Committee on Justice System
Maxwell Kampfner-Williams, Counsel
Kieshorne Dennie, Policy Analyst
Monica Pepple, Finance Analyst

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Briefing Paper of the Justice Division
Jeffrey Baker, Legislative Director
Brian Crow, Deputy Director

COMMITTEE ON THE JUSTICE SYSTEM
Hon. Rory Lancman, Chair

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Oversight

Technology Gap between District Attorneys and Public Defenders

I. Introduction

On January 29, 2020, the Committee on Justice System, chaired by Council Member Rory Lancman, will hold a hearing to examine the "technology gap" between district attorney offices and public defender offices in New York City as highlighted in a recent *New York Times* article.[1] The article indicated public defenders are at a severe disadvantage accessing forensic evidence as a result of not having the means to afford sophisticated technological devices and software. Those expected to testify include representative from the Mayor's Office of Criminal Justice, district attorneys, public defenders, advocacy groups, and the public.

II. An Overview of Technology in the Criminal Legal System

Technology has drastically changed the way in which district attorney and public defender offices work. As more criminal cases involve digital evidence, district attorney offices are increasingly using technological tools to investigate and prosecute criminal cases. Likewise, public defender offices are using technology more often to access critical information and evidence, which are otherwise inaccessible in many instances, to enhance the quality of representation these offices provide to indigent defendants. A survey of public defender offices across the United States (U.S.) conducted by the Bureau of Justice Assistance (BJA), an agency within the U.S. Department of Justice, found that public defenders overwhelmingly felt that technology has improved the quality of representation their office provides to their clients.[2]

The growing role of technology in the criminal legal system is most evident in the investigation and prosecution of criminal cases. For example, district attorney's offices are able to

[1] "Imagine Being on Trial. With Exonerating Evidence Trapped on Your Phone" New York Times, November 22, 2019, *available at* https://www.nytimes.com/2019/11/22/business/law-enforcement-public-defender-technology-gap.html

[2] Robert L. Spangenberg et al., Indigent Defense and Technology: A Progress Report, *Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice*, November 1999, p. 2, available at https://www.ncjrs.gov/pdffiles1/bja/179003.pdf

access and use DNA technology and fingerprints stored in databases to prove a crime has been committed, or establish key elements of a crime or identity of persons accused of a crime.[3] These offices are also increasingly accessing and using forensic devices and software, including Touch2 and Cloud Analyzer, to collect and interpret digital evidence derived from digital sources, such as cell phones and tablets, to prosecute criminal defendants.[4] Similarly, public defender offices are using forensic tools to mine for information and data on digital devices to understand the strength and weakness of their cases and decide whether to negotiate pleas, as well as put on a vigorous defense where there is evidence to support their clients' claim of innocence.[5]

To be sure, technology is improving the investigation and prosecution of criminal cases and client representation in the criminal legal system. This is most evident in the management of case-related information. For example, the development in multimedia technology has led to the creation of case management systems, which allows attorneys – both prosecutors and defenders – to retrieve case-related documents and items of evidence from a single virtual file.[6] Such systems stores video- and audiotapes, photographs, and documents – and organizes the information in the same way attorneys might organize a case file in banker's boxes.[7] This system is especially helpful to attorneys prosecuting first-degree murder or death penalty cases as these cases generally involve an overwhelming amount of evidence and case information in various formats.[8]

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[3] Tom McEwen, The Role and Impact of Forensic Evidence in the Criminal Justice System, *National Institute of Justice*, December 13, 2010, p. 3-4, available at https://www.ncjrs.gov/pdffiles1/nij/grants/236474.pdf

[4] "Imagine Being on Trial. With Exonerating Evidence Trapped on Your Phone" New York Times, November 22, 2019, *available at* https://www.nytimes.com/2019/11/22/business/law-enforcement-public-defender-technology-gap.html

[5] *Id.*

[6] Robert L. Spangenberg et al., Indigent Defense and Technology: A Progress Report, *Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice*, November 1999, p. 5, available at https://www.ncjrs.gov/pdffiles1/bja/179003.pdf

[7] *Id.*

[8] *Id.*

However, limited resources and technological expertise put the acquisition of sophisticated technology out of reach for many public defender offices, which affect the quality representation these offices are able to provide indigent criminal defendants. Public defender offices frequently "face difficult decisions about how to use limited budget resources, often placing human and technological resources needs in competition."[9] In the BJA survey, public defender's offices reported allocating merely 2.7 percent of their total budget to technology.[10] The survey also found wide disparities among public defender's offices in regards to their ability to secure general funding appropriations or alternative funding sources to acquire new technology and train staff.[11]

Without technology and technological expertise in today's criminal legal system where nearly every criminal case relies on digital evidence, public defender's offices are at disadvantage in providing quality representation to those accused of crimes. The lack of quality representation can lead to unnecessary pretrial detention, which negatively affects individuals awaiting trial as these people are likely to lose their employment, financial stability, and residence.[12] Studies show that pre-trial detention increases an individual's chances of conviction and recidivating and receiving excessive prison sentences.[13] Moreover, the lack of quality representation increases the chances that indigent criminal defendants will take a guilty plea instead of going trial to prove their innocence.[14] Similarly, it can also lead to wrongful convictions, which ironically has grown in

[9] *Id.* at 15
[10] *Id.* at 19
[11] *Id.* at 7
[12] System Overload: The Cost of Under-Resourcing Public Defense, *Justice Policy Institute*, July 2011, p. 19, available at http://www.justicepolicy.org/uploads/justicepolicy/documents/system_overload_final.pdf
[13] The Consequences of Pretrial Detention, *The Crime Report*, November 22, 2013, available at https://thecrimereport.org/2013/11/22/2013-11-the-consequences-of-pretrial-detention/
[14] System Overload: The Cost of Under-Resourcing Public Defense, *Justice Policy Institute*, July 2011, p. 19, available at http://www.justicepolicy.org/uploads/justicepolicy/documents/system_overload_final.pdf

large part due to advancement in technology, such as DNA forensics,[15] underscoring the importance of technology in criminal cases.

III. The Forensic Technology Gap Between District Attorneys & Public Defenders in New York City

Forensic technology emerged in response to increase in computer crimes.[16] It can be traced back to 1984 where law enforcement agencies, including the FBI, began developing programs to examine computer evidence.[17] Since then, forensic technology has improved the investigation and prosecution of criminal cases, especially computer-related crimes and those involving digital evidence.[18] As cellphones and social media become more sophisticated and omnipresent, they are playing a major role in more and more criminal cases. However, the New York State Defenders Association executive director Susan Bryant says that most public defenders "are just not capable of purchasing the [necessary] software or hiring experts. It puts clients at a disadvantage when they are facing loss of liberty and criminal charges."[19]

The indigent defense providers' contracts, managed by the Mayor's Office of Criminal Justice (MOCJ), include payments to experts and investigators. The general cost for an "expert" is factored into the contracts on a per case basis, but the actual amount is not a specific line item in the budget or the contract. While there is an average cost for an expert, it is assumed that an expert would not be called or used in every case, but rather an expert may be called for one in

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[15] *Id.*, at 21
[16] Ankit Agarwal et al, Systematic Digital Forensic Investigation Model, *International Journal of Computer Science and Security*, Vol 5: Issue 1: 2011, p. 118, available at https://www.researchgate.net/publication/228410430_Systematic_Digital_Forensic_Investigation_Model
[17] *Id.*
[18] *Id.*
[19] "Still Scarce, Digital Forensics Crawls Into Public Defenders' Offices," December 4, 2019, *available at:* https://www.law.com/legaltechnews/2019/12/04/still-scarce-digital-forensics-crawls-into-public-defenders-offices/?slreturn=20200023164044

every ten cases, and some cases may require more intensive expert services than others. Additionally, the actual technology and Other Than Personal Services (OTPS) costs required to perform these services is not spelled out in the contracts. This technology includes software like Cellebrite, Touch2, Cloud Analyzer, and Magnet Forensics that cost anywhere from $10,000 to $25,000 upon initial purchase and licensing, along with annual maintenance fees of up to $3,000.

As this committee has addressed in the past, this leaves for tough decisions to be made by the indigent defense providers in how to allocate funding and manage costs. Whereas the District Attorney's Offices and Corporation Counsel have access to the New York City Police Department, the Office of the Chief Medical Examiner, or New York Health and Hospitals to investigate their cases, provide DNA testing, or serve as medical experts on their various cases, the indigent defense providers do not. In addition to lacking comparable specialized investigatory funds associated with their cases, the indigent defense providers also have to provide employee health insurance, rent, and other costs from their budget, leaving them to decide between staff needs and access to the expert services associated with sufficiently representing their clients in court.

The Indigent Defense Providers received capital funding in the 2020 Adopted Capital Commitment Plan and, as shown in the table below, received $9.5 million in the Fiscal 2020 November Plan to support needs related to the State's recent Discovery reform laws that took effect in January, 2020. Several indigent defense providers requested the aforementioned technology needs into their Capital requests to the Mayor's Office of Management and Budget, however, the breakdown by provider and what was allocated specific to these particular needs is unclear at the time of the writing of this committee report.

Agency	*FY20*	*HC*	*FY21*	*HC*
District Attorneys	$35,856,000	729	$35,387,000	729
NYPD	$24,731,030	250	$20,696,460	250
Law Department	$328,438	8	$487,488	8
FDNY	$537,945	9	$856,780	10
DOHMH	$3,519,693	27	$2,897,224	27
MOCJ Contracts*	$786,000**	0	$786,000**	0
Public Defenders*	$9,518,000	0	$9,375,000	0
TOTAL	**$75,277,106**	**1,023**	**$70,485,952**	**1,024**

*Contracted headcount is not reflected in the Financial Plan.
**Supports MOCJ's contract with Criminal Justice Agency (CJA)

Most recently, in Fiscal 2019, the City Council awarded $1.68 million to the Queens County District Attorney's Office to supplement its OTPS budget for large projects. The Office used this funding to purchase Voice over Internet Protocol (VoIP) equipment for a total of $1.3 million and used the remaining $300,000 to purchase new computers for a newly acquired office space.

The city has also funded specific infrastructure upgrades on both sides, but to very different degrees. In Fiscal 2013, the City Council awarded $4.2 million in discretionary capital funding to support the Manhattan DA (DANY) in the creation of its own forensics lab related to its cybercrime and identify theft bureau. The $10 million project was completed in 2016, with the remainder of the cost coming from the Office's asset forfeiture proceeds.[20] While DANY had previously been reliant on NYPD to conduct most of their tests, the creation of the lab allowed them to swab DNA from electronics for the first time. The need for this work was twofold – the first is sheer quantity; the office estimates that now around 25% of their cases now involve data stored on devices, like cellphones, or other digital evidence. The second is what juries expect, which goes further than the

[20] "Inside America's Newest Digital Crime Lab," *Fortune* November 15, 2016, *available at:* https://fortune.com/longform/vance-crime-lab/

call records that DAs used to rely on, and instead focusing on more demonstrative evidence, like voicemails, text messages, and photos. DANY's lab has 14 full-time ADAs, 12 former NYPD detectives, and 75 investigators.

Also in Fiscal 2013, the City Council awarded the Legal Aid Society (LAS) $386,682 for technology related projects. That same year LAS created a digital forensics unit with $100,000 worth of equipment,[21] which currently employs four attorneys, three analysts and three examiners.[22] The unit focuses on extracting and interpreting data from mobile devices, computers, and social media accounts, as well as cell-site location data and surveillance footage. In addition, there is a focus on broader civil liberties issues, including the unregulated use of cell-site simulators (known as Stringrays), facial recognition technology, and GPS tracking. These labs are located in Manhattan and most recently, the Bronx.

Even with that infrastructure, LAS will struggle to use the same level of resources for each case that DANY can. The office represents hundreds of thousands of defendants a year, but the digital forensics unit only has a staff of 10. "The issue is not only having the technology, but having the expertise in order to use it appropriately, and a lot of offices don't have funding to either obtain in-house expertise of find experts in the field that can work with them," says Ernie Lewis, the executive director for National Association for Public Defense.[23] However, even with that caveat, LAS' lab it is an important first step - none of the other public defender offices in the city have something similar.

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[21] "Imagine Being on Trial. With Exonerating Evidence Trapped on Your Phone" New York Times, November 22, 2019, *available at* https://www.nytimes.com/2019/11/22/business/law-enforcement-public-defender-technology-gap.html

[22] Digital Forensics Unit, Legal Aid Society, *available at:* https://www.legalaidnyc.org/programs-projects-units/digital-forensics-unit/

[23] "Still Scarce, Digital Forensics Crawls Into Public Defenders' Offices," December 4, 2019, *available at:* https://www.law.com/legaltechnews/2019/12/04/still-scarce-digital-forensics-crawls-into-public-defenders-offices/?slreturn=20200023164044

Even though LAS spent only 1% of what DANY did for their lab, the dramatic difference in size of DANY and LAS's lab in fact underplays the differences between the prosecution and indigent defense in the city. This is in part because of the amount of digital evidence that ADAs receive from other sources. The primary source is of course the NYPD, which investigate cases prior to prosecutors getting involved. For Fiscal 2020, the NYPD's Forensic Investigative Division personal services budget is $54,594,297 with 633 budgeted positions (330 uniform and 303 civilian). But while ADAs can take that information as-is and use it in their prosecutions, the defense has to counter that evidence, which requires even more resources.

The same is true when it comes to social media accounts. Major companies, like Facebook and Instagram, routinely comply with law enforcement subpoenas, but not subpoenas from defense organizations.[24] Facebook refuses to comply even when ordered to by states courts to disclose the information, citing the federal stored electronic communications act. As a result, criminal defense attorneys can only obtain this information from users themselves, requiring significant investigatory resources.

Private digital forensic companies show a similar bias against the defense. Even when indigent defense organizations can afford software, some companies refuse to sell it them. One public defender was told by Grayshift, a company that allows users to extract data from encrypted phones, that the company was "tightly controlling the sales and distribution to local, state and federal government law enforcement end-users only."[25] Without access to NYPD laboratories, or

[24] "Why Evidence Exonerating the Wrongly Accused Can Stay Locked Up on Instagram," *The Washington Post*, September 10, 2019, *available at:* https://www.washingtonpost.com/opinions/2019/09/10/why-evidence-exonerating-wrongly-accused-can-stay-locked-up-instagram/?arc404=true&noredirect=on

[25] "Imagine Being on Trial. With Exonerating Evidence Trapped on Your Phone" New York Times, November 22, 2019, *available at* https://www.nytimes.com/2019/11/22/business/law-enforcement-public-defender-technology-gap.html

the ability to buy the software themselves, that means defense attorneys are unable to adequately combat the evidence coming in against their clients.

This is all assuming that the defender even knows what technology is being used. In February of 2016, the NYPD confirmed, in response to a Freedom of Information Law (FOIL)[26] request, that it owns and uses Stingrays, a type of cell-site simulator that can be used to track the location, identifying information, and content of nearby cell phones.[27] Specifically these cell-site simulators are devices that mimic a cell tower, and allow the police to pinpoint a person's location and, in some configurations, collect the phone numbers that a person has been texting and calling and intercept the contents of communications.[28] According to the FOIL disclosure, the NYPD stated that it used Stingrays 1,016 times between 2008 and May 2015.[29]

However, the general public, including defense counsel, didn't know that stingrays were being used; it took a litigious hacker in California to even uncover that law enforcement was using the technology.[30] While this isn't necessarily technology directly used or owned by District Attorneys, the technology used by their law enforcement partners are intrinsically part of their prosecutions. DAs can unblinkingly use information brought to them by NYPD, while it's the role of defense attorneys to combat it in court. Without even knowing that the technology exists, let alone having the equipment and staff to analyze it, that adversarial process is near impossible.

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[26] Public Officers Law §87 et.seq.
[27] "NYPD Has Used Stingrays More Than 1,000 Times Since 2008" *available at* https://www.nyclu.org/en/press-releases/nypd-has-used-stingrays-more-1000-times-2008
[28] *Id.*
[29] *Id.*
[30] "How A Hacker Proved Cops Used A Secret Government Phone Tracker to Find Him," *Politico,* June 3, 2018, *available at:* https://www.politico.com/magazine/story/2018/06/03/cyrus-farivar-book-excerpt-stingray-218588?

IV. Issues and Concerns

At today's hearing, the Committee is primarily interested in finding out the ways in which the gap in technology manifest in criminal cases. The Committee is also interested in how much each office – district attorney and public defender – allocate in their budget for technology acquisition and maintenance. Additionally, the Committee would like to learn what the City can potentially do to level the playing field.