

Cold Cases and Owed DNA. A Snapshot of Cases and Practices among Idaho Law Enforcement Agencies

William R. King, Lisa Growette Bostaph, Hannah Pires, & Mackenzie Allred
Boise State University
Department of Criminal Justice

August 12, 2025

This report is part of a larger project, the ISP Sexual Assault Kit Initiative (SAKI), funded by the Bureau of Justice Assistance (#15PBJA-22-GG-03846-SAKI), and in partnership with the Idaho State Police Forensic Services (ISPFS). We wish to thank ISP Colonel Bill Gardiner, ISPFS Director Matthew Gamette, and members of the SAKI team for their assistance. For information about this report, contact Dr. William King (billking@boisestate.edu) or Dr. Lisa Growette Bostaph (lisabostaph@boisestate.edu).





Introduction

At the inception of the cold case and owed DNA grant awards to the Idaho State Police Forensic Services (ISPFS), the Boise State University (BSU) research team sought to understand the procedures used by police agencies in Idaho for handling a range of crime issues. Specifically, the research team wanted to understand the nature and extent of cold cases at police agencies in Idaho, how agencies handled "owed" DNA, and their use of victim advocates.

Background

On the surface, people who owe DNA to the state, and cold case sexual assaults and homicides seem to be distinctly separate criminal justice issues. However, the usefulness of investigative technology, like submitting DNA evidence into CODIS, in solving cold cases is dependent on the submission of owed DNA by known offenders. If large numbers of individuals do not provide their DNA when required to under the law, it potentially impedes solving existing cold cases and/or increases the likelihood of new crimes going cold.

Cuyahoga County in Ohio was one of the first jurisdictions to uncover how many individuals lawfully owed DNA but had not provided it, resulting in the identification of more than 15,000 people convicted of a felony (Lovell & Klingenstein, 2019). Statewide efforts in Alaska ("Department of", 2022) and Texas (Salinas, 2024) yielded similar numbers of individuals who owed DNA (20,000 in Alaska and 3,300 registered sex offenders, plus 43,245 convicted felons, in Texas). All locations followed up with initiatives to collect the owed DNA. Through a Bureau of Justice Assistance grant, Idaho is undertaking similar efforts.

Investigators' ability to clear crimes (current or cold) may be influenced by the existence of forensic evidence, such as DNA, fingerprints, or ballistics (Davis et al., 2015; Uchida & Swatt, 2025). Such evidence can be entered into federal databases created for each specific type of forensic evidence (CODIS – DNA, AFIS/NGIS – prints, NIBIN – ballistics) (Davis et al., 2015). In fact, Uchida & Swatt (2025) found that forensic testing of DNA evidence increased the likelihood of homicide clearance by 457.1%. The development of forensic databases notwithstanding, homicide clearance rates have precipitously declined since the early 1960s (94%) and remained relatively consistent since then at 61.4%. However, according to NIBRS data from 2023, the clearance rate for homicides was 50.9% and all violent crime at 41.1% (Uniform Crime Reports Program, 2024). As previously mentioned, the robustness of federal databases as investigative technology relies on the submission of forensic evidence. In terms of CODIS, if large segments of the relevant population of offenders are not submitting their DNA, cases with DNA evidence and an unknown suspect may be more difficult to clear and become cold. Thus, efforts to obtain missing lawfully owed DNA as well as reducing the likelihood of owed DNA being collected in a timely manner are directly connected to addressing cold cases and low clearance rates.

Concerns over clearance rates and cold cases extend to sexual assaults. The NIBRS clearance rate for sexual offenses in 2023 was an abysmal 21.6% (Uniform Crime Reports Program, 2024). The nationwide SAKI movement began because troves of untested sexual assault kits were discovered in policing agencies (or locations serving policing agencies), covering decades of

unsolved cases. As agencies began submitting these kits to labs, the prospect of re-opening decades-old sexual assault cases loomed. Given already low victim reporting rates, case attrition, and victim participation levels in sexual assault cases, the success of re-opening cold cases where victims may have already felt dismissed or unheard hinges on regaining their trust and participation (Campbell et al., 2018; Sulley et al., 2021). The involvement of victim advocates (community or system-based) in cold case investigations can provide much needed emotional support and resources to survivors which, in turn, may improve overall trust in the process and increase their willingness to participate or continue participating (Campbell et al., 2023; Patterson & Tringali, 2015). In fact, RTI, as the TTA for the national SAKI projects, lists victim advocacy as a best practice in cold case sexual assault investigations (RTI International, n.d.). Unlike sexual assault victims, surviving family members of homicide victims are considered secondary victims. However, their participation in and support of the investigation are also critical to its success as they may have important information or context that could move an investigation forward, such as people of interest, the victim's routine activities, last known whereabouts, or comparative forensic evidence (Leovy, 2015). Research also demonstrates that homicide victims' families often feel unheard, abandoned, or at odds with the criminal justice process, which is likely exacerbated by the case becoming cold (Englebrecht, 2011; Englebrecht et al., 2014). Thus, victim advocacy may be crucial in gaining and/or maintaining their involvement.

To understand the current status and practices across these three areas (gathering owed DNA, cold case sexual assaults, and cold case homicides), we surveyed police and sheriffs' agencies across Idaho. The next sections of this report describe how we conducted this survey, its results, and recommendations for possible changes to policies and practices.

Methodology

During the summer of 2023, the research team crafted a single point of contact establishment survey¹ to gather information on cold cases, owed DNA, and victim advocates from agencies in Idaho.² Police and sheriff's agencies in Idaho were invited to complete the survey via an email from the research team, which was distributed to police agencies in the state by Chief Tracey Basterrechea (the President of the Idaho Chiefs of Police Association), and Jeff Lavey (the Executive Director of the Idaho Sheriffs Association) on August 16, 2023. The email contained a link to the online Qualtrics survey.

On August 21, 2023, the team added questions to the Qualtrics survey to capture 1) the number of cold cases involving non-negligent manslaughter, robbery, and aggravated assault, and 2) the number of each that could be advanced by additional DNA analysis.

On September 05, 2023, a second invitation email (with a link to the survey), from ICOPA and ISA, was sent to police agencies and sheriff's offices that had not responded to the survey. This

-

¹ A single point of contact establishment survey, "...obtains information about an organization by asking questions of one person within that organization. Establishment surveys collect information about an institution or organization's structure or operations..." (Matusiak et al., 2014, p. 631).

² The instrument was approved by BSU's Office of Research Compliance, when it was determined to be exempt. Protocol number 000-SB23-143, August 01, 2023.

version of the survey included the additional questions. Over the next seven months, three invitation emails were sent to non-responding agencies. Then, between July 29 and August 1, 2024, printed copies of the survey were mailed to the remaining non-responding agencies.

The Qualtrics and mailed survey administration was subsequently closed in late August 2024, and data were downloaded from Qualtrics into an SPSS database. Variables of interest were coded, as were missing data to ensure that those responses would not be included in any analyses. The results below describe the survey responses.

Response Rates and Non-Response Bias

The survey administration process (five email invitations and a mailed hardcopy of the survey) netted 50 responses from unique agencies, of which 47 were usable (a 40.5 percent usable response rate).⁵ Respondents were located across Idaho and represented a mix of sheriff's offices (n=13) and local police departments (n=29). On average, responding agencies employed 71.6 full-time employees and served a population of 41,140. As we show in the next section, responding agencies were very similar to all police agencies in Idaho.

One concern in survey research is whether or not non-response bias is present in the data. Non-response bias occurs when individuals or organizations that complete a survey differ systematically from non-respondents. Non-response bias

What is an acceptable response rate?

Generally, higher response rates are viewed as more desirable than lower response rates because we assume that data from surveys with low response rates may not be generalizable or representative of the larger population. This issue is called non-response bias. But is there a minimum response rate for survey research? Are data influenced or skewed by lower response rates? And what is considered a good or acceptable response rate for a survey of the police? A recent publication by Justin Nix and colleagues (2019) addresses all three questions. First, Nix et al (2019) combed the scientific survey research literature in a diverse range of disciplines, such as communications and psychology. Nix and colleagues report that, although some textbooks offer a minimal acceptable response rate, none are based on empirical evidence. Simply, there is no line that separates a valid response rate from an invalid one. Second, studies of non-response bias and response rates generally find very weak, and often insignificant, relationships between response rates and non-response bias (Groves & Peytcheva, 2008). In other words, higher response rates do not mitigate possible issues with non-response bias. Third, Nix et al (2019) review survey response rates from 497 police employee surveys conducted between 2008 and 2017 and find an average response rate of 64 percent³. They also note considerable variation in response rates of surveys of police employees. Put another way, scholarly, peer-reviewed studies are regularly published with response rates well below 50 percent. In conclusion, compared to prior survey studies of the police, the 40.5 percent response rate in the current study is very acceptabl⁴.

 $^{^{3}}$ Standard deviation (SD) = 25.9.

⁴ Portions of this were excerpted from King & Patterson (2020, p. 5).

⁵ The 2018 wave of the Bureau of Justice Statistics (BJS) Census of State and Local Law Enforcement Agencies (CSLLEA) lists 116 agencies in Idaho. Most of the agencies are county sheriffs (n=44) or local police agencies (n=68). The remaining four agencies are the Idaho State Police, Idaho Dept. of Fish & Game Enforcement, Idaho Lottery, Security Enforcement Division, and the Idaho Office of the Attorney General.

may be present in a study or not. And if it is present, it may be more or less impactful in terms of generalizability, depending upon the severity of the non-response bias.

For researchers studying organizations (as we are doing in the present study), one of the most important differences across a sample of organizations is size. Size is most commonly measured as the number of full-time or full-time equivalent employees. We thus operationalized agency size as the number of full-time employees, in accord with the Bureau of Justice Statistics. We assessed the possibility of non-response bias by using data from the Bureau of Justice Statistics (BJS) Census of State and Local Law Enforcement Agencies (CSLLEA), gathered in 2018 (BJS CSLLEA, 2018). The CSLLEA data file contains data from 116 Idaho agencies on questions regarding the number of full-time employees, full-time sworn employees, and the population served by the agency, among others. In some instances, agencies did not answer all the questions in CSLLEA, so the total responses do not sum to 116 for every question, but the CSLLEA data are mostly complete. We compared the mean CSLLEA responses for these three variables between the 44 agencies that responded to our current survey and have data in CSLLEA to the 61 or 65 Idaho agencies that did *not* respond to our survey but responded to the CSLLEA.

Table 1. Assessing possible non-response. A comparison of agencies that responded to the SAKI

survey to agencies that did not respond.

	Did the agency				
	respond to the cold				Two tailed
	case SAKI survey?	n	Mean	t	significance
Full-time sworn officers with	no	61	22.79		
general/full arrest powers	yes	44	38.64	-1.669	.099
Total full-time employees	no	61	44.59		
	yes	44	71.66	-1.274	.206
Estimated population of	no	65	42259.12		
jurisdiction (2018)	yes	44	41140.05	.033	.970

Table 1 presents the results comparing the average number of full-time sworn employees, full-time employees, and the population of the jurisdiction between responding and non-responding agencies. The results indicate no significant differences between the two groups. For all three t-tests (which compare the means of the two groups), the differences are minor and statistically insignificant. This analysis should bolster confidence that the sample of responding agencies in this report is representative of all policing agencies in Idaho.

The results of the survey are presented below and organized according to our three research topics: owed DNA, cold cases, and victim advocacy.

Results

Owed DNA

We first sought to understand the role of sheriff's offices in administering misdemeanor probation (as a common contact point with offenders) and collecting owed DNA. The 13 sheriff's offices that responded to the survey were asked if they administer misdemeanor probation. Just 15.3 percent (n=2) of sheriffs reported handling misdemeanor probation. All respondents (i.e., sheriff's offices and police agencies) were asked if their local sheriff's office collects owed DNA from individuals. As shown in Figure 1 below, about half (48.5 percent) of respondents reported their local sheriff collected owed DNA.

The 13 sheriff's offices were then asked to report the number of individuals who provided owed DNA during 2022. Only three sheriffs' offices reported a number, which ranged from zero to 10, with a median value of three. The median value reported was three, indicating that, on average, few individuals were providing their DNA to sheriffs' offices in Idaho.

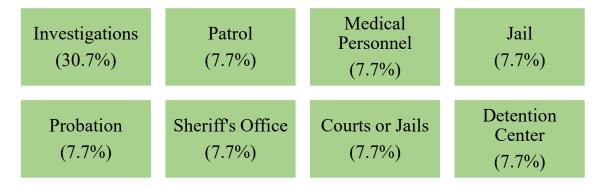
Figure 1. Does your sheriff's office collect "owed DNA" from individuals who are required under Idaho law to provide a DNA sample to the State?

Yes	No
• 48.5%	• 51.5%
• n=16	• n= 17

When asked which part of their agency was

responsible for collecting owed DNA, agencies offered a wide range of responses. A little more than 30 percent (n=4) of the 13 respondents reported that owed DNA was collected by the investigations unit. Beyond that, responses were scattered across nine other parts of the agency or criminal justice system, such as patrol, jail, probation, or detention center, among others. The full responses to this question appear in Figure 2 below.

Figure 2. Which part of your agency is responsible for collecting owed DNA?



6

⁶ The values reported by the three sheriff's offices were: 0, 3, and 10.

Cold Cases

This section presents the results of multiple questions regarding agencies' cold cases. The first series of questions asked agencies to report the number of cold cases they had, divided into seven different crime types. The responses are reported in Table 2.

Table 2. How many cold cases does your agency currently have in each category?

	n agencies	min	max	mean	Md	SD
Homicides	36	0	15	1.83	1.00	3.02
Missing persons reports	35	0	15	1.57	1.00	2.69
Recovered or found UHR	35	0	2	.34	.00	.64
Nonnegligent manslaughter	25	0	1	.08	.00	.277
Sexually motivated crimes	32	0	307	11.38	.00	54.18
Robbery	25	0	90	4.64	.00	18.00
Aggravated assault	24	0	234	14.25	.00	48.59

Thirty-six of 48 agencies (75 percent) answered the question about cold case homicides. Sixteen of the 36 agencies (44 percent) reported zero cold case homicides (i.e., they do not have a cold case crime in that category). Most agencies (n=20, or 66 percent) reported at least one. Of agencies with at least one cold case homicide, the majority (n=9) reported just one. One agency each reported six, seven, or 15 cold case homicides. This pattern is replicated with the responses to the missing persons reports. Fourteen of 35 agencies reported zero missing persons reports. Most agencies (n=21, or 60 percent) reported at least one. Seven agencies reported one missing person, 10 agencies reported two, and one agency each reported three, four, six, and 15 cases.

The other five crime questions reveal a different pattern in that the most frequent agency response was zero, and for agencies reporting one or more, most reported only one or two such cold crimes. Most agencies (n=26 or 74 percent) reported zero UHR. Six agencies reported one UHR, and three agencies reported three UHR cases each. Likewise, most (n=23 or 92 percent) of agencies reported zero non-negligent manslaughter cold cases, with only one agency reporting any (two cold cases).

The pattern for cold sexually motivated crimes and cold robberies differs slightly from the pattern described above. Most agencies (18 of 32, or 56 percent) reported zero cold cases of sexually motivated crimes. Six agencies reported one such crime, two agencies reported two crimes each, and one agency reported three. One agency reported four crimes, two agencies reported six each, and one agency each reported 28 and 307 cold sexually motivated crimes apiece. For robberies, most agencies (18 of 25 agencies, or 72 percent) reported zero cold case robberies. Three agencies reported one case each, and one agency each reported three, nine, 11, and 90 cases respectively. Finally, most (16 of 24 agencies, or 67 percent) reported zero cold aggravated assaults. Three agencies reported one such cold case. Additionally, one agency each reported eight, 12, 25, 60, and 234 cold case aggravated assaults.

We then asked agencies about the number of cold cases in each of six categories that might be advanced by additional DNA analysis. The results appear in Table 3 below.

Table 3. Cases for Additional DNA Analysis by Case Type.

	n agencies responding	# of agencies reporting zero cases could be	min	max	mean
		advanced			
Homicides	27	17	0	4	.63
Recovered or found UHR	29	21	0	2	.34
Nonnegligent manslaughter	24	23	0	1	.04
Sexually motivated crimes	26	15	0	14	1.12
Robbery	24	20	0	1	.17
Aggravated assault	24	21	0	10	.54

Agencies generally reported they had zero cold cases that could be advanced by additional DNA analysis (the modal response for all six crime types was zero), which is not surprising since the majority of agencies indicated they had no cold cases. However, 19 agencies reported 37 total cases (between one and 14 cases each) they felt could benefit from DNA analysis. Thus, although the number of cases is small, there are cases that might be helped by more DNA analysis.

Victim Services

The next series of four questions asked policing agencies about their use of system-based victim witness coordinators and collaboration with community-based victim service provider organizations. The results are presented in Table 4.

Table 4. Agency use of victim witness coordinators and victim advocacy organizations.

	response	n	percent
Does your agency have a victim witness coordinator?	yes	15	35.7
Does your agency have a victim witness coordinator:	no	27	64.3
Do you work with them on victim contact for cold cores?	yes	9	60.0
Do you work with them on victim contact for cold cases?	no	6	40.0
Do you would with a local DV/CV advancey againstica?	yes	24	88.9
Do you work with a local DV/SV advocacy organization?	no	3	11.1
Do year yearly with them on victim contact for cold cores?	yes	7	29.2
Do you work with them on victim contact for cold cases?	no	17	70.8

Most agencies reported they did not have a victim witness coordinator (64.3 percent). Of the 35.7 percent of agencies reporting they had a victim witness coordinator, 60 percent used them for victim contact on cold cases. Most agencies (88.9 percent) reported working with a local domestic violence or sexual violence advocacy organization. But the majority (70.8 percent) did not use them for victim contact in cold cases.

Discussion

Our representative survey of policing agencies in Idaho revealed several findings about owed DNA, cold cases, and victim assistance. In terms of owed DNA, there is a gap between what many police departments perceive sheriffs' offices do with DNA collection and what is actually happening. In fact, few individuals are submitting their DNA through sheriffs' offices. Even if more people were submitting through sheriffs' offices, there is little commonality in who in those offices is responsible for collecting owed DNA. This pattern, in which agencies report such diverse responses, is indicative of a fragmented and unguided approach to collecting owed DNA. There does not appear to be an agreed upon, publicized recommendation or best practice for when and who is collecting owed DNA in the state.

The majority of agencies have cold homicides. Although most agencies have only one, three "hot spots" were noted with those agencies reporting between 6-15 cold cases. However, cold cases related to missing people, found/recovered UHR, and non-negligent manslaughter were rare (see Table 3), as were those for other violent crimes (e.g., sexually motivated or robbery). Yet, hot spots do exist in these areas as well. Since most agencies reported no cold cases in any non-homicide violent crime, UHR, or missing persons, opportunities for additional DNA analysis are limited to a small proportion of agencies, with eligible sexually motivated or homicide cases numbering in the single digits per agency.

Almost two-thirds of police departments and sheriffs' offices do not employ victim witness coordinators and, while close to 90% of these policing agencies have established relationships with community-based advocates, they do not use their services in cold cases. This apparent hesitancy to involve victim/survivor support in re-opening/investigating these cases is not aligned with best practices and recommended protocol in cold cases (Campbell et al., 2023; Joyful Heart Foundation, n.d.; Office on Violence Against Women (OVW), 2017; Pilkington, 2024; RTI, n.d.; see Englebrecht et al., 2014 for a discussion of the needs of homicide victims' families). Failure to follow these best practices may result in less victim/survivor cooperation with any investigation or subsequent prosecution and could be in violation of Idaho's constitutional amendment concerning victims' rights. But, more importantly, not involving supportive services increases the likelihood of victims and surviving family members experiencing secondary victimization and exacerbating any trauma effects they may be experiencing.

Recommendations

Clarify Idaho Statute 19-5507 to establish a statewide protocol for collecting owed DNA, including documentation of such an order, the primary and secondary contact point for collecting and submitting DNA, timelines, tracking, and funding for additional personnel time and software to support this activity.

Based on the results of our survey, some confusion exists about who is responsible for the collection of owed DNA, in which circumstances, at what point in the criminal justice process, and under what legal authority. Clarifying this within the statute provides a singular point of reference for all criminal justice personnel for the legal authority, responsibility, and

process of collecting owed DNA. In addition, the extensive nature of the work undertaken by the Idaho Statistical Analysis Center, Idaho State Police, Idaho Department of Correction, and ISP Forensic Services to document who has not yet provided their DNA to the state illustrates the need for a standardized tracking system available across criminal justice agencies and state funding to develop it. Such a tracking system should be codified within 19-5507 for sustainability and accountability.

Establish standardized reporting by policing agencies and coroners on the number of cold cases, missing persons, and UHRs.

Until this survey was conducted, there was limited agency-level data on cold cases, UHRs, or missing persons cases. Consistent reporting across agencies in a more formal manner provides ongoing information on the status of these types of cases. Such reporting can lead to early identification of needed statewide efforts and/or funding to resolve these cases, which in turn holds offenders accountable and brings closure, if not justice, to victims and/or surviving family members. To minimize the impact on policing agencies and coroners, ongoing reporting should piggyback on existing reporting, such as NIBRS, Idaho Missing Persons Clearinghouse, or the Violent Death Reporting System. These existing reporting systems may not be able to accommodate all three case types (cold, UHR, and missing persons) cases as each one has their limitations and only two of the three reside within the same agency (NIBRS and IMPC in ISP; VDRS in Health & Welfare). Currently, though, the Idaho Missing Persons Clearinghouse tracks missing persons and unidentified persons cases that are reported and verified via NCIC. However, the data is captured ad hoc when agencies make an entry into NCIC, which would not happen when a case turns cold. Our recommendation is for a consistent, standardized reporting system for all three case types.

Implement best practices and established protocols for interaction with victims and/or surviving family members.

Survey results demonstrate existing gaps in victim witness coordinator services across the state and limited use of existing community-based advocacy services in cold cases. Victims and surviving family members can be crucial to cold case investigations and subsequent prosecutions, but securing and maintaining their cooperation often hinges on using traumainformed and victim-centered practices throughout the case lifecycle. Best practices and protocol exist for engaging in such practices in cold cases. In addition, the state of Idaho has viewed victims' rights to be of such importance that it amended the state constitution to mandate that those rights be afforded to them. Idaho should incentivize (i.e., funding) collaboration among policing agencies, Council on Domestic Violence and Victim Assistance, Idaho Victim Witness Association, and the Idaho Coalition Against Domestic & Sexual Violence to (1) establish regional VWCs to assist rural policing agencies without such services and (2) provide training to VWCs, community-based advocates, and policing agencies on best practices and recommended protocols for victim/survivor engagement in cold cases (see Campbell et al (2017) for a planning tool that may be helpful to this proposed work). Idaho Byrne JAG grant monies have been useful in the past for supporting victimcentered practices across the state and could be leveraged for this purpose.

References

- Alaska Department of Public Safety Public Information Office. (2022). Department of Public Safety begins owed DNA collection.

 https://dps.alaska.gov/AST/PIO/PressReleases/Department-of-Public-Safety-Begins-Owed-DNA-Collec.
- Campbell, R., Fehler-Cabral, G., & Horsford, S. (2017). Creating a victim notification protocol for untested sexual assault kits: An empirically supported planning framework. *Journal of Forensic Nursing*, 13(1), 1-13.
- Campbell, R., Gregory, K., Goodman-Williams, R., Engleton, J., & Javorka, M. (2023). Victim notification protocols for untested sexual assault kits: Survivors' and advocates' perspectives on law enforcement-led outreach methods. *Violence Against Women*, 29(15-16), 3101-3125.
- Campbell, R., Shaw, J., & Fehler-Cabral, G. (2018). Evaluation of a victim-centered, trauma-informed victim notification protocol for untested sexual assault kits (SAKs). *Violence Against Women*, 24(4), 379-400.
- Craig D. Uchida & Marc L. Swatt (30 May 2025): Understanding the Impact of Forensic Evidence on Homicide Clearance: An Analysis of Los Angeles Homicide Cases, 1990-2010, *Justice Quarterly*, DOI: 10.1080/07418825.2025.2506487
- Davis, R.C., Jensen, C., Kuykendall, L., & Gallagher, K. (2015). Policies and practices in cold cases: An exploratory study. *Policing: In International Journal of Police Strategies & Management*, 38(4), 610-630.
- Englebrecht, C.M. (2011). The struggle for "ownership of conflict": An exploration of victim participation and voice in the criminal justice system. *Criminal Justice Review*, 36(2), 129-151.
- Englebrecht, C.M., Mason, D.T., & Adams, M.J. (2014). The experiences of homicide victims families with the criminal justice system: An exploratory study. *Voice and Victims*, 29(3), 407-421.
- Groves, R.M. & Peytchea, E. (2008). The impact of nonresponse rates on nonresponse bias: A meta-analysis. *Public Opinion Quarterly*, 72(2), 167-189.
- Joyful Heart Foundation (2016). *Navigating notification: A guide to re-engaging sexual assault survivors affected by the untested rape kit backlog*. Retrieved at: https://www.endthebacklog.org/victim-notification/navigating-notification/
- King, W.R., & Patterson, S. (2020) Organizational culture, climate and employee satisfaction and wellbeing in the XX: An empirical examination. Final Report. Technical report prepared for the XX.

- Leovy, J. (2015). Ghettoside: A true story of murder in America. Spiegel & Grau: New York.
- Lovell, R.E., & Klingenstein, J. (2019). Outcomes from efforts to swab offenders who lawfully "owe" DNA in Cuyahoga County. Case Western Reserve University: Cleveland, OH.
- Matusiak, M.C., Campbell, B.A., & King, W.R.. (2014). The legacy of LEMAS: Effects on police scholarship of a federally administered, multi-wave establishment survey. *Policing: An International Journal of Police Strategies & Management*, 37(3), 630-648.
- Nix, J., Pickett, J.T., Baek, H., & Alpert. G.P. (2019). Police research, officer surveys, and response rates. *Policing and Society*, 29(5), 530-550.
- Office on Violence Against Women (2017). Sexual assault kit testing initiatives and non-investigative kits: White paper. Retrieved at: https://www.justice.gov/ovw/page/file/931391/dl?inline=
- Patterson, D. & Tringali, B. (2015). Understanding how advocates can affect sexual assault victim engagement in the criminal justice process. *Journal of Interpersonal Violence*, 30(12), 1987-1997.
- Pilkington, M.M. (2024). From evidence to actional victim engagement. *Police Chief Magazine* (July 2024). Retrieved at: https://www.policechiefmagazine.org/from-evidence-to-actionable-victim-engagement/
- RTI International (n.d.). *Guidance for victim notification protocols in sexual assault cases*. Retrieved at: https://www.sakitta.org/toolkit/docs/Guidance-for-Victim-Notification-Protocols-in-Sexual-Assault-Cases.pdf
- RTI International (n.d.). Victim advocates and law enforcement: A critical partnership for victim support and healing. Retrieved at: https://www.sakitta.org/toolkit/docs/Victim-Advocates-and-Law-Enforcement-A-Critical-Partnership-for-Victim-Support-and-Healing.pdf
- Salinas, O. C. (2024). Eligible offender samples are missing in CODIS: A statewide approach to performing a lawfully owed DNA census. *Journal of Forensic Sciences*, 69(5), 1758–1770. https://doi.org/10.1111/1556-4029.15569.
- Sulley, C., Wood, L., Cook Heffron, L., Westbrook, L., Levy, N., Donde, S.D., & Busch-Armendariz, N. (2021). "At least they're workin' on my case?" Victim notification in sexual assault "cold" cases. *Journal of Interpersonal Violence*, 36(9-10), 4360-4380.
- Uniform Crime Reports Program (2024). *Incidents cleared by offense category, 2023* (NIBRS Table downloaded from https://cde.ucr.cjis.gov/LATEST/webapp/#