

Outcomes from Efforts to Swab Offenders Who Lawfully “Owe” DNA in Cuyahoga County

Rachel Lovell, PhD and Joanna Klingenstein



JACK, JOSEPH AND MORTON MANDEL
SCHOOL OF APPLIED SOCIAL SCIENCES

CASE WESTERN RESERVE
UNIVERSITY

Begun Center for Violence
Prevention Research and
Education
case.edu/socialwork/begun

Introduction

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 the federal DNA database, CODIS (Combined DNA Index System). 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 July 1, 2011, called for the collection of DNA from those individuals *arrested* for felony offenses.

The identification of two high-profile Cleveland-area serial rapists and murderers, Anthony Sowell and Larry McGowan, highlighted a systemic problem of not collecting and/or not entering lawfully owed DNA swabs of offenders into CODIS. In 2009, after discovering the bodies of 11 decomposing women in the Cleveland home of serial rapist and murderer, Anthony Sowell, officials also discovered that Sowell should have been in CODIS for a 15-year prison sentence for rape but was not. It was later uncovered that Sowell had apparently been swabbed, but the swab was never entered into CODIS (Dissell, 2011). McGowan's DNA had been linked to four samples (three rapes, one murder), but he remained an unknown offender until a swab was taken for a 2012 rape. McGowan had been in prison for over a decade so his DNA should have been in CODIS before he was released in 2012 (and raped again two weeks later). McGowan had been swabbed sometime between 2002 and 2003, but his sample was never entered into CODIS (Dissell, 2013).

While Cuyahoga County has had documented failures with the collection of lawfully owed DNA from individuals (e.g., Sowell and McGowan), 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 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. “*Backlogged*” sexual assault kits (SAKs) in Cuyahoga County are defined as SAKs from 1993 through 2009 in the county that have never been submitted for forensic testing. This research brief details the combined efforts of CCPO and the Begun Center, collectively referred to as “we” in this research brief.

More specifically, the main activities of the “Owed” DNA project include:

- Completing a Census of individuals who should have had their DNA collected but did not (lawfully “owe” DNA), with a particular focus on identifying individuals who might link to “backlogged” SAKs are part of the Sexual Assault Kit Initiative (SAKI). In this context, the *Census* is defined as a list of individuals who were confirmed to lawfully owe their DNA in Cuyahoga County (*Phase 1*).
- Lawfully collecting DNA from offenders identified in the Census as owing DNA, submitting the swabs for DNA testing, and following up on any possible hits resulting from swabbing (*Phase 2*).
- Disseminating the findings from these efforts (*Phase 3*)

Phase 1 of this project—completing the Census—was discussed in a prior brief (“Completing a Census of Individuals Who Lawfully ‘Owe’ DNA in Cuyahoga County”). In that brief, we detailed the issue of owed DNA and the process and outcomes of conducting a Census. Our Census is comprised of two parts: Part I of the census focused on those offenders who were confirmed to owe due to a felony arrest (Ohio Senate Bill 77, effective July 1, 2011). Part II of the Census focused on those who were confirmed to owe due to a felony conviction (Senate Bill 5, effective 1996). *These efforts produced a final Census of 15,370 individuals who were confirmed to owe DNA in Cuyahoga County.*

In this research brief, we focus on Phase 2 and 3 of this project—the swabbing, the following up, and disseminating the results. More specifically, this research brief details: (1) the process and outcomes of swabbing and submitting swabs of individuals who owe DNA in Cuyahoga County and (2) assessing the outcomes of what happened after a person’s

DNA was entered into CODIS. These findings are being disseminated to document our efforts and outcomes, and as a framework for other jurisdictions addressing their issues with owed DNA.

Key Findings

According to the Ohio Attorney General Office’s interpretation of Ohio’s DNA statute (Ohio Revised Code 2901.07), offenders who should have had their DNA collected but did not cannot be compelled to submit a DNA sample unless they are currently in custody or under supervision (of the criminal justice system) or are suspects/defendants in a pending case. *In other words, not all offenders who lawfully owe their DNA can be compelled to be swabbed. Therefore, swabbing efforts detailed in this brief have been organized according to “subsets” of offenders who were confirmed to owe their DNA lawfully and who could be compelled to have their DNA collected (described in detail below).*

In terms of following up on the swabs, the Ohio Bureau of Criminal Investigation (BCI) graciously provided information to our team: (1) confirming that the swabbed individuals’ DNA was entered into CODIS and (2) detailing any forensic hits that might have occurred once their DNA was entered into CODIS. A *forensic hit* is when the DNA profile matches to a sample from another crime already in CODIS. Since none of these offenders had their DNA profile in CODIS (i.e., offender/arrestee profiles), all DNA “hits” in CODIS discussed in this brief will be forensic hits.

To document the degree to which the hits were useful in investigations and prosecutions, we have provided information on the *status of the investigation*. We have categorized the status as either *investigation opened* or *investigation not opened* as a result of the hit (as detailed in Tables 1-4). In addition to aiding in investigations, DNA hits can also be useful for: (1) confirming the identities of individuals who were sentenced for the crime, such as with previously disposed and named suspect cases, and (2) excluding suspects (such as consensual partners or those determined not to be suspects in the crimes).

An investigation was defined as *opened* if the information from the forensic hit was employed in any investigative manner to take a current “look” at the case—including

exclusionary “looks” (i.e., determining the individual to not be a suspect in the crime). Hits that were confirmatory (i.e., previously disposed) or not prosecutable (i.e., outside the statute of limitations) were defined as being connected to *not opened investigations* as well as cases where the law enforcement determined that the case would not get a current “look.”

Thus, as provided in Tables 1-4, the outcomes of the *opened investigations* are:

- Solved as a result of putting the individual’s DNA in CODIS,
- Subsequently closed without charges,
- Ongoing investigation, or
- Determined not to be a suspect in the crime.

And, the outcomes of the *not opened investigations* are:

- Previously disposed (e.g., offender already prosecuted for the crime without the use of DNA),
- Outside of the statute of limitations, or
- Closed without charges.

Key Outcomes

The following outcomes speak to the value in ensuring all individuals who lawfully owe DNA are swabbed and entered into CODIS.

Swabbing and Forensic Hits

- Of the **15,370** individuals on our Census who were confirmed to owe their DNA lawfully, **1,503** (9.8%) now have their DNA in CODIS.
- We received **63** forensic hits from these 1,503 now-swabbed individuals. *Thus, an average of 4.2% of all swabs collected returned a forensic hit.*
- The vast majority of the hits were connected to crimes that occurred within Cuyahoga County (87.3%, n = 55).

- Approximately three-fourths of all the forensic hits were “cold” hits (74.6%), meaning the individual was not previously a suspect in the crime.
- The hits were connected to a total of 10 different types of crime, with Sexual Assault being the most common (41.3%, n = 26 of 63). In regards to Sexual Assaults from the Sexual Assault Kit Initiative, SAKI, 20.6% of all the hits (n = 13 of 63) connected to SAKI Sexual Assaults. The second most common type of crime from these hits was Burglary (20.6%). Additionally, 6.3% (n= 4 of the 63) of the hits were connected to Homicides.

Outcomes of the Hits

- A majority of the hits have already resulted in investigations being opened (60.3%, n = 38 of 63), implying that a little over a third of the hits have resulted in investigations not being opened (39.7%, n = 25 of 63).
- Of the opened investigations, 18.4% (n = 7 of 38) have already resulted in crimes being prosecuted as a result of the hit (including *Sexual Assault, Attempted Homicide, Theft, Auto Theft, and Burglary*) and another 39.5% (n = 15 of 38) have ongoing investigations.
- The forensic hits were also useful in excluding individuals as suspects in 12.7% of all the hits (n = 8 of out 63) and in confirming the identity of named suspects or suspects in previously disposed cases in 12.7% of the hits (n = 8 of the 63).

Extrapolation of the Outcomes

Below we present an extrapolation of the key outcomes from the swabbing where we provide our “best estimates” as to how these findings could be generalized to the entire Census (i.e., population). Specifically, we focus on the number of forensic hits that would be expected to be obtained if all individuals from the Census were swabbed and entered into CODIS and how many of those would be expected to connect to current, unsolved sexual assaults if the rates of hits continued at the rate we have observed in these data.

- If the remaining 13,867 individuals from the Census were swabbed (15,370 – 1,503) with 4.2% hitting to a forensic sample in CODIS, we estimate that we would receive **582** additional forensic hits.

- From these 582 forensic hits, we estimate 120 to link to SAKI sexual assaults (with 20.6% of our sample hitting to SAKI sexual assaults [“backlogged” SAKs]) and **120** to link to non-SAKI sexual assaults (with 20.6% of our sample hitting to non-SAKI sexual assaults) for a total of 240 sexual assaults.
- Of the estimated 120 non-SAKI sexual assaults, we expect the vast majority to hit to sexual assaults that occurred after 2009 (which are considered non-SAKI sexual assaults in the county). In our sample, 92.3% of the non-SAKI sexual assaults occurred post-2009. Therefore, we estimate that **111** (of the 120) would be connected to current sexual assaults in the county.
- Yet, not all DNA hits are connected to suspects—in sexual assault, some hits are to consensual partners. In our sample, 91.7% of the non-SAKI, current sexual assaults were linked to non-consensual partners. *Thus, we estimate that if we were able to collect swabs from all who are on our Census, there would be **102** suspects linked to unsolved, current sexual assaults.*
- **This implies that just from our Census of individuals who owe their DNA, there are an estimated 102 sexual offenders who are still “out on the streets”—possibly sexually assaulting others** (or even likely given more current estimates of serial offending, see Lovell et al., 2018).

Swabbing Efforts and Outcomes

Subset #1: Swabs from Individuals Currently Incarcerated in Cuyahoga County Jail

Initially, swabbing efforts were scheduled to begin in Year 2 of the project (after the Census was completed), but we realized early on that we needed to begin swabbing as soon as possible (due to preliminary estimates of large numbers of individuals who likely owed their DNA)—before individuals could be released without having their DNA lawfully collected. We began our Census from a list provided by BCI, discussed in greater detail in a prior brief on conducting the Census (“Completing a Census of Individuals Who Lawfully ‘Owe’ DNA in Cuyahoga County”). At this point in the process (Year 1 of the project), the Census had not been completed and consisted of 16,213 unique individuals who *likely* owed DNA from a felony arrest from July 1, 2011 to December 31, 2016 (but had not been confirmed to owe DNA). Thus, we began our swabbing efforts in Year 1 of the project, even before

we had completed the Census.

Process. Our swabbing efforts began with those currently in Cuyahoga County jail (described here as Subset #1). In order to determine whether there were any individuals currently incarcerated in the Cuyahoga County jail who owed their DNA (e.g. were on our Census), the Cuyahoga County Sheriff’s Department (CCSD) provided us with a list of all current inmates. We compared the list of all current inmates in the Cuyahoga County jail to the list of 16,213 unique individuals who *likely* owed DNA.

This comparison produced a list of **137** individuals who appeared on both lists. Since these 137 individuals were those who likely owed DNA, we first had to confirm that the individuals were eligible for swabbing. Because CCPO and CWRU do not have access to the electronic record systems for all of the police departments in the county, we had to determine whether the individual was eligible to be swabbed based upon the crime for which they were currently being incarcerated in the county jail. This process resulted in a list of **94 (of the 137)** individuals who were eligible for swabbing. The names of these 94 inmates were provided to CCSD. CCSD was able to swab **85 (of the 94)** inmates. The other nine were released from jail before their owed status could be confirmed and swabs could be collected.

Outcomes. After the swabs were collected, a request was submitted to BCI to provide: (1) confirmation that these individuals' DNA had been entered into CODIS and (2) follow up information on what happened after the DNA was entered into CODIS (e.g., forensic hit reports). Of the 85 swabs, we received one forensic hit to a Breaking and Entering offense. We followed up on this forensic hit, as detailed in Table 1.

Table 1. Outcomes Connected to Swabbing Inmates Currently in Cuyahoga County Jail Who Were Confirmed to Owe DNA (Subset #1)

	N of Swabs Collected	N of Forensic Hits	% of Forensic Hits out of Swabs Collected	Type of Crime Hit	Within Cuyahoga County	Cold Hit	Status of the Investigation
Inmates Currently in	85	1	1.2%	Breaking and Entering	Yes	No	Investigation not opened; previously

Cuyahoga County Jail							disposed (confirmed identity of suspect)
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Subset #2: Swabs from Individuals Currently on Community Control (“Probation”)

Process. Another subset of individuals who could be swabbed because they were currently under supervision were those on community control (“probation”) (Subset #2). In 2017, the Cuyahoga County Probation Department (CCPD) provided a list of individuals who were currently on probation for whom the CCPD did not have an internal record (to CCPD) of having been swabbed for DNA (n = 4,876). CCPO and CWRU compared this list (n = 4,876) with the list provided by BCI of individuals who likely owed DNA (n = 16,213). A total of **846** individuals appeared on both lists. At this point, we had also not yet completed Part I of the Census, so not all individuals were eligible for swabbing. We confirmed eligibility via online clerk of court county dockets to determine whether they were *convicted* of a felony. (According to Ohio R.C. 2901.07, individuals on probation can be swabbed only if *convicted* of the felony.) Of the 846 individuals, **688** were confirmed to be eligible for swabbing based on a prior felony conviction or plea. The list of 688 probationers was provided to CCPD. CCPD swabbed **518** (of the 688) probationers. Some probationers were not swabbed because their probations had been terminated before they could be swabbed and for not reporting to their probation officers as scheduled (resulting in warrants being issued).

Outcomes. After the swabs were collected, a request was submitted to BCI to confirm entry into CODIS and to provide forensic hit information on these 518 individuals. According to the BCI, of the 518 swabs, **21** resulted in forensic hits. We followed up on these 21 forensic hits, as described in Table 2.

Since one of the goals of this project is to help identify individuals who might link to previously “backlogged” SAKs from the SAKI, we have broken out the Sexual Assaults connected to SAKI from Sexual Assaults not connected to SAKI. Thus far, one of the individuals swabs from this subset hit to a SAKI sexual assault with an unknown offender

(detailed in Insert A).

Table 2 also provided details as to whether a hit was in Cuyahoga County (as compared to outside Cuyahoga County) and whether the hit was a cold hit (as compared to a warm hit). A cold hit is when the forensic hit matches to an individual who was not previously a suspect in the crime. A warm hit is when the hit matches to an individual who was already a suspect in the crime.

Table 2. Outcomes Connected to Swabbing Current Probationers in Cuyahoga County Who Were Confirmed to Owe DNA (Subset #2)

Probation Swabs					
N of Swabs Collected	518				
N of Forensic Hits	21				
% of Forensic Hits out of Swabs Collected	4.1%				
Type of Crime Connected to Hit	N	N of Total within Cuyahoga County	N of Total with Cold Hits	N of Total Connected to Serial Sex Offenders	Status of the Investigation
<i>All Sexual Assaults</i>	7	7	6	1	
(SAKI) Sexual Assault	3	3	2	1	1 investigation opened; solved as a result of hit by identifying true identity of “John Doe” #124. See Insert A for more information. 1 investigation opened; ongoing 1 investigation not reopened; confirmed the identity of suspect
(Not SAKI) Sexual Assault	4	4	4	0	3 investigations opened; ongoing 1 investigation opened; subsequently closed without charges
<i>Homicide</i>	2	2	0	0	1 investigation not opened; previously disposed (confirmed the identity of suspect) 1 investigation opened; hit to individual not a suspect in the crime
<i>Attempted Homicide</i>	1	1	1	0	1 investigation opened; suspect has now been indicted for Attempted Murder

Burglary	4	2	4	0	2 investigations not reopened; outside of the statute of limitations 1 investigation opened; hit to individual not a suspect in the crime 1 investigation opened; subsequently closed without charges
Breaking and Entering	3	3	2	0	1 investigation opened; ongoing 1 investigation opened; subsequently closed without charges 1 investigation not reopened; previously disposed (confirmed the identity of suspect)
Aggravated Robbery	2	2	1	0	1 investigation not opened; previously disposed (confirmed the identity of suspect) 1 investigation opened; ongoing
Theft	2	1	1	0	1 investigation not opened; subsequently closed without charges 1 investigation opened; ongoing

Insert A: On October 11, 2018, Antonio Huffman entered a plea of guilty (“pleaded guilty”) to one count of Felonious Assault and one count of Abduction and was sentenced to two years of community control on each count. *Huffman was sentenced for this crime as a direct result of the efforts to collect DNA from individuals who owe.*

Huffman was responsible for the sexual assault of a 17-year-old female over two decades ago, in August of 1997. As part of the sexual assault, Huffman forced her into his car at gunpoint outside of a grocery store, then drove her to another location and sexually assaulted her outside on the ground near railroad tracks (Dissell, 2017). As a result of the Cuyahoga County Sexual Assault Kit Initiative, the SAK from this 1997 incident was tested and a DNA profile was developed, but his identity was unknown. In 2017, prosecutors filed a “John Doe” indictment on his DNA profile, named “John Doe 124” by the SAK Task Force.

Meanwhile, in 2012, Antonio Huffman was arrested and charged with felonious assault. His DNA should have been collected in 2012 for this offense but was not. In 2015, he was again arrested and charged for illegally possessing a firearm, and his DNA should have been collected but was not. In 2017, Huffman’s DNA was collected while on probation for the 2015 firearm possession charge in connection with the “Probation” swabs (Subset #2) mentioned above. His DNA matched the DNA of “John Doe 124” within the 1997 victim’s SAK.

Subset #3: Swabs from Individuals at Arraignment/Bail

Process. As a result of identifying such a large number of individuals who owed their DNA, the CCPO developed an internal policy that tasks assistant prosecuting attorneys (APAs) with ensuring that defendants in *new and active cases* submit to a DNA swab. As part of this policy, APAs check the DNA status of indicted defendants prior to the defendant’s first court appearance (generally, the arraignment hearing). The APA does this by accessing the Ohio Law Enforcement Gateway (OHLEG), an electronic statewide law-enforcement database, which includes a data field for whether the offender’s DNA is in CODIS. If the defendant’s DNA is not in CODIS, the defendant owes DNA (as a result of being indicted with a felony). In that event, the APA moves the arraignment room judge to order the defendant to submit to a DNA collection procedure within 24 hours in accordance with Ohio Revised Code 2901.07.

After the CCPO policy was implemented, CWRU gathered information regarding individuals whose DNA was requested by the CCPO at arraignment, i.e. as a direct result of the CCPO policy. From the start of this practice until the time of analysis, CWRU identified approximately 4,000 individuals who were indicted with felonies after the Census was completed and whose DNA was not in CODIS (again, some of these might have been swabbed at arrest as well). These individuals were not necessarily named on the Census, but were identified by the CCPO as owing DNA due to their felony indictment.

This list of approximately 4,000 individuals was merged with the Census to determine how many Census members had been identified by the CCPO as having upcoming arraignments, i.e. an opportunity to ask the court for a DNA collection order. The merger analysis resulted in a list of **186** individuals.

Outcomes. The list of 186 individuals was submitted to the BCI with a request to identify which of the 186 individuals’ DNA ended up in CODIS as a result of an arraignment hearing court order. BCI was also asked to provide resulting forensic hit information. The data returned by BCI showed that **146** of the 186 individuals ended up in CODIS, and four of those entries led to forensic hits. The CCPO followed up on the four forensic hits, as detailed in Table 3. Of the 4 hits listed in Table 3, none resulted in charges being filed as a result of the forensic hits. The reasons why the cases were not charges are detailed in

Table 3.

CWRU and CCPO are currently in the process of determining why the 40 remaining individuals (i.e. 186 (individuals swabbed) minus 146 (individuals with CODIS entries)) did not end up in CODIS. Preliminary analysis indicates that most defendants could not be swabbed at their scheduled arraignment because they failed to appear and a warrant had to be issued for their arrest. For other individuals, the arraignment court did not order a DNA collection procedure, and/or the CCPO did not file a motion requesting such a collection. These preliminary findings are generally attributed to the newness of the policy and they provide another example of the challenges in collecting swabs from individuals who owe.

Table 3. Outcomes Connected to Swabbing Individuals at Arraignment/Bail Who Were Confirmed to Owe DNA (Subset #3)

Arraignment/Bail Swabs					
N of Swabs Collected	146				
N of Forensic Hits	4				
% of Forensic Hits out of Swabs Collected	2.7%				
Type of Crime Connected to Hit	N	N of Total within Cuyahoga Count	N of Total with Cold Hits	N of Total Connected to Serial Sex Offenders	Status of the Investigation
<i>All Sexual Assaults</i>	2	2	2	0	
(SAKI) Sexual Assault	1	1	1	0	1 investigation opened; hit to individual not a suspect in the crime (consensual partner)
(Not SAKI) Sexual Assault	1	1	1	0	1 investigation opened; hit to individual not a suspect in the crime (consensual partner)
<i>Auto Theft</i>	1	1	1	0	1 investigation opened; hit to individual not a suspect in the crime
<i>Theft</i>	1	1	1	0	1 investigation not opened; outside of the statute of limitations

Subset #4: Swabs from Individuals with “DNA in CODIS”

Process. We requested data from BCI on how many of the offenders from our completed Census were in CODIS as of June 30, 2018. This was done to determine how many Census members had their DNA entered into CODIS cumulatively from the beginning of this project through to June 30, 2018. In response, BCI provided the CODIS status of each individual – i.e., whether the individual’s DNA was in CODIS or was still owed. This effort resulted in a list of **754** census members whose DNA was collected and entered into CODIS between the beginning of this project and June 30, 2018.

Outcomes. A subsequent request was submitted to BCI to provide resulting forensic hit information on these 754 individuals. According to the BCI, of the 754 swabs, **37** resulted in forensic hits. The CCPO followed up on these 37 forensic hits, as detailed in Table 4.

Table 4. Outcomes Connected to Census Members in CODIS as of 2018 (Subset #4)

DNA in CODIS Swabs					
N of Swabs Collected	754				
N of Forensic Hits	37				
% of Forensic Hits out of Swabs Collected	4.9%				
Type of Crime Connected to Hit	N	N of Total within Cuyahoga County	N of Total with Cold Hits	N of Total Connected to Serial Sex Offenders	Status of the Investigation
<i>All Sexual Assaults</i>	17	15	11	4	
(SAKI) Sexual Assault	9	9	7	2	1 investigation not opened; hit to individual not a suspect in the crime (consensual partner) 1 investigation not opened; previously closed disposed (confirmed the identity of suspect) 3 investigations opened; ongoing 4 investigations not opened; closed without charges

(Not SAKI) Sexual Assault	8	6	4	2	5 investigations not opened; closed without charges 1 investigation not opened; not a suspect in the crime 2 investigations opened; ongoing
Homicide	1	1	1	0	1 investigation opened; ongoing
Burglary	8	8	7	0	3 investigations opened; indicted as a result of the hit (2 offenders pled, 1 suspect indicted) 1 investigation not opened; confirmed the identity of suspect (suspect already plead) 2 investigations opened; ongoing 1 investigation opened; subsequently closed without charges 1 investigation not opened; closed without charges
Aggravated Burglary	1	1	0	0	1 investigation opened; subsequently closed without charges
Robbery	2	1	2	0	1 investigation not opened; outside of the statute of limitations 1 investigation opened, subsequently closed without charges
Breaking and Entering	1	1	1	0	1 investigation opened, subsequently closed without charges
Auto Theft	4	2	4	0	1 investigation opened; sentenced as a result of the hit. See Insert B for more details.

					2 investigations opened; subsequently closed without charges 1 investigation opened; hit to individual not a suspect in the crime
<i>Theft</i>	1	1	1	0	1 investigation opened; sentenced as a result of the hit. See Insert B for more details.
<i>Drug Abuse</i>	1	1	Unknown	0	1 investigation not opened; outside of the statute of limitations
<i>Fleeing & Eluding</i>	1	1	1	0	1 investigation opened; subsequently closed without charges

Insert B: In 2014, Matthew Ramey was sentenced to one year of probation stemming from a Theft and Aggregated Theft arrest. When arrested for this in a 2013 offense, Ramey should have been swabbed but was not, resulting in him being included in our Census.

As part our Subset #3 swabbing efforts (DNA in CODIS swabs), we received two forensic hits for the same individual, Matthew Ramey (detailed in Table 4)—1 Auto Theft and 1 Theft. He has since been sentenced for both 2017 crimes, and his DNA has been confirmed to be in

Conclusion

Previous research has found that DNA databases deter crime, reduce crimes rates, and produce a 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 sexual offenders are more common than once thought (Lovell, Flannery, & Luminais, 2018), suggesting that DNA has the potential to link a number of crimes. The findings presented here also illustrate that the issues with collected owed

DNA expands beyond sexual assault kits. Individuals who owed DNA are linking to a variety of crimes, with tremendous probative value for possible prosecution.

This research brief has detailed the process by which we swabbed and tracked individuals who owed DNA and the outcomes of our swabbing efforts, which can serve as a framework for other jurisdictions addressing their issues with owed DNA and speak to the value in ensuring all individuals who lawfully owe DNA are swabbed and entered into CODIS.

As evidenced by the findings provided here, our swabbing efforts have resulted in a number of positive outcomes. *Although a large number of individuals were confirmed to owe DNA (n = 15,370), we have, thus far, been able to verify that almost 10% now have their DNA in CODIS (n = 1,503) (Table 5).* From the 1,503 individuals who now have their DNA in CODIS, *63 forensic reports were received (4.2%)* with crimes ranging from Theft and Drug Abuse to Sexual Assault and Homicide.

Based upon an extrapolation of the outcomes described here, we estimate that if all the individuals on the Census were swabbed and the rates of hits continued at the rate we have observed in these data, an additional 583 hits would be received. From these 583 hits, we further estimate that 102 would link to unsolved, current sexual assaults.

Table 5. Outcomes for Swabs Collected from Individuals Who Were Confirmed to Owe DNA in Cuyahoga County, by Type of Swabbed Subset

Swabbed Subsets	Swabs Collected	Forensic Hits in CODIS	% of Forensic Hits out of Swabs Collected	Type of Crimes
Inmates in Cuyahoga County Jail (Subset #1)	85	1	1.2%	1 B&E
Probationers in Cuyahoga County (Subset #2)	518	21	4.1%	2 Aggravated Robberies 3 Breaking and Enterings 4 Burglaries 3 Homicides (1 Attempted) 7 Sexual Assaults 2 Thefts
Individuals Swabbed Arraignment/Bail (Subset #3)	146	4	2.7%	1 Auto Theft 2 Sexual Assaults 1 Theft

Individuals with “DNA in CODIS” (Subset #4)	754	37	4.9%	4 Auto Thefts 1 B&E 9 Burglaries (1 Aggravated) 1 Drug Abuse 1 Fleeing & Eluding 1 Homicide 2 Robberies 17 Sexual Assaults 1 Theft
Total	1503	63	4.2%	63 crimes (10 Types)

As detailed in Table 6, the 63 forensic hits linked to 10 different types of crimes, *indicating the importance of collecting swabs for all felony arrests, not just for the most serious types of felonies*. Forensic hit reports were received most often for Sexual Assaults (41.3%, n = 26 of 63), with 20.6% linking to Sexual Assaults from the SAKI. Hits were also frequently received for Burglary as well. Most of the crimes occurred within Cuyahoga County and were cold hits.

Table 6. Outcomes for Swabs Collected from Individuals Who Were Confirmed to Owe DNA in Cuyahoga County Census, by Type of Crime

Crimes	N (%)	Within Cuyahoga County		Cold Hit
		N (%)	N (%)	
Auto Theft	5 (7.9)	3 (5.5)	5 (10.4)	
Breaking & Entering	5 (7.9)	5 (9.1)	3 (6.3)	
Burglary (including 1 Aggravated)	13 (20.6)	11 (20)	11 (22.9)	
Drug Abuse	1 (1.6)	1 (1.9)	1 (2.1)	
Fleeing and Eluding	1 (1.6)	1 (1.9)	1 (2.1)	
Homicide (including 1 attempted)	4 (6.3)	4 (7.3)	2 (4.2)	
Robbery (including 2 Aggravated)	4 (6.3)	3 (5.5)	3 (6.3)	
Sexual Assault (not SAKI)	13 (20.6)	11 (20)	9 (18.8)	
Sexual Assault (SAKI)	13 (20.6)	13 (23.6)	10 (20.8)	

Theft	4 (6.3)	3 (5.5)	3 (6.3)
Total	63	55	48

Tables 1-4 indicate that investigations have been opened for 60.3% of all the hits. Of the cases that have been opened, 18.4% (n = 7 of 38) have been prosecuted as a result of the swabbing efforts from this project—including a SAKI Sexual Assault and an Attempted Homicide. The hits have also been useful in confirming the identities of suspects (12.7%, n = 8 of 63) and excluding suspects (12.7%, n = 8 of 63).

As part of this project, we plan to continue exploring additional avenues for collecting swabs from individuals who owe DNA, continuing to follow up on individuals who are swabbed, and assessing changes in policies and practices in the county regarding DNA collections (e.g., CCPO’s policy regarding checking whether arraignees owe DNA, as described above).

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