Bringing Untested Rape Kits out of Storage and into the Courtroom: Encouraging the Creation of Public-Private Partnerships to Eliminate the Rape Kit Backlog

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This Note discusses the current status of the rape kit backlog, and how it can be addressed through successful public-private partnerships in the DNA testing industry. DNA evidence contained inside rape kits is an invaluable investigative tool to solve and prevent crime. Despite their immense utility, rape kits remain untested due to overburdened public crime labs with insufficient resources. On top of this, onerous FBI regulations prevent private crime labs from joining forces with public labs to test these kits. The aim of this Note is to shine a light on—and to introduce initiatives to eliminate—the backlog of hundreds of thousands of untested rape kits in the United States.

* J.D. Candidate 2018, University of California, Hastings College of the Law. This Note is dedicated to the strong children, women, and men who have endured sexual violence.

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> I learned a lesson when I found out that the police had closed my case without even interviewing [the rapist], or testing the rape kit. I learned that you cannot trust that the justice system will bring hope to you or bring your rapist to jail. You cannot hope that what went wrong will be righted.[1]
>
> Justine,
> Springfield, Illinois,
> June 23, 2007

INTRODUCTION

Every ninety-eight seconds someone is sexually assaulted somewhere in the United States.[2] Recent figures show that reported rapes represent a mere 32% of all rapes,[3] and that 1 in every 6 women in the United States will be the victim of a rape or an attempted rape in her lifetime.[4] Only a small percentage of those reported will produce a sexual assault kit ("SAK" or "rape kit"), which is often the key to identifying an assailant or corroborating the victim's account of the sexual assault.[5] A rape kit is a package of items gathered from an invasive examination of a victim's body following an allegation of sexual assault.[6] This involves a

1. Sarah Tofte, *"I Used to Think the Law Would Protect Me"* Illinois's Failure to Test Rape Kits, HUM. RTS. WATCH 2 (2010), https://www.hrw.org/sites/default/files/reports/us0710webwcover_0.pdf.

2. *Victims of Sexual Violence: Statistics*, RAPE, ABUSE & INCEST NAT'L NETWORK (RAINN), https://www.rainn.org/statistics/victims-sexual-violence (last visited Mar. 3, 2018).

3. Jennifer L. Truman & Rachel E. Morgan, *Criminal Victimization, 2015*, U.S. DEP'T OF JUST. 5 (2016), https://www.bjs.gov/content/pub/pdf/cv15.pdf. In 2015, U.S. residents age 12 or older experienced an estimated 431,840 rape and sexual assault victimizations; however, only 32.5% of these victimizations were reported to the police. *Id.* at 2, 6.

4. *See* Patricia Tjaden & Nancy Thoennes, *Extent, Nature, and Consequences of Rape Victimization: Findings from the National Violence Against Women Survey*, NAT'L INST. OF JUST. iii (2006), https://www.ncjrs.gov/pdffiles1/nij/210346.pdf.

5. NAT'L CTR. FOR VICTIMS OF CRIME, SEXUAL ASSAULT KIT TESTING: WHAT VICTIMS NEED TO KNOW 2 (2011), http://victimsofcrime.org/docs/default-source/dna-resource-center-documents/dna-sak-victim-brofinal.pdf?sfvrsn=2.

6. Nancy Ritter, *The Road Ahead: Unanalyzed Evidence in Sexual Assault Cases*, NAT'L INST. OF JUST. 1 (2011), https://permanent.access.gpo.gov/gpo9142/233279.pdf.

victim being asked to disrobe over a large sheet of white butcher paper to collect hairs or fibers, after which her body is thoroughly examined, scraped, and swabbed for the rapist's DNA.[7] This extensive and grueling process can last on average between four to six hours,[8] and reportedly up to twelve hours in neglectful circumstances.[9] In spite of the efforts made by the victim and medical professionals to collect this evidence, many of the kits are never tested. Untested rape kits are found in storage in police department evidence rooms, crime labs, hospitals, clinics, and rape crisis centers.[10] The current estimate of untested rape kits in the United States is upwards of 200,000,[11] meaning that there are that many rape victims awaiting justice, while the key to unlocking the identity of their perpetrator collects dust on a shelf in storage. This nationwide tragedy has come to be known as the "rape kit backlog."[12]

As there is no federal law mandating the counting or tracking of rape kits, and as most jurisdictions have not taken it upon themselves to implement such systems, the approximate estimate of 200,000 total untested rape kits nationwide is a very rough figure.[13] Unfortunately, neither is there a reliable estimate of the total kits, untested *and* tested, which have been prepared and collected.

To help relieve this backlog, some federal, state, and local public crime labs outsource testing of DNA samples to private commercial labs.[14] The trouble is that current regulations promulgated by the Federal Bureau of Investigations ("FBI") require redundant and inefficient re-

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7. Hayley MacMillen, *What's In A Rape Kit?*, REFINERY29 (June 8, 2015, 9:20 AM), http://www.refinery29.com/what-is-a-rape-kit.

8. Sofia Resnick, *Investigative Report: How Victim-Blaming Led to the Rape Kit Backlog*, REWIRE (June 22, 2015, 10:12 AM), https://rewire.news/article/2015/06/22/investigative-report-victim-blaming-led-rape-kit-backlog/.

9. Amanda Hess, *Test Case: You're Not a Rape Victim Unless Police Say So*, WASH. CITY PAPER, (Apr. 9, 2010, 12:00 AM), http://www.washingtoncitypaper.com/columns/the-sexist/article/13038641/test-case-youre-not-a-rape-victim-unless-police-say. According to this report, rape victims in Washington, D.C. would wait up to twelve hours in emergency rooms while the medical staff present would attend to more immediate emergencies, such as births, after which inexperienced residents would perform the physical examination for the rape kit.

10. RITTER, *supra* note 6, at 1.

11. Rebecca Campbell et al., *Tested at Last: How DNA Evidence in Untested Rape Kits Can Identify Offenders and Serial Sexual Assaults*, 23 J. INTERPERSONAL VIOLENCE 1, 2 (2016). "Large numbers of untested SAKs have been found in cities throughout the United States, including New York City (~16,000), Los Angeles (~13,000), Memphis (~12,000), Detroit (~11,000), Houston (~6,000), Dallas (~4,000), and Cleveland (~4,000)." *Id.* (internal citations omitted).

12. *Addressing the Rape Kit Backlog*, RAPE, ABUSE & INCEST NAT'L NETWORK (RAINN), https://www.rainn.org/articles/addressing-rape-kit-backlog (last visited Mar. 3, 2018).

13. *What Is the Rape Kit Backlog?*, END THE BACKLOG, http://www.endthebacklog.org/backlog/what-rape-kit-backlog (last visited Mar. 3, 2018).

14. *Rape Kit Backlogs: Failing the Test of Providing Justice to Sexual Assault Survivors: Hearing Before the Subcomm. on Crime, Terrorism, and Homeland Security of the H. Comm. on the Judiciary*, 111th Cong. 75 (2010) (statement of Dr. Christian Hassell, Assistant Dir., Lab. Div., F.B.I., U.S. Dep't of Just., Wash., D.C.).

testing and auditing of the private labs' work by government labs, which negates the advantages of contracting out the work in the first place.

The rape kit backlog could be addressed in a number of ways, including more widespread use of automated technology and additional funding. However, the easiest and most immediately available solution is to utilize cost-effective private labs to supplement the current inadequacy of public lab resources.[15] Two things can be done to foster efficient public-private partnerships: enact regulatory reform to the FBI regulations, and create model guidelines for these partnerships. These initiatives would expand available testing resources while minimizing expenditures (on average, private labs can process DNA for about $200 less per sample than a public lab).[16] These are measurable, direct benefits to both rape victims who await DNA results to confirm their assailant, and taxpayers who shoulder the cost of processing rape kits. The creation of guidelines to facilitate public-private partnerships is an inexpensive solution that has the potential to play a vital role in clearing the backlog.

This Note discusses the rape kit backlog crisis, offers proposed regulatory changes, and provides model guidelines to increase the productivity of available resources through the development of efficient and cost-effective public-private partnerships, with the ultimate goal of solving this crisis. Part I discusses the rape kit backlog, the numerous benefits afforded by testing the DNA in kits, and the origins of the current crisis. Part II describes the resources provided by the federal government to assist with clearing the backlog, including a national database of DNA profiles called the Combined DNA Index System ("CODIS"), and federal grant programs. Part III examines the obstacles preventing efficient creation of public-private partnerships, including Standard 17 of the FBI's Quality Assurance Standards. Part III also discusses proposed changes to the FBI regulations to decrease these obstacles. Part IV explores the benefits and concerns of utilizing private companies to test DNA used within the criminal justice system. Additionally, Part IV focuses on the rape kit backlog in Los Angeles, which at one time was the largest known backlog in the country, describing how the city and county successfully addressed this problem through the use of private labs. Finally, Part V introduces proposed guidelines to facilitate the establishment of public-private partnerships in the DNA testing industry.

15. *Id.* at 85 (statement of Jeffrey S. Boschwitz, Vice President, Orchid Cellmark, Inc.).
16. *Id.* at 15 (statement of John Conyers, Jr., Chairman, Comm. on the Judiciary).

I. THE NATIONAL RAPE KIT BACKLOG CRISIS AND ITS ORIGINS

A. WHAT IS THE RAPE BACKLOG?

The rape kit backlog can be attributed to two bottlenecks in the criminal justice system: The first is the number of rape kits that are booked into evidence, but never submitted to crime labs for testing, and the second is the number of kits that do reach public labs, but which remain untested due to the labs' capacity constraints in comparison to an ever-mounting caseload.[17] Private labs can play a fundamental role by expanding resources in order to eliminate these bottlenecks.

Despite the hundreds of millions of dollars that federal and state governments have invested to eliminate the rape kit backlog, the backlog only continues to grow.[18] The dollars poured into public labs would go much further if some of the DNA analysis work were outsourced to private labs in a functioning public-private partnership. One of the unanimous complaints among jurisdictions is that there are simply insufficient resources to meet the rising demand for testing of DNA samples.[19]

A National Institute of Justice ("NIJ") survey published in 2009 found that of the over two hundred local law enforcement agencies surveyed, 11% responded that they never submitted DNA evidence to crime labs because their turnaround time was too long, and 6% said that they were unable to submit DNA evidence because the lab was not accepting new evidence due to the backlog.[20] If the results of this survey are reflective of law enforcement agencies across the country, together, a total of approximately 17% of DNA samples never even meet the threshold of being submitted to a crime lab for testing. The survey reveals serious problems with an ongoing lack of resources for processing and analyzing forensic evidence, including cases of sexual assault.[21] The problem is disturbing not just for the misused energy expended by trained medical personnel, but also for the catastrophic disappointment to the survivor when she discovers that her rape kit was never even submitted for processing.

Rape kits are crucial to bringing perpetrators to justice. Studies show that cases in which a rape kit containing DNA evidence is collected

17. Tara Luther, *Addressing the Sexual Assault Kit Backlog: Defining the Problem, Creating Solutions*, PROMEGA CONNECTIONS (July 29, 2016), http://www.promegaconnections.com/addressing-the-sexual-assault-kit-backlog-defining-the-problem-creating-solutions/.

18. Abigail Tracy, *Rape Kit Backlog Grows Nationwide, Jeopardizing Prosecutions*, SCI. AM. (May 18, 2015), https://www.scientificamerican.com/article/rape-kit-backlog-grows-nationwide-jeopardizing-prosecutions/.

19. MARK NELSON, NAT'L INST. OF JUST., MAKING SENSE OF DNA BACKLOGS, 2010–MYTHS VS. REALITY 4 (2011).

20. RITTER, *supra* note 6, at 3.

21. RITTER, *supra* note 6, at 4.

and tested are significantly more likely to proceed in the criminal justice system than cases in which no rape kit was collected.[22] The backlog will only continue to increase until more efficient methods are established to address the growing collection of rape kits sitting on evidence shelves. One such method includes encouraging the establishment of public-private partnerships in DNA testing by lowering the obstacles imposed by FBI regulations.

B. THE IMPORTANCE OF TESTING ALL KITS, REGARDLESS OF VICTIM-OFFENDER RELATIONSHIP

Every rape kit should be tested, no matter whether the offender is known or unknown to the victim. Besides giving survivors and perpetrators the justice they deserve, DNA testing has the potential to identify an unknown assailant and solve cold cases in *stranger* rape incidents, but also yields benefits in *non-stranger* rape cases. DNA testing can confirm offender identity, corroborate the survivor's account of the attack, discredit the suspect, connect the suspect to other crimes in order to identify serial offenders, and ensure that individuals are not wrongly accused or convicted for a rape they did not commit.[23]

In *stranger* sexual assault cases, where the assailant is unknown to the victim, rape kits are instrumental in identifying the perpetrator through DNA profiling.[24] Research shows that the use of DNA evidence greatly improves the odds of apprehending an unknown suspect.[25] In fact, a 2009 study examining stranger sexual assault cases in the United States found that in cases with forensic evidence, the odds of an ultimate arrest were twenty-four times more likely than in those cases without.[26]

In *non-stranger* (or "acquaintance") sexual assault cases, which constitute the vast majority—roughly 70%—of all rapes,[27] the kit is still significant in a number of ways, despite the fact that identification of the suspect is not at issue. In such cases, rape kits are vital in establishing evidence against an assailant's frequently used defense strategy that the sexual encounter was consensual.[28] During the physical examination, the

22. SARAH TOFTE, HUMAN RIGHTS WATCH, TESTING JUSTICE: THE RAPE KIT BACKLOG IN LOS ANGELES CITY AND COUNTY 3 (2009), https://www.hrw.org/report/2009/03/31/testing-justice/rape-kit-backlog-los-angeles-city-and-county.

23. *Ending the Rape Kit Backlog*, THE UNITED STATE OF WOMEN (Mar. 28, 2017), https://www.theunitedstateofwomen.org/blog/action/ending-rape-kit-backlog/.

24. Ira Sommers & Deborah Baskin, *The Influence of Forensic Evidence on the Case Outcomes of Rape Incidents*, 32 JUST. SYS. J. 314, 328 (2011).

25. *Id.*

26. *Id.*

27. *Perpetrators of Sexual Violence: Statistics*, RAPE, ABUSE & INCEST NAT'L NETWORK (RAINN), https://www.rainn.org/statistics/perpetrators-sexual-violence (last visited Mar. 3, 2018). This 70% figure is comprised of the following: 45% are committed by an acquaintance; 25% are committed by a current or former spouse, boyfriend, or girlfriend.

28. EDITH GREENE ET AL., WRIGHTSMAN'S PSYCHOLOGY AND THE LEGAL SYSTEM 377 (6th ed. 2007).

medical examiner will document injuries suggestive of force, such as lacerations, bruises, and bite marks.[29] Photographic documentation of these injuries provides a powerful corroboration of the victim's account of the assault.[30] In other acquaintance cases, the accused often defends on the basis that no sexual intercourse ever occurred. In these types of cases, rape kits that show either sperm or specific enzymes that are unique to semen can be used to prove the occurrence of sexual contact.[31]

An added benefit of DNA testing of rape kit evidence, regardless of whether the assailant is a stranger or non-stranger to the victim, is to potentially link the assailant to other crimes. Regarding serial sexual assaults, a 2016 study of 900 previously untested rape kits in Detroit, Michigan led to 259 hits in the CODIS system, which included the DNA profiles of both stranger and non-stranger sexual assault cases.[32] Sixty-nine of the hits were serial sexual assaults, fifteen of which were cases of acquaintance sexual assault.[33] The DNA evidence in rape kits can also be crucial in identifying perpetrators of other, non-sexual, crimes. Regarding the added benefit of identifying perpetrators in non-rape cases:

> [R]apists are often guilty of other crimes, such as, burglary, armed robbery, assault and murder. The inventory of sexual assault kits is a treasure trove of evidence. By mining this evidence we can not only solve sexual assault cases, we can solve multiple crimes and bring hundreds of criminals to justice.[34]

Finally, testing DNA evidence in rape kits can exonerate individuals wrongly accused of a crime.[35] Despite myths that are still prevalent today, false reporting of sexual assault is rare. Indeed, multiple studies have shown that of all reported rapes, only 2% to 8% are false.[36] However, when untruthful accusations are made, or when a victim mistakenly identifies the offender in a police lineup, DNA testing can be critical in exculpating the accused by proving a non-match between the genetic material from the rape kit and the accused.[37] Depending on the stage of the case at which the kit is tested, the results can prevent formal charges from being filed or can be

29. Jennifer A. Ort, *The Sexual Assault Nurse Examiner*, 102 AM. J. OF NURSING 24GG, 24GG (2002).

30. *Id.*

31. *Id.*

32. Campbell et al., *supra* note 11, at 1.

33. Campbell et al., *supra* note 11, at 1, 12.

34. *Why Testing Every Kit Matters*, END THE BACKLOG, http://www.endthebacklog.org/backlog-why-rape-kit-testing-important/why-testing-every-kit-matters (last visited Mar. 3, 2018).

35. Rebecca Campbell et al., *The National Problem of Untested Sexual Assault Kits (SAKs): Scope, Causes, and Future Directions for Research, Policy, and Practice*, 14 TRAUMA, VIOLENCE, & ABUSE 1, 5 (2015).

36. *Id.*

37. *Id.*

instrumental in appealing a conviction.[38] A study published in 2012 that reviewed sexual assault cases in which the convicted defendant was later found innocent reported that 63% of these exonerations were proven through DNA testing.[39]

As evidenced, rape kits provide remarkable utility to the criminal justice system, regardless of the status of the offender to the victim. The failure to test every painstakingly produced rape kit as a routine practice of law enforcement agencies nationwide is a serious problem. As such, an emphasis must be placed on testing each and every rape kit regardless of the offender's relationship to the victim. The DNA evidence contained in these rape kits, when uploaded to CODIS, can be instrumental in identifying and linking the perpetrator to serial rape offenses and other crimes. Additionally, the evidence has the power to exonerate innocent suspects and illuminate the truth in matters with conflicting reports between victim and assailant.

C. THE ORIGINS OF THE RAPE KIT BACKLOG

One of the primary causes of the backlog is that requests for analysis outpace the capacity of public labs to test the forensic samples.[40] The obvious concern here is that additional victims could have been prevented had the evidence been tested and the perpetrator apprehended before committing additional assaults.[41] An additional cause is the persistent misogynistic perception of rape victims, harbored by the very first-responders tasked with investigating these crimes.

1. Demand for DNA Testing Resources in Excess of Supply as a Root Cause of the Backlog

The criminal justice system has experienced immense transformation due to advances in technology over the past few decades.[42] In fact, "it is in part because DNA [evidence] is such a powerful tool and so widely collected that the current backlog exists."[43] Developments in DNA profiling technology have reshaped how sexual assault crimes are investigated and prosecuted.[44] The downside of this

38. *Id.*

39. *Id.* The study reported on the sexual assault cases from 1989 through 2012.

40. NATHAN JAMES, CONG. RESEARCH SERV., DNA TESTING IN CRIMINAL JUSTICE: BACKGROUND, CURRENT LAW, AND GRANTS 7 (2015).

41. Armen Keteyian, *Untested Rape Kits Lead to More Crimes*, CBS NEWS (Nov. 10, 2009, 2:39 PM), http://www.cbsnews.com/stories/2009/11/10/cbsnews_investigates/main5603492.shtml.

42. Jeremy Travis, Dir., Nat'l Inst. of Just., Technology in Criminal Justice: Creating the Tools for Transformation (Mar. 13, 1997), https://www.nij.gov/about/speeches/past-directors/Pages/travis-acjs.aspx.

43. Allison Menkes, *Rape and Sexual Assault*, 7 GEO. J. GENDER & L. 847, 857 (2006).

44. U.S. DEP'T OF JUST., OFFICE OF VIOLENCE AGAINST WOMEN, SUMMARY OF THE PROCEEDINGS: ELIMINATING THE RAPE KIT BACKLOG: A ROUNDTABLE TO EXPLORE A VICTIM-CENTERED APPROACH

progress is that the ever-increasing numbers of DNA samples sent to public labs for analysis greatly exceed the capacity of these labs.

The constant flow of DNA samples submitted to crime labs seems to have no end in sight, with rates of DNA evidence collected in criminal cases and efforts to collect samples from convicted felons and arrested persons steadily growing.[45] To compound the problem, evidence from older, unsolved crimes—from which evidence was collected but never tested—adds thousands of kits to the growing queue of DNA evidence awaiting analysis in crime labs.[46] As a result, the justice system relies on overburdened public labs that cost taxpayers thousands of dollars in overtime pay to employees, in an unsuccessful bid to catch up with demand.[47] Meanwhile, victims must wait an indeterminate amount of time—months, years, potentially decades—for a kernel of information about the individual who caused him or her irreparable damage and for justice to be done.[48]

2. Gender Bias as a Root Cause of the Backlog

Bias against victims of sexual assault is pervasive. Studies show that biases are still widely embraced regarding victims of sexual assault, and that those who hold such biases are "less likely to believe a victim, more likely to hold the victim responsible, less likely to hold the perpetrator responsible, and less likely to convict a defendant."[49]

Christopher Kaiser, the public policy director at the Texas Association Against Sexual Assault, stated that:

> What got us here in the first place is gender bias. [Sexual assault] is unlike the relationship of the perpetrator to the victim in other crimes. I do think there is a unique aspect to this when we are talking about sexual violence and why we are even in this backlog situation in the first place.[50]

Many of the rape kits languishing on shelves are the result of police attitudes toward sexual assault victims. Experts now believe that all rape kits should be tested, whereas police often wrongly choose to test only those kits in cases they decide do not turn on consent, or where the assailant's identity is in question.[51] Rape kits are key evidence in stranger

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7 (May 11–12, 2010), https://victimsofcrime.org/docs/dna-resource-center-documents/eliminating-the-rape-kit-backlog---a-roundtable-to-explore-a-victim-centered-approach-(2010).pdf.

45. *Id.*

46. *Id.*

47. *Id.*

48. *Id.*

49. State v. Obeta, 796 N.W.2d 282, 285 (Minn. 2011) (quoting the expert testimony in the trial of Dr. Patricia Frazier, a professor of psychology at the University of Minnesota).

50. Christine Hauser, *Texas Lawmaker Proposes Crowdfunding to Tackle Backlog of Rape Kits*, N.Y. TIMES (Mar. 15, 2017), https://www.nytimes.com/2017/03/15/us/rape-kits-texas-untested.html.

51. Resnick, *supra* note 8.

and non-stranger cases alike, and should not be prevented from being tested due to a judgment call by the police.[52]

The police have long been found to harbor negative and prejudicial attitudes toward victims of sexual offenses.[53] There have been numerous anecdotal reports of police mistreatment of rape victims, and comparative studies show that police have more negative perceptions of victims than other professionals.[54] "'Despite their knowledge of law they are supposed to enforce, the male police mentality is often identical to the stereotype views of rape that are shared by the rest of male culture.'"[55] Examples of these negative attitudes toward victims of rape include those that "blame the victim, question the victim's credibility, imply that the victim deserved being raped, denigrate the victim, and trivialize the rape experience."[56] A ten-year study of reported sexual assault cases revealed that when victims did not exhibit stereotypical behaviors expected by police, such as crying, expressing anger or fear, and immediately reporting the crime, the police were more likely to believe that the victim was making a false report.[57]

These attitudes often influence the decision to test a kit, whether due to overt or unconscious victim blaming on the part of police.[58] The result is that huge numbers of sexual assault kits go untested, thus leading to the current predicament of a national rape kit backlog crisis.[59] Take for example the Detroit rape kit backlog crisis, where chronic understaffing and police attitudes toward victims led to 8700 untested rape kits being uncovered in 2009, including some dating back to the 1980s.[60] The discovery of those kits inspired a four-year study funded by the U.S. Department of Justice ("DOJ") to establish the root cause of Detroit's backlog.[61] The study found that in many cases, police officers did not believe the victim and based on this belief decided not to test their rape kits.[62] A report stated that "[t]here was clear evidence of police treating victims in dehumanizing ways."[63] It further found that law enforcement

52. *See infra* Part I.B.

53. COLLEEN A. WARD, ATTITUDES TOWARD RAPE: FEMINIST AND SOCIAL PSYCHOLOGICAL PERSPECTIVES 56 (1995).

54. *Id.*

55. *Id.* (quoting SUSAN BROWN MILLER, AGAINST OUR WILL: MEN, WOMEN, AND RAPE 366 (1975)).

56. Barbara Nagel et al., *Attitudes Toward Victims of Rape: Effects of Gender, Race, Religion, and Social Class*, 20 J. INTERPERSONAL VIOLENCE 725, 726 (2005).

57. David Lisak et al., *False Allegations of Sexual Assault: An Analysis of Ten Years of Reported Cases*, 16 VIOLENCE AGAINST WOMEN 1318, 1331 (2010).

58. Resnick, *supra* note 8.

59. Resnick, *supra* note 8.

60. Alisha Green, *Report: Staffing, Attitudes Aided Rape-Kit Backlog, but Detroit's Fix Could Be National Model*, U.S. NEWS (April 7, 2015, 8:14 PM), https://www.usnews.com/news/science/news/articles/2015/04/07/report-detroit-model-in-effort-to-clear-rape-kit-backlog.

61. Resnick, *supra* note 8.

62. Resnick, *supra* note 8.

63. Green, *supra* note 60.

personnel often expressed "negative, stereotyping beliefs about sexual assault victims."[64] Detroit has since cleared the backlog in part due to a coalition of law enforcement agencies, victims' advocates, and other groups.[65] It developed victim-centered training for law enforcement to help address negative attitudes toward reports of sexual assault.[66]

The study's lead researcher, Rebecca Campbell, a professor of ecological-community psychology at Michigan State University, said that police conducted "virtually no investigation," particularly in cases where the perpetrator claimed that the sex was consensual.[67] Further, Campbell stated:

> When you look at the police reports associated with the kits that were not tested, you see pervasive and rampant victim-blaming, assuming that victims were prostitutes, blaming them for what happened, calling them derogatory names. . . . They didn't test the kits because they didn't believe the victim, because the victim didn't act 'right,' didn't behave in a way that they thought they should have if this were a real sexual assault. . . . The problem was, they didn't think the victims were credible the vast majority of the time.[68]

Ultimately, the consequences of the police decision not to test the kits came to light when the 1595 kits in Detroit that were tested yielded 455 hits in the CODIS federal criminal database.[69] Researchers determined that these rape kits were just as likely to produce a hit for an offender in both stranger and non-stranger cases (where, presumably, consent would have been clouded by a "he said, she said" quandary, in which police have been less likely to find the victim credible).[70]

Similarly, in New Mexico, an investigative audit of the backlog of more than 5000 rape kits revealed that 20% of kits went untested because of law enforcement's perception of the victim's "lack of credibility."[71] The attitude of law enforcement toward victims thus played a large role as to why thousands of kits went untested.[72]

Therefore, it is imperative that training initiatives be adopted to shake lagging attitudes toward victims of rape, so that not a single rape kit is left on the shelf due to misguided beliefs about rape victims. As noted above, rape kits provide a "treasure trove" of evidence in solving other crimes, corroborate victim's accounts, and exonerate innocent

64. Green, *supra* note 60.
65. Green, *supra* note 60.
66. Green, *supra* note 60.
67. Resnick, *supra* note 8.
68. Resnick, *supra* note 8.
69. Resnick, *supra* note 8.
70. Resnick, *supra* note 8.
71. Susan Montoya Bryan, *Audit Attributes Rape Kit Backlog to Systemic Issues*, COURIER-POST (Dec. 6, 2016, 8:47 PM), http://www.courierpostonline.com/story/news/2016/12/06/audit-attributes-rape-kit-backlog-systemic-issues/95068628/.
72. *Id.*

suspects, among other benefits.[73] Even if the main initiative of this Note is successfully implemented—that public-private partnerships be promoted and encouraged in order to clear the backlog—it will all be for naught if rape kits are not submitted to labs in the first place. Thus, it is of the utmost importance that police departments receive training about the sensitive nature of sexual assault and the grave error of not submitting rape kits for testing because of personal determinations of a victim's credibility.

II. THE CURRENT LANDSCAPE OF FEDERAL DNA SYSTEMS AND FEDERAL FUNDING IN PLACE TO ADDRESS THE BACKLOG

A. THE COMBINED DNA INDEX SYSTEM

CODIS, the Combined DNA Index System created and managed by the FBI, is a software containing multiple databases allowing public crime labs to compare and exchange DNA profiles.[74] Federal law vests the FBI with the authority to operate and maintain this national DNA database.[75] The law permits the FBI's database to house DNA profiles from people gathered under applicable legal authority and samples collected at crime scenes, so that the profiles can be compared to generate leads in criminal investigations.[76]

CODIS integrates this information at three levels: (1) *national*, with the National DNA Index System ("NDIS") which allows states to compare DNA information with one another; (2) *state*, through the State DNA Index Systems ("SDIS") which allows for labs within states to share information; and (3) *local*, using the Local DNA Index Systems ("LDIS") where DNA profiles originate.[77] Since its debut in 1990, and as of January 2017, CODIS has either identified the perpetrator or linked crimes in over 362,000 cases.[78]

B. THE FBI'S QUALITY ASSURANCE STANDARDS

Under current federal law, the FBI is required to promulgate guidelines for forensic labs that conduct DNA testing, known as the Quality Assurance Standards for Forensic DNA Testing Laboratories ("QAS").[79] Pursuant to these FBI directives, the QAS must "specify criteria for quality assurance and proficiency tests to be applied to the

73. *Why Testing Every Kit Matters*, *supra* note 34.

74. *Combined DNA Index System ("CODIS")*, FED. BUREAU OF INVESTIGATION, https://www.fbi.gov/services/laboratory/biometric-analysis/codis (last visited Mar. 3, 2018).

75. 42 U.S.C. § 14132(a) (2012).

76. *Combined DNA Index System*, *supra* note 74.

77. *Combined DNA Index System*, *supra* note 74.

78. *CODIS—NDIS Statistics*, FED. BUREAU OF INVESTIGATION, https://www.fbi.gov/services/laboratory/biometric-analysis/codis/ndis-statistics (last visited Mar. 3, 2018).

79. 42 U.S.C. § 14131(a)(2) (2012).

various types of DNA analyses used by forensic laboratories."[80] According to the FBI, the QAS describe the minimum standards for a lab's quality assurance program when performing forensic DNA analysis.[81] The problem is that when it comes to the requirements of private labs, the requirements are anything but what should be considered "minimum."

Only those public labs that comply with the QAS may submit DNA samples to the CODIS system.[82] While the QAS allow public labs to outsource DNA testing work to private labs,[83] it comes at a steep cost measured by the time of redundant reviews and audits required to be conducted by the public labs which contract with private labs. The QAS are one of the substantial challenges to diminishing the backlog, and their heavy-handed requirements in order to ensure the quality of DNA profiles collected and uploaded to CODIS are not entirely necessary.[84] Part III discusses this issue in more detail, and proposes resolutions.

C. FEDERAL GRANT PROGRAMS THAT PROVIDE ASSISTANCE TO STATE AND LOCAL GOVERNMENTS TO CLEAR THE BACKLOG

Congress has authorized a number of federal grant programs to assist jurisdictions looking to address DNA backlogs, including the Debbie Smith Act, and the National Sexual Assault Kit Initiative ("SAKI") administered by the Bureau of Justice Assistance.[85]

The Debbie Smith Act authorizations in 2004 and 2008 provide much-needed additional funding to state and local governments for forensic sciences.[86] The Debbie Smith Act provides the bulk of funds to end the backlog, with more than $100 million in annual appropriations for DNA testing and related activities.[87] Grant recipients under the program must certify that all labs involved in processing DNA samples satisfy the FBI's QAS and are operated either by a public lab or by a private lab under contract with the state or local government.[88]

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80. § 14131(a)(3).

81. *Frequently Asked Questions on CODIS and NDIS*, FED. BUREAU OF INVESTIGATION, https://www.fbi.gov/services/laboratory/biometric-analysis/codis/codis-and-ndis-fact-sheet (last visited Mar. 3, 2018).

82. FED. BUREAU OF INVESTIGATION, QUALITY ASSURANCE STANDARDS FOR FORENSIC DNA TESTING LABORATORIES (2011), https://www.fbi.gov/file-repository/quality-assurance-standards-for-forensic-dna-testing-laboratories.pdf/view.

83. *Id.* at Standard 17.1.

84. JAMES, *supra* note 40, at 4.

85. *Federal Funding for Reform*, END THE BACKLOG, http://www.endthebacklog.org/ending-backlog-government-responses/federal-responses (last visited Mar. 3, 2018).

86. *Id.*

87. Steve Reilly, *Congress Slated to Increase Rape Kit Funding By $45M*, USA TODAY, (Dec. 16, 2015, 3:44 PM), http://www.usatoday.com/story/news/2015/12/16/congress-slated-increase-rape-kit-funding/77433168/.

88. *Debbie Smith Act*, RAPE, ABUSE & INCEST NATIONAL NETWORK (RAINN),

Since its inception in 2015, SAKI has awarded over $38 million to jurisdictions struggling to make a dent in their backlog.[89] These funds can be stretched further by maximizing the use of private labs because private labs can complete analysis of a rape kit at a cost approximately 15% to 50% less than a public lab.[90]

III. OBSTACLES TO MORE EFFECTIVE PUBLIC-PRIVATE PARTNERSHIPS FOR DNA TESTING

Standard 17 of the FBI's QAS stands in the way of efficient rape kit testing, and is much more onerous than necessary.[91] An in-depth discussion of its regulation follows, along with suggested directives to replace it.

A. STANDARD 17 OF THE FBI'S QUALITY ASSURANCE STANDARDS POSES SERIOUS CHALLENGES TO THE CREATION OF SUCCESSFUL PUBLIC-PRIVATE PARTNERSHIPS

The FBI's QAS create significant obstacles to public-private partnerships, making what could be a mutually beneficial business relationship into something that is inefficient for both the public lab and the taxpayer. Public-private partnerships have a long history of helping to address public health issues, and have been extremely successful in the context of the rape kit backlog crisis.[92] Private labs helped solve Los Angeles's backlog, which was one of the largest backlogs in the United States.[93]

Currently, only public labs that comply with the FBI's QAS may submit DNA profiles to CODIS pursuant to federal law.[94] While public labs are permitted to outsource casework to private labs, the QAS regulations mandate that only public labs may upload DNA profiles to the CODIS system.[95] All private labs that contract with public labs are held to the exact same standards as public labs: they must be accredited, audited annually, and adhere to the requirements of the QAS.[96] These are reasonable requirements, as they ensure the integrity of DNA testing and

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https://www.rainn.org/articles/debbie-smith-act (last visited Mar. 3, 2018).

89. *Sexual Assault Kit Initiative (SAKI)*, BUREAU OF JUST. ASSISTANCE, https://www.bja.gov/ProgramDetails.aspx?Program_ID=117 (last visited Mar. 3, 2018).

90. *Rape Kit Backlogs: Failing the Test of Providing Justice to Sexual Assault Survivors: Hearing Before the Subcomm. on Crime, Terrorism, and Homeland Security of the H. Comm. on the Judiciary*, 111th Cong. 82–83 (2010) (statement of Jeffrey S. Boschwitz). *See infra* Subpart IV.A.1.

91. *Rape Kit Backlogs: Failing the Test of Providing Justice to Sexual Assault Survivors: Hearing Before the Subcomm. on Crime, Terrorism, and Homeland Security of the H. Comm. on the Judiciary*, 111th Cong. 81 (2010) (statement of Jeffrey S. Boschwitz).

92. TOFTE, *supra* note 22, at 4.

93. TOFTE, *supra* note 22, at 4. *See* Part IV.C. *infra*.

94. 42 U.S.C. § 14132(b) (2012). *See* Part II.B. *supra*.

95. FED. BUREAU OF INVESTIGATION, *supra* note 82, at Standard 17.6.

96. FED. BUREAU OF INVESTIGATION, *supra* note 82, at Standards 15.1 & 17.1.

the quality of DNA profiles uploaded to the CODIS system; however, beyond these requirements, Standard 17 of the QAS places additional burdens on public labs that utilize private labs. Standard 17 requires that the public lab conduct both an initial site visit, and an annual site visit each subsequent year if the contract extends beyond one year, at each private lab with which it contacts in order to ensure the attainment of basic QAS standards.[97]

Standard 17 also requires that both public labs and private labs perform two technical reviews of the data.[98] A significant difference between public and private labs under the QAS is that when the public lab has completed the second review, the data is uploaded into CODIS; meanwhile, when the private lab has completed the second review, the data is then sent to the public lab which is required to complete a *third* review of *each* case before the results can be uploaded into CODIS.[99] This time-intensive technical review by the public lab is *in addition* to the two reviews private labs are required to conduct per the QAS.[100]

The manual rechecking of 100% of the private lab's forensic DNA work before the results are uploaded to CODIS is an unnecessary and cumbersome technical review requirement that hampers law enforcement's ability to take dangerous people off the street.[101] In a hearing on the rape kit backlog before the Subcommittee on Crime, Terrorism, and Homeland Security of the House of Representatives' Committee on the Judiciary in 2010, Dr. Jeffrey S. Boschwitz[102] testified that "[t]he direct impact of this rule is an additional 90 minutes to 4 hours of public lab labor per case, which can add as much as 25% to the cost of testing; more, if overtime is used, which is often the case."[103] With all the extra time and energy that public labs expend to monitor the private labs with which they work, the efficiency gained by outsourcing this work is nearly nullified.

Dr. Boschwitz went on to testify that "[t]o date, we are not aware of any study performed by an independent body of a representative sample of public and private lab case files to determine if there is a significant difference in error rates between the two lab types."[104] Presumably, a difference in error rates would indicate a need for this labor-intensive

97. FED. BUREAU OF INVESTIGATION, *supra* note 82, at Standard 17.7.

98. FED. BUREAU OF INVESTIGATION, *supra* note 82, at Standards 12.2, 12.3, & 17.1.

99. FED. BUREAU OF INVESTIGATION, *supra* note 82, at Standards 17.5 & 17.6.

100. FED. BUREAU OF INVESTIGATION, *supra* note 82, at Standards 12.2, 12.3, & 17.1.

101. *See* FED. BUREAU OF INVESTIGATION, *supra* note 82, at Standards 17.4, 17.5, & 17.6.

102. Dr. Boschwitz is a Vice President at Orchid Cellmark, Inc., "one of the largest worldwide providers of human DNA testing." *Rape Kit Backlogs: Failing the Test of Providing Justice to Sexual Assault Survivors: Hearing Before the Subcomm. on Crime, Terrorism, and Homeland Security of the H. Comm. on the Judiciary*, 111th Cong. 81 (2010) (statement of Jeffrey S. Boschwitz).

103. *Id.* at 77.

104. *Id.* at 81.

review requirement. Additionally, Dr. Boschwitz testified that the Cellmark company "reviewed the last several thousand case files checked by a public lab and found just four reports that had any technical changes made to it, none of which were significant enough to change the result interpretation."[105] Assuming Cellmark's miniscule amount of errors reflect the accuracy of most private labs, the Standard 17 regulations are superfluous at best, and an enormous waste of precious lab resources at worst.

The stringent Standard 17 regulations requiring 100% technical review and annual site visits have significant ramifications for addressing the rape kit backlog, given that they impose dramatic time commitments on an already overburdened public crime lab system. Public labs already perform at full capacity, leaving these extra duties to be performed using overtime, which drives up the cost that taxpayers ultimately shoulder.[106] Dr. Boschwitz described the effect of the additional time commitments on public lab analysts, saying that "it can take weeks to months for the reviews to be completed and the data to be uploaded into CODIS."[107] These are weeks and months during which an unapprehended criminal is free to re-victimize the original victim or new victims. This is a heinous and real consequence of the FBI's QAS.

B. POTENTIAL CHANGES TO STANDARD 17 THAT WOULD LESSEN THE OBSTACLES TO ESTABLISHING PUBLIC-PRIVATE PARTNERSHIPS

Standard 17 should be amended to reduce duplication of effort and to make it more affordable to process large numbers of backlogged kits without sacrificing accuracy. The following two requirements should be struck from the regulations: (1) the requirement that public labs perform 100% technical review of private lab work (QAS Standard 17.6); and (2) the requirement that the public lab must perform an annual site visit and audit of each hired private lab (QAS Standard 17.7).

A range of options exist to replace the 100% manual review requirement of the FBI's QAS that would still preserve the integrity of CODIS. One of these would be to require the technical review by a public lab only *after* a "cold hit" in CODIS, meaning that CODIS recognizes a match between an offender and forensic profile.[108] This would prevent the waste of resources when no such cold hit occurs. Reserving a third review by the public lab only until after a CODIS hit occurs would greatly diminish the number of reviews required, and would still maintain the integrity of the CODIS system. The private lab would still be held to

105. *Id.*
106. *Id.*
107. *Id.*
108. MARIA V. SHOESTER, FORENSICS IN LAW ENFORCEMENT 225 (2006).

extremely stringent standards, with the rape kit DNA evidence already subject to two thorough rounds of review.

Second, implementing expert systems that automate the technical review process would eliminate the need for human labor in this final review part of the process.[109] This would allow forensic scientists to focus on other components of the review procedure, accelerating the process.

A third proposal would be to implement random testing trials at a lower percentage than 100%. For example, public labs could randomly select 25% of kits submitted by a private lab to audit the quality of completed kits. A regressive scale could be implemented, such that the labs with accurate output could be audited at lower rates. For instance, a private lab with 99% accuracy could be required to have a public lab review only 10% of its output; meanwhile a lab with 95% accuracy would be subject to 50% technical review.

Ultimately, the QAS should hold private labs accountable for meeting quality standards, not the public labs that wish to contract with them. Appropriate penalties should be put in place if private labs fail to meet the FBI's quality standards. This would incentivize private lab compliance with the FBI's standards, rather than the current system of holding the public lab accountable for the private lab's work. It is a public lab's prerogative to hire a private lab, and they should not be responsible for the work that is completed by a private company.

None of these proposals would require additional funding, and in fact would make better use of the current resources in place. Regardless of the route chosen, it is clear that action must be taken to revise the currently onerous QAS. They are a large impediment to public-private partnerships, which are the key to clearing the rape kit backlog. Redundant review and auditing procedures are wasting time that is crucial to prosecuting assailants, especially in the many states that have statutes of limitations on rape cases. There are many options to replace the current 100% manual review requirement. Therefore, the requirement can be safely replaced by one or several of these proposals in order to improve the current standards in place.

IV. PROS AND CONS OF PUBLIC-PRIVATE PARTNERSHIPS IN THE DNA TESTING INDUSTRY

Utilizing private companies as part of a public-private partnership provides many benefits, including the ability to: stretch existing resources farther, meet demand through economies of scale, increase turnaround time, and most crucially, to prevent future rape kit backlogs

109. *Rape Kit Backlogs: Failing the Test of Providing Justice to Sexual Assault Survivors: Hearing Before the Subcomm. on Crime, Terrorism, and Homeland Security of the H. Comm. on the Judiciary*, 111th Cong. 26 (2010) (statement of the Honorable Adam H. Schiff, a Representative in Congress from the State of California).

from occurring. Additionally, recent public lab scandals have shed light on some of the underlying biases and drawbacks of using government labs that report directly to law enforcement agencies.[110] This in turn helps to demonstrate the inherent benefits of utilizing unaffiliated and objective private labs. On the other hand, there are potential pitfalls of introducing private labs into the criminal justice system. These include a risk of compromised forensic DNA testing quality, added costs of private lab technicians' testimony at trial, and increased potential for chain of custody issues. Overall, the potential advantages of public-private partnerships far outweigh any minimal disadvantages.

A. BENEFITS OF PUBLIC-PRIVATE PARTNERSHIPS

1. Use of Private Labs Can Maximize Existing Resources, Without Additional Spending

Public-private partnerships have a track record of minimizing the cost, increasing the turn-around time, and improving the quality of testing, all which could be achieved without an additional outlay of spending by the government in order to clear the rape kit backlog.[111] Private labs are subject to the same accreditation standards as public labs, analyze tens of thousands of DNA evidence year after year, and can perform all of this work at a lower cost and a higher quality than the public sector.[112]

Generally, private industry is a less expensive option than publicly provided services, and the same holds true in forensic testing analysis.[113] The cost of testing individual rape kits varies according to the particular jurisdiction, however the national average reportedly costs upward of $1000 per kit.[114] Private labs foster price competition, which in turn produces cost savings to taxpayers when used in the context of public labs that outsource DNA testing work to private labs.[115] These cost savings will only continue to increase as more and more jurisdictions enter into

110. Radley Balko, *Private Crime Labs Could Prevent Errors, Analyst Bias: Report*, HUFFINGTON POST (June 14, 2011, 5:49 PM), http://www.huffingtonpost.com/2011/06/14/the-case-for-private-crime-labs_n_876963.html.

111. Dr. Jeff Boschwitz, *Delivering Justice for Sexual Assault Victims*, INSIDE ALEC 22 (2011), https://www.alec.org/app/uploads/2011/02/InsideALEC_Feb2011_FINAL.pdf.

112. *Id.* at 23.

113. *Rape Kit Backlogs: Failing the Test of Providing Justice to Sexual Assault Survivors: Hearing Before the Subcomm. on Crime, Terrorism, and Homeland Security of the H. Comm. on the Judiciary*, 111th Cong. 82 (2010) (statement of Jeffrey S. Boschwitz, Ph.D.).

114. Nora Caplan-Bricker, *Rape Victims Are Still Being Charged for Rape Kits*, SLATE (Dec. 22, 2015, 12:36 PM), http://www.slate.com/articles/double_x/doublex/2015/12/rape_victims_are_still_being_charged_for_rape_kits.html.

115. ROGER KOPPL, REASON FOUND., CSI FOR REAL: HOW TO IMPROVE FORENSICS SCIENCE 27 (2007), http://reason.org/files/d834fab5860d5cf4b3949fecf86d3328.pdf.

contracts with competing private labs.[116] This is due to the fact that the fees for each lab would be renegotiated annually, so price competition within the firms would compel higher cost savings.[117] Currently, because private labs must compete for contracts based on cost and quality, they can be as much as 25% to 50% more cost-effective than public labs.[118] As an example, in an effort to clear Manhattan's backlog, the Manhattan District Attorney's Office established agreements with two private forensics labs at a cost of $675 per kit, much lower than the above-mentioned national average of $1000 per kit.[119]

In addition, the average turnaround times between public and private labs are markedly different. A fifty-state survey in 2010 asked public crime labs how long it took them to analyze rape kits and other sexual assault evidence.[120] The results of the survey found that it took an average of 152 days, or roughly 5 months, to analyze a rape kit.[121] Meanwhile, the industry standard turnaround time among private labs is between thirty and ninety days.[122] Comparing the public lab's average of five months to a private lab's average of one-to-three months means that a rape kit could be analyzed in about two-to-four months less than the time it would take using a public lab. This time savings equals up to four months less that a rapist could be free to commit crimes, preventing countless victims from the atrocities experienced by the original victim who produced the rape kit. These turnaround times make clear that contracting with private accredited labs ensures that analyses are finished expeditiously.

Further, quality improvements are likely to result based on the competition between private labs. This trend of increased quality within private labs is encouraged by three factors: the development of new technologies, incentives to maintain a reputation within the market, and customer demand.[123] First, private labs are more likely than public labs to invest in effective employee monitoring and the development of new

116. *Id.*

117. *Id.*

118. *Rape Kit Backlogs: Failing the Test of Providing Justice to Sexual Assault Survivors: Hearing Before the Subcomm. on Crime, Terrorism, and Homeland Security of the H. Comm. on the Judiciary*, 111th Cong. 78 (2010) (statement of Jeffrey S. Boschwitz).

119. Liz Fields, *The Government is Going to Spend $80 Million to Solve America's Rape Kit Crisis*, VICE NEWS (Dec. 30, 2015, 5:57 PM), https://news.vice.com/article/the-government-is-going-to-spend-80-million-to-solve-americas-rape-kit-crisis.

120. JEANNE HAYES, CONNECTICUT GENERAL ASSEMBLY, FORENSIC TESTING TURNAROUND TIMES IN 50 STATES (2010), https://www.cga.ct.gov/2010/rpt/2010-R-0086.htm.

121. SUSAN PRICE, CONNECTICUT GENERAL ASSEMBLY, RAPE KITS, TESTING BACKLOGS, AND MODEL STATUTES (2011), https://www.cga.ct.gov/2011/rpt/2011-R-0260.htm.

122. Jeff Boschwitz, Ph.D., *Eliminating the DNA Testing Backlog Through Cost-Effective Public-Private Partnerships*, Orchid Cellmark, slide 10 (2001), http://slideplayer.com/slide/4107022/.

123. KOPPL, *supra* note 115, at 27.

technologies to lower costs and enhance quality in order to increase their profit margin.[124] Second, private labs have a reputation in the market to maintain, and would suffer the risk of losing customers if perceived quality mishaps arose.[125] Third, demand for a high-quality product in a competitive market would necessitate a supply of a high-quality product, or again risk losing customers.[126] All of these factors indicate that private labs face competition to produce high-quality work, and are self-regulated by a competitive market. Private companies are thus better positioned to decrease cost and improve quality in order to maintain a competitive edge.

2. Private Labs Have the Ability to Meet Demand Through Economies of Scale

Large private labs have a key structural advantage compared to public labs: economies of scale—the ability to produce a product more cheaply with increased output of that product.[127] This enables private labs to more rapidly expand capacity when demand rises. Private labs are able to partition the testing process into separate components (akin to an assembly line process structure) so that technicians may be used in areas of the testing process that match their skill level.[128] For example, less experienced technicians can be placed in areas of the process where expertise is not required to achieve high quality, such as in accessioning or inventory.[129] By stratifying the labor force in the forensic analysis process, results can be outputted at a faster rate.

3. Public-Private Partnerships Allow for Capacity Flexibility That Can Prevent Rape Kit Backlogs from Occurring in the Future

The facilitation of cost-effective public-private partnerships will also help to ensure that something like the current backlog crisis never happens again. In a working public-private partnership, capacity constraints are removed because of the flexibility afforded by the relationship.[130] A public lab which partners with a private lab can choose to send work to the private lab, or to keep the work for itself if it is not currently operating at full capacity.[131] The public lab can handle all high-

124. KOPPL, *supra* note 115, at 27.

125. KOPPL, *supra* note 115, at 27.

126. KOPPL, *supra* note 115, at 27.

127. William P. McAndrew, *Is Privatization Inevitable for Forensic Science Laboratories?*, 3 FORENSIC SCI. POL'Y & MGMT.: INT'L J. 42, 44–45 (2012).

128. *Rape Kit Backlogs: Failing the Test of Providing Justice to Sexual Assault Survivors: Hearing Before the Subcomm. on Crime, Terrorism, and Homeland Security of the H. Comm. on the Judiciary*, 111th Cong. 84 (2010) (statement of Jeffrey S. Boschwitz).

129. *Id.*

130. *Id.*

131. *Id.*

profile cases and other cases that ideally should be handled by a local forensic testing facility, and outsource all other cases that exceed its capacity to private labs.[132] During times when there are lulls in rates of high-profile crime, the public lab can take back some of the work to fill its capacity.[133] In the converse situation, when there are unexpected surges in crime or other issues that cause productivity in the public lab to decline, private labs can be used to rapidly expand capacity on a temporary basis to deal with this fluctuation in demand.[134] This would avoid the need to invest in costly additional infrastructure.[135]

4. Recent Government Lab Scandals and the Pitfalls That Can Be Avoided Through Private Labs

Public labs are far from perfect, and private labs provide many inherent advantages to public labs that report directly to law enforcement agencies. A number of scandals have plagued state crime labs across the country, with investigations revealing sloppy analysis and error rates as high as 10%.[136] As such, public labs are by no means the gold standard to which private labs should be compared. As an illustration, a 2002 state audit of a public crime lab in Houston revealed that lab analysts there misinterpreted data, received poor training, and produced improper official records.[137] Soon after the wake of these revelations, the DNA unit was shut down.[138] Unfortunately, the Houston Crime Lab is but one of many public labs shown to have corrupted procedures and compromised work product.[139]

Private labs could prove to be preferable to public labs by preventing errors and avoiding analyst bias. A 2009 National Academy of Sciences report revealed that more than half the crime labs in the United States report directly to law enforcement agencies.[140] The report indicated that in some cases, this arrangement could lead to overt pressure from police

132. *Id.*

133. *Id.*

134. *Id.*

135. *Id.*

136. Balko, *supra* note 110. One of Detroit's former crime labs was abandoned for generating an error rate as high as 10%. Detroit does not stand alone, as many other jurisdictions have suffered public crime lab scandals, including: North Carolina, California, Virginia, Illinois, Maryland, West Virginia and Mississippi; the city crime labs in Houston, Cleveland, Chicago, Omaha, Oklahoma City, Washington and San Francisco; the county lab in Nassau County, New York; and the FBI and Army crime labs. Balko, *supra* note 110.

137. Adam Liptak & Ralph Blumenthal, *New Doubt Cast on Testing in Houston Police Crime Lab*, N.Y. TIMES (Aug. 5, 2004), http://www.nytimes.com/2004/08/05/us/new-doubt-cast-on-testing-in-houston-police-crime-lab.html?_r=0.

138. *Id.*

139. *See Crime Lab & Forensic Scandals*, NAT'L ASS'N OF CRIM. DEF. LAW. https://www.nacdl.org/criminaldefense.aspx?id=28286 (last visited Mar. 3, 2018).

140. Balko, *supra* note 110.

officers and prosecutors for the crime lab to produce results favorable to prosecution, thus creating nefarious incentives to produce skewed results.[141] However, the report showed that more often than not this bias was implicit, rather than explicit.[142]

In most public crime labs, there is no safeguard against this bias, as the public lab is the only lab to test crime scene evidence.[143] An economist at Fairleigh Dickinson University, Roger Koppl, argued that the best way to address this problem would be to introduce more private labs into the process of testing evidence used by the criminal justice system.[144] Koppl suggested that the introduction of private labs would break up the public lab monopoly and remedy the problems that arise when government analysts work repeatedly with the same law enforcement agencies.[145] The use of private labs provides the advantage of avoiding the undue influence that police may hold over public labs, because private labs have no geographical constraints and could serve multiple jurisdictions, including some at long distances.[146] Koppl noted that after news of the aforementioned Houston Crime Lab scandal broke, the Houston Police Department began outsourcing all of its DNA testing to private labs.[147] Koppl asserts that the use of competitive private labs removes the danger of potentially biased results, thereby achieving a more reliable work product.[148]

Thus, private labs are preferable to public labs in the biases and errors that they avoid. Private labs are critical to producing timely and objective results in order to address the demands of the rape kit backlog adequately.

B. CONCERNS ABOUT PUBLIC-PRIVATE PARTNERSHIPS IN THE CRIMINAL JUSTICE SYSTEM

Relevant concerns have been raised about calling on the FBI to revise its QAS standards in order to relax the requirements for outsourcing DNA testing to private labs. Ultimately none of these concerns, considered individually or as a group, pose sufficient justification to forgo the benefits that private labs offer.

141. Balko, *supra* note 110.
142. Balko, *supra* note 110.
143. Balko, *supra* note 110.
144. KOPPL, *supra* note 115, at 26–28.
145. KOPPL, *supra* note 115, at 26–28.
146. KOPPL, *supra* note 115, at 26–28.
147. KOPPL, *supra* note 115, at 5.
148. KOPPL, *supra* note 115, at 27.

1. The Worry That Forensic DNA Testing Quality Will Be Compromised by Lowering the QAS

One concern is that private labs might cut corners as a way to increase profit margins, thereby resulting in potentially flawed DNA profiles being uploaded to CODIS, which would in turn compromise the overall quality of the entire database.[149] While this is a valid concern, standard industry practices implemented by private labs seem to ameliorate this worry. Quality of DNA testing is measured primarily by the success rate of obtaining usable DNA profiles from crime scene evidence.[150] Large private labs measure success rates and continuously strive to improve these rates through research and development ("R&D") departments.[151] Meanwhile, public labs have no such R&D department and barely have the resources to work through their day-to-day caseload, let alone measure internal success rates and make continuous modifications to improve them.[152]

In addition, large private labs implement quality controls that often exceed minimum quality assurance standards in order to prevent errors.[153] Private labs also use sophisticated automated systems for which public labs rarely have the resources to acquire.[154] Some of these automated systems are used to prevent mistakenly generated profiles due to contaminated evidence from ever being entered into CODIS.[155] Since public labs do not have access to these advanced technological tools due to budget constraints, private labs are at an advantage when it comes to producing high quality DNA analysis.[156]

Thus, although the concern that eliminating Standard 17's 100% review requirement might sacrifice the quality of DNA reports is a valid one, the risk of a decline in quality seems remarkably low. Private labs already abide by quality control standards that exceed the minimum, and rely on advanced technology to continuously shrink their error margin. Large private labs' practice of measuring forensic DNA testing quality will continue to increase the quality of their work. Forensic DNA testing quality is of the utmost importance, and lowering the requirements set out in the QAS will not compromise the quality of the results.

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149. NATHAN JAMES, CONG. RESEARCH SERV., DNA TESTING IN CRIMINAL JUSTICE: BACKGROUND, CURRENT LAW, AND GRANTS 36 (2012).

150. Boschwitz, *supra* note 122, at slide 13.

151. Boschwitz, *supra* note 122, at slide 13.

152. Boschwitz, *supra* note 122, at slide 13.

153. Boschwitz, *supra* note 122, at slide 13.

154. Boschwitz, *supra* note 122, at slide 13.

155. Boschwitz, *supra* note 122, at slide 13.

156. Boschwitz, *supra* note 122, at slide 13.

2. Added Testimony Costs of Private Labs

Another concern with private labs is the added fee that is charged for providing testimony in court, in contrast with public labs which do not charge for providing testimony.[157] On average, at least one lab analyst testifies per trial in rape cases in which DNA evidence is presented.[158] This could be a potentially significant cost for local law enforcement agencies, especially after the Supreme Court's 2009 holding in *Melendez-Diaz v. Massachusetts*.[159] In *Melendez-Diaz*, the Court held that analyst reports are "testimonial" and therefore defendants have a Sixth Amendment right to cross-examine a lab scientist who conducts an analysis of forensic evidence used in the case against the defendant.[160] Furthermore, in *Bullcoming v. New Mexico*, the Court held that when the prosecution seeks to introduce forensic reports, the actual author of the report must take the stand, rather than a supervisor or other surrogate analyst.[161] *Bullcoming*, however, left open the question whether prosecutors can introduce an analyst's report through a testifying expert witness.[162]

In 2012, the Supreme Court answered this question in *Williams v. Illinois*, holding that prosecutors may introduce an analyst's report through an expert witness.[163] There, a state-employed lab scientist, who had no relationship to the contents of a DNA report produced by the private lab Cellmark, testified that there was a "match" between the defendant and a rape victim.[164] The Court held that the defendant's inability to question the creator of the DNA lab report did not violate his Sixth Amendment right to confront his accusers.[165] The Court reasoned that the report itself was not testimonial—it was the expert's testimony that was offered for the truth of the matter asserted in the lab report, and thus not hearsay.[166]

Therefore, prosecutors could choose to introduce public lab analysts to testify about the contents of a privately-prepared lab report. This would save the cost of paying the private lab technician who created the

157. *Rape Kit Backlogs: Failing the Test of Providing Justice to Sexual Assault Survivors: Hearing Before the Subcomm. on Crime, Terrorism, and Homeland Security of the H. Comm. on the Judiciary*, 111th Cong. 83 (2010) (statement of Jeffrey S. Boschwitz, Ph.D.).

158. RICHARD D. FRIEDMAN, POTENTIAL RESPONSES TO THE *MELENDEZ-DIAZ* LINE OF CASES 2–3, http://www-personal.umich.edu/~rdfrdman/md.potential.responses.pdf.

159. Melendez-Diaz v. Massachusetts, 557 U.S. 305 (2009).

160. *Id.* at 311 (*citing* Crawford v. Washington, 541 U.S. 36, 54 (2004)).

161. Bullcoming v. New Mexico, 564 U.S. 647, 652 (2011).

162. Jeffrey Fisher, *The Holdings and Implications of* Williams v. Illinois, SCOTUSBLOG (June 20, 2012, 2:20 PM), http://www.scotusblog.com/2012/06/the-holdings-and-implications-of-williams-v-illinois/.

163. Williams v. Illinois, 567 U.S. 50, 57–59, 132 S. Ct. 2221, 2228 (2012).

164. *Id.* at 60–61.

165. *Id.* at 75–80.

166. *Id.* at 75–80.

report to testify in court. However, there are pitfalls to this strategy in that the lab report itself would not be admitted for the truth of the matter asserted. The evidence in the prosecution's case might be stronger if the report were admitted for its truth, rather than an expert witness' testimony about the contents of the report. In any case, the cost of private lab testimony is low enough that it likely will not factor into the decisionmaking process of prosecutors, who must choose whom to call to the stand in order to introduce a DNA lab report in view of the *Williams* decision.

The actual additional cost of calling a private lab analyst to the stand is quite minimal. As Dr. Boschwitz notes, lab technicians at Cellmark were requested to testify in only about 2.5% of the cases they analyzed, even after the *Melendez-Diaz* decision.[167] Though this percentage appears to be incredibly low, it is logical when taking into consideration the drastic attrition of rape cases as they proceed through the criminal justice system. It is a sad truth that very few rape cases—even when a rape kit is analyzed—ever go to trial. This is partly because once a sexual assault case is charged, an estimated 77% of cases will be resolved through plea bargains, resulting in only 23% of cases going to trial.[168]

A startling statistic shows that out of every 1000 rapes, 994 assailants will walk free.[169] Of those 1000 rapes, it is approximated that only 310 assaults are ever reported to police, 57 reports will lead to arrest, 11 cases will get referred to a prosecutor, and 7 cases will lead to a felony conviction.[170] If, for the sake of argument, each of the 310 reported rapes resulted in a rape kit, and the eleven cases referred to a prosecutor led to a criminal trial without the defendant accepting a plea bargain, then that means 3.5% of tested rape kits would make their way into a courtroom where a lab analyst would be called to testify. This number is not far off from Cellmark's estimation of 2.5% of its lab analysts being called to testify. This does not mean that going through the motions of testing the kit are futile though, because the powerful evidence contained within a kit can make the difference in influencing a defendant to plead guilty during the plea-bargaining stage.

All this goes to show that Cellmark's estimated cost of providing testimony are likely reflective of the industry as a whole, and can be used to estimate the additional cost of testimony by private labs. Testimony costs by private labs do not add significantly to total public-private partnership costs. To illustrate the estimated additional

167. Boschwitz, *supra* note 122, at slide 12.

168. Sommers & Baskin, *supra* note 24, at 328.

169. *The Criminal Justice System: Statistics*, RAPE, ABUSE & INCEST NAT'L NETWORK (RAINN), https://www.rainn.org/statistics/criminal-justice-system (last visited Mar. 3, 2018).

170. *Id.*

cost of testimony by private labs, Cellmark's average contract fees and expenses to testify are typically around $2000 per day, so calculating 2.5% of this figure results in a weighted average of only about $50 per case for expert testimony.[171] Nonetheless, it is unknown whether Cellmark's experience of a low rate of requests for its lab analysts to testify reflects the request rates experienced by other private labs in the DNA testing industry.[172] Additionally, it is not known whether those trends might change in the future.[173]

3. Chain of Custody Issues

Yet another concern about outsourcing DNA samples to private labs is that it could cause unnecessary administrative burden because it introduces an additional layer into the chain of custody. Chain of custody refers to the paperwork trail of individuals who have had physical possession of evidence.[174] The chain of custody requires that from the moment the evidence is collected, every transfer of evidence from person to person be documented in the record.[175] For that reason, it is best to keep the number of transfers as low as possible, because there is less chance of contaminating the evidence and a shorter chain of custody for court admissibility hearings.[176]

However, breach of chain of custody is rarely a problem, according to Dr. Boschwitz of Cellmark.[177] He stated that Cellmark's Dallas facility has not had a single issue with chain of custody in several years covering tens of thousands of cases and hundreds of customers.[178] Likewise, the process of maintaining chain of custody is relatively straightforward. It usually involves the tagging of the evidence with the names of persons who had contact with the evidence, the date and time the evidence was handled, the circumstances for the evidence being handled, and what changes, if any, were made to the evidence.[179]

Therefore, the detractions of private labs to the process of analyzing DNA evidence are all relatively minor. Private companies are incentivized to produce a high-quality result, which refutes the claim that private labs might cut corners due to being profit-driven. Testimony costs

171. Boschwitz, *supra* note 122, at slide 12.

172. JAMES, *supra* note 149, at 35.

173. JAMES, *supra* note 149, at 35.

174. *DNA Evidence: Basics of Identifying, Gathering and Transporting*, NAT'L INST. OF JUST. (Aug. 9. 2012), https://www.nij.gov/topics/forensics/evidence/dna/basics/pages/identifying-to-transporting.aspx.

175. FED. R. EVID. 901 (Authenticating or Identifying Evidence).

176. *DNA Evidence: Basics of Identifying, Gathering and Transporting*, *supra* note 174.

177. Boschwitz, *supra* note 122, at slide 15.

178. Boschwitz, *supra* note 122, at slide 15.

179. Mike Byrd, *Proper Tagging and Labeling of Evidence for Later Identification*, CRIME SCENE INVESTIGATOR NETWORK, http://www.crime-scene-investigator.net/tagging.html (last visited Mar. 3, 2018).

by private lab analysts are negligible and do not add significant costs to the price of outsourcing to private labs. Lastly, chain of custody issues in the transfer of evidence from public to private labs is rarely experienced.

C. A CASE STUDY: MAKING A DENT IN THE LOS ANGELES RAPE KIT BACKLOG THROUGH THE USE OF PRIVATE LABS

A powerful illustration of the positive effect of public-private partnerships took place in Los Angeles. In 2009, a calculation of the rape kits sitting in storage for more than 30 days indicated that the city and county had a backlog of at least 12,669 rape kits.[180] This is considered to be the largest known rape kit backlog in the history of the United States.[181] Over 300 kits were found to be older than 10 years and, therefore, beyond the statute of limitations for a rape case.[182] In 2008, Los Angeles Police Department Detective Marta Miyakawa observed that "[i]f people in Los Angeles hear about this rape kit backlog, and it makes them not want to work with the police in reporting their rape, then this backlog of ours would be tragic."[183]

To make immediate progress in processing the rape kits, the city and county outsourced work to private labs that had the capacity to process these kits.[184] Thousands of kits later, in April 2011, Human Rights Watch reported that Los Angeles had eliminated its backlog.[185] Over 300 arrests were made as a result of the tested kits.[186] It is estimated that had the city and county relied solely on its public labs, accomplishing this feat would have taken years longer, if it was possible at all.[187]

V. PROPOSED GUIDELINES FOR SUCCESSFUL PUBLIC-PRIVATE PARTNERSHIPS IN THE DNA TESTING INDUSTRY

The following are proposed guidelines to ensure efficient, cost-effective, and successful long-term public-private partnerships in the DNA testing industry. First, formal agreements memorializing relationships between public labs and private labs should be encouraged in order to establish stable working environments. Agreed upon testing

180. TOFTE, *supra* note 22, at 4.

181. TOFTE, *supra* note 22, at 4.

182. TOFTE, *supra* note 22, at 10.

183. TOFTE, *supra* note 22, at 2.

184. Joel Rubin, *LAPD Closes Backlog of Untested Rape Kits*, L.A. TIMES (Apr. 28, 2011), http://articles.latimes.com/2011/apr/28/local/la-me-lapd-dna-20110427.

185. *The City of Los Angeles Eliminates Historical Rape Kit Backlog*, HUMAN RIGHTS WATCH (Apr. 29, 2011, 4:49 PM), https://www.hrw.org/news/2011/04/29/city-los-angeles-eliminates-historical-rape-kit-backlog.

186. *Update on the Rape Kit Backlog in Los Angeles*, END THE BACKLOG, http://www.endthebacklog.org/blog/update-rape-kit-backlog-los-angeles (last visited Mar. 3, 2018).

187. *Rape Kit Backlogs: Failing the Test of Providing Justice to Sexual Assault Survivors: Hearing Before the Subcomm. on Crime, Terrorism, and Homeland Security of the H. Comm. on the Judiciary*, 111th Cong. 30 (2010).

protocols can be drafted in a signed memorandum of understanding, which is a nonbinding agreement that is distinct from a legally enforceable contract.[188] A signed memorandum of understanding should be the first step in formalizing relationships between public and private labs.

Second, each public lab should attempt to submit work to the private labs with which it contracts on a regular weekly basis. Private labs can typically complete testing within thirty-to-ninety days when work is submitted regularly and volume does not fluctuate wildly from week to week.[189] Thus it is imperative that public labs aim to outsource DNA testing work on a frequent and regular basis, in order not to overwhelm and diminish the work productivity of private labs.

Third, the public and private labs should agree on turnaround time goals to be achieved by private labs. A recommended timeframe would be the aforementioned industry standard time of thirty to ninety days.[190] Memorializing a turnaround time goal will allow both the public and private lab to keep track of the status of rape kits, and determine when the processing time deviates from set standard times. Feedback measures will ensure uniformity in processing the DNA evidence.

Lastly, the public and private labs should create a formal system for tracking cases. Establishing a barcode tracking system that allows each kit to be scanned and tracked, starting from the moment it is booked into evidence until testing is complete, could help achieve efficient tracking. Within this system, cases should be prioritized by their complexity and whether they are "high profile" as determined by media coverage and community interest, so that the local public lab can retain the highest priority cases. This maximizes the benefit of being able to interact with local law enforcement assigned to the case. Meanwhile, cases that are lower profile and less complex should be outsourced to a private lab, in order to work through cases as efficiently as possible. Applying these standards will set clear, bright-line rules that will maximize the respective advantages of both public and private labs.

The aim of implementing model guidelines is to make the processing of rape kits uniform nationwide. Standardized policies of public-private partnerships should prevent jurisdictions from falling behind others in their efforts to clear the backlog. This will allow all rape victims to seek justice in a timely manner, no matter their location in the United States—be it a severely impacted region with many rape kits in the queue, or a lesser-impacted region.

188. *Memorandum of Understanding—MOU*, INVESTOPEDIA, http://www.investopedia.com/terms/m/mou.asp (last visited Mar. 3, 2018).

189. Boschwitz, *supra* note 122, at slide 10.

190. Boschwitz, *supra* note 122, at slide 10.

CONCLUSION

The rape kit backlog is a heartbreaking crisis, considering that behind every untested kit, a victim anxiously awaits the opportunity to bring his or her perpetrator to justice. The backlog problem, rampant in the American criminal justice system, postpones this quest for justice by months, years, or even decades. Delays in evidence testing can lead to additional victimization when serial offenders are not apprehended for their crimes. Private labs are currently an underutilized yet cost-effective resource to supplement the inadequate resources found at public labs. Utilizing public-private partnerships will increase the speed with which DNA evidence is tested and profiles uploaded into CODIS, which in turn will bring justice more expeditiously to rape survivors and prevent needless assaults from occurring. As well, greater use of private labs will lower the average cost of DNA testing, thus protecting taxpayer dollars. Through the enactment of policy changes to Standard 17 of the FBI's regulations, and the creation of guidelines in order to facilitate public-private partnerships, major strides will be made to clear the backlog by leveraging the power of private industry.