



2011

ANNUAL REPORT

**MARYLAND STATE POLICE
FORENSIC SCIENCES DIVISION
STATEWIDE DNA DATABASE
REPORT**

April 2012

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STATEWIDE DNA DATABASE ANNUAL REPORT

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Executive Summary

The Statewide DNA Database was established in 1994 with the required collection of DNA samples from those convicted of rape and sexual offenses. The pool of qualifying offenders was expanded to those convicted of qualifying crimes of violence in 1999 and then again to those convicted of all felonies and two specific misdemeanor crimes as well as attempts of those crimes in 2002. The latest expansion, which went into effect on January 1, 2009, includes the collection of DNA samples of those arrested and charged with qualifying crimes of violence, burglary, and attempts of those crimes.

In the first year of its implementation, the newly expanded portion of the law resulted in the collection of over 11,600 DNA samples. Samples from those individuals charged and having arraignment dates, a total of 5,047, were subjected to analysis. The DNA profiles from those samples eligible for entry into the database and not subject to automatic expungement, a total of 4,213, were uploaded and searched. A total of 37 hits were forwarded to law enforcement for further investigation. At the end of the year, 10 arrests had been made from the information provided by the 37 hits with one resulting conviction.

The second year of operation resulted in the collection of 11,486 DNA samples from individuals charged with qualifying crimes of which 6,030 were eligible to be uploaded and searched. There were over 60 matches reported to law enforcement which led to 13 arrests and 3 convictions.

The third year totals included 10,666 DNA samples collected from individuals charged with qualifying crimes of which 4,327 were eligible to be uploaded and searched. Matches reported to law enforcement totaled 78 and these led to 19 arrests and 9 convictions.

As part of the newly expanded portion of the law, the following annual report has been generated to detail operating costs, list demographics of those from which samples have been collected, and categorize the outcomes of the investigations aided by the generation of hits from this new requirement of the law.

Background and Operations

The establishment of DNA databases emerged with the advent of DNA technology and its application to forensic sciences. Collected physical evidence now yields the potential to generate DNA profiles which can be stored and searched utilizing computer software programs. DNA testing has become a powerful tool to link the guilty to their crimes and exonerate the innocent.

Congress authorized the FBI to establish an index of DNA identification records with the passing of the DNA Identification Act of 1994, Public Law 103 322. These DNA identification records were those of convicted felons and DNA profiles from evidence collected in association with the investigation of crimes. The FBI developed software, CODIS (Combined DNA Index System) which is used to manage this DNA data at three separate levels: Local, State and Federal. The local forensic DNA laboratories analyze case evidence and collect the data in the Local DNA Index System (LDIS), then upload the qualifying DNA profiles to the State DNA Index System (SDIS). State laboratories analyze evidence and generate DNA profiles from crime scenes for entry into SDIS and are also tasked with the analysis of database samples from qualifying offenders. The DNA profiles both from casework and from offenders are then forwarded to the National DNA Index System (NDIS). Searches can result in candidate matches between cases or between cases and offenders. For matches that are confirmed, the information is then forwarded to the law enforcement investigators for further pursuance of the case.

In 1994, the State of Maryland followed the Federal lead and passed legislation to establish the Statewide DNA database: Public Safety Article Title 2, Subtitle 5, ACM (prior to 2003 referred to as Article 88B, Section 12A, ACM). This law required the collection of DNA samples from those individuals convicted of rape in any degree, 1st-3rd degree sexual offenses, and child sexual abuse.

The list of qualifying convictions was expanded in 1999 to include not only those from 1994 but also specific violent crimes such as Murder, 1st degree Assault, Robbery and attempts of all listed. Yet another expansion of qualifying crimes occurred in 2002 with the list being expanded to include all felons and two misdemeanor crimes: 4th degree burglary and breaking/entering a motor vehicle.

The most recent change of the Statewide DNA Database went into effect on January 1, 2009, when the law was expanded to include those arrested and charged with qualifying crimes of violence, 1st-3rd degree burglaries and any attempts of these crimes. Samples collected under this new revision are not to be analyzed until the arraignment date occurs. Provisions for automatic expungement were also dictated. These restrictions require the tracking of the charged individual through the court system for the assignment of arraignment dates and the final court disposition.

The Maryland Statewide DNA Database receives DNA evidence profiles from six DNA laboratories: Maryland State Police, Anne Arundel County Police, Baltimore City Police, Baltimore County Police, Montgomery County Police and Prince George's County Police. The case evidence DNA profiles are forwarded for uploading into the State Level of CODIS which is managed and administered by the Maryland State Police, Forensic Sciences Division (MSP-FSD). The MSP-FSD is also the party responsible for the collection, analysis and storage of DNA samples collected from convicted offenders and those individuals charged with a qualifying offense.

In the past, the analysis of convicted offender samples and samples from those charged with a qualifying offense was outsourced to a commercial DNA typing laboratory for analysis. When outsourcing database samples MSP-FSD performed in-house technical reviews on all commercial analytical data prior to its acceptance for uploading into CODIS. The year 2011 saw the gradual transfer from commercial outsourcing to internal analysis of the qualified samples.

In preparation for the 2009 revision of the law, the Governor's Office of Crime Control and Prevention organized and hosted four regional summits to educate and update the law enforcement community as well as the judicial system on their vital responsibilities in enacting this law. MSP-FSD developed and disseminated instructional videos on the collection of DNA samples and the use of the newly designed DNA Collection kits.

The successful implementation of the new procedures required for the 2009 revision was directly due to the cooperative efforts of several groups. The Department of State Police has been fortunate to be

partnered with the Governor's Office of Crime Control and Prevention (GOCCP), State Attorney's Offices, the Department of Public Safety Information Technology and Communications Division, the Department of Corrections, the Department of Parole and Probation, Sheriff's Offices, and Detention Centers. Combined efforts have gone to oversee the collection of samples, the transfer of court data, and verification that all individuals eligible for collections have had a sample taken and that those samples no longer eligible have been expunged.

As of the end of 2009, Maryland's Statewide DNA Database reported out a cumulative total of 1,591 hits, of which 37 were the result of samples collected from individuals charged with qualifying offenses. Formal charges were brought in 10 out of those 37 hits (information from GOCCP). Furthermore, over 82,000 convicted offender samples and over 4,200 samples from individuals charged with qualifying offenses were in CODIS at the end of 2009.

Cumulative totals at the conclusion of 2010 included over 92,000 convicted offender samples and over 10,000 samples from individuals charged with qualifying offenses in CODIS available for searching purposes. The Statewide DNA Database reported out a program total of 1,998 hits, of which 64 were from individuals charged with qualifying offenses. In 2010, the Governor's Office of Crime Control and Prevention reported 13 new arrests from 60 new candidate matches and 3 new convictions for the arrestee/charged category.

As 2011 ended, cumulative totals in CODIS reached over 98,300 convicted offender samples with over 14,000 samples from individuals charged with qualifying offenses. Also, there were 19 new arrests from 78 hits and 6 new convictions reported by the Governor's Office of Crime Control and Prevention.

The data contained within this report provides the information required as per Code of Maryland Regulations (COMAR 29.05.01.16). It should be noted as per the reporting requirements, the Governor's Office of Crime Control and Prevention is responsible for collecting and reporting out the data on crime scene DNA evidence as supplied by local law enforcement and State Police. This information is contained within a separate document provided to the Office of Legislative Audits.

Reporting Requirements

The new law states that not later than April 1, 2010, and annually thereafter, the Department of State Police shall compile an annual report to the Governor and to the General Assembly and this report be posted on the website of the Department of State Police not later than April 1 of each year.

The content of the Report is as follows:

1. Total DNA Database Expenses in 2011
 - a. Costs for scientists and support personnel
 - b. Costs for DNA Collection kits (including transport costs)
 - c. Operational Costs (new hardware, software and maintenance)
 - d. DNA Testing and Analysis Costs (equipment, outsourcing)
2. Funds provided by the State, by municipality
3. Individual Data and Analysis (racial demographics of all individuals charged with qualifying crimes upon arrest in designated categories)
4. Case-Specific Data Collection and Analysis.

I. Total DNA Database Expenses in 2011

This section presents the expenses incurred in 2011 to operate the Statewide DNA Database System. Following the requirements of the bill, this section is organized under 4 subsections. Salary and benefit cost is presented in subsection (a) while subsection (b) is for costs related to DNA Collection. Subsections (c) and (d), respectively, present operational costs for the DNA database and testing/analysis. Accordingly, the total expenses in 2011 to operate the Statewide DNA Database System were **\$1,311,827.38**.

(a) Salary and Fringe Benefits Costs, for scientists and support staff assigned to the State Police Crime Laboratory (MSP-FSD) for DNA Database

In 2011 a total of \$834,117.99 was paid in salaries for scientists and support staff who were working on the Statewide DNA Database project. The corresponding fringe benefits cost during this period was \$64,644.14. The combined total of salaries and fringe benefits was \$898,762.13.

Costs for Scientists and Support Staff			
	Scientists (14)	Support Staff (4)	Total (18)
Salary Paid	\$737,765.65	\$96,352.34	\$834,117.99
Benefits-FICA	\$56,439.07	\$7,370.95	\$63,810.02
Benefits-Unemployment	\$737.77	\$96.35	\$834.12
Total Salary & Fringe Benefit	\$794,942.49	\$103,819.64	\$898,762.13

(b) DNA Collection Kit Costs, including costs required to transport kits from collection sites to the Crime Laboratory (MSP-FSD)

DNA Collection Kits purchased with 2010 funding were sufficient in amount to cover the needs of 2011. Postage costs for transporting the kits in 2011 was \$17,890.00.

Item	Expense
Kits	0.00
Postage	17,890.00
Total DNA Collection	17,890.00

(c) DNA Database- Operational Costs

DNA database operational costs include purchasing new hardware, software and maintenance of old and new hardware/software. In 2011, a total of \$116,980.40 was spent to buy hardware, software, and service contracts for DNA database operations.

Item	Expense
Hardware	\$16,822.90
Software	\$65,720.00
Maintenance	\$34,437.50
Total DNA database operational Cost	\$116,980.40

(d) DNA Testing and Analysis Costs

DNA testing and analysis costs for 2011 were \$278,194.85. The costs include in-house equipment purchased, associated maintenance of equipment, outsourced testing and in-house analysis.

Item	Expense
Equipment Purchased	\$11,125.20
Maintenance of Equipment	\$46,301.07
Outsourced Testing	\$101,646.25
In- House Analysis	\$119,122.33
Total DNA Testing & Analysis	\$278,194.85

II. Funds made Available by the State

The Governor's Office of Crime Control and Prevention (GOCCP) awarded \$1,234,669.00 under the Byrne Justice Recovery Act for use by the DNA forensic testing laboratories to assist in DNA Casework Backlog Reduction. The grant period ran from 2009 to 2011. The Maryland State Police, Prince George's County Police Dept., Montgomery County Police Dept., Baltimore City Police Dept., Baltimore County Police Dept., and Anne Arundel County Police Dept. were the six agencies which received funding under this program.

Funds made Available by the State (information provided by GOCCP)

Recipient	Source	
	Byrne Justice Recovery Act*	Coverdell Grant Program**
MSP	\$374,871.00	\$37,067.00
Prince George's County	\$209,798.00	\$55,000.00
Montgomery County	\$275,000.00	\$39,474.00
Baltimore City	\$375,000.00	\$41,835.00
Baltimore County		\$42,228.00
Anne Arundel County		\$61,612.00
Washington County-Hagerstown City		\$38,273.00
Total	\$1,234,669.00*	\$315,489.00

* The grant period for the Byrne Justice Recovery Act carried over from 2009 to 2011

**GOCCP awarded Paul Coverdell Forensic Science Improvement Grants which can be used to assist laboratories in all the forensic disciplines.

III. Individual Data and Analysis

This section deals with racial demographics of all individuals charged in 2011 with qualifying crimes upon arrest in designated categories. The information was generated through the MSP Sample Tracking program.

Number of Charged/Arrestees Collected by Race- 2009-2011

Race	2009	2010	2011
Asian	65	63	44
African-American	7,092	7,009	6,354
White	4,066	3,985	3,913
Hispanic	328	259	93
Others	17	13	26
Unknown	75	75	98
Total	11,643	11,404	10,528

IV. Case-Specific Data and Analysis

A. Information provided by the Governor's Office of Crime Control and Prevention.

The number of Convicted offender (CO) DNA Matches (Hits) Resulting in Investigations, Formal Charges, and Convictions (2009 – 2011)

	Type of Collection/Analysis	2009	2010	2011
a)	DNA matches (hits)	205	183	185
b)	Matches (hits) that resulted in the investigation of the individual identified in the match*	184	154	143
d)	Investigations still ongoing**	19	18	43
e)	Matches (hits) resulting in formal charges*	76	79	65
f)	Matches (hits) resulting in convictions*	46	49	17
g)	The number of cases still pending trial**	5	13	32
h)	Convicted individuals exonerated by DNA matches in a calendar year	0	0	0
i)	The number of matches resulting in convictions of individuals who were not already incarcerated*	34	30	14

* These numbers will increase as more DNA hit investigations are closed

** These numbers will decrease as more DNA hit investigations are closed

The number of Charged/Arrestee (A) offender DNA Matches (Hits) Resulting in Investigations, Formal Charges, and Convictions (2009 – 2011)

Type of Collection/Analysis	2009	2010	2011
DNA matches (hits)	37	60	78
Matches (hits) that resulted in the investigation of the individual identified in the match*	36	53	56
Investigations still ongoing**	5	9	17
Matches (hits) resulting in formal charges*	19	20	19
Matches (hits) resulting in convictions*	13	8	9
The number of cases still pending trial**	1	4	6
Convicted individuals exonerated by DNA matches in a calendar year	0	0	0
The number of matches resulting in convictions of individuals who were not already incarcerated*	10	5	6

* These numbers will increase as more DNA hit investigations are closed

** These numbers will decrease as more DNA hit investigations are closed

g) For convictions for 2011 hits (n=26) where a match (hit) to a convicted offender sample or charged/arrestee sample occurred, that individual's prior offenses:

- (13/8)* Offender Type 1- Hit conviction/charged arrest was for Burglary – Priors are CDS Possession, Burglary, Theft, Assault, 2nd Degree Rape, quality of life offenses, Concealed Deadly Weapon, Malicious Destruction of Property; 2 offenders were also charged with murder
- (2/0)* Offender Type 2 – Hit conviction/charged arrest was for Robbery – Priors are Robbery with a Deadly Weapon, Burglary, CDS Possession, assault, theft, and quality of life offenses
- (1/0)* Offender Type 3 – Hit conviction/charged arrest was for a rape – The only other Prior is another rape conviction
- (1/0)* Offender Type 4 – Hit conviction was for Destruction of Property – Priors are for Theft, burglary, assault, and quality of life offenses
- (0/1)* Offender Type 5 – Hit conviction was for Arson – Priors are for Robbery, theft, and CDS possession

* (Conviction Offenders/Arrestee-Charged Individuals)

B. MSP-FSD DNA Statistical End of Year Report

Year	Cumulative Number of Convicted Offender Samples in CODIS	Cumulative Number of Arrestee/Charged Samples in CODIS	Cumulative Number of Hits (both CO,casework, and Arrestee/Charged	Cumulative Number of Arrestee/Charged Hits	MSP-FSD Biology Casework Pending Requests
2009	82,906	4,213	1,591	41	347
2010	92,493	10,243	1,998	104	175
2011	98,359	14,570	2,410	184	145