

U.S. Department of Justice, Office of Justice Programs, National Institute of Justice
FY 2009 Paul Coverdell Forensic Science Improvement Grants Program
City of Portland, Oregon Police Bureau
Proposal Abstract
Application Attachment 1

Proposal Abstract

The Portland Police Bureau Forensic Evidence Division provides crime scene investigation for the Bureau, as well as identification of all arrested subjects booked into the Multnomah County Justice Center jail facility. The Division's staff consists of criminalists who process crime scenes, photo specialists who develop crime scene photos and process audio and video evidence and technicians who fingerprint and identify arrested subjects.

The entry-level training programs for criminalists and technicians are comprehensive but due to budgetary constraints, the Bureau lacks resources for continuing education. Without adequate advanced training in the forensic sciences, the staff is unable to obtain certifications in their fields of work. Certification by the International Association for Identification (IAI), the most recognized professional society in fingerprint identification, is necessary for the Forensic Evidence Division to provide a higher standard of forensic services to the Bureau, the Multnomah County Sheriff's Office, the Multnomah County District Attorney's office and the citizens of the Portland Metropolitan area.

Project Goals and Objectives:

1. Continue to reduce the backlog of more than 1,000 unidentified latent prints
2. Provide training and advanced certification for division personnel

Project Plans:

1. Improve the quality of data input into the Western Identification Network Automated Fingerprint Identification System (WIN AFIS)
2. Improve the ability of division personnel to identify difficult fingerprints

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3. Improve the division's ability to process scenes of violent crimes
4. Design and implement an in-house self-study program to assist with IAI certification

Methods for Achievement of Project Goals:

1. Purchase additional hardware, software and training materials that will aide division personnel in reducing the backlog of unidentified latent prints and developing latent prints of value from difficult sources
2. Implement a self-study program to allow eligible criminalists time to work toward Certified Latent Print Examiner certification by the IAI.
3. Implement a self study program to allow eligible technicians time to work toward Tenprint Examiner certification by the IAI.
4. Implement advanced tenprint courtroom testimony and fingerprint classification training for technicians to assist those eligible for IAI Tenprint Fingerprint certification to qualify
5. Implement complex latent print and latent print examiner training for criminalists to assist those eligible for IAI-Certified Latent Print Examiner certification to qualify
6. Send one criminalist to the National Forensic Academy to obtain advanced training in crime scene processing

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Introduction

The Portland Police Bureau (Bureau) Forensic Evidence Division operates 24-hours a day, 365 days a year providing crime scene investigation throughout the Portland Metropolitan area and identification of all arrested subjects booked into the Multnomah County Justice Center jail facility. In the past two years, the Bureau has improved the functionality of its Forensic Evidence Division by remodeling its lab space and purchasing state of the art fingerprinting workstations (fuming hoods, down-flow workstations, vacuum chambers, etc.). Additionally, through the 2008 Paul Coverdell Forensic Science Improvement Grants Program they obtained advanced graphics computer workstations for enhancing developed latent prints.

For calendar years 2005, 2006 and 2007, the Bureau reported an average of 38,219 Part I crimes per year.¹ The Forensic Evidence Division averaged 5,852 calls for service each of those years. Of the Part I crimes, an average of 3,810 per year were classified as violent crimes. The Forensic Evidence Division averaged 1,219 calls specifically for violent crimes each reporting year.

The Bureau's Current Model of Success

The Division's crime scene staff consists of 18 sworn criminalists. The criminalists process crime scenes, collect evidence and examine and identify latent prints. Latent prints are entered into the Western Identification Network Automated Fingerprint Identification System (WIN AFIS) and into the Federal Bureau of Investigation Integrated Automated Fingerprint Identification (FBI IAFIS) to identify criminal suspects.

¹ *Crime in the United States; Uniform Crime Reporting Program 2005, 2006 & 2007*

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The Division's 21 non-sworn identification technicians fingerprint and identify arrested subjects booked into the Multnomah County Justice Center jail facility through a cooperative agreement with the County. During the three year period of 2005-2007, an average of 38,751 people were identified each year. Technicians classify and enter fingerprints into the WIN AFIS, compare candidate prints, identify all arrested subjects prior to their release and testify in court as to their findings.

The Division also has two non-sworn photo reproduction specialists. Their duties include developing photos of crime scenes, reproducing and enhancing audio and video sources and reproducing and enhancing various sources of digital media found at crime scenes and used as evidence.

Program Concerns

In the past decade, evidence collection and forensic science practices have come under sharper scrutiny. Defense attorneys have called into question the methods and qualifications of those who process latent prints. The recently released National Academy of Science report recommends certification of forensic science professionals to improve quality and enhance credibility.² Additionally, the American Bar Association has made recommendations toward certifications and continuing education requirements.³

In order to meet these challenges it is important to show work is performed in a setting of acceptable standards and practices by highly trained and certified personnel. Bureau criminalists complete a structured 12-month in-house training program. The training includes crime scene

² National Academy of Sciences 2009 *Strengthening Forensic Science in the United States: A Path Forward*

³ American Bar Association, *Report to the House of Delegates*. April 2004

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photography, evidence collection, report writing, latent print collection, evaluation and comparison, homicide investigation and court testimony.

Identification technicians must complete a nine-month training program that includes capturing fingerprint, palm prints and other friction ridge sources from arrested subjects using ink and electronic capture methods, classifying and entering fingerprints into the WIN AFIS, comparing fingerprint to those on file to make an identification and basic court testimony.

After the probationary period for each classification it would be beneficial to personnel to receive continuing education. Unfortunately, the Bureau does not have the resources to pay for 39 forensic specialists to receive this kind of training. In the past 10 years, the City of Portland has reduced the Forensic Evidence Division's training and travel budget by 68 percent. With the current economic downturn the City has frozen training and travel funds and forecasts an additional 2.5 percent cut to the Bureau's operating budget for Fiscal Year 2010. These cuts leave very little room for additional training.

Specialty projects and training take personnel offline and sometimes require overtime to backfill the position. The division's overtime budget has been reduced by 46 percent over the past decade. Overtime is primarily allowed to cover the extended time needed to work major cases such as aggravated assault, rape, officer involved shootings and homicides. This leaves little money available to cover staffing shortages caused by personnel at training

Ongoing budget cuts have reduced the division's ability to purchase much needed equipment to support newer technology. High-end computers capable of running advanced graphics programs to enhance audio, video and digitally captured information are needed to improve the criminalists and photo specialists' ability to develop evidence.

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Project Objectives, Results and Implementation

The Fiscal Year 2008 Coverdell grant funding allowed the division to purchase five high-end graphic computer workstations to be utilized in digitally enhancing latent prints. These workstations are designed to help reduce the backlog of more than 1,000 unidentified latent prints.

Equipment

To more easily assist in the development and search of latent prints, the division would like to purchase additional high speed computers that can run advanced graphics software. The division proposes purchasing five additional Dell Precision Workstations for advanced development of digitally captured latent prints.

The Workstations are capable of running large graphics programs, such as Adobe Photoshop CS4, which is used for enhancing and analyzing digital images in a forensic setting. Latent prints found on surfaces with patterned backgrounds, that are chemically processed or that are difficult to view due to contrast or reflection issues on surfaces, can be enhanced with CS4 software to bring out the fingerprint image from the background noise. The software is capable of calibrating a digital image so a true one-to-one comparison may be made. The Adobe Photoshop CS4 software enables the users to demonstrate each step followed in the enhancement process, which allows others to reproduce the results. This replication of the processes followed in enhancement is essential for court purposes. Additionally, it is used to create courtroom charts that provide clear examples of how a latent identification was made.

It is estimated that 50 percent of the unidentified latent prints on file would benefit from reentry into the WIN AFIS and FBI IAFIS databases using Photoshop software. With 18

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working criminalists it would be productive to purchase additional workstations to better facilitate work on the backlog of unidentified latent prints.

To assist in digitally capturing latent print images on evidence and directly entering the image into the Precision Workstation the division would like to purchase a digital camera copy stand system. This would allow for steady consistent digital photography of evidence that has a developed latent print on it. The equipment will need pan and tilt functionality, light source and various focal lenses. The system will allow a criminalist to quickly capture an image of the latent, enlarge it and determine its value. The criminalist may then determine if further development is needed of the latent and the best process for photographing it. The image will be moved directly into one of the Precision Workstations for enhancement and entry into the WIN AFIS or FBI IAFIS.

In addition to the workstations needed by the criminalists, the division needs updated hardware and software for development and enhancement of audio and video evidence. Many businesses have video surveillance equipment that is helpful in capturing images of robbery suspects or vehicles and events that occur in a parking lot (usually assault, rape and robbery). Undercover surveillance operations and in custody recordings frequently have poor quality sound. These sources of audio and video evidence are brought to the photo specialist of the Forensic Evidence Division. Audio recordings usually have background noise that can drown out the voices on the recording and video equipment may not capture very good images due to lighting, placement and quality of the equipment. With the proper equipment to pull still frames and enhance both the video image and audio recordings photo specialists are able to aid in the identification of violent offenders.

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High-end precision style computers are also needed to run the software needed to enhance audio and video recordings. The division is in possession of Salient Stills video editing software but needs updated computer hardware to properly run the program. Software such as Adobe Audition is required to process the needed audio enhancements. Its functionality includes adaptive noise reduction, mastering effects, automatic phase correction tools and a spot healing tool to repair background noise. Additionally, a writing high definition video deck that will write to a Blu-ray disc while recording, is essential to assist in storage and distribution of evidence to investigators and the District Attorney's Office.

The Forensic Evidence Division's standard operating procedure calls for video taping all homicide and officer-involved shooting incidents. At the direction of the death investigators any suspicious death is also captured to have as much information of the scene of a possible violent crime. Current equipment for this process was purchased eight years ago and is now outdated. Six digital video cameras with wide angle lenses, high power light source and the ability to record in a nonproprietary format would meet the needs of the division. The digital format will allow for easier storage reproduction of the evidence.

A final piece of equipment needed to advance the ability to respond to major violent crimes is software that will assist in the analysis of blood spatter. This software will aid in performing the directional analysis of blood stains at a crime scene. It will determine the area of origin of a bloodstain pattern as well as assist in creating a 3D representation of an impact pattern. This software will reduce the time it takes to process a crime scene and save valuable man hours needed to "string" the crime scene to determine the points of origin of the blood evidence. It will also allow for easier peer review of the evidence analysis.

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Training and Certification

The International Association for Identification (IAI) is the largest and oldest professional forensic organization. They are recognized worldwide for contributions to the advancement of forensic science. A study cited in the NAS report indicates that almost two-thirds of fingerprint identifications are made outside of traditional crime laboratories.⁴ The NAS report goes on to recommend certification of forensic science professionals to improve quality and enhance credibility. Certification of the Bureau's Forensic Evidence Division staff by an international organization with the prestige and history of the IAI will add professional credibility to the term "expert witness," which is crucial at trial.

The division's goal is to continue to enhance the criminalist training and certification program. With Fiscal Year 2008 Coverdell grant funds, the division's 17 qualified criminalists were able to receive training and certification as Crime Scene Investigators with the IAI. The Bureau is the first agency in the United States to have all of their qualified crime scene investigators certified by the IAI. In order to continue in this vein classes to aid complex latent print identification and a certified latent print examination preparatory class are requested. As was done with previous Coverdell grant funding, the division will host IAI-approved classes to allow more employees to attend and reduce travel costs. Other agencies in the area will be invited to attend the training to help promote interagency cooperation and the best use of the funds.

⁴ American Society Crime Laboratory Directors. 2004. *180-Day Study Report: Status and Needs United States Crime Laboratories*.

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The division has identified six criminalists who meet the required levels of education, training and experience to apply for Certified Latent Print Examiner with the IAI. To assist them and others who wish to begin moving toward certification, several copies of the recommended reading materials are needed. Four books: "Advances in Fingerprint Technology," Second Edition by Henry C. Lee and R. E. Gaensslen; "Quantitative-Qualitative Friction Ridge Analysis: An Introduction to Basic and Advanced Ridgeology" by David R. Ashbaugh; "Scott's Fingerprint Mechanics" by Robert D. Olsen and Walter R. Scott and "The Science of Fingerprints: Classification and Uses by the Federal Bureau of Investigation" are required. The division has already provided each criminalist with copies of two of the books during their probationary training. Additional sets of books will be purchased if grant funding is awarded.

Ongoing training in crime scenes is important to assist in following up on skills gained with recent certifications. The division would like to host a seminar highlighting a major crime event, centering on the investigation and collection of forensic evidence related to a notable homicide. Preferably the topic of discussion will include cooperative investigatory processes between the forensic investigator and detectives. The seminar will be open to surrounding agencies interested in this topic.

To fully utilize the audio and video enhancement software the division will need to provide formal training for one of the photo specialist staff. The training will ensure they can utilize the audio and video hardware and software to its fullest potential. It will also allow them to pass that knowledge and training onto the second photo specialist.

The National Academy of Science and the American Bar Association recommend the certification of forensic science personnel. This recommendation also applies to the

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identification technicians of the Forensic Evidence Division. The Bureau's identification technicians receive on-the-job training during their nine-month probation, which includes the FBI-approved basic fingerprint school. Though the technicians compare rolled impressions instead of latent prints, they are still open to *Daubert* court challenges. The *Daubert* ruling determined that District Court judges may act as "gatekeepers"⁵ of expert testimony. This makes it imperative that training and certification be obtained to bolster technician credibility in court.

Additional ongoing advanced training in fingerprint identification and courtroom testimony is needed to obtain the required experience for IAI Tenprint Certification. The division has identified 14 technicians who meet the minimum education, training and experience requirements to obtain certification. They and junior technicians will benefit from advanced training to prepare them for certification testing.

The division has been able to identify two classes offered by the FBI, free of charge, that will be tailored to certification needs in court testimony and fingerprint classification. Previous Coverdell grant funds were used to host an IAI-certified class in Intermediate Comparison of Friction Ridge Impressions. This class was rated very highly by those attending and it is the division's desire to host another class for training of additional technicians and members of other law enforcement agencies.

The proposed training will offer instruction on the scientific method of fingerprint identification, including ACE-V methodology for friction ridge identification and information on the various levels of fingerprint ridge detail. The courtroom and classification instruction will

⁵ *William Daubert, Et Ux., Etc., Et Al., Petitioners V. Merrell Dow Pharmaceuticals, Inc.*

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assist in preparing technicians to better describe the process involved in making identifications, thus meeting certification requirements. The goal is for technicians to be certified by the IAI in order to demonstrate their work is done within a setting of acceptable standards and practices.

As with the criminalist training the technician training will improve overall quality and efficiency of the technicians' work by improving their ability to make difficult identifications and clearly explain the process in a courtroom setting. Although a backlog in tenprint identifications does not exist, the training will enhance the quality of information in the database, which in turn will positively impact the latent backlog.

To assist the technicians in certification several copies of the recommended reading materials are needed. Four books: "Advances in Fingerprint Technology," 2nd Edition, by Henry C. Lee and R. E. Gaensslen; "Quantitative-Qualitative Friction Ridge Analysis," by David R. Ashbaugh; "Fingerprint Identification," by William Leo; and "The Science of Fingerprints," by the Federal Bureau of Investigation are required. The division supplies some of the reading materials during a technician's probationary training. Additional sets of books will be purchased if grant funding is awarded.

The National Forensic Academy (NFA) is a Bureau of Justice Assistance (BJA) sponsored training center for forensic science and investigative personnel. The NFA runs three training classes per year. Each class is 10 weeks long and includes training in blood pattern analysis, bullet trajectory, court room testimony, DNA, latent print processing, digital and video photography, post mortem fingerprinting, weapons of mass destruction, death investigations and forensic anthropology. Each session consists of over 400 hours of training (170 hours in class and 230 hours in field practicum). Through other funding sources the division was able to send

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one criminalist to the academy in 2008. It is desirable to have another criminalist attend this advanced training. It will ensure the Bureau will have more than one trained specialist in advanced investigative techniques associated to violent crimes.

Staffing and Overtime

In order to send division staff to the certified latent print examiners training, complex latent identification training, advanced friction ridge identification class, a major crimes lecture, two FBI-sponsored classes and the National Forensic Academy, the division will need to provide laboratory coverage with other qualified staff. This may be accomplished three ways:

1. Adjust work schedules to minimize the impact on the Bureau
2. Work at minimum staffing levels during the trainings
3. Provide overtime pay to maintain minimum staffing levels of needed positions

The Division proposes to use Coverdell grant funds to pay for an anticipated 230 hours of overtime to backfill criminalist positions in the lab while criminalists participate in educational activities off site.

The Division also proposes to use Coverdell grant funds to pay for 300 hours of overtime to pay for technician training and backfill positions while technicians attend trainings.

Implementation Approach

The Forensic Evidence Division proposes within the first two months of the grant award date to:

1. Purchase all recommended reading materials for the IAI-Certified Latent Print Examiner Certification to allow criminalists to begin study of the materials

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2. Purchase all recommended reading materials for the IAI-Certified Tenprint Examiner Certification to allow technicians to begin study of the materials
3. Contact IAI-certified instructors and collect data of their availability and prepare contracts
4. Schedule FBI instructors for courtroom testimony and fingerprint classification class
5. Purchase computer hardware and software
6. Locate and schedule training for audio and video analysis/enhancement for one photo reproduction specialist

By the third month of funding, the division will select instructors and schedule classes. They will also catalog their in-house training and determine what can be certified by the IAI under tenprint and latent print certifications.

By the sixth month, the division should have the computer hardware and software installed for both the criminalist workstations and the photo lab workstations.

U.S. DEPARTMENT OF JUSTICE
OFFICE OF JUSTICE PROGRAMS
NATIONAL INSTITUTE OF JUSTICE

**FY 2009 Coverdell Forensic Science Improvement
Grants Program**

Certification as to External Investigations

On behalf of the applicant agency named below, I certify the following to the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice:

A government entity exists and an appropriate process is in place to conduct independent external investigations into allegations of serious negligence or misconduct substantially affecting the integrity of the forensic results committed by employees or contractors of any forensic laboratory system, medical examiner's office, coroner's office, law enforcement storage facility, or medical facility in the State that will receive a portion of the grant amount.

I personally read and reviewed the section entitled "Eligibility" in the Fiscal Year 2009 program announcement for the Coverdell Forensic Science Improvement Grants Program. I acknowledge that a false statement in this certification or in the grant application that it supports may be subject to criminal prosecution, including under 18 U.S.C. § 1001. I also acknowledge that Office of Justice Program grants, including certifications provided in connection with such grants, are subject to review by the Office of Justice Programs and/or by the Department of Justice's Office of the Inspector General.

I have authority to make this certification on behalf of the applicant agency (that is, the agency applying directly to the National Institute of Justice).



Signature of Certifying Official

Sam Adams

Printed Name of Certifying Official

Mayor

Title of Certifying Official

City of Portland, Oregon

Name of Applicant Agency
(Including Name of State or Unit of Local Government)

5/28/09

Date

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Attachment: External Investigations

The "Certification as to External Investigations" that is submitted on behalf of the applicant agency as part of this application certifies that—

A government entity exists and an appropriate process is in place to conduct independent external investigations into allegations of serious negligence or misconduct substantially affecting the integrity of the forensic results committed by employees or contractors of any forensic laboratory system, medical examiner's office, coroner's office, law enforcement storage facility, or medical facility that will receive a portion of the grant amount.

Prior to receiving funds, the applicant agency (that is, the agency applying directing to the National Institute of Justice) must provide—for each forensic laboratory system, medical examiner's office, coroner's office, law enforcement storage facility, or medical facility that will receive a portion of the grant amount—the name of the "government entity" (or entities) that form the basis for the certification. Please use the template below to provide this information. (Applicants may adapt this template if necessary, but should ensure that the adapted document provides all the required information.)

IMPORTANT NOTE: If necessary for accuracy, list more than one entity with respect to each intended recipient of a portion of the grant amount. For example, if no single entity has an appropriate process in place with respect to allegations of serious negligence as well as serious misconduct, it will be necessary to list more than one entity. Similarly, if no single entity has an appropriate process in place with respect to allegations concerning contractors as well as employees, it will be necessary to list more than one entity.

Additional guidance regarding the "Certification as to External Investigations" appears in the "Eligibility" section of the program announcement for the FY 2009 Coverdell program.

Name of Applicant Agency (including Name of State or Unit of Local Government):

Date: _____ May 28, 2009 _____

Name of any forensic laboratory system, medical examiner's office, coroner's office, law enforcement storage facility, or medical facility that will receive a portion of the grant amount

Existing government entity (or entities) with an appropriate process in place to conduct independent external investigations

1. PPB Forensic Evidence Division

PPB Internal Affairs Division

2. _____

City of Portland Independent
Police Review Division

FY2009 External Investigations Attachment (continued)

Name of Applicant Agency: _____

3. _____

Multnomah County District Attorney's Office

4. _____

State of Oregon Department of Justice

5. _____

6. _____

7. _____

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Budget Narrative

Section A: Personnel (\$27,886.00) This expense will allow the Portland Police Bureau to pay overtime for criminalist and technician personnel to attend training outside their regularly scheduled shifts and to backfill positions for staff attending weekday training.

Criminalist overtime will be used to maintain the quality of service provided to the Bureau for crime scene calls and prevent a backlog of casework. The overtime hours will also be supplemented with adjusted shifts and staffing at minimal levels needed to adequately support crime scene calls.

Technician overtime will be used to maintain the timeliness of criminal identification and support to the criminalists. Overtime will be used in coordination of adjusting work schedules and staffing at minimal levels needed to support division services.

Section B: Fringe Benefits (\$4,183.00) This expense reflects the employees' benefits reimbursable by the grant. Fringe benefits on overtime hours are limited to FICA, Workman's Compensation and Unemployment Compensation. As the City of Portland is a reimbursing, or self-paying, employer, only FICA (Social Security and Medicare) is eligible for overtime reimbursement.

Section C: Travel (\$4,979.00) This expense relates to the travel for two employees. One is for a division photo specialist to receive training on audio and video equipment. At this time it is unknown where the training will be held as it could be in various locations across the United

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States. Generic flight, hotel and per diem rates were used to calculate the cost. The second travel expense is for a criminalist to attend the National Forensic Academy in Knoxville, Tennessee. The Academy lasts ten weeks. Housing is included in the tuition.

Section D: Equipment (\$51,650.00) This expense relates to computer hardware and software and digital video and photography equipment requested by the Forensic Evidence Division to upgrade the division's technological capacity and functionality.

The hardware includes seven Dell Precision Workstations each with four gig RAM, advanced graphics card, two SATA 3.0 GB 7200 RPM with eight MB Data Burst Cache 250 GB, DVD writer, media card reader and a 22-inch Ultra Sharp Wide Screen Flat Panel monitor.

The software package for each Workstation includes Adobe Photoshop CS4 and Nikon NX2. These programs possess industry standard editing tools, non-destructive editing capability and advanced image enhancement. The five additional software packages will allow the user to show each step followed in enhancement, which may be replicated for court purposes. The software also has the ability to calibrate a digital image so a true one-to-one comparison may be made. Adobe Photoshop CS4 is used to create computer-generated courtroom charts that provide a clear example of how latent identification was made. The software packages will allow staff to operate efficiently on the backlog of unidentified latent prints. The division anticipates reducing input time by 75 percent.

One of the criminalist Workstations will be loaded with the blood spatter analysis software. The requirements for the software are that it determines the area of origin of a bloodstain pattern as well as assist in creating a 3D representation of an impact pattern.

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One photo specialist Workstation will have Adobe Audition 3 software which will be utilized to enhance audio evidence. This software has adaptive noise reduction, automatic phase correction and tools to correct background noise. The other Workstation will be loaded with software already purchased by the division to enhance video recordings.

The HD video editor will allow for easier storage and distribution of video and audio evidence. It will be used in combination with the two photo specialist workstations and the digital video cameras. The video cameras will be used to record homicide and suspicious death scenes. The cameras will capture in a nonproprietary format that can be transferred to a Blu-ray disk with the video editor. The Division can save storage space and have the evidence copied for distribution quickly using these tools.

The last piece of equipment is a digital copy stand for latent print photography. The camera system will make it possible for stable capture of a latent image that can be enlarged on screen for review and assist in determining the best process for capturing the image. The digital format will permit direct entry of the latent into the criminalist Workstation for enhancement and then entry into the AFIS.

Section E: Supplies (\$5,128.00) This expense relates to the Latent Print Examiner certification materials/books. "Advances in Fingerprint Technology," Second Edition, by Henry C. Lee and R. E. Gaensslen and "Scott's Fingerprint Mechanics," by Robert D. Olsen and Walter R. Scott. The expense also relates to the Tenprint Examiner certification materials/books. "Advances in Fingerprint Technology," Second Edition, by Henry C. Lee and R. E. Gaensslen; "Quantitative-

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Qualitative Friction Ridge Analysis," by David R. Ashbaugh, and "Fingerprint Identification," by William Leo. Multiple sets of the reading material will allow for each division member to study at the same time and discuss the subject matter.

Section F: Construction (\$ -0-) There are no construction costs associated with this grant request.

Section G: Consultants/Contracts (\$ -0-) There are no consultants/contracts costs associated with this grant request.

Section H: Other Costs (\$ 26,995.00) These expenses will cover tuition for classes for division's criminalists, photo specialists and technicians, as well as, testing fees for the certification program for the division's eligible personnel.

Section I: Indirect Costs (\$ - 0-)

There are no indirect costs associated with this grant request.

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Budget Detail and Summary
Application Attachment 4

A. Personnel:

<u>Position</u>	<u>Computation</u>	<u>Cost</u>
Criminalist – overtime (OT) rate	\$59.339 per hour x 230 hours	\$ 13,648.00
Identification Technician – OT rate	\$47.46 per hour x 300 hours	\$ 14,238.00
	Subtotal:	\$ 27,886.00

B. Fringe Benefits: Fringe benefits on overtime hours are limited to FICA, Workman's Compensation and Unemployment Compensation.

Criminalist	\$8.90 x 230 hours	\$ 2,047.00
Identification Technician	\$7.12 x 300 hours	\$ 2,136.00
The City of Portland is a reimbursing, or self-paying, employer.		
	Subtotal:	\$ 4,183.00

C. Travel:

	<u>Computation</u>	<u>Cost</u>
Lodging/Hotel	\$149.00 per night x 4 nights	\$596.00
Airfare	\$378.00	\$378.00
Airfare PDX to Knoxville, TN	\$399.00	\$399.00
Per diem	\$44.00 x 4 days	\$176.00
Per diem rate Knoxville, TN	\$49.00 x 70 days	\$3,430.00
	Subtotal	\$4,979.00

D. Equipment:

	<u>Computation</u>	<u>Cost</u>
Dell Precision Workstation	\$3,200.00 x 7 each	\$22,400.00
Adobe Photoshop CS4	\$700.00 x 5 each	\$3,500.00
Nikon NX 2 Capture software	\$180.00 x 5 each	\$900.00
Adobe Audition 3 software	\$350.00 x 1 each	\$350.00
HD Video Editor	\$4,000.00 x 1 each	\$4,000.00
Blood Spatter Analysis software	\$2,500.00 x 1 each	\$2,500.00
Digital copy stand for latent print photography	\$6,000.00 x 1 each	\$6,000.00
Digital Video cameras	\$2,000.00 x 6 each	\$12,000.00
	Subtotal:	\$51,650.00

U.S. Department of Justice, Office of Justice Programs, National Institute of Justice
 FY 2009 Paul Coverdell Forensic Science Improvement Grants Program
 City of Portland, Oregon Police Bureau
 Budget Detail and Summary
 Application Attachment 4

E. Supplies:	<u>Computation</u>	<u>Cost</u>
Training materials – Latent Print Cert.	\$206.00 x 8 sets	\$1,648.00
Training materials – TenPrint Cert.	\$290.00 x 12 sets	\$3,480.00
Subtotal:		\$ 5,128.00

F. Construction: Not applicable

G. Consultants/Contracts: Not applicable

H. Other Costs:

<u>Description</u>	<u>Computation</u>	<u>Cost</u>
Tuition for IAI CLPE Prep Class	\$600.00 x 6 criminalists	\$ 3,600.00
Tuition for Major Case Seminar	\$2,500 speaking fee	\$ 2,500.00
Tuition for Advanced Friction Ridge Analysis	\$500.00 x 8 technicians	\$ 4,000.00
Tuition for Complex Latent print Identification class		
	\$600.00 x 9 criminalists	\$ 5,400.00
Tuition for Audio Video Analysis Training	\$995.00 x 1 photo specialist	\$ 995.00
Tuition for National Forensic Academy	\$7,500.00 x 1 criminalist	\$ 7,500.00
Testing fees for IAI CLPE Certification	\$150.00 x 6 criminalists	\$ 900.00
Testing fees for IAI TenPrint Certification	\$150.00 x 14 Technicians	\$ 2,100.00
Subtotal:		\$26,995.00

I. Indirect Costs: Not applicable

U.S. Department of Justice, Office of Justice Programs, National Institute of Justice
FY 2009 Paul Coverdell Forensic Science Improvement Grants Program
City of Portland, Oregon Police Bureau
Budget Detail and Summary
Application Attachment 4

Budget Summary

<u>Budget Category</u>	<u>Amount</u>
A. Personnel Costs	\$27,886.00
B. Fringe Benefits	4,183.00
C. Travel	4,979.00
D. Equipment	51,650.00
E. Supplies	5,128.00
F. Construction	- 0 -
G. Consultants/Contracts	- 0 -
H. Other Costs	26,995.00
I. Indirect Costs	- 0 -
Total Project Costs	\$120,821.00
Federal Request:	\$120,821.00
Non-Federal Amount:	- 0 -

U.S. Department of Justice, Office of Justice Programs, National Institute of Justice
FY 2009 Paul Coverdell Forensic Science Improvement Grants Program
City of Portland, Oregon Police Bureau
Plan for Collection of Data required for Performance Measures
Application Attachment 6

Impact/Outcomes and Plan for Collecting Data for Performance Measures

The Bureau's Forensic Evidence Division, in order to assess the improvement to quality and timeliness of forensic services and the backlog of unidentified latent prints, will measure the following:

1. The additional number of backlogged latent prints researched and identified by using advanced hardware and software
2. The number of audio and video analyses done using advanced hardware and software
3. Reduction in time it takes to enter enhanced latent prints using advanced hardware and software, to include reduction in time by using the new digital photography tools.
4. The number of division personnel who complete the training classes funded by the grant.
5. The number of certifications obtained from the IAI

It is anticipated that the additional software and hardware acquired from this grant will improve the quality of the division's work by 20 percent due to having access to faster, more efficient computer equipment. It is also anticipated that by combining the advanced training and more workstations, the division will reduce the backlog of unidentified latent prints by an additional 25 percent.

The division will submit semi-annual progress reports and a final report at the conclusion of the grant period. The City of Portland's Office of Financial Planning, Office of Management and Finance will submit the required Quarterly Financial Status Report. All training and installations will be fulfilled within 12 months of receipt of the grant.

U.S. DEPARTMENT OF JUSTICE
OFFICE OF JUSTICE PROGRAMS
NATIONAL INSTITUTE OF JUSTICE

**FY 2009 Coverdell Forensic Science Improvement
Grants Program**

Certification as to Plan for Forensic Science Laboratories—
Application from a **Unit of Local Government**

On behalf of the applicant agency named below, I certify the following to the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice:

This unit of local government has developed a plan for forensic science laboratories under a program intended to improve the quality and timeliness of forensic science or medical examiner services provided by the laboratories operated by the applicant unit of local government and any other government-operated laboratories within the State that will receive a portion of the grant amount.

I have authority to make this certification on behalf of the applicant agency (that is, the agency applying directly to the National Institute of Justice).



Signature of Certifying Official

____ Sam Adams _____
Printed Name of Certifying Official

____ Mayor _____
Title of Certifying Official

____ City of Portland, Oregon _____
Name of Applicant Agency
(Including Name of Unit of Local Government)

5/28/09

Date

U.S. DEPARTMENT OF JUSTICE
OFFICE OF JUSTICE PROGRAMS
NATIONAL INSTITUTE OF JUSTICE

**FY 2009 Coverdell Forensic Science Improvement
Grants Program**

Certification as to Generally Accepted Laboratory
Practices and Procedures

On behalf of the applicant agency named below, I certify the following to the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice:

Any forensic laboratory system, medical examiner's office, or coroner's office in the State, including any laboratory operated by a unit of local government within the State, that will receive any portion of the grant amount uses generally accepted laboratory practices and procedures, established by accrediting organizations or appropriate certifying bodies.

I have authority to make this certification on behalf of the applicant agency (that is, the agency applying directly to the National Institute of Justice).



Signature of Certifying Official

Sam Adams
Printed Name of Certifying Official

Mayor
Title of Certifying Official

City of Portland, Oregon
Name of Applicant Agency
(Including Name of State or Unit of Local Government)

5/28/09
Date

U.S. DEPARTMENT OF JUSTICE
OFFICE OF JUSTICE PROGRAMS
NATIONAL INSTITUTE OF JUSTICE

**FY 2009 Coverdell Forensic Science Improvement
Grants Program**

Certification as to Use of Funds for New Facilities

On behalf of the applicant agency named below, I certify the following to the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice:

The amount of the grant (if any) used for the costs of any new facility or facilities to be constructed as part of a program to improve the quality and timeliness of forensic science and medical examiner services will not exceed the limitations set forth at 42 U.S.C. § 3797m(c) and summarized in the FY 2009 Coverdell Forensic Science Improvement Grants Program Announcement.

I have authority to make this certification on behalf of the applicant agency (that is, the agency applying directly to the National Institute of Justice).



Signature of Certifying Official

Sam Adams
Printed Name of Certifying Official

Mayor
Title of Certifying Official

City of Portland, Oregon
Name of Applicant Agency
(Including Name of State or Unit of Local Government)

5/28/09
Date