

STATE OF MICHIGAN
IN THE SUPREME COURT

DENISHIO JOHNSON,

Plaintiffs-Appellant,

v

CURTIS VANDERKOOI, ELLIOT BARGAS,
and CITY OF GRAND RAPIDS,

Defendant-Appellee.

Supreme Court No. 160958
Court of Appeals No. 330536
Trial Court No. 14-007226-NO

KEYON HARRISON,

Plaintiff-Appellant,

v

CURTIS VANDERKOOI, and CITY OF
GRAND RAPIDS,

Defendants-Appellees.

Supreme Court No. 160959
Court of Appeals No. 334663
Trial Court No. 14-002166-NO

BRIEF OF AMICUS CURIAE
THE INNOCENCE NETWORK IN SUPPORT OF PLAINTIFFS-APPELLANTS
DENISHIO JOHNSON AND KEYON HARRISON

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JURISDICTIONAL STATEMENT AND AUTHORITY FOR FILING AMICUS BRIEF

The jurisdictional statement in the Appellant’s Brief is adopted by Amicus Curiae The Innocence Network. For the reasons stated in the accompanying Motion for Leave to File an Amicus Brief, Amicus Curiae respectfully requests that this Court accept this amicus brief under MCR 7.312(H).

STATEMENT OF INTEREST OF AMICUS CURIAE

The Innocence Network is an association of organizations dedicated to providing pro bono legal counsel and investigative services to indigent prisoners whose actual innocence may be established in post-conviction proceedings. Its members operate in 49 states, including Michigan, and the District of Columbia, representing hundreds of prisoners. The Innocence Network and its members are also dedicated to working to redress the causes of wrongful convictions and to improving the accuracy and reliability of the criminal justice system in future cases. As set forth in its Motion for Leave to File an Amicus Brief, the Innocence Network believes that this brief, which is based on its experience with forensic-related convictions and exonerations, including those involving fingerprint evidence, would be of assistance to the Court.

INTRODUCTION

This appeal involves two separate cases of youths, Denishio Johnson and Keyon Harrison, each of whom was stopped on separate occasions and subjected to the City of Grand Rapids Police Department's standard practice of taking photographs and fingerprints of people who are not carrying identification when stopped by police, even when the person has not committed a crime, and where the officer does not intend to arrest the person. This "photograph and print" (P&P) policy has subjected thousands of the City's residents to unconstitutional searches and seizures, solely because they were not carrying a photo ID.

During each stop, the officers found nothing upon which to justify an arrest. Consequently, when each stop concluded, the officers determined that they had no basis to further detain either youth. However, in accordance with the City's longstanding P&P policy, and in violation of the Fourth Amendment, the officers took photos and fingerprints of both minors before releasing them.

This Court should hold that the Fourth Amendment prohibits the police from forcing individuals to submit to warrantless fingerprinting solely because they are not carrying identification during a *Terry* stop. In addition to Plaintiffs' arguments that the P&P Policy constituted an unlawful search and seizure, Amicus Curiae The Innocence Network submits that fingerprinting is a search because the information contained in a fingerprint far exceeds that which is viewable in public and it does not promote a legitimate government interest that would be sufficient to outweigh the youth's constitutional right to be free from unreasonable searches and seizures. And under the reasonable-expectation-of-privacy test, fingerprinting is a search both because it involves physically manipulating a person's body to reveal details that are not otherwise exposed to the public. It violates an individual's expectation of privacy that although their hands

may be exposed to public view, the unique biometric identifying information contained in their fingerprints is not.

Moreover, taking each youth's fingerprints exceeded the scope of a permissible seizure under the Fourth Amendment because it did not promote a legitimate government interest that would be sufficient to outweigh the youth's constitutional right to be free from unreasonable searches and seizures. Hypothetically, the alleged interest that would be supported by taking the fingerprints and retaining them in the City's database would be the interest in solving crime.

However, police reliance on databases that provide an incomplete and unrepresentative picture of prior stops, arrests, and convictions, and which often reflect racially biased policing practices, does not promote the solving of crimes. Further, a legitimate government interest is not promoted by police overreliance on the imperfect forensics of fingerprinting, which can bias a case and lead to "circular reasoning" in which a fingerprint examiner adjusts "backward" from features that were visible in the now-known prints.¹

Instead, it increases the risk that an innocent person may be wrongly connected to a crime that they did not commit. As Justice Scalia pointed out, "Solving unsolved crimes is a noble objective, but it occupies a lower place in the American pantheon of noble objectives than the protection of our people from suspicionless law-enforcement searches. The Fourth Amendment must prevail." *Maryland v King*, 569 US 435, 481; 133 S Ct 1958; 186 L Ed 2d 1, 41 (2013) (Scalia, J., dissenting).

¹ This particular issue came up in the Officer of the Inspector General's 330 page report identifying issues that led to the misidentification of the fingerprints in the 2004 Madrid bombings to Oregon lawyer Brandon Mayfield, who was a practicing Muslim. See Office of the Inspector General, U.S. Department of Justice, Oversight and Review Division, *A Review of the FBI's Handling of the Brandon Mayfield Case* (March 2006), p 98, available at <<https://oig.justice.gov/sites/default/files/archive/special/s0601/final.pdf>>.

For these reasons, and those explained in greater detail below, this Court should reverse the Court of Appeals' decision rejecting the argument that the fingerprinting was a search under the Fourth Amendment.

BACKGROUND

To understand how the pieces of this case fit together, some background on the Fourth Amendment and some instances in which innocent people have been wrongly connected to crimes as a result of fingerprint databases and matching, similar to the City's extensive database from the P&P policy, would help to illustrate the importance of this issue and the implications it can have for youth, including the innocent.

I. The Purpose of the Fourth Amendment

"It is a core premise of our constitutional structure that the Bill of Rights limits the government's power to pursue policies which undermine individual and minority group rights, even if such policies benefit the majority." Strossen, *The Fourth Amendment in the Balance: Accurately Setting the Scales through the Least Intrusive Alternative Analysis*, 63 NYU L Rev 1173, 1185, n 56 (1988). Justice Black wrote:

The historical and practical purposes of a Bill of Rights, the very use of a written constitution, indigenous to America, the language the Framers used, the kind of three-department government they took pains to set up, all point to the creation of a government which was denied all power to do some things under any and all circumstances, and all power to do other things except precisely in the manner prescribed. [Black, *The Bill of Rights*, 35 NYU L Rev 865, 867 (1960).]

The Fourth Amendment provides that "[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be

violated. . . .” While the Fourth Amendment serves multiple functions in our society, its primary purpose is to protect the innocent. “Consequently, in construing the fourth amendment, the Court’s primary focus should be on the effect of its pronouncements on the innocent.” Loewy, *The Fourth Amendment as a Device for Protecting the Innocent*, 81 Mich L Rev 1229, 1230 (1983), available at <<https://core.ac.uk/download/pdf/287000674.pdf>>. The two youths in this case whose fingerprints were unlawfully seized are exactly those that the Fourth Amendment was intended to protect.

The Supreme Court of the United States has also reasoned that unless a neutral and detached decision-maker determines whether to allow the search or seizure, there is an unjustifiably high risk that one “engaged in the often competitive enterprise of ferreting out crime” will subject an innocent person to a search or seizure. *Johnson v United States*, 333 US 10, 14; 68 S Ct 367; 92 L Ed 436 (1948). Accordingly, this Court’s important role in determining whether the search of the youths in this case and subsequent seizure of their fingerprints was reasonable after balancing its intrusion on their individual Fourth Amendment interests against its promotion of legitimate government interests cannot be overstated.

II. Numerous people in the United States have been wrongly connected to crime-scene prints.

While the public, and perhaps many courts, may assume that fingerprints are an infallible way to identify perpetrators, the annals of wrongful convictions demonstrate that is simply not the case. See Cole, *More than Zero: Accounting for Error in Latent Fingerprint Identification*, 95 J Crim L & Criminology 985, 987 (2005) (citing Begley, *Despite Its Reputation, Fingerprint Evidence Isn’t Really Infallible*, Wall Street Journal (June 4, 2004), available at <<https://www.wsj.com/articles/SB108629339727128202>>). The following wrongful convictions involving erroneous fingerprint identifications illustrate that fingerprints can be unreliable, can be

tainted or contaminated like other evidence, and that overreliance on fingerprints can have dire consequences.

A. The FBI used its database to incorrectly match a print found in connection with the deadly March 2004 terrorist bombings in Madrid to Oregon lawyer Brandon Mayfield.

The case of Mayfield may be one of the most prominent cases establishing the fallibility of fingerprint forensic evidence. Spanish police transmitted a partial print found on a bag of detonators to the FBI with a request that they provide assistance in identifying the fingerprints. Office of the Inspector General, US Dep't of Justice, Oversight and Review Div, *A Review of the FBI's Handling of the Brandon Mayfield Case* (March 2006), p 1, available at <<https://oig.justice.gov/sites/default/files/archive/special/s0601/final.pdf>> (hereinafter, "*Mayfield Report*"). The FBI then used its computerized database to match the print to Mayfield. *Id.* This resulted in the FBI opening an intensive investigation of Mayfield including 24-hour surveillance. *Id.* at 35. When the media heard there was an American suspect, the FBI feared he might flee and arrested Mayfield. *Id.* at 41. He was incarcerated at the local county jail. *Id.* at 73-76. Among the evidence cited in support of his arrest was his attendance at a local mosque.² *Id.* at 239.

"In total, four fingerprint examiners – including one hired by Mayfield's defense team – declared that his print matched the partial print from Spain." Jones, PBS Frontline, *Forensic Tools: What's Reliable and What's Not-So-Scientific* (Apr 17, 2012), available at <<https://www.pbs.org/wgbh/frontline/article/forensic-tools-whats-reliable-and-whats-not-so-scientific/>>. Later, Spanish police informed the FBI that they had positively identified the fingerprint to a different person, an Algerian national. *Mayfield Report*, pp 81-82. Mayfield later

² Mayfield was a practicing Muslim.

sued the government, which settled for \$2 million. CBS/Associated Press, *US To Pay \$2M For False Terror Arrest* (Nov 29, 2006), available at <<https://www.cbsnews.com/news/us-to-pay-2m-for-false-terror-arrest/>>.

B. An innocent Melvin Mikes was convicted of murder based on his prints coming up as a match in the California Department of Justice fingerprint databank.

The victim in Mikes' case was found bludgeoned to death in his store using a disassembled metal turnstile. The National Registry of Exonerations, *Melvin Mikes*, (posted June 2012, updated Nov 15, 2019) available at <<https://www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=3442>>. The investigation went cold for five years. *Id.* Then, the California Department of Justice started a new computerized fingerprint databank, and the police uploaded fingerprints obtained from the crime scenes of unsolved cases. *Id.* Six of the 16 identifiable fingerprints on the store's turnstile piece came back as a match for Mikes, who was a black teenager at the time of the crime. *Id.* There were no witnesses, and the fingerprints were the state's only evidence. *Id.* A union official said Mikes was walking a picket line at a local hospital at the time that police said the victim was beaten to death. *Id.* She had the timecards to back up the claim, but she was never called to testify at trial because Mikes' attorney was worried about her cross-examination. *Id.* When Mikes was exonerated, the court noted that the fingerprints could have been left on the turnstile at an earlier time. *Id.*

C. Rodrigo Zapata was wrongly convicted of robbery after police identified his fingerprints in a car that was owned by one of his relatives.

After a bank robbery in Texas, police found one of the vehicles involved in the robbery abandoned. The National Registry of Exonerations, *Rodrigo Zapata*, (posted June 19, 2016), available at <<https://www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=4918>>. Police took fingerprints from the back-seat of the vehicle and

matched them to Hispanic 25-year-old Zapata. *Id.* A records check showed the vehicle was owned by one of Zapata's distant relatives. *Id.* One of two witnesses identified Zapata as one of the robbers in a photographic lineup. *Id.* Zapata was arrested and charged with two counts of aggravated armed bank robbery. *Id.* Although three men were involved in the robbery, no other suspects were ever arrested in the case. *Id.* A friend of Zapata's testified that he was with Zapata at a local hardware store buying supplies at the time of the robbery. *Id.* However, the prosecution pointed out that the receipt provided was time stamped three hours before the crime. *Id.* Zapata was convicted and sentenced to 25 years in prison. *Id.* Later, an attorney for Zapata went to the hardware store and found that the receipt was not an original and that the time on it was the time when the copy was printed out. *Id.* An employee of the hardware store later testified that Zapata was there at the time of the robbery and the original receipt which showed the time was about the same time as the robbery. *Id.*

D. Key evidence presented when Tyrone Hood was wrongfully convicted of murder was his fingerprints on beer bottles found in garbage left covering the victim.

The victim in Hood's case was found wedged between the front and back seats of a car covered in garbage. The National Registry of Exonerations, *Tyrone Hood*, (posted Feb 12, 2015, updated Feb 28, 2017) available at <<https://www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=4638>>. Three days later, police matched fingerprints on two beer bottles found in the car to black 29-year-old Hood, who lived about eight miles from where the body was found. *Id.* Hood's attorney attempted to convince the trial judge that the victim was killed by his own father, pointing out that the father's fiancé was murdered, and her body was found in a similar position in her car. *Id.* About 30 years later, the *New Yorker* magazine published a lengthy article detailing that the father was absent in the victim's life for 18 years until

he suddenly reappeared shortly before the murder. *Id.* After the murder, his father had collected \$44,000 on a life insurance policy he had taken out on his son just a few months earlier. *Id.* After the fiancé was murdered, the father collected \$107,000 from an insurance policy he had taken out on her life. *Id.* Hood’s attorney had originally argued that the father killed his son and covered the body with trash from a dumpster near the high school where he worked as a janitor. *Id.* The high school was just two blocks from Hood’s house. *Id.* Hood was released after nearly 30 years in custody and his conviction was vacated. *Id.*

ARGUMENT

I. Fingerprinting is a search under the Fourth Amendment because it extracts far more information than can simply be viewed in public.

Fingerprinting is a search under the Fourth Amendment because people have a reasonable expectation of privacy in their fingerprints. See Plaintiffs’ Brief, pp 20-27. The Supreme Court of the United States has explained that some physical characteristics are not protected by the Fourth Amendment, where those characteristics can be viewed as something that the person “knowingly exposes to the public, even in his home or office.” *United States v Dionisio*, 410 US 1, 14; 93 S Ct 764; 35 L Ed 2d 67 (1973). Fingerprints are not one of those types of characteristics.

There has been an underlying consensus since fingerprinting technology became widely known and utilized that fingerprints could not simply be viewed and used with the naked eye. For example, in 2013, Apple introduced a fingerprint recognition technology for unlocking their newest smartphone, which quickly became commonplace among other smartphone makers. One of the main selling points of this technology was the obvious understanding that fingerprints were not something that someone trying to access your device could take and use from simply viewing them, unlike a passcode, which could be taken by someone simply watching over your shoulder

as you enter the passcode into your phone. Fingerprints cannot be taken or used by simply viewing someone's hands.

The Court may find it helpful to have a better understanding of a fingerprint. It is a two-dimensional "reproduction of the pattern of friction ridge formations of the surface of a finger, made as the result of the transfer of oil or other matter during contact between the finger and an object." *Mayfield Report*, p 98.

There are three different levels of detail that are used to describe friction ridge patterns. "Level 1 detail refers to ridge flow, encompassing familiar patterns such as loops, whorls, and arches." *Id.* "Level 2 detail refers to the details that occur on individual ridge paths, including the turns that each ridge takes, the size and shape of each ridge, and the places where ridges terminate or split, also known as ridge path deviations." *Id.* "Level 3 detail refers to extremely tiny features of the friction ridges, such as the shape of ridge edges, the width of ridges, and the shape and relative location of pores along the ridges." *Id.*

Because fingerprints are only a two-dimensional reproduction, there are a number of conditions that can affect the quality of the reproduction. "Critical conditions are usually extreme dryness or humidity, or the presence of certain substances (dirt, food remains, etc.), . . . [which] can lead to low contrast images where the clear identification of ridge lines (and thus fingerprint features) becomes very difficult." European Commission, Institute for the Protection and Security of the Citizen, *Fingerprint Recognition for Children*, p 25 (September 2013) (hereinafter "*European Commission Report*"). In situations like those involving the youths in this case where ink fingerprints are used, they can also deviate based on factors like "over-inking," which law enforcement has acknowledged "may adversely affect the quality of known prints." *Mayfield Report*, p 104. Distortions can also occur because of differing amounts of pressure on the finger

and how the pressure is distributed.” *European Commission Report*, p 25. Another issue that can arise stems from the fact that a 3-dimensional finger can produce different 2-dimensional imprints. *Id.* at 26. To illustrate, “the right side of the fingertip gives a completely different fingerprint than its left side although both can still be considered as fingerprints of the same finger But such fingerprints, with different sides of the fingertip, would hardly ever be positively matched.” *Id.*

While a human can directly analyze the features in a fingerprint image, most police databases rely on a computer program for that purpose. (And when a human conducts the analysis, it requires significant scientific training to decipher the unique aspects of the print.) “[A] computer program only ‘sees’ pixels with different greyscale levels.” *Id.* In most cases, the computer program will use image processing techniques to remove “low contrast effects in order to better distinguish ridge lines and the space in-between” *Id.* The next step is feature extraction:

Feature extraction usually starts with identifying ridge lines in order to follow them (pixel by pixel) until ends or bifurcations are found. To some extent, this step has similarity with a blind person “feeling” his way forward. Similarly to the blind person, the algorithm might be misled by artefacts.

The result of the feature extraction is a so-called “template” which mainly consists of a list of features, each of which is defined by its coordinates (relative to the image), its relative angle, its type (usually “bifurcation” or “ending” of a ridge line) and some confidence score. [*Id.* at 26-27.]

Because distortions still almost always lead to different coordinates between the features of prints of the same finger, the comparison is “the most vendor-dependent part of the process” and is done by a “matching algorithm.” *Id.* at 27.

Given the unavoidable “non-similarities” between samples of even the same fingerprint, as just explained, the score is a statistical measure to what extent two samples come from the same person despite those disturbing elements. For a given score threshold, two fingerprints “match” if the score has at least the value of that threshold, they do not match if the score is lower. [*Id.*]

When an examiner is analyzing two fingerprints, Level 1 detail (i.e., loops, arches, etc.) is generally used to put prints in the same orientation to facilitate a comparison. *Mayfield Report*, p 108. Level 2 ridge deviations would then be analyzed for “points of similarity,” which includes comparing in relation to “its relationship to other features (measured by distance, direction, and the number of intervening ridges), its location within the print, its type (e.g., bifurcation versus ending ridge), and its orientation (e.g., which way an ending ridge points).” *Id.* Level 3 details are sometimes used, but the reliability of these details has been the subject of the most debate because they are subject to the most distortion based on “pressure, over or under processing, foreign or excessive residue on the fingers, surface debris and surface irregularity, to name a few.” *Id.*

Given the significant level of detail and comparison needed to use a fingerprint in any meaningful way—and the requirement that a computer algorithm, or at a minimum, an expert with specialized training be used—it is simply false to say that fingerprints are a characteristic that someone “knowingly exposes to the public.”

II. Fingerprinting during a Terry stop is an unlawful seizure under the Fourth Amendment because it does not promote a legitimate government interest.

Plaintiffs have explained a number of different ways that “the P&Ps were an unreasonable *search*, [and] the P&Ps separately violated Plaintiffs’ rights under the Fourth Amendment because obtaining their fingerprints in order to identify them exceeded the permissible scope and duration of a *seizure* based on reasonable suspicion.” See Plaintiffs Brief, pp 34-41. Amicus Innocence Network agrees with those arguments and argues further that the P&Ps violated Plaintiffs’ Fourth

Amendment rights because they did not promote a legitimate government interest.³ Even if this Court were to disagree, any interest that the police have in obtaining the fingerprints of youth stopped without government ID would not be sufficient to outweigh the youth's Fourth Amendment rights.

A. A legitimate government interest is not promoted by police overreliance on the imperfect forensics of fingerprinting.

“The reasonableness of a seizure under the Fourth Amendment is determined by balancing its intrusion on the individual's Fourth Amendment interests against its **promotion of legitimate government interests**.” *Hiibel v Sixth Judicial Dist Court*, 542 US 177, 187-188; 124 S Ct 2451; 159 L Ed 2d 292 (2004) (citation and quotation marks omitted, emphasis added). “The [Supreme] Court has required that an asserted government interest serves the public good, rather than merely private interests or biases, in order to qualify as ‘legitimate’ under the rational basis test.” Brown, “*We the People, Constitutional Accountability, and Outsourcing Government*,” 88 Ind L J 1347, 1376 (2013) (citing *City of Cleburne v Cleburne Living Ctr, Inc*, 473 US 432, 446-47, 105 S Ct 3249; 87 L Ed 2d 313 (1985) (“The State may not rely on a classification whose relationship to an asserted goal is so attenuated as to render the distinction arbitrary or irrational.”)). The rational basis test is not the standard for a Fourth Amendment challenge, but this guidance provides a solid baseline for evaluating the alleged government interest at issue. As Justice Scalia explained, “Solving unsolved crimes is a noble objective, but it occupies a lower place in the American

³ If the Court finds that fingerprinting in this context is per se unreasonable without a warrant because it falls outside the narrow *Terry* exception, then the Court need not engage in the analysis of balancing the interest of the individual's Fourth Amendment rights and the promotion of a legitimate government interest.

pantheon of noble objectives than the protection of our people from suspicionless law-enforcement searches. The Fourth Amendment must prevail.” *Maryland*, 569 US at 481 (Scalia, J., dissenting).

Most courts have failed to fully evaluate the marginal law enforcement benefits of challenged searches and seizures. “A Fourth Amendment balancing test that does not include the least intrusive alternative analysis relegates fundamental fourth amendment privacy and liberty rights to a status less secure than that enjoyed by other constitutional rights.” Strossen, *supra* p 3, at 1176. To prevent unwarranted intrusions on a person’s liberty, “the investigative methods employed should be the least intrusive means reasonably available to verify or dispel the officer’s suspicion in a short period of time.” *Id.* Notably, the United States DOJ has written that fingerprinting is “one of the most intrusive procedures in the juvenile justice process,” US Dep’t of Justice, Bureau of Justice Statistics, *Juvenile Records and Recordkeeping Systems*, p v (Nov 1988), available at <<http://www.bjs.gov/content/pub/pdf/jrrks.pdf>>. This Court should systematically evaluate whether the law enforcement strategy at issue actually promotes a legitimate government interest for advancing the goals promoted by the challenged measure and compare the relative intrusiveness of alternative law enforcement measures. The failure to fully evaluate the action and the government interest that it is supposed to promote devalues individual constitutional rights by depriving them of the special protection that they were intended to receive, especially where those constitutional rights belong to children and, thus, are at their zenith.

Regardless of whether it is intended to help police solve crime, which is a legitimate government interest, police overreliance on fingerprint evidence and databases does not **promote** a legitimate government interest sufficient to outweigh the individual’s constitutional rights. Fingerprinting has been touted as infallible by some in the field and “the claim is widely believed by the general public” Cole, *supra* p 4, at 987. The creation of a database centered around

fingerprints as a key identifier only further promotes the idea that they are unmistakable, despite the fact that plenty of people have been mistakenly sent to jail on the basis of fingerprints. See Background Section II, *supra*.

People are subject to unconscious influences that can cause them to make errors when their goal is solving crime. For example, in one study, “failure to warn the eyewitness that the culprit might not be in the lineup resulted in 78% of the eyewitnesses attempting an identification from the culprit-absent lineup.” Lochner, *Saving Face: Regulating Law Enforcement's Use of Mobile Facial Recognition Technology & Iris Scans*, 55 Ariz L Rev 201, 223 (2013).

Police and fingerprint examiners are not immune to such influences, regardless of whether they are conscious of those influences. In another study, when fingerprint examiners were told that the suspect supplying the fingerprints had confessed to the crime, one-third of the examiners falsely identified the suspect as matching the fingerprints they were analyzing. See Farraj, *Refugees and the Biometric Future: The Impact of Biometrics on Refugees and Asylum Seekers*, 42 Colum Hum Rts L Rev 891, 939 (2011). Conversely, when these fingerprint examiners were not exposed to that particular bias, and looked at the fingerprints without a suggestive context, they did not give a false positive. *Id.* Prominent cases of misidentification of fingerprints have been found to be, at least partially, the result of fingerprint examiners’ having “adjusted or influenced by reasoning ‘backward’ from features that were visible in the known prints [from a database.] This bias is sometimes referred to as ‘circular reasoning,’” *Mayfield Report*, p 7.

The seizure of the children’s fingerprints in this case cannot be justified as promoting a legitimate government interest because, in reality, it results in an unjustified overreliance on fingerprints that can exacerbate existing biases.

B. Particularly in the context of youth, who are the most likely target of the P&P policy, the intrusion on their Fourth Amendment rights outweighs any interest the police have in obtaining their fingerprints.

Given that Grand Rapids' P&P Policy targets individuals not carrying ID, youth are more likely to have their fingerprints seized under this policy because they are unlikely to have government ID. In the unique and constitutionally-heightened context of youth, there is even less support for the proposition that collecting fingerprints promotes a legitimate government interest.

Specifically,

biometric data of children may entail ongoing logging of quickly obsolete data, as children go through great physical development in very short time, which means that the margin of error for children's data will probably be higher than for adults. Hence, fingerprints and particularly facial data of children are unlikely to be reliable as time passes. [Casagran, *Fundamental Rights Implications of Interconnecting Migration and Policing Databases in the EU*, 21 Human Rights Law Review 433, 457 (2021).]

Science has confirmed that there is a distinction between the ease with which fingerprints can maintain fidelity with adults versus children. Children's papillary ridges are not developed enough to allow biometric capture and analysis until the age of six. Counsel of the European Union, *Setting of the minimum age for recording and storing facial images and fingerprints in the chip of a passport*, (June 26, 2006), p 2, available at <<https://www.statewatch.org/media/documents/news/2006/jul/9403-rev1-06.pdf>>. "Even then, account must be taken of the fact that major changes take place as children grow and this will entail considerable expense in the form of computer programs." *Id.* Aged fingerprints left by children "have been shown to fade faster than those of adults." Snyder, *Cracking the Children's Fingerprint Disappearing Act*, (December 29, 2010), available at <<https://www.bnl.gov/newsroom/news.php?a=22165>>.

“Image quality (in terms of low contrast and distortion effects) is the ultimate problem for children’s fingerprints, and image quality is strongly influenced by size.” *European Commission Report*, p 79. The smaller the size of the fingerprint, the harder it will be to get the same level of detail, which means the print from a smaller finger will be less precise. Although distortions of fingerprint images are possible for both adults and children, distortions are “likely an even more significant issue for children fingerprints.” *Id.* at 60. This is because of both the size and the fact that children “can have a significantly different behaviour during the enrolment compared to adults due to lack of sufficient understanding of the process or simply their children-specific attitude.” *Id.* at 29.

In addition, fingerprint recognition algorithms tend to be based on adult fingerprints rather than on children prints. In a study on fingerprint recognition for children, the European Commission recognized that algorithms would need “adaptations for better recognizing children fingerprints” because of the differences in print size and quality. *Id.* at 47.

It is also worth noting that bias can infect an analysis of fingerprints much like any other aspect of an investigation. In fingerprint analysis, this occurs during the comparison phase by reasoning ‘backward’ from features that are already visible in the prints that police have on file. Mayfield Report, p 138. “This bias is sometimes referred to as ‘circular reasoning’ and has been described as ‘a premature assumption of donorship [that] leads to transplantation of data from the ‘original’ [the known print] into the latent print.’” *Id.*

Further, in the unique and constitutionally-heightened context of children, the effect of fingerprinting can be far more detrimental. The Supreme Court has explained that for all people just being stopped and detained “is a serious intrusion upon the sanctity of the person, which may inflict great indignity and arouse strong resentment, and it is not to be undertaken lightly.” *Terry*

v Ohio, 392 US 1, 17; 88 S Ct 1868; 20 L Ed 2d 889, 903 (1968). “Photographing and fingerprinting connote a criminal process that may stigmatize or self-label a youth”⁴ Lapp, *As Though They Were Not Children: DNA Collection from Juveniles*, 89 Tul L Rev 435, 477 (December 2014) (quoting Feld, *Cases and Materials on Juvenile Justice Administration* 1, p 352 (3d ed. 2009)); see also Stoudt, et al., *Growing Up Policed in the Age of Aggressive Policing Policies*, 56 NY L Sch Rev 1331, 1340 (2011/2012) (“Police stops, particularly when the suspect is innocent, are not only experienced by an individual but also witnessed by neighbors; they become stories told by family members and friends and reverberate locally throughout [the] communit[y].”). “It communicates to the child that the state believes he will commit crimes in the future and that he already committed crimes that [fingerprinting] will help it solve.” *Id.*

Children also have a greater interest and expectation of privacy because of their youth and dependence, aside from the narrowly drawn limitations that are not relevant in this case, such as in on-campus, school locker searches, and even in those cases, fingerprints have not come into play. *Id.* First, the government intrusion caused by the seizure and indefinite retention of their fingerprints is greater for youth, if for no other reason than that they live longer after collection than adults. *Id.* This means that their fingerprints will be retained and used in a searchable

⁴ Fingerprinting during a simple *Terry* stop is an unnecessary escalation in criminal process. One article that studied similar police interactions with youth aptly explains other negative effects:

Momentary detainment with police extends longer than the experience itself. Young people’s attitudes towards police and the criminal justice system are complicated. Many want to have reliable and fair police officers to depend on. They are not unquestionably opposed to police presence. Yet, for many of the young people, what they witness or experience in practice are over-surveillance, harassment, excessive aggressiveness, and discrimination. Most of the young people—particularly young people of color and LGBTQ youth—did not feel comfortable seeking out a police officer for help. Indeed, some said they feared seeking help from police because the situation too often escalated in undesirable ways.

database, putting them at risk for improper connection to crime-scene prints, for a longer period. *See id.* Importantly, many states have even acknowledged that there is a more significant privacy interest for children’s fingerprints by enacting statutory protections for them. See e.g., NY Fam Ct Act 306.1(1) (McKinney 2008) (permitting fingerprinting of children only when the child is 11 years or older and the crime is a class A or B felony, or when the child is 13 years or older and the crime is a class C, D, or E felony); Ind Code 31-39-5-1 (2014) (permitting fingerprinting only if a child is 14 and over and is taken into custody for a felony). Implicit in these statutes is the idea that children have a heightened privacy interest in their fingerprints that is therefore entitled to more protection.

Accordingly, whatever the City’s alleged interest is in maintaining fingerprint records for children in a *Terry* stop, it is far outweighed by the child’s Fourth Amendment right to be free from unreasonable searches and seizures.

C. Police reliance on databases that provide an incomplete and unrepresentative picture of prior stops, arrests, and convictions, and which often reflect racially biased policing practices, does not promote a legitimate government interest.

There is a common phrase in computing that applies particularly well in the context of police databases, “garbage in, garbage out.” This phrase is used to express the idea that incorrect or poor quality inputs will always produce a faulty output. The same goes for logical reasoning: starting with a faulty premise will lead to a faulty conclusion. “Algorithms don’t have to look at race to be racist. Whether written by humans or a product of machine learning, algorithms take past facts and magnify them into future police actions.” Friedman, *The Worrisome Future of Policing Technology*, NY Times (June 22, 2018), <<https://www.nytimes.com/2018/06/22/opinion/the-worrisome-future-of-policing-technology.html>>. There is no legitimate

government interest that is promoted by making records from *Terry* stops, particularly those in which no probable cause was discovered, into an incomplete and unrepresentative database.

Databases today include more than just criminal history, as Grand Rapids' P&P policy and resulting database demonstrate. Police databases contain "records of prior stops, arrests, and convictions, which often reflect racially biased policing practices that are reified when relied upon by police." Logan, *Policing Police Access to Criminal Justice Data*, 104 Iowa L Rev 619, 620 (Jan 1, 2019). In other words, if another police officer decides that one of the youth involved in this case looks suspicious and finds them in the database, there will be a record of the stop and, at least implicitly, a record of the fact that a fellow officer believed that the youth may be involved in criminal activity. The fact of this record reinforces the officer's suspicion, regardless of how unsupported it may be in fact.

"Empirical evidence demonstrates that 'police officers - either implicitly or explicitly - consider race and ethnicity in their determination of which persons to detain and search and which neighbourhoods to patrol.'" O'Donnell, *Challenging Racist Predictive Policing Algorithms Under the Equal Protection Clause*, 94 NYU L Rev 544, 555 (June 2019); see also Gelman et al., *An Analysis of the New York City Police Department's "Stop-and-Frisk" Policy in the Context of Claims of Racial Bias*, 102 J Am Stat Ass'n 813, 813-23 (2007); Richardson & Goff, *Self-Defense and the Suspicion Heuristic*, 98 Iowa L Rev 293, 305-07, 313, 316-17, 332 (2012) (illustrating the ways in which implicit racial bias impacts police interactions). For example,

Between 2004 and 2012, the New York City Police Department made approximately 4.4 million stops, over 80% of which involved people of color. More precisely, 52% of these 4.4 million stops involved Black Americans and 31% involved Hispanic Americans. In 2010, 23% of New York City's population was Black, while 33% was white." [O'Donnell, at 553-555.]

Further, “African Americans are **more than twice as likely as white drivers** to be searched during vehicle stops even after controlling for non-race based variables, such as the reason the vehicle stop was initiated, but are **found in possession of contraband 26% less often than white drivers.**” US Dep’t of Justice, Civil Rights Div, *Investigation of the Ferguson Police Dep’t*, p 4 (March 4, 2015), available at <https://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/03/04/ferguson_police_department_report.pdf> (emphasis added). Plaintiffs provided similar evidence in this case summarizing 439 incident reports from 2011 and 2012 and concluding that “75% of the officer-initiated encounters . . . involved a black subject while only 15% involved white subjects, despite the 2010 Grand Rapids census showing that the city’s population was 21% black and 65% white.” *Harrison v VanderKooi*, unpublished per curiam opinion of the Court of Appeals, issued May 23, 2017 (Docket No. 330537), rev’d in part on other grounds, 502 Mich 751 (2018). Similarly, the Department of Justice’s 2016 investigation of Baltimore’s police found that stops and searches were made “without the required justification,” that “enforcement strategies . . . unlawfully subject African Americans to disproportionate rates of stops, searches and arrests,” and that these “systemic deficiencies [have] . . . exacerbated community distrust of the police, particularly in the African-American community.” US Dep’t of Justice, *Justice Department Announces Findings of Investigation into Baltimore Police Dep’t*, (August 10, 2016), available at <<https://www.justice.gov/opa/pr/justice-department-announces-findings-investigation-baltimore-police-department>>.

In the context of youth of color, these systemic issues only compound over time. Youthfulness, “and the attendant developmental immaturity, are unique risk factors for wrongfully being pulled into the justice system - that is, for conduct that is noncriminal, creating the first step toward a . . . wrongful conviction.” Haney-Caron, *Young, Black, and Wrongfully Charged: A*

Cumulative Disadvantage Framework, 125 Dick L Rev 653, 677 (2021). A recent review of cases in California revealed Black youth as young as 5 to 11 years old are disproportionately impacted by the legal system and that the overrepresentation of Black youth increases with each stage of justice system contact. Abrams, et al., *The Criminalization of Young Children and Overrepresentation of Black Youth in the Juvenile Justice System*, 13 Race & Soc Probs 73, 78, 81 (2021).

This gets back to the computing adage, “garbage in, garbage out.” “When Black and Latinx men are already disproportionately overrepresented in the suspect pool due to biased policing, they will be more likely to be recommended as matches to new crimes.” Griffard, *A Bias-Free Predictive Policing Tool?: An Evaluation of the NYPD’s Patternizr*, 47 Fordham Urb L J 43, 67 (2019). In this case, the P&P policy also targets lower-income individuals and children. See Project Vote, *Research Memo: Americans with Photo ID: A Breakdown of Demographic Characteristics* (February 2015), p 1 (presenting results of the 2012 American National Elections Study; key findings include that lower-income individuals (“Twelve percent of adults living in a household with less than \$25,000 annual income lack photo ID”) and young adults (“15 percent of 17-20 year-olds lack photo ID”) are less likely to have photo ID), available at <<http://www.projectvote.org/wp-content/uploads/2015/06/AMERICANS-WITH-PHOTO-ID-Research-Memo-February-2015.pdf>>. This makes those vulnerable groups more likely to appear to be connected to crime through the City’s database or to have previous stops bias their interactions with police. This biased suspect pool is further demonstrated in the examples of people who have been wrongly connected to crime-scene fingerprints described earlier in this brief.

The statistics on wrongful convictions bear out these biases. “As of October 15, 2016, the National Registry of Exonerations listed 1,900 defendants who were convicted of crimes and later exonerated because they were innocent; 47% of them were African Americans, three times their rate in the population.” Gross, et al., *Race and Wrongful Convictions in the United States*, National Registry of Exonerations, p 1 (2017). Only 40% of defendants convicted of murder are black, yet they account for 50% of murder exonerations, including 53% of those exonerees who were sentenced to death. *Id.* at 3-4. In other words, black prisoners convicted of murder are “about 50% more likely to be innocent than other convicted murderers.” *Id.* at 4. Drug crime exonerations are even more racially concentrated: 55% black defendants and 24% white defendants. *Id.* at 16. “[I]nnocent black people are about 12 times more likely to be convicted of drug crimes than innocent white people.” *Id.*

Cognitive bias plays a role in this as well, in particular, the dynamic of “tunnel vision” tends to apply in cases of wrongful convictions with imperfect forensic evidence like fingerprints. Tunnel vision is defined as the “single-minded and overly narrow focus on a particular investigative technique or prosecutorial theory, so as to unreasonably colour the evaluation of information received and one’s conduct in response to that information.” Roach & Trotter, *Miscarriages of Justice in the War Against Terror*, 109 Penn St L Rev 967, 982 (2005). In crimes involving ethnicity, race, and religion, “the danger of tunnel vision is exacerbated.” *Id.* at 983. Tunnel vision is not limited to police or prosecutors, “[i]t may also corrupt evidence-based scientific methods.” *Id.* Creating a biased database with the propensity to recommend “matches” resulting from flawed inputs only exacerbates the tunnel vision problem.

It does not set up our law enforcement for success or confidence when their reliance on these databases is buttressed through the erosion of Fourth Amendment rights. Particularly in

situations such as these, where law enforcement has determined that it does not have probable cause to arrest, it does not promote a legitimate government interest to allow police to infringe on Fourth Amendment rights in order to add information to their database that is of arguable limited value. Because this infringement on Fourth Amendment rights provides a marginal benefit to law enforcement at best, it does not promote a legitimate government interest sufficient to outweigh the interest of the people to be free from unreasonable searches and seizures.

CONCLUSION

For all of the foregoing additional reasons, this Court should reverse the Court of Appeals' decision and hold that the fingerprinting of the youth in these two cases pursuant to the Grand Rapids P&P policy was a search within the meaning of the Fourth Amendment and was unreasonable because it was conducted without a warrant and no exception to the warrant requirement was met. Further, this Court should hold that fingerprinting the youth in these two cases pursuant to the Grand Rapids P&P policy constituted an unlawful seizure under the Fourth Amendment because it exceeded the scope and duration of a permissible *Terry* stop and it did not promote a legitimate government interest.

Respectfully submitted,

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