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GOVERNMENT RETENTION AND USE OF UNLAWFULLY SECURED DNA EVIDENCE

Wayne A. Logan*

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I. Introduction

During the oral argument in Maryland v. King, the recent U.S. Supreme Court decision allowing the police to secure DNA samples from arrestees without a search warrant, Justice Alito was being only slightly hyperbolic when he referred to King as "perhaps the most important criminal procedure case that this Court has heard in decades." When decided several months later, the five-member majority opinion issued by the Court did not disappoint, stating in categorical terms that "[w]hen officers make an arrest supported by probable cause to hold for a serious offense[,] . . . taking and analyzing a cheek swab of the arrestee's DNA is, like fingerprinting and photographing, a legitimate police booking procedure that is reasonable under the Fourth Amendment." DNA, Justice Kennedy wrote for the majority, was simply a more accurate method of identifying individuals and accessing their criminal history, needed to make informed decisions on bail

^{*} Gary & Sallyn Pajcic Professor of Law, Florida State University College of Law. Thanks to Professor Arnold Loewy and members of the *Texas Tech Law Review* for organizing and inviting me to participate in the 2015 Criminal Law Symposium: The Fourth Amendment in the 21st Century, and to Christina Colbert (J.D. 2016) for her research assistance.

^{1.} Transcript of Oral Argument at 35, Maryland v. King, 133 S. Ct. 1958 (2013) (No. 12-207), 2013 WL 1842092. On the increasingly central role of DNA in law enforcement more generally, see JOHN M. BUTLER, FORENSIC DNA TYPING: BIOLOGY, TECHNOLOGY, AND GENETICS OF STR MARKERS (2d ed. 2005) and DNA Evidence Basics, NAT'L INST. JUST. (Aug. 9, 2012), http://nij.gov/topics/forensics/evidence/dna/basics/Pages/welcome.aspx.

^{2.} King, 133 S. Ct. at 1980; see also id. at 1968 ("Although [DNA collection] statutes vary in their particulars, such as what charges require a DNA sample, their similarity means that this case implicates more than the specific Maryland law. At issue is a standard, expanding technology already in widespread use throughout the Nation.").

^{3.} See id. at 1972 ("[T]he only difference between DNA analysis and the accepted use of fingerprint databases is the unparalleled accuracy DNA provides.... DNA is another metric of identification used to connect the arrestee with his or her public persona, as reflected in records of his or her actions that are

and other pretrial matters.⁴ While the buccal swab of King's cheek to secure DNA was admittedly a search subject to the Fourth Amendment, it was a reasonable one given its "minimal" intrusiveness and the "significant government interest at stake in the identification of arrestees."⁵

The majority's opinion prompted a spirited dissent from Justice Scalia, who was joined by Justices Ginsburg, Kagan, and Sotomayor.⁶ In Justice Scalia's estimate, the majority's effort to characterize the collection and analysis of DNA as simply a personal identification method "taxe[d] the credulity of the credulous." In support, he noted that Maryland authorities knew King's identity at the time of his arrest and that the real utility of the DNA sample taken from him came almost four months later when laboratory results tied him to a prior unsolved sexual assault.8 Further indicative of the state's forensic investigative (as opposed to identity verification) purpose lay in the fact that King's sample was submitted to a database containing DNA collected from crime scenes and that Maryland's enabling law itself emphasized the investigative value of collecting and analyzing DNA.9 Justice Scalia concluded by noting that the majority failed to articulate any limiting principle that would not also allow DNA to be extracted from persons arrested for non-serious offenses, ¹⁰ permitting the eventual creation of a "genetic panopticon." 11

Although King has already prompted a substantial body of critical commentary, 12 to date, an important outgrowth of the decision has eluded

available to the police. . . . [DNA] uses a different form of identification than a name or fingerprint, but its function is the same.").

- 4. Id. at 1980.
- 5. Id. at 1977-79.
- 6. Id. at 1980 (Scalia, J., dissenting).
- 7. *Id*.
- 8. Id. at 1984.
- 9. Id. at 1982-86. Putting a finer point on the issue, Justice Scalia observed: If identifying someone means finding out what unsolved crimes he has committed, then identification is indistinguishable from the ordinary law-enforcement aims that have never been thought to justify a suspicionless search. Searching every lawfully stopped car, for example, might turn up information about unsolved crimes the driver had committed, but no one would say that such a search was aimed at "identifying" him, and no court would hold such a search lawful.

Id. at 1983.

- 10. Id. at 1989. Indeed, such expansion seemed what Justice Kennedy had in mind when he noted that "[i]t is a common occurrence that '[p]eople detained for minor offenses can turn out to be the most devious and dangerous criminals," citing examples such as the traffic stop of Timothy McVeigh after the Oklahoma City bombing. Id. at 1971 (majority opinion) (alteration in original) (quoting Florence v. Bd. of Chosen Freeholders, 132 S. Ct. 1510, 1520 (2012)); see also Haskell v. Harris, 745 F.3d 1269, 1273 (9th Cir. 2014) (en banc) (Smith, J., concurring) ("[T]he Court's reasoning in King is not dependent on the seriousness of the crimes involved.").
 - 11. King, 133 S. Ct. at 1989 (Scalia, J., dissenting).
- 12. See, e.g., Elizabeth E. Joh, Maryland v. King: Policing and Genetic Privacy, 11 OHIO ST. J. CRIM. L. 281, 282 (2013); David H. Kaye, Why So Contrived? Fourth Amendment Balancing, Per Se Rules, and DNA Databases After Maryland v. King, 104 J. CRIM. L. & CRIMINOLOGY 535 (2014); Tracey Maclin, Maryland v. King: Terry v. Ohio Redux, 2013 SUP. CT. REV. 359, 362 (2014); Erin Murphy,

attention: whether the government can retain and use DNA secured from an unlawfully arrested individual. In *King*, the defendant's lawful arrest for assault justified the taking of his DNA sample.¹³ What if, however, an individual is unlawfully arrested yet a sample is taken pursuant to a "routine booking procedure" such as in *King*?¹⁴

In his dissent, Justice Scalia surmised that "[a]s an entirely predictable consequence of [the majority's] decision, your DNA can be taken and entered into a national DNA database if you are ever arrested, rightly or wrongly, and for whatever reason." As it turns out, under current exclusionary rule doctrine, there is considerable truth to Justice Scalia's assessment. In a line of cases stretching back several decades, courts have permitted police to retain and use for investigative purposes photos and fingerprints secured through unlawful arrests. Suppression is required only if the arrestee proves that the sole or primary purpose of the illegal arrest was to secure the prints, photos, or both—a finding usually undercut when the evidence is acquired pursuant to a routine booking procedure.

Against this backdrop, the *King* majority's willingness to uncritically couple DNA sampling with fingerprints and photos assumes added importance. Should the coupling oblige an equally uncritical application of exclusionary rule doctrine vis-à-vis unlawfully secured DNA?¹⁹ This Article answers this question in the negative and makes the case for legislative action to limit the government's ability to retain and use unlawfully secured DNA.²⁰

II. CASELAW

The doctrinal starting point is *Davis v. Mississippi*,²¹ a case with facts that have long served as a benchmark for the kind of impermissible police behavior sufficient to warrant exclusion of identification evidence. In *Davis*, the police, acting on information from a sexual assault victim that her assailant was a "Negro youth," rounded up at least two dozen black youths,

License, Registration, Cheek Swab: DNA Testing and the Divided Court, 127 HARV. L. REV. 161, 161 (2013); Andrea Roth, Maryland v. King and the Wonderful, Horrible DNA Revolution in Law Enforcement, 11 OHIO ST. J. CRIM. L. 295, 296 (2013).

^{13.} King v. State, 42 A.3d 549, 552 n.2 (Md. 2012), rev'd, 133 S. Ct. 1958 (2013). This was so even though King was arrested and charged with first-degree assault, an offense expressly subject to DNA collection under Maryland law, yet the charge was subsequently dismissed and King pled guilty to misdemeanor second-degree assault, a non-enumerated offense. *Id.*

^{14.} King, 133 S. Ct. at 1965.

^{15.} Id. at 1989 (Scalia, J., dissenting).

^{16.} See infra Part II.

^{17.} See infra Part II.

^{18.} See infra notes 35-43 and accompanying text.

^{19.} See infra Part III.

^{20.} See infra Part IV.

^{21. 394} U.S. 721 (1969).

who were fingerprinted, briefly questioned, and released.²² Several days later, one of the young men, petitioner Davis, was arrested without probable cause and again fingerprinted, which resulted in a match of prints found at the sexual assault scene.²³ With the State of Mississippi conceding that no probable cause existed to justify Davis's detention on either occasion, the Court suppressed the fingerprint evidence because the police had the "sole purpose of obtaining fingerprints."²⁴

Almost fifteen years later, in *Hayes v. Florida*,²⁵ the Court again addressed whether an unlawful arrest executed by police to secure fingerprints should trigger the exclusionary rule. In *Hayes*, an individual was arrested without probable cause and taken to the police station to secure fingerprints, which linked him to an unsolved burglary.²⁶ Applying *Davis*, the Court unanimously concluded that the fingerprints be suppressed because the defendant was unlawfully arrested for "investigative purposes."²⁷

In *Davis* and *Hayes*, the evidence secured was used in connection with the offense for which the individual was unlawfully arrested. Courts, however, over time have also been asked to address whether fingerprints or photos secured as the result of an unlawful arrest can be used to tie an arrestee to an unrelated crime, which occurred before or after the evidence was secured, perhaps by another police department.²⁸ In 1972, in *People v. McInnis*,²⁹ the California Supreme Court issued the seminal decision on the question.

In *McInnis*, Los Angeles police officers unlawfully arrested an individual for possessing a pistol and photographed the arrestee at booking.³⁰ One month later, police in nearby Pasadena showed the photo to a robbery victim who identified McInnis as the perpetrator.³¹

The *McInnis* court allowed use of the photo because "the illegal arrest was in no way related to the crime with which defendant was ultimately charged"; it was "pure happenstance" that the photo secured by Los Angeles police was later used by Pasadena police to solve an unrelated crime.³² Securing a photo during booking was "standard police procedure, bearing no

^{22.} Id. at 722.

^{23.} Id. at 723.

^{24.} Id. at 727.

^{25. 470} U.S. 811 (1985).

^{26.} Id. at 812-13.

^{27.} Id. at 815.

^{28.} See WAYNE R. LAFAVE ET AL., CRIMINAL PROCEDURE § 9.4(d), at 517 (3d ed. 2000) ("Davis must be distinguished from a case where the prints were taken as a matter of routine following an arrest which was illegal but not made for the express purpose of having the prints on file for later use, and then were used on a later occasion to connect the defendant with some crime totally unrelated to the reasons underlying the illegal arrest.").

^{29. 494} P.2d 690 (Cal. 1972) (en banc).

^{30.} Id. at 691.

^{31.} Id.

^{32.} Id. at 692.

relationship to the purpose or validity of the arrest or detention."³³ Furthermore, "To hold that all such pictures resulting from illegal arrests are inadmissible forever... would allow the criminal immunity because another constable in another jurisdiction in another case had blundered. It would in effect be giving a crime insurance policy in perpetuity to all persons once illegally arrested..."³⁴

State and federal lower courts reviewing claims in both contexts have been notably reluctant to suppress photos and fingerprints. Fortunately, round-ups of individuals like those condemned in *Davis* are rare.³⁵ Faced with less outlandish facts, courts refuse to suppress photos or fingerprints simply because an arrest was unlawful,³⁶ even when there is "clearly less than probable cause to arrest."³⁷ They do so by readily finding bases to conclude that an arrest is not "solely" or "primarily" motivated to secure evidence,³⁸ deeming it significant that prints or photos were secured pursuant to a "routine" booking or administrative procedures.³⁹

At the same time, in the *McInnis* context, as Professor LaFave has observed, courts have not been "vigilant" in policing the police when it comes to populating "mug books." To date, it appears that there has only been a single instance in which a court suppressed identity evidence secured

^{33.} Id. (citation omitted).

^{34.} Id. at 693; see also United States v. Cella, 568 F.2d 1266, 1285-86 (9th Cir. 1978) ("[T]o grant life-long immunity from investigation and prosecution simply because a violation of the Fourth Amendment first indicated to the police that a man was not the law-abiding citizen he purported to be would stretch the exclusionary rule beyond tolerable bounds." (quoting United States v. Friedland, 441 F.2d 855, 861 (2d Cir. 1971)).

^{35.} See Davis v. Mississippi, 394 U.S. 721, 722 (1969).

^{36.} See, e.g., State v. Price, 558 P.2d 701, 706 (Ariz. Ct. App. 1976); People v. Thierry, 75 Cal. Rptr. 2d 141 (Cal. Ct. App. 1998); Paulson v. State, 257 So. 2d 303, 305 (Fla. Dist. Ct. App. 1972); Miller v. State, 824 A.2d 1017, 1025 (Md. Ct. Spec. App. 2003); Gibson v. State, 771 A.2d 536 (Md. Ct. Spec. App. 2001); State v. Tyrrell, 453 N.W.2d 104, 110 (Neb. 1990).

^{37.} People v. Shaver, 396 N.E.2d 643, 647 (Ill. App. Ct. 1979). Several years earlier, the same court held that a photo secured as the result of an illegal arrest must be suppressed only if the arrest was "based on such a lack of probable cause as to force the conclusion that it was made solely to acquire data regarding the defendant. . . . [T]he illegal arrest [must be] prompted by a desire for records only." People v. Pettis, 298 N.E.2d 372, 376 (Ill. Ct. App. 1973).

^{38.} See, e.g., Thierry, 75 Cal. Rptr. 2d at 146 ("Only when law enforcement officers make illegal arrests for the primary purpose of obtaining photographs . . . is there a constitutional justification to bar use of those photographs in identifying the perpetrators of crimes."); People v. Price, 394 N.E.2d 1256, 1264 (Ill. App. Ct. 1979) ("It is a well established rule that if the unlawful arrest was purely for investigative purposes, solely to acquire general data regarding defendant, the evidence should be suppressed."); State v. Hacker, 627 P.2d 11, 17 (Or. Ct. App. 1981) ("If an unlawful arrest was purely for investigative purposes, solely to acquire identification evidence regarding defendant, the evidence should be suppressed.").

^{39.} See, e.g., United States v. Beckwith, 22 F. Supp. 2d 1270, 1293–94 (D. Utah 1998); S.E.G. v. State, 645 So. 2d 347, 349 (Ala. Crim. App. 1994); People v. McInnis, 494 P.2d 690, 692 (Cal. 1972) (en banc); Robinson v. State, 452 A.2d 1291, 1299 (Md. Ct. Spec. App. 1982); Hacker, 627 P.2d at 17.

^{40. 6} WAYNE R. LAFAVE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT § 11.4(g), at 463 (5th ed. 2012).

for future investigative purposes.⁴¹ Applying attenuation doctrine,⁴² courts as a rule deem intervening circumstances and passage of time as bases to justify government retention and investigative use of unlawfully secured photos and fingerprints.⁴³

In Maryland v. King, the Court treated fingerprints, photographs, and DNA profiles as fungible forms of identity evidence.⁴⁴ The question taken up next is whether DNA secured as the result of an illegal arrest, collected pursuant to a "routine booking procedure," should be subject to the same permissive exclusionary rule regime as just surveyed vis-à-vis photos and fingerprints. For reasons discussed, strong reason exists to conclude that this should be the case.

III. A BRIDGE TOO FAR: HOW AND WHY DNA DIFFERS FROM PHOTOS AND FINGERPRINTS

A DNA sample differs in several important respects from a fingerprint or photograph. Jurisprudentially, as Justice Scalia noted in his *King* dissent, neither a photograph nor the act of being subject to a photograph implicates the Fourth Amendment.⁴⁵ And while the taking of a fingerprint entails a physical intrusion (or at least imposition) by the police, fingerprinting has never been formally deemed a search under the Fourth Amendment.⁴⁶ Fingerprints, the Court has observed in dictum, are "mere 'physical characteristics . . . constantly exposed to the public," and both *Davis v*.

^{41.} See People v. Rodriguez, 26 Cal. Rptr. 2d 660, 665 (Cal. Ct. App. 1993) (barring photo secured on basis of illegal seizure intended to secure photographs for inclusion in a "gang book" for use in "future criminal investigations"). In a case decided four years before King, the Ninth Circuit concluded that Las Vegas police, acting without judicial authorization or statutory authority, violated the civil rights of a pretrial detainee from whom they forcibly and under threat of violence extracted a DNA sample to help solve an unrelated "cold case." Friedman v. Boucher, 580 F.3d 847, 851 (9th Cir. 2009). The petitioner was not an active suspect in any cold case and the record indicated that the DNA secured never tied petitioner to any cold case. Id. at 851–52.

^{42.} See Brown v. Illinois, 422 U.S. 590, 603-04 (1975) (specifying three factors that are to be considered in assessing whether evidence seized is attenuated from the taint of an unlawful seizure: (1) the time elapsed between the illegality and the acquisition of the evidence; (2) the presence of intervening circumstances; and (3) "the purpose and flagrancy of the official misconduct").

^{43.} See, e.g., Commonwealth v. Manning, 693 N.E.2d 704, 708 (Mass. Ct. App. 1998); Hacker, 627 P.2d at 17; Kinsey v. State, 639 S.W.2d 486, 489 (Tex. App.—Texarkana 1982, no pet.).

^{44.} Maryland v. King, 133 S. Ct. 1958, 1971-72 (2013).

^{45.} *Id.* at 1986 (Scalia, J., dissenting); see also People v. Thierry, 75 Cal. Rptr. 2d 141, 145 (Cal. Ct. App. 1998) (noting that "indeed there is no need to arrest a suspect in order to arrest a suspect in order to take a photograph of him or her. Officers can surreptitiously photograph people on the street without arresting or detaining them in any way.").

^{46.} See Wayne A. Logan, Policing Identity, 92 B.U. L. REV. 1561, 1603-04 (2012).

^{47.} Cupp v. Murphy, 412 U.S. 291, 295 (1973) (quoting United States v. Dionisio, 410 U.S. 1, 14 (1973)); see also Stehney v. Perry, 907 F. Supp. 806, 823 (D. N.J. 1995) (holding that "the taking of a fingerprint is not a search, even though it involves touching and pressing, and reveals physiological traits too minute to be considered exposed to public view in any meaningful sense" (citation omitted)); Palmer v. State, 679 N.E.2d 887, 891 (Ind. 1997) (noting that "fingerprints are an identifying factor readily available to the world at large").

Mississippi and Hayes v. Florida can be fairly read as condemning the unlawful arrests executed by the police to secure fingerprints, not the fingerprinting itself.⁴⁸ By contrast, extraction and analysis of DNA, as King itself makes clear, is indeed a search for Fourth Amendment purposes.⁴⁹

Functionally, DNA differs in critically important ways from photos and fingerprints. Not only does DNA provide a far more accurate way to verify the identity of arrested individuals, as the *King* majority observed, ⁵⁰ it affords vastly greater power as a forensic investigative tool. ⁵¹ Almost forty years ago, in *People v. McInnis*, California Supreme Justice Tobriner worried that the police would "stand to profit from illegal arrests" if they could retain and use photos taken of arrestees: "If [the police] may use the direct fruits of illegal arrests in the prosecution of the individual for another offense, they will have a decided incentive to arrest anyone whom they 'suspect' may be involved in illegal activity, regardless of whether that suspicion is legally sufficient for an arrest." ⁵² As a consequence, "[m]ore innocent citizens will now face illegal arrest, and with it, the resulting disabilities of a [criminal] record." ⁵³

If such concern was justified vis-à-vis the comparatively modest investigative benefits of photos, the massively superior forensic capability of DNA, now well known to the police,⁵⁴ should warrant proportionately greater concern among courts and policymakers.⁵⁵ In a nation where roughly one

^{48.} See Hayes v. Florida, 470 U.S. 811, 816 (1985) (alteration in original) (stating that its decision to exclude fingerprints taken as a result of an unlawful arrest and transport to the police station did not "impl[y] that a brief detention in the field for the purpose of fingerprinting, where there is only reasonable suspicion not amounting to probable cause, is necessarily impermissible under the Fourth Amendment"); Dionisio, 410 U.S. at 11 (stating that in Davis "it was the initial seizure—the lawless dragnet detention—that violated the Fourth and Fourteenth Amendments, not the taking of the fingerprints," and that Davis left open the possibility that fingerprints could be secured in the absence of probable cause to arrest (citing Davis v. Mississippi, 394 U.S. 721, 727 (1969))); Davis, 394 U.S. at 727–28 ("Fingerprinting involves none of the probing into an individual's private life and thoughts that marks an interrogation or search.").

^{49.} King, 133 S. Ct. at 1968-69 (majority opinion); see also State v. Medina, 102 A.3d 661, 678 (Vt. 2014) ("We do not equate a procedure that takes a visible image of the surface of the skin of a finger with the capture of intimate bodily fluids, even if the method of doing so is speedy and painless."); cf. Missouri v. McNeely, 133 S. Ct. 1552, 1558 (2013) (noting the "importance of requiring authorization by a 'neutral and detached magistrate' before allowing a law enforcement officer to 'invade another's body in search of evidence of guilt," absent existence of a recognized exception to the warrant requirement (quoting Johnson v. United States, 333 U.S. 10, 14 (1948))).

^{50.} King, 133 S. Ct. at 1976.

^{51.} See Erin Murphy, The New Forensics: Criminal Justice, False Certainty, and the Second Generation of Scientific Evidence, 95 CAL. L. REV. 721, 728 (2007).

^{52.} People v. McInnis, 494 P.2d 690, 695 (Cal. 1972) (Tobriner, J., dissenting).

^{53.} *Id*.

^{54.} For results of a field survey highlighting police interest in populating DNA databases, see Jason Kreag, Going Local: The Fragmentation of Genetic Surveillance, 95 B.U. L. REV. 1491, 1512–13 (2015).

^{55.} United States v. Gross, 662 F.3d 393, 405 (6th Cir. 2011) (expressing concern over creation of "perverse incentives[,] . . . a system of post-hoc rationalization through which the Fourth Amendment's prohibition against illegal searches and seizures can be nullified"). Whether an officer's administrative motive can trump legislative intent evincing an express investigative (versus identification) purpose, as in Louisiana's law directing police to collect DNA samples from arrestees, presents an intriguing question.

third of adults can expect to be arrested by the age of twenty-three,⁵⁶ and a massive number of arrests do not result in prosecution,⁵⁷ much less conviction,⁵⁸ such an incentive structure is surely a less than positive development.⁵⁹

Finally, DNA differs qualitatively from a photo or fingerprints because it contains a trove of genetic information.⁶⁰ While state and federal laws now permit governments to upload and analyze only extractions of DNA samples, "profiles" consisting of "junk DNA,"⁶¹ the *King* majority was equivocal on whether sensitive, personal, or medical information is also stored for possible use.⁶² While such information raises obvious privacy concerns in principle, the possibility exists that governments can put the information to "predictive"

See LA. STAT. ANN. § 15:602 (2012) ("The Louisiana Legislature finds and declares that DNA data banks are important tools in criminal investigations....").

^{56.} Robert Brame et al., Cumulative Prevalence of Arrest from Ages 8 to 23 in a National Sample, 129 PEDIATRICS 21, 26 (2011).

^{57.} See, e.g., Surell Brady, Arrests Without Prosecution and the Fourth Amendment, 59 MD. L. REV. 1, 40-41 (2000); Alexandra Natapoff, Misdemeanors, 85 S. CAL. L. REV. 1313, 1331-37 (2012).

^{58.} See, e.g., Andrew Golub et al., The Race/Ethnicity Disparity in Misdemeanor Marijuana Arrests in New York City, 6 CRIMINOLOGY & PUB. POL'Y 131, 147 (2007) (reporting a non-conviction rate of 80% for marijuana in public view (MPV) arrests in New York City from 1992–2003); Issa Kohler-Hausmann, Managerial Justice and Mass Misdemeanors, 66 STAN. L. REV. 611, 674 (2014) (noting that in New York City less than half of misdemeanor arrests in 2012 resulted in a conviction of any kind). In 2013, in California, almost one-third of the over 305,000 adult felony arrests did not result in a conviction. See KAMALA D. HARRIS, CAL. DEP'T OF JUST., CRIME IN CALIFORNIA 49, http://oag.ca.gov/sites/all/files/ agweb/pdfs/cjsc/publications/candd/cd13/cd13.pdf? (last visited Oct. 31, 2015). New York reports a similar rate. See Data Source Notes, NYS DIVISION CRIM. JUST. SERVS., http://www.criminaljustice. ny.gov/crimnet/ojsa/dispos/all.pdf (last visited Oct. 31, 2015); see also Anthony M. DeStefano, Many NYPD Gun Arrests Dismissed or Not Prosecuted, NEWSDAY (Apr. 27, 2015, 9:45 PM), http://www. newsday.com/news/new-york/many-nypd-gun-arrests-dismissed-or-not-prosecuted-1.10339300 (noting that 53% of unlawful firearm possession arrests in the Bronx and 40% of arrests in Brooklyn were dismissed or not prosecuted in 2014). It should be noted that conviction data is of questionable value given that innocent individuals, especially those swept up in high-volume urban justice systems, might well plead guilty to a low-level offense simply to alleviate the cost (for example, remaining in jail and missing work or paying for counsel) of challenging what might be a wrongful arrest. See Steven Zeidman, Policing the Police: The Role of the Courts and the Prosecution, 32 FORDHAM URB. L.J. 315, 318 (2005).

^{59.} On the multiple negative consequences of arrests for individuals, including physical trauma, invasion of privacy, near- and long-term adverse employment effects, and loss of access to housing and loans, see Eisha Jain, Arrests as Regulation, 67 STAN. L. REV. 809, 820–25 (2015). See also Gary Fields & John R. Emshwiller, As Arrest Records Rise, Americans Find Consequences Can Last a Lifetime, WALL ST. J. (Aug. 18, 2014, 10:30 PM), http://online.wsj.com/articles/as-arrest-records-rise-americans-find-consequences-can-last-a-lifetime-1408415402.

^{60.} JOHN M. BUTLER, FUNDAMENTALS OF FORENSIC DNA TYPING 262 (2010); see also King v. State, 42 A.3d 549, 577 (Md. 2012) ("We cannot turn a blind eye to the vast genetic treasure map that remains in the DNA sample retained by the State."), rev'd, 133 S. Ct. 1958 (2013).

^{61.} See United States v. Mitchell, 652 F.3d 387, 420 (3d Cir. 2011). Whether in fact a DNA profile contains only "junk," devoid of personal or medical information significance, has been the subject of considerable debate. See, e.g., Simon A. Cole, Is the "Junk" DNA Designation Bunk?, 102 NW. U.L. REV. COLLOQUY 54, 56-60 (2007), http://www.northwesternlawreview.org/online/"junk"-dna-designation-bunk; Alice Park, Junk DNA-Not So Useless After All, TIME (Sept. 6, 2012), http://healthland.time.com/2012/09/06/junk-dna-not-so-useless-after-all/.

^{62.} See Maryland v. King, 133 S. Ct. 1958, 1979 (2013) (noting that "[t]he argument that the testing at issue in this case reveals any private medical information at all is open to dispute").

use vis-à-vis behavioral tendencies, like addiction, aggression, or criminal propensity.⁶³ DNA, moreover, permits "familial searching," which allows innocent family members to come within the investigative crosshairs of police.⁶⁴ This is because, unlike fingerprints and photographs, "[g]enetic information is shared, and it is shared immutably and nonvolitionally" by family members who can be subjected to police inquiry and possible investigation.⁶⁵

Ultimately, if governments are permitted to collect DNA samples, unmoored from even the bare minimum legal requirement of probable cause sufficient to justify an arrest, we can anticipate even broader negative impact. 66 Community members, aware of the government's capacity to secure, retain, and make use of DNA, even when acting unlawfully, 67 might be less inclined to engage in public life. 68 In *United States v. Jones*, Justice Sotomayor expressed concern that widespread locational monitoring by the government risked "chill[ing] associational and expressive freedoms." 69 Genetic databasing should engender at least as much worry.

^{63.} See, e.g., Tania Simoncelli & Sheldon Krimsky, A New Era of DNA Collections: At What Cost to Civil Liberties?, AM. CONST. SOC'Y 1, 12-13 (Sept. 2007), http://www.acslaw.org/sites/default/files/Simoncelli Krimsky - DNA Collection Civil Liberties.pdf.

^{64.} See Erin Murphy, Relative Doubt: Familial Searches of DNA Databases, 109 MICH. L. REV. 291, 297 (2010) (describing familial searching as the practice "of looking in a DNA database not for the person who left the crime-scene sample, but rather for a relative of that individual"); id. at 338–39 (noting that familial searching creates a list of suspects "compiled on no other basis than that they, rather than the rest of the population with the same characteristics, happen to have kin in the offender database").

^{65.} See Natalie Ram, Fortuity and Forensic Familial Identification, 63 STAN. L. REV. 751, 789-94 (2011).

^{66.} As Professors David Kaye and Michael Smith have observed, "probable cause to arrest is spread thick and wide through the populace, attaching to the innocent-in-fact as well as to those guilty of the crime for which probable cause exists. Probable cause is thus an extremely low threshold, and a poor shield against the government taking and profiling our DNA—and against abuse of that power." D.H. Kaye & Michael E. Smith, DNA Identification Databases: Legality, Legitimacy, and the Case for Population-Wide Coverage, 2003 Wis. L. REV. 413, 458 n.153.

^{67.} That DNA collection would perversely target innocents was not lost on Justice Scalia. After noting that all parties agreed that Maryland would have been justified in securing a DNA sample from King if he were convicted of an enumerated offense, he wrote:

So the ironic result of the Court's error is this: The only arrestees to whom the outcome here will ever make a difference are those who have been acquitted of the crime of arrest (so that their DNA could not have been taken upon conviction). In other words, this Act manages to burden uniquely the sole group for whom the Fourth Amendment's protections ought to be most jealously guarded: people who are innocent of the State's accusations.

King, 133 S. Ct. at 1989 (Scalia, J., dissenting).

^{68.} See Monrad G. Paulsen, The Exclusionary Rule and Misconduct by Police, 52 J. CRIM. L. & CRIMINOLOGY 255, 264 (1961) (stating that "[a]II the other freedoms, freedom of speech, of assembly, of religion, of political action" turn on the preexistence of security and privacy).

^{69.} United States v. Jones, 132 S. Ct. 945, 956 (2012) (Sotomayor, J., concurring); cf. Raynor v. State, 99 A.3d 753, 774 (Md. 2014) (Adkins, J., dissenting) (expressing concern that the majority's approval of unfettered retention and analysis of abandoned DNA samples "means, in essence, that a person desiring to keep her DNA profile private, must conduct her public affairs in a hermetically-sealed hazmat suit"), cert. denied, 135 S. Ct. 1509 (2015).

The prospect becomes especially troubling given the acknowledged racial and demographic skewing of arrests, 70 which becomes inscribed in DNA databases. 71 Already often socially and politically marginalized, 72 poor and minority community members will feel even further alienated from government, impeding the trust that research has shown to play a critical role in law abidingness and cooperation with police. 73

In short, even accepting the doctrinal status quo regarding unlawfully secured photos and fingerprints, ample reason exists for courts to take a different approach with DNA. Whether they will do so, however, remains doubtful. A majority of the Supreme Court in *King* felt no compunction in conjoining DNA with photos and fingerprints,⁷⁴ and was comforted by the fact that DNA is extracted in the course of a routine administrative procedure, as lower courts have with unlawful collection of photos and fingerprints.⁷⁵ Finally, the Supreme Court's obvious disdain for the exclusionary rule underscores the need to look beyond the courts for a solution.⁷⁶

IV. A LEGISLATIVE SOLUTION

Today, only modest limits exist on the power of governments to collect, retain, and put to investigative use unlawfully secured DNA evidence. Of the thirty-two states allowing for pre-conviction DNA collection, only eight require that before a DNA sample is collected, a court must first conclude that an arrest for an eligible offense was supported by probable cause.⁷⁷

^{70.} See Logan, supra note 46, at 1590.

^{71.} See, e.g., Simon A. Cole, Fingerprint Identification and the Criminal Justice System: Historical Lessons for the DNA Debate, in DNA AND THE CRIMINAL JUSTICE SYSTEM 63, 80 (David Lazer ed., 2004); Troy Duster, Selective Arrests, an Ever-Expanding DNA Forensic Database, and the Specter of an Early-Twenty-First Century Equivalent of Phrenology, in DNA AND THE CRIMINAL JUSTICE SYSTEM 315, 319–22, 329 (David Lazer ed., 2004); SHELDON KRIMSKY & TANIA SIMONCELLI, GENETIC JUSTICE: DNA DATABANKS, CRIMINAL INVESTIGATIONS, AND CIVIL LIBERTIES 252–74 (2011); Kerry Abrams & Brandon L. Garrett, DNA and Distrust, 91 NOTRE DAME L. REV. (forthcoming 2016), http://papers.ssm.com/sol3/papers.cfm?abstract_id=2473728 (manuscript at 34).

^{72.} See, e.g., David M. Jaros, Preempting the Police, 55 B.C. L. REV. 1149, 1173 (2014) ("Poor urban minority communities, which experience a disproportionate share of police... practices, often have little political influence and lack the means to press legislators to openly debate issues.").

^{73.} See, e.g., TOM R. TYLER & YUEN J. HUO, TRUST IN THE LAW 101-02 (2002); Tom R. Tyler & Jeffrey Fagan, Legitimacy and Cooperation: Why Do People Help the Police Fight Crime in Their Communities?, 6 OHIO ST. J. CRIM. L. 231, 240 (2008).

^{74.} See supra note 2 and accompanying text.

^{75.} See supra notes 4-5, 35-39 and accompanying text; see also David H. Kaye, supra note 12, at 591 ("[Trawling] after charges are dropped or after a defendant is acquitted violates almost no legitimate Fourth Amendment interests. When police show a mugshot of an arrested, but not convicted, defendant to a victim of an assault, they do not engage in a new search or seizure.").

to a victim of an assault, they do not engage in a new search or seizure.").

76. See, e.g., Davis v. United States, 131 S. Ct. 2419, 2429 (2011); Herring v. United States, 555 U.S. 135, 135 (2009); Hudson v. Michigan, 547 U.S. 586, 586 (2006).

^{77. 730} ILL. COMP. STAT. 5/5-4-3 (West 2007); MINN. STAT. ANN. § 299C.105 (West, Westlaw through 2015 1st Special Legis. Sess.); NEB. REV. STAT. ANN. § 29-4126(1) (West, Westlaw through 2015 Reg. Legis. Sess.); N.C. GEN. STAT. ANN. § 15A-266.3A (West, Westlaw through 2015 Legis. Sess.); TENN. CODE ANN. § 40-35-321 (West, Westlaw through 2015 1st Reg. Legis. Sess.); VT. STAT. ANN. tit. 20, §§ 1932-33, 1940 (West, Westlaw through 2d Sess. of 2015-2016 Legis. Sess.); VA. CODE ANN.

Seven other states permit collection, but a sample can be analyzed or uploaded to a DNA database only after a court concludes that probable cause supported the arrest.⁷⁸ In the remaining seventeen states (more than half), probable cause is not a precondition to the collection or uploading and analysis of a DNA sample.⁷⁹ Rather, a back-end approach is taken: expungement is to occur when an arrestee is not charged, the charge is dismissed or reduced to a non-qualifying offense, or the conviction is reversed.⁸⁰

Overall, the statutory landscape represents an improvement over the doctrinal landscape discussed earlier regarding unlawfully secured photos and fingerprints.⁸¹ With DNA, however, the gatekeeping is very often less than it appears. The difficulty lies in statutory shortcomings in when and how DNA profiles and the genetic samples on which they are based are expunged. In states where collection as a threshold matter hinges on a probable cause determination, exclusion is not at issue: a sample is never even collected. In the event a DNA sample is collected, however, mechanics become important.⁸²

In only eleven states—well under half the total number—DNA profiles and samples are automatically expunged by the government when it is

^{§ 19.2-310.2:1 (}West, Westlaw through 2015 Reg. Legis. Sess.); see also Convicted Offenders Required to Submit DNA Samples, NAT'L CONF. St. LEGISLATURES, http://www.ncsl.org/Documents/cj/Convicted OffendersDNALaws.pdf (last visited Oct. 31, 2015). In Texas, a sample can be collected only after indictment, except when the suspect has prior convictions. Tex. Gov't. Code Ann. § 411.1471 (West 2012).

^{78.} COLO. REV. STAT. ANN. §§ 16-23-103(1), -104(2) (West 2012); MD. CODE ANN. PUB. SAFETY §§ 2-504, -511 (West, Westlaw through 2015 Legis. Sess.); NEV. REV. STAT. § 176.09123 (Westlaw through 2015 Legis. Sess.); N.M. STAT. ANN. §§ 29-3-10, -16-10 (West, Westlaw through 2015 1st Legis. Sess.); R.I. GEN. LAWS ANN. § 12-1.5-8(a) (West, Westlaw through Jan. of 2015 Legis. Sess.); UTAH CODE ANN. §§ 53-10-403, -404.5, -406 (West, Westlaw through 2015 1st Special Legis. Sess.); WIS. STAT. ANN. §§ 165.76, .84 (West, Westlaw through 2015 Act 60).

^{79.} ALA. CODE § 36-18-25(c)(1) (2015); ALASKA STAT. ANN. § 44.41.035 (2012); ARIZ. REV. STAT. ANN. § 13-610 (2010); ARK. CODE ANN. §§ 12-12-1006, -1019, -1105 (2009); CAL. PENAL CODE §§ 296, 296.1, 299 (West, Westlaw through Ch. 1 of 2015-2016 Legis. Sess.); CONN. GEN. STAT. ANN. §§ 54-102(g)—(i) (West 2009); FLA. STAT. ANN. § 943.325 (West 2015); KAN. STAT. ANN. § 21-2511 (West, Westlaw through 2015 Legis. Sess.); LA. STAT. ANN. §§ 15:609:614 (2012); MICH. COMP. LAWS ANN. § 750.520m (West, Westlaw through 2015 Legis. Veto Sess.); MISS. CODE ANN. § 45-47-1(2)(b) (2011); MONT. CODE ANN. § 650.055 (West, Westlaw through Act 142 of 2015 Legis.); N.J. STAT. ANN. §§ 31-12-0.20, -20.25 (West, Westlaw through Ch. 115 of 2015 Legis. Sess.); N.D. CENT. CODE ANN. § 31-13-03, -13-07 (West, Westlaw through Ch. 484 of 2015 Legis. Sess.); OHIO REV. CODE ANN. § 2901.07 (2006); S.C. CODE ANN. § 23-3-620 (Westlaw through 2015 Legis. Sess.), Acts 1 & 3); S.D. CODIFIED LAWS §§ 23-5A-1, 5A-52, -5A-16, -5A-28 (Westlaw through 2015 Legis. Sess.).

^{80.} See, e.g., Ala. Code § 36-18-25(c)(1); Fla. Stat. Ann. § 943.325; La. Stat. Ann. § 15:609:614; Miss. Code Ann. § 45-47-1(2)(b).

^{81.} See supra Parts II-III.

^{82.} States, to be eligible to upload their arrestee DNA profiles to the federal National DNA Index, must have an expungement mechanism of some kind, which must be approved by the FBI. See Frequently Asked Questions (FAQs) on the CODIS Program and the National DNA Index System, FED. BUREAU INVESTIGATION, https://www.fbi.gov/about-us/lab/biometric-analysis/codis/codis-and-ndis-fact-sheet (last visited Oct. 31, 2015) ("Laboratories... are required to expunge qualifying profiles from the National Index under the following circumstances:.... For arrestees, if the participating laboratory receives a certified copy of a final court order documenting the charge has been dismissed, resulted in an acquittal or no charges have been brought within the applicable time period.").

determined that expungement is in order.⁸³ In the remaining twenty-one states, the onus is on individuals to seek expungement, an often complex, lengthy process entailing costs,⁸⁴ which combine to result in very low incidence of expungement.⁸⁵ In addition, only rarely do state laws require that an arrestee be notified of the right to seek expungement and the circumstances under which it can occur.⁸⁶ Consequently, as a practical matter, DNA profiles and samples remain in government hands.⁸⁷

Even when a petition is successfully filed, or the government assumes responsibility for expungement, law and procedure is wanting.⁸⁸ Most states do not impose a time by which expungement must occur, adding to the already lengthy time period required for a case to be fully litigated (for example, a reversal of a conviction on appeal).⁸⁹ Even more problematic, often the very purpose of expungement is undercut by laws expressly allowing a profile "hit" to be used in an investigation when the state fails to expunge or delays expungement.⁹⁰ California law, for instance, provides that

[Bureau of Justice statistics] data from the 75 largest counties suggest that felony cases take a median of just over 90 days from arrest to case disposition, and often much longer for convictions. . . . Interviews with state laboratories suggested that the majority of arrestee samples are processed in under 30 days, and some in just over a week. Thus, most samples can be collected, analyzed, and uploaded to [the federal national database] before case disposition, providing months for profiles to hit against forensic profiles before they may become eligible for expungement.

^{83.} See CONN. GEN. STAT. ANN. § 54-1021(b); 730 ILL. COMP. STAT. ANN. § 5/5-4-3(f-1) (West 2007); MD. CODE ANN., PUB. SAFETY § 2-511(a)(1); MICH. COMP. LAWS ANN. § 28.176(10); NEB. REV. STAT. ANN. § 29-4126(6) (West, Westlaw through 2015 Reg. Legis. Sess.); N.C. GEN. STAT. ANN. §15A-266.3A(h) (West, Westlaw through 2015 Legis. Sess.); R.I. GEN. LAWS ANN. § 12-1.5-8(a)-(b); S.C. CODE ANN. § 23-3-660; TENN. CODE ANN. § 40-35-321(e)(2) (West, Westlaw through 2015 1st Legis. Sess.); 20 VT. STAT. ANN. tit. 20, § 1940 (West, Westlaw through 2d Sess. Of 2015–2016 Legis. Sess.); VA. CODE ANN. § 19.2-310.2:1 (West, Westlaw through 2015 Reg. Legis. Sess.).

^{84.} In Arkansas, for instance, only a reversal of conviction warrants expungement, and a petitioner must go to the trouble and expense of securing a court order. ARK. CODE ANN. § 12-12-1019. In California, an individual must petition for expungement, which a court has the discretion to deny. CAL. PENAL CODE § 299(b).

^{85.} See generally Elizabeth E. Joh, The Myth of Arrestee DNA Expungement, 162 U. PA. L. REV. ONLINE 51 (2015), http://papers.srm.com/sol3/papers.cfm?abstract_id=2641079.

^{86.} See, e.g., COLO. REV. STAT. ANN. § 16-23-103(2)(a) (West 2012); MD. CODE. ANN., PUB. SAFETY § 2-504 (a)(3)(ii); UTAH CODE ANN. § 53-10-406(7) (West, Westlaw through 2015 1st Special Legis. Sess.).

^{87.} See Julie Samuels et al., Urb. Inst., Collecting DNA at Arrest: Policies, Practices, and Implications 1, 29–31 (May 2013), http://www.urban.org/sites/default/files/alfresco/publication-pdfs/412831-collecting-DNA-at-arrest-policies-practices-and-implications.pdf.

^{88.} Indeed, it can be unclear whether expungement is ever in order. In Alabama, for instance, the provision that expressly speaks to expungement only allows it when a conviction is reversed: "Upon the reversal of conviction, the director shall be authorized and empowered to expunge DNA records upon request of the person from whom the sample was taken." Al.A. CODE. § 36-18-26 (2015). State law, however, also allows DNA to be taken upon arrest for felonies and sex offenses. Id. § 36-18-25(c)(1). Yet the authorizing provision provides without elaboration that the circuit court where the DNA sample of an arrestee was collected can "order[] that the DNA sample should be expunged." Id. § 36-18-25(i).

^{89.} See SAMUELS ET AL., supra note 87, at 29. According to a recent study conducted by researchers at the Urban Institute:

Id. at 79 (citation omitted).

^{90.} See, e.g., CAL. PENAL CODE § 299(d) (West, Westlaw through Ch. 1 of 2015-2016 Legis. Sess).

"[a]ny identification, warrant, probable cause to arrest, or arrest based upon a data bank or database match is not invalidated due to a failure to expunge or a delay in expunging records." In Michigan, "An identification, warrant, detention, probable cause to arrest, arrest, or conviction based upon a DNA match or DNA information is not invalidated if it is later determined that . . . [a] DNA sample . . . [or] DNA identification profile was not disposed of or there was a delay in disposing of the profile." Some state laws permit investigative use of a DNA sample secured by "mistake."

At this time, only five states have laws that prohibit use of a DNA sample that should have been expunged but was not:

- Alabama: "[U]se [of a DNA sample] is authorized until . . . the circuit court where the individual was arrested, orders that the DNA should be expunged."94
- Colorado: "A data bank or database match shall not be admitted as evidence against a person in a criminal prosecution and shall not be used as a basis to identify a person if the match is . . . [o]btained after the required date of destruction or expungement."
- Maryland: "A record or sample that qualifies for expungement or destruction... and is matched concurrent with or subsequent to the date of qualification for expungement: (1) may not be utilized for a determination of probable cause regardless of whether it is expunged or destroyed timely; and (2) is not admissible in any proceeding for any purpose."
- Nebraska: "Any DNA sample obtained in violation of this section is not admissible in any proceeding for any purpose whatsoever."
- North Carolina: "Any identification, warrant, probable cause to arrest, or arrest based upon a database match of the defendant's DNA sample which occurs after the expiration of the statutory periods prescribed for expunction of the defendant's DNA sample, shall be invalid and

If nothing else, these laws lend credence to the Supreme Court's lack of faith in governmental assurances. See, e.g., Riley v. California, 134 S. Ct. 2473, 2491 (2014) ("[T]he Government proposes that law enforcement agencies 'develop protocols to address' concerns raised by cloud computing. Probably a good idea, but the Founders did not fight a revolution to gain the right to government agency protocols." (quoting Reply Brief for the United States at 14, Riley, 134 S. Ct. 2473 (No. 13-212), 2014 WL 1616437 (citation omitted))); United States v. Stevens, 559 U.S. 460, 480 (2010) ("We would not uphold an unconstitutional statute merely because the Government promised to use it responsibly.").

^{91.} CAL. PENAL CODE § 299(d).

^{92.} MICH. COMP. LAWS ANN. § 28.176(15)(c)(d) (West, Westlaw through 2015 Reg. Legis. Sess.).

^{93.} See, e.g., Fla. Stat. Ann. § 943.325(12)(d) (West, Westlaw through 2015 First Reg. Sess.); 730 Ill. Comp. Stat. Ann. 5/5-4-3(o) (West 2007); La. Stat. Ann. § 15:609(H) (2012); N.D. Cent. Code Ann. § 31-13-07(2) (West, Westlaw through 2015 Legis. Sess.).

^{94.} ALA. CODE § 36-18-25(i) (Westlaw through Act 520 of 2015 Legis. Sess.).

^{95.} COLO. REV. STAT. ANN. § 16-23-105(6) (West 2012).

^{96.} MD. CODE ANN. PUB. SAFETY § 2-511(f) (West, Westlaw through 2015 Legis. Sess.).

^{97.} NEB. REV. STAT. ANN. § 29-4126(3) (West, Westlaw through 2015 Legis. Sess.).

inadmissible in the prosecution of the defendant for any criminal offense."98

From a best practices perspective, the foregoing survey allows for several recommendations. Requiring a probable cause determination by a court before DNA is collected (the policy of only eight states) is optimal for several reasons. First, it ensures that DNA samples are taken from only those individuals as to whom police possess the bare constitutional minimum to search (i.e., take a buccal swab). Second, imposing a minimum evidentiary threshold requirement optimizes the likelihood that police will be deterred from succumbing to the temptation recognized by Justice Tobriner. Finally, imposing a probable cause threshold at collection both obviates the administrative costs associated with having to later expunge DNA samples and limits the infusion of samples into already backlogged DNA database systems. In

Expungement, however, unavoidably plays a critical role. In the event a DNA specimen is collected and analyzed, and a profile is entered into a database, all states agree (indeed, they must in order to have their profiles entered into a national DNA database) that a mechanism for expungement should be available. Only a minority of states, however, require that expungement occur automatically as a result of government initiative, which best ensures that expungement will actually occur. Finally, to lend practical meaning and force to expungement, state legislatures should

^{98.} N.C. GEN. STAT. ANN. § 15A-266.3A(m) (2015).

^{99.} See Maryland v. King, 133 S. Ct. 1958, 1978 (2013) ("[U]nlike the search of a citizen who has not been suspected of a wrong, a [lawfully detained individual] has a reduced expectation of privacy.").

^{100.} See supra note 52 and accompanying text. The requirement will also guard against the possibility seemingly left open in *Davis* and *Hayes*, that DNA, the forensic progeny of fingerprints, might be secured on the basis of mere reasonable suspicion that an individual was involved in criminal activity. See Maclin, supra note 12, at 394–95 (noting a possible extension of the field-based identification exception to extraction of DNA samples).

^{101.} KRIMSKY & SIMONCELLI, supra note 71, at 318-19.

^{102.} See supra note 82 and accompanying text. In this regard, it is worthwhile to note that the European Court of Human Rights recently held that the U.K.'s practice of retaining arrestees' biometric identity information violates Article 8 of the Convention for the Protection of Human Rights and Fundamental Freedoms: "the permanent and indiscriminate retention of the fingerprint and DNA records of ... persons suspected but not convicted of offences ... constitutes a disproportionate interference with the [individual's] right to respect for private life and cannot be regarded as necessary in a democratic society." S. & Marper v. United Kingdom, 48 Eur. H.R. Rep. 50, 1195–1202 (2009). For a discussion of other nations' positions on the collection and retention of DNA, including Canada, which imposes the most controls, see Liz Campbell, "Non-Conviction" DNA Databases and Criminal Justice: A Comparative Analysis, 2011 J. COMMONWEALTH CRIM. L. 55.

^{103.} See supra note 83 and accompanying text.

^{104.} See supra notes 84-87 and accompanying text.

^{105.} The practical importance of codifying exclusions is seen in the Supreme Court of Ohio's decision State v. Emerson. See State v. Emerson, 981 N.E.2d 787, 793-94 (Ohio 2012). In Emerson, the defendant was suspected of committing a rape and police obtained a lawful search warrant to secure a DNA sample from him. Id. Although the defendant was ultimately acquitted, which should have resulted in his DNA profile being expunged from the state database, no expungement occurred because he was required to seek

codify an exclusionary rule that precludes consideration and investigative use of DNA that is wrongly retained.¹⁰⁶ At this time, only North Carolina's law contains all these features.¹⁰⁷

V. CONCLUSION

As noted at the outset, *Maryland v. King*'s backing of warrantless collection of DNA from arrestees heralds a new era in law enforcement. We can expect that, just as fingerprints and photographs became "routine" in the booking process, ¹⁰⁸ so too will DNA collection and analysis. ¹⁰⁹ Indeed, in terms of their functionality, the *King* majority saw the three methods as fungible. ¹¹⁰ In so doing, the Court has set the stage for the likely importing of the exclusionary rule doctrine, which has long allowed police to retain and use photos and fingerprints secured as a result of unlawful arrests. ¹¹¹ Much like bail money, a DNA sample will be something seen as simply a cost of being arrested, whether rightly or wrongly.

expungement but did not do so. *Id.* at 794. After authorities matched his profile to DNA left at a murder scene, the defendant challenged Ohio's retention and use of his profile. *Id.* at 788–89. By unanimous vote, the supreme court rejected the claim, stating:

There is no legislative requirement that DNA profiles obtained from lawfully obtained DNA samples be removed from [the database] on the state's initiative when the subject of the profile is acquitted at trial, and we will not create such a requirement.... Since the General Assembly opted not to provide a remedy to a party wronged by a violation of [the expungement laws], "we are not in the position to rectify this possible legislative oversight by elevating a violation of [these statutes] to a Fourth Amendment violation and imposing the exclusionary rule."

Id. at 794 (citation omitted) (quoting State v. Jones, 902 N.E.2d 464, 468–69 (Ohio 2009)); cf. George E. Dix, Nonconstitutional Exclusionary Rules in Criminal Procedure, 27 AM. CRIM. L. REV. 53, 63 (1989) (describing the need to exclude illegally obtained evidence).

106. Such laws should also specify that both the DNA profile and the genetic DNA sample from which it is derived are to be destroyed, a matter often unaddressed in state laws. But see, e.g., KAN. STAT. ANN. § 21-2511(f)(1)-(2) (West, Westlaw through 2015 Reg. Legis. Sess.) (requiring that both the DNA sample and profile be expunged); MONT. CODE ANN. § 650.055(10)-(11) (West, Westlaw through 2015 Legis. Veto Sess.). On the interests implicated by government retention of samples more generally, see Leigh M. Harlan, Note, When Privacy Fails: Invoking a Property Paradigm to Mandate the Destruction of DNA Samples, 54 DUKE L.J. 179, 191-97 (2004).

107. See N.C. GEN. STAT. ANN. § 15A-266.3A (West, Westlaw through Ch. 237 of 2015 Legis. Sess.).

108. See County of Riverside v. McLaughlin, 500 U.S. 44, 58 (1991) (explaining that "administrative steps incident to arrest" include an arrestee being "booked, photographed, and fingerprinted"); Adams v. United States, 399 F.2d 574, 579 (D.C. Cir. 1968) (Burger, J., concurring); United States v. Beckwith, 22 F. Supp. 2d 1270, 1291 (D. Utah 1998) ("The practice of routine booking photographing 'mug shots' has become a settled administrative feature of an arrest. '. . . [O]rderly law enforcement requires certain administrative procedures to take place after arrest and prior to arraignment. This process, which may include finger printing, photographing and getting a proper name and address from the defendant, is known as "booking". . . . "" (alterations in original)).

- 109. Cf. Wayne R. LaFave, The "Routine Traffic Stop" from Start to Finish: Too Much "Routine," and Not Enough Fourth Amendment, 102 MICH. L. REV. 1843, 1862 (2004) (discussing the ever increasing broad reach of routine traffic stops).
 - 110. Maryland v. King, 133 S. Ct. 1958, 1963-64 (2013).
 - 111. See supra Part III.

DNA, however, is not only another way to verify the identity of an arrestee, akin to fingerprints and photos; rather, it is also a uniquely powerful forensic investigative tool. Law enforcement can already avail itself of this power when DNA is unwittingly "shed," abandoned," becured by consent, or obtained by a non-law enforcement official. When arrestees are required by law to provide a sample, the police can even threaten them with punishment and forcible extraction of their DNA. With all these lawful means of collection available, not to mention the quite modest evidentiary requirement of probable cause, the virtually unfettered discretionary authority of police to arrest based on probable cause, and the ever-growing body of judicial doctrine forgiving police mistakes of fact and law, the disposition of unlawfully secured DNA assumes even greater importance.

Despite the compelling reasons to distinguish DNA from fingerprints and photographs, little reason exists to be optimistic about the judiciary barring illegally secured DNA evidence. Mindful of this reality, this

^{112.} See King, 133 S. Ct. at 1963.

^{113.} See, e.g., Raynor v. State, 99 A.3d 753, 754–55 (Md. 2014), cert. denied, 135 S. Ct. 1509 (2015); State v. Barkley, 551 S.E.2d 131, 135 (N.C. Ct. App. 2001).

^{114.} See, e.g., Commonwealth v. Bly, 862 N.E.2d 341, 356-57 (Mass. 2007); State v. Athan, 158 P.3d 27, 31 (Wash. 2007) (en banc); see also Elizabeth E. Joh, Reclaiming "Abandoned" DNA: The Fourth Amendment and Genetic Privacy, 100 Nw. U. L. Rev. 857, 865 (2006) ("With abandoned DNA, existing Fourth Amendment law appears not to apply at all.").

^{115.} See, e.g., Varriale v. State, 119 A.3d 824, 833–35 (Md. Ct. App. 2015) (holding that consensually provided DNA can be retained by the state and used to connect donor to unrelated offense investigated many years later).

^{116.} People v. Casillas, No. 12CA0703, 2015 WL 795765, at *1 (Colo. App. Feb. 26, 2015).

^{117.} See, e.g., CAL PENAL CODE § 298.1 (West, Westlaw through Ch. 1 of 2015–2016 Legis. Sess.); CONN. GEN. STAT. ANN. § 54-102g(j) (West 2009).

^{118.} See, e.g., Illinois v. Gates, 462 U.S. 213, 246 (1983) (stating that "probable cause requires only a probability or substantial chance of criminal activity"); Wilson v. Russo, 212 F.3d 781, 789 (3d Cir. 2000) ("Probable cause exists if there is a 'fair probability' that the person committed the crime at issue.").

^{119.} See Atwater v. City of Lago Vista, 532 U.S. 318, 354 (2000) ("If an officer has probable cause to believe that an individual has committed even a very minor criminal offense in his presence, he may. Without violating the Fourth Amendment, arrest the offender.").

^{120.} See, e.g., Heien v. North Carolina, 135 S. Ct. 530, 540 (2014) (forgiving reasonable mistake of substantive law); Herring v. United States, 555 U.S. 135, 146–48 (2009) (forgiving mistaken arrest occurring as a result of faulty arrest warrant database); Hill v. California, 401 U.S. 797, 802–05 (1971) (forgiving arrest based on mistaken identity); Brinegar v. United States, 338 U.S. 160, 196–78 (1949) (forgiving mistake of fact in probable cause determination).

^{121.} So too does the reality of the increasing prevalence of locally created and governed DNA databases, with non-existent or looser controls and oversight, fueled in part by profit-seeking commercial entities. See Kreag, supra note 54, at 1521–40; Stephen Mercer & Jessica Gabel, Shadow Dwellers: The Underregulated World of State and Local DNA Databases, 69 N.Y.U. ANN. SURV. AM. L. 639, 667–77 (2014); see also Joseph Goldstein, Police Agencies Are Assembling Records of DNA, N.Y. TIMES (June 12, 2013), www.nytimes.com/2013/06/13/us/police-agencies-are-assembling-records-of-dna.html ("These local databases operate under their own rules, providing the police much more leeway than state and federal regulations. And the police sometimes collect samples from far more than those convicted of or arrested for serious offenses—in some cases, innocent victims of crimes who do not necessarily realize their DNA will be saved for future searches.").

^{122.} See supra Part II.

Article has urged state political actors to take action. Whether they will embrace needed reforms like those suggested here, including imposing a threshold requirement of probable cause, automatic expungement, and statutory exclusion, is of course open to question. In North Carolina, however, and to a lesser degree elsewhere, such limits are in place, affording a basis for optimism. Hopefully, the discussion here helps advance that worthwhile goal.