System (ADAMS) as well as purchase a new superglue fuming cabinet. This equipment will enhance and streamline current operations in the Analytical and Fingerprint Identification Sections of the FSB.

The new GC/FID will replace a sixteen year old instrument currently operating in a Windows 98 environment that can no longer be updated. The GC/FID is utilized by the Drug Analysis Unit to provide quantitative analysis on cocaine samples for mandatory evidence accountability and verification of security procedures and to support critical investigative functions which target narcotics traffickers. A new GC/FID offers faster processing speed, quicker run times and less maintenance, ultimately resulting in the ability to analyze approximately 25 additional samples per day.

The polarizing microscope is utilized to analyze more than 50% of the items submitted to the Trace Analysis Unit. The current polarizing microscope is no longer capable of supporting new optics to continue to classify and compare fibers, paint, and unknown foreign samples. A new polarizing microscope will provide balanced illumination for bright field and contrast observation, sharper image contrast and a digital camera mount to facilitate detailed examination documentation.

The ADAMS is used to capture, enhance, store and track latent prints developed from evidence. The current system is over five years old and will no longer be supported by the vendor after 2011. The replacement system will enable the Fingerprint Identification Section (FIS) to continue to enhance fingerprint image quality, authenticate the originality of the digital asset, maintain the chain of custody via an audit trail, and provide a direct interface with the Automated Fingerprint Identification Systems (AFIS). This direct interface will allow fingerprint images to be captured and searched under maximum resolution and will increase the ability of the FIS personnel to affect identifications.

The additional superglue fuming cabinet will be located in the Drug Analysis Unit to enable Fingerprint Analysts to process drug evidence without transporting evidence out of the Drug Analysis Section, thereby streamlining the operations of two Sections of the FSB.

The second objective of this proposal is to hire a Criminalist as an Evidence Coordinator to review cases and determine which cases should be deferred at the Central Evidence Reception Facility (CERF). The Evidence Coordinator will issue deferred reports to the submitting agencies, transferring responsibility for the management of evidence from the individual sections of the FSB to the Coordinator. The transfer of this responsibility to an Evidence Coordinator will facilitate the analysis of an additional fifty cases per month in the FSB.

The use of this funding to purchase equipment and hire personnel will enable the MDPD FSB to decrease turnaround time, provide critical forensic services to support the law enforcement community and further the positive impact provided to the citizens of Miami-Dade County.

FY11 Recipient Name: Sarasota County Sheriff's Office (FL)
Award Number: 2011-CD-BX-0057
Award Amount: $61,124

Abstract: The Sarasota County Sheriff's Office is seeking funds through the Paul Coverdell Forensic Science Improvement Grant Program for the purchase of equipment to enhance and expand the capabilities of the Forensic Services Section as well as to provide resources to improve our current procedures with the ultimate goal of accreditation. The objective of this grant is to improve the quality and timeliness of forensic service and ultimately reduce the number of backlogged cases in forensic laboratories. The Sheriff's office plans to improve services provided by the Forensic Services Section as well as the analytical and health and safety protocols. The Forensic Services Section consists of fourteen dedicated personnel (one sworn officer and thirteen civilians) spread over four units; chemistry, crime scene, digital imaging and fingerprints. All four units operate with standard protocols through policies and procedures generally accepted in the forensic community.

The Sheriff's Office recognizes that forensic sciences are critical in criminal investigations. With national focus on forensic evidence and processing in criminal cases, local crime labs are improving policies and procedures to ensure the integrity of evidence processed. In order to obtain greater confidence in our evidence processing, the Sheriff's Office has begun building the foundation to achieve accreditation. To achieve accreditation, the Forensic Services Section needs to expand and enhance the services we offer, including the implementation of written policies, procedures and standard operating protocols, and finally provide the equipment and tools to ensure quality processing. Through this transformation, the Section will ultimately be able to improve the quality and timeliness of our forensic services.

The Sheriff's Office is requesting funds to purchase equipment which will be for used in the crime scene and chemistry units. Equipment will be issued to the crime scene to improve our fingerprint processing procedures, develop footwear mark collection and examination protocols and put into place a screening program for biological evidence. The drug chemistry unit will receive equipment to replace a current instrument that will no longer be covered by warranty.

Finally, one of the goals of our current Sheriff and Administration is to enhance the forensic exchange between the Sheriff's Office and agencies in the county and beyond. We will aim to use this equipment on in-house casework as well as on cases for external agencies. The Forensic Services Section will take a more proactive approach using forensic science as a means to exploit types of evidence not commonly used as well implement policies and procedures that follow the best practice guidelines of the forensic community. Over the last year, we have made enhancements by adding new lab space, providing training to forensic and sworn personnel, developing new procedures, hiring staff and expanding the units with the minimal funds available. Unfortunately, given the lack of funds currently available to the Sheriff's office due to restricted budgets based on the state of the economy, we are seeking grant funds to enhance and expand the Forensic Services Section through the purchasing of essential equipment.

FY11 Recipient Name: St. Lucie County Sheriff's Office (FL)
Award Number: 2011-CD-BX-0101
Award Amount: $69,046
Abstract: The Indian River Crime Laboratory (IRCL), an American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB) accredited public laboratory, provides scientific and technical services to all federal, state, county and municipal law enforcement agencies within the 19th Judicial Circuit of Florida. The St. Lucie County Sheriff's Office, IRCL's parent agency, is seeking to improve the quality and timeliness of the forensic services of the Indian River Crime Laboratory by requesting funding through the 2011 Paul Coverdell Forensic Science Improvement Grant Program. The St. Lucie County Sheriff's Office (in coordination with IRCL) is proposing to use this funding to achieve the following two goals:

1. Reduce the present backlog of unanalyzed cases in the Drug Chemistry Section by providing overtime hours for two drug chemists.
2. Reduce the present backlog of unanalyzed cases in the Laboratory's Firearm / Tool Mark section by providing overtime hours to two firearms / tool mark examiners.

The Indian River Crime Laboratory expects to reduce the laboratory's backlog in the Drug Chemistry and Firearm / Tool Mark sections by 500 and 150 cases respectively through this funding. By meeting these two goals, IRCL will also achieve an increase in timeliness of the delivery of forensic services to its participating agencies.

FY11 Recipient Name: Georgia Criminal Justice Coordinating Council
Award Number: 2011-CD-BX-0018
Award Amount: $605,749
Abstract: The Georgia Bureau of Investigation Division of Forensic Sciences (GBI-DOFS) operates 7 laboratories located throughout the state. The laboratory system serves a population of approximately 9.7 million and issues reports to approximately 1,000 criminal justice agencies. The goals of the FY2011 Coverdell grant project are to (1) improve the timeliness of forensic analyses by releasing at least 84% of reports within 45 days of receiving a service request, (2) reduce the number of backlog services (incomplete services over 30 days old) by 20% from the May 1, 2011 level and (3) improve the quality of the work product by gaining a more complete understanding of the measurement uncertainty process and applying that knowledge to forensic analyses.

These goals will be met through the following strategies:

- Maintain employment of 10 grant-funded positions within the laboratory: 9 full-time positions and 1 part-time position; and

- Provide measurement uncertainty training, and develop and implement measurement uncertainty practices in applicable forensic science disciplines.

FY11 Recipient Name: Fulton County Medical Examiner (GA)
Award Number: 2011-CD-BX-0082
Award Amount: $55,000
Abstract: This application for Coverdell Funds is to achieve and maintain a reduction in turnaround time and improved scope and quality of information on toxicology cases. The FCME serves a population of slightly more than one million persons who live in the incorporated and unincorporated areas within Fulton County, Georgia, and conducts approximately 2300 death investigations per year.

The FCME is requesting a total of $55,000 of funding through the competitive application process as a unit of local government. The $55,000 is requested for outsourcing toxicology testing on approximately 200 cases in which drugs or poisons are suspected as being causative or contributory to death.

The FCME has no toxicology laboratory and has historically depended on the laboratory services provided by the Georgia Bureau of Investigation and its Division of Forensic Sciences (GBI-DOFS). However, budget shortfalls, case backlog, and staffing shortages encountered by the GBI-DOFS have resulted in suboptimal services both in terms of scope of testing and turnaround times. Through a

previous GBI-DOFS funded program for a period of one year, we were able to show that outsourcing of toxicology testing to a private laboratory significantly decreased case turnaround time and improved the scope and quality of information received in toxicology reports. We are currently engaged in a similar one-year grant and preliminary results since March 2011 show very significant reductions in toxicology case turnaround time and improvements in report content. With the generalized shortage of state and local government funds, such money is no longer available to continue outsourcing after the current program expires. There are numerous advantages to outsourcing toxicologic testing for the FCME and other agencies including, but not limited to the GBI-DOFS, and these are enumerated in the program narrative.

Simply stated, the goals of this program are to improve and maintain turnaround times and the quality of death investigations conducted by the FCME. The objectives are to outsource toxicology testing in approximately 200 cases in which drugs or poisons are suspected as having caused or contributed to death.

The methods used to achieve the goals and objectives include:

- Outsourcing toxicology services to a private laboratory in a selected group of cases (approximately 200 in the program year) in which drugs or poisons are thought to have caused or contributed to death.

The outcome measures for the toxicology phase of the program will include a tabulation of cases tested by the private laboratory, and documentation of shortened turnaround times and improved scope of toxicology testing and report content compared with cases not sent to the private laboratory. Performance measures are contained in the Program Narrative. The outsourced toxicology testing would be implemented as soon as possible after award of Coverdell funds in accordance with the Fulton County budget cycle and would continue throughout the program year unless funds are exhausted before the end of the program year.

FY11 Recipient Name: Guam Bureau of Statistics and Plans
Award Number: 2011-CD-BX-0005
Award Amount: $166,108
Abstract: Annually, the Guam Police Department Forensic Science Division (GPD FSD) receives an average of 2,115 forensic cases, takes an average of 15,425 pieces of photographic forensic evidence, lifts an average of 8,910 latent prints, confiscates an average of 484 drug cases, analyzes an average of 159 drug cases, receives an average of 24 serological forensic cases, and receives an average of 11 firearms forensic cases. Due to the government of Guam huge budget deficits and budget cuts being made across the Board to include existing essential programs, and the laboratory current staffing levels, Guam's only forensic laboratory is only processing forensic cases going to court, forensic cases with active leads, and forensic cases sent to laboratory. The challenging factors that limit the ability to provide quality and timely evidence processing include, but are not limited to the following: lack of forensic training opportunities for the laboratory personnel to obtain either competency or to maintain proficiency in their disciplines; limited forensic supplies; lack of forensic equipment to conduct DNA processing and analysis; lack of proficiency testing for criminalists and examiners; and the need to maintain the laboratory FLIMS Annual Update Plan for fifteen licenses.

These challenging factors lead to delays in providing quality and timely evidence processing. Funding under this grant will be used to provide forensic training opportunities to the laboratory personnel in their disciplines. The forensic training will increase the staffs' knowledge of new methods and instrumentation in their disciplines; keep them abreast with the latest forensic techniques and trends. In addition, the staff will be able to demonstrate to the general public and to the criminal justice system that the laboratory output is of the highest quality and the procedures used to collect, preserve, and process forensic evidence meets established standards.

Funding will also be used to acquire forensic supplies to be used in the collection and preservation of evidence recovered at crime scenes, and to process forensic evidence; to maintain the Starlims FLIMS contractual services for Annual Update Plan for GPD's fifteen user licenses; to provide criminalists and examiners proficiency testing as the laboratory will be seeking accreditation in the near future; and to acquire forensic DNA equipment and instrumentation for the new DNA laboratory facility that will be completed in September 2012. The program evaluation criteria will consist of the successful implementation of the criminalist, examiners, and crime scene investigators training in their perspective disciplines; successful implementation of the DNA Processing and Analysis Equipment and Instrumentation; successful implementation of the forensic supplies for the Serology Unit, the Crime Scene Unit, the Fingerprint/Latent Print Unit, and the Firearms and Toolmark Unit; successful implementation of the criminalist and examiners proficiency testing; and successful implementation of the Starlims FLIMS Annual Update Plan maintenance for the fifteen user license. The program outcomes and effectiveness of the project will be based on the efficiencies that the Forensic Science Division will experience with the implementation of the forensic equipment, forensic supplies, licenses maintenance, proficiency testing, and training. The anticipated outcomes of this program are the following:

- Reduction in the delay in getting the evidence into the laboratory for analysis and reporting of results to the requesting agency;
- Reduction of backlog case evidence processing of a least 20%;
- Increased forensic quality of processed case evidence;
- Increased laboratory personnel efforts towards the accreditation requirements.

FY11 Recipient Name: Hawaii Department of the Attorney General
Award Number: 2011-CD-BX-0014
Award Amount: $166,108
Abstract: The Department of the Attorney General, the designated State Administering Agency (SAA), is seeking State formula funding through the 2011 Paul Coverdell Forensic Science Improvement Grants Program (Coverdell) to improve and enhance the quality and timeliness of forensic science services in Hawaii. The Department of Attorney General is requesting $87,157.00 to support the Honolulu Police Department, Scientific Investigation Section's crime laboratory and the Hawaii Police Department Crime Lab.

Sixty-five thousand, one hundred forty-two dollars ($65,142.00) will be utilized to support the improvement and enhancement of the Honolulu Police Department's Scientific Investigation Section's forensic science services. Three objectives for the Honolulu Police Department's project are: 1) to enhance the quality of forensic science services through the expansion of the section's scope of accreditation, 2) to enhance and improve the quality and timeliness of the analysis of crime scenes, and 3) to enhance the quality of forensic science services by providing continuing education to laboratory staff.

To achieve these objectives, Coverdell funds will be used to cover the use of a contractor who will evaluate the unit's readiness for accreditation and provide a gap analysis for compliance with international accreditation standards, and the on-site training costs through the use of a contractor to provide trainings on Crime Scene Response, Latent Fingerprint Processing, and courtroom testimony.

Thirteen thousand, three hundred thirty dollars ($13,330.00) will be used to support the enhancement of the Hawaii Police Department's Crime Lab. Two objectives for the Hawaii Police Department's project are: 1) to enhance the quality of forensic science services through the expansion of the laboratory's scope of accreditation and providing continuing education to laboratory staff, and 2) to improve the safety and efficiency of forensic science services through the purchase of equipment.

To achieve these objectives, Coverdell funds will be used to pay for training on laboratory accreditation requirements provided at the Annual American Society of Crime Lab Directors (ASCLD) Symposium; purchase updated equipment including a computer, software, handheld laser measurer, Kevlar fibers for gun box, and to dispose of accumulated hazardous chemicals.

Eight thousand, seven hundred fifteen dollars ($8,715.00) will be utilized to support administrative costs for the SAA. Funds will support a portion of the salary and associated fringe benefits cost for the staff responsible for overseeing Coverdell funded contracts, and travel costs necessary for training attendance and neighbor island staff participation in quarterly meetings attended by various forensic science personnel throughout the State of Hawaii.

FY11 Recipient Name: Iowa Governors Office of Drug Control Policy
Award Number: 2011-CD-BX-0008
Award Amount: $184,816
Abstract: 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.
Iowa Department of Public Safety, Division of Criminal Investigation, Crime Lab
The Iowa Department of Public Safety, Division Of Criminal Investigation, Crime Laboratory is the only accredited crime lab servicing Iowa's criminal justice system.
The 2011 Base Award will be utilized by the Iowa Department of Public Safety, Division of Criminal Investigations, and Crime Laboratory to hire an evidence technician and provide overtime for criminalists to clear cases and reduce the turnaround time.
Iowa Department of Public Health, Iowa State Medical Examiner
Iowa has a State Medical Examiner System with 99 physician County Medical Examiners. The Iowa Office of the State Medical Examiner is a state entity that provides autopsy service and death investigation consultation for the County Medical Examiners and is responsible for establishing death investigation guidelines and training for county Medical Examiner Physicians and County Medical Examiner Investigators.
The 2011 Base Award will be utilized by the Iowa Department of Public Health to provide training to state and local death investigators/pathologists, to hire an Autopsy Technician, and to provide autopsy documentation enhancements.

FY11 Recipient Name: Idaho State Police
Award Number: 2011-CD-BX-0011
Award Amount: $166,108
Abstract: The scope of this project is to successfully implement LC/MS/MS based urine and blood confirmation of synthetic cannabinoid drugs and benzodiazepine class drugs through instrumentation

procurement, analyst training, scientific research and collaboration, and extensive instrument and toxicology method validation in Idaho. The objectives of this project are:

1. Purchase an LC/MS/MS Triple Quadrupole instrument for the Idaho State Police Forensic Services (ISPFS) Coeur d'Alene (CDA) Toxicology Laboratory which is necessary for analytical method (AM) development.
2. Provide manufacturer offered and other available LC/MS/MS instrument training for ISPFS Toxicologists.
3. Educate ISPFS Toxicologists on the analysis of synthetic cannabinoids and benzodiazepines through forensic conferences and other training opportunities to develop and validate AMs.
4. Analyze toxicology cases submitted under the new 2011 Idaho legislation for synthetic cannabinoid drugs in support of all local, county, and state law enforcement agencies in Idaho.

Objective 1 is accomplished by purchasing LC/MS/MS instrumentation. ISPFS has negotiated a purchase price of the instrument from the preferred vendor to make the project feasible and economically viable. LC/MS/MS is essential to detection of synthetic cannabinoids due to limitations of detection using the standard GC/MS methods. LC/MS/MS is a more efficient process for detecting benzodiazepines and provides a lower limit of detection. Due to budget shortfalls in Idaho, available funds for ISPFS to purchase instrumentation have been eliminated. For the ISPFS CDA Toxicology Laboratory to be viable in toxicological analysis, purchasing LC/MS/MS instrumentation is critical. The CDA Toxicology Laboratory analyzes cases benefiting the largest counties in Idaho, including agencies in Northern and Southwestern Idaho. The state capital of Idaho and the largest metropolitan area and most populated portion of the state is Southwestern Idaho.

Objective 2 is to fund and deliver vendor provided on-site training, send two analysts to the advanced instrument class (Agilent QQQ LC/MS/MS Techniques and Operation Training), and financially support ISPFS Toxicologist attendance at the Society of Forensic Toxicologists (SOFT) meeting in 2012. Training the analysts on the LC/MS/MS instrument is essential for development of appropriate analytical methods, complete validation studies, and long-term economical maintenance of the instrument.

The accomplishment of **objective 3** is a multi-disciplinary approach. In addition to sending several Toxicologists to the SOFT meeting in 2012, Toxicologists/Chemists will be sent to the 2012 annual Clandestine Laboratory Investigating Chemists (CLIC) meeting. Much of the information available about synthetic cannabinoid drugs in the United States is being disseminated by CLIC. The group distributes publications, scientific data, and other assistance regarding the drug identification and chemistry. Using the resources from this group, combined with research articles and scientific meetings such as the SOFT meeting, the Toxicologists will be able to develop methods to detect these drugs.

The **fourth objective** is met by analytical method development. The Toxicology Discipline Leader and the Quality Manager will write and approve the validation plan, oversee and accomplish the validation, and approve the instrument and method validations. After validation, the Toxicologists will start working synthetic cannabinoid toxicology cases in Idaho. Currently, these cases are returned to the customer for submission to a private laboratory at the expense of the investigating law enforcement agency. Many of the law enforcement agencies in Idaho do not have the funds to send these cases to a private lab. Once the instrumentation and analytical methods are implemented, the new capability will be advertised through the ISPFS newsletter, a letter to prosecutors and law enforcement, and through training conducted by ISPFS.

FY11 Recipient Name: Illinois Criminal Justice Information Authority
Award Number: 2011-CD-BX-0003
Award Amount: $791,358

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

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

FY11 Recipient Name: City of Joliet (IL)
Award Number: 2011-CD-BX-0087
Award Amount: $59,280
Abstract: Technology has been increasing exponentially over the last decade. The use of cell phones, global positioning satellite (GPS) Devices, video cameras, and computers have become common place. This rise in technology has created an increasing demand for services in the field of Computer Forensics. In 2004, the Chicago Regional Computer Forensics Laboratory (CGRCFL), a partnership between federal, state, and local agencies, was created to respond to that demand. Over the last six years the number of requests for service at the CGRCFL has risen at an incredible rate. This rise has led to an increased backlog, an overwhelming case load per examiner, and delays in service. The Joliet Police Department, as a contributing member of the Chicago Regional Computer Forensics Laboratory (CGRCFL) is seeking to improve response time and quality of service provided to State and Local agencies within our region. To this end we are requesting $81,422.00 to improve the workstations of the lab's state and local examiners, train one Audio Visual Examiner, and create six remote viewing kiosks for use by the 364 state and local agencies the CGRCFL serves.

FY11 Recipient Name: Indiana Criminal Justice Institute
Award Number: 2011-CD-BX-0012
Award Amount: $394,034
Abstract: The State Plan is to provide a turnaround time of less than 45 days for 90% of submissions and maintain or improve the quality of forensic services.

Objectives:

1. To improve the timeliness of forensic services through the use of overtime pay
2. To improve the quality and timeliness of drug, latent prints, trace, documents, and firearm examinations through equipment/software additions and upgrades

Project plans:

1. Utilize paid overtime to improve casework turnaround time,

2. Procure, install, and validate additional and upgraded equipment/software

Methods:

1. Past use of paid overtime has shown it to be effective in improving turnaround time.
2. To improve quality and turnaround time in the Drug Unit, a Gas Chromatograph with Fourier Transform Infrared Detector will be added.
3. To improve quality and turnaround time in the Lowell Laboratory's Drug Unit, an electronic top loading balance will be replaced.
4. To improve quality and turnaround time in the Trace Unit, a Microscope Fourier Transform Infrared Spectrophotometer will be replaced.
5. Turnaround time will be improved by adding five wireless bar code scanners.
6. Addition of Adobe Acrobat software to 55 computers will expedite the process of digitizing case files and improve turnaround in all Units.

FY11 Recipient Name: County of Marion (Marion Superior Court) (IN)
Award Number: 2011-CD-BX-0103
Award Amount: $174,872
Abstract:

Proposed Initiative: The Marion County Coroner's Office (MCCO) is requesting funding from the National Institute of Justice (NIJ) for the installation of a new computerized database and information management solution, procurement of a digital portable x-ray system as well as financial support for a forensic pathology fellow's salary for a period of nine months.

Target Population: The target population will be employees of the Marion County Coroner's Office and citizens and agencies of Marion County served by the Coroner's Office.

Program Goal: The goal is to obtain a new computerized database, replace obsolescence of X-ray technology and maintain this forensic fellowship position.

Plan of Action: MCCO will purchase and utilize the computerized database JusticeTrax LIMS-plus IMUA as an essential web-enabled, comprehensive, information management system tool.

The implementation of the new technology will dramatically improve the ability to efficiently track and manage all aspects of the death investigations handled by MCCO as well as communication and collaboration efforts with other agencies.

A portable Digital X-Ray System will be purchased to capture surgically implanted orthopedic hardware, wires, pacemaker surgical items, bullets and other metal fragments not seen upon external examination to determine cause of death. In gunshot wound injuries, the projectile can be localized, bullet tract possibly visualized, and angles measured prior to the autopsy.

The Marion County Coroner's Office will utilize Coverdell funds to support the continuation of the Forensic Fellowship program partnership with Indiana University School of Medicine by providing financial assistance for a forensic pathology fellow's salary.

FY11 Recipient Name: Indianapolis-Marion County Forensic Services (IN)
Award Number: 2011-CD-BX-0104
Award Amount: $62,290

Abstract: The goal of this proposal is to continue to provide and improve the quality and timeliness of forensic science services by improving efficiency in providing personnel in the Drug Chemistry Section, overtime in the Crime Scene Section, and continuing accreditation through the funding of the annual accreditation fee.

FY11 Recipient Name: Office of the Governor of Kansas
Award Number: 2011-CD-BX-0004
Award Amount: $173,692
Abstract: The Kansas Forensic Science Laboratories consist of the Kansas Bureau of Investigation, the Johnson County Criminalistics Laboratory **and** the Sedgwick County Regional Forensic Science Center and serve all law enforcement within the state by providing forensic services for criminal justice purposes. The request for funding is to improve the timeliness of forensic science services, by increasing analytical capacity and to maintain a high level of competency through continuing education of the forensic scientists.

In the Sedgwick County Regional Forensic Science Center, the Toxicology Section continues to see a rise, not only in the number of case submissions, but the number of drugs and toxic substances associated with each case. The acquisition of a Gas Chromatograph ChemStation system and Autosampler tower will enhance efficiency and allow for greater case throughput. The Johnson County Criminalistics Laboratory, a division of the Johnson County Sheriffs Office, is a nationally accredited forensic science laboratory. The request for funding is to purchase two PCR DNA Thermal Cyclers, a 75-RT PCR instrument plus extended warranty, an Alternate Light Source and a Mini Centrifuge for the Biology Section. This will improve the timeliness of forensic science services, by increasing productivity and decreasing the turnaround time and backlog.

The Kansas Bureau of Investigations (KBI) requests funding for the purchase of "SoleMate" and "TreadMate" reference databases for footwear and tire impression evidence. The databases will enable the KBI to assist law enforcement throughout the state in identifying critical evidence.
With this equipment, the KBI can provide investigative leads based on the type of footwear or tire impressions left at the scene of a crime allowing law enforcement officers and investigators to focus their attention on potential suspects as a result of the analysis. In addition, funds are requested to train the KBI forensic scientists.

Grant Project Goals:

The Grant Project has two primary goals:

To improve the capabilities of the three forensic science laboratories in Kansas, which will increase productivity, reduce backlog and decrease turn-around-times. The acquisition of the equipment will provide the laboratories additional resources to process evidence requests.

To maintain the proficiency of Kansas Bureau of Investigation Forensic Scientists through continuing education and to keep Forensic Scientists current in their forensic disciplines.

FY11 Recipient Name: Kentucky Justice and Public Safety Cabinet
Award Number: 2011-CD-BX-0022
Award Amount: $265,292

Abstract: The Kentucky State Police Forensic Laboratories, Automated Fingerprint Identification System (AFIS) Unit, and Medical Examiner's Office request federal funds to improve service provided to the Commonwealth of Kentucky. These three entities provide all of the 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. Maintaining proper facilities and equipment as well as adequate and appropriate supplies are critical to our mission. Continuous education of all staff members is equally important as Kentucky's criminal justice industry constantly strives to improve the quality of testing as well as increase efficiency. Through these funds the Kentucky State Police Forensic Labs, AFIS Unit, and Medical Examiner's Office will be able to provide training to 45 analysts, pathologists, and staff as well as replace outdated equipment and purchase items which will increase efficiency, safety, and environmental friendliness.

FY11 Recipient Name: City of Owensboro (KY)
Award Number: 2011-CD-BX-0091
Award Amount: $11,484
Abstract: The City of Owensboro is requesting funds of $11,484 to purchase equipment which will allow the Owensboro Police Department's Evidence Collection Unit to conduct more accurate, timely laboratory tests on suspected marijuana in-house. This new equipment would also allow for testing of larger quantities of marijuana, thereby decreasing the number of marijuana tests that have to be transported to the Kentucky State Police Forensic Laboratory in Madisonville, Kentucky (an approximate three hour trip for each test).

FY11 Recipient Name: Louisiana Commission on Law Enforcement and Administration of Justice
Award Number: 2011-CD-BX-0041
Award Amount: $276,907
Abstract: A major goal of the LBCLDA, and thus the state effort, has been to seek funding for the purpose of underwriting expenses incurred by each lab entity through individual efforts to become or remain accredited by the American Society of Crime Laboratory Directors/Lab Accreditation Board (ASCLD/LAB). ASCLD/LAB is an organization, which offers a voluntary Crime Laboratory Accreditation Program. Participation in this program, which includes an on-site inspection, allows a crime lab to demonstrate that its management, operations, personnel, procedures, equipment, physical plant, security, and health and safety procedures meet established standards. Accreditation is part of a laboratory's quality assurance program, which must also include proficiency testing, continuing education and other programs to help the laboratory give better overall service. Accreditation is granted for a period of five years, provided that a laboratory continues to meet ASCLD/LAB standards by participation in an annual Accreditation Review Report and participation in proficiency testing programs. To maintain accreditation a crime lab must undergo another on-site inspection every fifth year.

Six of the eight laboratory entities have been accredited by ASCLD/LAB and the other two laboratories are in the process of preparing for accreditation by ASCLD/LAB. The three labs of the North Louisiana Crime Lab System have been accredited since 1986. The Louisiana State Police Crime Lab was accredited in 2000, and the Acadiana Crime Lab was accredited in 2001. The St. Tammany Parish Coroner's Office lab was accredited in May, 2008.

There are a number of expenses associated with the accreditation process. Even after achieving accreditation status there are expenses for maintaining the standards of accreditation. Laboratories being accredited for the first time must bring their standards of operation up to ASCLD/LAB requirements in all areas of operation as described above and then maintain them. More specifically there are expenses with regard to: calibration and maintenance of equipment and instrumentation, proficiency testing, lab

auditing, financial auditing, overtime, training (including travel) requirements, professional dues and journals, library expenses, and accreditation dues. For Louisiana Crime Labs, these are expenses not experienced before the advent of accreditation.

NFSIA funding will be utilized to support this goal of becoming accredited or maintaining accreditation of Crime Labs in Louisiana, to demonstrate an improvement over current operations in the quality and timeliness of forensic science or medical examiner services provided and to reduce the backlog of cases awaiting disposition. Expenses will include, but not be limited to, accreditation fees, fees associated with accreditation inspections, overtime for technicians, purchase of equipment, supplies, and services toward those ends, travel and training and other direct costs attributable to these objectives.

FY11 Recipient Name: City of New Orleans (LA)
Award Number: 2011-CD-BX-0062
Award Amount: $172,220
Abstract: The City of New Orleans is actively working to establish a state- of- the- art crime laboratory in order to support law enforcement efforts to reduce violent crime in the City. Leadership within the New Orleans Police Department (NOPD) and its crime laboratory are well aware of the need to obtain accreditation for all sections within the laboratory (drug chemistry, biology/DNA, firearms and forensic support unit). Achieving ISO accreditation will contribute to the improved quality of forensic services provided to the citizens of New Orleans. In addition, by performing "best practices" within each lab section, it is expected that an additional benefit will be a reduction in case backlog and case turnaround time.

As with many metropolitan police department crime laboratories, the NOPD is challenged to provide needed services on a limited budget. Further compounding this challenge is the fact that some sections of the NOPD crime lab have yet to be re-established since the devastating floodwaters of 2005. Re-establishing a crime lab after a devastating event is a daunting task. For the NOPD crime lab, this is an opportunity to re-establish a better lab operation than what had previously existed.

In the months and years following the 2005 floods, the crime laboratory was re-established at a new location where it currently resides. The drug chemistry section is fully functioning and has minimal backlog. The firearms section is currently training several analysts, has hired experienced analysts and is actively addressing their backlog with the assistance of ATF. The forensic support unit is currently undergoing supplemental training. The section that has yet to be adequately re-established is the Biology/DNA Section.

A re-organization of the command staff within the New Orleans Police Department has resulted in a renewed interest and effort geared towards improving the quality of services at the crime lab. Clearly ISO accreditation is a goal that should and can be attained with proper leadership, appropriate planning and successful execution.
The funding requests in this proposal include funds for outside consultants to perform a Gap analysis, on-site ISO training for the lab staff, and professional outside assistance for the creation of a Quality Assurance Program for the laboratory. Once the Gap analysis is performed, a clear and detailed sequence of events will be outlined and presented to NOPD leadership for implementation. Funding is also being requested to purchase three pieces of equipment for the DNA Section. A simultaneous effort to negotiate with FEMA (for securing the replacement of all lost DNA lab equipment and supplies due to the 2005 disasters) will be undertaken. The equipment requested within this proposal was not part of the DNA Section inventory list in 2005.

Funds for continuing education training have been requested for three analysts. This continued education training is required for compliance with accreditation requirements for both the drug chemistry and the DNA sections. Recent NOPD leadership changes and MOU agreements confirm and support the assertion that NOPD management has the ability to implement and execute this project (see also Resumes in Appendix D).

The impact of this project's success will be a completed Gap analysis and initiating a Quality Assurance Program. With these tools in place, laboratory management and staff can then work toward the goal of ISO accreditation. The equipment purchases from this grant funding will assist in the re-establishment of a fully operational and accredited DNA analysis section.
These NOPD lab goals meet the grant objectives for improving the quality of forensic science services and reducing the backlog of sample analysis for the crime laboratory.

FY11 Recipient Name: State of Maine
Award Number: 2011-CD-BX-0024
Award Amount: $159,255
Abstract:

COMPETITIVE

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

The laboratory created a strategic plan last year and has been aggressively pursuing the elements of that plan. The overall goal was to achieve at least a 10% backlog reduction in one year while leveraging technology to find more efficiency, improve how the laboratory provides access to our services, and improve the quality of our product. The laboratory has made very significant improvements in backlogs in the last year with a number of different initiatives. Every unit, with the exception of DNA, has achieved a 25-30% reduction in backlog in the last year. However, we lack the funding to pursue most of the technology initiatives identified in our plan.

With this grant we will address several IT objectives identified in our strategic plan. We plan to improve our quality of services with the strategy of leveraging technology. Specifically, we want to purchase a module that is available with our Laboratory Information Management System (LIMS) to allow customers to access our reports and case status via the web. We also want to purchase a module that will provide a mechanism to initiate the evidence logging and tracking process prior to the evidence arriving at our laboratory to speed up evidence submissions that are sometimes backed up with two agencies waiting. We are asking for document control software to manage document workflows, training, literature reviews, discovery requests, post-conviction review tracking, and training requests… to help us prepare for the transition to ISO accreditation standards.

Also in the area of timeliness and quality we intend to purchase several equipment items. We intend to purchase a gel lift scanner for the latent print unit of the laboratory. We have tested a demo model scanner set-up in our lab and have been extremely impressed with this unit. It has recovered latent impressions that we could not identify prior to this technology. It dramatically reduces processing time at the same time. We also are looking to purchase other much smaller equipment items listed in the grant for improvements to quality and timeliness.

The laboratory is the location for all homicide debriefings in the State of Maine. The cases are presented within 7 days of all murders. We still use a marker board and a projector to review all the materials and view all the photos and videos. We very much need to update our conference room with a Smart Board or equivalent.

Finally, training is the one area that is hardest to fund. We have been successful at getting to free federal training but have not been going to most professional conferences for some time now due to state budget cuts. With this funding we would improve the quality of our testing processes and learn new efficiencies by attending conferences for each professional unit in the laboratory.

The laboratory has created this competitive application with the cooperation of the two other state agencies that will split the entire base Coverdell funds. The Medical Examiners office and the Health and Environmental Testing Laboratory are submitting initiatives under the formula grant which we fully support as well. We share the opportunity to apply for the competitive grant and the three of our agencies work extremely well together.

BASE PROGRAM

Coverdell funds will provide the Health and Environmental Testing Laboratory (HETL) and the Office of the Chief Medical Examiner (OCME) with needed personnel, technology, supplies, and contractual support that will improve the current operations in the quality and timeliness of forensic science services provided in the State of Maine. These improvements will promote accreditation and certification for the State of Maine facilities that provide forensic science services.

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

The **Office of Chief Medical Examiner (OCME)** will use the majority of the funds to contract with medical examiners to perform an additional 56 autopsies to help reduce the backlog of cases. This will assist in reducing their backlog of cases so they eventually seek accreditation from National Association of Medical Examiners (NAME). A small portion of funds will also be used for supplies.

FY11 Recipient Name: Governors Office of Crime Control and Prevention (MD)
Award Number: 2011-CD-BX-0046
Award Amount: $350,749
Abstract: Maryland's violent crime rate has been, and remains, significantly higher than the national average. Over the past three years, the state's average annual violent crime rate has been about 37% higher than the national average.

The **Anne Arundel County Police Department** Crime Laboratory employs seven full-time scientists whose principal duties are the examination of physical evidence for law enforcement agencies, and who provide testimony with respect to such physical evidence to the Criminal Justice System. The Laboratory is accredited by the Laboratory Accreditation Board of the American Society of Crime Lab Directors (ASCLD/LAB). Salary and FICA for a contractual employee will provide Controlled Dangerous Substances (CDS) case status research necessary to effectively manage the remaining inventory/backlog of forensic drug cases in storage that no longer require analysis or storage/retention.

Replacement of one of the GC/FID would increase the efficiency of the lab. This instrument is able to resolve chemical mixtures from each other based on the physical and chemical properties of the various compounds. It is extremely effective in the forensic analysis of controlled dangerous substances (CDS) and is the second of three tests required by the Anne Arundel County Crime Lab's CDS unit for identification of CDS. In addition, the GC/FID is the lab's only instrument currently used for performing quantitative analysis.

The **City of Baltimore**, with its history of severe crime problems, is fully committed to utilizing the best tools at its disposal in its war on crime, specifically, science-based technologies. In 2010 alone, Baltimore had 223 homicide victims. Although this is significantly lower than the record-high 353 homicides in 1993, the homicide rate in Baltimore is still nearly seven times the national rate, six times the rate of New York City, and three times the rate of Los Angeles. Overtime for three Firearms Examiners to perform complex cases (68) will reduce their backlog, along with two Latent Print Examiners to complete AFIS verification. To meet the challenge of policing in a high crime environment, law enforcement needs the most professionally trained employees available. In many celebrated court cases, the effective collection, processing, and analysis of crime scene evidence have often enabled prosecutors to win cases. Knowledge of the latest evidentiary processing techniques and current certification in varying applicable fields is not only a bonus in serving citizens of Baltimore, but a necessity. For these reasons, the proper training of Laboratory employees is essential.

The **Baltimore County Police Department (BCoPD)** is the sole law enforcement agency within Baltimore County. The 2,572 member Department has been accredited by the Commission on Accreditation for Law Enforcement Agencies, Inc. (CALEA) since 1984, and provides a comprehensive range of law enforcement services to the citizens of Baltimore County, including a crime laboratory (i.e. the Forensic Services Section) that is accredited by the American Society of Crime Laboratory Directors - Laboratory Accreditation Board (ASCLD/LAB) and which contributes to the national Combined DNA Index System (CODIS). They are in need of training and upgraded equipment to improve the quality of evidence recovered in their laboratory. The purchase of four MacBook Pro computers will maximize efficiency. The purchase of two Forensic Recovery of Evidence Device (FRED-LS) computer systems will be used in the examination of digital evidence. This is an industry standard for the examination of computer systems for possible evidence in criminal cases.
Training is imperative to keep the crime labs abreast of the new technology available.
For the Latent Print Unit (LPU), training will improve the efficiency of the examiners as new skills and methods are mastered, and will also enhance the presentation and acceptance of evidence in court. Continued training of the Digital & Multimedia Evidence Unit (DMEU) is an essential part of ensuring a thorough and competent examination of all digital evidence submitted. The International Association of Computer Investigative Specialists (IACIS) is one of the most recognized bodies in the field, and IACIS certification is a requirement of all examiners in our unit. In addition to the basic certification course, IACIS offers advanced training that will benefit the more seasoned examiners in the unit.

Hagerstown Police Department - In 2010, the Western Maryland Regional Crime Laboratory (WMRCL) became the first state/local forensic laboratory in the state of Maryland to become accredited under the new American Society of Crime Laboratory Directors/Laboratory Accreditation Board-International Standards (ASCLD/LAB-Iso). ISO accreditation requires a tremendous amount of documentation and organization. Currently the laboratory employs three full-time scientific staff members and a secretary. They are seeking training and to upgrade equipment which will allow them to continue providing excellent service to the law enforcement agencies they support while maintaining their quality management system. One means they have identified to accomplish this task is through the use of "compliance software" to simplify and document management and process controls. It is estimated that the use of such software may increase the efficiency of the WMRCL by up to 25%. Time savings would be realized by the Laboratory Director, Quality Assurance Manager and Safety Officer.

Maryland State Police -Forensic Sciences Division (MSP-FSD) is an accredited laboratory and is interested in providing the highest quality state of the art technologies. The MSP-FSD must remain on the cutting edge of new technologies in order to keep up with the demands of this rapidly growing and changing field. A Borescope kit, micrometer and reloading loader are needed by the Firearms/Toolmarks Unit during their normal operations to assist the examination of weapons. The ear muffs and shooting glasses will be needed by the Crime Scene Technicians who are assisting the unit by conducting the test fires of weapons. The existing computers in the Firearms/Toolmarks Unit and in the offices of Management are five years old and are in need of replacement. The computers are used for the capture of analytical data, generation of reports and statistical calculations. Once replaced, the current units will serve as reserve for the Forensic Sciences Division. Training is an essential part to maintain knowledge, and also a part of internal and external accreditation standards

The **Montgomery County Department of Police** Forensic Services Section is responsible for the collection, documentation, and packaging of evidence recovered from major crime scenes throughout the county, where their assistance is requested in the recovery and/or documentation of physical evidence, footwear and tire track evidence, shooting scene reconstruction, latent print evidence and/or biological evidence. Additionally, this section is responsible for the processing of evidence and all firearms, recovered within the county, for latent print recovery; test fire of all firearms and related NIBIN entry; latent and fingerprint examination; video analysis and duplication and photographic and polygraph services. The Crime Laboratory is broken into two sections, the Biology Unit and the Chemistry Unit. The Chemistry Unit is responsible for analyzing evidence for the presence of Controlled Dangerous Substances (CDS). On average, the unit receives over 4,600 CDS cases a year, leaving a backlog of approximately 900 cases a year. Overtime for two Firearms Examiners and one CDS Specialist will reduce the backlog of the Firearms Examination Unit and Chemistry Unit cases. The Biology Unit will attend trainings, in order to achieve and continue to satisfy the Federal Quality Assurance Standards and adhere to internal standard operating procedures for the Crime Laboratory Section. The Chemistry Unit has to maintain their technical qualifications through continuing education annually.

Prince George's County located in Central Maryland, forms the northern, eastern and southern border of the Nation's Capital. The Prince George's County Police Department is the 33rd largest police department in the Country. The county has an approximate population of 830,000 people.

A Fouier Transform Infrared Spectroscopy (FTIR) is a fundamental tool that is used to probe substances to determine the nature of their molecular bonds. FTIR has commonly been used for the identification of functional groups among organic molecules. It can easily distinguish between a variety of molecular bonds involving carbon, hydrogen, nitrogen, oxygen, phosphorus, sulfur, and halogens. The Attenuated Total Reflectance (ATR) is an accessory of transmission IR spectrometers that significantly enhances surface sensitivity. As the name implies, ATR refers to a particular type of reflection geometry. In contrast to transmission FTIR, in which the infrared beam travels in a straight path through a sample, in ATR, the infrared beam is reflected internally through a crystal. The beam is oriented to bounce within the crystal at an angle that ensures total internal reflection. The overwhelming requests for analysis by the State Attorney's Office require at least one additional FTIR/ATR and a minimum of two new analytical balances. The additional FTIR/ATR will complete cases for trials in a timelier manner because it will eliminate chemists' wait time. The two new Analytical Balances will ensure a shorter time to determine the weight and it will also meet the requirements of “uncertainty measurement” for drug weights, by the laboratory accreditation committee.

FY11 Recipient Name: City of Baltimore (MD)

Award Number: 2011-CD-BX-0079
Award Amount: $96,954
Abstract: **The Latent Print Project** goal is to increase the capacity of the Latent Print Unit of the Baltimore City Police Department Crime Laboratory (BPD-CL), increasing the timeliness of forensic science services. The primary objective used to reach the goal is the hiring of one additional certified Latent Print Examiner to complete comparisons and report the findings of identifications made via the computer system and assist in evidence processing, Once hired, the Examiner will make latent print comparisons of computer generated hits from the Automated Fingerprint Identification System (AFIS) CAFIS 6.0 (produced by Cogent Systems)and assist in the processing of backlogged physical evidence cases. With this added capacity, the citizens of Baltimore City would enjoy more timely forensic services to compliment the violent crime reduction strategy implemented to improve quality of life.

FY11 Recipient Name: Massachusetts State Police
Award Number: 2011-CD-BX-0045
Award Amount: $405,404
Abstract: The Massachusetts State Police Forensic Services Group (MSPFSG) is a state government laboratory dedicated to providing quality forensic services within Massachusetts. The Department of Public Health Forensic Drug Laboratory (DPH), the Boston Police Department Forensic Technology Division (BPD), and the Office of the Chief Medical Examiner (OCME) together with the MSPFSG propose the following initiatives to reduce forensic case backlogs, to decrease turnaround time and to provide timelier forensic services.

The goal of this proposal is to:1) Reduce case backlogs; 2) Increase capacity; and 3) Train forensic examiners to provide more timely services to our clients. To accomplish these goals, the following initiatives are proposed: 1) to hire a Drug Unit chemist at the Forensic Services Group; 2) to retain a Drug Chemist at the Department of Public Health who was hired with Coverdell 2010 funds; 3) to fund overtime at the Office of the Chief Medical Examiner and the Department of Public Health to reduce case backlogs; 4) to train sworn and civilian members of the Forensic Services Group and the Boston Police Department; 5) to purchase four Mac Pro computers and forensic software for the Digital Evidence and Multimedia Section at the Forensic Services Group to process digital evidence; and 6) to purchase statistics software for the Quality Assurance Unit at the Forensic Services Group for uncertainty of measurement calculations.

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

FY11 Recipient Name: City of Fall River (MA)
Award Number: 2011-CD-BX-0060
Award Amount: $148,665
Abstract: Fall River Police Department will utilize Paul Coverdell Forensic Science Improvement Grants Program funds to establish a Crime Lab in its headquarters on Pleasant Street in Fall River. Grant funds awarded through this competitive grant process will provide for the purchase of an AFPIS (Automated Fingerprint/Palmprint System), Mini Crime Scope, supplies needed to start the Crime Lab, and personnel expenses to staff the newly established lab and manage the project.

By establishing this Crime Lab, Fall River Police Department will have the capability to analyze its own fingerprint evidence, without sending it to the Massachusetts State Crime Lab. This will eliminate a backlog of evidence, cutting down the time it takes to receive results on fingerprints from up to 6 months

presently to just hours or days. Equipment in new Crime lab will also allow Fall River Police Officers to determine whether bodily fluids are present on any given piece of evidence. Knowing this key piece of information eliminates unnecessary testing when no bodily fluids exist on evidence and makes possible the focus of precious resources on analyses that have the potential to aid in an investigation or prosecution.

FY11 Recipient Name: City of Worcester, Massachusetts
Award Number: 2011-CD-BX-0085
Award Amount: $75,252
Abstract: Located in the "Heart of the Commonwealth", Worcester Massachusetts is the second-largest City in New England with a growing multicultural population which the U.S. Census Bureau estimates at 182,882. The Worcester Police Department (WPD) is a premiere law enforcement agency comprised of 330 police officers, 89 officials, and 46 civilians, but our City – like so many others across the Country – has seen significant staffing cuts impacting all City departments, and could be seeing even more over the next few months. Our Crime Scene Unit currently consists of four Investigators and one Sergeant and is responsible for processing all crime scenes in the City.

Our Latent Print Unit (LPU) was completely renovated in 2007, and in 2009 it became the first stand-alone LPU in the United States to be accredited to the standards of ISO 17025:2005 *General Requirements for the Competence of Testing Laboratories.* We are the only ISO accredited forensic lab in Massachusetts, and one of only two in all of New England. This LPU consists of one Lieutenant and three Latent Print Examiners and in addition to providing service for our City, has also assisted many surrounding communities and colleges. This unit is also the provider of latent print services for the Northeast Region of the U.S. Department of State – Diplomatic Security Service. We were proud to receive a 2010 Paul Coverdell Forensic Science Improvement Grant which allowed us to purchase a fingerprint development chamber with heat and humidity control which allows us to optimally process chemically-treated porous surfaces, i.e. paper.

With this current grant cycle, we will be presenting another long-identified cause of delays to the timeliness of forensic testing: the 8-12 month delay in the response from the Massachusetts State Crime Lab to our initial submission of physical evidence for which they provide service, i.e. DNA, firearms, and trace evidence. Much, if not most, of this delay is consequential to related documentation and/or exemplars required by analysts at the state lab. Since theses requests are often dependent on searching for information not readily available to the Worcester Police Department (such as a conviction or plea arrangement, persons involved in the case relocating, etc.) exhaustive research and legwork is required which is cost- and time-prohibitive to have sworn personnel interrupt their normal course of duty to focus on such research. As such, we will be requesting funding for civilian personnel – with a science and data-base management background – who will coordinate and streamline this process.

FY11 Recipient Name: State of Michigan
Award Number: 2011-CD-BX-0033
Award Amount: $607,147
Abstract: The Michigan State Police requests **FY 2011 Paul Coverdell Forensic Science Improvement Program** base funding, to improve the quality and timeliness of service delivery in the Forensic Science Division's Firearms, Controlled Substances, Latent Prints, and Trace Evidence units.

The requested funding will be used to continue payroll support for three-grant funded positions in the Firearms and Controlled Substances units; and make overtime available to the Firearms l Tool marks unit for the purpose of backlog reduction.

FY11 Recipient Name: City of Grand Rapids (MI)
Award Number: 2011-CD-BX-0090
Award Amount: $141,195
Abstract: The Grand Rapids Police Department (GRPD) serves a residential population of approximately 188,000 in a 44.6 square mile area. The surrounding Grand Rapids-Wyoming Metropolitan Statistical Area (MSA) has a residential population of just over 600,000. The City of Grand Rapids is the cultural, educational, industrial, business, and entertainment hub of West Michigan. Downtown Grand Rapids features over 75 restaurants and nightspots, a state-of-art convention center, theatres, museums and sports venues. These venues combined with the various local colleges, universities, festivals, and cultural attractions draw millions of visitors to Grand Rapids annually.

The Grand Rapids Police Department responded to approximately 150,000 calls in 2010. The 2010 UCR Part 1 Offenses included 1,642 violent crimes and 7,872 property crimes. This level and type of criminal activity requires 24/7 crime scene coverage. The GRPD Forensic Services Unit (FSU) consists of seven Crime Scene Technicians (CSTs), two Latent Print Examiners (LPEs), and one Forensic Services Manager (FSM). The Unit is extremely talented and provides the Department with the highest quality crime scene work and latent print examinations. Support is also given to surrounding local agencies, including the FBI, ATF, and U.S. Attorney's Office.

The Crime Scene Technicians are highly skilled in all areas of scene documentation, processing, and reconstruction. Additional duties include specialized photography, preliminary chemical testing of body fluid and controlled substances, video examinations and analysis, serial number restoration, impression evidence comparison, graphics, courtroom presentations, and expert witness testimony. During 2010, the CSTs responded to 4,890 crime scenes. They completed 5,648 case reports detailing their crime scene work and supplemental processing. Evidence recovered by the Crime Scene Technicians was vital in numerous investigations and successful prosecutions.

Also in 2010, the Latent Print Unit examined submissions in 1,645 incidents. An additional 2,171 AFIS returns (TLi's) and 1,100 picture and prints were also analyzed. The Latent Print Examiners made 739 case identifications that included a noteworthy 1,916 individual identifications. As usual, they led the State of Michigan in AFIS inquiries and in the percentage of AFIS hits.

Like many cities in the State of Michigan and across the country in recent years, the City of Grand Rapids faces significant financial challenges. Police department expenditures account for 42% of the City's general operating fund and as such, sizeable personnel cuts (42 positions) were recently made to help balance the budget. Other savings have been achieved through wage and compensation concessions, the improved use of technology, and the consolidation of select services.
All City departments were affected by the cuts including the Forensic Services Unit, which lost two Crime Scene Technician positions in 2009. Additionally, funds for overtime, training, and new equipment have been extremely limited. Notwithstanding, the Department realizes it has an obligation to continue to provide the citizens of Grand Rapids with quality services performed by a well-trained professional staff.

Therefore, this proposal seeks to:

1) Improve the quality and timeliness of forensic services in Grand Rapids by the acquisition of new equipment that utilizes state-of-the-art technology.

- The purchase of the CERA Mk II system (cartridge electrostatic recovery analysis) will increase the likelihood of recovering latent prints on fired cartridge cases and ultimately increase the number of suspect identifications.

- A 3D panoramic scene capture solution will improve the documentation of crime scenes and decrease the amount of time spent on scene. Less time on scene will improve the overall timeliness of crime scene response.

2) Improve the quality of forensic services performed by providing training to the Latent Print Examiners designed to assess readiness and to prepare for latent print certification.

FY11 Recipient Name: Minnesota Department of Public Safety
Award Number: 2011-CD-BX-0044
Award Amount: $323,432
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, and the purchase of equipment and supplies used to perform daily work and overtime hours to allow staff to work on reducing the case backlog and improve timeliness of reports.

FY11 Recipient Name: Missouri Department of Public Safety
Award Number: 2011-CD-BX-0037
Award Amount: $367,528
Abstract: As forensic science continues to evolve and demands on crime laboratories increase, it is essential that crime laboratory personnel - in all forensic science disciplines - stay abreast of the latest forensic technologies and methodologies. As a result, training, education and certification are keys to Missouri's statewide plan to improve the delivery and quality of forensic science services its crime laboratories provide to the law enforcement communities they serve. Additionally, laboratory accreditation is paramount to the overall success of Missouri's crime laboratories.

The Missouri Department of Public Safety (DPS) will coordinate with the Missouri Association of Crime Laboratory Directors (MACLD) to use Missouri's portion of base funding [$369,929] from the FY11 Paul Coverdell Forensic Science Improvement Grants Program for:

- providing forensic science training and education for the personnel of Missouri's crime laboratories,
- preparation and maintenance of laboratory accreditation, and
- expenses associated with examiner certification.

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

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

FY11 Recipient Name: St. Louis Metropolitan Police Dept. (MO)
Award Number: 2011-CD-BX-0105
Award Amount: $114,552
Abstract: This project utilizes clear-cut goals and objectives. The project objectives are to improve the timeliness of latent casework, reduce the amount of cases in the backlog, and ultimately, assist in the prosecution of suspects. At least 200 backlogged requests for latent print identifications and processing of physical evidence will be completed by the St. Louis Metropolitan Police Department (SLMPD) Laboratory/Identification Division. Latent prints will be searched through the Automated Fingerprint Identification System (AFIS) as determined appropriate by the Latent Print Examiners (LPEs). The addition of grant employees will improve the timeliness of latent casework and increase throughput.

In 2009, the SLMPD reported a total of 7,353 Part I Violent Crime offenses. This is 25% of the State of Missouri's total reported violent crimes. The department reported an average of 7,463 Part I Violent Crimes for 2007, 2008 and 2009.

Grant Latent Print Examiners (LPEs) will assist in performing latent print examinations, complete chemical processing and train newly hired LPE Trainees. The grant Fingerprint Service Technician (Service Tech) will reduce the workload of LPEs by decreasing non-latent casework related duties. LPEs can then concentrate on reducing or eliminating the backlog of latent print requests. Also, this will give LPEs the ability to meet current and future demands for forensic identification services in a timely manner. If a suspect is identified, the SLMPD will do everything in its power to assist the State of Missouri in the prosecution of these identified individuals.

This funding will allow two part-time employees and one full-time employee to be hired. Two part-time grant LPEs will assist in training LPE Trainees as well as assist with requests for latent print comparisons and requests for chemical processing. An additional full-time grant Service Tech will help to drastically reduce the non-casework activities of LPEs. Case working LPEs are required to fill in for the short-staffed Service Tech and Ten Print Technicians (Ten Print Techs). Having an extra Service Tech will prevent LPEs from being pulled off of casework and will allow for the focus to be on backlog reduction. Furthermore, the grant Service Tech could fill in for the Ten Print Techs. This will reduce the LPEs non-casework duties even more. Having three additional grant employees will support the reduction of the backlog and aid in retention of qualified LPEs.

FY11 Recipient Name: Department of Public Safety (MS)
Award Number: 2011-CD-BX-0032
Award Amount: $180,988
Abstract: The goal of the FY2011 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. The Mississippi Crime Laboratory (MCL) proposes to accomplish the goal of the Program by meeting three objectives:

Objective 1 – Continuing education is a necessity in Forensic Science for the dissemination of information, methods, research, and other related educational material. New examination techniques and

instrumentation are continually being developed and forensic scientists must be provided with training and informed of the latest developments in their area of expertise. Certification of examiners and laboratory accreditation requires documented continuing education. Training directly related to the duties of the individual examiner should improve the quality and timeliness of the forensic services provided by the MCL. **$21,524** is requested to provide external training for 15 staff members who are directly involved in providing forensic science services. The training is directly related to the duties of the individual receiving the training and should improve the quality and timeliness of the forensic services provided by the MCL system as well as satisfying certification and accreditation requirements. A broad based training plan has been developed to provide external training of scientists involved in providing forensic services in the various disciplines of the laboratory.

Another important objective of this proposal is to add the forensic examination of questioned documents to the services that the Mississippi Crime Laboratory offers the criminal justice system in Mississippi. Some years ago, MCL had an active Questioned Documents Section with three well qualified examiners. All three left MCL for other opportunities. Qualified QD Examiners are in short supply and until now MCL has been unable to hire another. However, one of the original QD staff wished to come back to Mississippi and has been employed to develop a QD Section in the new Gulf Coast Laboratory. This will be of great benefit to the Criminal Justice System in the state as there has been no Qualified QD Examiner in Mississippi.

A QD Examiner analyzes questioned documents and makes scientific comparisons for legal purposes. Many criminal charges involved in a document examination case fall into the "white-collar crime" category and the numbers of these crimes has seen a dramatic increase. These include identity theft, forgery, counterfeiting, fraud, or uttering a forged document. Questioned documents are often important in other cases as well because documents are used in many different contexts and for many different purposes.

In order to achieve this objective, **$118,754** is requested to provide the equipment necessary to make the new QD Section operational. One instrument essential for a questioned document (QD) laboratory is a **Video Spectral Comparator (VSC) with microscope/digital camera workstation.** The VSC is a multi-spectral imaging system that can separate light into distinct wavelengths. This will allow the non-destructive examination of many documents. The high magnification microscope is essential to every handwriting examination.

Maintaining the Accreditation of the Mississippi Crime Laboratory System by the American Society of Crime Laboratory Directors//Laboratory Accreditation Board (ASCLD-LAB) requires that an annual maintenance fee of $**13,966** be paid, this assures MCL will be monitored by ASCLD-LAB for compliance with accreditation standards.

FY11 Recipient Name: Harrison County Sheriff's Office (MS)
Award Number: 2011-CD-BX-0056
Award Amount: $54,092
Abstract: The Harrison County Sheriff’s Office (HCSO) is a multi-jurisdictional law enforcement and corrections agency, dedicated in its mission to serve and protect the citizens of Harrison County, Mississippi. In order to provide this vital service, constant investment in upgraded technology is imperative. As a unit of local government, the HCSO requests funding through the competitive application process of the Paul Coverdell grant program in the amount of $54,092 to improve its ability to serve citizens with the assistance of forensic technology by: 1) equipping a forensic laboratory with the most current, effective, and efficient evidence processing equipment; 2) utilizing that equipment to increase the number of items of evidence processed; 3) utilizing that equipment to reduce the backlog of

unsolved cases containing evidence that was never processed. This equipment would allow the HCSO forensic technician(s) to process all types of evidence in an environment conducive to efficiency and effectiveness and safety of the forensic technician. Currently the HCSO is unable to process certain types of evidence and has to rely on surrounding police departments for a great deal of support. Having a properly equipped internal forensic laboratory would greatly alleviate our dependence on outside agencies and further increase the quality and timeliness of forensic services as well as reduce the backlog of evidence processing.

The addition of efficient and effective forensic equipment, which includes superglue fuming chamber, a chemical fume hood, a down flow workstation, a DFO/Ninhydrin development chamber, and photography equipment capable of producing quality photographs of latent prints, to our laboratory would ensure that any type of evidence collected at any type of crime scene could be processed efficiently by the latest techniques which would also ensure the best results possible. The HCSO is dedicated to providing our criminal investigators and forensic technician(s) with the proper equipment and technology that will best assist us in the identification of criminals and the exoneration of the innocent. To have evidence processed much more efficiently than before can also save investigators precious time and prevent more crimes from being committed. The acquisition of equipment specifically designed for forensic evidence processing and to employ the latest evidence processing techniques are vital to our ability to offer a case file to the District Attorney's Office that is up to the expectations of modern-day juries, who are greatly influenced by the "*CSI Effect.*"

The funds requested in this application will be used to acquire forensic technology equipment which will improve the quality and timeliness of forensic services and reduce backlog in the analysis of forensic evidence.

FY11 Recipient Name: Montana Board of Crime Control
Award Number: 2011-CD-BX-0039
Award Amount: $166,108
Abstract: The Forensic Science Division Laboratory (FSDL) is the only laboratory in the State of Montana and provides forensic services to all the law enforcement agencies in the State. The State Medical Examiner's Office is also a part of the laboratory. This grant allows expenditures in a number of areas: staff travel and training, equipment and personal services. We are requesting funding for personnel who will improve the quality and timeliness of forensic science or medical examiner services in Montana. The new instrumentation will reduce backlog in several sections of the lab by providing for a more efficient use of technology resources. It will improve the quality and timeliness of forensic science or medical examiner services in the State.

A maintenance contract with the JTrax Company supports our Laboratory Information Management system (database for cases). This is a portion of the cost of maintaining the system required yearly, similarly, renewal of the ADAMS system annual support agreement. This covers phone access to technicians who can assist in technical support and updates for the software on which we store Impression Evidence images.

Funding of this request will allow staff to attend the American Academy of Forensic Science Training Seminar in Atlanta, Georgia in February 2012; also staff to the ASCLD annual conference in September of 2012. Staff will attend the Society of Toxicologists (SOFT) annual meeting in Boston, Massachusetts in June of 2012. Lastly, staff will attend the International Association for Identification (IAI) Conference

in Phoenix, Arizona in July of 2012. Forensic training staff is generally out-of-state because of the remote location of Montana from metropolitan areas where conferences are usually held. Current training is important as the credentials of the forensic scientist are challenged when that person testifies, therefore the quality and timeliness of training is crucial. This grant will pay for the travel, registration and workshop fees for the training above. A supplies budget line item is requested to cover the supplies required for the other grant line items. Included in that request are resources to purchase test ammunition for the Firearms section of the lab.

FY11 Recipient Name: Nebraska State Patrol
Award Number: 2011-CD-BX-0035
Award Amount: $166,108
Abstract: The Nebraska Commission on Law Enforcement and Criminal Justice, the State Administering Agency, has delegated the administration of this grant project to the Nebraska State Patrol.

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

A state plan was collaboratively developed in 2002 between the NSPCL and the UNMC/HDI which authored a collaborative plan to increase forensic laboratory efficiencies. Since that time, the UNMC/HDI and the NSPCL have renewed their commitment to provide exemplary forensic laboratory services. To further that effort, FY11 Coverdell funds will be utilized by both state laboratories to improve the quality and timeliness of forensic services statewide and reduce backlog.

As with most states, Nebraska has been experiencing budget shortfalls. Agencies have not filled vacancies and are operating on reduced budgets. These economic strains are compounded by increased expenses which has hindered their ability to maintain case turn around and/or take advantage of technological advances. The need to replace outdated laboratory equipment and update management processes strains the budget further. Budgets related to continuing education opportunities continue to be reduced and/or eliminated. Coverdell funding will provide the financial resources needed to maintain both laboratories' ability to continue the delivery of quality forensic services, in a timely and efficient manner. The NSPCL and the UNMC/HDI laboratories have both identified areas in their operations where improvements and efficiencies will be created and critical training provided as a result of this project funding.

Specifically, FY11 Coverdell funds will be shared by the Nebraska State Patrol Crime Laboratory and the UNMC/HDI. $50,000 has been allocated to UNMC/HDI and the remaining funds to the NSPCL. UNMC/HDI will use the funds to purchase a Laboratory Information Management System. The NSPCL will use the funds to provide continuing education, to purchase equipment and supplies and to reduce the backlog of forensic cases by continuing to outsource Questioned Document cases. To fund these priorities, budgets for travel, supplies, equipment and contracted services are included.

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

1) Reduce the average number of days from the submission of a case to the forensic science laboratory to the delivery of test results to the requesting agency from 39 to 37.
2) Reduce the number of backlogged cases by approximately 10% from 352 to 315.
3) Train five NSPCL forensic science personnel through their attendance at appropriate training and/or educational opportunities with Coverdell funds.

4) To create efficiencies in the operation of the UNMC/HDI laboratory through the implementation of a Laboratory Information Management System.

The Nebraska State Patrol Crime Laboratory will utilize the Porter Lee Beast Laboratory Information Management System (LIMS) to monitor statistics related to this project. Questioned Document cases are also tracked individually by the Crime Lab Director. UNMC/HDI will be required to submit a progress report on a regular basis. The data collected relating to these matrices will be reported on semi-annual progress reports and the final progress report upon completion of the project.

FY11 Recipient Name: City of Omaha (NE)
Award Number: 2011-CD-BX-0086
Award Amount: $83,141
Abstract: The Omaha Police Department (OPD) is requesting $83,141 to improve the quality and timeliness of forensic science services. The OPD Crime Lab will use grant funds to provide employees with overtime hours to reduce backlogs in firearms and latent print processing, train employees in forensic evidence handling and processing, obtain employee professional certifications, and purchase forensic supplies and equipment.

Firearms processing includes restoring serial numbers on firearms, firing weapons and entering distinctive bullet casing markings into the Integrated Ballistic Identification System (IBIS), comparing firearms casings, and testing firearms functionality. Latent print processing involves entering prints in the national Automated Fingerprint Identification System (AFIS) and the local Nebraska database. The systems assist examiners in locating records of known prints. The state system is a shared database between all law enforcement agencies in Nebraska and has slowed recently due to OPD's backlog. Overtime funds will allow OPD Crime Lab personnel to eliminate backlog and return the system to its intended capability.

OPD will send six (6) Crime Lab employees to training conferences in 2012. These will include the Association of Association of Firearms Toolmark Examiners (AFTE) Conference and the International Association of Identification (IAI) Conference. A veteran employee will attend the AFTE Conference to complete requirements and participate in the firearms examiner testing process. An apprentice firearms examiner will attend the AFTE Conference to complete prerequisite courses and attend sessions relevant to firearms examinations. Employees attending the IAI Conference for latent print examinations testing will fulfill certification requirements and participate in the latent print written exam. Firearms and latent print certifications will ensure the Omaha Police Department (OPD) Crime Lab has capable personnel to reduce firearms and latent print backlogs and ensure backlogs do not develop in the future.

OPD will also expand its Crime Lab reference library to help employees achieve future certifications in various areas of expertise. This will help move OPD toward American Society of Crime Lab Directors/Laboratory Accreditation Board (ASCLD/LAB) accreditation in the future. Certification involves studying required texts, practical testing and valid work experience. Exam question come from required texts. Budget constraints have prohibited purchase of the extensive number of books needed to ensure a complete library is available for study. AFTE certification is based on an extensive array of literature regarding firearms and ballistics history, components, testing, analysis, recognition, and a variety of other historical and forensic topics. Required texts related to general crime scene investigation and latent print examination are also needed. It is imperative that required reading materials are available for study and reference to ensure employees will obtain professional certifications.

OPD will purchase supplies and equipment to assist forensic evidence processing and prevent future backlogs. Maintaining current technological supplies and equipment is essential to processing evidence efficiently and quickly. OPD will purchase newer cameras and related supplies, software maintenance

update packages, and other supplies to use when collecting, processing, preserving and enhancing forensic evidence. New equipment will replace older equipment suffering wear and tear, and will provide unique evidence collection tools. Modern forensic supplies and equipment will increase the efficiency and quality of evidence collection at crime scenes, as well as evidence processing conducted back in the lab. Enhanced equipment and supplies will help personnel reduce current backlogs and prevent future backlogs.

FY11 Recipient Name: Nevada Department of Public Safety
Award Number: 2011-CD-BX-0050
Award Amount: $166,108
Abstract: The Nevada Department of Public Safety (NDPS) plans to improve Forensic Science Services in Nevada by supporting two important Forensic Science programs. The Firearms Section of the Washoe County Sheriff's Office Forensic Science Division (WCSO-FSD) located in Northern Nevada and the Latent Print Detail of the Las Vegas Metropolitan Police Department Forensic Science Division (LVMPD-FSD) located in Southern Nevada.

The WCSO Firearms Section, Integrated Ballistic Identification System (IBIS) is utilized by the 14 Northern counties of Nevada. WCSO-FSD will utilize grant funding in the Firearms Section to support the continued part-time employment of the IBIS technician (funded through 2010 Coverdell Grant) and extending the contract for an additional year with the Contract Firearms Examiner (funded through 2010 Coverdell Grant) who will work toward decreasing the backlog of firearms cases in Northern Nevada and provide training to the Firearms Examiner Trainee.

LVMPD-FSD will utilize grant funding to decrease the backlog of latent prints. The city of Las Vegas is located in Clark County and the LVMPD-FSD serves Clark County and three neighboring counties. Las Vegas is the largest city in Nevada with close to two million permanent residences and receives three million visitors a year, the equivalent to an additional city. In the 2010 Morgan Quitno Press City Crime Rating, Las Vegas was named the 8th most dangerous cities in the United States. With this population the incoming latent print cases average the number of cases processed which has resulted in a steady back log in the Latent Print Detail over the past three calendar years of approximately 600 cases.

NDPS and WCSO would utilize grant funds to continue the funding of a part-time IBIS Technician and a Contract Firearms Examiner in the WCSO-FSD. The addition of the IBIS Technician in the first year of the Firearms Section Capacity Enhancement Project and the addition of the Contract Firearms Examiner in the second year of the project has been instrumental in the laboratory's ability to increase the amount of casework completed and decrease the backlog of cases in the Firearms Section.
The WCSO sole Firearms Examiner in 2009 also left the laboratory unable to perform technical review and verification of identifications in-house. For approximately a year firearms cases were mailed to the Las Vegas lab for verification and technical review.
With funding through the Paul Coverdell Forensic Science Improvement Grant, the WCSO-FSD would continue to employ a highly trained contract Firearms Examiner to provide training, technical review of casework and firearms casework examination while the a part-time IBIS Technician would provide increased case output by decreasing the backlog of IBIS only cases.

The contracted Firearms Examiner provides a crucial role in the Firearms Section Capacity Enhancement Project. His participation allows the laboratory to continue to provide services to WCSO and other agencies while preparing a Firearms Examiner Trainee to provide those services in the future.

NDPS and the LVMPD would utilize grant funds to upgrade printer technology and fund overtime hours to forensic scientist to improve timeliness of forensic results by reducing the number of backlog cases in

the Latent Print Detail. The Latent Print Detail of the LVMPD-FSD has ten forensic scientist positions available; however, for the last four years only eight of those positions have been filled due to department wide budget cuts. During this grant period, due to an upcoming retirement, only seven (7) positions are anticipated to be maintained. Given the expected vacancies in the Latent Print Detail and the financial challenges facing LVMPD over the coming year, backlog reduction can only be achieved through the use of grant-funded overtime and upgrades to printers which will gain increased color fidelity, resolution and faster print time.

Key/Major Deliverables: WCSO-FSD

1 Will utilize the Contract Firearms Examiner to focus on training a new Firearms Examiner Trainee provides the following critical functions for the laboratory;
2. The Contract Firearms Examiner will conduct technical reviews and verification of identifications of firearms examinations performed by the Supervising Criminalist;
3. The Contract Firearms Examiner will be utilized to perform firearms casework examinations.
4. The part-time IBIS Technician will work IBIS and serial number restoration cases thus increasing the number of cases completed and decreasing the backlog.

Key/Major Deliverables: LVMPD-FSD

1. Improve the timeliness of forensic results by reducing the number of backlogged cases in the Latent Print Detail by approximately 70 cases.
2. Improve the quality of latent print detail work produced by improving digital imaging technology.

FY11 Recipient Name: Clark County Nevada
Award Number: 2011-CD-BX-0095
Award Amount: $175,000
Abstract: The Clark County Office of the Coroner/Medical Examiner (CCOCME) investigates all deaths by violence, criminal means, suicide, or any unattended death, whatever the cause, for the 8,060 square miles of Clark County, inclusive of the cities of Las Vegas, North Las Vegas, Henderson, Boulder City, and Mesquite, Nevada.

The incorporated and unincorporated Clark County community comprises over 75% of the state of Nevada's population, experiences nearly 14,000 deaths annually, and the demand for coroner/medical examiner services have continued to steadily increase. Unfortunately, local government response in supplying sufficient staff to manage this demand required downsizing to meet revenue loss projections due to the poor local and national economy. We implemented plans to utilize in house resources to their maximum potential to reduce overall cost and maximize efficiency and effectiveness. However, local and state revenues continue to dwindle and it has become vital for the past two years to obtain additional non-traditional funding resources in order to provide a reasonable level of service to the citizens of Clark County.

The National Association of Medical Examiners (NAME) has developed minimum standards for the annual autopsy caseload for pathologists in order to obtain their accreditation that directly relates to the efficiency at which such cases are processed through the system. At between 250 to a maximum of 350 autopsies per pathologist per year, we estimated we would need a minimum of six and a half full-time

medical examiners on staff. Unfortunately in these lean economic times the goal of adding two additional full-time doctors is not feasible. In recent years our offices was limited to four full-time medical examiners and were compelled to use retired doctors from our office as locum tenens to supplement our staff to make the caseload manageable, limit errors, and maintain reasonable efficiency in providing service in a timely manner.

In addition, our office is not in the position to have full-time forensic anthropology or forensic neuropathology experts on staff without additional funding support. When cases require these services CCOCME submits the decedent's samples to the free anthropological services of the University of North Texas Center for Human Identification, and contracts with forensic neuropathology consultants, respectively. In using both of these services CCOCME experiences delays in the determination of the cause and manner of death of weeks and sometimes months, which delays the closure of cases, creates backlogs of pending cases, and delays family in the final disposition of their loved ones.

On September 27, 2010 CCOCME received the Fiscal Year (FY) 2010 Paul Coverdell Forensic Science Improvement Grant Program (Award #2010-CD-BX-0079) for the State of Nevada. The first six months of data (available at the time of this submission) documented that the addition of one forensic pathologist to our existing staff and having the availability of local forensic anthropology and reserved contract forensic neuropathology services improved the backlog of pending autopsy reports by 54.51%. The turnaround time for the toxicology testing (shipping a sample to the lab and receiving the test results back) saw an improvement of 30.30%, which directly contributed to the overall increase in efficiency and effectiveness of the office.

In order to continue our success thus far achieved with this program in FY 2010 we are competing for the FY 2011 Paul Coverdell Forensic Sciences Improvement Grant Program. We will utilize the funds to continue the services of the contracted forensic pathologists, local forensic anthropologists, and forensic

neuropathology contractors to reduce the wait time for results, and continue improving the quality and timeliness of coroner/medical examiner services in Clark County, Nevada.

FY11 Recipient Name: State of New Hampshire
Award Number: 2011-CD-BX-0043
Award Amount: $166,108
Abstract: Funding under the National Forensic Science Improvement Act grant will be used to enhance the ongoing activities of the New Hampshire State Police Forensic Laboratory and the Office of the Chief Medical Examiner. The New Hampshire State Police Forensic Laboratory is currently the sole provider of traditional forensic laboratory services in New Hampshire and is fully ASCLD/LAB accredited. Funding, under this formula program will be used to enhance the capabilities of the laboratory by arranging for training for forensic laboratory personnel, for an ongoing ASCLD/LAB maintenance contract and for the upgrading of the office Laboratory Information Management System and quality assurance process.

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

FY11 Recipient Name: State of New Mexico
Award Number: 2011-CD-BX-0021
Award Amount: $166,108
Abstract: In preparing the Paul Coverdell Forensic Science Improvement Grant Program application, the State of New Mexico utilized the State of New Mexico Forensic Service Providers (NM-FSP) plan to prioritize initiatives. The application is submitted as a partnership of three New Mexico forensic service providers: NM Department of Public Safety Forensic Laboratories, the Albuquerque Police Department Crime Laboratory, and the New Mexico Office of the Medical Investigator. The State of New Mexico has elected to divide available base funding with 76% going to the Department of Public Safety's laboratory, and 15% going to the Albuquerque Police Department and 9% to the New Mexico Office of the Medical Investigator.

New Mexico Department of Public Safety Forensic Laboratories (NMDPS)

The **goal** of this project request is to utilize grant funds to supplement training/seminar opportunities for forensic staff, provide overtime for forensic disciplines to address backlogs, and to supplement supplies due to increase in service requests of the NMDPS Forensic Laboratory Bureau and a dramatic decrease in revenue funds that have supplemented the Laboratories budget for many years.

Objectives involved in meeting these goals are:
1. To ensure that forensic scientists remain current in their respective fields and maintain their reputations of being well-trained, qualified, and professional.
2. To gain the information and knowledge required to continuously improve the quality and efficiency of the NMDPS laboratories and its services.
3. To identify and implement the latest technological innovations, maximizing analysis capabilities and potential of physical evidence and information reporting.
4. To improve turn-around-time by addressing backlog issues.
5. To assist in purchase of critical supplies for the Laboratory.

Funding is requested for the following purposes:
1. **Overtime**
2. **Contractual Services**
3. **Training**
4. **Supplies/Equipment**

This approach meets the intent of the DPS Forensic Laboratories mission, by maintaining qualified, well trained staff and timely service to clients.

Albuquerque Police Department Crime Laboratory (APD)

The **goal** of this project is to increase and to maintain the quality, currency, and timeliness of existing services at the Albuquerque Police Department (APD) Crime Lab.

Objectives involved in meeting these goals are:
a. To ensure that APD Crime Lab forensic scientists remain current in their respective fields and maintain their reputations of being well-trained, qualified, and professional.
b. To gain the information and knowledge required to continually improve the quality and efficiency of the APD Crime Lab and its services.

c. To identify and implement the latest technological innovations, maximizing analysis capabilities and potential of physical evidence and information reporting.

The above will be met by attending relevant training sessions, seminars, and/or workshops and appropriating any newly acquired, applicable ideas and knowledge to improved functioning and management of the APD Crime Lab.

Office of the Medical Investigator (OMI)

Toxicology testing on individuals examined by the New Mexico Office of the Medical Investigator is performed by the Scientific Laboratory Division (SLD) of the New Mexico State Department of Health, and by a commercial toxicology reference laboratory, National Medical Services (NMS).

The SLD has long been underfunded and understaffed and, with recent budget cuts and Supreme Court decisions requiring increasing SLD staff presence in court, has been critically understaffed. Due to financial constraints, the SLD has limited OMI testing to a much smaller number of drugs on cases where the cause of death is already known (e.g., motor vehicle accidents, hangings or gunshot wounds to the head), but where the impact of drugs used is vital for adequate medico legal death investigation and for epidemiologic and prevention purposes. Even with this limited testing (to only a small number of drugs of abuse) the SLD has failed to achieve an adequate turnaround for toxicology testing for the OMI. Furthermore, the testing is still inferior in scope for what the forensic pathologists need in order to adequately explain the circumstances around why an individual crashed the car, hanged or shot him/herself. Families are left wondering what drove someone to such an act, and since an increasing number of drug overdoses in OMI cases are from prescription drugs (4), this information is now not available unless specimens are referred to a commercial testing laboratory.

Therefore, due to the changes the SLD has made in available testing as a result of budget cuts, the OMI has found it necessary to send even more testing to an accredited reference laboratory (NMS) that has the resources to manage the testing and response time demands of OMI. The average turnaround time for complete toxicology testing at NMS is (10) days, compared to 60+ days at SLD.

FY11 Recipient Name: New Jersey Department of Law and Public Safety
Award Number: 2011-CD-BX-0040
Award Amount: $533,881
Abstract: The New Jersey State Police (NJSP) Office of Forensic Sciences proposes to continue the improvements that the medical examiners, the State and the local forensic and ballistics laboratories, and the crime scene investigations units have begun under previous Coverdell Grants. The plan that this grant builds on is part of the long-term plan to give New Jersey's forensic providers the knowledge and skills needed to initiate and maintain accreditation while improving the quality and timeliness of forensic services in the state. Procuring essential equipment and training is needed to aid in the completion of this goal and funding from this grant will supply the resources to do so. This grant will aid in the completion of the state's short and long-term goals and ultimately ensure the highest possible standard of analysis by all the forensic agencies of New Jersey. Funds from this grant will be used to provide essential equipment for the NJSP Office of Forensic Sciences, the New Jersey Division of Criminal Justice (NJDCJ) State Medical Examiner's Office, and the NJSP Ballistics and Crime Scene Investigations Units.

A competitive grant process for State, county and local forensic and ballistics laboratories and medical examiner offices will enable them to apply for funding in support of the statewide goals and the purposes of the FY11 Paul Coverdell grant. Training, associated travel, and equipment necessary to increase

productivity and the quality and timeliness of forensic science services will be a consideration, in evaluating the local and county initiatives.

FY11 Recipient Name: New York State Division of Criminal Justice Services
Award Number: 2011-CD-BX-0025
Award Amount: $1,371,490
Abstract:

State Base Funds

This proposal seeks base funding in the amount of $1,204,700 less NYS Division of Criminal Justice Services (DCJS) State administrative costs ($120,470). Funding will provide applicants with resources to help continue to improve the quality and timeliness of public forensic and medical examiner services (medical examiner services refers to toxicology only for the purpose of this application). As the state administering agency, DCJS is working closely with New York State's forensic and medical examiner laboratories to improve each laboratory's efficiency and effectiveness in the delivery of forensic analysis services to their client agencies. As a requirement to receive funding under this grant announcement, laboratories were required to submit to DCJS a certification stating that they had an improvement plan detailing how Coverdell funding would help to reduce/eliminate backlogs and improve overall timeliness and quality of forensic and medical examiner services. In addition to the laboratory improvement plan, all laboratories within NYS are required to participate in technical working groups whose purpose it is to improve the quality of forensic sciences within NYS. As presented in the program narrative and budget, much of the Coverdell funds requested will support laboratory equipment and personnel/fringe expenses. The former will primarily help to increase lab efficiency and allow lab staff to complete multiple tasks simultaneously while the latter will support staff hours to help reduce/eliminate case backlogs and to allow more time for the lab to process time sensitive cases. Specific project goals, objectives, tasks, etc. are included in the program narrative portion of the application.

Competitive Funds

This proposal is for grant funding in the amount of $174,603 to provide essential technical training to approximately 495 forensic examiners throughout New York State. Grant funds will support centralized and regional trainings that touch on all grant purpose areas, but especially on improving the quality and timeliness of forensic science and services at the 22 forensic laboratories throughout New York State. This statewide coordination of forensic training alleviates the fiscal burden on laboratories and allows their staffs to spend less time away from the bench. When practicable, the Division of Criminal Justice Services (DCJS) will emphasize "train the trainer" attendance at these classes to ensure that the training materials can be replicated in laboratories. In the current fiscal climate, this is necessary to attempt to ensure the sustainability of the trainings.

FY11 Recipient Name: County of Erie (NY)
Award Number: 2011-CD-BX-0106
Award Amount: $174,590
Abstract: The Erie County Medical Examiner's Office (ECMEO) is seeking funding to continue to integrate all areas of the office to operate at current standards of excellence in forensic data acquisition and processing. This will include obtaining state-of-the-art laboratory equipment complete with hardware and software packages and providing opportunities for personnel certification and staff training.

The project will serve to:

1) Meet accreditation requirements of the National Association of Medical Examiners (NAME),
2) Complete cases in a more efficient manner in order to reduce the current backlog.

Based on a NAME accreditation inspection and an efficiency evaluation of our office protocols, the ECMEO has identified the following needs toward fulfilling these objectives:

• Equipment updates for dental identification
• Equipment updates for routine histology
• Consultation to monitor and maintain progress toward goals of best practices and office accreditation
• Personnel certification and staff training

Addressing these needs will enhance the office's capacity to improve quality and efficiency and to continue to progress toward accreditation, while providing timely analysis of new cases. To that end, the ECMEO requests funds to upgrade old and integrate new laboratory equipment to achieve state-of-the-art forensic data management technologies.

Identifying the unknown:
It is the responsibility of the ECMEO to obtain a positive identification of unidentified deceased individuals. An important program in which the office participates in this regard is NAMUS – a national database for tracking unidentified individuals. One well-established form of positive identification (and data that is specifically requested in the NAMUS profile) is through dental comparison analysis. Dental charting and dental x-rays are currently accomplished by our consultant, a Forensic Odontologist. In today's market, digital technology is making the process of obtaining and developing dental x-rays obsolete. As such, the ability of our office to keep in step with current trends in this arena is not just a desire, but a necessity.

Under the microscope:
Specimens are routinely retained for histology, blocks are prepared for each case, smears stained, and tissue slides cut and stained as required. Certain of our histology techniques will be updated to correspond with newer, more efficient technologies. Streamlining of tissue processing will enhance reproducibility and reliability as well as result in an improved end-product in a more timely fashion.

Keeping on track:
At the ECMEO, medical examiner personnel including medical examiners, medical and scene investigators, toxicologists and other staff are engaged in the day-today operation necessary in maintaining the office on a 24/7 basis. The office cannot steadily progress toward NAME certification with the current staffing model. A Training Coordinator/Grant Manager is integral in our efforts of using funding to become accredited as well as to become a streamlined efficient office.

Well-trained team:
Finally, staff training will be implemented as necessary to become proficient with and to safely use newly acquired equipment. Due to county restrictions in hiring of new personnel, it is essential that staff be flexible and adaptable to integrate multiple job functions throughout the office. Personnel certification/recertification will be provided, as necessary, to meet American Board of Pathology (ABP), American Board of Medicolegal Death Investigator (ABMDI), American Board of Forensic Toxicologists (ABFT) and/or NAME standards for accreditation.

FY11 Recipient Name: County of Suffolk (NY)
Award Number: 2011-CD-BX-0097
Award Amount: $175,000

Abstract: The Suffolk County Crime Laboratory is requesting federal grant funds to replace the current scanning electron microscope/energy dispersive spectrometer system. The laboratory's current aging system requires excessive repairs for unforeseeable maintenance issues. Replacement parts have become difficult to obtain and are no longer feasible due to the obsolescence of system components. This would enable the laboratory to run routine primer gunshot residue analysis in a more timely fashion and expand the scanning electron microscope's capabilities from an instrument primarily used for primer gunshot residue analysis to an instrument for imaging and elemental analysis of additional types of evidence. The scanning electron microscope capabilities for analysis of other evidence types along with the imaging enhancement of a new scanning electron microscope will strengthen the laboratories ability in examination and analysis.

The program includes the purchase of a new variable pressure scanning electron microscope with secondary electron and backscattered electron detectors, new PC workstation computer system with the latest versions of software, including operating systems, elemental analysis software and primer gunshot residue particle analysis software.

FY11 Recipient Name: Monroe County (NY)
Award Number: 2011-CD-BX-0077
Award Amount: $153,460
Abstract: The Monroe County Office of the Medical Examiner (MCOME) is a regional office that provides forensic death investigation and autopsy services for a twelve county region of New York State. In 2009, we were awarded Coverdell funding which helped to enhance technology and training in our office by providing upgraded medical transcription equipment and continuing education for our staff. As we progress toward our goals of providing the highest quality of forensic services possible and becoming accredited by the National Association of Medical Examiners (NAME), it is imperative that we have equipment that functions properly and a staff that is thoroughly trained in current technologies. This application addresses the present state of our operation and the areas that can be improved within the twelve month period of the grant.

The goals of this project are to:

- Improve the quality of our services by upgrading equipment, including an X-ray system that is almost 20 years old, microscopes that lack polarizing capability, and digital cameras for photo documentation.
- Advance the knowledge and expertise of our staff by providing continuing education and library materials for pathologists and investigators.
- Compensate for some of the loss of New York State funding by providing personal protective equipment and supplies for collection and retention of DNA samples.

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

FY11 Recipient Name: North Carolina Department of Crime Control and Public Safety
Award Number: 2011-CD-BX-0047
Award Amount: $578,270
Abstract: A consortium composed of three crime laboratories in North Carolina (the North Carolina State Crime Laboratory, the Charlotte-Mecklenburg Police Department Crime Laboratory, and the City-

County Bureau of Identification Crime Laboratory) and the Office of the Chief Medical Examiner has established a multi-year state plan to improve forensic services in the state.

The first goal of the member agencies for the use of the 2011 funding is 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.

A portion of the funds will be used for the necessary training, including registration costs and associated travel, of analysts to facilitate the increased professionalism and knowledge base of the forensic staff. Funds will also be used for the payment of fees and dues to either obtain or maintain laboratory accreditation.

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

FY11 Recipient Name: North Dakota
Award Number: 2011-CD-BX-0042
Award Amount: $166,108
Abstract: The Office of Attorney General, Crime Laboratory Division provides scientific support to the state's criminal justice system by use of accepted techniques in the analysis, identification, and comparison of physical and toxicological evidence involved in the investigation and prosecution of criminal offenses. The ND Crime Laboratory currently has eighteen employees. The ND Crime Laboratory is a full service Laboratory that processes over 10,000 criminal cases a year, which include the disciplines of arson/explosive debris analysis, blood/breath alcohol analysis, offender data basing, DNA, drug analysis, firearms/tool marks examinations, latent fingerprint development, and toxicological analysis. The Crime Laboratory staff also holds training classes to assist law enforcement agencies in pursuit of their daily duties.
The only government agency that will receive Coverdell award funds is the North Dakota Office of Attorney General, Crime Laboratory Division. The North Dakota Attorney General has general investigatory powers relative to actions or omissions of state agencies. Investigations of such allegations are conducted by the North Dakota Bureau of Criminal Investigation. In addition, the North Dakota Bureau of Criminal Investigation Division has a memorandum of understanding with South Dakota Bureau of Criminal Investigation to perform external investigation if requested.

Funding will be used to complete two objectives:
1) Purchase equipment to enhance laboratory analyses and operations and
2) Provide continuing education for forensic scientists within the laboratory division

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

FY11 Recipient Name: Ohio Office of Criminal Justice Services
Award Number: 2011-CD-BX-0053
Award Amount: $705,017
Abstract: The Ohio Office of Criminal Justice Services, the State Administering Agency (SAA) for Paul Coverdell Forensic Science Improvement Grants Program funding within the state of Ohio, is applying for Fiscal Year 2011 Paul Coverdell dollars on behalf of eleven eligible state and local crime laboratories.

Ohio's application for fiscal year 2011 funds focuses on four main objectives:
Project Objective I: For employment of qualified personnel to assist in the reduction or elimination of backlog in the area of analysis of forensic science evidence.

Project Objective II: 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.

Project Objective III: 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.
Project Objective IV: To contract with experienced vendors who offer essential forensic training and technical assistance to maintain the standards of ASCLD/LAB accreditation.

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 laboratory operations. It is evidence of such participation that inspectors for national accrediting organizations monitor.

In order to meet these principles, it is important that forensic organizations have the ability to employ qualified staff who can reduce or eliminate analysis of forensic science evidence backlog. Also, it is necessary that agencies have the means to calibrate and maintain certain equipment, purchase equipment that allows them to expand current capabilities, and attend training opportunities that will place them on the forefront of forensic science advancement.

FY11 Recipient Name: Montgomery County (OH)
Award Number: 2011-CD-BX-0063
Award Amount: $162,736
Abstract: The Miami Valley Regional Crime Laboratory (MVRCL) is submitting this proposal for the purpose of improving the quality of our drug analysis services to law enforcement agencies in southwestern Ohio. If awarded, funds would be used to purchase a gas chromatograph/infrared spectrometer (GC/IR). The GC/IR will be added to the existing battery of instrumentation. The objective of purchasing this instrument is to supplement an infrared instrument that is inadequate and difficult to use with the goal to increase the timeliness of drug identification requests. Additionally, we will be able to meet the guidelines set forth by SWGDRUG (Scientific Working Group for the Analysis of Seized Drugs). Currently, we are not able to meet this guideline for all analysis protocols.

The GC/IR purchase will incorporate a library, auto sampler and user training. This unit will be used by the analysts in the Drug Chemistry Section and Trace Evidence Section. The analysts in the Drug Chemistry Section will analyze evidence using the GC/IR to identify controlled and non-controlled substances submitted to the laboratory.

The analysts in the Trace Evidence Section will use the GC/IR to identify and compare unknown substances in a variety of criminal cases.

FY11 Recipient Name: Oklahoma District Attorneys Council
Award Number: 2011-CD-BX-0028
Award Amount: $227,694
Abstract: In Oklahoma, rather than a single agency that conducts all forensic science services, numerous law enforcement agencies provide forensic science and/or medical examiner services in one, or more than one, of the 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 four (4) state and local forensic science labs. The labs include the Oklahoma State Bureau of Investigation (OSBI), the Tulsa Police Department (TPD), the Office of the Medical Examiner (OCME), and the Broken Arrow Police Department, (BAPD).

The State of Oklahoma is eligible for $229,182 under the FY2011 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 $22,918.20, of the allocated funds for personnel costs and operating expenses needed to implement the grant program. The remaining funds will be allocated to the four participating labs based on the number of full time analysts at the individual lab compared to the total number of analysts for all participating labs.

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

In addition, funding will be used for equipment by the OCME to procure or replace outdated equipment. The OSBI will additionally use funding for personnel and benefits to pay the overtime for personnel to process case backlogs.

FY11 Recipient Name: Oregon Department of State Police
Award Number: 2011-CD-BX-0029
Award Amount: $235,709
Abstract: The scope of this proposal is to increase efficiency in all forensic disciplines and the quality management system. This will be done with the implementation of an integrated, single- pointinput/ access, digital data management system and by providing continuing education and training opportunities. The primary objective is to evaluate current forensic analysis workflow and the quality assurance data management system to identify bottlenecks and workflow barriers, and to optimize workflow and digital data management through the implementation of an integrated, single-point-input/access digital asset management system. Secondly, we will provide training and continuing education opportunities to forensic scientists to assist with obtaining competency or to maintain proficiency.

The Oregon State Police, Forensic Services Division is moving towards a paperless case and quality assurance management system. To meet this goal and objective 1, we will contract an enterprise solutions company to evaluate our current forensic analysis workflow from evidence receipt to release of report, and our data management processes to identify bottlenecks and workflow barriers. We will then optimize workflow and implement an integrated, single- pointinput/access digital data management system.

Currently, we utilize multiple databases and software applications for digital asset data management. We also use paper documentation for case notes and many quality assurance records. For evidence chain of custody, we utilize JusticeTrax. We also use five digital image databases, 21 Access databases for various inventories, standards, reagents and quality assurance record tracking (e.g., controlled substance and firearms inventories, proficiency/competency test, training and testimony tracking), four AFIS units and an archaic document control application. In addition, we continue to print paper records and file this documentation in various locations. Information maintained in these databases and paper files contributes to casework and quality management records. To input or access information for any case, one may need to open multiple databases, a image file or dig through paper files all of which is time consuming and inefficient.

Using our existing infrastructure components (e.g., servers, workstations and JusticeTrax), our multiple digital asset management systems will be unified, paper documents converted to digital and then all integrated into a single-point-input/access digital asset management system. Thus, for any case, one will be able to input or access all information related to that case from a single-access point. Specifically, funds from this grant will support a contract to an enterprise solutions company to perform an infrastructure assessment followed by the purchase, installation and testing of server and client workstation software, employee training, data conversion or data interface integration, discipline workflow assessments, and design and implementation of new workflow modules. In addition to 2011 Coverdell base funds, we have requested 2011 Coverdell competitive grant funds and 2011 DNA Backlog Reduction grant funds to help achieve this goal.

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

Support of this proposal will provide an integrated, single-point-input/access digital asset management system that will streamline workflow and increase efficiency of all forensic disciplines. Analysts will be able to input and access all case related information from a single point. In addition, we will provide training opportunities to maintain a proficient, confident workforce. The subsequent expected outcome will be increased productivity, decreased turnaround times and thus, more timely quality service to our customers.

FY11 Recipient Name: City of Central Point (OR)
Award Number: 2011-CD-BX-0081
Award Amount: $166,500
Abstract: Each year more Americans are accessing the Internet and relying on electronic devices to help them manage their lives, finances, entertainment, education, and businesses. With this, comes the increased use of electronic devices to commit or conceal criminal activity. Today, there is no crime category that digital evidence doesn't touch and every law enforcement agency whether they have two, or two thousand officers needs to have access to digital forensic laboratories.

The Southern Oregon High-Tech Crimes Task Force (SOHTCTF) is a regional, multijurisdictional task force situated in Southwest Oregon and was originally created by the Central Point Police Department in 2005. The SOHTCTF has an exceptional history and reputation with a 100% conviction rate and it is the only non-federal stand-alone law enforcement digital forensics laboratory accredited by ASCLD/LAB Legacy Program in the world.

The economic recession has created exceptional hardships for the SOHTCTF. Oregon is home to only two accredited digital forensic laboratories, the SOHTCTF and the FBI's Regional Computer Forensics Laboratory (RCFL) in Portland, Oregon (5 hours north of the SOHTCTF). The SOHTCTF receives absolutely no state funding or consistent federal funding toward operational expenses, leaving it up to primarily the City of Central Point (a city with a population of 17,025 people) to fund the laboratory.

With the lack of funding, the board of directors for the SOHTCTF has decided to discontinue accepting evidence from any non-participating or non-contributing agency (law enforcement agencies that neither provide personnel or funding assistance to the task force). This difficult decision was made because those agencies that do participate can no longer afford to financially support the forensic examination of digital evidence for other law enforcement jurisdictions. For fiscal year 2011-2012 not a single Oregon law enforcement agency has had the ability to financially support the task force by providing any funding to assist in the maintenance of forensic hardware, software, or training. The 53 agencies our task force used to support is now down to the eight agencies that participate, leaving the other 45 agencies without a regional digital forensic resource.

The SOHTCTF has proven to be an invaluable resource to law enforcement agencies across Oregon and beyond. Unlike many states, the state police crime lab who provides traditional forensic laboratory services (DNA, fiber, ballistics, etc.) does not provide any digital forensic services to law enforcement agencies. This leaves law enforcement agencies to find alternative resources for digital forensics, such as the Southern Oregon High-Tech Crimes Task Force.

For fiscal year 2011-2012, the adopted materials and services budget for the SOHTCTF is $117,828, which includes the anticipated expenses for this fiscal year. Of that amount, only $64,000 of it is actually funded. Without grant revenue or some other steam of income, our task force will see a budget deficit of $53,538. The amount of the budget that is funded is for absolute necessities such as phone, utilities, Internet, and other contractually obligated expenses. There is currently no money to add capacity to our servers, renew software licenses, examiner training, or other desperately needed items. The SOHTCTF is seeing an increased demand for services (up 54% from last year alone), but a reduction in funding.

Receiving the Paul Coverdell grant would allow the SOHTCTF to renew software licenses, upgrade forensic equipment, provide training to examiners, and most of all, accept additional casework and reduce the backlog of current cases in the forensics laboratory. This funding would not only assist our task force, but federal, state, and local law enforcement and prosecutorial agencies across Oregon.

FY11 Recipient Name: City of Eugene (OR)
Award Number: 2011-CD-BX-0088
Award Amount: $40,000
Abstract: The Eugene Police Department's (EPD) Forensic Evidence Unit (FEU) proposes to optimize knowledge in all forensic disciplines, to improve case work production while increasing efficiency, and to enhance the quality assurance (QA) program to ASCLD/LAB accreditation criteria through the Paul Coverdell Grant. The objective of this proposal is to improve the quality and timeliness of forensic services concurrent with mitigation of backlogged cases in the EPD FEU laboratory.

To ensure success, this project seeks to provide:

1. Critical training to EPD FEU staff designed to facilitate demonstrated improvement in the skills needed for on-going elimination of case backlog, and/or obtain competency and/or maintain proficiency leading to certification.

2. Adequate resources to improve and facilitate on-going quality and/or timeliness of forensic services through preparation and achievement of ASCLD/Lab accreditation.

To meet project objectives, EPD FEU staff will increase knowledge and skills through participation in various in-state and out-of-state training opportunities specific to improving forensic evidence analysis that will enhance quality and timeliness. These critical trainings are necessary to assist in the prevention/mitigation of backlog, obtain competency, maintain proficiency and achieve certifications. Trainings include ***Introduction To Forensic Video Analysis*** *(Ocean Systems sponsored),* LEVA Level 1 - ***Forensic Video Analysis and the Law***
(LEVA sponsored), ***Digital Imaging of Evidentiary Photography,*** and ASCLD/Lab preparation training courses.

Support of this proposal will result in:
1. A proficient and more qualified forensic science workforce;
2. Improved quality of forensic laboratory services as demonstrated by obtaining ASCLD/Lab accreditation and acknowledgement;
3. Improved timeliness as demonstrated by the ability to increase processing output and/or decreased case backlog reoccurrence.

Without this federal funding, due to long-term local and state projected budget constraints, there are few resources available to complete this project. The economic strain compounded by increased operating costs, have hindered the agency's ability to complete the needed training in a timely manner, which continues to prolong achievement of accreditation.
Funding this proposal will ensure EPD FEU continues to improve and provide quality forensic results in a timely manner to their customers and the citizens of Eugene, Oregon.

FY11 Recipient Name: City of Portland (OR)
Award Number: 2011-CD-BX-0066
Award Amount: $172,383
Abstract: The Portland Police Bureau is the largest police agency in the state of Oregon. The Bureau, with over 900 sworn members and 300 non-sworn members, serves a metropolitan population of 583,776. For calendar years 2007, 2008, and 2009, the City of Portland averaged 3,417 Part 1 violent crimes per year, nearly one third of all violent crimes in the state.

The Bureau's organizational goals include developing and encouraging employees and improving work processes. To this end the Bureau's Forensic Evidence Division (FED) has begun converting its crime scene photography from 35 mm film to digital imaging technology.

Phase one of the conversion is to purchase digital cameras for bureau members in the field and a state of the art digital management and print ordering system. The new system is expected to halve the time it takes to make photographic evidence available to the bureau's stakeholders (police officers, detectives, District Attorneys and a variety of other agencies that rely on FED for photographic evidence). This project is made possible with the award of FY 2010 Paul Coverdell Forensic Science Improvement Grant funding.

Phase two of the conversion is possible with grant funding for the purchase of a high resolution (360-degree) panoramic digital laser imaging system with three-dimensional laser scanning and digital mapping capabilities. The system will capture major crime scenes digitally, take measurements of the entire scene in minute detail and create a three-dimensional walk through

of the scene as first responders found it.

Current processes for measuring and diagramming a scene are antiquated, unreliable and work intensive. Under current conditions it takes approximately four hours to accurately diagram and photograph a major crime scene. A court presentation takes an additional 40 to 80 hours. Projections show a decrease in processing time of approximately 60 percent by transitioning to a high resolution panoramic digital laser imaging system. Investigators will be able to accurately review major crime scenes after the fact. Criminalists will be able to review the crime scene and conduct post event forensic analysis with three-dimensional representation.

Measurements may be made months, even years, after the crime was committed. Detectives and prosecutors will be able to examine the scene and have close up examinations of the evidence from almost any angle or viewpoint.

In order to achieve the Bureau's goal, the City of Portland is requesting $172,383 in funding from the FY 2011 Paul Coverdell Forensic Science Improvement Grant Program.

FY11 Recipient Name: Lane County Oregon (OR)
Award Number: 2011-CD-BX-0073
Award Amount: $140,592
Abstract: The Lane County Sheriff's Office in Eugene, Oregon requests $140,592 to fund equipment, personnel, and training to reduce a backlog of forensic evidence related to missing and unidentified persons. The purpose of this project is to improve the timeliness of the collection, analysis, and entry of forensic evidence into the National Crime Information Center Missing and Unidentified Persons Databases. Oregon has a total of 1,125 active missing persons cases in NCIC, 562 individuals over the age of 18 years, and 563 juveniles under the age of 18 years. In addition, Oregon has a total of 46 unidentified persons entered in NCIC. Law enforcement agencies in Lane County have 116 active cases in NCIC.

Missing persons are often the victims of violent crimes. National Institute of Justice (NIJ) recently referred to the problem of more than 100,000 missing persons as 'a mass disaster over time'. However, Lane County's ability to follow up on missing person cases is limited due to staff reductions and lack of specialized training. In May 2008, 97 positions, (25% of the total workforce) were eliminated in the Lane County Sheriff's Office (LCSO), including 42 sworn officers and 55 civilian staff. The 42 sworn officers included the Training Sergeant. Most of the LCSO training budget was eliminated at the same time. In July 2011, six additional sworn officer positions will be eliminated.

While Lane County's ability to follow up on missing person cases is less than optimal, the Department's *commitment* to solving missing person cases remains very strong. Recently, the LCSO Volunteer Cold Case Unit, in collaboration with local law enforcement agencies, pooled small sums of funding from multiple sources, including a local Crime Stopper grant, to produce a "52 Unsolved Homicide and Missing Person Cases" deck of playing cards that includes photos of missing persons, a brief history of the case and contact phone numbers.

Within days of the deck being released, three individuals contacted the LCSO to volunteer DNA samples or information related to cases.

Our proposal is to hire two highly qualified individuals on a limited duration contract to perform data collection, analysis, and data entry of forensic evidence to decrease the current backlog in missing person cases. This project will fund much-needed training to enable staff to maintain the missing person forensic

data after the end of the grant period. Contract staff will develop written guidelines for proper collection and data entry of forensic evidence in missing person cases. This information will then be used to provide training to all law enforcement agencies in Lane County and other interested agencies throughout the State of Oregon. Funds will also be used to secure adequate technological resources to improve the quality of service provided by the Lane County law enforcement agencies.

The objective of this project is to improve the compliance rate and timeliness of collection, analysis, and entry of forensic evidence in missing persons cases in Oregon. Project outcomes are: collection and entry of dental information in ≥75% of missing persons cases in Lane County; collection and entry of DNA in ≥75% of missing persons cases in Lane County; ensure that all "possible Match" messages are reviewed by qualified personnel; enter all Lane County cases in National Missing and Unidentified Persons System (NAMUS), a new (2009) searchable data base for dental records, DNA, and medical information regarding missing and unidentified persons; match missing and unidentified persons records; create written guidelines for collection and entry of missing persons forensic evidence; train five staff members to become proficient in handling missing persons forensic evidence; and provide trainings to other law enforcement agencies in Oregon.

FY11 Recipient Name: Pennsylvania Commission on Crime and Delinquency
Award Number: 2011-CD-BX-0017
Award Amount: $772,306
Abstract: The Pennsylvania Commission on Crime and Delinquency (PCCD) will use a portion of its FY 2011 Coverdell allocation to build upon the earlier developed and implemented web based laboratory pre-logging application capable of electronically recording receipt and transmission of findings, to now interface with existing criminal justice records management systems. With this funding, Pennsylvania's Open Laboratory pre-Log Service (POLLS) project will further extend the web-based pre-log application (developed under FY 2007 & 2008 Coverdell funding) to include support for open automated electronic data sharing between multiple vendor provided local police Evidence Management Systems (EMS) and Records Management Systems (RMS) and the Pennsylvania State Police hosted statewide LIMS pre-logging application.

We also plan 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.

FY11 Recipient Name: Instituto de Ciencias Forenses
Award Number: 2011-CD-BX-0036
Award Amount: $231,819
Abstract: The Puerto Rico Institute of Forensic Science (PRIFS) is an ASCLD-LAB, FBI, ACGME, and NAME accredited, full-service forensic facility. FY2011 Paul Coverdell funds will be used to provide continuity under contract to a qualified forensic Laboratory Information Management System (LIMS)-Database specialist to oversee the implementation of a Web-Based LIMS at the PRIFS, with the aim of 1) drastically enhancing our electronic information sharing capabilities with criminal-justice-system stakeholders at the local and federal level, 2) enhancing information sharing with the Puerto Rico Primary Fusion Center, 3) generate turn-around time/performance indicator data/productivity statistics for process enhancement, 4) generate backlog data, 5) generate audit trail data, 6) generate crystal reports, etc., etc. Additionally, one state-of-the-art spectrometer for elemental analysis will be acquired to replace an inefficient and anachronic emission spectrometer (Arc based) from the 1940s at the Forensic Chemistry

section. Funds will also be used to bring a Ph.D. level scientist to provide a conference on Under-Water Crime Scene that will be offered during the 2nd Annual Symposium of Forensic Science of Puerto Rico in October 2011. Also, a Ph.D. level student will continue to be contracted on a part-time basis to provide assistance to our Quality Assurance Manager with accreditation-related activities. Lastly, funds will be requested to acquire forensic tools for the Digital Evidence / Multimedia section to extract forensic evidence from cell phones, iPhones and iPods, as well as a license to obtain forensic-tool upgrades from the d-tective forensic bundle. Lastly, funds will be requested to cover for the annual ASCLD-LAB Accreditation fee.

FY11 Recipient Name: Rhode Island Public Safety Grant Administration Office
Award Number: 2011-CD-BX-0030
Award Amount: $166,108
Abstract: Rhode Island has used its Coverdell funding to embark on an accreditation readiness program. Rhode Island laboratories began the accreditation process with the Coverdell 2002 award. The exercise has required that the State Crime Laboratory at the University of Rhode Island and the State Forensic Science Laboratory at the Department of Health meet or exceed the required forensic laboratory standards that have been identified by international accreditation standards (ISO 17025).

Effective April 9, 2007, the RI State Crime Lab 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 it expects to be re-accredited to a second four year term.

To maintain accreditation it is necessary to have a Quality Assurance Officer available in the Laboratory. 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 2011 Coverdell award will fund this position from October 1, 2011 through the federal fiscal year which ends September 30, 2012 at 70.9626 percent of the current rate of pay with fringe benefits or $63,767. The total cost of this position is $89,860 including $57,407 in salary and $32,453 in fringe benefits.

The Rhode Island Public Safety Grant Administration Office will retain $7,085 in administrative funds to contribute to the salary and fringe benefits of the grant administrator.

FY11 Recipient Name: City of Warwick (RI)
Award Number: 2011-CD-BX-0074
Award Amount: $104,000
Abstract: The City of Warwick Police Department is a law enforcement agency which serves and protects the residents of the State of Rhode Island's second largest city.

During the FY 2009 and 2010, the Warwick Police Department experienced severe budget cuts. Approximately one million dollars was cut from our budget, which has had a tremendous effect on the amount of equipment the department has been able to purchase. In addition, the department has recently decreased its sworn personell from 180 to 155 to assist in the financial condition. This has created an increase in job responsibilities for all personnel.

The purpose of this proposal is to obtain two systems which would greatly improve the quality and timeliness of forensic services, thereby eliminating the backlog of latent print work within the department's forensic lab. The use of digital imagery has become accepted practice in criminal investigations.

The department does not send out evidence for latent print processing as do smaller jurisdictions within the state. The department maintains a fully equiped latent print lab to complete this task.

In addition to these duties, the forensic lab personnel, process, and document evidence for submission to the Department of Health Forensic Biology Laboratory –DNA Lab; the State of Rhode Island Crime Laboratory – Trace and Firearms sections; and assists the Office of State Medical Examiners in death investigations.

The first request, is for the acquisition and training associated with a Digital Imaging Database system which will allow timely department wide downloading of crime scene, evidence photographs, and other digital evidence. It will also aid in the securing of digital assets for an audit trail and securing evidence according to best practices. The system will support the timely submission of photographs as supporting documentation to the State Forensic Labs and ME's Office.

The department moved to full digital photography in 2005. At that time, the department relied on CD's to store all photographs including photographs from the Department Forensic Lab and crime scenes. Since that time the department has not developed a redundant and archival solution according to best practices as identified by **Scientific Working Group on Imaging Technology**.

The current process is labor intensive which takes time away from actually conducting lab duties.

Secondly, this proposal requests to obtain and train staff with a Cogent Latent Print Database workstation. The State of RI maintains it's fingerprint files electronically. However, the forensic lab does not have access. The trained fingerprint investigators therefore have to track down hard copy arrestee fingerprint cards from area departments or the attorney generals office which is in another city. This process is time consuming and with these digital image duties a latent print backlog has developed. The acquisition of a Cogent Latent Print station would improve the timeliness of latent print work within the Warwick Police Forensic Lab.

Overall, the systems will allow for faster case and evidence review by the Forensic Lab. It will allow more time to be spent on processing, documenting, and comparing latent prints. Evidence submissions with supporting photography documentation to the State of Rhode Island Crime Lab, Department of Health DNA Lab, and death investigations with the State Medical Examiners Office, will also be streamlined.

This project will satisfy the goal of improving the quality and timeliness of work done within the Warwick Police Department's Bureau of Criminal Identification – Forensic Lab, while also contributing to reducing the backlogs at the State Crime Labs and RI State Medical Examiners Office.

The acquisition of the two systems would total $ 104,000.

FY11 Recipient Name: South Carolina Department of Public Safety
Award Number: 2011-CD-BX-0023
Award Amount: $166,911
Abstract: BASE FUNDS:

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

expanded the solicitation beginning in FY2005 to include all forensic labs that would be eligible under the guidelines.

The need to decrease the number of backlogged cases at SLED, as well as in regional laboratories, is evidenced by the numbers of cases that have not been processed. SLED processes approximately 65,000 requests yearly. At present they have a backlog of 4,247 cases in six separate forensic departments. Based on the needs of the individual departments, overtime hours will be needed to reduce these backlogs.

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

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

Project Goals and Objectives

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

COMPETITIVE FUNDS:

The South Carolina Law Enforcement Division (SLED) Forensics Laboratory proposes a plan to improve the quality and timeliness of forensic examinations by acquiring digital image management software to supplement current capabilities of the Laboratory Information Management System (LIMS). As with most forensic laboratories throughout the country, photographs and other digital images are a significant part of the SLED forensic case record and are critical to the investigation and prosecution of violent and nonviolent crimes. Digital photography has made the use of photographs more convenient for forensic scientists. Digital images of scanned case records, created outside of or predating the LIMS, may be added to the LIMS allowing ALL Laboratory case records to be maintained in one location. However, digital images present challenges in the areas of timely delivery, chain of custody, security, and integrity. SLED proposes acquiring digital image management software to securely store photographs and other digital images in the LIMS. Through the acquisition of this software, the time for forensic scientists and customers (law enforcement, prosecutors, and coroners) to access digital photographs and other digital images will be reduced. The reduction in throughput times will result in improvements in timeliness and quality of the examination, investigation, prosecution of the case, and the reduction of the laboratory backlog.

FY11 Recipient Name: County of Greenville (SC)
Award Number: 2011-CD-BX-0076
Award Amount: $12,590

Abstract: Greenville County government is seeking a grant for the Forensic Division with the objective of acquiring an alternate light source for the division. This alternate light source can be used both on the crime scene and in the laboratory. It is a necessary piece of equipment to detect and recover DNA evidence in many instances. Funding the amount of $12,590 is requested for the acquisition of equipment needed for this project.

The goal of the project is that the Greenville County Forensic Division Laboratory will have the availability of an alternate light source to use in the laboratory and in the field on crime scenes for the detection of DNA evidence, latent print evidence and a variety of trace evidence.

Upon award of grant funds, the County will acquire the proposed equipment through the County's approved procurement process. All equipment is anticipated to be acquired and/or implemented within the first six months of the project period. Financial and Progress Reports will be submitted according to the Department of Justice guidelines.

FY11 Recipient Name: City of Spartanburg (SC)
Award Number: 2011-CD-BX-0078
Award Amount: $55,000
Abstract: The citizens of the City of Spartanburg experienced high crime rates for a number of years. Over the last few years we have seen crime decrease as we have increased technology through grant programs and continued to implement community policing. Part I Crimes have been the following over the past four years: for 2007 – 4,403, 2008 – 4,402, 2009 – 4,191 and 2010 – 3,750. The average of the three requested years of 2007, 2008 and 2009 is 4,332.
The City of Spartanburg is applying for a digital image management system. The system will allow for the storage of images, photos, reports, documents, drawings, and narratives. The data comes from crime scenes. Around 2003, the City of Spartanburg began using digital cameras to document crime scenes. Pictures are entered from one work station with no ability to be retrieved or reviewed from other workstations. The data is stored by case number and is cumbersome to retrieve. Because the current storage system does not allow for the original being saved, there is concern that current procedures for archiving of digital photos could be challenged in a court of law. The funds proposed in this project will be used by the City of Spartanburg Public Safety Department to continue to implement the Mission of the Department, which is the following:

> "We, the Public Safety Department of Spartanburg, are committed to providing high quality Police and Fire services in partnership with the community through dedicated efforts and innovative programs." The objective of the project is to further our ability to meet this commitment by improving the quality of forensic evidence by:

1. Purchasing a system for digital image storage that will provide for easy access and review by officers, supervisors, and prosecutors,
2. Provide a system where the original can never by altered;
3. Provide a system that allows for enhancing copies of the original photos that will be used as evidence in prosecution;
4. Provide for digital images to be stored and archived in such a manner to not be challenged in a court of law.

The Performance Measures will be the following:
Outcome Measures

1. To provide quality digital data for prosecution of cases with 100% of new data being stored with an original unaltered copy.
2. To provide for a 100% improvement in the view of digital images by utilizing the digital image management system that will allow for enhancing a copy of the photo.
3. To provide for a 100% improvement in the access for digital images by prosecutors and supervisors from other desktops through a system that is retrievable easily and quickly.

Output Measure

1. At least five (5) department employees will complete the training on the use of the digital imaging management machine from the vendor.

FY11 Recipient Name: Office of the Attorney General (SD)
Award Number: 2011-CD-BX-0038
Award Amount: $166,108
Abstract: The South Dakota Forensic Laboratory (SDFL) actively upholds laboratory accreditation requirements. The SDFL was most recently assessed in August 2010 by the Forensic Quality Services-International Division of Forensic Quality Services, Inc and found to comply with the requirements of ISO/IEC 17025:2005 in the categories of Biology, Digital and Multimedia Evidence, Trace Materials (Fibers, Hairs and Fire Debris), Firearms/Tool Marks and Latent Prints.

The FY2010 Coverdell grant is currently being used to fund a trace evidence examiner's salary and benefits as well as training and equipment for the firearms/tool marks, fingerprint and trace sections. The SDFL is requesting FY2011 Coverdell funding to provide the salary and benefits for one of our two fully trained and case working trace evidence examiners.

FY11 Recipient Name: State of Tennessee
Award Number: 2011-CD-BX-0031
Award Amount: $387,481
Abstract: The Office of Criminal Justice Programs (OCJP) has been designated by the Governor of Tennessee as the State Administering Agency (SAA) for funds from the U.S. Department of Justice. OCJP has identified two (2) entities that provide forensic science services for criminal justice purposes throughout the state. These entities are the State Medical Examiner's Office and the Tennessee Bureau of Investigation.

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

The Tennessee Bureau of Investigation (TBI) has a Forensic Services Division (Crime Laboratory System) that provides forensic science services to any law enforcement agency or medical examiner in the state. The TBI and the State Medical Examiner's Office remain the agencies that are tasked with providing statewide criminal forensic services to state and local agencies. All examinations and evidence go though one or both of these two agencies. Representatives from the Tennessee Bureau of Investigation's Forensic Services Division and from the Medical Examiner's Office coordinated with the Office of Criminal Justice Programs to formulate a consolidated state plan to utilize NIJ funds from the FY 2011 Paul Coverdell Forensic Sciences Improvement Grant Program. The consolidated plan includes

providing opportunities for professional enhancement, the purchase of laboratory equipment, and strategic planning meetings.

The Office of Criminal Justice Programs will utilize a portion of the total award to administer the Coverdell funds awarded to the State. OCJP intends to sub-grant funds to the State Medical Examiner's Office and to the Tennessee Bureau of Investigation to implement the projects that each agency has identified. Furthermore, OCJP intends to use a portion of the administrative funds to host one to two strategic planning meetings in relation to the State's continuing efforts to improve the forensic and medical examiner services provided statewide.
The State Medical Examiner's Office has identified professional enhancement as a primary need for their professionals across the State. They intend to use Coverdell funds, if awarded to the state, to send representatives from the five regional forensic offices to a national training in St. Louis, Missouri. The goal of the agency is to improve the quality of forensic science and medical examiner services throughout the state of Tennessee.

The Tennessee Bureau Investigation has identified that their major needs include the acquisition of new equipment and the replacement of outdated or malfunctioning laboratory equipment for their microanalysis and latent units. The TBI intends to use Coverdell funds, if awarded to the state, to purchase lab equipment to replace several pieces of equipment that are more than 20 years old and to purchase additional lab equipment for the microanalysis and latent print units with the goal of improving the timeliness of processing forensic samples.

FY11 Recipient Name: State of Texas
Award Number: 2011-CD-BX-0015
Award Amount: $1,541,427
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 2011 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.

FY11 Recipient Name: City of Austin (TX)
Award Number: 2011-CD-BX-0099
Award Amount: $175,000
Abstract: The City of Austin is a home-rule municipality situated in Travis, Williamson, and Hays Counties of Texas. The City of Austin Police Department Forensic Science Division Crime Laboratory provides forensic and investigative services to over 777,953 persons residing within 296 square miles. In 2004, the city opened a state-of-the-art forensic facility and in 2005, received ASCLD/LAB Legacy Accreditation in the areas of biology, toxicology, controlled substances, firearms, latent print, and crime scene. The APD Crime Laboratory undergoes external DNA quality assurance audits once every 2 years. In April 2010, the APD Crime Lab underwent successful ASCLD/LAB Legacy and FBI DNA external audits. The laboratory is preparing for ASCLD/LAB ISO accreditation, which is estimated to be complete in 2012.

With this application, the City of Austin Police requests $175,000 in grant funding from the U.S. Department of Justice, Office of Justice Programs, National Institute of Justice FY2011 Paul Coverdell Forensic Science Improvement Grants Program for a proposed project period of October 1, 2011 – September 30, 2012.

The goal of this program is to solve violent and property crimes citywide. To accomplish this goal, the program will focus on the primary objectives of improving the quality and timeliness of forensic services, which includes a significant reduction in casework backlogs. Program objectives are linked to essential services with measurable outcomes. If funding is awarded, the program anticipates significant improvement in all non-DNA sections by purposing funds for overtime and for the purchase upgraded equipment. The City of Austin requests grant funding in the amount of $55,004 for analyst overtime; $112,000 to purchase a Gas Chromatograph – Mass Spectrometer; and $7,996 to purchase a one-year maintenance agreement for the instrument.

Currently, APD Crime Lab records show over 540 non-DNA cases in backlog status. The requested overtime funds will allow existing laboratory staff to work on an overtime basis for approximately 1,505 hours to reduce backlogs in the specialty areas of chemistry, crime scene, latent print, and firearm/tool marks. Section supervisors will work with the Forensic Services Manager to effectively allocate overtime resources for the life of the grant. While the number of samples per case and the time to process each sample varies per specialty, laboratory supervisors anticipate that Coverdell funding for overtime will reduce casework backlogs by approximately 42%.

The Gas Chromatograph – Mass Spectrometer is a tandem instrument which is used for the identification of controlled drugs, dangerous drugs, volatile chemicals of abuse, and over the counter drugs, as well as impurities and cutting agents present in sample. The Chemistry Section currently operates using three Gas Chromatograph – Mass Spectrometers (GC-MS): one new (replaced using FY 2010 Coverdell funds); one outdated and in need of immediate replacement; and a third that is dated but in proper working order. As the three GC-MS are used by chemists every workday, including evenings and some weekends, it is critical that all three be reliable and operational. On a daily basis, there are 6 to 8 cases (with multiple samples) that must be completed. Depending on how many items must be analyzed per case, the need for instrument repair typically creates a bottleneck in the process that cannot be resolved until all three instruments are in working order. A backlog in the Chemistry Section creates a burden for detectives assigned to complete the investigative portion of each case. The impact of the purchase of a second reliable, technologically upgraded GC-MS would be immediately apparent, as the new equipment will consistently operate without delay for repair and will effectively assist in reducing casework backlog and sample turnaround time.

FY11 Recipient Name: City of Fort Worth (TX)
Award Number: 2011-CD-BX-0100
Award Amount: $121,342
Abstract: The City of Fort Worth is requesting $121,342.20 in funding under the 2011 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 would provide the Crime Lab with training, educational courses, and equipment to increase the Lab's efficiency and service quality.

Over the last four years, the FWPD Crime Lab has experienced a continual increase in service demands, due in part to the City of Fort Worth's population increase and an increase in crime. In 2010, the City of Fort Worth's population rose to 741,206 – an increase of 5,000 residents from 2009. Part 1 violent crimes within the City of Fort Worth have also increased. From 2005 to 2008, the average annual number of Part 1 violent crimes in the City of Fort Worth, as reported to the Federal Bureau of Investigation, increased over 6.5%. Part 1 violent crimes also increased in 2009. From 2008 to 2009, the total number of Part 1 violent crimes in the City of Fort Worth increased by nearly 100.

The Crime Lab moved to a new location in the summer of 2010, which expanded both the size and types of services offered. The funds requested under this grant would contribute to the newly enhanced scope of services offered by the Crime Lab, ensuring that key services are maintained and new services are added despite budgetary constraints that prohibit the hiring of additional personnel.

The Crime Lab's objectives under the City of Fort Worth's FY 2011 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; provide additional equipment and software to enhance the ability of 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: $44,697.20 for training and travel costs and associated registration and membership fees; $59,950 for a database maintenance module, training, licenses, worksheet revisions and the implementation of a quality module for the Crime Lab's Laboratory Information Maintenance System; $9,835 for a trigger scan system, centrifuge and portable alternate light system kits; and $6,860 for pipettes, ammunition and evidence security lockers.

If awarded funds from the 2011 Coverdell grant, the project will be managed by the Forensic Division Manager, who has over 35 years experience in the forensics field. The following performance measures will be established to allow the Forensic Division Manager to ensure the program goals and objectives under this program are being met: a reduction in current backlogs; a decrease in the average case turn-around time; a reduction in the number of samples sent for outsourcing; an increase in the number of Crime Lab personnel who receive professional development training; and an increase in the number of Crime Lab personnel who hold professional certifications.

FY11 Recipient Name: Tarrant County (TX)
Award Number: 2011-CD-BX-0098
Award Amount: $109,740
Abstract: The primary objective of the proposed project is to improve the quality and timeliness of Medical Examiner and forensic laboratory services through the purchase of software and supplies for a new Laboratory Information Management System (LIMS). A commercially available, flexible, and customizable LIMS will provide significant improvements over the in-house LIMS currently in place. It will provide significant gains in efficiency in evidence submission, casework management, data entry,

and statistical reporting for both Medical Examiner and laboratory services, and will aid the forensic laboratories in reducing backlog and in preparation for ASCLD/LAB International accreditation. In order to increase the overall efficiency of operations, the Tarrant County Medical Examiner's Office is requesting a grant of $109,740 to purchase computer software and hardware that would replace the current LIMS.

The Tarrant County Medical Examiner's Office is a regional medical examiner's facility located in Fort Worth, TX. The facility provides contracted medical examiner services to Tarrant, Parker, Denton, and Johnson Counties, as well as fee-for-service autopsy and laboratory capabilities to counties and jurisdictions outside of the designated Medical Examiner's District.

The four county Medical Examiner's District represents a core population of approximately 2.75 million citizens. In addition to a staff of five board certified forensic pathologists, the office has an around-the-clock investigative staff, and a full complement of support services, including Human Identification, Toxicology, Criminalistics, Forensic Photography, and Histology laboratories. The Tarrant County Medical Examiner's office is accredited by the National Association of Medical Examiners (NAME). The Criminalistics and Toxicology laboratories are accredited under the Legacy program of the Association of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLDILAB), and are working to obtain ASCLD/LAB International accreditation.

FY11 Recipient Name: Utah Department of Public Safety
Award Number: 2011-CD-BX-0034
Award Amount: $173,058
Abstract: The Utah Bureau of Forensic Services (BFS) is requesting $174,189 in 2011 Coverdell grant base/formula funds for the Bureau of Forensic Services, Bureau of Forensic Toxicology (BFT), and the Intermountain West Regional Computer Forensic Laboratory (IWRCFL). These three laboratories comprise the Utah State forensic laboratory system. The majority of requested funding would be used to target our number one problem: manpower. BFS would like to add a forensic specialist to the evidence-intake section and a forensic scientist to the Bureau of Forensic Toxicology. Funding is also requested to continue a part-time program specialist in the computer forensic laboratory to maintain the current case turnaround time. Travel/training is also requested so analysts can obtain/maintain certification in their respective disciplines. We are also requesting a small amount of funding for equipment, supplies and maintenance. Utilizing Coverdell funds in these sections of the laboratory system will help to improve the quality, efficiency and timeliness of forensic science services in the State of Utah.

FY11 Recipient Name: Utah County Government (UT)
Award Number: 2011-CD-BX-0093
Award Amount: $116,775
Abstract: This grant will fund one part-time computer forensic examiner for 12 months. It will also provide overtime for a full-time computer forensic examiner and overtime for the cellular phone examiner. They will be able to attend training and obtain additional needed equipment to assist in the goal of continuing to reduce backlog.

Goals: There are three primary goals of this program. The first goal is to improve the quality and timeliness of processing evidence in the lab. The second goal is hire a part-time civilian computer forensic examiner and to train personnel in the latest tools and technologies. This will help to continue to

streamline the forensic examination process. The final goal is to continue to reduce the current amount of backlog. This efficiency will free up more time for examiners to examine more cases.

Computer Forensic Summary: Digital evidence is analyzed in all types of criminal cases, from burglary to homicide. With this grant, the Bureau will be able to make significant strides in continuing to reduce case backlog. Examiners will be able to train officers and investigators about digital evidence collection and what to look for on a scene or at a search warrant. This grant will give the lab a greater opportunity to locate digital evidence pertaining to mobile forensics and cellular phones. It will also enable examiners to perform live acquisitions, such as a running business server.

Strategies: By employing a part-time computer forensic examiner, examiners will be able to increase the number of cases completed and it will speed up the examination time. By increasing the overtime for the full-time examiner and the cell phone examiner, both positions will also complete cases more quickly and close more cases in general. Purchasing new equipment and upgrading old equipment will give the lab the ability to handle nearly anything that is asked of it, thereby benefitting all of Utah County's law enforcement agencies.

Major Deliverables: It is anticipated that examiners will be able to continue to keep the case backlog low, with the use of overtime spent and the new streamline system for processing new cases. Using upgraded equipment will help to increase the efficiency and timeliness of our services. The Digital Forensics Lab will create a part-time position for the period of the grant and then it will try to continue funding that position when the grant has concluded. It is anticipated that the amount of backlogged cases will stay between 1-3 cases. The dollar amount requested is $116,774.80

FY11 Recipient Name: Vermont Department of Public Safety
Award Number: 2011-CD-BX-0052
Award Amount: $166,108
Abstract: **Project Goals and Objectives:**

The Vermont Forensic Laboratory is the only forensic laboratory in the State of Vermont and all evidence of a criminal nature is submitted to the laboratory for analysis. The efficient processing of cases and analysis of evidence can be improved through grant funds applied to:

- An evidence technician/LIMS administrator to receive and distribute evidence and maintain the LIMS
- Expansion of evidence tech role to include processing of latent print cases
- Purchase of necessary laboratory equipment
- Funding to maintain and improve our LIMS
- Training of examiners

The goals of this proposal are to provide training, salary for an evidence technician 1, LIMS administrator, expanding the role of this individual to include processing of latent print cases, purchase minor equipment needs, and provide funding to maintain and improve our LIMS.

Project Design and Methodology

The Forensic Laboratory will send analysts to a variety of meetings and training programs to acquire state-of-the-mi information and skills. The laboratory is composed of three units- the chemistry, biology and physical comparison units. The physical comparisons unit examiners will attend classes related to fingerprints, firearms and digital photography. These classes will include the national training offered by the IAJ and AFTE. The photography technician will attend classes related to digital processing and may

need to attend classes relative to new instrumentation purchased by the laboratory. The chemistry and biology units will attend a yearly New England regional forensic meeting to refresh their skills and meet accreditation requirements. Attendance at the CODIS Users meeting, and the Promega meeting will allow our CaDIS manager and one DNA analysts to keep up to date in their professions. The ASCLD meeting provides training for laboratory managers and the OSHA training allows our safety officer to learn new procedures and mandates concerning laboratory safety.

Additional funding will support the salary of the evidence technician l LIMS administrator. Employing this individual will keep the analysts on the bench while evidence is received and properly documented by the evidence technician. As this is only a part time duty, this individual can also be the LIMS administrator which will allow a smooth operation of our LIMS and reduces down time in the laboratory. The role of this individual will be expanded to include processing of latent print cases. The latent unit has a heavy case backlog and employing the evidence tech in this area could help reduce the backlog in the latent print section.

Funds will also support the purchase of MS conversion equipment for the drug section to allow separation of related drugs and LIMS maintenance and improvements. The equipment will increase analyst efficiency by providing additional information about closely related drugs and the LIMS maintenance and improvements to software will allow analysts to stay efficient and reduce current backlogs.

FY11 Recipient Name: Virginia Department of Criminal Justice Services
Award Number: 2011-CD-BX-0051
Award Amount: $486,154
Abstract: This grant request involves two agencies within the State of Virginia, the Department of Forensic Science and the Office of the Chief Medical Examiner, Department of Health. The Virginia State Administering Agency for this grant is the Department of Criminal Justice Services and it intends to pass through the funds to the Department of Forensic Science and the Office of the Chief Medical Examiner, Virginia Department of Health. The Department of Forensic Science is requesting discipline specific training, software, equipment, and instrumentation to improve the quality and timeliness of forensic services and the Office of the Chief Medical Examiner is requesting funds to train forensic pathology fellows to increase the number of qualified forensic pathologists in Virginia and the nation to improve timeliness and quality of death investigation.

VIRGINIA OFFICE OF THE CHIEF MEDICAL EXAMINER (OCME)

The purpose of this grant request is to increase the number of qualified trained forensic pathologists in Virginia and the United States to improve the quality, thoroughness, and timeliness of death investigation, in addition to improving the competence in performing forensic autopsies, and evidence collection.

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

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

The fellowship training year runs from July 1, 2012 to June 30, 2013. A nine month no-cost extension would be requested to be able to fulfill the objectives of the grant since the grant period ends September 30, 2012. There is no State supplied funding for this program.

VIRGINIA DEPARTMENT OF FORENSIC SCIENCE (DFS)

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

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

To accomplish this goal, DFS proposes the following objectives:

1. Enhance DFS forensic scientists' skills and knowledge base by providing training opportunities for scientists in various scientific disciplines within the Physical Evidence, Chemical Analysis, and Calibration and Training program areas.
2. Improve quality of services and reduce costs in the Latent Prints Section by providing software to 19 latent print examiners for on-screen comparisons and digital documentation of analyses.
3. Minimize bottlenecks and increase productivity in the Firearms and Toolmarks Section by acquiring necessary equipment for an additional examiner position in the Northern Laboratory.
4. Expand analytical services and reduce the backlog and turnaround time in the Western Laboratory Trace Evidence Section by adding instrumentation for elemental analysis.

FY11 Recipient Name: Washington State Patrol
Award Number: 2011-CD-BX-0020
Award Amount: $412,430
Abstract: The Washington State Forensic Investigations Council promotes the achievement of excellence in the delivery of forensic science services at the state and local level for the citizens of the state of Washington. The Council requests funding from the FY 2011 Paul Coverdell Forensic Science Improvement Grants Program for the following prioritized projects designed to develop and enhance the professional standards of practice for forensic analysis and death investigation:

1. Pierce County Medical Examiner: X-ray Equipment - $151,065
2. Lewis County Coroner: Training, Equipment and Certification - $28,110
3. King County Medical Examiner: Forensic Anthropology Services - $106,125
4. Washington State Patrol – Missing and Unidentified Persons Unit: Dental Records Backlog Reduction- $64,823
5. Washington State Patrol - Latent Prints: Improve Latent Print Function in Eastern Washington - $65,000

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

- Improving the quality and timeliness of forensic science and medical examiner services in Washington State, including those services provided by laboratories operated by the Washington State Patrol and those operated by units of local government within Washington State; and

- Eliminating a backlog in the analysis of forensic science evidence, including, among other things, a backlog with respect to latent prints, forensic pathology, and trace evidence.

FY11 Recipient Name: West Virginia Division of Justice and Community Services, West Virginia Division of Criminal Justice Services
Award Number: 2011-CD-BX-0027
Award Amount: $166,108
Abstract: The OCME pursues its mission by utilizing the principles of medico legal 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.

The West Virginia Bureau for Public Health, Office of Chief Medical Examiner (OCME), is proposing to use Fiscal Year 2011 Paul Coverdell Forensic Science Improvement Grant Funds to improve/enhance several aspects of timely completion of autopsy case files through the purchase and implementation of the variety of solutions: redundant toxicology equipment to eliminate down time and backlogs for repairs/maintenance, additional autopsy tables to improve timeliness of autopsy completion, staff training to reduce backlog created by analysis of forensic science evidence, latent prints, toxicology, controlled substances, forensic pathology, questionable documents and trace evidence. While a variety of aspects related to service delivery has always been at the heart of OCME responsibilities and response, 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 its overall mission of obtaining NAME and ABFT accreditation.

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. These goals will be achieved by the following projects.

The OCME currently services a state population of 1.8 million persons representing an annual caseload of approximately 1500 cases, with only four functioning autopsy tables located in two separate autopsy centers with the State of West Virginia. This presents a barrier to timely autopsy caseload processing in the face of variable daily autopsy caseloads. Installation of four additional autopsy tables at the central autopsy facility in Charleston will permit the OCME state system to respond effectively to peak autopsy caseloads, with the current roster of seven (7) full-time Forensic Pathologists.

In a state with active underground and surface coal mining, as well as extensive chemical engineering facilities, all of which pose the risk of multiple fatality events, this office was forced to work around the clock just one year ago in order to process in a reasonable timeframe 29 fatalities which resulted from the Upper Big Branch Mine disaster. During this period the OCME was fortunate to have experienced relatively low routine caseload activity permitting the main facility autopsy tables to be assigned solely to

miner autopsy cases. This office would not have been able to appropriately store and autopsy the Upper Big Branch Mine caseload were additional factors of geographical proximity and delayed remains retrieval over a week's period not operant; expanded OCME autopsy table capacity is deemed critical toward meeting forensic autopsy needs.

FY11 Recipient Name: Huntington, City of (WV)
Award Number: 2011-CD-BX-0068
Award Amount: $113,987
Abstract: The Huntington Police Department's Forensic Investigation Unit proposes the purchase of an AFIX Gold Tracker system; outsourcing approximately 50,000 fingerprint cards to AFIX Technologies to create an automated criminal fingerprint database; a 48" Misonix Cyanoacrylate Fuming Chamber; a complete digital imaging darkroom system that would include a high quality digital camera with macro lens, a copy stand, a light kit, and a computer with compatible software for the camera to create a hands-free image capture system; and a Caron Fingerprint Development Chamber with a Condensate Recirculating System and extra shelving. Ultimately, the proposed equipment will increase the number of latent prints recovered by possessing high quality equipment, develop suspects, help solve crimes, and greatly increase the overall efficiency in the laboratory to output cases in a timelier manner to detectives and prosecutors.

Project Objectives

Objective 1: The Huntington Police Department Forensic Investigation Unit will create and maintain an automated fingerprint database of known fingerprints of all persons arrested in the city.

Objective 2: Reduce the number of cold cases containing unidentified latent prints by searching the latent prints in the automated criminal database of known finger and palm impressions.

Objective 3: Utilizing the automated criminal database to search latent (finger and palm) impressions retrieved at crime scenes to hopefully produce a suspect and effectively and quickly advance an otherwise unsolvable case.

Objective 4: Improve the overall quality, efficiency, and productivity of evidence processing in the forensic laboratory.

FY11 Recipient Name: Wisconsin Department of Justice
Award Number: 2011-CD-BX-0048
Award Amount: $346,545
Abstract: The Wisconsin Department of Justice, Division of Law Enforcement Services, Crime Laboratory System, is applying for the 2011 Paul Coverdell Forensic Science Improvement Grants to continue to maintain and/or improve the quality and timeliness of forensic science services. The Department, Milwaukee County Medical Examiners Office, the State Laboratory of Hygiene, and the Kenosha County Health Laboratory which are participating agencies, all take part in a State plan to improve forensic science/medical examiner services in Wisconsin.

Agencies Participating:

Wisconsin Department of Justice Crime Laboratory - Madison
Wisconsin Department of Justice Crime Laboratory - Milwaukee
Wisconsin Department of Justice Crime Laboratory – Wausau
Milwaukee County Medical Examiner's Laboratory
Wisconsin State Laboratory of Hygiene
Kenosha County Division of Health Laboratory

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

At the time of the state plan initiation, the Wisconsin Department of Justice Crime Laboratories were already accredited by the American Society of Crime Laboratory Directors / Laboratory Accreditation Board (ASCLD/LAB). The most recent accreditation inspection was performed in May of 2006. As a part of accreditation, the Crime Laboratories perform yearly audits of their operations in each functional area. These audits are used as the basis for yearly reports regarding performance in adhering to the accreditation criteria. We are preparing for our re-accreditation which will occur in the fall of 2011. We will be moving from the legacy standard to the ISO standard.

FY11 Recipient Name: City of Eau Claire (WI)
Award Number: 2011-CD-BX-0075
Award Amount: $175,000
Abstract: The City of Eau Claire is located in West Central Wisconsin and is the core city in an area commonly referred to as "The Chippewa Valley". With a city population in excess of 65,000, and being the largest police department in the region, we routinely assist surrounding suburbs, which comprise a metro area with a population over 200,000. The Eau Claire Police Department Crime Scene Unit coordinates training and shares equipment with sixteen law enforcement agencies in the region for evidence collection and processing. In December of 2010, we made efforts to improve local computer forensic analysis capabilities by creating the Chippewa Valley Regional Computer Forensics Lab (CVRCFL). The Eau Claire Police Department would like to help improve the quality and timeliness of forensic science through the use of an expanded CVRCFL made possible with funds from the Paul Coverdell Forensic Science Improvement Grant.

The demand for processing digital evidence has outpaced the ability of the Wisconsin State Crime Laboratory to train analysts and respond to increasing requests for forensic examination from local agencies. Criminal investigations are delayed six to twelve months awaiting computer forensic evidence results. To be effective and timely with criminal investigations, the responsibility falls on local law enforcement to keep up with rapidly changing technology being used to commit crime. In response to that demand, the Eau Claire Police Department has invested $85,370 in training and equipment to provide digital forensic analysis services for the region with the creation of the CVRCFL. The City and County of Eau Claire are currently constructing a new $60 Million joint law enforcement facility scheduled to be completed in the year 2013. The law enforcement center will include a 400 square foot office space dedicated to the CVRCFL. We currently have signed agreements with three area law enforcement agencies to dedicate personnel to the laboratory with the equivalent of three and a half sworn analysts. When the new laboratory is complete and the CVRCFL is fully functional, we will seek certification from the American Society of Crime Laboratory Directors/Laboratory Accreditation Board.

The primary software used for processing computer digital evidence is EnCase by Guidance Software, FTK by Access Data, and Video Focus by Salient Stills. Our computer forensic analyst is an EnCase Certified Examiner (ENCE) and utilizes the software products extensively. However, current staffing levels only allow us to dedicate one investigator to the CVRCFL. We currently have a case back log of twenty four investigations for one investigator. This equates to approximately 1300 hours of digital forensic examination. The back log would be greater but we no longer conduct forensic examinations on misdemeanor level cases or accept any outside agency requests for analysis that are not exigent in nature until the CVRCFL is expanded with additional investigators. If the Eau Claire Police Department is awarded funds through the Paul Coverdell Forensic Science Improvement Grant, the CVRCFL will be fully operational within six months of receiving funds.

This grant application seeks to purchase software licenses for EnCase and FTK (Forensic Tool Kit), related one-year training passport services, archival grade media, and office furniture to be used by the CVRCFL analysts. With the acquisition of these items and requisite training, the CVRCFL will be able to once again provide more timely and comprehensive digital evidence processing expertise to the Chippewa Valley metro area. The objective of having a completely trained and equipped CVRCFL is to eliminate our case investigation backlog, accept more investigations for forensic analysis, and reduce the delay in recovering usable digital evidence from six to twelve months to six to twelve weeks.

FY11 Recipient Name: Kenosha County Department of Human (WI)
Award Number: 2011-CD-BX-0080
Award Amount: $175,000
Abstract: The Kenosha County Division of Health – Public Health Laboratory will improve forensic operations through ASLCD/LAB reaccreditation, upgrading technology through the purchase of equipment, the hiring of a part-time forensic chemist, and providing staff development opportunities for Laboratory staff. The Medical Examiner's Office will improve forensic operations by making enhancements to the current data management system and providing staff development opportunities. The methods described above will ultimately improve the quality and timeliness of forensic operations in Kenosha County and minimize backlog.

FY11 Recipient Name: Wyoming Office of the Attorney General
Award Number: 2011-CD-BX-0049
Award Amount: $166,108
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 2011 Coverdell program are:
1. Reduction of analysis turn-around times
    a) Within the Trace Evidence Unit by replacing an inoperable, and unsupportable, Micro spectrophotometer.

b) Within the Firearms/Toolmark Unit by adding a Leica FSC comparison microscope and adding a qualified examiner by training an existing employee with the support, during that training time, of a contract for services which provides a qualified examiner to assist with case analysis on a part-time, temporary basis.
c) Within the Drug Chemistry Unit by supporting the addition of a full-time analyst through the purchase of supplies.

2. Improve the scope of the laboratory's practices
a) Within the Latent Print Unit by adding the sub-disciplines of Tire marks and Shoeprints with the support of the appropriate database reference software.

Evaluation of this funding project as to the levels achieved in reducing turn-around times and backlogs will be measured by the reduction in the number of days between evidence submission and completion of 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. Evaluation of this funding project as to the increase in available services will be measured by the addition of the two accredited sub-disciplines of Tire Tracks and Shoe Prints and that availability to our customer agencies.

The goals of the Wyoming State Crime Laboratory's application are consistent with the Coverdell Grant Program Goals of improving service timeliness as well as increasing and improving the scope of forensic services.