



2012

ANNUAL REPORT

MARYLAND STATE POLICE

FORENSIC SCIENCES DIVISION

TABLE OF CONTENTS

Forensic Sciences Division Description	1
Director's Summary	2
Casework Summary	5
Grant Funding Summary.....	9
Operational Services Branch	11
Crime Scene Section	12
Photography Unit	15
Administrative Support Unit.....	19
Accomplishments.....	20
Goals	20
Pattern Evidence Section	21
Latent Prints/Impressions Unit	22
Firearms/Toolmarks Unit.....	33
Accomplishments.....	41
Goals	42
Chemistry Section	43
CDS Units	44
CDS-Pikesville Unit.....	45
CDS-Berlin Unit	49
CDS-Hagerstown Unit	53
Toxicology Unit.....	57
Accomplishments.....	65
Goals	65
Biology Section	66
Biology Casework Unit.....	67
Biology Database Unit.....	72
Biology Technical Unit.....	77
Accomplishments.....	78
Goals	79
Trace Evidence Section	80
Trace Evidence Unit	80
Questioned Documents Unit.....	80
Accomplishments.....	85
Goals	85

FORENSIC SCIENCES DIVISION DESCRIPTION



The Maryland State Police Forensic Sciences Division (MSP-FSD) is comprised of the Office of the Director, the Operational Services Branch and the Scientific Analysis Branch.

The Office of the Director consists of the Director, Deputy Director, Assistant Commander, and Quality Assurance / Safety Manager. This administrative unit is responsible for the overall management of the division. The Director oversees the management of the entire division while the Assistant Commander oversees the Operational Services Branch and the Deputy Director oversees the Scientific Analysis Branch. The Operational Services Branch consists of one Section and three Units. The Scientific Analysis Branch consists of four Sections comprised of eleven Units. The personnel within the Operational Services Branch and the Scientific Analysis Branch provide scientific support services to the law enforcement community.

The MSP-FSD operates under the following principles:

Core Values

Our dedication to integrity, fairness, and service ensures that our clients are always provided with reports and expert testimony that are ethical, reliable, and scientifically informative.

Mission Statement

- *To promote a healthy work environment.*
- *To meet the forensic science needs of Maryland and its citizens.*
- *To maintain accreditation with ASCLD/LAB and compliance with all oversight requirements.*
- *To minimize backlogs and turn around time.*
- *To operate in a planned, prepared, and proactive manner.*

Vision Statement

- *To respect, acknowledge, value, challenge, and retain our employees.*
- *To collaborate with other laboratories and agencies and maximize the forensic services available to Maryland and its citizens.*
- *To promote state of the science operations through continuing education and routine evaluation of current procedures.*
- *To eliminate backlogs and initiate cases upon submission.*
- *To maximize the public's return on investment by ensuring that sufficient resources are always available to the Forensic Sciences Division and that those resources are always procured in the most fiscally responsible manner possible.*

DIRECTOR'S SUMMARY

Teresa M. Long

It's all in the execution! In 2012 the Forensic Sciences Division (FSD) focused its efforts on implementing new policy changes required to retain accreditation, movement of the Hagerstown's laboratory into its new facility, and maintaining its quality management system. This is of course in addition to producing high quality forensic analysis of evidence and meeting the demands of court dates.

After months of development and planning, the CDS Units of the FSD changed their policies regarding the testing and reporting of controlled dangerous substances (CDS) in order to become compliant with the new accreditation policy. Effective in May, there was a switch from using a simplified testing and reporting format for CDS cases to one which provides the client with more clear and unambiguous results. These new procedures incorporate sample selection and statistically sound sampling plans as well as provide the net weights of the materials analyzed with gross weight of the remaining specimens. Using new Departmental internet based resources, the Technical Leader for CDS was able to present these changes via web meetings to the various State's Attorney Offices and local law enforcement agencies. These new more informative reports have been well received by both law enforcement and the courts.

During the last week of April the construction of the New Hagerstown Barracks was completed and the move into this new facility was executed. The new laboratory space is approximately 6,000 square feet (six times larger than the previous lab) and has designated laboratory and office areas for Crime Scene, CDS, Evidence Receiving, and Latent Print/Impression units. A separate, more secure area for the intake and storage of evidence is just one of the improvements provided within this space. Although not yet fully staffed, this facility was designed to handle the work generated in the western region of Maryland. To their credit, by the end of this year, the Hagerstown Laboratory had handled the backlog of CDS casework which had resulted from the shutdown and move.

Throughout 2012 FSD Management continued its dedication to the review of the Division's processes and operations. Revisions and updates are continuously made to the Technical and Training Standard Operating Procedures in efforts to keep up-to-date technologies on-line as well as to meet accreditation and licensure criteria. The first annual management review meeting which was held in July and attended by FSD management, section managers and the supervisors of the satellite laboratories and Central Receiving focused on identifying plans for improvement. Action items with deadlines were developed and the results of the internal audit of case files were reviewed along with a review of Division policies and procedures. The holding of such meetings is an ASCLD/LAB International standards requirement as well as the documentation of meeting minutes and creation of action items. In further efforts to keep communication lines open, innovative ideas such as Town Hall meetings and Lunch n' Learn webinars are also utilized.

A comparison of the yearly annual reports from 2011 to 2012 showed the laboratory receiving and completing more cases: 2012 had 19,859 cases received and 19,529 cases completed as compared to 19,094 received and 19,431 completed in 2011. As seen in the past, approximately

three quarters (72%) of the cases received in 2012 were from the allied law enforcement agencies. Overall, the casework backlogs within the disciplines decreased. The only exceptions were in CDS which experienced a major change in procedures and in the Trace Evidence Section which lost two experienced staff.

State and federal funded overtime wages were used to address casework backlogs in the areas of CDS, Latent Prints/Impressions, Biology, and Firearms/Toolmarks. The shifting of work between locations, the use of part time contractual staff, grant funded outsourcing, and the spirit of teamwork were other means by which the workload demands were addressed.

The various disciplines within the laboratory continued to bring on-line new technologies, juggle court trial dates, and assist one another with examinations. The Crime Scene Section stepped up to assist the Firearms/Toolmarks Unit with function fire testing and the Latent Prints/Impressions Unit with the processing of evidence for latent prints. Administrative Staff resources were utilized to catalog the numerous shell casings received into the Statewide Shell Casing Repository. The CDS Units had workloads shifted between laboratory locations to provide decreased turn around times for report generation. Despite shutdowns for asbestos and mold removal in the Berlin Barrack and for relocation into the new Hagerstown facility, both satellite laboratories successfully handled their caseloads ending the year with smaller backlogs than in 2011.

New testing methods for the synthetic cannabinoids (K2/spice) and cathinones (bath salts) were developed by the CDS Units and the Toxicology Unit added the testing of Zolpidem (Ambien) to the existing drug panel. The Questioned Document Unit validated the use of the new Video Spectra Comparator (VSC) and the Photography Unit added the Department's new identification card system. The Firearms/Toolmarks Unit established new testing operations for function fires and the Latent Prints/Impressions Unit streamlined examinations in efforts to provide attention to as many cases as possible. More details of each unit/section's accomplishments and statistical information can be found within this report.

During this year, the Statewide DNA Database received national attention when the Maryland Court of Appeals found the collection of DNA samples from individuals arrested and charged with qualifying crimes of violence to be unconstitutional. With that ruling, these collections ceased in April; however, Maryland's Attorney General's Office requested and received an emergency stay in July and collections resumed. The question of the constitutionality of DNA collections from felony arrestees is scheduled to be heard by the U.S. Supreme Court in February 2013.

In regards to supporting forensic science and the development of the next generation of future forensic scientists, FSD hosted twenty-six interns from various academic facilities. These institutions included the University of Baltimore, Towson State University, Penn State University, Stevenson University, West Virginia University, John Jay College, and Cedar Crest College.

FSD staff also shared their forensic expertise with State's Attorneys, representatives of the Office of Attorney General, representatives from the State of Delaware's Department of Safety

and Homeland Security, visiting foreign dignitaries and police officers, high school and college students, and members of various social clubs through tours and consultations. Specific forensic training classes were provided in several areas such as the Basic Investigators course hosted by MPCTC, the MSP-FSD Basic Crime Scene Investigation class taught by the FSD Crime Scene Section, a demonstration of the new gel lifter technology hosted by the Latent Prints/Impressions Unit, and a presentation at the State's Attorney's Summer Conference.

As time would have it, retirement took another two of our senior staff in 2012. Ms. Sandra Hartsock left after 24 years of dedicated service in CDS, Trace Evidence, and serving as the Division's Safety Officer. Mr. Salvatore Bianca, who had been the driving force in the laboratory's ability to re-establish the Trace Evidence Section retired after giving the Division seven years of service. The Crime Scene Section lost one of its technicians to an allied law enforcement agency. Furthermore, FSD lost three experienced forensic scientists, two from the Biology Section and one from the Trace Evidence Section, as they took jobs with the U.S. Department of Defense or joined the MSP Academy. Although we strongly support the efforts of our country, department, and allied law enforcement agencies as well as an individual's right to retire, it is hard to lose and replace our talented staff.

FSD continually strives to execute the necessary change for continued improvements to the forensic analyses provided by the laboratory to the law enforcement community and the court systems. The success of the Division is directly linked to the support provided by the Department and the tireless effort of all the dedicated staff. The Director's success is a result of the hard work of all the Division's employees. Special recognition goes out to Deputy Director Dan Katz, Assistant Commander Captain Dave Hopp, and Quality Assurance/Safety Manager Dr. Wanda Kuperus who make up the management team and with whom it is my pleasure to work.

2012 CASEWORK SUMMARY

Cases Received and Completed

Unit	Total Cases Received	MSP Cases Received	Allied Agency Cases Received	Cases Completed
Latent Prints/Impressions	1,770	30%	70%	1,814
Firearms/Toolmarks	727	24%	76%	741
CDS-Pikesville	8,950	27%	73%	7,994
CDS-Berlin	4,365	22%	78%	4,684
CDS-Hagerstown	2,105	45%	55%	2,382
Toxicology	1,205	34%	66%	1,220
Biology	487	21%	79%	496
Trace Evidence	250	38%	62%	198
TOTALS	19,859	28%	72%	19,529

Backlogs and Turn Around Times

Unit	Backlog (Cases)	Turn Around Time (Calendar Days)
Latent Prints/Impressions	1,537	298
Firearms/Toolmarks	399	197
CDS-Pikesville	1,468	51
CDS-Berlin	91	17
CDS-Hagerstown	81	57
Toxicology	127	34
Biology	136	94
Trace Evidence	66	66

Quantity of Submissions to FSD Ranked by MSP Installation

Rank	MSP Installation	Counties Served
1	MSP-Westminster	Carroll
2	MSP-JFK Highway	Cecil, Harford, Baltimore
3	MSP-Northeast	Cecil
4	MSP-DED	Statewide
5	MSP-Bel Air	Harford
6	MSP-Golden Ring	Baltimore
7	MSP-Salisbury	Wicomico
7	MSP-Centerville	Kent, Queen Anne's
9	MSP-Easton	Caroline, Dorchester, Talbot
10	MSP-Prince Frederick	Calvert
11	MSP-McHenry	Garrett
12	MSP-Frederick	Frederick
13	MSP-Glen Burnie	Anne Arundel
14	MSP-Leonardtown	St. Mary's
14	MSP-College Park	Prince George's
16	MSP-Berlin	Worcester
17	MSP-Rockville	Montgomery
18	MSP-Cumberland	Allegany
19	MSP-LaPlata	Charles
20	MSP-Forestville	Prince George's
21	MSP-Hagerstown	Washington
22	MSP-Princess Anne	Somerset
23	MSP-CID	Statewide
24	MSP-Waterloo	Howard
25	Office of State Fire Marshall	Statewide
26	MSP-Homicide	Statewide

Quantity of Submissions to FSD Ranked by Allied Agency County

Rank	County
1	Worcester
2	Frederick
3	Harford
4	Howard
5	Charles
6	Wicomico
7	Cecil
8	Allegany
9	Calvert
10	Anne Arundel
11	St. Mary's
12	Carroll
13	Dorchester
14	Talbot
15	Baltimore
16	Prince George's
17	Queen Anne's
18	Baltimore City
19	Washington
20	Caroline
21	Kent
22	Montgomery
23	Somerset
24	Garrett
25	Statewide

Operational Services Branch Annual Comparison

Section/Unit (<i>Action</i>)	2011	2012
Crime Scene (<i>Crime Scenes Processed</i>)	1,217	1,052
Photography (<i>Film Processed</i>)	45	115
Photography (<i>Prints Made</i>)	17,914	7,371
Central Receiving (<i>Forensic Cases Received</i>)	19,094	19,859

Scientific Analysis Branch Annual Comparison

Unit (<i>Action</i>)	2011	2012
Latent Prints/Impressions (<i>Cases Received</i>)	1,873	1,770
Latent Prints/Impressions (<i>Cases Completed</i>)	1,255	1,814
Latent Prints/Impressions (<i>MAFIS Case Hits</i>)	206	320
Latent Prints/Impressions (<i>Case Uploads to MAFIS</i>)	339	564
Latent Prints/Impressions (<i>Latent Print Uploads to MAFIS</i>)	619	1,087
Firearms/Toolmarks (<i>Cases Received</i>)	504	727
Firearms/Toolmarks (<i>Cases Completed</i>)	771	741
Firearms/Toolmarks (<i>Case Uploads to NIBIN</i>)	702	416
Firearms/Toolmarks (<i>Operation Test Shot Samples Completed</i>)	83	166
Firearms/Toolmarks (<i>Statewide Shell Casing Repository Samples Received</i>)	23,771	32,972
CDS-Pikesville (<i>Cases Received</i>)	6,948	8,950
CDS-Pikesville (<i>Cases Completed</i>)	7,808	7,994
CDS-Berlin (<i>Cases Received</i>)	5,201	4,365
CDS-Berlin (<i>Cases Completed</i>)	5,101	4,684
CDS-Hagerstown (<i>Cases Received</i>)	2,754	2,105
CDS-Hagerstown (<i>Cases Completed</i>)	2,705	2,382
Toxicology (<i>Blood Alcohol Cases Received</i>)	827	845
Toxicology (<i>Blood Alcohol Cases Completed</i>)	778	877
Toxicology (<i>Blood Drug Cases Received</i>)	346	360
Toxicology (<i>Blood Drug Cases Completed</i>)	324	343
Biology Casework (<i>Cases Received</i>)	416	487
Biology Casework (<i>Cases Completed</i>)	449	496
Biology Database (<i>Total CODIS Hits</i>)	431	414
Biology Database (<i>Arrested/Charged CODIS Hits</i>)	80	45
Biology Database (<i>Convicted Offender Uploads to CODIS</i>)	5,866	6,848
Biology Database (<i>Arrested/Charged Uploads to CODIS</i>)	4,327	3,174
Biology Database (<i>Case Uploads to CODIS</i>)	795	801
Trace Evidence (<i>Cases Received</i>)	225	250
Trace Evidence (<i>Cases Completed</i>)	240	198

GRANT FUNDING SUMMARY

ACTIVE GRANTS:

NIJ FY11 DNA Backlog Reduction Program: 2011-DN-BX-K452

Start date: 10/01/2011

End date: 03/31/2013

Amount: \$758,796

This grant is entitled FY2011 DNA Backlog Reduction Program – Maryland State Police. This grant includes funding for both DNA casework and DNA database operations. In 2012, grant funds were used to outsource 223 cases for DNA testing as well as to purchase reagents that allowed for in-house analysis of 91 cases and 1,096 DNA database samples. A total of 151.5 hours of staff overtime was funded to support the review of outsourced cases. Funds were also used for various software, lab equipment, and continuing education events/resources.

NIJ FY12 DNA Backlog Reduction Program: 2012-DN-BX-0040

Start date: 10/01/2012

End date: 03/31/2014

Amount: \$455,908

This grant is entitled FY2012 DNA Backlog Reduction Program – Maryland State Police. This grant includes funding for both DNA casework and DNA database operations. In 2012, grant funds were used to purchase reagents for in-house DNA analysis. Upon the closeout of the FY2011 DNA Backlog Reduction Grant, additional funds will be spent on reagents for in-house DNA analysis as well as outsourcing, overtime, equipment, hardware, and continuing education.

Coverdell FY12 Formula Grant: CFSI-2012-1806

Start date: 10/01/2012

End date: 08/31/2013

Amount: \$35,280

This grant is entitled Latent Prints/Impressions Enhancements. This grant was originally budgeted to spend all of the grant funds on overtime for the Latent Prints/Impressions Unit, but the budget has since been modified. The overtime funding was reduced allowing for the purchase of additional equipment and contractual services in the Firearms/Toolmarks Unit.

GRANTS CLOSED IN 2012:

NIJ FY10 Forensic DNA Backlog Reduction Program: 2010-DN-BX-K102

Start date: 10/01/2010

End date: 03/31/2012

Amount: \$359,687

This grant was entitled FY2010 Forensic DNA Backlog Reduction Program – Maryland State Police. During the grant period 200 cases were sent to the contract lab for analysis of which 143 cases were direct outsourced from the submitting agency eliminating the need to come into the MSP-FSD laboratory and be added to the MSP-FSD backlog. Also during the grant period the Biology staff worked 207.5 hours of overtime reviewing the outsourced casework. Furthermore, during the grant period 11 analysts and technicians participated in continuing education funded by this grant. Equipment purchased with funds from this grant included 4 microscopes to accommodate additional staff, 1 thermal cycler to accommodate increased in-house analysis, and 18 desktop computers to replace existing workstations that had exceeded their recommended lifespan.

NIJ FY10 Convicted Offender/Arrestee Backlog Reduction: 2010-DN-BX-K027

Start date: 10/01/2010

End date: 03/31/2012

Amount: \$206,591

This grant was entitled FY2010 Convicted Offender and/or Arrestee DNA Backlog Reduction Program – Maryland State Police and facilitated the transition from outsourcing DNA database samples to analyzing them in-house. A total of 9,806 DNA database samples were analyzed under this award; 4,698 of these samples were from individuals arrested and charged with a qualifying crime and 5,108 were from convicted offenders. Of the 9,806 samples analyzed, 8,771 were uploaded into CODIS; 4,433 correspond to individuals arrested and charged with a qualifying crime and 4,338 correspond to convicted offenders. A total of 54 CODIS hits resulted from this grant. Furthermore, the transition from outsourcing to in-house analysis reduced the cost per sample from \$32.25 to \$20.45 and reduced the turnaround time from 10 days to 4 days.

Coverdell FY11 Formula Grant: CFSI-2011-1006

Start date: 10/01/2011

End date: 09/30/2012

Amount: \$37,067

This grant was entitled Pattern Evidence Section/CDS Enhancement. During the grant, a total of 406 hours of overtime was worked by supervisory staff in the Latent Prints/Impressions Unit, the Firearms/Toolmarks Unit, and the CDS Units resulting in the completion of 364 total cases (206 CDS, 119 Latent Prints/Impressions, and 39 Firearms/Toolmarks). Equipment purchased under this grant included micrometers, shooting glasses, ear muffs, a diagonal cutter, a re-loader, a bore scope, and a drill press for the Firearms/Toolmarks Unit. Also, 2 laptop computers and 4 docking stations were purchased to support the StarLIMS operations.

OPERATIONAL SERVICES BRANCH

The Operational Services Branch is comprised of the Crime Scene Section, Central Receiving Unit, Photography Unit, and Administrative Support Unit and is managed by the Assistant Commander. The Crime Scene Section (CSS) is managed by the Crime Scene Section Manager and is divided into three regions; Western, Central, and Eastern. The Section is staffed by three Crime Scene Technician Supervisors and five Crime Scene Technicians per Region. The Photography Unit is located at the Forensic Sciences Division (FSD) Pikesville Laboratory and is supervised by one Forensic Photographer Supervisor and is staffed by one Forensic Photographer. Also located at the Pikesville Laboratory are the Central Receiving and Administrative Support Units. The Central Receiving Unit is supervised by one Administrative Officer and is staffed by three Inventory Control Specialists. The Administrative Support Unit is supervised by one Administrative Specialist III and is staffed by one Administrative Specialist II and one Services Specialist.

CRIME SCENE SECTION

The Crime Scene Section is responsible for processing crime scene evidence to include identifying, collecting, preserving, photographing, sketching, storing and transporting evidence into the laboratory facilities. Bloodstain pattern analysis, facial composite generation, and bullet trajectory determination are also available. Along with processing of crime scenes, the technicians work closely with criminal investigators, providing technical assistance thereby allowing investigators the opportunity to conduct a thorough investigation. The technicians are available to Maryland's law enforcement community twenty-four hours a day. The CSS also provides assistance to neighboring states upon request.

The majority of the evidence examined by the FSD is transported by Crime Scene Technicians (CST). They not only transport evidence for the majority of the Department's installations, but also for many of the local police and sheriffs' departments. CSTs also transport controlled dangerous substance evidence for analysis to the Pikesville Laboratory and the two satellite laboratories located in Hagerstown and Berlin.

In addition to these duties, CSTs are responsible for the conduct and training of Crime Scene Search Teams (CSST) around the State. These teams are comprised of volunteers who respond to crime scenes and conduct thorough searches of large areas or smaller scale grid searches to recover possible evidence. There are two operational CSSTs managed by crime scene personnel. The Central Maryland Crime Scene Search Team is based in Frederick and the Northern Search Team is located in North East.

The technical abilities and expertise of the CSS technicians are often utilized for activities other than criminal investigations. They provide instruction at the Maryland State Police Academy, Natural Resources Police Academy, various in-service school programs, and provide lectures during training and seminars hosted by allied police departments. In June of this year a two week Basic Crime Scene Training program was conducted for the training of new Crime Scene Section personnel as well as various personnel from numerous allied departments.

CSU Geographical Areas of Responsibility

Western Region: Allegany, Frederick, Washington, Carroll, Howard, Montgomery and Garrett Counties

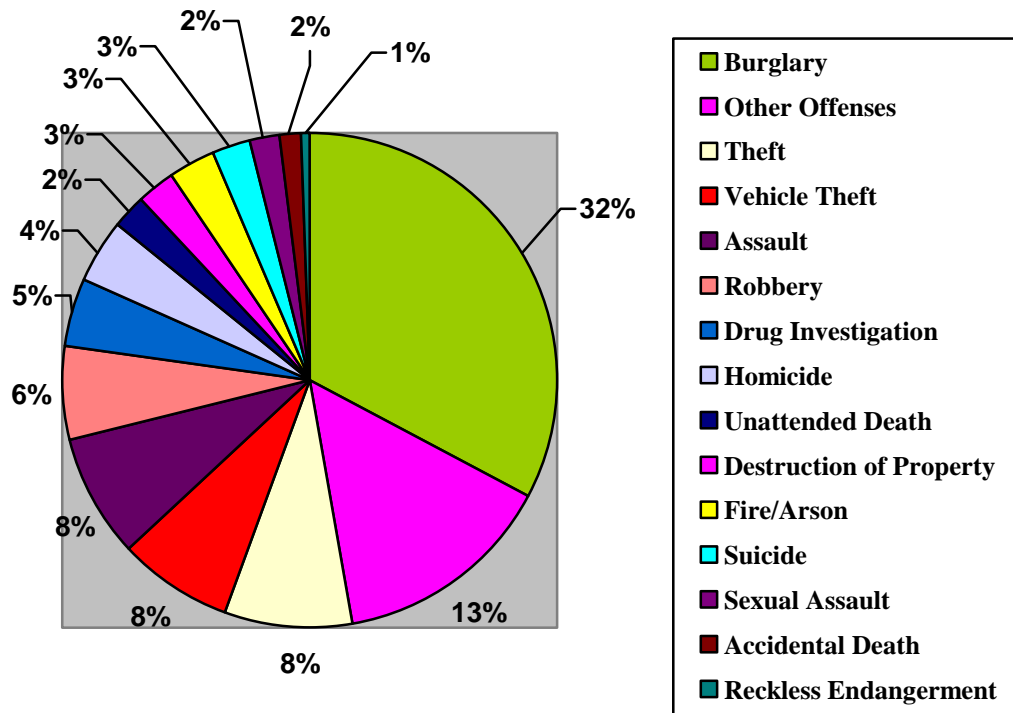
Central Region: Harford, Baltimore, Cecil, Anne Arundel, Prince George's, Calvert, Charles and St. Mary's Counties; Maryland Port; and all DOC facilities located in Baltimore City

Eastern Region: Kent, Queen Anne's, Talbot, Caroline, Dorchester, Wicomico, Somerset and Worcester Counties

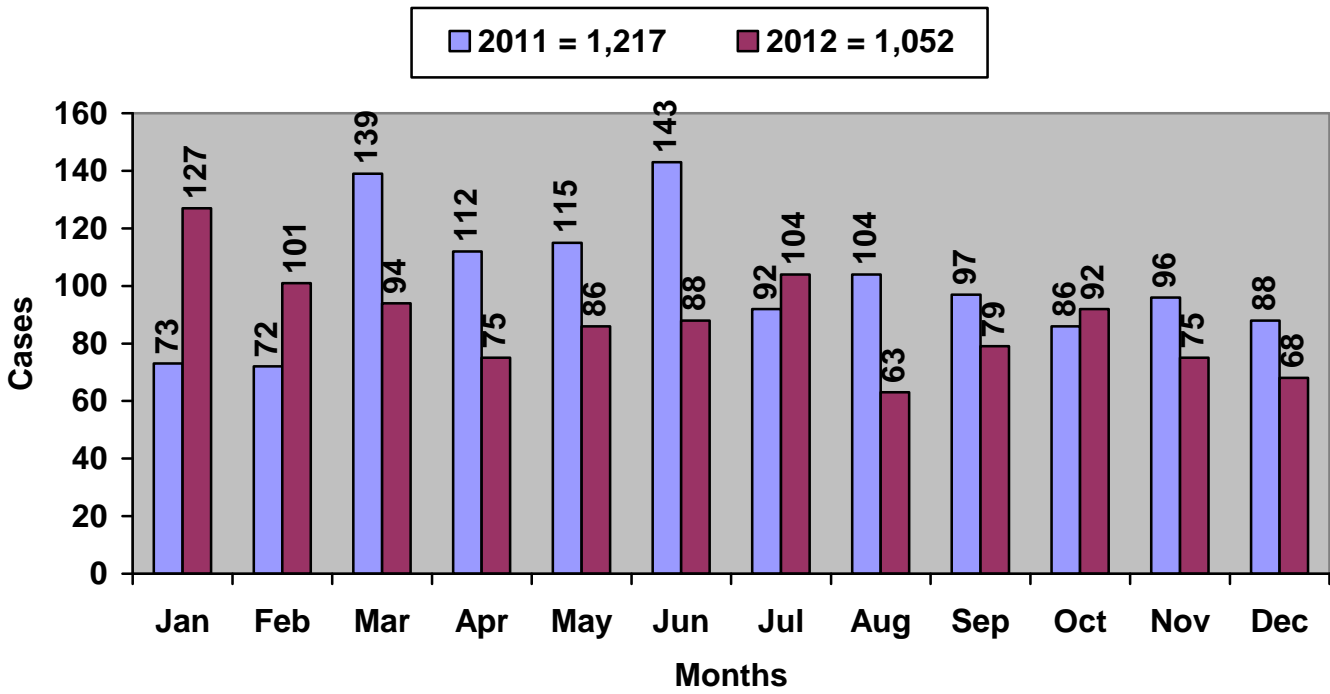
Total Number of Crime Scenes Handled in 2012 per Office

Crime Scene Office	Total Crime Scenes
Easton	135
McHenry	135
Northeast	93
Princess Anne	89
Westminster	86
Bel Air	83
Cumberland (C3I)	80
Centreville	75
Frederick	65
Glen Burnie	64
Hagerstown	60
Salisbury	47
Golden Ring	38
Pikesville	2
TOTAL	1,052

Total Number of Crime Scenes in 2012 per Crime Type



Total Number of Crime Scenes per Month



PHOTOGRAPHY UNIT

The Photography Unit provides photographic services to the Maryland State Police as requested through FSD management. In 2012, the Photography Unit launched a new ID card system and began the conversion of the Department to the new card.

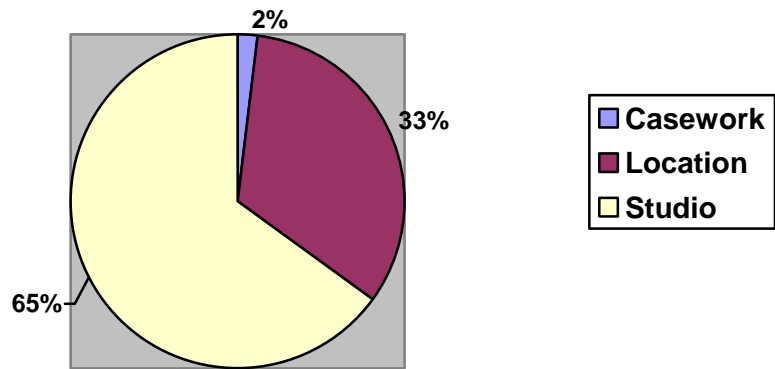
Duties within the unit include the development and printing of images for the Maryland State Police and other agencies related to crime scenes and motor vehicle accidents. This unit also serves as the VeriPic system administrator. Reprints or CDs are made via requests from various divisions/units throughout the Department. Other duties include public relations photos, maintaining the digital Barrack Identification Photo System, and support of other units within the MSP.

Photography Unit personnel serve as members of the Disaster Identification and Mass Arrest Teams and provide technical training in photography.

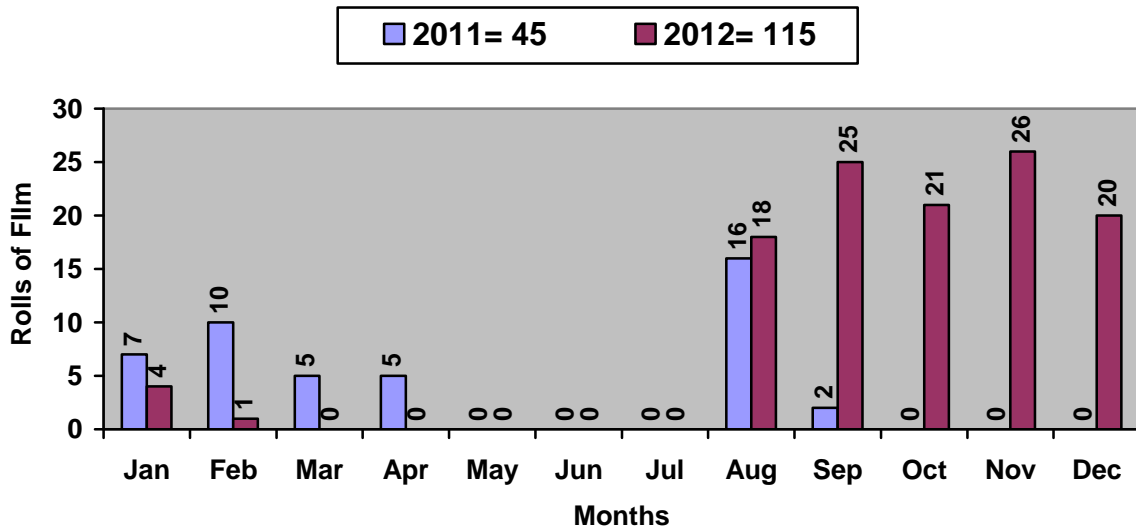
Photography Requests 2012

MSP Customer	Requests
Department (Scheduled Portrait Days)	129
Headquarters	26
Training	13
Forensic Science Division	11
Barracks	8
Special Operations Division	6
Aviation	5
Recruiting	5
TOTAL	203

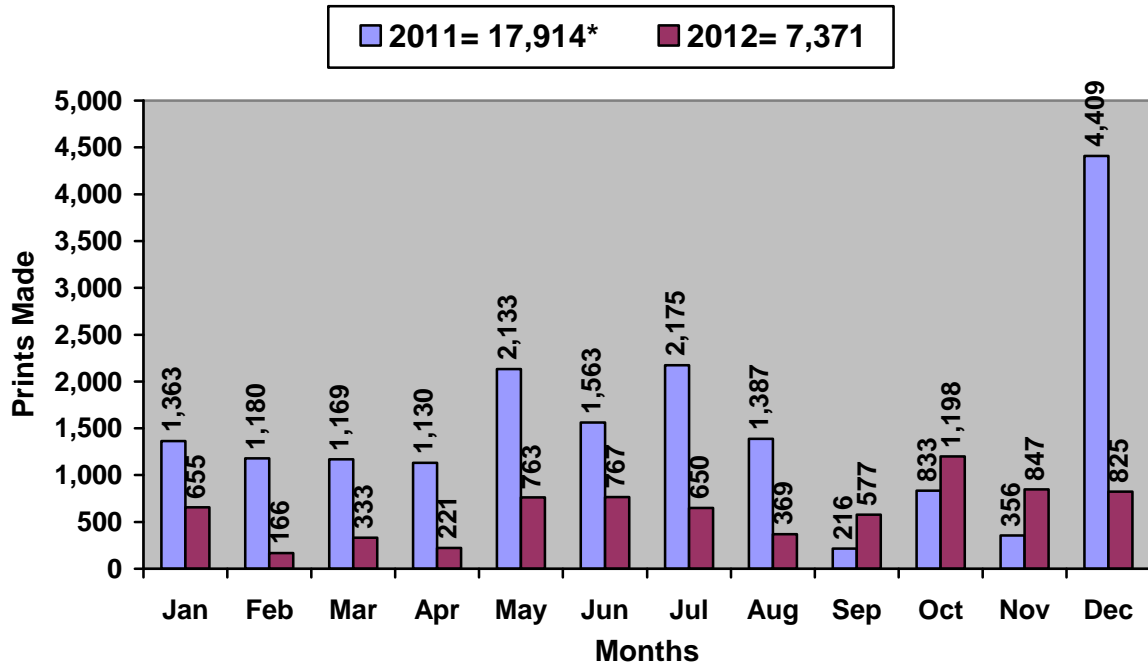
2012 Photo Requests per Request Type



Total Film Processed



Total Prints Made



**NOTE – The “Total Prints Made” were incorrectly reported in 2011 and have been revised.*

CENTRAL RECEIVING UNIT

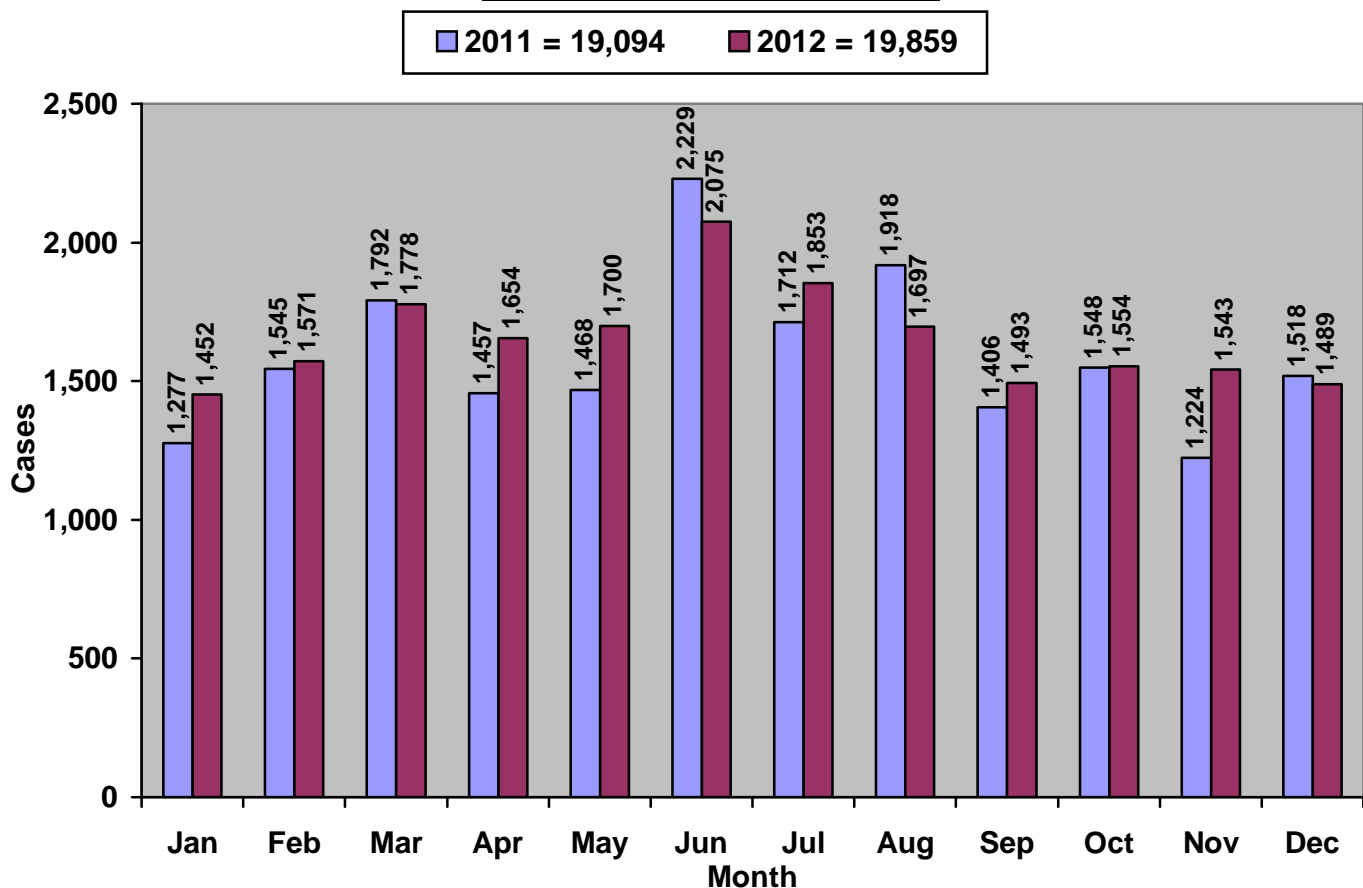
The Central Receiving Unit (CRU) functions as a liaison between the FSD and agencies submitting evidence for scientific analysis and CDS destruction. The unit is composed of one Administrative Officer and three Inventory Control Specialists. The unit's supervisor serves as the StarLIMS administrator and reports to the FSD Assistant Commander.

The CRU handles a large volume of various types of evidence such as control swabs, guns, bullets, soiled clothing, controlled dangerous substances, blood tubes, fingerprint lift cards, and questioned documents. The items are secured in the unit while awaiting analysis and again while pending return to the submitting agency. Personnel assigned to the unit ensure the integrity and protection of each item of evidence.

The CRU administers the Department's CDS destruction process. During the destruction process, Inventory Control Specialists randomly select a number of cases to be re-tested for quality control. The CRU also coordinates local destruction of marijuana plants with the various Maryland State Police installations.

The CRU is responsible for archiving scientific analytical reports for all sections of the FSD and coordinates the transmittal of files to and from the State Records Management Center. The CRU also maintains expunged records for the division.

Total Cases Received at FSD



ADMINISTRATIVE SUPPORT UNIT

The Administrative Support Unit provides support throughout the FSD. Support functions include processing working fund expenditures, ordering laboratory supplies, capital inventory, various administrative duties involving the laboratory budget, personnel inquiries, maintaining service agreement contracts, processing invoices, back-up processing of ID cards, logging and maintaining all submitted court summonses, logging and processing training requests, processing work and leave reports, and maintaining the Departmental filing system.

In addition to the FSD administrative staff, a contractual employee that is sub-contracted through LB & B Associates is assigned to provide security/receptionist coverage for the FSD front lobby security desk. This individual screens and logs all visitors, including personnel delivering evidence, and also monitors laboratory security cameras and corresponds with Headquarters and the Baltimore County Police Department regarding security issues.

OPERATIONAL SERVICES BRANCH ACCOMPLISHMENTS IN 2012

1. With the development of a new Department identification card system completed, the Photography Unit completed the transition of 95% of all sworn personnel to the new more secure card. This transition included obtaining updated formal portraits of all sworn personnel. This Unit also transitioned the Office of the State Fire Marshall to the VeriPic digital photography system.
2. During 2012 the Crime Scene Section conducted test fire evaluations that reduced the Firearms/Tool Marks Unit's backlog by 124 cases. During the completion of the 124 cases, 130 handguns were evaluated. The completion of these cases in another unit demonstrates the dedication of the Crime Scene Section personnel in helping the Division reach its goals. The CSS also conducted the first ever two week Crime Scene Investigation School, for MSP and allied departments, to increase the quality of these types of investigations statewide.
3. The Administrative Support Unit staff assisted the Firearms/Tool Marks Unit by entering and cataloging 11,907 shell casings from the Statewide Shell Casing Repository minimizing the impact and workload on that unit's personnel. This continues to demonstrate this unit's philosophy of working as a team to overcome difficult challenges. The Administrative Support Unit has continued to proactively plan and implement recruitment strategies to maintain near zero vacancies. This directly results in the various sections being fully staffed adding to their ability to maintain case loads

OPERATIONAL SERVICES BRANCH GOALS FOR 2013

1. The Photography Unit looks to transition all civilian employees to the new more secure photo identification card. In addition, formal portraits of all employees will be obtained and catalogued.
2. The Central Receiving Unit strives to complete the final process of implementing an inventory process through the use of StarLIMS. This will eliminate duplication of efforts throughout the laboratory and will increase productivity.
3. The Crime Scene Section looks to create an advanced photography school in order to begin using digital photography for detailed close up photographs of latent print evidence. This will help enhance the ability to evaluate this type of evidence.

PATTERN EVIDENCE SECTION

The Pattern Evidence Section (PES) is comprised of two units, the Latent Prints/Impressions Unit (LPIU) and the Firearms/Toolmarks Unit (FATMU). The section is responsible for performing the analysis of firearm, toolmark, latent friction ridge impression, footwear, and tire track related evidence associated with criminal casework. The overall operations of the Pattern Evidence Section are overseen by one Forensic Scientist Manager. Current staffing of the LPIU includes a Forensic Scientist Supervisor, one Forensic Scientist Advanced, two Forensic Scientists III, and two Forensic Scientists II. The FATMU is staffed with a Forensic Scientist Supervisor, one Forensic Scientist Advanced, one Forensic Scientist III (vacant), two Forensic Scientists II, and one Lab Technician I.

Both units within the Pattern Evidence Section are actively engaged in training programs of two Forensic Scientist II trainees assigned to each unit. While both units are providing in-house training, several well recognized external resources were identified which have enhanced the training process for each discipline. Both units were successful in their solicitations of acceptance to several federally funded training programs. In addition to budgetary benefits gained through federal programs, this has provided the opportunity to provide a more balanced training experience for the trainees.

LATENT PRINTS/IMPRESSIONS UNIT

The Latent Prints Sub-Unit performs examinations of latent friction ridge impressions. Various methods utilizing chemicals, powders, and illumination techniques are used for the detection of latent prints. The unit records developed friction ridge impressions using digital capture/photo processes as well as gel and adhesive lifts. Comparisons between known to unknown prints are conducted for purposes of determining if they originated from the same individual. An evaluation or conclusion is reached and supporting documents and notes are retained. In cases where an identification is effected a second examiner performs an independent verification. Any unidentified latent prints meeting the system requirements are searched through the Maryland Automated Fingerprint Identification System (MAFIS) and when warranted against the FBI database (IAFIS). An official report is issued on all case requests. All case files are administratively and technically reviewed by a qualified independent examiner. Examiners complete an annual external proficiency test administered by Collaborative Testing Services and receive yearly discipline oriented training as per ASCLD/LAB and agency Quality Assurance requirements.

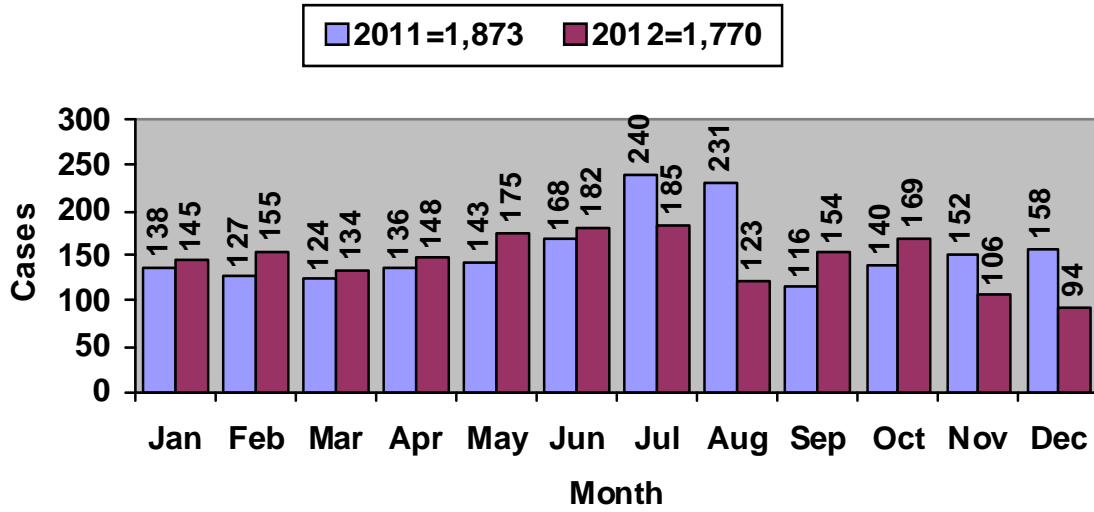
The Impressions Sub-Unit is responsible for examinations of footwear and tire track evidence. Various powders, chemicals, and photography are used for the proper recovery of this impression evidence. Images are recorded with digital imaging devices such as scanners, digital cameras, and the Gel Lifter Scan Instrument. An analysis and comparison is performed as required for these sub-disciplines. Any footwear images that are suitable are entered and searched through the SICAR database. Tire track images can also be searched in SICAR using the tire tread guide software. In cases where either an identification or could have been made determination is rendered, a second examiner performs an independent verification. All notes, photos, reports, and case file contents are reviewed through an administrative and technical review process. Examiners complete an annual external proficiency test administered by Collaborative Testing Services and receive yearly discipline oriented training as per ASCLD/LAB and Quality Assurance requirements.

The LPIU completed draft versions of revised technical operating procedures. Final implementation of the changes is anticipated to occur in early 2013. The unit also created and implemented the use of universal worksheets to further enhance and standardize the documentation of work performed by examiners. The forms are considered to be unique to the profession. Automation tools were incorporated into the forms which include drop down lists, pop-up screen hints, and hyperlinks to a model terminology document which was created to compliment the forms. The forms have been shared with examiners from other agencies who expressed an interest in using them.

The LPIU regularly hosts meetings of the Maryland AFIS User's Group. Members of the LPIU prepare and present reports on a number of issues which they have encountered while using the system. Most of these include recommendations which the attending agencies could implement to enhance their use of the Maryland AFIS. This year staff also worked with the Maryland Department of Public Safety and Correctional Services, the FBI, and representatives from the AFIS vendor to prepare for implementation of added AFIS capabilities to be provided through the FBI in March 2013.

Casework

Total Cases Received



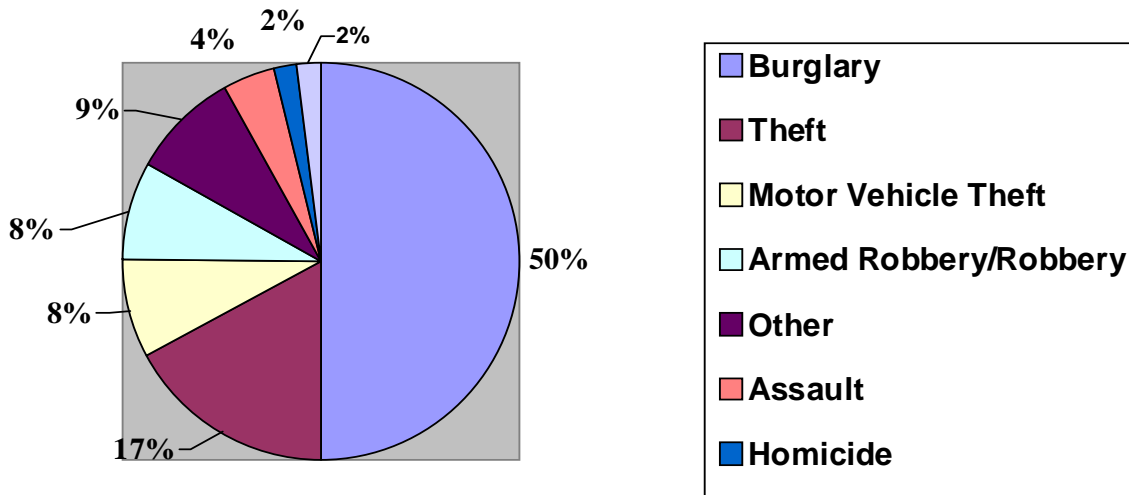
Total MSP Cases Received in 2012 per Installation

MSP Installation	Counties Served	Submissions
MSP-Northeast	Cecil	118
MSP-Westminster	Carroll	68
MSP-Centerville	Kent, Queen Anne's	50
MSP-Bel Air	Harford	48
MSP-Easton	Caroline, Dorchester, Talbot	40
MSP-McHenry	Garrett	26
MSP-Berlin	Worcester	24
MSP-Frederick	Frederick	23
MSP-Homicide	Statewide	13
MSP-College Park	Prince George's	13
MSP-Salisbury	Wicomico	12
MSP-Princess Anne	Somerset	12
MSP-JFK Highway	Cecil, Harford, Baltimore	10
MSP-Cumberland	Allegany	10
MSP-Prince Frederick	Calvert	9
MSP-Golden Ring	Baltimore	8
MSP-CID	Statewide	8
MSP-Rockville	Montgomery	5
MSP-Glen Burnie	Anne Arundel	5
MSP-DED/QUADTF	Queen Anne's	5
MSP-Hagerstown	Washington	5
MSP- LaPlata	Charles	3
MSP-Leonardtown	St. Mary's	3
MSP-Waterloo	Howard	2
MSP-Forestville	Prince George's	2
MSP-BDCE - JESSUP	Howard	1
MSP Annapolis	No longer in service	1
MSP-Garrett County Task Force	Garrett County	1
	TOTAL	525

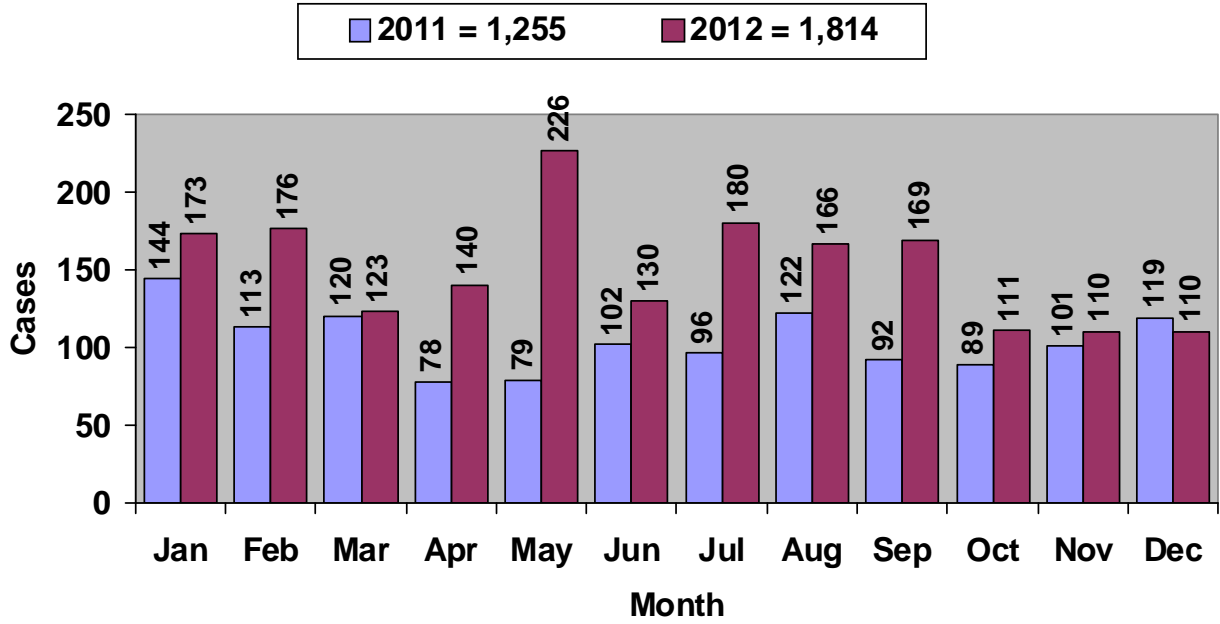
Total Allied Agency Cases Received in 2012 per County

County	Submissions
Worcester	256
Frederick	182
Wicomico	146
Dorchester	118
Cecil	114
Carroll	109
Washington	69
Queen Anne's	61
Talbot	42
Allegany	39
Caroline	34
Prince George's	20
Kent	13
Baltimore	11
Somerset	8
Harford	6
Anne Arundel	5
Baltimore City	5
Out of State	4
St Mary's	1
Charles	1
Garrett	1
TOTAL	1,245

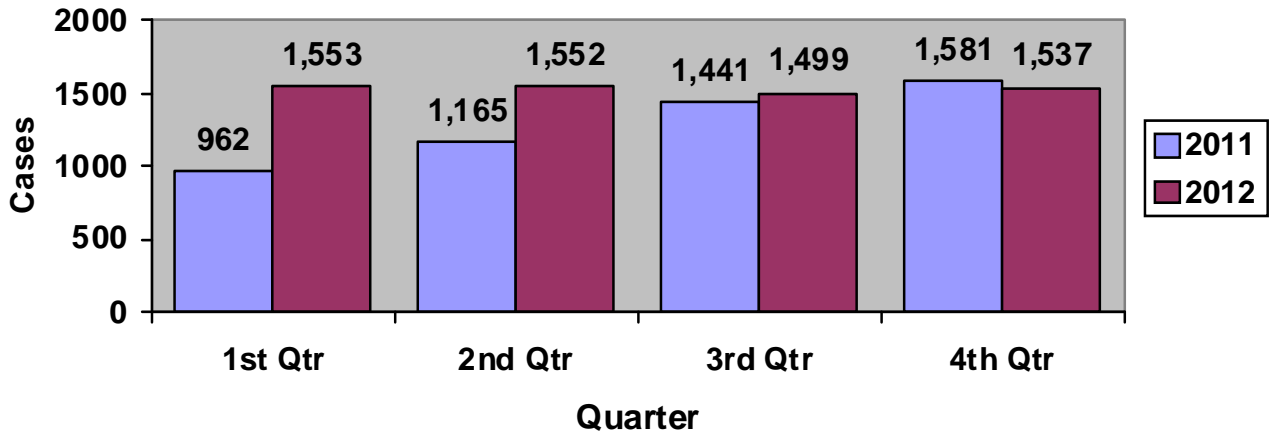
Total Cases Received in 2012 per Crime Type



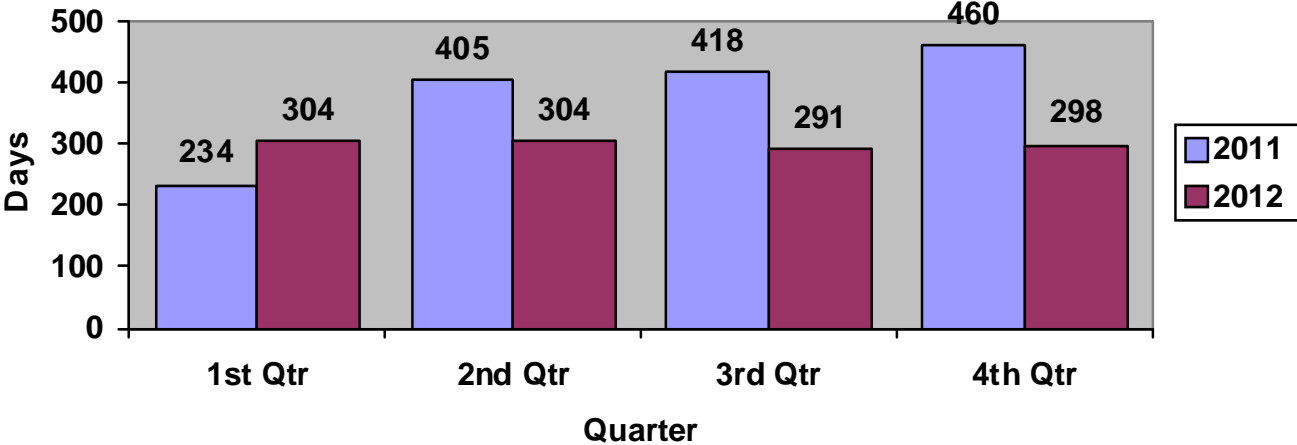
Total Cases Completed per Month



Ending Backlog per Quarter

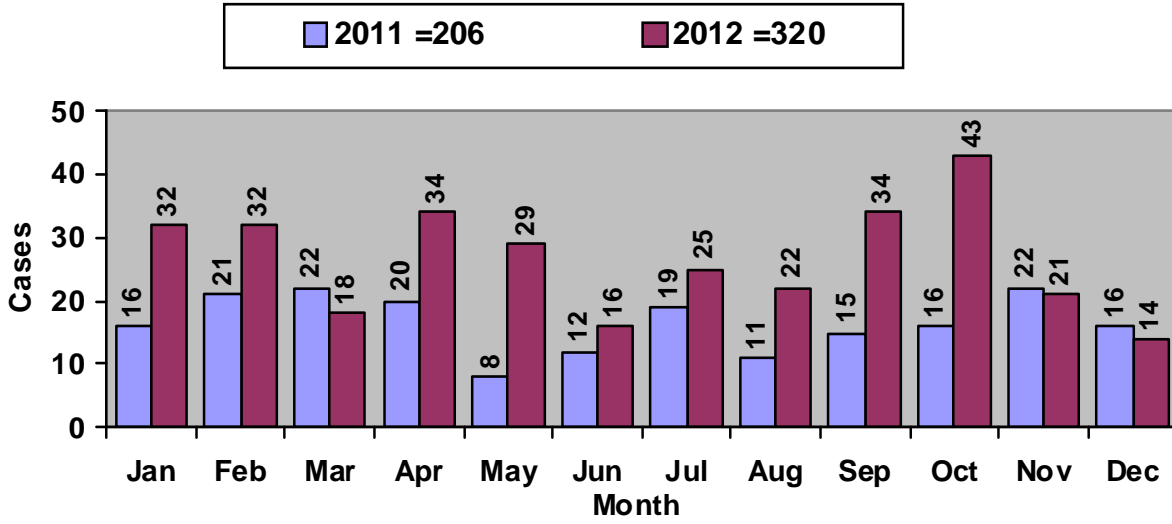


Average Turn Around Time per Quarter



MAFIS Database

Total MAFIS Case Hits Reported per Month



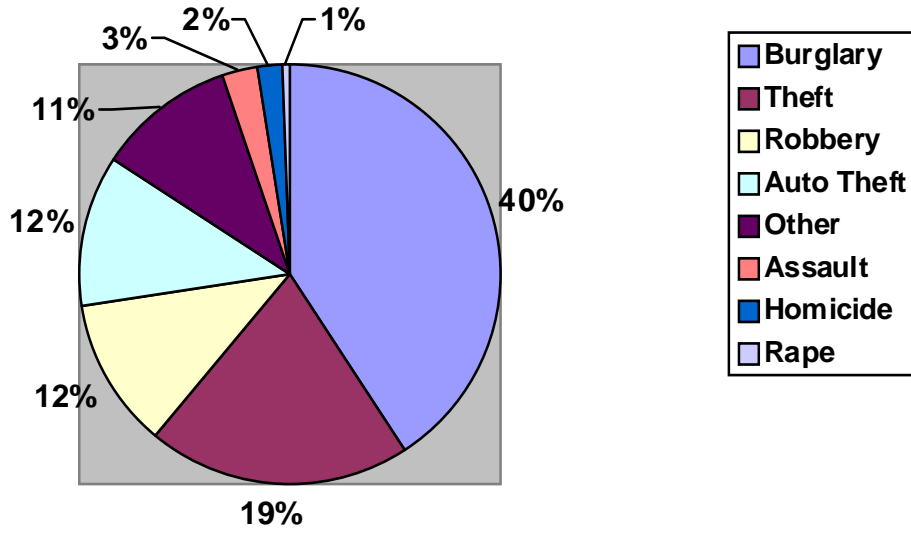
Total MAFIS Case Hits Reported in 2012 per County

County	Hits Reported
Frederick	40
Wicomico	39
Carroll	37
Cecil	26
Washington	26
Worcester	23
Dorchester	19
Queen Anne's	13
Prince George's	12
Allegany	11
Harford	11
Talbot	10
Caroline	8
Baltimore	6
Calvert	6
Kent	6
Somerset	5
Anne Arundel	4
Baltimore City	3
Charles	3
Howard	3
Montgomery	3
Garrett	2
St. Mary's	2
Out of State	2
TOTAL	320

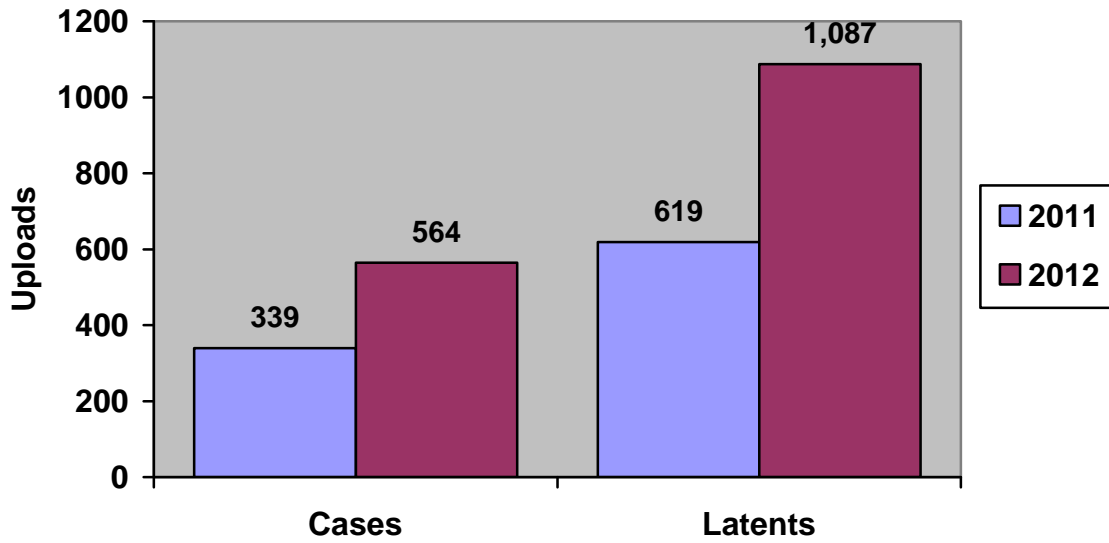
Total MAFIS Case Hits Reported in 2012 per Year of the Crime

Year of the Crime	Cases with Hits Reported
1989	1
1990	2
1991	2
1992	4
1993	3
1994	5
1995	3
1996	10
1997	5
1998	5
1999	8
2000	14
2001	10
2002	7
2003	11
2004	7
2005	9
2006	11
2007	8
2008	7
2009	8
2010	44
2011	81
2012	55
TOTAL	320

Total MAFIS Case Hits Reported in 2012 per Crime



Total Uploads to MAFIS per Year



Training and Validation

Forensic Scientist	Training In Progress
FSII Heather Charron	<p>FS-II Latent Print Examiner Trainee <i>Database Verifications & Latent Print Processing Competency completed 2 year program to be completed June 2013</i></p> <p><u>NFTSC – Largo, FL.</u></p> <ul style="list-style-type: none"> • Automation in Friction Ridge Examination • Current Issues in the Science of Friction Ridge Individualization • Latent Print Development Techniques II • Digital Imaging Concepts for Latent Print Examiners • Complex Examinations and IAI Certification Test Preparation • Finger Print Expert Witness Testimony Moot Court <ul style="list-style-type: none"> • BVDA Gel Lift Workshop Pikesville, MD • IAI Annual Educational Conference Phoenix, AZ • NCIC CN2 Basic Access Course CJIS Pikesville, MD
FS II Stephanie Roberg	<p>FS-II Latent Print Examiner Trainee <i>Database Verifications & Latent Print Processing Competency completed 2 year program to be completed June 2013</i></p> <p><u>NFTSC – Largo, FL.</u></p> <ul style="list-style-type: none"> • Automation in Friction Ridge Examination • Current Issues in the Science of Friction Ridge Individualization • Latent Print Development Techniques II • Digital Imaging Concepts for Latent Print Examiners • Complex Examinations and IAI Certification Test Preparation • Finger Print Expert Witness Testimony Moot Court <ul style="list-style-type: none"> • BVDA Gel Lift Workshop - Pikesville, MD • NCIC CN2 Basic Access Course - CJIS Pikesville MD. • How to Be A Good Expert Witness - On Line

New Technology Implemented in 2012	Expected Benefits
Gel Lift Scanner	Produce better quality images for analysis and comparison considerations.

FIREARMS/TOOLMARKS UNIT

The Firearms/Toolmarks Unit (FATMU) provides examinations of firearms and firearm related evidence plus toolmark examinations. Analyses include direct comparisons, distance determinations, and serial number restorations. All matches associated with direct comparisons are verified using a comparison microscope by a second qualified examiner. Furthermore, after the completion of each case an independent administrative and technical review is performed by another qualified examiner prior to issuing a report. In addition to examination of cases the FATMU provides training for various agencies relating to firearms. The FATMU has established a Walk-In Test Fire (WITF) program which will be used full time starting in late January 2013. The unit already has an Operation Test Shot (OTS) program in place in which allied agencies test fire their evidence and send ammunition components to the FATMU for placement into the National Integrated Ballistic Identification Network (NIBIN) database system. NIBIN allows for fired cartridge cases from test fires or crime scenes to be entered and searched against existing records. The system is used as an investigative tool through the detection of cartridge cases that are determined to have been fired from the same firearm. Plans have been made to expand the OTS participation by three additional allied agencies in early 2013. Once installation and training have been completed, fourteen agencies will be included in the program. The WITF and OTS programs are key components in the continuing efforts to reduce turn around time in the FATMU.

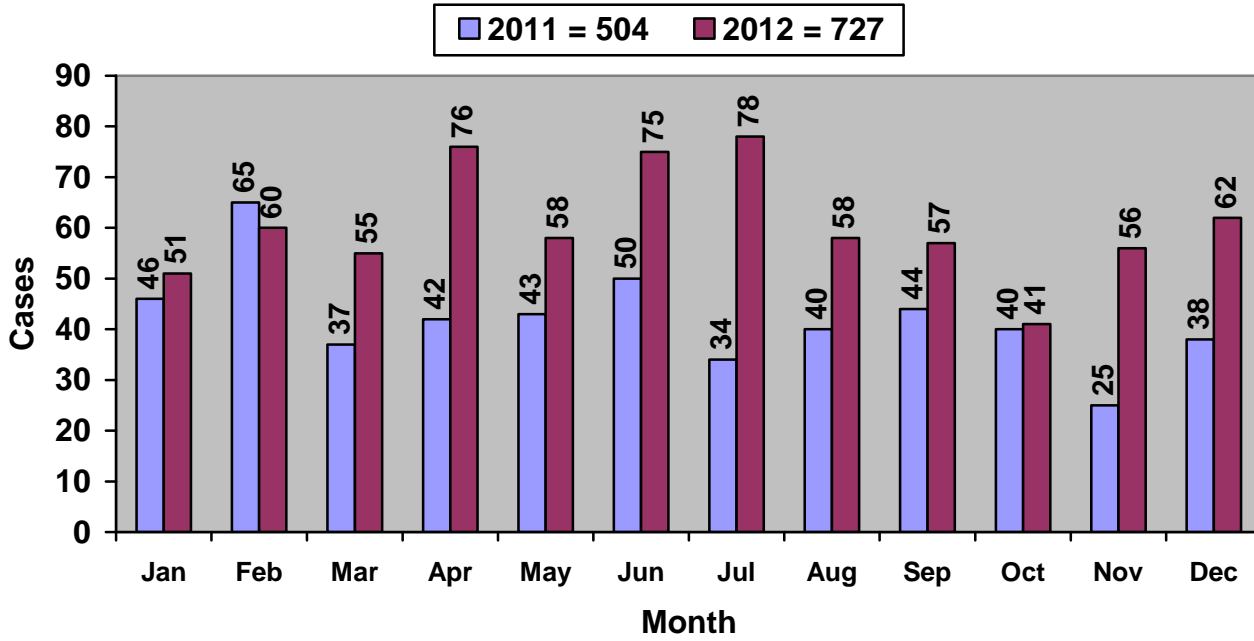
The FATMU is responsible for the entry of information and correlation of fired shell casings in association with the Statewide Shell Casing Repository. This program requires submission of fired shell casings from any new handgun sold in Maryland. In 2012 the FATMU successfully passed an outside audit that cross checked shell casings received with guns licensed by MSP.

The FATMU provides essential support to the Maryland Handgun Roster Board. The Board is responsible for evaluating new firearms for compliance with Maryland regulations and determining if they should be approved for sale in the state. The FATMU performs tests on each submitted firearm and prepares an evaluation which is then used by the Board during its regular meetings. Representatives from the FATMU also attend each Board meeting (generally monthly).

Beyond the support regularly provided to allied agencies, the FATMU extended assistance to two agencies which regularly provide for their own laboratory examinations. An officer from the Montgomery County Police Department (MCPD) attended the BATF National Firearms Examiners Academy (NFEA). Upon completion of the program he required additional training in order to become a competent firearms examiner. A qualified examiner was not available at the MCPD to complete the training and the FATMU offered to provide the necessary support. One of the two firearms examiners working for the Baltimore County Police Department (BCoPD) went on extended sick leave. In his absence the FATMU has been working with the BCoPD primarily in the role of performing verification examinations. Both of these endeavors will continue into 2013.

Casework

Total Cases Received per Month



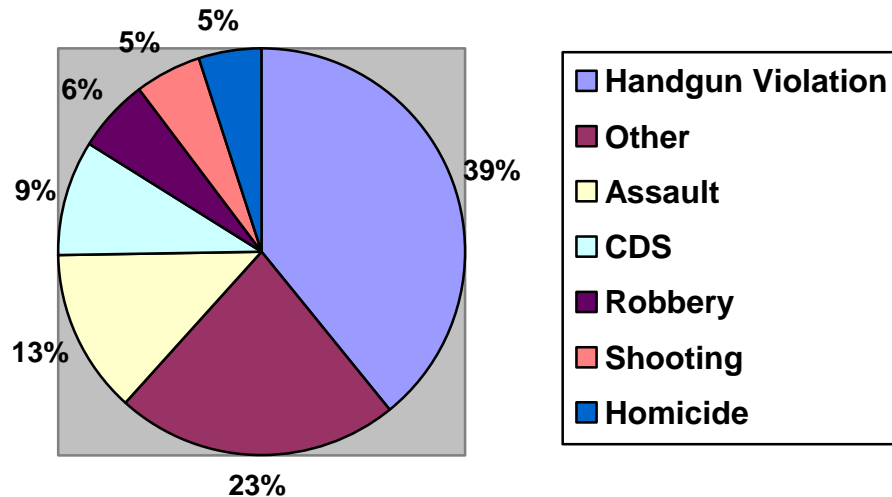
Total MSP Cases Received in 2012 per Installation

Installation	Counties Served	Submissions
MSP-JFK Highway	Cecil, Harford, Baltimore	23
MSP- Easton	Caroline, Dorchester, Talbot	18
MSP-Bel Air	Harford	16
MSP-Frederick	Frederick	13
MSP-Princess Anne	Somerset	12
MSP-Forestville	Prince George's	12
MSP-McHenry	Garrett	11
MSP-Golden Ring	Baltimore	9
MSP-North East	Cecil	8
MSP-Centreville	Kent, Queen Anne's	7
MSP-College Park	Prince George's	7
MSP-LaPlata	Charles	7
MSP-Westminster	Carroll	6
MSP-Hagerstown	Washington	6
MSP-Cumberland	Allegany	5
MSP-Waterloo	Howard	4
MSP-Glen Burnie	Anne Arundel	3
MSP-Salisbury	Wicomico	3
MSP-Prince Frederick	Calvert	3
MSP-Leonardtown	St. Mary's	2
MSP-Berlin	Worcester	2
	TOTAL	177

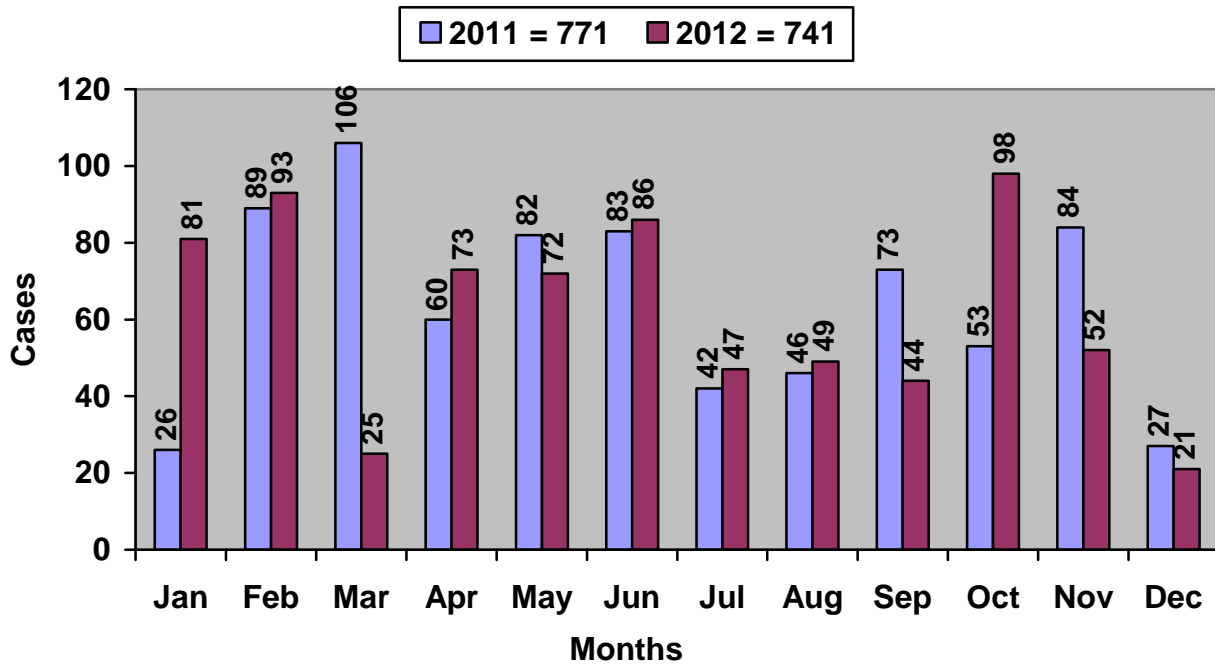
Total Allied Agency Cases Received in 2012 per County

County	Submissions
Anne Arundel	155
Frederick	49
Wicomico	47
Worcester	42
Washington	39
Harford	39
Charles	34
Cecil	25
Calvert	19
Prince George's	19
Allegany	13
Baltimore	10
Dorchester	9
Baltimore City	9
Queen Anne's	9
Howard	7
Montgomery	6
Carroll	4
Somerset	4
Kent	4
Caroline	3
St. Mary	3
Talbot	1
TOTAL	550

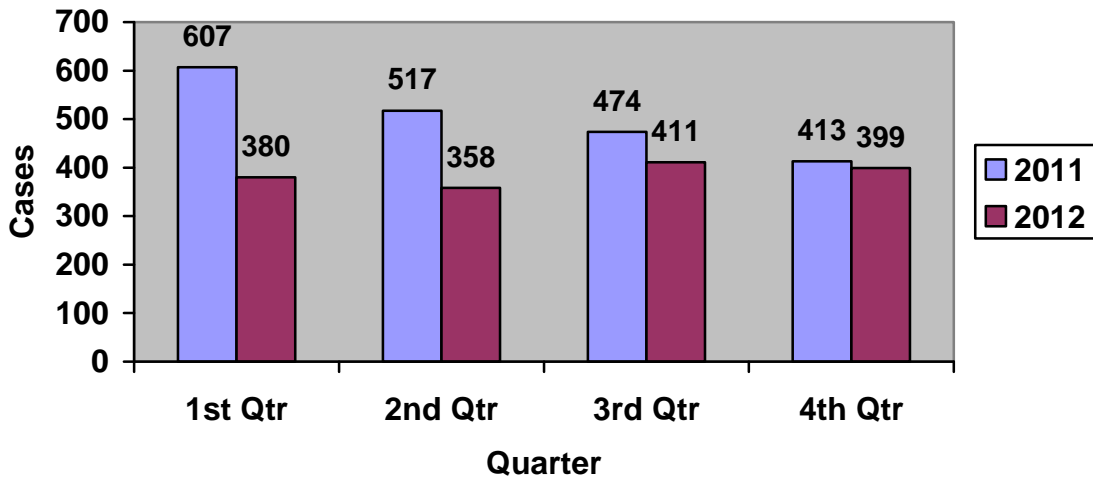
Total Cases Received in 2012 per Crime Type



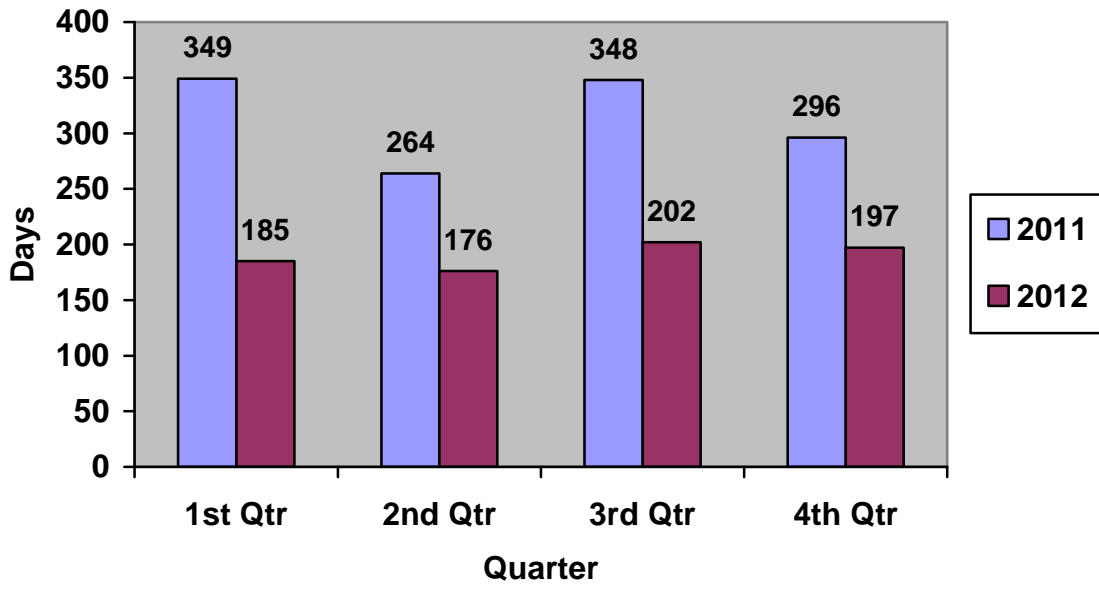
Total Cases Completed per Month



Ending Backlog per Quarter

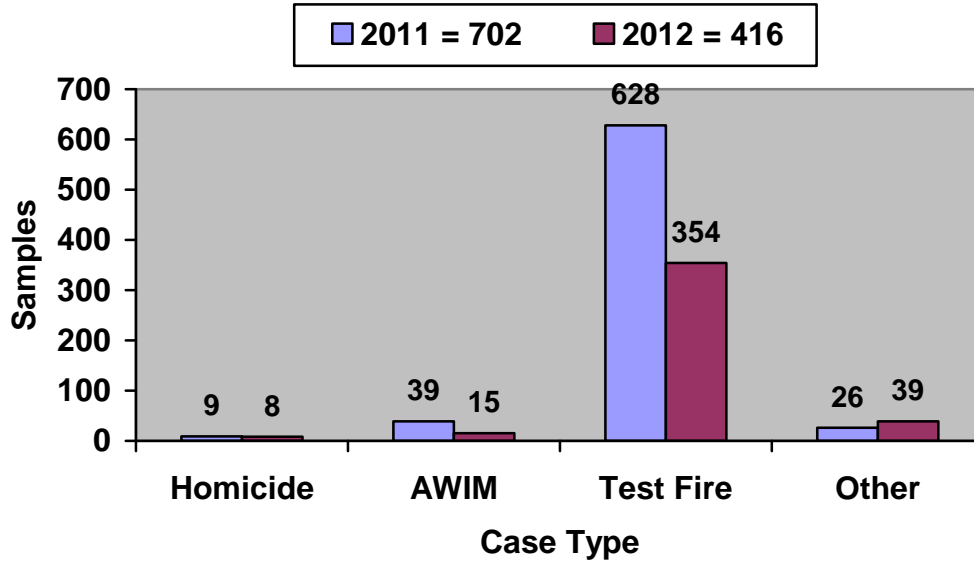


Average Turn Around Time per Quarter

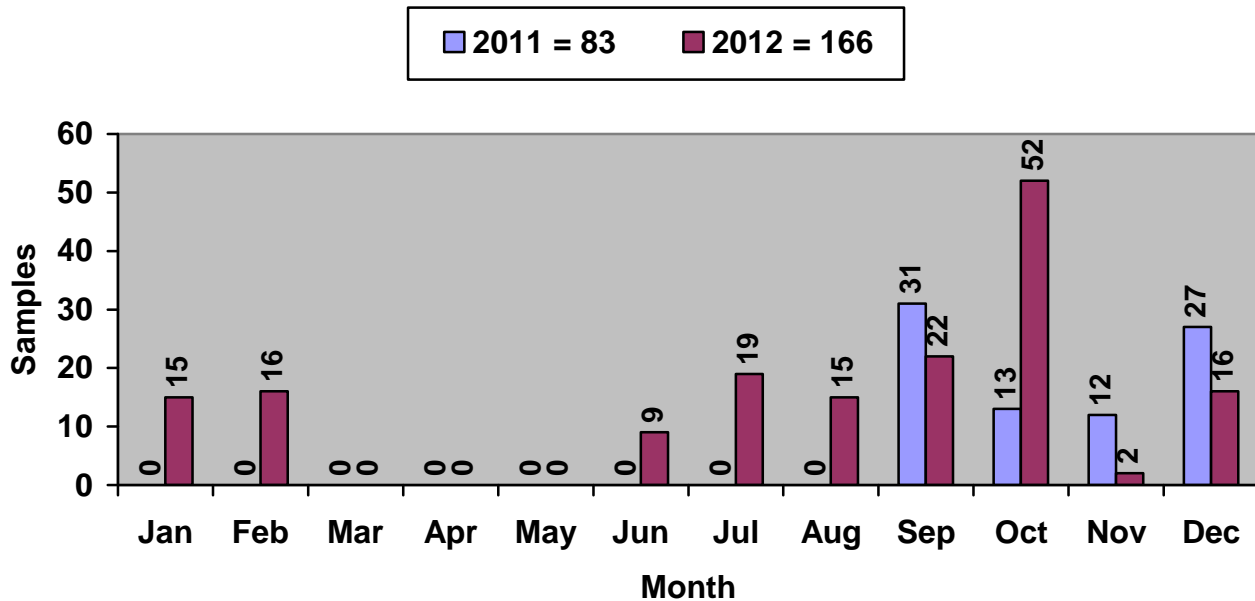


NIBIN Database

Uploads to NIBIN per Case Type

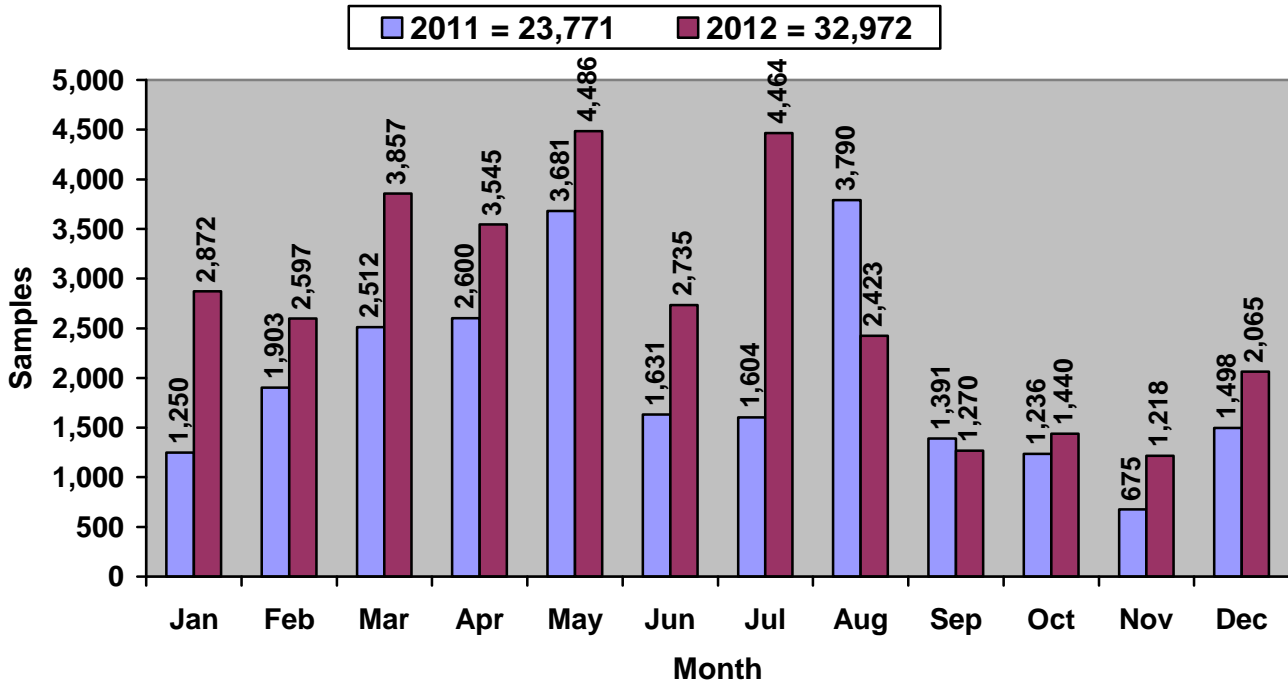


Operation Test Shot Samples Completed per Month



Statewide Shell Casing Repository

Shell Casings Received per Month



Training

Forensic Scientist	Training In Progress
FS II Jessie Campbell	Firearms/Toolmarks Examiner Trainee <i>Function Test Fire Competency completed</i> 2 year program to be completed April 2013 <ul style="list-style-type: none"> • BATF Serial Number Restoration Course • Smithsonian Firearms Reference Collection Tour • Impression Pattern Evidence Symposium • Eastern Regional Firearm/Toolmark Seminar • CN2 NCIC Basic Access Course
FS II Dorothy Vernoy	Firearms/Toolmarks Examiner Trainee <i>Function Test Fire Competency completed</i> 2 year program to be completed February 2013 <ul style="list-style-type: none"> • Completion of BATF National Firearms Examiners Academy (NFEA) • NFEA Toolmarks moot court testimony • NFEA Cartridge case moot court testimony • NFEA Research Project/Presentation • CN2 NCIC Basic Access Course

PATTERN EVIDENCE SECTION ACCOMPLISHMENTS IN 2012

1. Trainees assigned to both Units of the PES successfully completed training and testing requirements to be promoted to Forensic Scientist II positions. All four have been engaged in two year training programs within their respective disciplines which will be completed in 2013. The training programs included in-house and external federally funded course attendance. With the training level achieved they are now independently performing certain casework examinations thus removing those responsibilities from the limited staff of fully functioning examiners. At a time when resources have been stretched to what could be considered to be a critical level, the additional support afforded by them has significantly enhanced the operational capabilities of the PES.
2. Special Order 21-1201 was implemented which permits examiners to limit the scope of their examinations and comparisons of latent prints when an identification has been effected. It also institutes policy that restricts the examination of shoe and tire impression evidence to those cases where it is essential in the absence of other forensic evidence. Furthermore, a case management program was implemented which permits for the allocation of expert resources to cases based on a hierarchy of necessity. This was designed to insure that requests for which the examination is essential for an immediate need (e.g: public safety, prosecution) are given earliest attention. Included is a review process to identify cases where the request may be inappropriate or unnecessary in an effort to eliminate them from the work to be completed.
3. The FATMU created and successfully completed a pilot demonstration of the use of a program designated as 'Walk-In Test Fire'. This program allows an allied agency to bring all of their existing test fire cases to FSD on a specified day and have all of the cases completed during a single appointment while witnessing the process. The fact that the allied agency witnesses the procedure allows them to testify to the functionality of the weapon and removes examiners from the role of being called away from the office to provide testimony in routine functionality examinations. Additionally the documentation requirement for these cases has been significantly reduced further increasing the time savings provided by the program.

PATTERN EVIDENCE SECTION GOALS FOR 2013

1. While the LPIU was able to maintain its casework backlog in 2012, it is the goal of the unit to reduce the existing casework backlog in 2013. It is anticipated that through the use of overtime to complete additional casework and the establishment of a state contract with Ron Smith and Associates to outsource existing cases, the latent print case backlog will go down. The FATMU will concentrate its efforts on reducing the Statewide Shell Casing Repository backlog. Due to the threat of impending gun legislation, the number of shell casing samples received and awaiting processing has drastically increased. This backlog of samples will be addressed through the use of interns as well as by providing overtime to administrative support staff to perform data entry.
2. In 2013, the training programs for two Forensic Scientists in the LPIU and two Forensic Scientists in the FATMU will be completed. The new ability of these examiners to perform independent comparison examination casework will significantly impact the production of their units. In addition, the currently vacant Forensic Scientist position in the FATMU will be advertised and filled in 2013.
3. Both the NIBIN software and the AFIS software are scheduled to be upgraded in 2013. Staff will be trained and the new software will be implemented. The NIBIN software will provide the FATMU with 3D images allowing for a more in-depth evaluation of potential matches. A migration of the existing NIBIN data to the new system will occur. The new AFIS software has many new features that will enhance this already powerful system. In order to optimize the AFIS system, the LPIU will work with other stakeholders to establish criteria for case retention in the Maryland AFIS unsolved latent database.

CHEMISTRY SECTION

The Chemistry Section is responsible for performing Controlled Dangerous Substances (CDS) analysis on submitted evidence and Toxicology analysis of blood. The Chemistry Section consists of the following four Units: the CDS-Pikesville Unit, CDS-Berlin Unit, CDS-Hagerstown Unit, and Toxicology Unit. The CDS Units focus on identifying submitted evidence as being a specific type of drug while the Toxicology Unit focuses on identifying alcohol and drugs in blood taken from individuals suspected of being intoxicated/impaired. The Chemistry Section Manager oversees the work of all four units.

The CDS-Pikesville Unit consists of one Forensic Scientist Supervisor, one Forensic Scientist Advanced, and five Forensic Scientists III. In addition, two Allied Agency Chemists work in the CDS-Pikesville laboratory. One Allied Agency Chemist is employed by the Frederick County State's Attorney's Office and the other Allied Agency Chemist is employed by the Howard County Police Department.

The CDS-Berlin Unit consists of one Forensic Scientist Supervisor, three Forensic Scientists III, and one Inventory Control Specialist. The CDS-Berlin Unit operates out of the Berlin Regional Laboratory located at the MSP-Berlin Barrack.

The CDS-Hagerstown Unit consists of one Forensic Scientist Supervisor, three Forensic Scientists III, and one contractual Inventory Control Specialist. The CDS-Hagerstown Unit operates out of the Hagerstown Regional Laboratory located at the MSP-Hagerstown Barrack.

The Toxicology Unit consists of one Supervisor and two Forensic Scientists III. The Toxicology Unit operates out of the main laboratory in Pikesville.

CDS UNITS

In order to confirm the presence of Controlled Dangerous Substances (CDS) in a sample, several different types of analysis are performed in the CDS Units, including color tests, microcrystalline tests, Gas-Chromatography-Mass Spectrometry, and Fourier Transform Infrared Spectrophotometry.

There were several major changes to the CDS Units this year, including the implementation of new sampling and reporting procedures. The CDS Units began using StarLIMS to generate electronic reports and now use the Form 67 for case submission instead of the Form 67A. Training was provided to submitting agencies and State's Attorneys Offices to inform them of the changes to the sampling procedure and the new reporting format.

Synthetic cannabinoids (i.e. "K2", "Spice") and synthetic cathinones (i.e. "bath salts") continue to present challenges to the CDS Units. Initially marketed as legal drugs and sold via the internet or in novelty shops, abuse has become prevalent and has led to emergency scheduling by the State of Maryland and the DEA. Synthetic cannabinoid and cathinone analyses are challenging and complicated by the constant introduction of new forms of these compounds. In July, The FDA Safety and Innovation Act passed, which controlled 26 bath salts and synthetic cannabinoids as Schedule I. The CDS Units have obtained the standards for most of these newly controlled synthetic drugs, and our chemists are identifying these synthetics when possible.

It should also be noted that the CDS Units received approximately twice the number of heroin specimens this year, compared to 2011. It is thought that the attention recently focused on the elimination of illegal prescriptions has resulted in more individuals resorting to street drugs such as heroin.

The CDS Units submit monthly reports to the National Forensic Laboratory Information System (NFLIS) that documents the type and number of drugs detected in casework. These reports provide the DEA with current and accurate trends that can be used by law enforcement and policy makers to address the nation's drug problem.

Training and Validation

Employee	Training In Progress
Naomi McAuley	Central Receiving duties

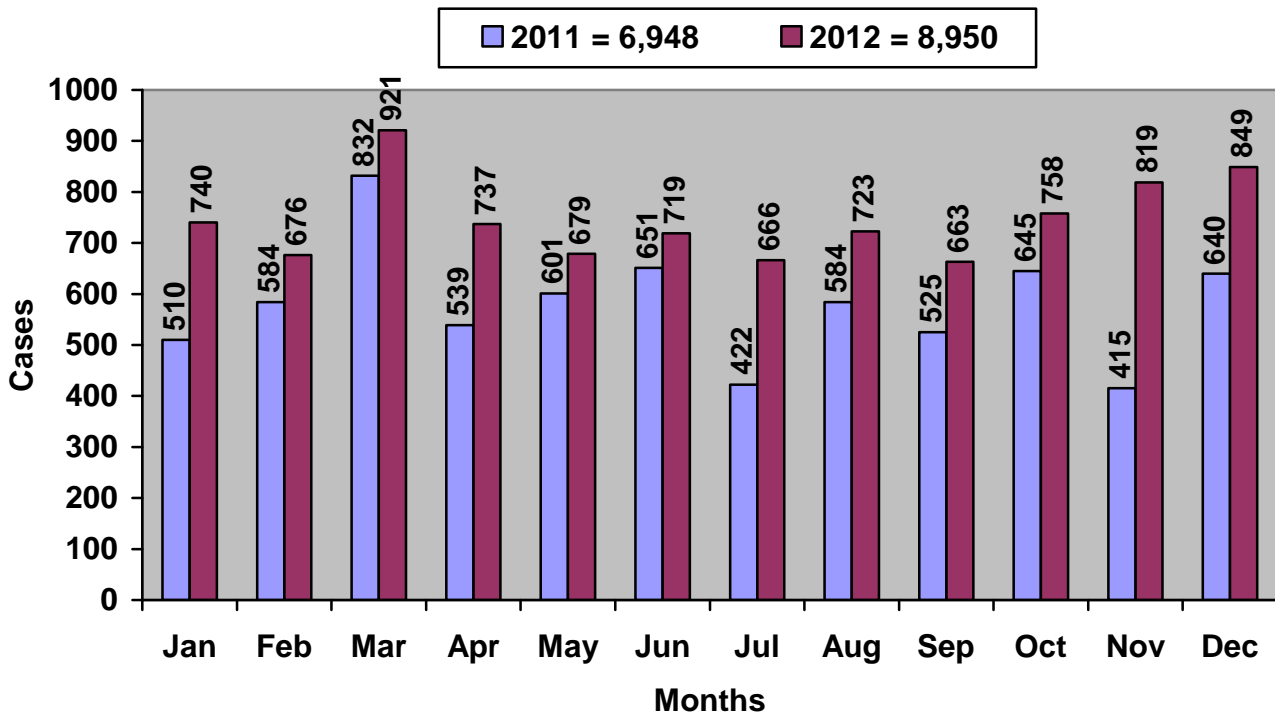
New Technologies Implemented in 2012	Expected Benefits
New, faster methods for GCMS analysis of drugs.	Reduced time requirement for chromatographic analysis.
New analysis methods for synthetic cannabinoid compounds (K2, Spice).	Expanded detection of 14 synthetic cannabinoid compounds.
New analysis methods for synthetic cathinone compounds (Bath Salts).	Expanded detection of 6 synthetic cathinone compounds.

CDS-PIKESVILLE UNIT

The CDS-Pikesville Unit is responsible for the analysis of illicit drugs and pharmaceuticals and provides expert testimony as to the findings. The Pikesville Lab services the central Maryland counties. The backlog increased by 957 cases in 2012; however, it should be noted that the CDS-Pikesville Unit received 2,002 more cases in 2012 than in 2011. The unit acquired an additional GC/MS in 2012 and validated new methods which facilitate faster analyses.

Casework

Total Cases Received per Month



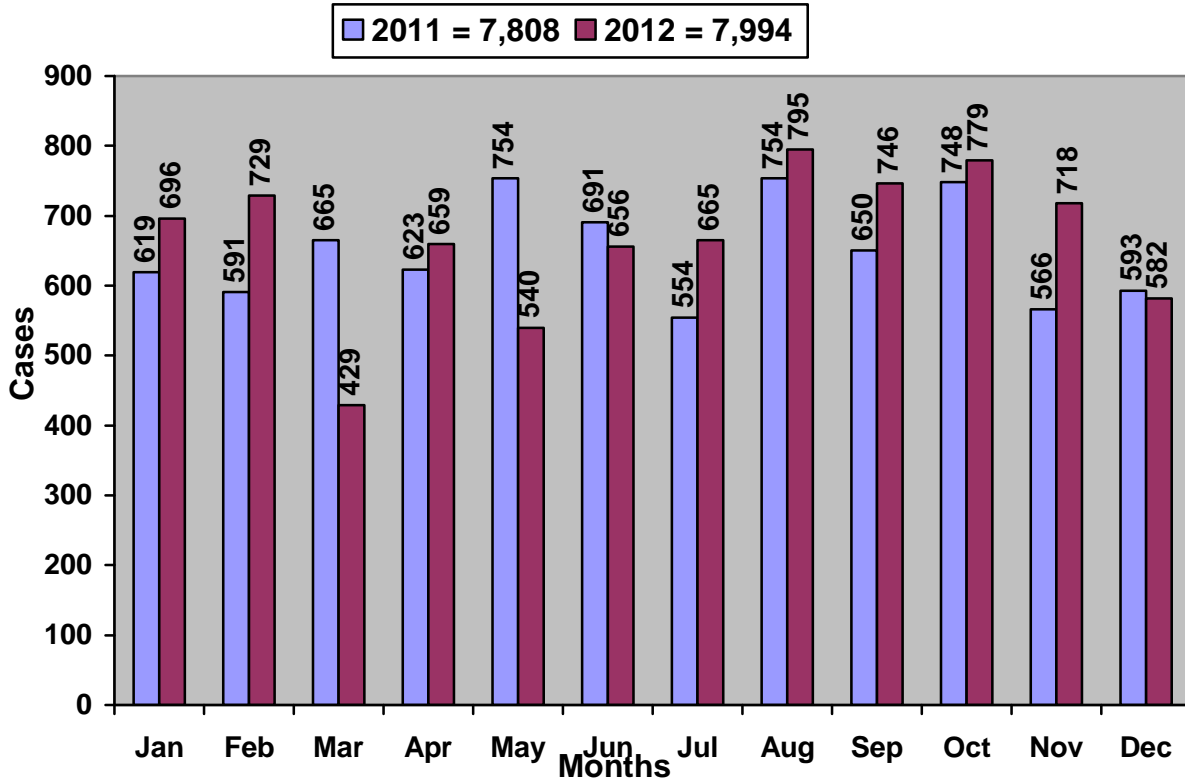
Total MSP Cases Received in 2012 per Installation

MSP Installation	Counties Served	Submissions
MSP-JFK Mem. Hwy	Cecil, Harford, Baltimore	393
MSP-North East	Cecil	251
MSP-Golden Ring	Baltimore	211
MSP-Westminster	Carroll	201
MSP-Prince Frederick	Calvert	200
MSP-Bel Air	Harford	195
MSP-Leonardtown	St. Mary's	167
MSP-Glen Burnie	Anne Arundel	163
MSP-College Park	Prince George's	152
MSP-LaPlata	Charles	110
MSP-DED	Statewide	86
MSP-Forestville	Prince George's	81
MSP-CID	Statewide	78
MSP-Waterloo	Howard	75
MSP-CEC	Statewide	6
MSP-Centreville	Kent, Queen Anne's	2
MSP-CVED	Statewide	1
	TOTAL	2,372

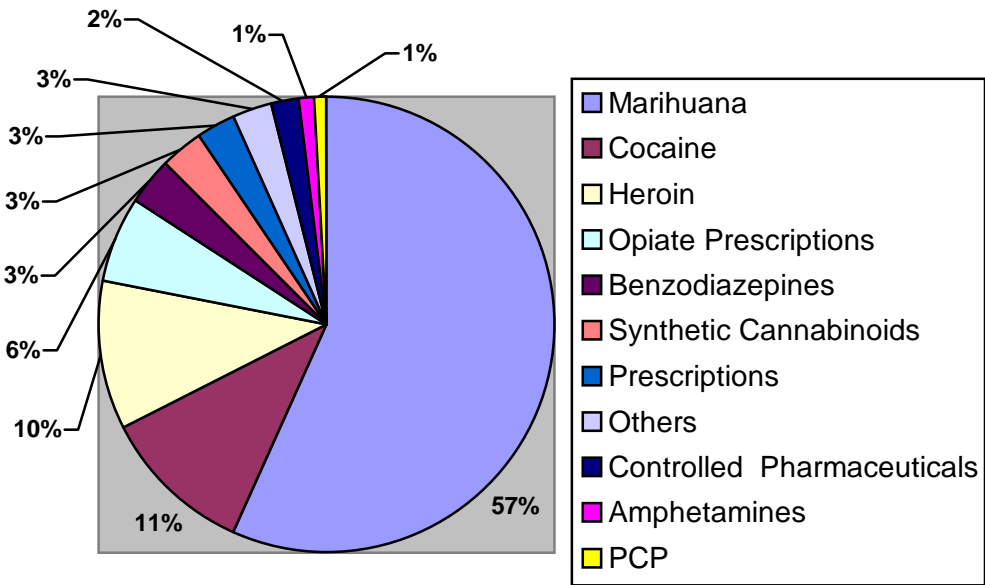
Total Allied Agency Cases Received in 2012 per County

County	Submissions
Howard	1,074
Charles	1,045
Harford	1,026
Frederick	903
Calvert	621
Cecil	609
St. Mary's	438
Baltimore City	187
Anne Arundel	181
Baltimore	160
Carroll	154
Prince George's	142
Queen Anne's	22
Montgomery	13
Kent	3
TOTAL	6,578

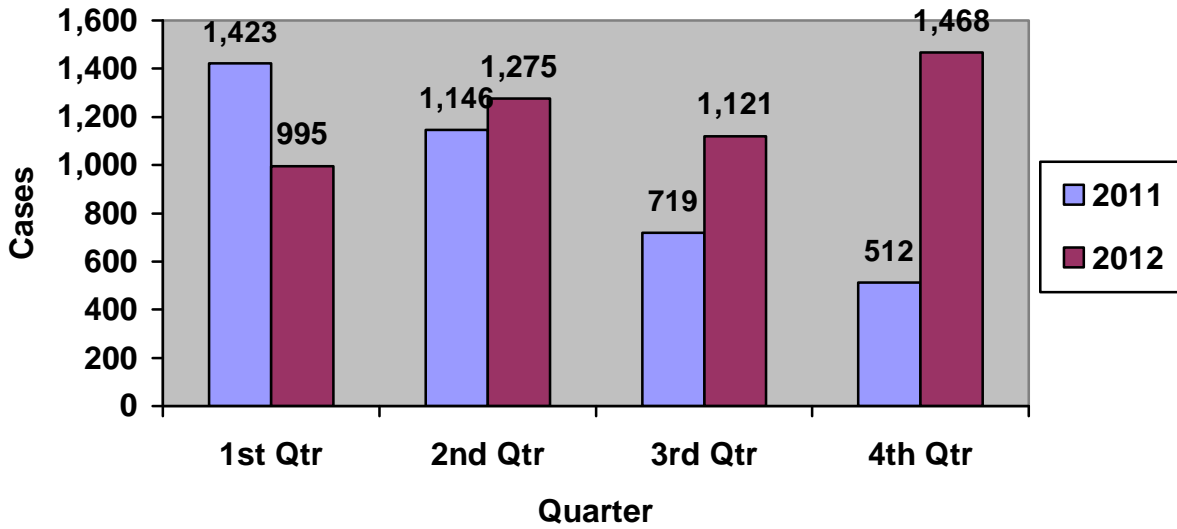
Total Cases Completed per Month



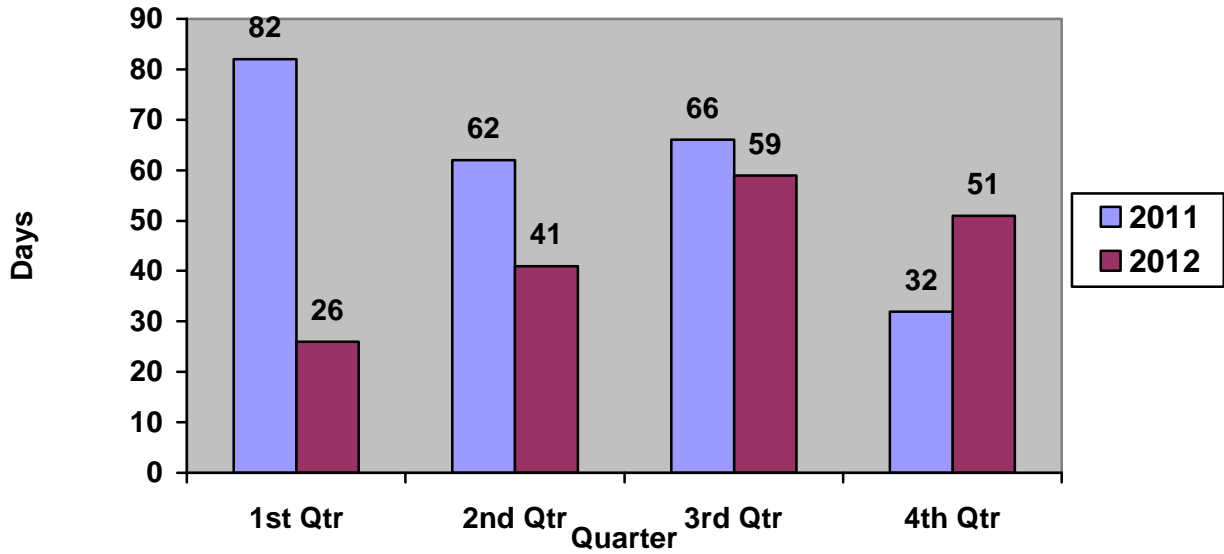
Total Analyses Reported in 2012 per Drug Type



Ending Backlog per Quarter



Average Turn Around Time per Quarter

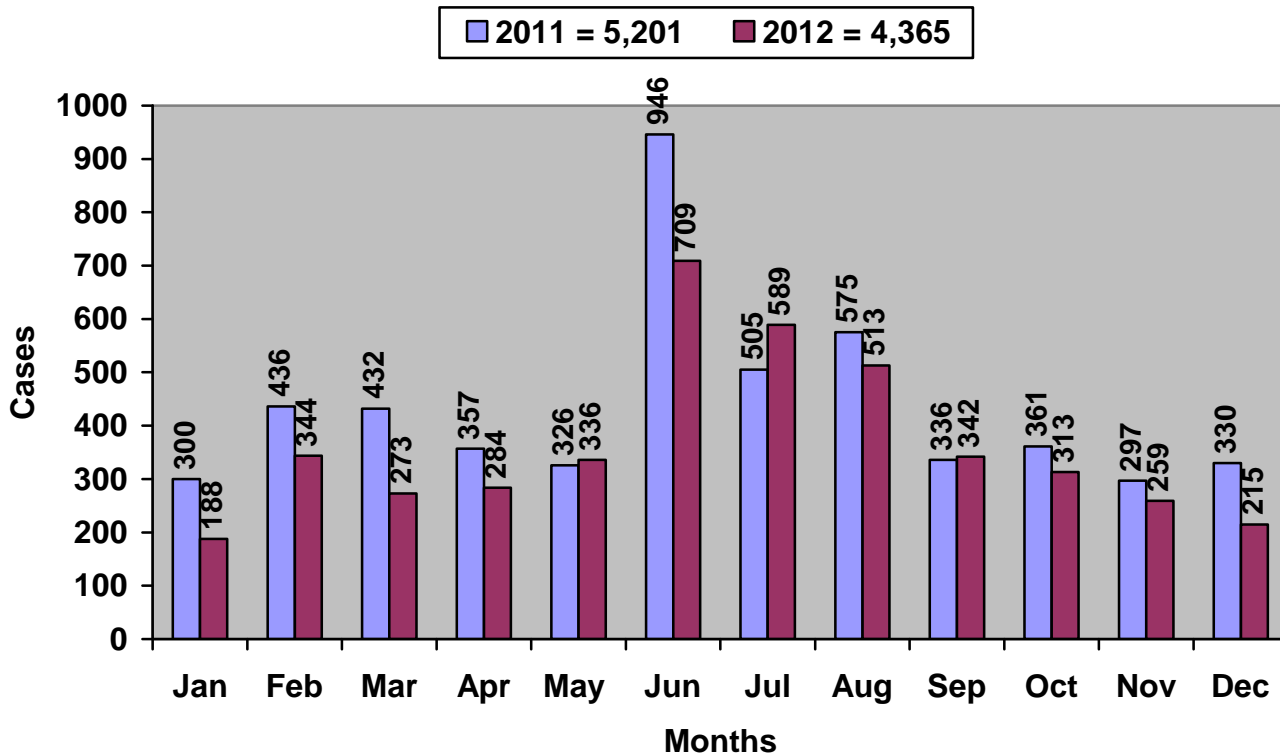


CDS-BERLIN UNIT

The CDS-Berlin Unit is responsible for analyzing cases submitted to the laboratory for the presence or absence of controlled dangerous substances. The Berlin lab services counties from the Maryland Eastern Shore. The Berlin lab was confronted with extended shutdowns of the lab due to the replacement of asbestos floor tiles and a mold removal project. As it is every year, the summertime was an extremely busy time for the Berlin lab as people flocked to Ocean City. Even with these challenges, the Berlin lab has worked hard to keep the backlog at a minimum, and the chemists should be commended for their dedication.

Casework

Total Cases Received per Month



Total MSP Cases Received in 2012 per Installation

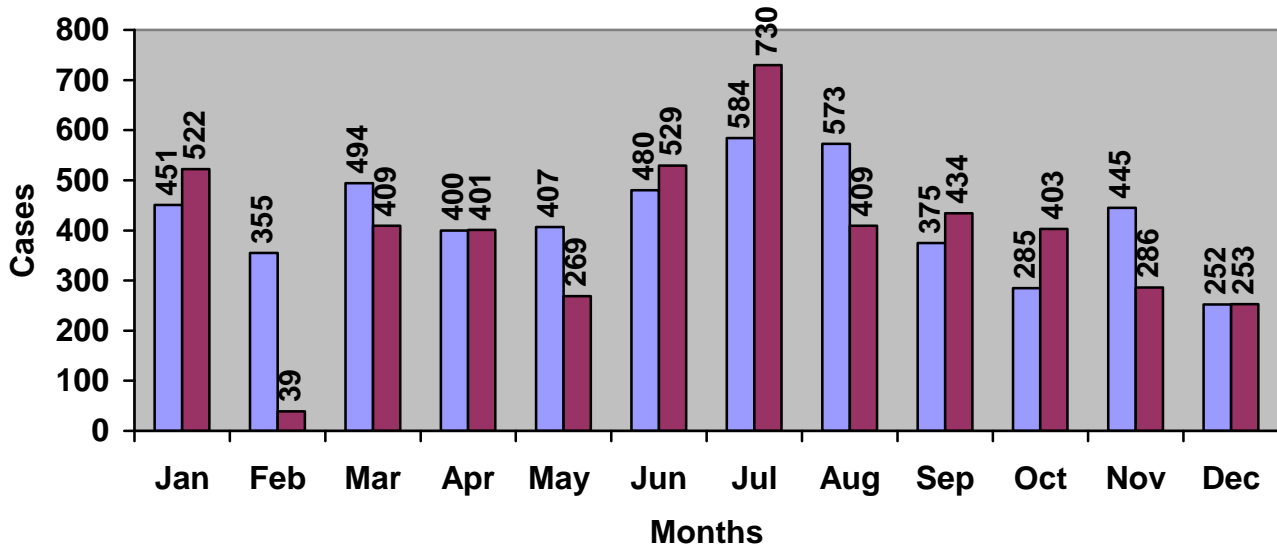
MSP Installation	Counties Served	Submissions
MSP-Salisbury	Wicomico	241
MSP-DED	Statewide	219
MSP-Centerville	Kent, Queen Anne's	186
MSP-Easton	Caroline, Dorchester, Talbot	125
MSP-Berlin	Worcester	124
MSP-Princess Anne	Somerset	66
	TOTAL	961

Total Allied Agency Cases Received in 2012 per County

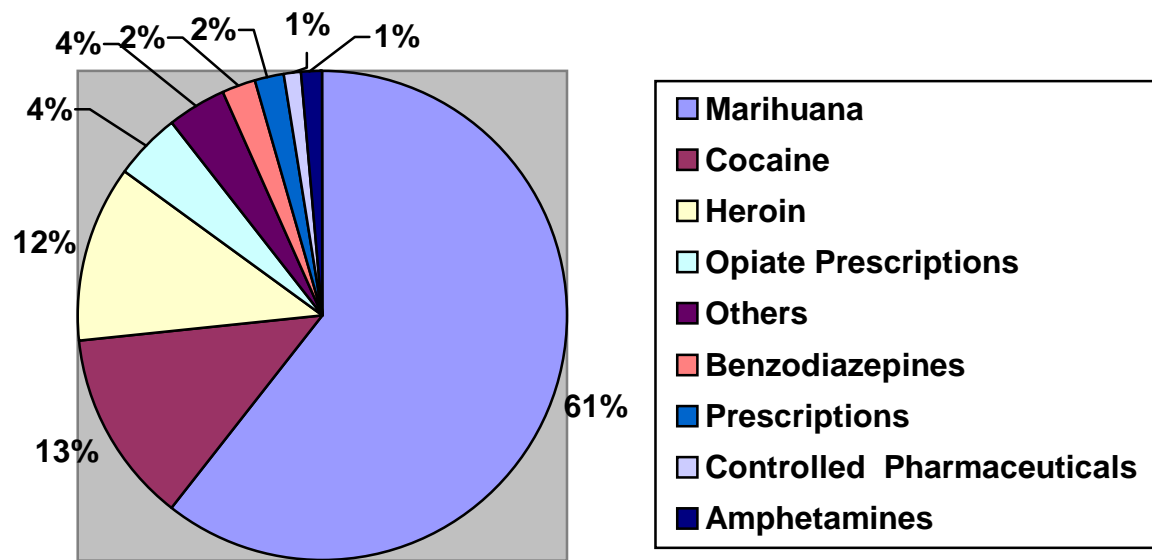
County	Submissions
Worcester	1,547
Wicomico	727
Talbot	299
Dorchester	296
Queen Anne's	154
Kent	145
Caroline	144
Somerset	70
Cecil	22
TOTAL	3,404

Total Cases Completed per Month

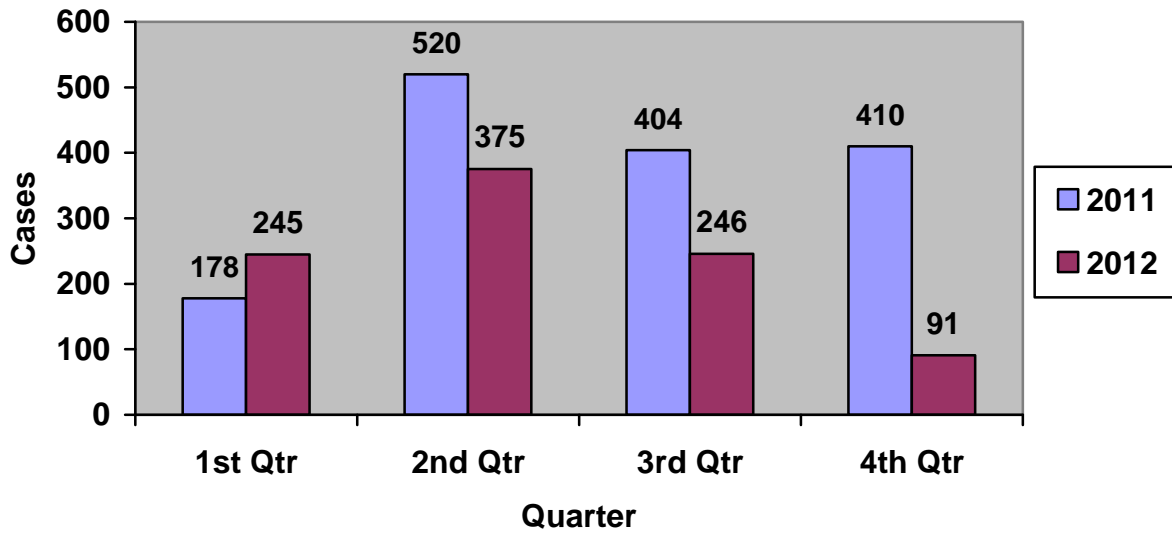
2011 = 5,101
 2012 = 4,684



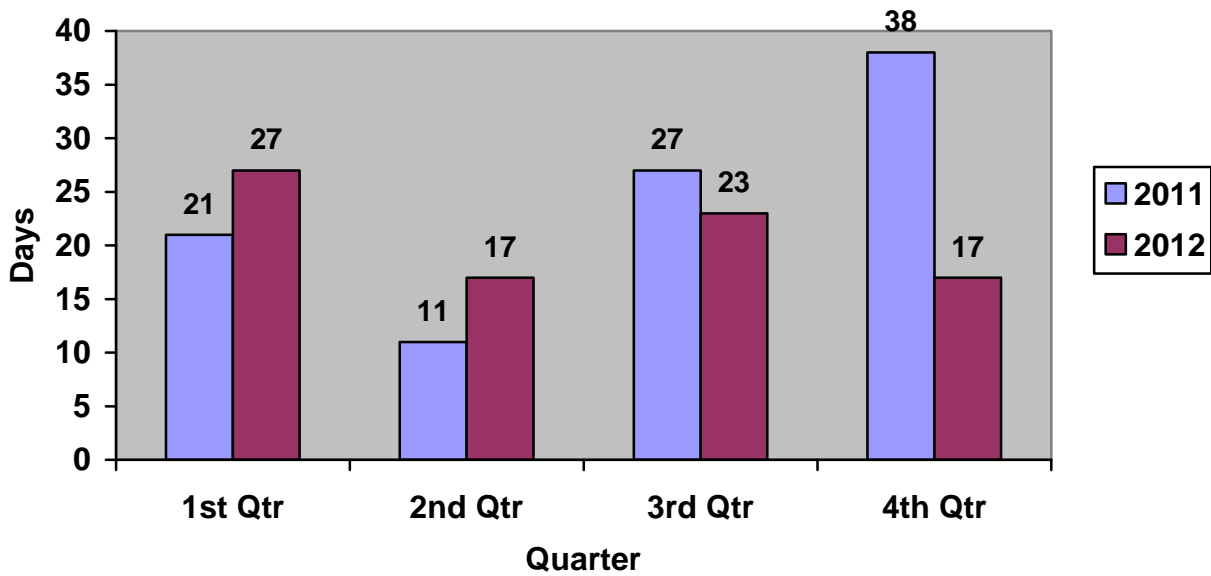
Total Analyses Reported in 2012 per Drug Type



Ending Backlog per Quarter



Average Turn Around Time per Quarter

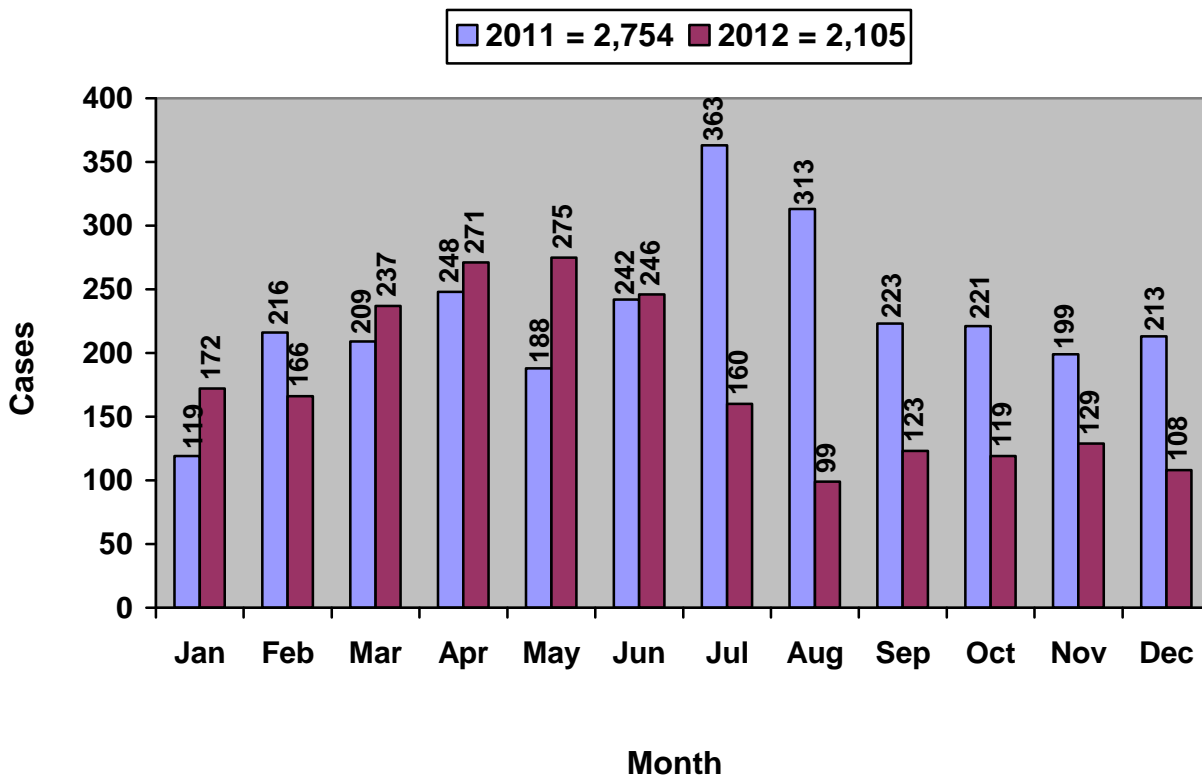


CDS-HAGERSTOWN UNIT

The New Western Maryland Operations Center opened for business in April 2012. Shortly after the move, the old barrack was torn down and the space is now the parking lot for the new facility. The center contains the new Forensic Sciences Laboratory, barrack, regional classroom and the Western Region of the State Fire Marshall's office. The new laboratory is located on the second floor of the barrack and has sections for drug analysis, latent prints, and crime scene processing. The transition from the old barrack to the new facility went very smoothly and the lab was able to continue analyzing casework within two weeks. The space is roughly six times larger than the former lab and was built for future expansion of staff and services. In addition, the laboratory received a new gas chromatograph/ mass spectrometer and hired a contractual Inventory Control Specialist.

Casework

Total Cases Received per Month



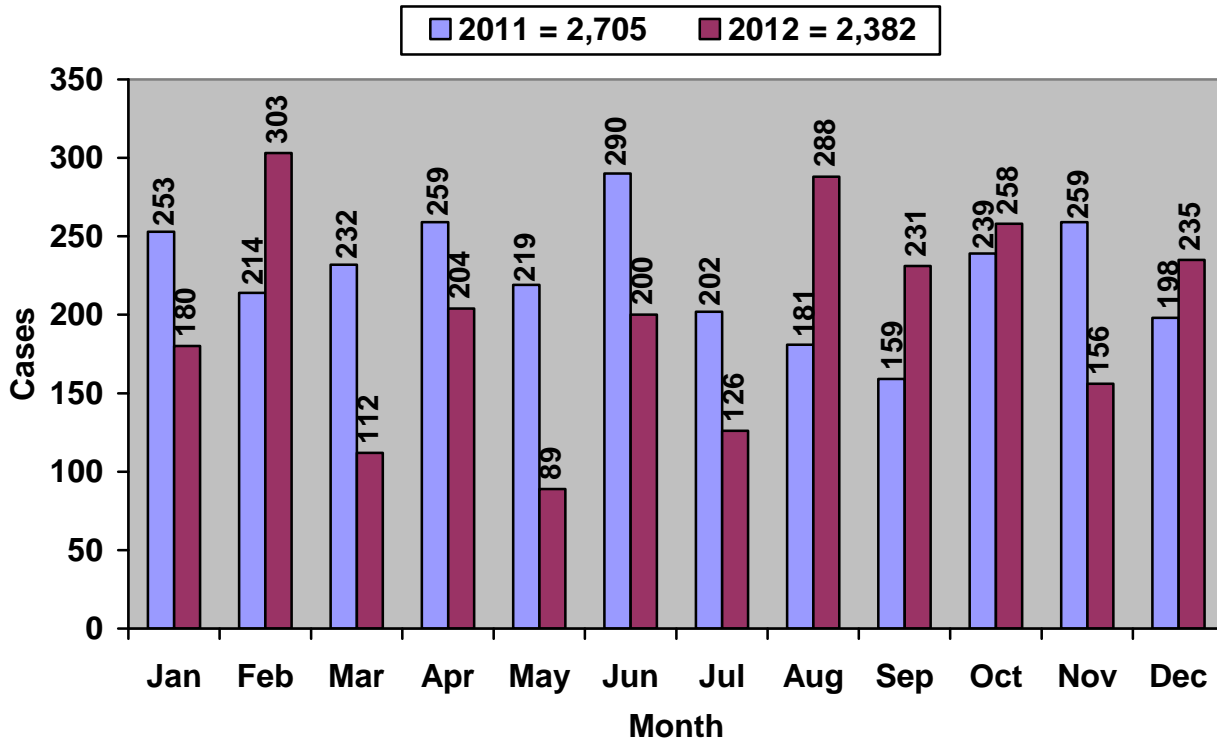
Total MSP Cases Received in 2012 per Installation

MSP Installation	Counties Served	Submissions
MSP-Westminster	Carroll	324
MSP-McHenry	Garrett	169
MSP-Frederick	Frederick	140
MSP-Rockville	Montgomery	122
MSP-Cumberland	Allegany	114
MSP-Hagerstown	Washington	78
	TOTAL	947

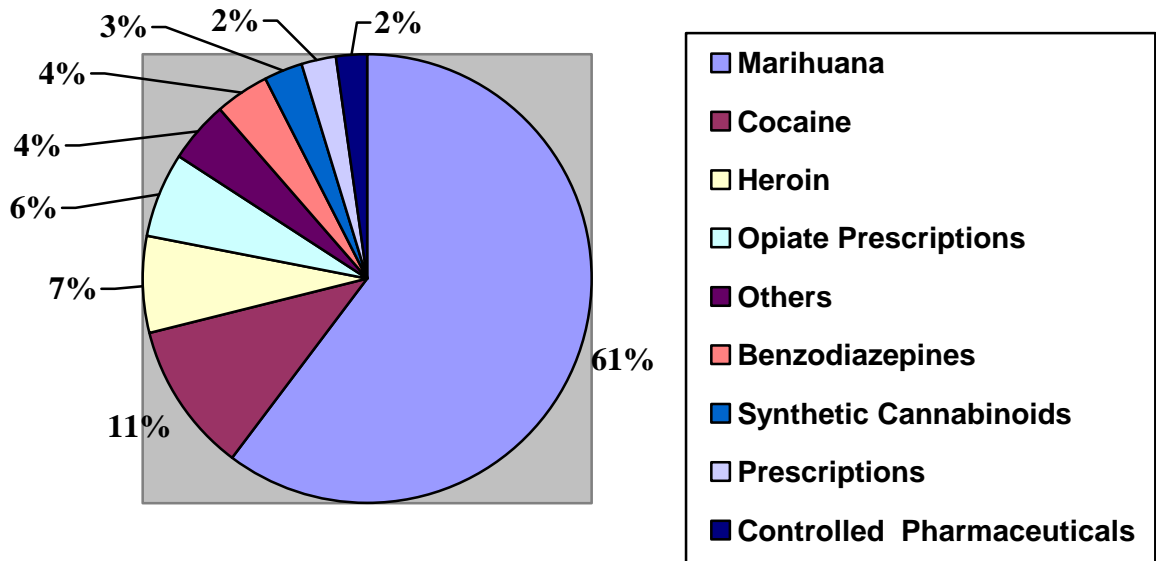
Total Allied Agency Cases Received in 2012 per County

County	Submissions
Allegany	687
Carroll	249
Frederick	86
Garrett	81
Washington	54
Montgomery	1
TOTAL	1,158

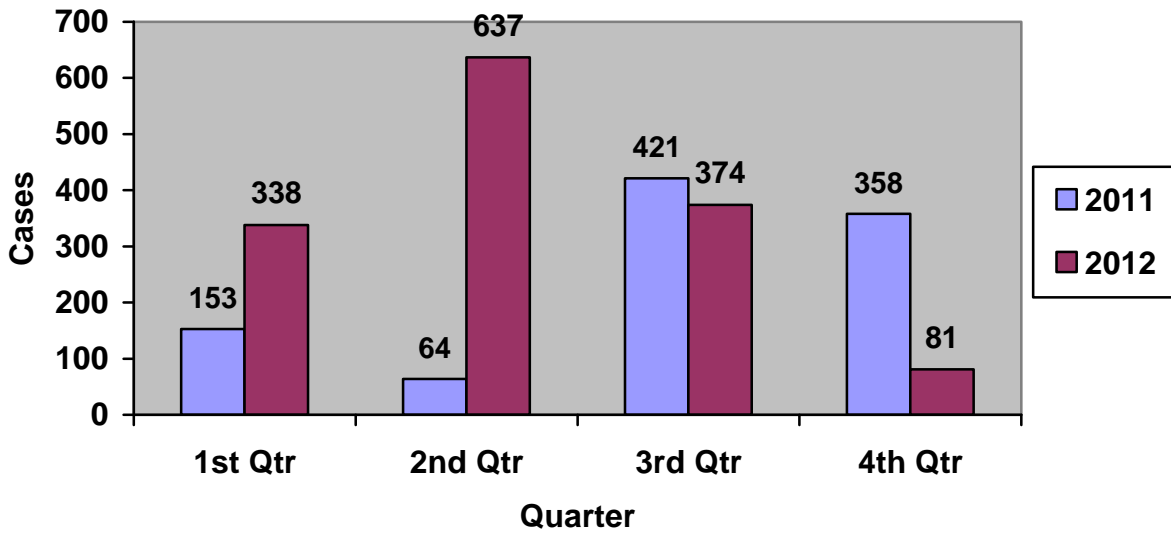
Total Cases Completed per Month



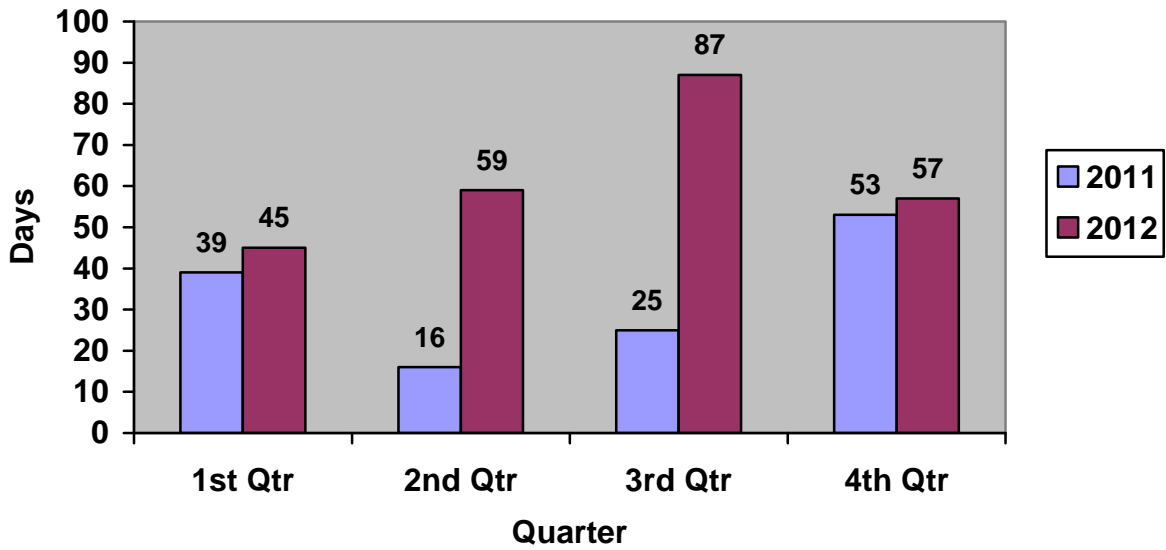
Total Analyses Reported in 2012 per Drug Type



Ending Backlog per Quarter



Average Turn Around Time per Quarter



TOXICOLOGY UNIT

The Toxicology Unit is responsible for the analysis of alcohol and drugs contained in blood specimens submitted to the Maryland State Police Forensic Sciences Division. Testing is performed in conjunction with the Driving While Impaired (DWI) program of the Maryland State Police and the State Toxicologist's Office. Testing for alcohol and drugs is performed for both the Maryland State Police and allied state law enforcement agencies requiring laboratory support for impaired driving programs. These important services assist police and prosecutors in obtaining the forensic evidence needed to prosecute impaired drivers in court.

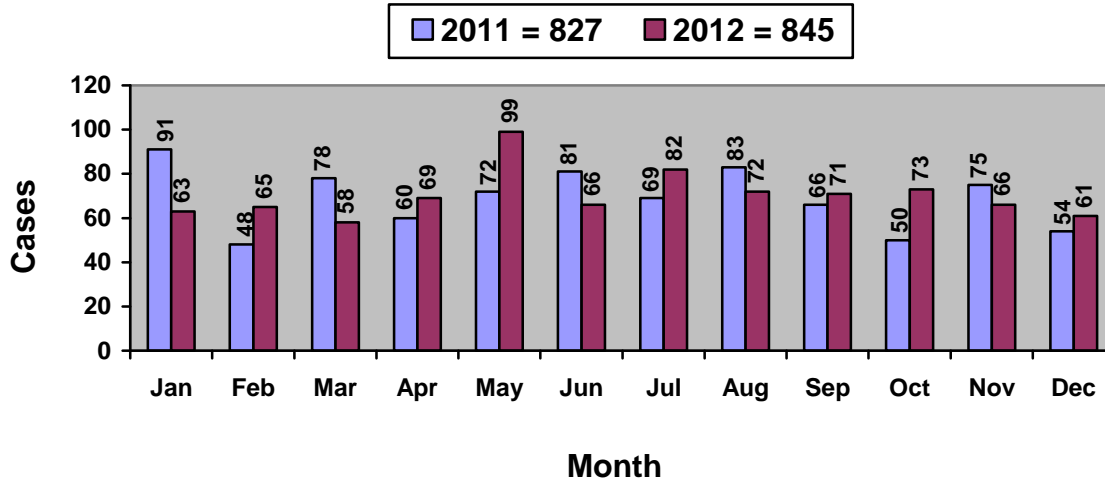
The Toxicology Unit is the only laboratory within the state approved by the State of Maryland, Office of the Chief Medical Examiner to analyze blood samples for alcohol and drugs in cases related to DWI arrests. Specimens submitted for testing are collected by certified medical personnel at the direction of authorized police personnel. Blood is collected when a person is injured or hospitalized, a fatality has occurred, or when alcohol is suspected and a breath test operator is not available. Many cases, therefore, involve serious personal injury and manslaughter charges that require the Forensic Scientist's expert testimony at trial.

Validation

New Technologies Implemented in 2012	Expected Benefits
Testing for Buprenorphine (Suboxone, Temgesic, Buprenex) was added to DRE drug testing menu.	Improved frequency of positive drug tests in DRE cases due to Buprenorphine testing.
An improved blood extraction procedure for Opiates (Morphine, Codeine, Oxycodone, Hydrocodone, Oxymorphone, and Hydromorphone) was developed.	Improved detection of Opiates in DRE cases.
An improved procedure for detection of Benzodiazepines in blood (Alprazolam, Diazepam, and Clonazepam) was developed.	Improved detection of Alprazolam, Diazepam, and Clonazepam in DRE cases.

Blood Alcohol Casework

Total Blood Alcohol Cases Received per Month



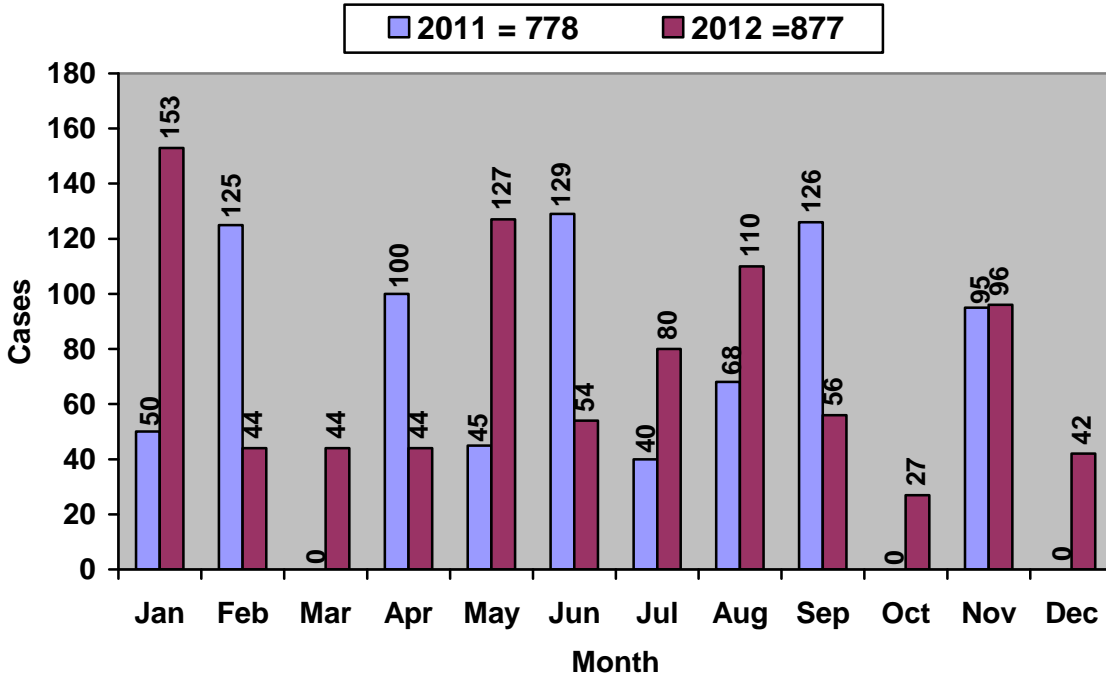
Total MSP Blood Alcohol Cases Received in 2012 per Installation

MSP Installation	Counties Served	Submissions
MSP- Golden Ring	Baltimore	38
MSP- Bel Air	Harford	24
MSP- Hagerstown	Washington	23
MSP- Easton	Caroline, Dorchester, Talbot	22
MSP- Forestville	Prince George's	20
MSP- Frederick	Frederick	18
MSP- Glen Burnie	Anne Arundel	17
MSP- Centreville	Kent, Queen Anne's	14
MSP- LaPlata	Charles	13
MSP- Leonardtown	St. Mary's	12
MSP- Rockville	Montgomery	12
MSP- College Park	Prince George's	11
MSP- Westminster	Carroll	11
MSP- Salisbury	Wicomico	10
MSP- Cumberland	Allegany	9
MSP- JFK	Cecil, Harford, Baltimore	9
MSP- Berlin	Worcester	8
MSP- Prince Frederick	Calvert	7
MSP- McHenry	Garrett	5
MSP- Northeast	Cecil	5
MSP- Princess Anne	Somerset	5
MSP- Waterloo	Howard	2
	TOTAL	295

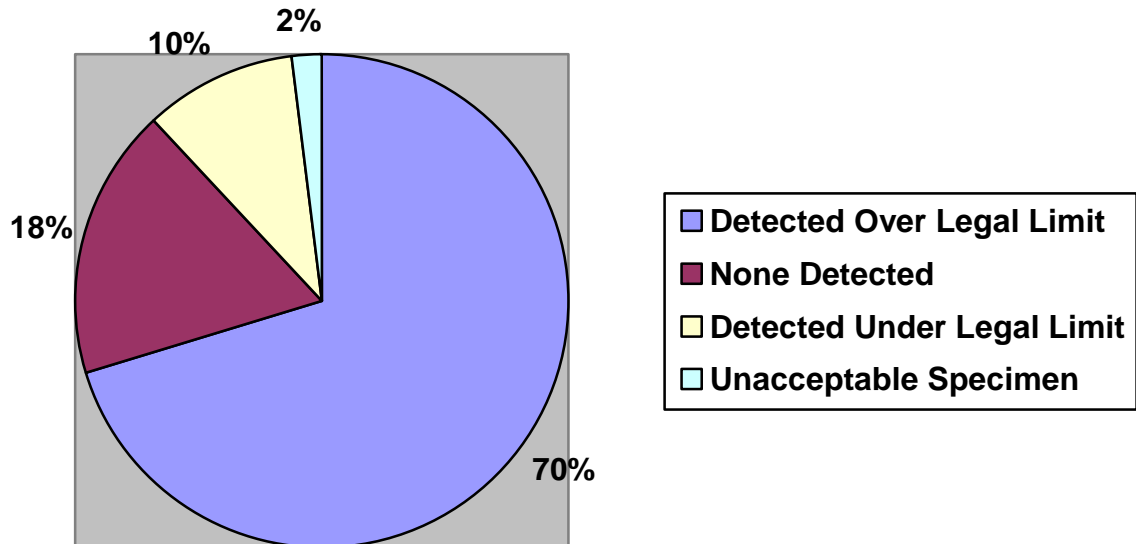
Total Allied Agency Blood Alcohol Cases Received in 2012 by County

County	Submissions
Baltimore	103
Anne Arundel	70
Montgomery	70
Prince George's	41
Howard	28
Washington	28
Statewide	26
Baltimore City	25
Frederick	22
Harford	22
Calvert	17
Carroll	16
Worcester	13
St. Mary's	12
Allegany	11
Charles	11
Talbot	8
Cecil	7
Wicomico	6
Queen Anne's	5
Dorchester	4
Garrett	3
Caroline	2
TOTAL	550

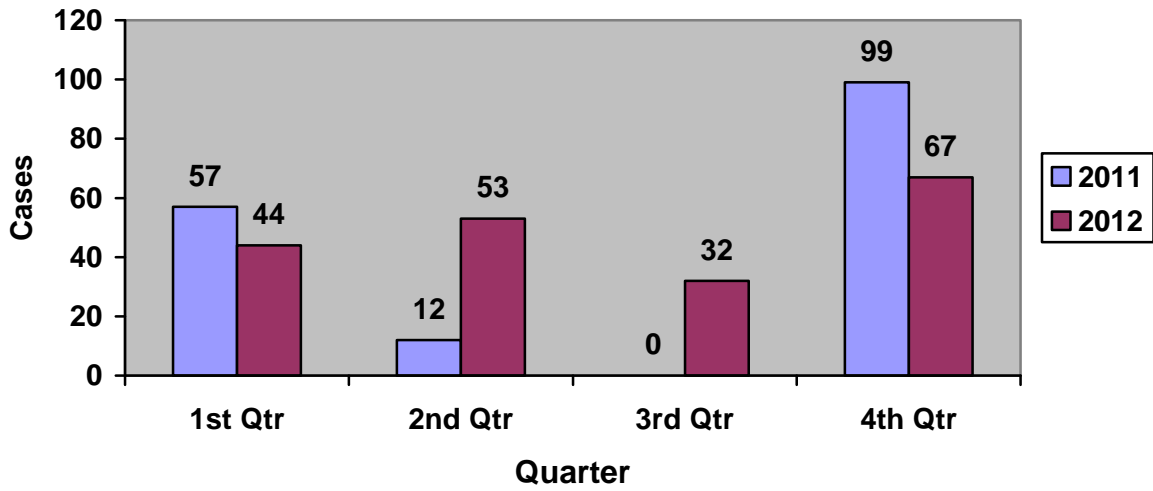
Total Blood Alcohol Cases Completed per Month



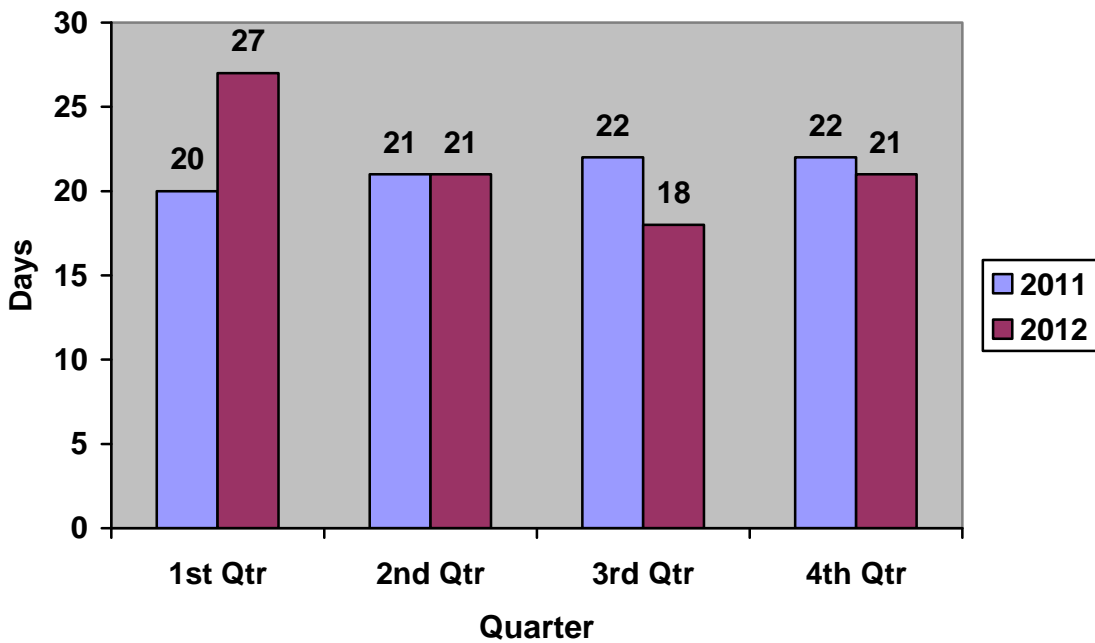
Blood Alcohol Cases Reported in 2012 per Detection Level



Blood Alcohol Cases - Ending Backlog per Quarter

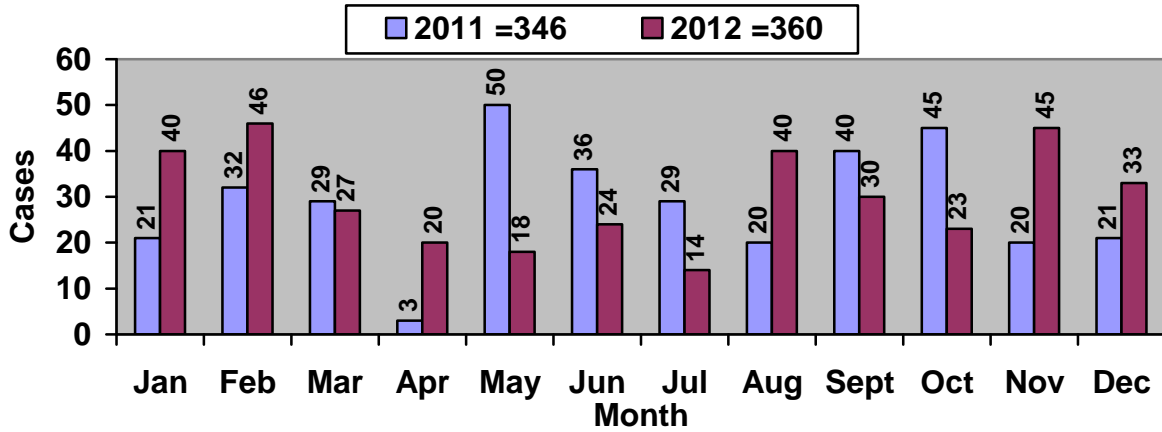


Blood Alcohol Cases - Average Turn Around Time



Blood Drug Casework

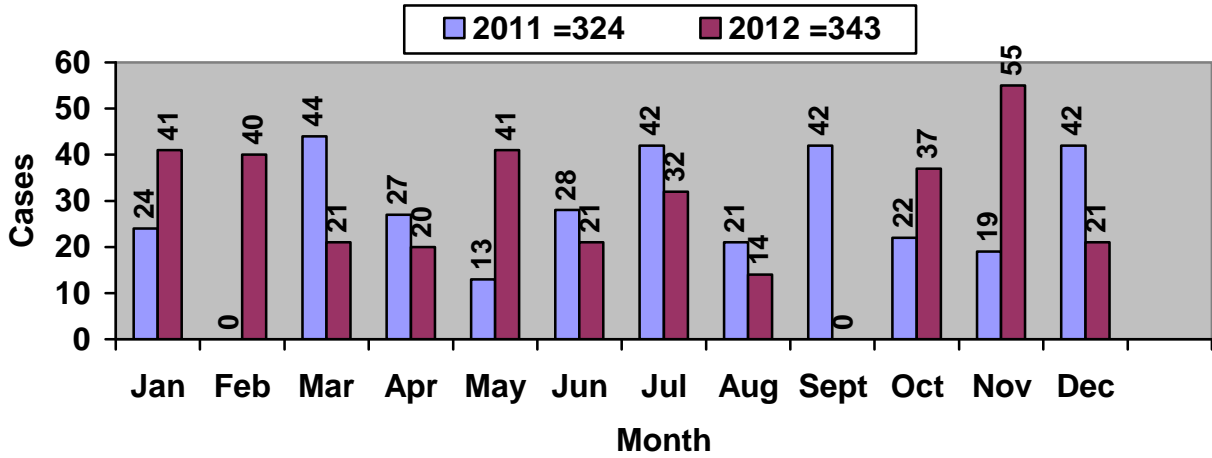
Blood Drug Cases Received



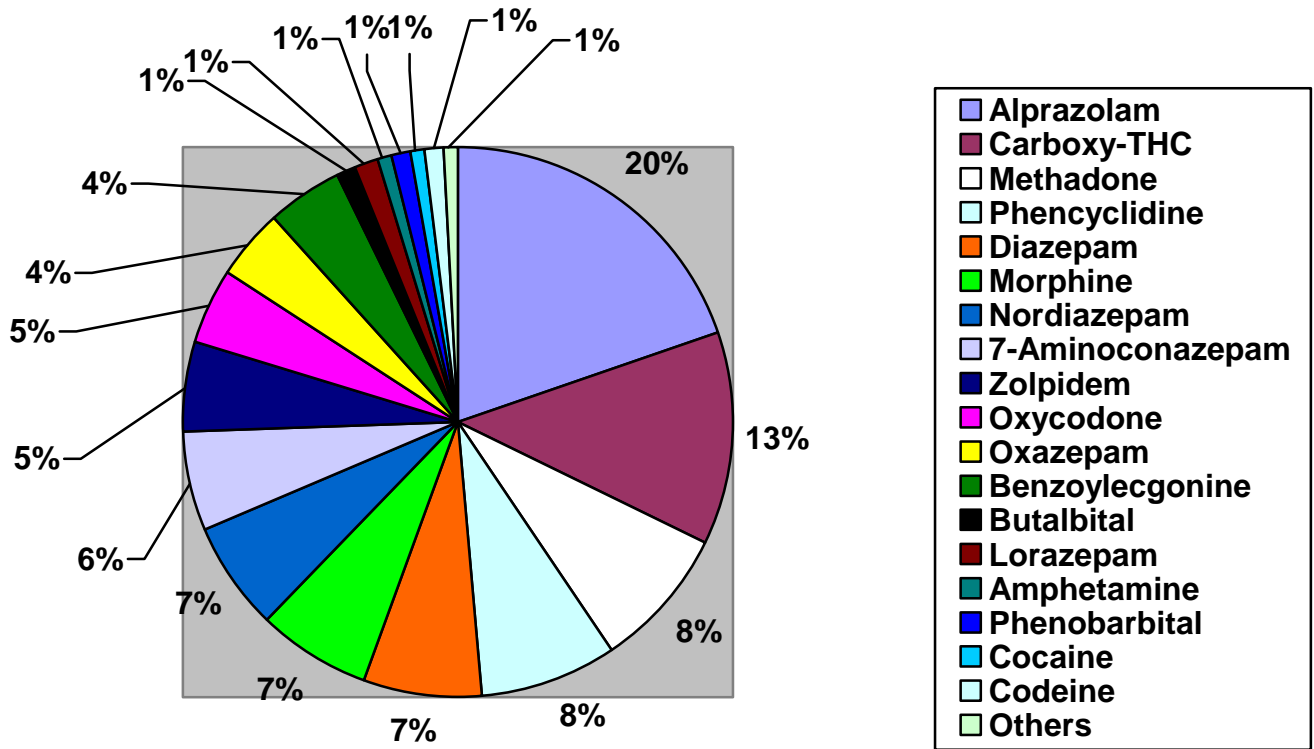
Total Blood Drug Cases Received in 2012

County / Agency	Submissions
Maryland State Police	120
Montgomery County	59
Baltimore County	54
Harford County	19
Anne Arundel County	17
Calvert County	16
Howard County	13
Prince George's County	11
Frederick County	8
Talbot County	7
Maryland Transportation Authority	6
Worcester County	6
Washington County	4
Allegany County	3
Cecil County	3
Charles County	2
St. Mary's County	2
Wicomico County	2
Unknown	2
Baltimore City	1
Caroline County	1
Carroll County	1
Maryland Park	1
Military Police	1
National Security Agency	1
TOTAL	360

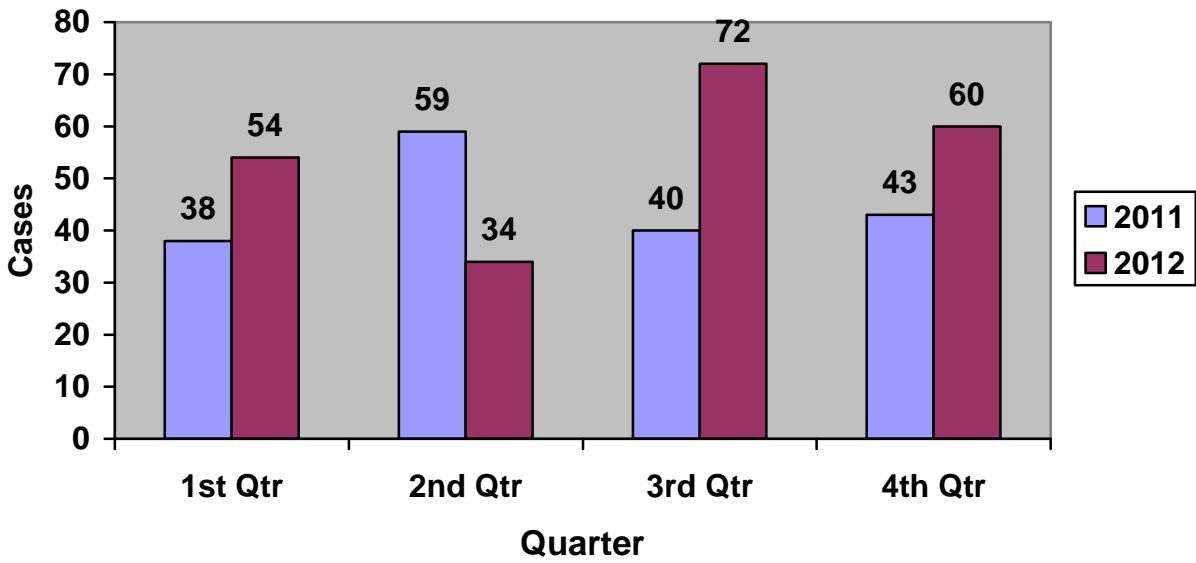
Blood Drug Cases Completed



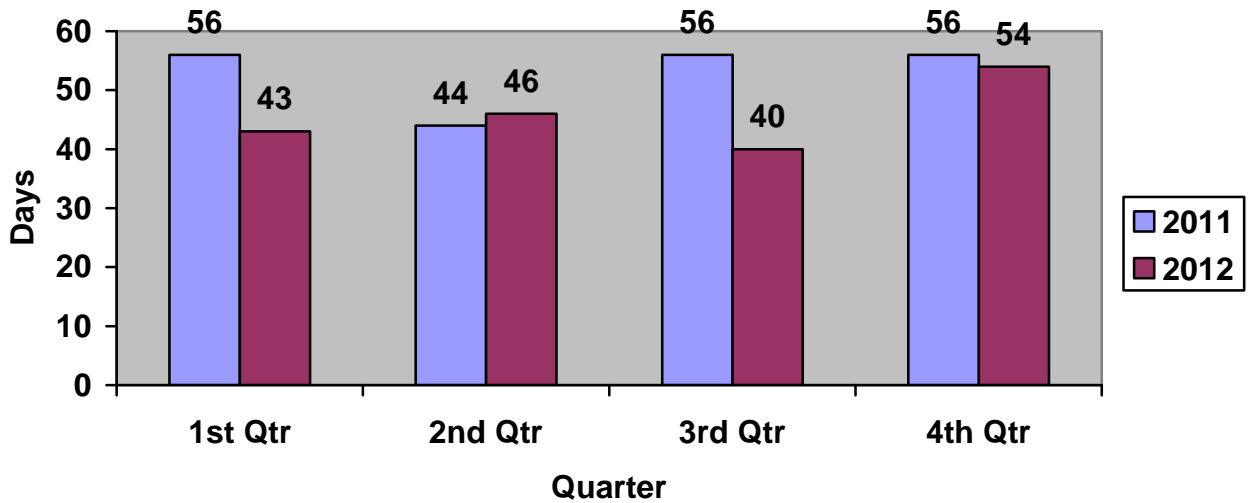
Blood Drug Cases Reported in 2012 per Drug Detected



Blood Drug Cases - Ending Backlog per Quarter



Blood Drug Cases - Average Turn Around Time



CHEMISTRY SECTION ACCOMPLISHMENTS IN 2012

1. The CDS Units have managed a steadily increasing workload during 2011 and 2012. Case workload increased from 14,349 cases in 2010 to 14,903 cases in 2011 and 15,420 cases in 2012. The CDS Units have developed testing procedures for the new generation of synthetic cannabinoids (K2, Spice) and synthetic cathinones (Bath Salts). Methods are currently available for identifying JWH-018, JWH-019, JWH-020, JWH-073, JWH-122, JWH-203, JWH-210, JWH-250, CP47-497, CP47-497-C8, RCS 4, UR 144, XLR 11, and AM 2201. Synthetic cathinone methods include detection of MDPV, Methedrone, Methylone, 4-FMC, 3-FMC, and Mephedrone. The CDS Units will continue to meet the challenge of detecting newly introduced synthetic cannabinoids and cathinones.
2. Advancements made in the CDS Units included implementation of reformatted electronic reports and a revision of evidence sampling procedures. While these were major changes to the CDS workflow, the preparation and adaptability of the staff allowed for a smooth transition. These improvements not only ensured that MSP-FSD remained in compliance with ISO 17025 standards, but also provided our customers with a better product.
3. The Toxicology Unit made several technological advances in 2012. Buprenorphine (Suboxone, Temgesic, Buprenex) was added to the list of tested drugs in blood and an improved method for detecting Opiates (Morphine, Codeine, Oxycontin, Vicodin) was validated. An improved confirmation testing method for benzodiazepines was also implemented.

CHEMISTRY SECTION GOALS FOR 2013

1. The CDS units will expand to the full use of the StarLIMS analysis, reporting, and review modules. Doing so will improve on the electronic reporting added in 2012 as well as allow for accurate compilation of unit statistics. After optimizing this process in CDS, similar initiatives will be undertaken in the other units.
2. The CDS units will continue to take advantage of available technology to enhance their analyses. This includes expanding the application of improved chromatographic methods to reduce testing time and cost. Also, the purchase of microscopes with digital photography capabilities will allow for better identification and documentation of plant morphology associated with marijuana.
3. The Toxicology Unit will seek to improve detection limits for buprenorphine (Suboxone) and evaluate addition of Tetrahydrocannabinol (parent THC) to the blood testing menu.

BIOLOGY SECTION

The Forensic Biology Section is responsible for performing Serological and DNA analysis associated with criminal casework as well as maintaining and operating the State's DNA database. In order to efficiently address these functions the Biology Section is structured on a three unit basis overseen by one Forensic Scientist Manager.

The Casework Unit is comprised of two sub-units. The Investigative Casework Sub-Unit is staffed by four scientists including one Forensic Scientist Supervisor, one Forensic Scientist Advanced, and two Forensic Scientists III. The Trial Casework Sub-Unit is staffed by five scientists including one Forensic Scientist Supervisor, one Forensic Scientist Advanced, and three Forensic Scientists III (one vacant).

The Database Unit is staffed by nine scientists including one Forensic Scientist Supervisor (CODIS Administrator), two Forensic Scientists Advanced, three Forensic Scientists III, one Forensic Scientists II, one Forensic Scientist I and one Laboratory Technician I.

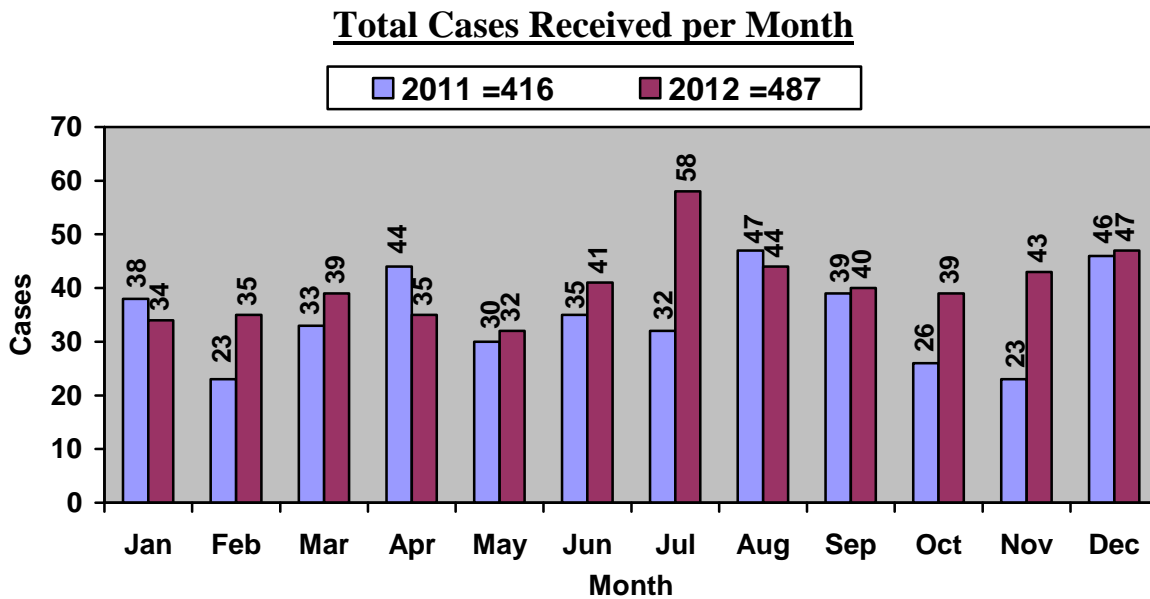
The Technical/Validation Unit is staffed by four scientists including one Forensic Scientist Supervisor (Technical Leader), one Forensic Scientist Advanced, and two Forensic Scientists III.

BIOLOGY CASEWORK UNIT

The Trial Casework Sub-Unit is part of the Biology Casework Unit. The Trial Casework Sub-Unit performs serology and/or DNA testing on cases that have resulted in an arrest and are being tested in support of the adjudication of the arrestee. This sub-unit has the main responsibility of assigning, analyzing, and reviewing these cases for those agencies serviced by the MSP-FSD Biology Section. While the primary responsibility of this sub-unit is cases with pending trial dates, it also does assist with the analysis of investigative and cold cases, the preparation and review of outsourced casework, and training of new analysts as necessary.

The Investigative Casework Sub-Unit is also part of the Biology Casework Unit. The Investigative Casework Sub-Unit performs serology and/or DNA testing on cases without pending court dates, which have not resulted in an arrest but are being tested in support of making an arrest. This sub-unit is responsible for handling high-priority/high-profile investigative cases, routine investigative cases, and cold cases. The Investigative Casework Sub-Unit is also responsible for the management and processing of outsourced casework to the contract vendor laboratory and training of new analysts as necessary.

Casework



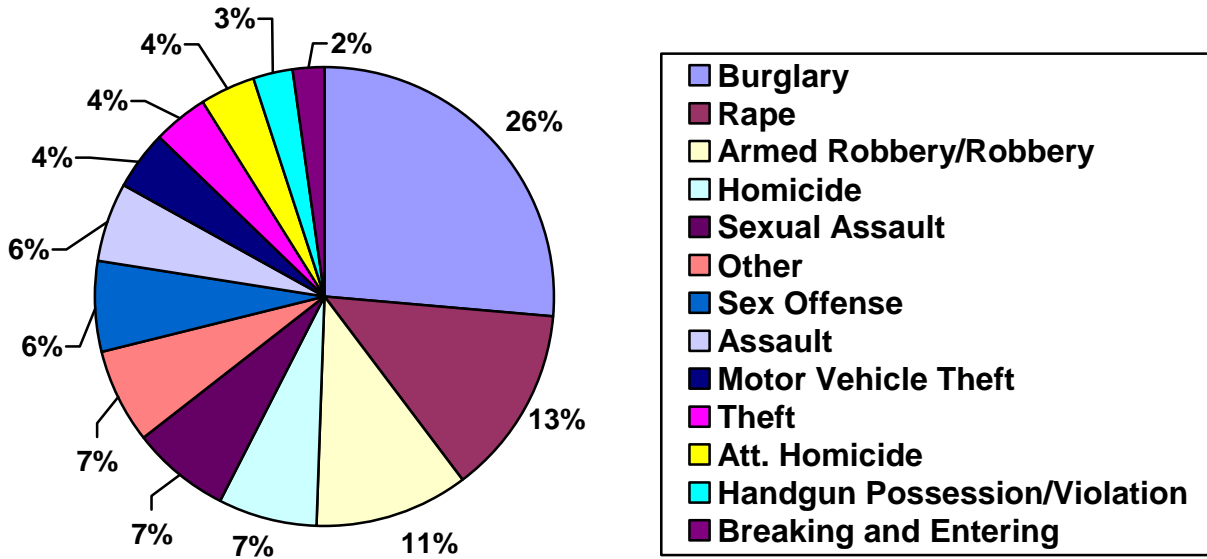
Total MSP Cases Received in 2012 per Installation

MSP Installation	Counties Served	Submission
MSP-Easton	Caroline, Dorchester, Talbot	38
MSP-Homicide	Statewide	11
MSP-Westminster	Carroll	9
MSP-Berlin	Worcester	8
MSP-Centerville	Kent, Queen Anne's	6
MSP-Princess Anne	Somerset	5
MSP-Northeast	Cecil	4
MSP-McHenry	Garrett	4
MSP-Hagerstown	Washington	3
MSP-Prince Frederick	Calvert	2
MSP-Golden Ring	Baltimore	2
MSP-Frederick	Frederick	2
MSP-CID	Statewide	2
MSP-Bel Air	Harford	2
MSP-Waterloo	Howard	1
MSP-Salisbury	Wicomico	1
MSP-Leonardtown	St. Mary's	1
MSP-College Park	Prince George's	1
	TOTAL	102

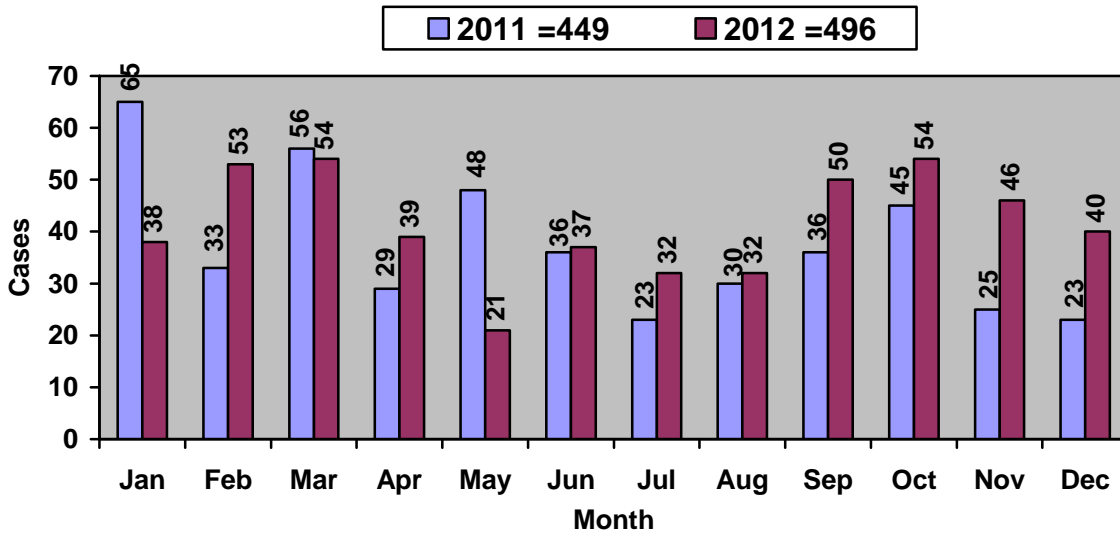
Total Allied Agency Cases Received in 2012 per County

County	Submissions
Frederick	55
Wicomico	49
Harford	32
Worcester	31
Charles	27
Cecil	25
Allegany	21
Carroll	20
Washington	17
Dorchester	16
St. Mary's	16
Prince George's	14
Caroline	10
Somerset	10
Talbot	10
Anne Arundel	8
Statewide	8
Calvert	5
Garrett	4
Kent	4
Queen Anne's	2
Montgomery	1
TOTAL	385

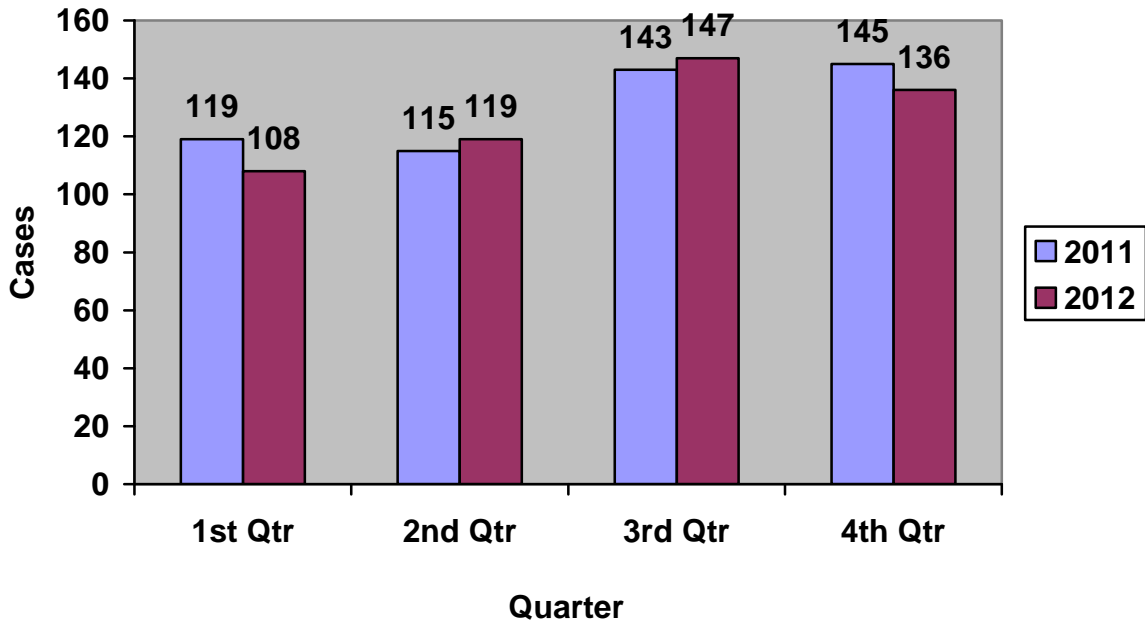
Total Cases Received in 2012 per Crime Type



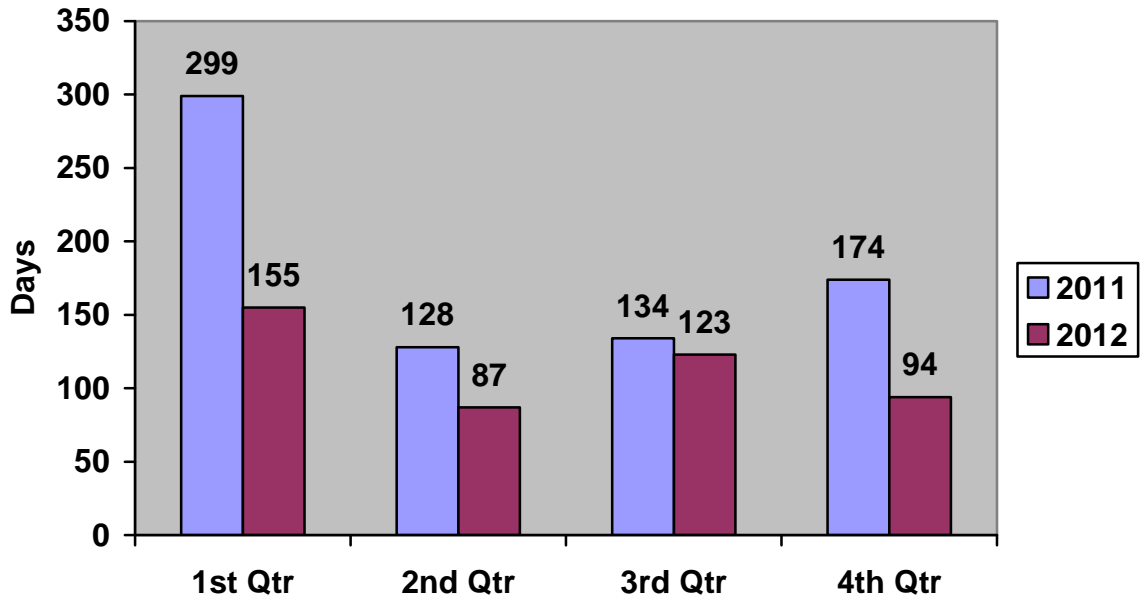
Total Cases Completed per Month



Ending Backlog per Quarter



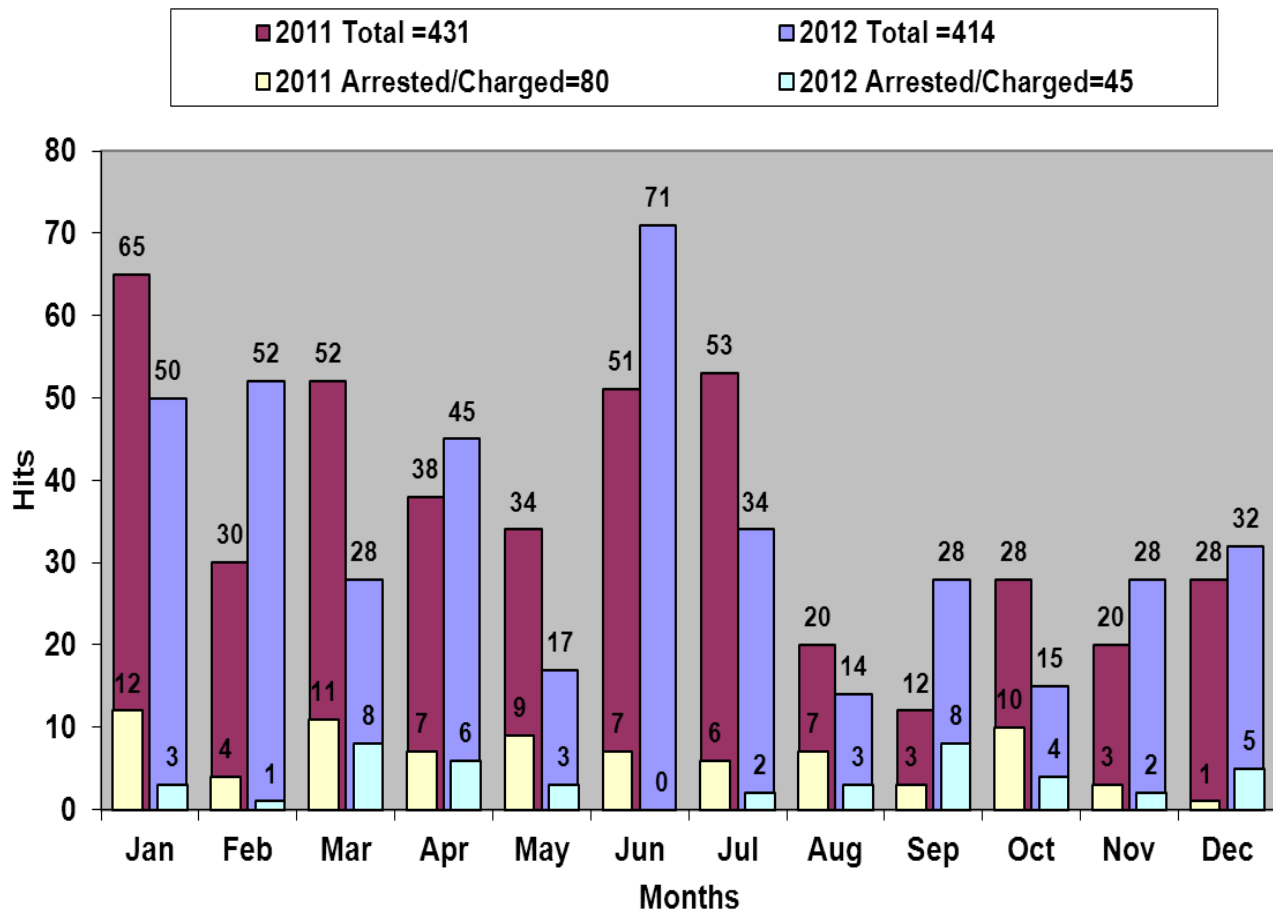
Average Turn Around Time per Quarter



BIOLOGY DATABASE UNIT

The DNA Database Unit is responsible for collecting DNA database samples from individuals required under Maryland law to provide a sample. The law was expanded in 2009 to include individuals arrested and charged with crimes of violence, burglary, and attempts of these crimes. While the majority of samples are collected by Allied Agencies, the DNA Database Unit is responsible for ensuring that all samples that were collected are received. The DNA Database Unit is also responsible for processing the DNA database samples received (as per Maryland law), entering DNA profiles from DNA database samples into the database, searching the database for hits, and reporting database hits. The DNA Database Unit also oversees the entry of DNA profiles from casework evidence into the database.

Total Hits Reported by Month



Total Hits in 2012

Hits Reported	
Maryland Offender/Arrestee Hits	212
Maryland Case Hits	414

Note - Maryland case hits include a Maryland case hitting to a Maryland offender/arrestee, a Maryland case hitting a National offender/arrestee, a Maryland case hitting a Maryland case, and a Maryland case hitting a National case. A Maryland case hitting a Maryland case is considered as two Maryland case hits (this is not consistent with how hits are reported for NDIS). A Maryland case hitting to a Maryland offender/arrestee is counted as both a Maryland offender/arrestee hit and a Maryland case hit.

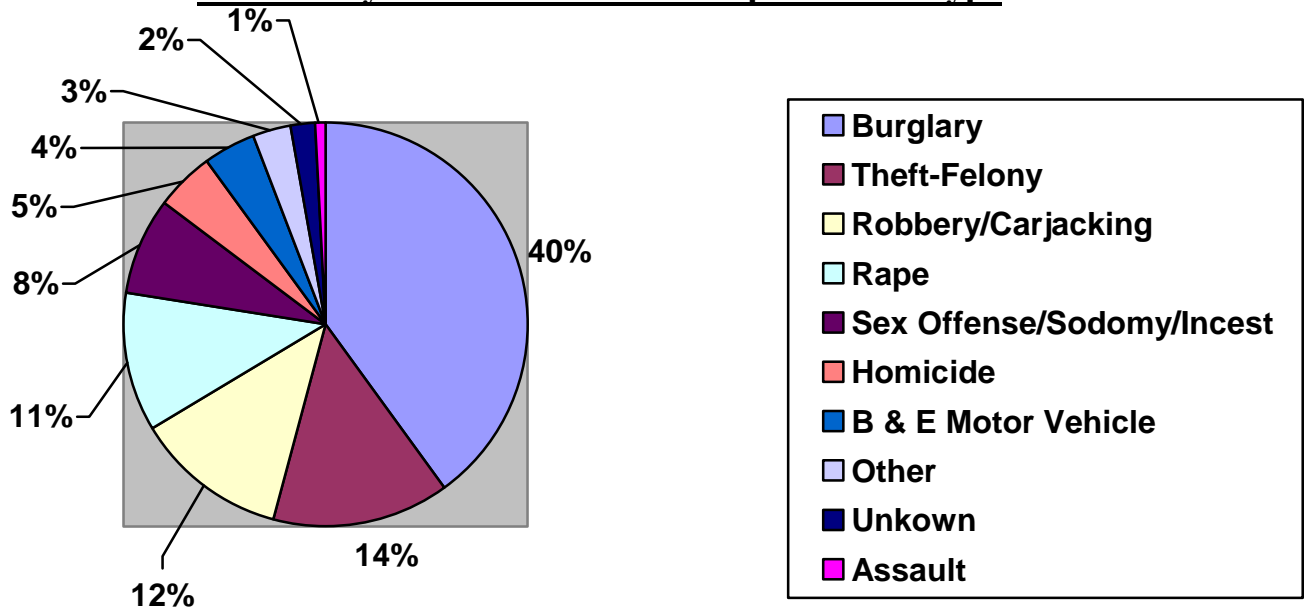
Total Maryland Case Hits in 2012 by County

County	Hits
Montgomery	96
Anne Arundel	77
Prince George's	69
Baltimore	46
Baltimore City	38
Howard	20
Worcester	13
Carroll	10
Frederick	9
Allegany	7
Charles	5
Dorchester	5
Harford	5
Washington	4
Cecil	2
St. Mary's	2
Talbot	2
Queen Anne's	1
Wicomico	1
Somerset	1
Kent	1
TOTAL	414

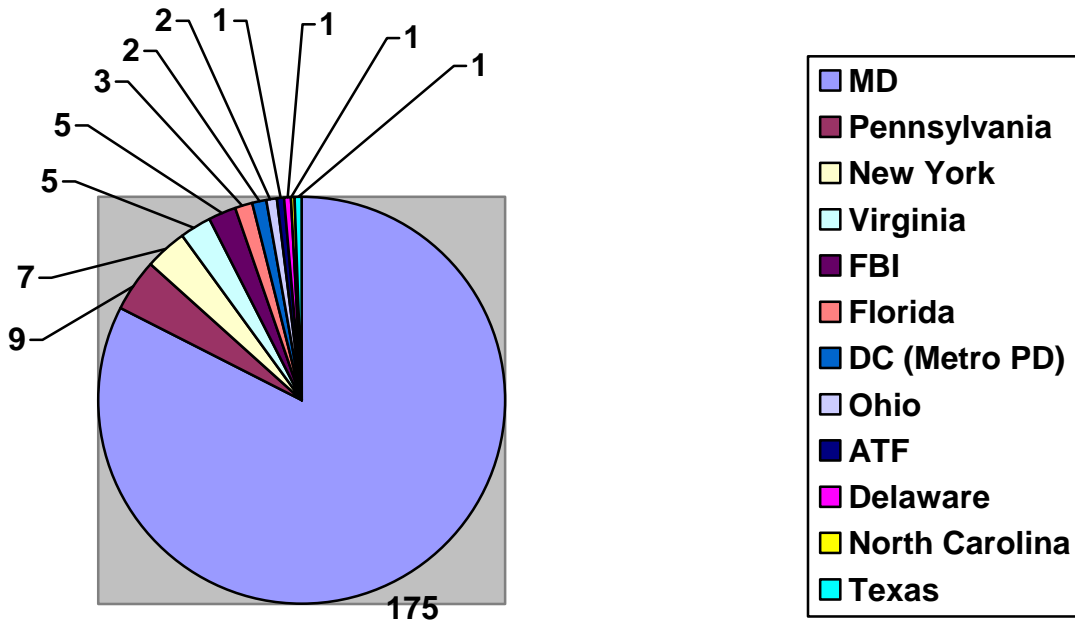
Total Maryland Case Hits in 2012 by Crime Year

Crime Year	Hits
1979	1
1985	6
1987	1
1988	1
1989	2
1991	2
1992	4
1994	1
1997	5
1998	1
1999	1
2000	3
2001	2
2002	7
2003	4
2004	9
2005	10
2006	9
2007	16
2008	21
2009	38
2010	43
2011	134
2012	73
Unknown	20
Total	414

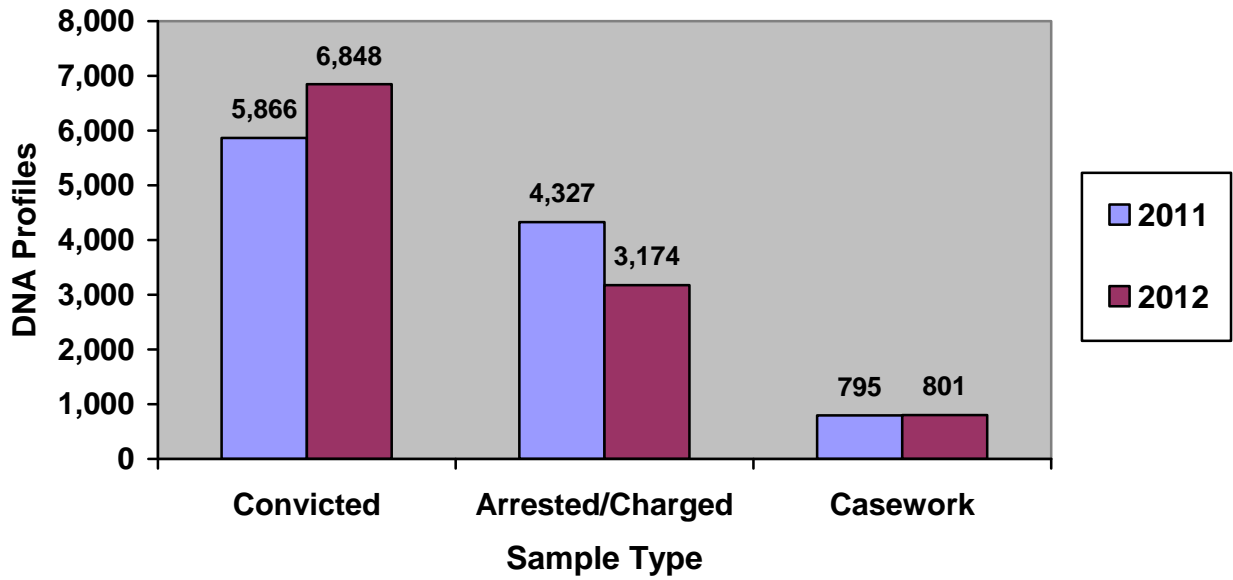
Total Maryland Case Hits in 2012 per Crime Type



Total Maryland Offender/Arrestee Hits in 2012 per Jurisdiction of Crime



Total DNA Profiles Uploaded to CODIS per Sample Type



BIOLOGY TECHNICAL UNIT

The Technical Unit of the Biology Section is responsible for the evaluation of new technologies to determine if they are appropriate to implement into the Section, validation of new technologies, training of personnel on new and current technologies, and quality assurance / quality control aspects of the Biology Section.

In 2012 the Technical Unit started several new validation studies, found some to be unsuitable for implementation, and implemented one. Training included the use of the newly implemented technology and the completion of casework and database training.

Training and Validation

Forensic Scientist	Competency Certification
All qualified DNA casework analysts	Quantifiler Duo
Jessi Brown	Use of the Quantifiler Duo kit as a technician
Tiffany Keener	Serology casework
Barbara Solomon	Use of in-house databasing system as a technician
Michael Whitmore	Use of in-house databasing system including the use of the expert system

New Technologies Implemented in 2012	Expected Benefits
Quantifiler Duo	The prior generation of this technology allowed for the determination of quantity and, to an extent, quality of human DNA present in an evidential sample. This new technology builds upon that basis by also determining the same information for the amount of human male DNA present. Use of this technology will allow for analysts to determine if an evidential sample is likely to produce a male autosomal DNA profile or if the sample would be best analyzed using Y-STR analysis.

BIOLOGY SECTION ACCOMPLISHMENTS IN 2012

1. The casework backlog was reduced approximately 6% in 2012. After achieving a 16% reduction by the end of 2009, a 51 % reduction by the end of 2010, and a 19% reduction in 2011, the casework unit surpassed its original goals and has continued to make the backlog reduction a tremendous success. This 2012 backlog reduction was accomplished despite a 17% increase in the number of cases received in 2012 and the loss of one full-time Forensic Scientist III casework analyst in March of 2012. This great success could not have been accomplished without the continued application of direct outsourcing, in-house outsourcing, and in-house casework. By utilizing a combination of these three processes the casework units have been able to bring the backlog to manageable levels. In addition, the number of homicide cases within the working casework backlog decreased by 39% in 2012. Furthermore, at the beginning of January, 2012, there were 5 cases which still remained in the casework backlog that were received into the laboratory prior to 2011. By the end of December 2012, all but two cases which had been received into the laboratory prior to 2012 had been closed. It is worth noting that the implementation of a new casework submission approval form in 2012 has also increased the efficiency of in-house casework. The success of the Biology Casework Unit is evident in the fact that it now maintains a fully assigned casework backlog.

2. The Technical Unit successfully implemented the technology to determine the quantity of male DNA present in samples to better assist the casework analysts in down-stream processing decisions. Validations have proceeded with Y-STR analysis and expanding the use of robotics for automated DNA extraction procedures. The Technical Leader has been an invited guest speaker on the topic of DNA mixture analysis at several forensic labs and professional seminars across the country.

3. The Database Unit received over 6,700 arrestee samples and expunged over 4,200 of those samples in 2012. Over 3,800 arrestee samples were imported into CODIS. Over 7,000 offender samples were received and more than 6,800 offender samples were imported into CODIS. All database samples are now analyzed in house and an expert system has been validated and is currently being used to review the data generated. The database staff continues to maintain a zero to minimal backlog of offender and arrestee samples needing to be reviewed and analyzed while continuing to face the challenges that accompany the arrestee collection law. The collections subunit has initiated the process of shifting all collections over to each corresponding external collection agency. The collection training video was updated and we now have the capability of tracking the training for each collector. In April, 2012 the Maryland Court of Appeals found the arrestee law to be unconstitutional. The Office of the Attorney General petitioned the US Supreme Court for a stay and in July the stay was granted. The US Supreme Court will be hearing the Maryland case in February 2013. Maryland had over 400 hits for 2012 including over 40 arrestee hits. To date we have released over 2800 hits and have over 105,000 Convicted Offender samples and 17,000 arrestee samples in CODIS.

BIOLOGY SECTION GOALS FOR 2013

1. The Biology Section will continue to achieve tremendous success in 2013. New strategies will be attempted in order to increase casework processing efficiency and further reduce the existing casework backlog while maintaining a low turn around time. The direct and in-house outsourcing of cases to our vendor lab will be continued as needed to assist with the further reduction of our existing casework backlog. If all factors that have allowed the current success in backlog reduction remain, we anticipate the ability to maintain a fully assigned casework backlog throughout 2013 while implementing processes to reduce the number of cases which are both in-house outsourced and directly outsourced.

2. In 2013, the Technical Unit will be implementing Y-STR analysis and the expanded use of robotics for DNA extraction. Initial investigations into the next generation of autosomal amplification kits will proceed according to timelines established by the acceptance of the new CODIS core loci by NDIS and the needs to replace instrumentation due to manufacturer's cessation of support of current instruments. Additional statistical models for the support of inclusionary statements to mixtures will be examined as scientific journal articles for such become available. The Technical Leader has several more DNA mixture presentations scheduled in 2013 across the country.

3. The Database Unit has done an outstanding job of handling the DNA database law requiring samples from individuals charged and arrested with violent crimes and burglary while at the same time continuing to manage the convicted offender DNA collection aspect of the law. The workflow has been successful but continues to experience several IT related roadblocks. The Database Unit will continue to work closely with a contractual consulting company and MSP-ITD to optimize both the internal sample tracking program and the flow of information involving data feeds between the Courts and FSD. IT support is also necessary to implement scanning software that is anticipated to assist with data entry work flow. Pending a decision from the US Supreme Court regarding Maryland's arrestee law, the lab in conjunction with our legal department will be able to determine time limits for retention of arrestee samples that have not had a resolution. The Database Unit will also continue processing all database samples in-house and in conjunction with the Technical Unit begin evaluating instrumentation/kits in preparation for the CODIS core loci expansion.

TRACE EVIDENCE SECTION

The Trace Evidence Section (TES) consists of two units, the Trace Evidence Unit and the Questioned Documents Unit. The Trace Evidence Unit is sub-divided into three sub-units, Trace Pattern, Trace Chemistry and Trace Biology. The Trace Evidence Section consists of one Forensic Scientist Supervisor, one Forensic Scientist Advanced, one Forensic Scientist III (vacant), and one Forensic Scientist II.

TRACE EVIDENCE UNIT

The Trace Pattern Sub-Unit performs analyses on evidence that either contains or produces a unique pattern that provides beneficial information to the investigators of the case. These analyses include Fracture Matches; Lamp Examinations; Nature of Damage (including Direction of Force, Fabric Separation and general sustained damage); Cordage, Knots and Ligatures; and Plastic Bag comparisons.

The Trace Chemistry Sub-Unit receives the bulk of the Trace Section evidence and is responsible for the analyses of any evidence submitted to the section that requires chemical or instrumental testing to determine physical and chemical properties. These include analyses in the areas of Fire Debris; Paint; Bank Dye Packs; Fibers; Tapes and Adhesives; Soil Anomalies; and miscellaneous liquids, powders and solids.

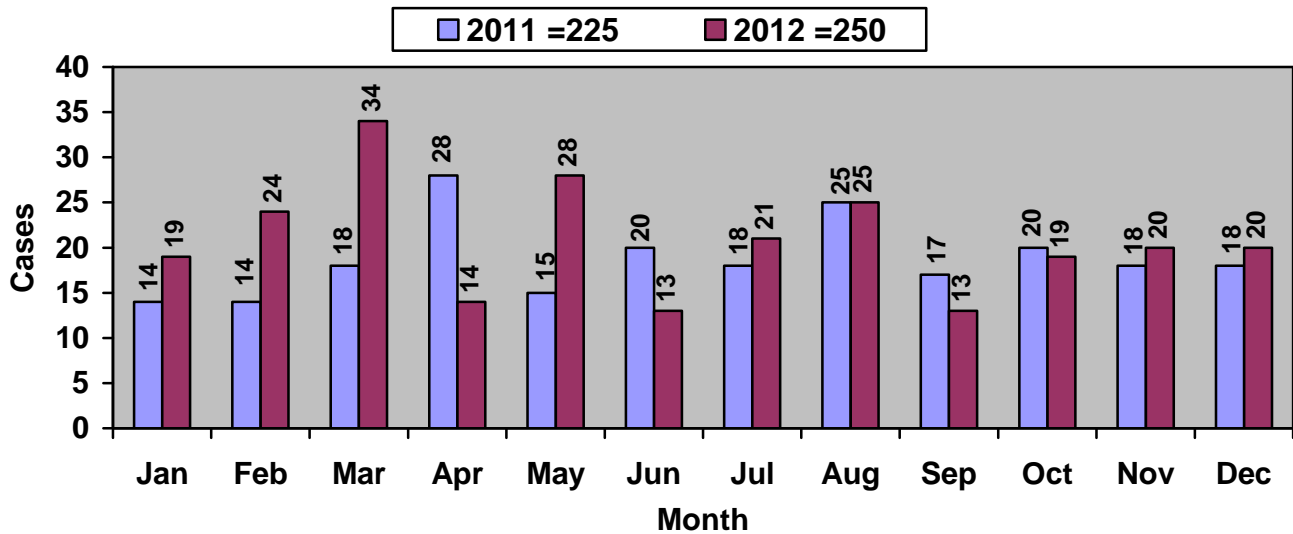
The Trace Biology Sub-Unit examines biological evidence in support of the operations of the Biology Section. The main area of analyses is with hair examinations to determine species (animal or human) and growth phase for further DNA profiling. This subunit is developing advanced biological screening protocols in an effort to analyze biological material (both animal and plant) that is not currently possible.

QUESTIONED DOCUMENTS UNIT

The Questioned Documents Unit performs analyses and comparisons on handwriting as well as on hand printed and machine printed materials. This unit also performs examinations of torn, charred, and obliterated paper; indented writing cases; and comparisons of fractured items.

Casework

Total Cases Received per Month



MSP Cases Received in 2012 per Installation

Installation	Counties Served	Submissions
MSP -Easton	Caroline, Dorchester, Talbot	6
MSP -Bel Air	Harford	4
MSP -North East	Cecil	2
MSP -Centreville	Kent, Queen Anne's	2
MSP -JFK	Cecil, Harford, Baltimore	2
MSP -LaPlata	Charles	1
MSP -College Park	Prince George's	1
MSP -Golden Ring	Baltimore	1
MSP -Prince Frederick	Calvert	1
MSP -Berlin	Worcester	1
MSP -CID Homicide	Statewide	1
MSP -Westminster	Carroll	1
	TOTAL	23

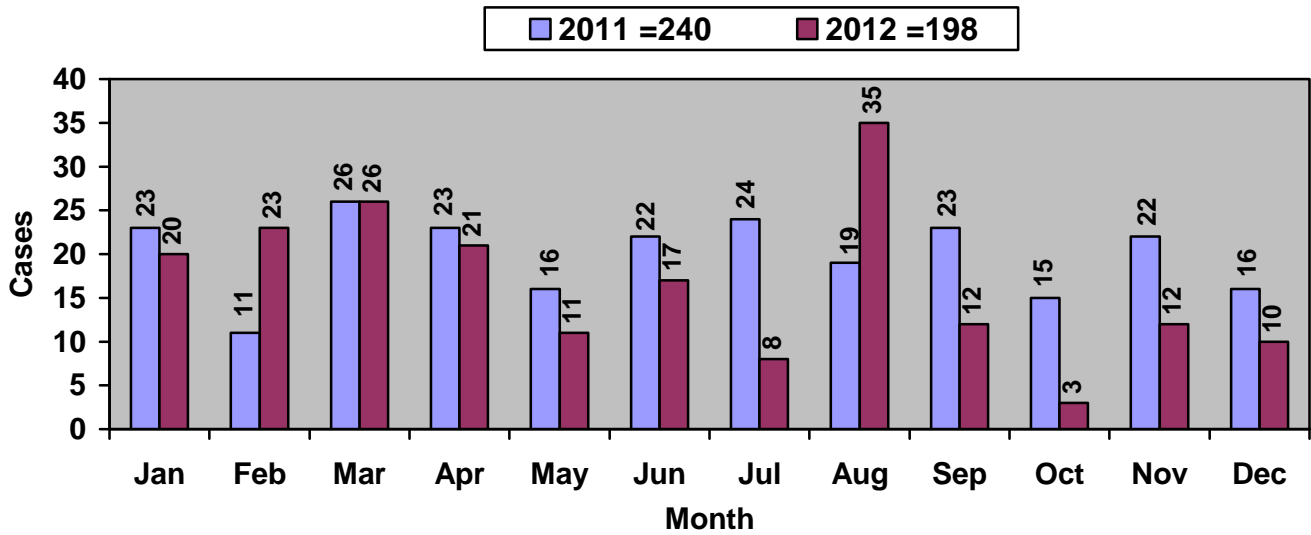
OSFM Cases Received in 2012 per OSFM Region

Region	Counties Served	Submissions
OSFM - Lower Eastern Shore	Dorchester, Somerset, Wicomico, Worcester	32
OSFM - Northeast	Harford, Cecil	11
OSFM - Southern	Calvert, Charles, St. Mary's	11
OSFM - Metro	Carroll, Frederick, Howard	9
OSFM - Upper Eastern Shore	Caroline, Kent, Queen Anne's, Talbot	4
OSFM - Western	Allegany, Garrett, Washington	4
OSFM - Headquarters	Prince George's, Anne Arundel, Baltimore, Montgomery	1
	TOTAL	72

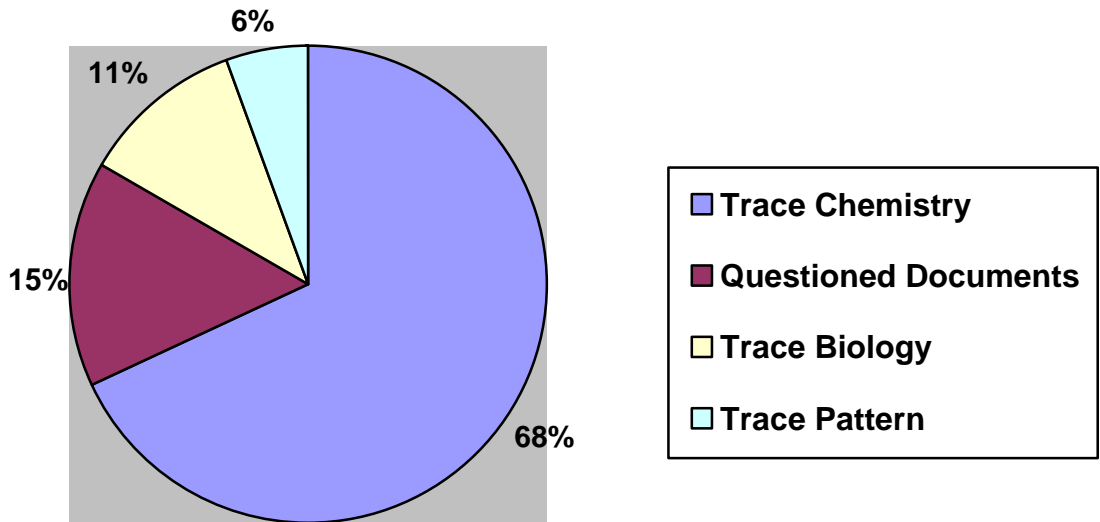
Allied Agency Cases Received in 2012 per County

County	Submissions
Anne Arundel	50
Howard	19
Baltimore	15
Montgomery	12
Worcester	9
Prince George's	8
Frederick	6
Allegany	5
Wicomico	5
Baltimore City	4
Carroll	4
Cecil	4
Statewide	4
Harford	2
Talbot	2
Caroline	1
Dorchester	1
Garrett	1
Kent	1
Queen Anne's	1
Unknown	1
TOTAL	155

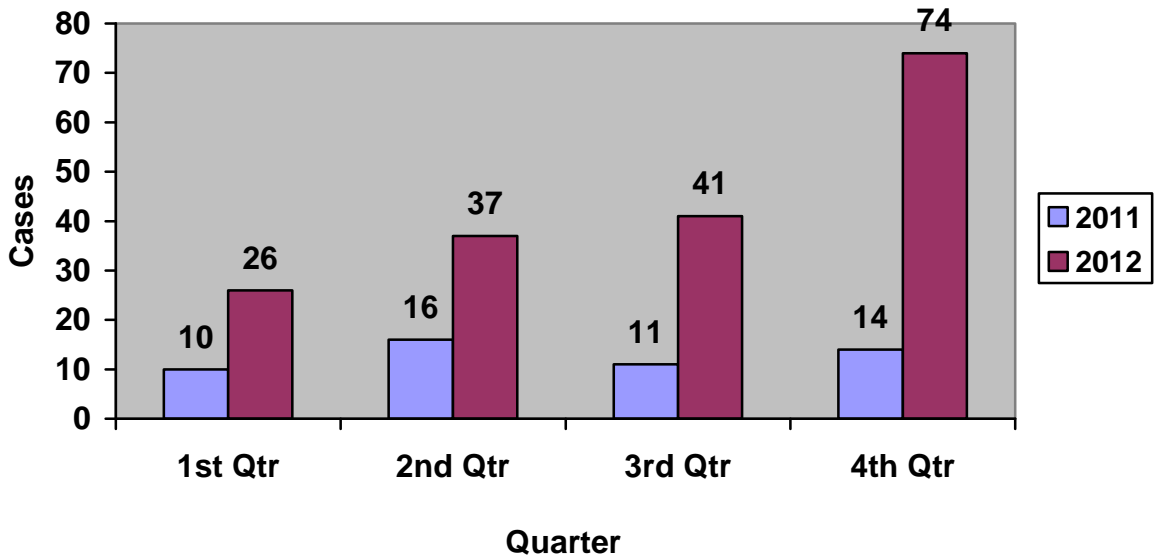
Total Cases Completed per Month



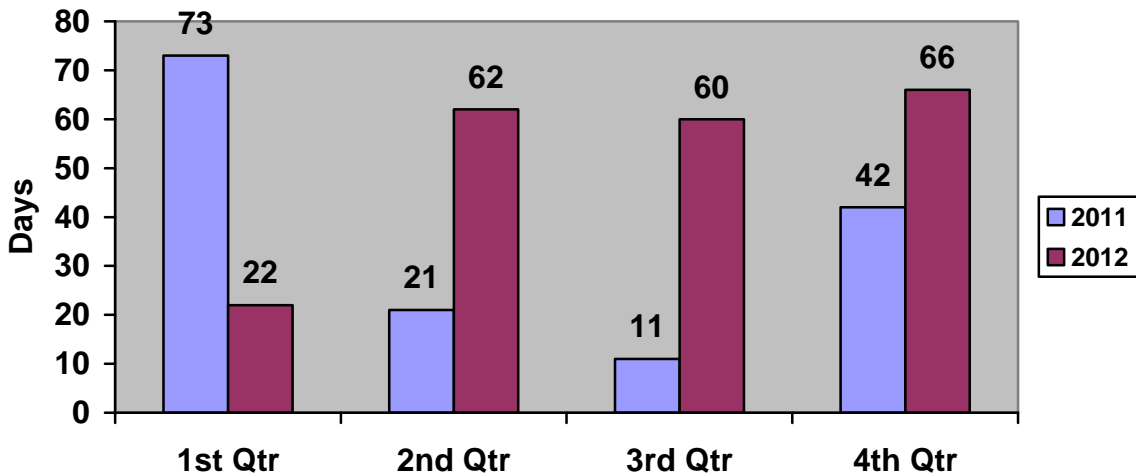
Cases Completed by Sub-Unit



Ending Backlog per Quarter



Average Turn Around Time per Quarter



Training

Forensic Scientist	Competency Certification
Andreana Dimakakos	Tapes and Adhesives, Lamp Filaments
Joseph Harant	Fibers, Hair, Tapes and Adhesives, Lamp Filaments
Diane Lawder	Lamp Filaments

TRACE EVIDENCE SECTION ACCOMPLISHMENTS IN 2012

1. A Forensic Scientist II who is competent in Hair Evaluation for DNA Analysis is also training in Fire Debris Analysis.
2. The senior MSP Trace Evidence examiners successfully trained less experienced MSP Trace Evidence examiners in areas of analysis including Lamp Filaments, Plastic Bag comparisons, and Nature of Damage. It should also be noted that two Trace Evidence examiners from Baltimore City Police Department were included in these training programs.
3. Due to the departure of two Forensic Scientists III from MSP employment, the Trace Section was left with no one to perform Fire Debris Analysis. In order to lessen this impact on future casework, the Trace Section Supervisor and the Forensic Scientist II are undergoing Fire Debris Analysis training with the ATF laboratory. This training is expected to conclude in spring 2013. Also to alleviate some of the current Fire Debris casework backlog, agreements have been reached with both the Baltimore City and ATF laboratories to perform a limited number of analyses per month. This outsourced casework began in September.

TRACE EVIDENCE SECTION GOALS FOR 2013

1. Since two Forensic Scientists III left MSP employment, the Trace Evidence Section currently does not have at least one forensic scientist trained and competent in each of the thirteen trace evidence sub-disciplines. Therefore, a major goal of the section is to establish a succession plan that will ensure that at least two forensic scientists are trained and competent in each sub-discipline. To that end, new training schedules will be developed that provide for training to be completed in 2013. Training will include in-house, external, and online events. An experienced Fire Debris analyst is being sought to fill the current vacancy. Once the new Fire Debris analyst and the other two personnel who are undergoing training are deemed competent for Fire Debris Analysis casework, the outsourcing of Fire Debris evidence will cease.
2. The Trace Evidence Biology Sub-Unit has completed a SOP on Identification of Wood and a preliminary SOP on Identification of Bone and is to continue working on Plant and Animal material analysis SOPs. In conjunction with developing these new SOPs, methods will be validated and staff will be trained.
3. FSD has only one Questioned Documents examiner. A working agreement has been in effect for several years that allows the work performed by the FSD Questioned Documents examiner to be technically reviewed by the Baltimore City Police Department Questioned Documents examiner. Similarly, casework performed by the Baltimore City Police Department Questioned Documents examiner is technically reviewed by the FSD Questioned Documents examiner. While this reciprocal relationship has been very beneficial, it is prudent that FSD develop a second Questioned Documents examiner so that this unit can be self sufficient. Therefore, cross-training of a Trace Unit Forensic Scientist by the FSD Questioned Documents examiner should begin in 2013.

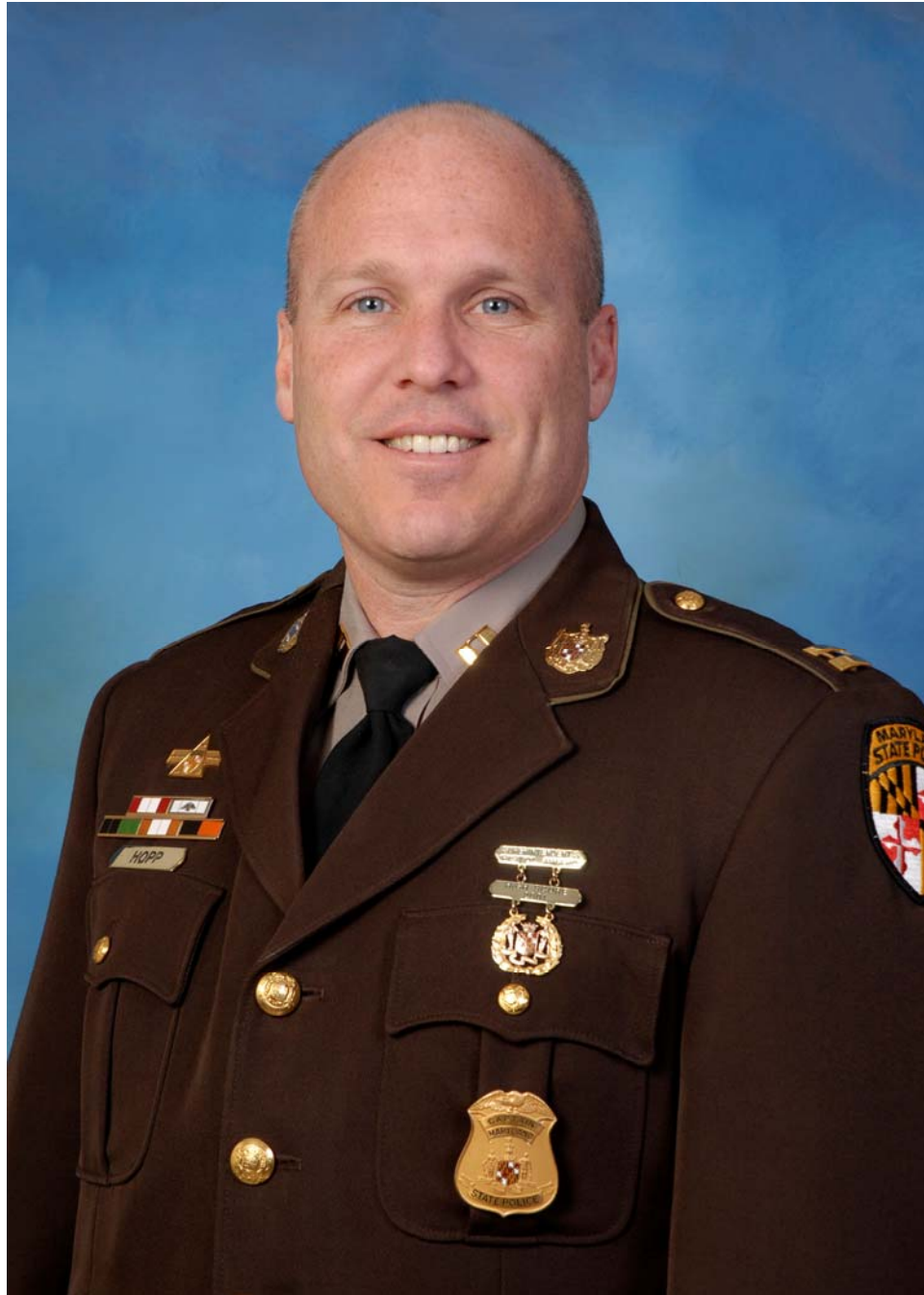
FSD SPIRIT IS STRONG!



The Crime Scene Section's entry in the first annual FSD holiday window decorating contest.



The FSD staff with their Laser Tag gear at the 2012 Holiday Party.



“I truly appreciate the opportunity to have served with such a professional organization and the many dedicated men and women who have helped develop the brand image that makes us who we are. Semper Fi!” – *Captain David M. Hopp, Retiring Assistant Commander, FSD*

Thanks Captain Hopp for your 5 years at FSD!