Scottish Biometrics
Commissioner
Coimiseanair
Biometrics na h-Alba

THE SCOTTISH BIOMETRICS COMMISSIONER

'Verification vs. Identification': An Easy Guide

On how the police use biometrics to help verify the identity of arrested persons and establish the identity of persons from materials retrieved from crime scenes.

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Safeguarding our biometric future

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Introduction:

The purpose of this short guide is to provide a basic explanation of the key concepts of **verification** and **identification** in the use of biometric data and technologies used in UK policing.

In a contemporary UK policing context, little management information is placed in the public domain about the overall effectiveness or value of biometrics in policing and criminal justice. Therefore, this short guide seeks to provide some basic facts to assist public understanding.

Verification

The most common reason for the police to acquire biometric data from a citizen is for the purpose of identity verification because of them being arrested for a crime or offence. In most of the UK, the police will take fingerprints, DNA, and a photographic image of every person who is arrested and brought into police custody to help fix and confirm their identity. In Scotland, biometric data is normally taken after a decision that a person is to be charged meaning that biometrics are not always captured from people arrested but then released without charge.

Verification asks the question **"Is this person who they say they are?"** The use of biometrics in this context is highly effective as sometimes a person arrested by the police will provide false particulars to evade justice. In such circumstances, the UK law enforcement automated fingerprint system (IDENT1) will very quickly identify in real time (typically 15 minutes or less) any known offenders already within the system who have provided false particulars. Verification in this context is known as a **1 -to- 1 matching system**.

In 2022 to 2023, there were around 800,000 police arrest episodes in the UK with arrests in Scotland accounting for around 88,000 episodes. The term 'episodes' is used to reflect the fact that some people such as career criminals will be arrested on multiple occasions. Biometric data taken in this context (combined with other police techniques to confirm and triangulate identity) is highly effective and has a 99.9% success rate in helping to fix the identity of the person who has been arrested.

Whenever an arrested person has their DNA and fingerprints captured because of the process described above, their data (known as criminal justice samples) is also automatically and speculatively searched against DNA and fingerprint records from unsolved crime scenes throughout the United Kingdom. That process of identification searching (criminal justice to crime scene searching) also works in reverse (crime scene to criminal justice searching) and is described below.

Identification

Identification by contrast asks the question **"who is this person?"** It typically consists of receiving data about an unknown person such as a fingerprint recovered at a crime scene, a DNA profile created from biological materials left at a crime scene, or an image of a suspect and then comparing the crime scene information to a larger database of persons previously arrested by the police and taken for the primary purpose of verification as described above.

In this context, such identification systems are known as a **'1-to-n' (or one- to- many) matching system** where the value of 'n' is the total number of records in the database. Identification takes much longer than verification because in the case of a potential DNA or fingerprint match, the automated computer search results must then be examined by an appropriately trained and accredited forensic scientist who will confirm the match or not.

Importantly, it must be understood that most crime reported to the police does not lead to a forensic crime scene examination. For example, in 2022 to 2023 three publicly available data sets on 'recorded' crime levels in England and Wales, Scotland, and Northern Ireland confirms that there were 5.9 million crimes reported to the police. DNA recovered from crime scenes in the UK which were subject to a forensic investigation during this period resulted in 38,094 matches to an existing criminal justice sample with a successful match in 64% of all instances of crime scene DNA recovery. This means that DNA matches were equivalent to only 0.64% of all recorded crime in the UK, but provided vital information to the police about the identity of persons present at the scene of thousands of serious crime scenes.

Therefore, an important point to note is that forensic activity at crime scenes is usually preserved for more serious forms of criminality and therefore the use of biometrics for identification has a much higher qualitative value and often helps to solve some of the most serious types of offending such a murders, rapes and other forms of sexual offending.

Finally, it is worth noting that since most criminal activity in the UK is committed by males, then **male offenders account for around 80% of all biometric data held in UK policing biometric databases.**
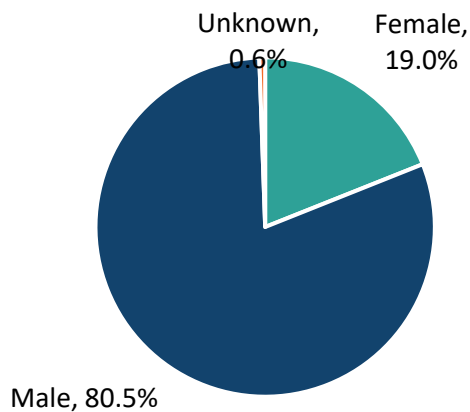

Figure No 1: UK DNA database samples by sex as at 31.03.2023.

More comprehensive information can be found on our website including in our [Guide to Biometric Data](link) and in our statutory [Code of Practice](link) on the acquisition, retention, use and destruction of biometric data used for policing and criminal justice purposes in Scotland.

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