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Completing a Census of Individuals Who Lawfully “Owe” DNA in Cuyahoga County

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Introduction

Big Misses

In 2017, *Shawn Lawson, Jr.* was sentenced to 40 years in connection with three sexual assaults around the Athens, Ohio area that spanned ten years. A 2006 sexual assault was linked to a 2015 sexual assault through DNA evidence, but it was not until a third victim was able to name him as her assailant in 2017 that his identity was linked to all three cases (DeWitt, 2017b). Two years prior to that third sexual assault, Lawson was arrested in November 2015 for drunk driving and a felony firearm charge and should have had his DNA collected in connection to that arrest but did not.

In 2017, *Larry McGowan* was sentenced to 41 years in connection to the sexual assault and murder of a woman in 1997 in Cleveland, in addition to sexual assaults of six other women in the area. Investigations by the Cuyahoga County Sexual Assault Kit Task Force (Task Force) linked at least two of the previously unsubmitted sexual assault kits to McGowan after his DNA was entered into CODIS in 2012 from a sexual assault of a woman in Akron. It is now known that McGowan was swabbed sometime between 2002 and 2003, but his sample never made it into CODIS (Dissell, 2017a, 2017b).

On April 19, 2013, the Task Force indicted an unidentified DNA profile (i.e., a "John Doe" indictment) after it was linked to two previously unsubmitted SAKs, one from 1993 and one from 1996. *George Young* was subsequently identified after being sent to prison in connection with a 2012 shooting that injured several people. Young was arrested in connection to the 2012 shooting but was not swabbed at the time of arrest.

These are three examples of individuals who lawfully “owed” their DNA in CODIS—who should have had their DNA collected at the time of a felony arrest but did not. All three went on to commit crimes that could have possibly been prevented had their DNA been entered into the federal DNA database, the Combined DNA Index System (CODIS), in a timely manner.

Had Lawson had his DNA collected in connection with the November 2015 drunk driving and felony firearm arrest, he could have been linked to the 2006 sexual assault. In fact, one month after that drunk driving arrest, in December 2015, Lawson sexually assaulted another victim. Police were unable to identify him, despite the presence of his DNA in

connection to the sexual assault because his DNA profile had not been entered in CODIS. It was not until police in Lancaster County, Ohio collected his DNA in the course of investigating a 2017 sexual assault that he was tied to his earlier crimes (DeWitt, 2017a).

McGowan and Young committed crimes in Cuyahoga County, Ohio that should have resulted in them having their DNA collected and entered into CODIS but did not. McGowan was imprisoned intermittently over the course of his criminal career and was, in fact, swabbed at least once but his DNA did not make it into CODIS (Caniglia, 2013). After being swabbed for a 2012 sexual assault in Akron, Ohio, he then linked to multiple sexual assaults with previously unsubmitted sexual assault kits in Cuyahoga County. Young was swabbed by prison officials after his conviction for the 2012 shooting. Had he not been found guilty and sent to prison, his identity might never have been tied to the sexual assaults with unsubmitted sexual assault kits from the 1990s (Dissell, 2014).

The Cuyahoga County “Owed” DNA Project

While Cuyahoga County has had documented failures with the collection of lawfully owed DNA from individuals (e.g., McGowan and Young), until recently, it remained unknown *how many individuals owed their DNA*. The Cuyahoga County Prosecutor’s Office (CCPO) and researchers from the Begun Center for Violence Prevention Research and Education (Begun Center) at the Jack, Joseph and Morton Mandel School of Applied Social Sciences at Case Western Reserve University have collaborated on a project to identify individuals who owe DNA, swab eligible offenders who owe, and follow up on what happens after their DNA is entered into CODIS. This undertaking has been funded by the Bureau of Justice Assistance (BJA) through the 2016 Sexual Assault Kit Initiative (SAKI). Since early 2015, the Begun Center has been the research partner of the Cuyahoga County Sexual Assault Kit Task Force (Task Force), which was formed to respond to Cuyahoga County’s backlog of unsubmitted sexual assault kits and lead by CCPO. This research brief details the combined efforts of CCPO and the Begun Center, collectively referred to as “we” in this research brief.

Previous research has found that DNA databases deter crimes resulting in cost savings of between \$1,566 and \$19,945 per profile (Doleac, 2017). Through the work of the Task Force and of other jurisdictions around the country that are grappling with large

numbers of unsubmitted SAKs, the importance of a robust DNA database has become ever more apparent. *A database with more DNA profiles leads to increased probative value in testing SAKs.* Furthermore, work in Cuyahoga County has shown that serial offenders are more common than once thought (Lovell, Flannery, & Luminais, 2018), suggesting that DNA has the potential to link a number of crimes.

This brief aims to detail the issues that arise when lawfully owed DNA is not collected from offenders, explain the process by which we conducted a census of individuals who lawfully owe their DNA, articulate the outcomes of conducting the census (e.g., statistics on the number of individuals who owe their DNA in Cuyahoga County), and recommend approaches that other jurisdictions (within and beyond Ohio) could take to address issues in collecting lawfully owed DNA.

Current Ohio State Law Regarding DNA Collection

With the passage of Ohio Senate Bill 5 in 1995 (effective 1996), Ohio began collecting DNA from individuals **convicted** of felony offenses for upload into CODIS. The law regarding eligibility for inclusion in CODIS dramatically changed with the passage of Ohio Senate Bill 77 in 2010. In addition to the collection of DNA from individuals convicted of felony offenses, Ohio Senate Bill 77, which went into effect in 2011, called for the collection of DNA from those individuals **arrested** for all felony offenses and certain misdemeanor offenses, particularly sexually-based misdemeanors involving minors.

In Ohio, there are multiple opportunities for an individual to be swabbed if missed at a qualifying arrest. However, different agencies are responsible at different steps, which can cause confusion. Initial swabbing activities have centered on Ohio Revised Code (O.R.C.) Section 2901.07, which codifies the DNA collection procedure, mandating that an arresting agency swab a felony arrestee during the intake or booking process. If an individual is charged with a felony offense without a formal arrest, then the court is responsible for ordering the individual to submit to a swab at the time of arraignment or first appearance. If an individual is missed at the time of arrest, arraignment, or first appearance, O.R.C. 2901.07 allows for swabbing during the pretrial and/or sentencing phase of the criminal case. Should an individual be convicted of a felony offense or a qualifying misdemeanor offense and sentenced without ever being swabbed, O.R.C.

2901.07 gives detention facilities and agencies overseeing supervised release (e.g., community control, prisons, post-release control, etc.) authorization to obtain a DNA sample. *See Appendix A for a visual representation of this process.*

Ohio in Context: State-by-State Comparison

While all 50 states currently participate in CODIS, states differ on when and from whom they collect DNA samples. All states currently collect DNA from persons *convicted* of felony crimes, but as of 2017 just over half (31 states) have laws which allow DNA collection from those *arrested* for serious felonies, such as murder or sexual assault (National Conference of State Legislatures, 2018a). Among the states that swab at felony arrest, 18 have enacted laws that require DNA collection for *all* felony arrests. Some state laws also include certain misdemeanors depending on the nature of the offense and whether the crime has been repeated (National Institute of Justice, 2012).

One of the benefits of DNA swabbing for both felony convictions and arrests is that it increases CODIS’ utility in offering probative leads. The more DNA profiles uploaded into CODIS, the more those profiles can be linked to other crimes. CODIS DNA profiles have proven to be crucial in the testing of previously unsubmitted Sexual Assault Kits (SAKs), where offenders can be (and often are) identified and prosecuted as a result having their DNA in CODIS. In fact, in the Sexual Assault Kit Initiative in Cuyahoga County, two-thirds of all SAKs that contained DNA returned a DNA hit in CODIS (Lovell et al., 2018).

In order to place Ohio laws within the larger national context, consider the examples of Michigan, New Mexico, North Carolina, and Texas (Table 1). All five of these states have enacted laws to collect DNA samples from persons convicted and arrested for felony offenses. While Ohio, Michigan, and New Mexico require collection for *all* felony offenses at arrest, North Carolina and Texas require collection at arrest only for *serious* felony offenses such as murder, sex crimes, and burglary (National Conference of State Legislatures, 2018b).

Table 1. Comparisons of several “swab upon arrest” states

State	Law	Swab at Arrest	Swab at Conviction
Michigan	§ 750.520m	All felonies	Felony or sex crime misdemeanor
New Mexico	§§ 29-3-10, 29-16-10 §§ 29-16-6, 3	All felonies	Felony or sex crime misdemeanor
North Carolina	§ 15A-266.3A § 15A-266.4	Violent felony offenses and some misdemeanors	Felony, sex crime misdemeanor, assault of disabled persons, stalking
Ohio	§ 2901.07	All felonies and qualifying misdemeanors	Felony or sex crime misdemeanor
Texas	Govt. Code § 411.1471	Qualifying felony offenses and misdemeanors	Felony or sex crime misdemeanor

Data retrieved from National Conference of State Legislatures, 2018b

The Federal Bureau of Investigations publishes current statistics on how many DNA profiles have been uploaded into CODIS by state. Table 2 presents the population of each state, the number of arrestee and forensic DNA profiles in the state, and the proportion of arrestee and forensic profiles relative to the population of the state. An *arrestee DNA profile* is a profile collected from an individual at the time of arrest. A *forensic DNA profile* is a DNA profile that was developed from testing a DNA sample collected at a crime scene (as compared to an arrestee profile which is a DNA profile collected from an individual).

Ohio has a robust DNA database, relative to the population of the state (Table 2). A comparison of Table 1 and 2 indicates that states that swab for all felony arrests have more arrestee profiles, relative to the size of the population. Thus, states with more

expansive swabbing laws develop more expansive arrestee databases (assuming that swabs are actually collected when lawfully allowed)—thereby increasing the probative value of CODIS.

Table 2. Statistics on number of forensic DNA profiles, by state, proportional to the overall population of the state (as of December 20, 2018)

State	Population	Number of arrestee DNA profiles	Number of forensic DNA Profiles	Number of arrestee DNA profiles proportional to population (%)	Number of forensic DNA profiles proportional to population (%)
Michigan	9,962,311	93,552	30,559	0.940	0.307
New Mexico	2,088,070	52,479	9,292	2.51	0.445
North Carolina	10,273,419	43,518	10,982	0.423	0.107
Ohio	11,658,609	248,796	66,678	2.13	0.572
Texas	28,304,596	77,475	75,038	0.274	0.265

Data derived from Federal Bureau of Investigations, 2018.

Compared to the other “swab at arrest” states listed in Table 2, Ohio has the highest percent of forensic DNA profiles relative to the population. Since this project focuses on swabbing offenders who owe DNA and who are not already in CODIS, the number of forensic profiles in a state would impact the outcomes associated with efforts to swab offenders who owe and enter those profiles in CODIS (as these newly entered individuals would only be able to link to [“hit to”] forensic DNA profiles in CODIS because we know they are not already CODIS). Therefore, states with more forensic DNA profiles (relative to the size of the state) should see more forensic “hits” from efforts to swab individuals who lawfully owe DNA.

Yet, even given the robustness of Ohio's DNA database, the fact that so many individuals have been missed begs the question, "What is the scope of this issue in other states that mandate DNA collection upon arrest?" How much more effective would CODIS be if everyone participated to the full extent of their legal obligation?

Conducting a Census of Individuals Who Lawfully Owe DNA

What is a Census?

Our Census is a two-part Census that reflects the changes in Ohio law regarding DNA collection. Part I focuses on individuals *arrested* by the CPD and/or the Cuyahoga County Sheriff's Department (CCSD) for felony offenses from July 1, 2011 to December 31, 2016 and not in CODIS (Senate Bill 77). Part II focuses on individuals *convicted* of felony offenses from 2008 to 2016 and not in CODIS (Senate Bill 5). **In this context, the Census is a master list of all individuals whose DNA should be in CODIS but is not.**

Conducting the Census

Part I of the Census. In 2017, representatives from the Ohio Bureau of Criminal Investigation (BCI) provided an extract from their databases of all individuals who were arrested for qualifying offenses by the Cleveland Police Department (CPD) and the Cuyahoga County Sheriff's Department (CCSD) and whose DNA was not in CODIS. Previously reported analyses of these data showed that from July 1, 2011 (the date on which Ohio became a "swab upon arrest" state) through December 31, 2016, approximately 10,000 unique individuals who were arrested by the CPD *likely* owed DNA for submission into CODIS. For that same time period, there were approximately 8,000 unique individuals who were arrested by the CCSD who *likely* owed DNA for submission into CODIS. We merged the two lists (i.e., 10,000 and 8,000) and, after removing duplicates, *found a total of 16,213 unique individuals who likely owe their DNA.*

BCI was quick to caution that these numbers were raw and that not everyone on the two lists owed DNA. They explained that the BCI tracks arrestee data using the O.R.C.

section number for the arrested offense. A given O.R.C. section could include both misdemeanor and felony offenses. For example, the offense of Domestic Violence, which is codified under O.R.C. 2919.25, could be either a misdemeanor or felony depending on whether the individual has prior convictions for similar offenses or whether the victim was pregnant at the time of the offense. In other words, the list included individuals who *likely* owed DNA from CPD and CCSD from July 1, 2011 through December 31, 2016.

Next, we set out to determine whether each of these unique individuals had been arrested for a qualifying (i.e., swabbable) offense during the time frame in question, something the BCI could not confirm. First, we merged the list of 16,213 unique individuals derived from the BCI spreadsheets with JusticeMatters, the CCPO’s electronic case management system. *We found that 8,126 of the 16,213 individuals were recorded as having been convicted of a felony, meaning roughly half of the individuals were confirmed as owing DNA because of a qualifying arrest.* This left 8,087 unique individuals who we still needed to examine to determine whether they owed DNA.

Next, we took those 8,087 unique individuals, not convicted of felonies and looked to see which ones were arrested under O.R.C. sections that only involved felony offenses (e.g., O.R.C. 2903.11 – Felonious Assault; O.R.C. 2911.02 – Robbery; O.R.C. 2911.12 – Burglary). *We found that 1,084 of the remaining 8,087 individuals were arrested under at least one O.R.C. section that only involves felony offenses.* This left 7,003 unique individuals we still needed to determine whether they owed DNA.

Next, we identified O.R.C. sections involving both felony and misdemeanor offenses for which it might be easy to determine whether an individual was arrested for a felony or a misdemeanor by merely reviewing the corresponding police report and arrest documentation. See Appendix B for examples of these offenses.

We reviewed police reports and/or arrest documentation for 314 individuals arrested by the CPD and for 257 individuals arrested by the CCSDⁱ. We were able to confirm that 111 of the individuals arrested by the CPD and 11 of the individuals arrested by the CCSD were in fact arrested for felony offenses. These individuals were added to the individuals identified in the first two steps of the confirmation process, resulting in **9,332** unique individuals confirmed to owe DNA based on a prior felony arrest between July 1,

2011 and December 31, 2016. *This marked the conclusion of the first part of the Census.*

Part II of the Census. Part II of the census focused on individuals convicted of a felony in Cuyahoga County. We initially settled on 2008 as a bookend for Part II of the Census because 2008 was the year the CCPO began using JusticeMatters and conviction data could be extracted from the electronic case management system. The CCPO provided felony conviction data from January 1, 2008 through December 31, 2016, to the BCI to merge with their databases to determine whether those individuals were in CODIS or not. Through this merge, the BCI identified those individuals who had a felony conviction in JusticeMatters, but who were not in CODIS.

Next, we merged this new list of unique individuals with the list of unique individuals from Part I of the Census. We expected there to be a large number of people in both Parts I and Part II of the Census (i.e., overlap). This merge found 4,043 were in Part I **and** Part II of the Census, based on names and dates of birth. However, there were 7,270 who were in Part II but **not** in Part I—*meaning 7,270 additional individuals were confirmed to owe DNA*. There were an additional 460 individuals who had to be looked up individually to determine whether they were different individuals.

Results of the Census

These efforts produced a final Census: **a total of 15,370 individuals were confirmed as owing DNA in Cuyahoga County**. *Had those profiles all been collected and uploaded, just Cuyahoga County could have increased the total number of arrestee profiles for all of Ohio (provided in Table 2) by 6 percent.* Though the number of individuals identified as owing DNA was much higher than anticipated, conducting this Census has allowed us to quantify the scope of the problem, begin to pinpoint how the problem developed over time, and start to work to address it.

Process to Replicate Census of Owed DNA to Collect

The following steps are recommended for other jurisdictions in Ohio to replicate conducting a Census to obtain an accurate number of individuals who owe DNA profiles in their jurisdiction. Although specific to Ohio, these recommendations could apply more generally to all states. While there are likely several ways that a Census could be

conducted, the recommendations provided below are based upon how we undertook this endeavor.

The Task Force used July 1, 2011 to December 31, 2016, as the timeframe due to the start date of the project. However, other jurisdictions replicating this Census process should adjust the timeframe to include more recent data. These steps are to ensure that only those individuals that truly meet the swab at arrest statute are counted as missing and eventually pursued for DNA collection.

To obtain the complete list of individuals who meet the requirement for owing DNA, the process includes obtaining data from individuals arrested for felonies (Part I) and individuals convicted of felonies, separately (Part II), then comparing the two separate lists to remove duplicate names.

The process involved a data merging. Therefore, in addition to those recommendations provided below, we also suggest that jurisdictions attempting to conduct a census collaborate with an entity that has data management expertise, such as a research partner or crime analyst.

Part I: Swab at Arrest Census Process

- 1. Have early conversations with all criminal justice entities that are involved or could be involved in the swabbing process.** This would include BCI, police department(s), the sheriff's office, the prosecutor's office, the probation department, the state correctional system, and/or juvenile/adult administrative judges.
- 2. Request a list of individuals arrested for felonies who are currently not in CODIS from the state CODIS administrator.** The state CODIS administrator can provide lists of all individuals arrested for felonies from a given jurisdiction who likely owe DNA. In Ohio, this process should start with the BCI, who has been an important partner in this endeavor.
- 3. Extract from the list only those individuals whose arrests meet the O.R.C. standard for swabbing at arrest.**

- a. Run individual names through your prosecutor's office database to verify the conviction status for individuals within the given time frame, which can verify a large number of individuals who are confirmed to owe because of the felony conviction.
 - b. If there are large number of offenses to look up and it is not feasible to look up each individual arrest (as was the case in Cuyahoga County), categorize arrests by their likelihood of being charged as felonies (always, sometimes, or almost never charged as felonies). Remove the names of individuals whose charges only include offenses in the "almost never charged as a felony" category.
 - c. For individuals who have been arrested for offenses that are sometimes, often, or always felonies, engage with the local police departments and their record management systems to determine, based upon the police report, the likelihood of felony status at the time of arrest. Remove individuals who were not arrested for felony offenses.
- 4. Remaining individuals with qualifying charges at arrest are compiled to then be compared against the results of Part II (see below).**

Part II: Swab at Conviction Census Process

1. **From the prosecutor's office, obtain an electronic list of individuals convicted of felonies during the stated time period.** Share this list with state CODIS administrator to determine whether the individuals are in CODIS.
2. **Remove duplicate individual names by comparing the felony conviction list (results of Part II) against felony arrest list (results of Part I).** Because the swab at conviction list will likely have overlapping names of individuals who were not swabbed at arrest, these two lists must be compared to remove any individuals who are named more than once.

Final Census List

Combining the final totals of Part I and II via this process will result in a final Census

count for the jurisdiction. From this list, steps can be taken to begin to address missing DNA profiles.

Discussion

As CODIS becomes more populated, it has become more apparent how it can be an investigative tool, particularly in cases where the assailant is unknown. It is a standard trope in police TV dramas to run unidentified DNA through CODIS, usually with satisfyingly dramatic results. In real life, however, DNA databases are more than just tools to identify stranger rapists or mystery murderers. Research being done on unsubmitted SAKs in Cuyahoga County have called into question commonly held beliefs about offending patterns, demonstrating that one-third of a sample of serial sexual offenders varied their MO between strangers or acquaintances, or by age or gender (Lovell et al., 2017) and suggests that serial sexual offending is more common than previously believed (Lovell et al., 2018). This crossover offending speaks directly to the utility of collecting DNA from all people arrested for felonies – there is a decent chance that DNA collected from a known assailant could be tied to a case with an unknown assailant. Recall the examples of Lawson and McGowan mentioned in the introduction, who were eventually tied to both stranger and acquaintance assaults.

Having a robust statewide database is also important because offenders do not always remain in a single jurisdiction. The ability to track a serial offending pattern across counties or states is vital in holding offenders accountable, but it requires full participation by all jurisdictions to be effective.

Subsequent briefs and publications will detail the procedures for and criminal justice results of swabbing individuals who were identified in the Census as well as discuss issues that led to such a large number of missed individuals. When our team first proposed this project, we did not fully appreciate the scope of this issue. This work has allowed us to take critical first steps in rectifying a problem that is much larger than anticipated.

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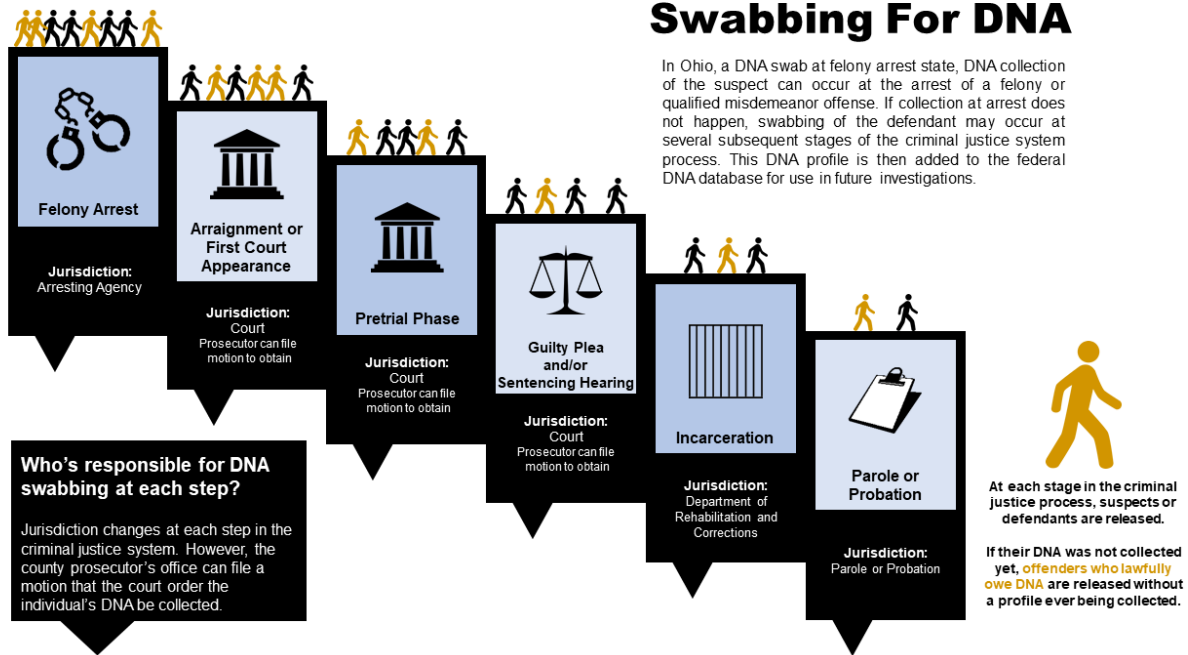
ⁱ The remaining 6,432 individuals were generally “misdemeanor only” or we were not able to confirm a felony arrest.

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Appendix A.



Appendix B.

Examples of offenses that may be charged as misdemeanors or felonies (not exhaustive)

Ohio Revised Code Section	Name of Section
O.R.C. 2923.02	Attempt to commit an offense
O.R.C. 2921.36	Illegal Conveyance of Weapons, Drugs or Other Prohibited Items onto Grounds of Detention Facility or Institution
O.R.C. 2923.12	Carrying Concealed Weapons
O.R.C. 2923.162	Discharge of Firearm on or Near Prohibited Premises
O.R.C. 2923.16	Improperly Handling Firearms in a Motor Vehicle
O.R.C. 2925.11	Possession of Drugs