

Forensic Genetic Genealogical DNA Analysis and Search (FGGS) 2024 Report

Criminal Procedure Article, Section 17-105

Governor's Office of Crime Prevention and Policy

May 27, 2025

WES MOORE
Governor

ARUNA MILLER
Lieutenant Governor



DOROTHY LENNIG
Executive Director

May 27, 2025

The Honorable Wes Moore
Governor of Maryland
100 State Circle
Annapolis, MD 21401

The Honorable William C. "Bill" Ferguson IV
President of the Senate
State House, H-107
Annapolis, MD 21401-1991

The Honorable Adrienne Jones
Speaker of the House of Delegates
State House, H-101
Annapolis, MD 21401

RE: Criminal Procedure Article § 17-105 (MSAR #15674)

Dear Governor Moore, President Ferguson, and Speaker Jones:

As required by § 17-105 of the Criminal Procedure Article, please find an enclosed copy of the Governor's Office of Crime Prevention and Policy's report, titled *Forensic Genetic Genealogical DNA Analysis and Search (FGGS) 2024 Report*. This report includes information regarding requests for FGGS during the 2024 calendar year. It also identifies efforts to reconvene the panel of stakeholders tasked to review the annual report and make policy recommendations.

Should you have any questions relating to the information provided in this report, please feel free to contact me at 410-697-9338.

As required, five color copies will be sent to the DLS Legislative Library.

Sincerely,

A handwritten signature in blue ink, reading "Dorothy J. Lennig".

Dorothy J. Lennig, Esq.
Executive Director

cc: Sarah Albert, Department of Legislative Services (5 copies)

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Introduction

In accordance with § 17-105(a) of the Criminal Procedure Article, the Governor’s Office of Crime Prevention and Policy (Office) must submit a report to the Governor and the General Assembly by June 1 of each year, as it relates to requests for forensic genetic genealogical DNA analysis and search (FGGS) for the preceding year. Section 17-105(b) also requires the Office to convene a panel of stakeholders to review the annual report each year and make policy recommendations.

Pursuant to its charge, this *Forensic Genetic Genealogical DNA Analysis and Search (FGGS) 2024 Report* includes information regarding requests for FGGS during the 2024 calendar year; and identifies efforts to reconvene the panel of stakeholders. It also provides a follow-up to several letters submitted in prior years. To view these letters, please visit the Office’s website at: <https://gocpp.maryland.gov/reports-and-publications/>.

Background

FGGS refers to the analysis of a biological sample by a laboratory to create a forensic genetic genealogical profile, followed by searching that profile in a publicly accessible open-data personal genomics database or a direct-to-consumer genetic genealogy service. This differs from DNA analysis using the Federal Bureau of Investigation’s Combined DNA Index System (CODIS) - a law enforcement database that compares DNA profiles derived from forensic samples to those of known offenders.¹ CODIS uses forensic DNA typing to compare 13-20 short tandem repeat (STR) DNA markers; whereas, forensic genetic genealogical DNA analysis (FGG) combines traditional genealogy with advanced DNA analysis to solve crimes, including cold cases such as the Golden State Killer.² FGG examines over half a million single-nucleotide polymorphisms (SNPs), which replace the STR DNA markers analyzed in traditional forensic DNA typing.³ These SNPs span the entirety of the human genome which allows scientists to

¹ U.S. Department of Justice. (2019). *United States Department of Justice Interim Policy: Forensic Genetic Genealogical DNA Analysis and Searching*.

<https://www.justice.gov/d9/pages/attachments/2019/09/24/finaldojinterimpolicyonfgg.pdf>

² Ibid. D’Antonio, L. (2024). Investigative Genetic Genealogy (IGG): A Guide for Prosecutors. *Criminal Law, Investigative Genetic Genealogy, Forensic Genealogy, DNA*.

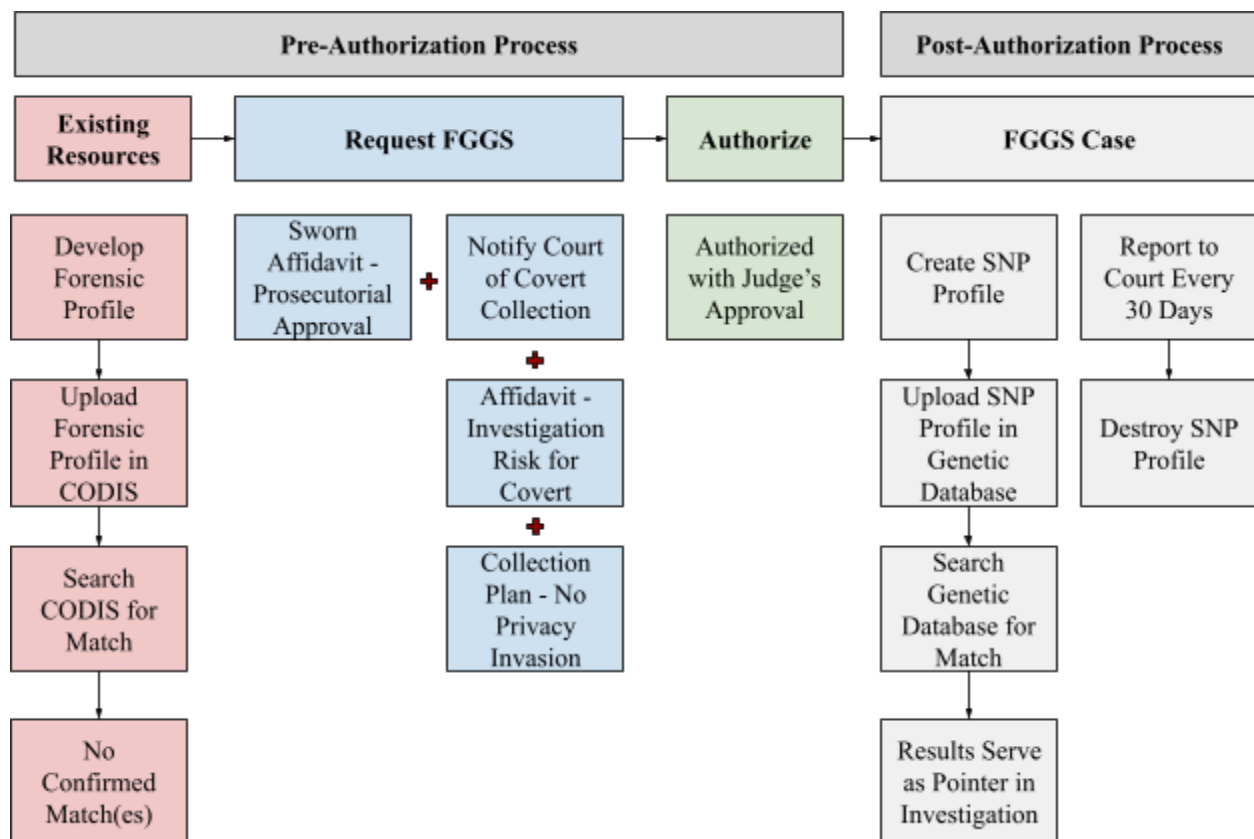
<https://www.tdcaa.com/journal/investigative-genetic-genealogy-igg-a-guide-for-prosecutors/>

³ U.S. Department of Justice. (2019). *United States Department of Justice Interim Policy: Forensic Genetic Genealogical DNA Analysis and Searching*.

<https://www.justice.gov/d9/pages/attachments/2019/09/24/finaldojinterimpolicyonfgg.pdf> SNPs are “DNA sequence variations that occur when a single nucleotide in a genome sequence is altered. These variations may be used to distinguish people from purposes of biological relationship testing.”

identify shared blocks of DNA between a forensic sample and the sample donor's potential relatives.⁴ This, in turn, identifies leads for law enforcement to further an investigation.

Before a FGGS may be initiated, Maryland law enforcement must obtain judicial authorization - to include certifying before the court that the forensic sample and the criminal case meet specified criteria - as required by § 17-102 of the Criminal Procedure Article. This process also requires law enforcement to submit a sworn affidavit “with prosecutorial approval, asserting specified facts regarding the crime being investigated, testing that has already been conducted on the forensic sample, and the progress of the investigation.”⁵ Additional information is also required for law enforcement to collect a covert DNA sample from a potential putative perpetrator or a third party. Following judicial authorization to initiate a FGGS, a SNP profile must be created and uploaded to an allowable genetic database to aid in the identification of a lead in the law enforcement investigation. After a 30-day period, law enforcement must report back to the authorizing court on the progress of the covert collection as well as efforts to avoid intrusive surveillance of the individuals or invasions of their privacy; and to destroy the covertly collected DNA samples.



⁴ Ibid.

⁵ Department of Legislative Services. (2021). *The 90 Day Report: A Review of the 2021 Legislative Session*. <https://dls.maryland.gov/pubs/prod/RecurRpt/2021rs-90-Day-Report.pdf>

Forensic Genetic Genealogical DNA Analysis and Search

Section 17-105 of the Criminal Procedure Article requires the Office to prepare and submit an annual report regarding FGGS requests, and engage with a panel of stakeholders tasked to review the report each year and make policy recommendations. Please refer to the [data collection](#) and the [stakeholder panel](#) sections for more information pertaining to each.

Data Collection

Between January 1, 2024 and December 31, 2024, a total of 17 requests for FGGS were made by prosecutors.⁶ All requests were granted, based on the following reasons:

- Compare samples collected from evidence
- Unsolved 1974 homicide of a cab driver
- Unsolved 1979 homicide and sexual assault of a female
- Unsolved 1980 homicide and sexual assault of a female
- Unsolved 1984 sexual assault of a female
- Unsolved 1993 homicide
- Unsolved 1997 homicide

Law enforcement agencies also reported that, prior to the use of FGGS, reasonable investigative leads were pursued yet failed to identify the perpetrators. Investigative leads that occurred prior to the FGGS requests included the following:

- Canvassed video
- Interviewed witnesses
- Subpoenaed bank records
- Collected exclusionary samples
- Collected evidence
- Reviewed case files and available evidence
- Met with original case investigators, family members, and individuals known to victims
- Pursued leads to gather new leads and potential witnesses
- Utilized media to gather new leads and potential witnesses
- Tested and retested evidence as technology advanced
- Uploaded forensic profiles in CODIS

⁶ It is important to note that the data was extracted from Qualtrics, a survey used to collect the required information, on May 7, 2025. Information pertaining to this survey is accessible on the Office's website at: <https://gocpp.maryland.gov/mandated-reporting-requirements/>.

- Submitted latent print impressions to the Regional Automated Fingerprinting Identification System (RAFIS), the Maryland Automated Fingerprint Identification System (MAFIS), and the Integrated Automated Fingerprint Identification System IAFIS

Because all reasonable investigative and testing methods were exhausted, and the suspect remained unidentified, law enforcement obtained authorization to initiate the FGGS. As a result of the granted FGGS requests, law enforcement identified six putative perpetrators and conducted four covert collections of reference samples from three putative perpetrators.⁷ Law enforcement agencies reported no complaints from individuals subject to surveillance during the covert collection, and no complaints or suggestions from judges supervising the covert collections. In addition, a third party reference sample was requested and collected from 15 individuals.⁸

Of the reported costs for FGGS procedures and costs to outsource such procedures, law enforcement agencies reported a total of \$83,908 and \$92,908, respectively.⁹ Based on the reported information, 67.7% of the outsourced procedures were covered with grant funds (\$62,918), and 32.3% (\$29,990) from general funds.

Based on the outcome of the authorized searches, one punitive perpetrator was arrested and two were pending an arrest. As of May 7, 2025, which represents the date in which all FGGS requests were extracted from Qualtrics - a survey tool used to collect the required information - no convictions were reported. For more information regarding the data collection process, please visit the Office's website at: <https://gocpp.maryland.gov/mandated-reporting-requirements/>.

Stakeholder Panel

Section 17-105(b) of the Criminal Procedure Article requires the Office to convene a panel - comprising judges, prosecutors, defense attorneys, public defenders, law enforcement officials, crime laboratory directors, bioethicists, racial justice experts, criminal justice researchers, civil and privacy rights organizations, and organizations representing families impacted by the criminal justice system - to review the FGGS annual report each year and make policy recommendations.

Pursuant to this charge, the Office reached out to former panel members and/or representatives involved in the bill process on February 19, 2025, to request insight regarding who should serve as a member for future panel discussions. Once individuals provided confirmation of their role and availability for a virtual meeting, the Office distributed a calendar invitation on April 16,

⁷ Given the limited number of putative perpetrators, all demographic information was excluded from the report.

⁸ Given the number of third party references, the race and age of each individual was excluded from the report.

⁹ It is important to note that the cost to outsource FGGS procedures was reported for 14 cases. For this reason, the identified figures were based only on those costs reported to the Office.

2025, for a FGGS discussion on May 16, 2025. The Office also provided several meeting materials in advance of the meeting. On May 16, 2025, the Office presented the 2024 report findings, identified successes and challenges of the data collection process, and facilitated a discussion to improve efforts for next year. Individuals also discussed the need to:

- Finalize the draft forensic investigative genetic genealogy (FIGG) licensing requirements and regulations in order to funnel FGGS cases through the public forensic DNA laboratories that are licensed by the State;
- Include additional data elements pertaining to the date in which the affidavit is requested and approved, and if the evidence originated from a sexual assault evidence collection kit to show the relation to efforts under § 11-926.1 of the Criminal Procedure Article;
- Include year-over-year case information in annual reports to illustrate change, and ensure demographics are captured without the need to suppress findings;
- Develop presentations, resource materials, and flowcharts to illustrate and explain the FGGS process, from the initial request to the destruction of the sample; and
- Identify funding opportunities for State licensed laboratories to process the FGGS requests once the FIGG licensing requirements and regulations are finalized.

Based on the discussed items, the group agreed to meet three times a year and exchange information via email in order to address the identified needs.

Conclusion

In accordance with § 17-105 of the Criminal Procedure Article, the Office will continue to work with law enforcement to gather the required information for FGGS requests. Because several questions pertaining to the collection and submission of information have been received, as well as a request for training on the implementation of the law and the formal data collection process, the Office will work with the panel to develop presentations, resource materials, and flowcharts to illustrate and explain the FGGS process. Once developed, all documents will be posted on the Office's website at: <https://gocpp.maryland.gov/mandated-reporting-requirements/>. The Office will also update its FGGS reporting guide to include the affidavit dates, a checkbox to capture if the evidence originated from a sexual assault kit, and changes pertaining to Chapter 135 of 2025, which take effect on October 1, 2025. The updated guide will be shared with the panel for review before it is posted to the Office's website.

Furthermore, the Office will work with and convene the panel to address the remaining items specified above, and review the information reported by law enforcement and make policy recommendations.