# SCANNING FOR BIAS: A NEUROSCIENTIFIC RESPONSE TO POLICING WITH IMPLICIT BIAS

### Jeanelly Nuñez<sup>†</sup>

#### TABLE OF CONTENTS

I.	INTRODUCTION	296
II.	NUMBERS DO NOT LIE—STATISTICAL DATA ON RACIAL	
	DISPARITIES	298
	A. Am I Next? Likelihood that Victims to Fatal Police Violence	e are
	Men of Color	298
	B. Examining Drug Arrest Numbers for Minorities Compared	'to
	White People	299
	C. Driving While Black and Terry v. Ohio	300
	D. Minorites Make Up the Majority in United States Prisons	302
III.	INTRODUCING IMPLICIT RACIAL BIAS	303
	A. Racial Biases Do Influence Police Shootings	303
	B. Real-Life Examples of Policing with Racial Bias	305
	C. Identify the Problem: Understanding Implicit Racial Bias	307
	D. How Implicit Bias Influences Police Judgment	308
IV.	THE NEUROSCIENCE OF IMPLICIT RACIAL BIAS	309
V.	IT IS IMPERATIVE TO BE PROACTIVE, NOT REACTIVE	311
	A. How Much is Police Violence Actually Costing the United	
	States	311
	B. New York City Pilot Program	314
VI.	POTENTIAL CHALLENGES AND THEIR SOLUTIONS	
VII.	CONCLUSION	319

#### I. Introduction

"I can't breathe" were the words an unarmed Black<sup>1</sup> man screamed eleven times before being choked to death by a New York City police officer.<sup>2</sup> On July 17, 2014, Officer Daniel Pantaleo executed a fatal chokehold on forty-three-year-old Eric Garner in an attempt to arrest and detain him for selling untaxed loose cigarettes.<sup>3</sup> Although video footage shows Eric Garner refusing to cooperate with—and pulling away from—several police officers, the video also evinces Officer Pantaleo's immediate decision to wrestle Eric Garner to the ground and place him in a chokehold,<sup>4</sup> a practice which the New York City Police Department banned in 1993.<sup>5</sup> The physical attack concludes with Eric Garner's oral plea for more air until eventually his lifeless body falls limp.<sup>6</sup> Eric Garner was unarmed and appeared to show no physical or combative threat, other than being a Black man.<sup>7</sup>

Six years later, on May 25, 2020, George Floyd echoed Eric Garner's similar plead when he encountered four Minneapolis police officers.<sup>8</sup> However, this time, an unarmed George Floyd screamed "I can't breathe" thirty times before losing consciousness and dying. <sup>9</sup> Officer Derek Chauvin chose to restrain Mr. Floyd, a forty-six-year-old Black man, by pinning his knee to Mr. Floyd's neck for a total of eight minutes and fifteen seconds.<sup>10</sup> This neck-pinning maneuver is no longer allowed in most

<sup>&</sup>lt;sup>†</sup> J.D. Seton Hall University School of Law, 2020; B.A. Rutgers University, 2015. This Article was written as a third-year student thesis at Seton Hall Law School. Ms. Nuñez dedicates her reflections to the fight for law enforcement reform and racial equality. The author would also like to thank Professor Jennifer Oliva for her thoughtful comments and guidance throughout the article-writing process.

<sup>&</sup>lt;sup>1</sup> The term Black will be used to refer to people of African descent.

<sup>&</sup>lt;sup>2</sup> 'I Can't Breathe': Eric Garner Put in Chokehold by NYPD Officer—Video, GUARDIAN (Dec. 4, 2014, 2:46 PM), https://www.theguardian.com/us-news/video/2014/dec/04/i-cant-breathe-eric-garner-chokehold-death-video.

<sup>&</sup>lt;sup>3</sup> Ronald E. Wheeler, *Michael Brown, Eric Garner, and Law Librarianship*, 107 LAW LIBR. J. 467 (2015).

<sup>&</sup>lt;sup>4</sup> See GUARDIAN, supra note 2.

<sup>&</sup>lt;sup>5</sup> Ali Winston, *Despite Eric Garner and 'I Can't Breathe,' Chokeholds Still Used*, N.Y. TIMES (May 9, 2019), https://www.nytimes.com/2019/05/09/nyregion/eric-garner-death-chokeholds.html.

<sup>&</sup>lt;sup>6</sup> See Wheeler, supra note 3, at 468.

<sup>7</sup> Id

 $<sup>^8</sup>$  Joshua Bote, George Floyd Told Officers He 'Can't Breathe' Nearly 30 Times, Newly Released Body Cam Transcripts Show, USA TODAY (July 9, 2020, 2:03 PM), https://www.usatoday.com/story/news/nation/2020/07/09/george-floyd-body-cam-cant-breathe-30-times-transcript/5404026002/.

<sup>9</sup> *Id*.

<sup>&</sup>lt;sup>10</sup> Evan Hill et al., *How George Floyd Was Killed in Police Custody*, N.Y. TIMES (May 31, 2020), https://www.nytimes.com/2020/05/31/us/george-floyd-investigation.html.

Minnesota law-enforcement agencies, but Minneapolis still allows this maneuver as a "non-deadly force option." <sup>11</sup>

Unfortunately, these are stories the world knows far too well, as Black Americans are 2.5 times more likely to be killed during police encounters than White Americans. Yet, despite various high-profile cases and increased video evidence, police officers are rarely prosecuted, let alone convicted, for shooting deaths. This Article attempts to directly respond to this widespread public health crisis by addressing the disparate effect of policing on communities of color and endeavoring to dismantle the racism associated with policing. Specifically, this Article proactively proposes that mandatory neuroimaging thresholds aimed at detecting strong racial biases be implemented into the pre-employment screening process of police officers, in an effort to flag and potentially eliminate strongly biased applicants from the candidate pool.

This Article begins by examining the numerical data surrounding racial injustices by illustrating how men of color are much more likely than their white counterparts to fall victim to fatal police violence, drug arrests, traffic and *Terry* stops, <sup>14</sup> and imprisonment. Part II then highlights the extent to which race influences police contact and provides a first look at implicit racial bias and its unavoidable connection to policing. Part III explores the neuroscience behind racial bias and helps dissect the genesis of bias. Part IV then proceeds by appraising how brain scanning technology and psychological testing can be used to detect strong racial biases and how such technology and testing should be incorporated into the policing preemployment screening process. Part V concludes by investigating the potential challenges to the proposed form of pre-employment screening by comparing the reliability and validity of current pre-employment practices for police officers with neuroscientific testing.

<sup>&</sup>lt;sup>11</sup> Kelly McLaughlin, *Most Minnesota Law Enforcement Agencies Ban the Neck-Pinning Maneuver Used Against George Floyd*—but It's Still Allowed in Minneapolis, INSIDER (May 27, 2020, 2:19 PM), https://www.insider.com/minneapolis-police-george-floyd-maneuver-not-allowed-in-other-cities-2020-5.

<sup>&</sup>lt;sup>12</sup> Frank Edwards et al., Risk of Being Killed by Police Use of Force in the United States by Age, Race–Ethnicity, and Sex, 116 PROC. NATL. ACAD. SCI. U.S.A., 16,793 (2019).

<sup>&</sup>lt;sup>13</sup> Madison Park, *Police Shootings: Trials and Convictions are Rare for Officers*, CNN (Oct. 3, 2018, 4:41 PM), https://www.cnn.com/2017/05/18/us/police-involved-shooting-cases/index.html. From 2005-2017, 80 officers were arrested on murder or manslaughter charges for on-duty shootings and only 35 percent were convicted, while the rest were pending or not convicted.

<sup>&</sup>lt;sup>14</sup> The term "*Terry* stops" arises out of the Supreme Court's revolutionary decision in 1968, where the Court made it permissible police practice to stop and frisk civilians only upon an officer's reasonable suspicion that the individual is committing a crime and in possession of a weapon. Terry v. Ohio, 392 U.S. 1 (1968).

## II. NUMBERS DO NOT LIE—STATISTICAL DATA ON RACIAL DISPARITIES

Eric Garner's fatal chokehold and George Floyd's neck-pinning provide fundamental insight into the disproportionate use-of-force Black Americans and other men of color presently face. This section examines the statistical data illustrating the experiences of men of color subjugated by police officers, beginning with the likelihood of a person of color falling victim to police violence in modern-day America. It will then address a seemingly parallel likelihood of drug arrests, as well as traffic and *Terry* stops. Finally, it will probe the statistics surrounding America's minority inmate population and the discrepancy when compared to the overall United States population.

#### A. Am I Next? Likelihood that Victims to Fatal Police Violence are Men of Color

Black boys and men have "better odds of being killed by police than you have of winning a lot of scratch-off lottery games." According to a study published by the National Academy of Sciences, Black American males can expect to die at the hands of police at a rate of 1 out of every 1,000, while the rate for White boys and men is 39 out of every 100,000, <sup>16</sup> despite White males being a larger portion of the U.S. population. The study, which analyzed the racial, gender, and age disparities among victims of police-involved deaths, found that *young* Black men face the highest risk. In fact, from 2013 to 2018, death by police was one of the leading causes of death for Black men between the ages of twenty and twenty-four, accounting for 1.6 percent of all Black male deaths in the country. These findings, while staggering, are not surprising given the widespread media coverage surrounding the incessant police killings of Black American

<sup>&</sup>lt;sup>15</sup> Amina Khan, *Getting Killed by Police is a Leading Cause of Death for Young Black Men in America*, L.A. TIMES (Aug. 16, 2019, 5:00 AM), https://www.latimes.com/science/story/2019-08-15/police-shootings-are-a-leading-cause-of-death-for-black-men (quoting Edwards et al., *supra* note 12).

<sup>16</sup> See Edwards et al., supra note 12.

 $<sup>^{17}</sup>$  White men make up 31 percent of the U.S. population while non-white men make up only 18 percent. See Who Runs (in) America, 2018, WOMEN DONORS NETWORK (WDN), https://wholeads.us/wp-content/uploads/2018/09/whoruns.report.2012-2014.pdf.

<sup>&</sup>lt;sup>18</sup> See Edwards et al., supra note 12. The study's authors analyzed a database, Fatal Encounters, for its findings. Fatal Encounters was started by Brian Burghart, who relied on public record requests and crowdsourced data, and also included data from killings recorded by the media and victim details pulled from social media to identify officer-involved fatal shootings and the demographic details of victims. See Fatal Encounters Database, FATAL ENCOUNTERS, http://www.fatalencounters.org/spreadsheets/ (last visited Jan. 13, 2021).

<sup>19</sup> See Edwards et al., supra note 12.

victims.<sup>20</sup> Essentially, "[i]f it's not you being killed by police, it's someone you know or someone in your community."<sup>21</sup>

Although young Black men face the highest risk of police-instigated violence, men of color, in general, are also much more likely to be killed by the police than White men.<sup>22</sup> For example, Latino men and boys are 1.4 times more likely to be killed by police than White men, while the risk is 1.2 to 1.7 times greater for Native American men.<sup>23</sup> Police violence accounted for 1.2 percent of all deaths of Latino and Native American men between the ages of twenty and twenty-four, yet accounted for only 0.5 percent of deaths of White and Asian American men in the same age range.<sup>24</sup> In sum, the data strengthens the upsetting reality that police kill men of color at a much higher rate than White men.<sup>25</sup> As Black men, Eric Garner and George Floyd barely stood a chance as they were much more likely to fall victim to fatal police violence than a White man.

## B. Examining Drug Arrest Numbers for Minorities Compared to White People

Excessive use of force is only one example of how racial disparities exist with respect to policing practices. Latino and Black Americans are also arrested and incarcerated for drug offenses at a much higher rate than are White Americans. He take higher drug arrest and incarceration rates for minority communities are not reflective of greater drug use. In fact, drug use prevalence among Black people is only slightly higher than that of White people for certain illicit drugs and slightly lower for other substances. Further, there is little evidence that Black people sell illicit drugs more often than White people. However, Black people are more likely to be charged with possession and sale than are White people and White people are more likely to be charged for illegal activity surrounding

<sup>&</sup>lt;sup>20</sup> High-Profile Police-Related Deaths of U.S. Blacks, CBC (Dec. 7, 2017, 10:40 PM), https://www.cbc.ca/news/world/list-police-related-deaths-usa-1.4438618. In addition to Eric Garner and George Floyd, consider the high-profile deaths of Tamir Rice (12), Michael Brown (18), Freddie Gray (25), Philando Castile (32), and Alton Sterling (37), to name a few.

<sup>&</sup>lt;sup>21</sup> See Khan, supra note 15.

<sup>&</sup>lt;sup>22</sup> See Edwards et al., supra note 12.

<sup>&</sup>lt;sup>23</sup> *Id*.

<sup>&</sup>lt;sup>24</sup> *Id*.

<sup>&</sup>lt;sup>25</sup> Id.

<sup>&</sup>lt;sup>26</sup> See Nat'l Research Council, The Growth of Incarceration in The United States: Exploring Causes and Consequences 119 (Jeremy Travis et al., eds., 2014).

<sup>&</sup>lt;sup>27</sup> Alana Rosenberg et. al, Comparing Black and White Drug Offenders: Implications for Racial Disparities in Criminal Justice and Reentry Policy and Programming, 47 J. DRUG ISSUES 1 (2017).

<sup>&</sup>lt;sup>28</sup> *Id.* (discussing a New Haven, CT controlled study that showed Black Americans were significantly more likely to prefer marijuana, while White Americans were more likely to prefer heroin).

<sup>&</sup>lt;sup>29</sup> See NAT'L RESEARCH COUNCIL, supra note 26, at 60.

the use of drugs, such as stealing to support their drug habit.<sup>30</sup> The Black imprisonment rate for drug offenses near the end of 2016 was 6.45 times greater than the rate of imprisonment of White people.<sup>31</sup> Moreover, nearly 80 percent of people in federal prison for drug offenses and almost 60 percent of people in state prison for drug offenses are Black or Latino.<sup>32</sup>

Race-based drug arrest disparities also exist with respect to the decriminalization of marijuana. In 2014, New York City stopped arresting people for low-level possession of marijuana.<sup>33</sup> However, data from arrests revealed that mainly Black and Latino people were still being arrested for marijuana possession.<sup>34</sup> People of color made up 93 percent of the individuals arrested by the New York City Police Department for marijuana possession in January, February, and March of 2018.<sup>35</sup> Of the 4,081 of those arrests for criminal possession of marijuana, 287 arrests involved White people, 2,006 arrests involved Black Americans and 1,621 arrests involved Latinos, even though people of color and White people use marijuana at similar rates.<sup>36</sup>

Based on the data, there is a meaningful inequality in the arrest and incarceration of Black Americans and Latinos for drug possession violations, low-level sales, and marijuana possession. This disparity can be attributed to any number of factors, from law enforcement's substantial policing in urban areas, lower-income communities, and communities of color, to police discretion that leads to more arrests for people of color more than White people. In any event, this subsection's data elucidates many of the police-involved experiences men of color routinely encounter.

#### C. Driving While Black and Terry v. Ohio

"Driving while Black" is a common expression used in modern-day America that captures the widespread perception of police targeting Black

<sup>&</sup>lt;sup>30</sup> See Rosenberg, supra note 27. White people had more charges indirectly related to drugs, such as committing a crime in order to buy drugs or being high while committing a crime.

<sup>&</sup>lt;sup>31</sup> Jennifer Bronson et al., *Prisoners in 2017, 2016-17*, BUREAU OF JUSTICE STATISTICS, (2019), https://www.bjs.gov/content/pub/pdf/p17.pdf.

<sup>&</sup>lt;sup>32</sup> Ann Carson, *Prisoners in 2016, 2015-16*, BUREAU OF JUSTICE STATISTICS, (2018), https://www.bjs.gov/content/pub/pdf/p16.pdf.

<sup>&</sup>lt;sup>33</sup> Innocence Staff, *Racial Disparities Evident in New York City Arrest Data for Marijuana Possession*, INNOCENCE PROJECT (May 14, 2018), https://www.innocenceproject.org/racial-disparities-in-nyc-arrest-data-marijuana-possession/.

<sup>&</sup>lt;sup>34</sup> *Id.* These arrest statistics include the first three months of 2018 and include comparative data for January-March of 2016 and 2017.

<sup>&</sup>lt;sup>35</sup> *Id*.

<sup>&</sup>lt;sup>36</sup> *Id*.

motorists more often than motorists of other races for traffic stops.<sup>37</sup> However, this perception is more than mere speculation. As research indicates, Black Americans and Latinos are more likely than White people to have multiple contacts with police, especially in the contexts of traffic and street stops.<sup>38</sup> For example, police stop and search Black and Latino drivers with less evidence than White drivers.<sup>39</sup> According to the Stanford Open Policing Project, Black and Latino motorists are twice as likely than White drivers to be searched for contraband.<sup>40</sup> Moreover, when pulled over for speeding, Black drivers are 20 percent more likely to get a ticket, as opposed to a warning, than are White drivers; Latino drivers are 30 percent more likely to be ticketed than White drivers.<sup>41</sup>

This stop disparity has only been exacerbated since the Supreme Court decided *Terry v. Ohio.* <sup>42</sup> *Terry* involved a plain-clothed policeman who suspected three Black men of "casing a job, a stick-up" after seeing them pacing back and forth in front of a building dozens of times. <sup>43</sup> The officer stopped and searched the outer clothing of the three men and found weapons on two of them, one of whom was Terry. <sup>44</sup> Unbeknownst to Terry, he forever changed America's policing when he challenged the constitutionality of stop and frisk. Terry argued that his right to personal privacy was violated as a result of an unreasonable search and seizure. <sup>45</sup> The Supreme Court responded to Terry's challenge by holding that police *can* stop and frisk a suspect in public, absent probable cause. <sup>46</sup> The officer need only possess a "reasonable suspicion" that the person may be

<sup>&</sup>lt;sup>37</sup> Sherri Sharma, *Beyond "Driving While Black" and "Flying While Brown": Using Intersectionality to Uncover the Gendered Aspects of Racial Profiling*, 12 COLUM. J. GENDER & L. 275, 276 (2003).

<sup>&</sup>lt;sup>38</sup> Elizabeth Davis et al., *Contacts Between Police and the Public, 2015*, BUREAU OF JUSTICE STATISTICS (2018), https://www.bjs.gov/content/pub/pdf/cpp15.pdf.

<sup>39</sup> Shani Saxon, New Report Analyzes Racial Bias in Police Traffic Stops, COLORLINES (Mar. 14, 2019, 5:16 PM), https://www.colorlines.com/articles/new-report-analyzes-racial-bias-police-traffic-stops.

Emma Pierson et al., A large-scale analysis of racial disparities in police stops across the United States 1 (Stanford Open Policing Project, Working Paper, 2017), https://5harad.com/papers/100M-stops.pdf. The Stanford Open Policing Project collects and standardizes data on traffic and street stops from law enforcement departments across the country in an effort to investigate and improve interactions between police and the public.

<sup>&</sup>lt;sup>41</sup> *Id*.

<sup>&</sup>lt;sup>42</sup> N.Y. Civil Liberties Union, *Stop-and-Frisk Data 2002-12* (2019), https://www.nyclu.org/en/stop-and-frisk-data.

<sup>43</sup> See Terry v. Ohio, 392 U.S. 1, 6 (1968).

<sup>&</sup>lt;sup>44</sup> *Id.* at 7. The limited search of patting a suspect's outer clothing for weapons is what came to be known as a "frisk." *Id.* at 20.

<sup>45</sup> Id. at 8.

<sup>46</sup> Id. at 30.

committing a crime, has committed a crime, or is planning to commit a crime, and that the person "may be armed and presently dangerous." 47

Over the years, however, *Terry* stop and frisk ploys have routinely and overwhelmingly targeted Black Americans and Latinos.<sup>48</sup> "*Terry*-like" examples can be gleaned from the years 2002–2012, where over 80 percent of people apprehended in a stop and frisk were Black and Latino.<sup>49</sup> In fact, near the peak of New York City's use of stop and frisk in 2010, Black residents were eight times more likely to be stopped by the police and eleven times more likely to be frisked by the police than were White residents.<sup>50</sup> The Supreme Court's revolutionary decision in *Terry v. Ohio* continues to have a powerful impact on men of color, as Blacks and Latinos are more frequently targeted for stop and frisk tactics, which provides a further illustration of disparate, race-based policing practices.<sup>51</sup>

#### D. Minorites Make Up the Majority in United States Prisons

People of color make up only 37 percent of the United States population, yet account for 67 percent of the prison population.<sup>52</sup> In fact, Black men are six times more likely and Latino men are 2.7 times more likely to be incarcerated than are White men.<sup>53</sup> If Black people and Latinos were incarcerated at the same rate as were White people, American prison and jail populations would decline by almost 40 percent.<sup>54</sup> Across the country, Black children represent 32 percent of children who are arrested, 42 percent of children who are detained, and 52 percent of children whose cases are judicially transferred to criminal court.<sup>55</sup> Analyzing America's overall incarceration rates through the lens of race illuminates the fact that

<sup>47</sup> Id.

<sup>&</sup>lt;sup>48</sup> Yoo Enn Kim, *Stop and Frisk Dropping but Still Ineffective*, PRISON POL'Y INITIATIVE (May 16, 2016), https://www.prisonpolicy.org/blog/2016/05/16/stop-frisk-ineffective/.

<sup>&</sup>lt;sup>49</sup> See N.Y. Civil Liberties Union, supra note 42.

<sup>&</sup>lt;sup>50</sup> Peter Wagner, *Patting Down the Data on Racial Profiling in New York City*, PRISON POL'Y INITIATIVE (May 10, 2012), https://www.prisonpolicy.org/blog/2012/05/10/frisking/.

consider the public's adverse reaction to Mike Bloomberg's 2020 presidential candidacy, partly due to Bloomberg's history as mayor of New York City in 2002–2003 and his decision to drastically increase the city's stop-and-frisk program at the time, a program that had a disproportionate effect on communities of color. Maureen Groppe, From Stop and Frisk to Comments About Women, Bloomberg Faced Multiple Attacks in His First Debate, USA TODAY (Feb. 19, 2020, 6:17 PM), https://www.usatoday.com/story/news/politics/elections/2020/02/19/mike-bloomberg-could-face-these-attacks-during-his-first-debate/4812772002/.

<sup>&</sup>lt;sup>52</sup> Who's in Prison in America, OPENINVEST (Feb. 21, 2018), https://www.openinvest.co/blog/statistics-prison-america/.

<sup>&</sup>lt;sup>53</sup> THE SENTENCING PROJECT, FACT SHEET: TRENDS IN U.S. CORRECTIONS 2 (2018), https://sentencingproject.org/wp-content/uploads/2016/01/Trends-in-US-Corrections.pdf.

<sup>&</sup>lt;sup>54</sup> National Association for the Advancement of Colored People, *Criminal Justice Fact Sheet*, https://www.naacp.org/criminal-justice-fact-sheet/.

<sup>&</sup>lt;sup>55</sup> *Id*.

people of color make up the majority of those behind bars, despite them only making up a minority of the U.S. population.<sup>56</sup>

#### III. INTRODUCING IMPLICIT RACIAL BIAS

Part I addressed the data surrounding police violence towards men of color, and specifically demonstrated the greater likelihood that a man of color will be killed, stopped and frisked, or arrested by the police when compared to a White man. The concept of racial bias will now be introduced by exploring differing theories scholars propose as to why police encounter men of color more frequently. Specifically, this section compares the high-profile experiences of Black men to those of White men when dealing with police and infers that race *does* play a factor in a police officer's encounter with civilians. Finally, it will also help explain the genesis of implicit bias and its significant effect on a police officer's judgment.

#### A. Racial Biases Do Influence Police Shootings

Confronted with the disturbing statistics highlighted in Part I, realists acknowledge that race plays at least *some* role in policing disparities, while other scholars point to less sinister explanations. A Michigan State University professor of psychology, Joseph Cesario, for example, offers a less baleful explanation to the query of whether Black or White citizens are more likely to be shot by police officers and why.<sup>57</sup> Cesario concluded that "[i]f you live in a county that has a lot of white people committing crimes, white people are more likely to be shot, [i]f you live in a county that has a lot of black people committing crimes, black people are more likely to be shot."<sup>58</sup> According to Cesario, violent crime rates and the racial demographics of a given location are the driving force behind fatal shootings, not racial prejudice.<sup>59</sup>

303

<sup>&</sup>lt;sup>56</sup> See OPENINVEST, supra note 52.

Shootings, 116 PROC. NATL. ACAD. SCI. U.S.A., 15,877 (2019). Joseph Cesario, co-author, proposed that the study's findings show no support for the idea that White officers are biased in shooting Black citizens. Please note, however, that the authors retracted their article on July 10, 2020 after critique on their statements about racial differences in the probability of being shot by the police—the same critique this Article offers. David Johnson et al., Retraction for Johnson et al., Officer Characteristics and Racial Disparities in Fatal Officer-Involved Shootings, 117 PROC. NATL. ACAD. SCI. U.S.A. 18130 (2020). The article's retraction notes that the authors were mistaken in drawing inferences about the broader population of civilians who interact with police rather than restricting their conclusions to the population of civilians who were fatally shot by the police. Even so, it is imperative to analyze the study's data, statistical approach, and findings, which the authors do not refute.

<sup>&</sup>lt;sup>58</sup> *Id*.

<sup>&</sup>lt;sup>59</sup> *Id*.

However, various academics have criticized Cesario's approach.<sup>60</sup> Instead of using population, Cesario evaluated variables such as the race of the police officers, crime rates, and the racial demographics of locations where police shootings happened in 2015.<sup>61</sup> Scholars argue that Cesario's decision to "sidestep the benchmark" of using population to calculate racial disparity assumes that Black and White civilians encounter police officers in equal numbers, or in even temperaments, which is simply not true.<sup>62</sup> Cesario's research also pointedly looked to whether the victims were armed or on the attack at the time they were shot.<sup>63</sup> The study found that between 90–95 percent of the civilians shot by officers in 2015 were armed or actively attacking police or other citizens when they were shot.<sup>64</sup> To that end, Cesario concluded that White people are more likely to be armed or on the attack when police killed them than are Black Americans, so "if anything, there are anti-White disparities when controlling for race-specific crime." <sup>655</sup>

Professor Justin Nix, a criminology professor at University of Nebraska, dismantles Professor Cesario's study as well. In his 2017 study on police killings, Nix examined police behavior when their target is *unarmed* and *not* on the attack. Nix's study found that although police killed nearly twice as many White people (495) as Black people (258) in 2015, 15 percent of the Black people police killed that year were *unarmed*, compared to just 6 percent of similarly situated White people. Further, 24 percent of Black Americans and 32 percent of other non-White racial

<sup>&</sup>lt;sup>60</sup> Jonathan Mummolo et al., *Making Inferences About Racial Disparities in Police Violence* (August 2, 2019). Available at SSRN: https://ssrn.com/abstract=3431132 or http://dx.doi.org/10.2139/ssrn.3431132. On July 8, 2020, Joseph Cesario and David J. Johnson issued a statement on the retraction of their article thanking Jonathan Mummolo's article for highlighting their error in failing to restrict their study's conclusions. Joseph Cesario and David Johnson, *Statement on the Retraction of Officer Characteristics and Racial Disparities in Fatal Officer-Involved Shootings*, PsyArXiv (Jul.8, 2020), psyarxiv.com/dj57k.

<sup>61</sup> Id. (referencing Johnson et al., supra note 57).

<sup>62</sup> *Id*.

<sup>63</sup> See Johnson et al., supra note 57.

Johnson et al., *supra* note 57.

<sup>&</sup>lt;sup>65</sup> Johnson et al., *supra* note 57. As noted earlier, notwithstanding Cesario's retraction, the authors do not dispute the validity of their data or statistics.

<sup>&</sup>lt;sup>66</sup> Justin Nix et al., *A Bird's Eye View of Civilians Killed by Police in 2015*, 16 CRIMINOLOGY & PUB. POL'Y 309 (2017). Professor Nix's study explored 990 police fatal shootings using data compiled by The Washington Post in 2015. Nix notes his apprehension in deriving any firm conclusions from his own findings or Cesario's findings because the data on police shootings is, unfortunately, too limited. Nix notes that the Federal Bureau of Investigation launched its database on police-involved shootings only in 2017, which is why researchers rely on databases created by journalists.

<sup>67</sup> Id

<sup>&</sup>lt;sup>68</sup> Brentin Mock, *What New Research Says About Race and Police Shootings*, CITYLAB (Aug. 6, 2019), https://www.citylab.com/equity/2019/08/police-officer-shootings-gun-violence-racial-bias-crime-data/595528/.

groups were *not* attacking police officers when they were killed, compared to just 17 percent of White people.<sup>69</sup>

#### B. Real-Life Examples of Policing with Racial Bias

Spot-on illustrations of Professor Nix's findings are highlighted by the high-profile killings of Eric Garner, George Floyd, and Anthony Hill. This Article first highlighted the brutal killing of an unarmed Eric Garner, who was neither combative nor a physical threat at the time of his arrest.<sup>70</sup> Officer Pantaleo nonetheless chose to subdue Eric Garner by performing a department-prohibited chokehold until Eric Garner completely stopped breathing.<sup>71</sup> Six years after Officer Pantaleo choked the last breath out of Eric Garner, came the highly-controversial and extra-judicial killing of George Floyd that inevitably convulsed the nation with protests over race and police brutality. 72 In response to a claim that Mr. Floyd paid for cigarettes with a counterfeit \$20 bill, Officer Chauvin kneeled on Mr. Floyd's neck for over eight minutes.<sup>73</sup> Four days later, on May 29, 2020, Officer Chauvin was charged with second-degree murder, third-degree murder and manslaughter. 74 The three other officers at the scene, Tou Thao, J. Alexander Kueng, and Thomas Lane, who were depicted on video footage surrounding Officer Chauvin as he killed an unarmed Mr. Floyd, were charged with aiding and abetting second-degree murder. 75

Regrettably, but not dissimilarly, a police officer killed Air Force veteran Anthony Hill on March 9, 2015 in Dekalb County, Georgia. Anthony Hill was wandering outside his apartment complex both *naked* and *unarmed* when Officer Robert Olsen responded to a report of a suspicious person who was "possibly demented" running around in the complex's parking lot. Upon Olsen's arrival at 1:19 p.m., Hill was seen crouching

305

<sup>&</sup>lt;sup>69</sup> *Id*.

<sup>&</sup>lt;sup>70</sup> See Wheeler, supra note 3.

<sup>&</sup>lt;sup>71</sup> See Wheeler, supra note 3.

<sup>&</sup>lt;sup>72</sup> See generally, Bote, supra note 8 (detailing conversation between George Floyd and the officers, moments before Floyd was killed).

<sup>&</sup>lt;sup>73</sup> See Hill et al., supra note 10.

Table Lee, Fact Check: Ex-police Officer Charged with Killing George Floyd 'Alive and Well,' Lawyer Says, USA TODAY (Dec. 21, 2020, 2:23 PM), https://www.usatoday.com/story/news/factcheck/2020/12/21/fact-check-derek-chauvin-alive-well-lawyer-says/3989525001/.

<sup>&</sup>lt;sup>75</sup> Chao Xiong and Liz Sawyer, *Bodycam Video Shows Officer Pulled Gun on George Floyd Early On*, STARTRIBUNE (Jul. 16, 2020), https://www.startribune.com/bodycam-video-shows-minneapolis-police-officer-pulled-gun-on-george-floyd-early-on/571778072/.

<sup>&</sup>lt;sup>76</sup> Steve Fennessy, *Did Anthony Hill Have to Die?*, ATLANTA MAG. (Sept. 5, 2019), https://www.atlantamagazine.com/great-reads/an-unarmed-man-the-cop-who-killed-him-and-the-challenge-of-policing-mental-illness/.

<sup>&</sup>lt;sup>77</sup> Id.

naked in between the buildings but immediately began running towards the patrol car after seeing Officer Olsen. However, although Olsen recounts Hill was sprinting, another witness notes that Hill was not "running really fast." Here so, Officer Olsen asked Hill to stop, but when Hill did not acquiesce, Olsen shot an unarmed Hill twice. It is important to note that Hill was Black and suffered from serious mental health issues, which included both bipolar disorder and posttraumatic stress disorder.

When viewed in isolation, these anecdotes may seem like unfortunateyet-unrelated encounters. However, a certain pattern starts to arise when comparing the experiences of Eric Garner, George Floyd, and Anthony Hill with those of Patrick Crusius and Dylann Roof. Patrick Crusius is the White, twenty-one-year-old man responsible for the racially-motivated mass shooting at a Walmart in El Paso, Texas.<sup>82</sup> Upon killing twenty people and leaving more than two dozen others injured on August 3, 2019. the police managed to arrest Crusius without incident. 83 Similarly, Dylann Roof is the White, twenty-one-year-old man responsible for the massacre of nine people inside a historically Black church in Charleston, South Carolina.<sup>84</sup> Roof was not only also apprehended without incident in North Carolina, but was also photographed in a bulletproof vest both when he walked to a police car and as he was being ushered onto a plane for extradition back to South Carolina. 85 While in custody, police officers even went to a nearby Burger King and bought the accused mass murderer a meal.<sup>86</sup> Admittedly, although no suspects deserve to be mistreated, or starved for that matter, it is doubtful that a Black fugitive in the South would have received the same post-arrest treatment that Roof received.

It should, at the very least, raise suspicion that Garner's alleged selling of untaxed loose cigarettes and Floyd's fake \$20 bill resulted in them being choked and pinned to death, respectively, but police managed to take

<sup>&</sup>lt;sup>78</sup> *Id*.

<sup>&</sup>lt;sup>79</sup> *Id*.

<sup>&</sup>lt;sup>80</sup> Id.

<sup>81</sup> *Id* 

<sup>&</sup>lt;sup>82</sup> Barbara Campbell, U.S. Charges Suspect In El Paso Walmart Shootings With Hate Crimes, NPR (Feb. 6, 2020, 7:29 PM), https://www.npr.org/2020/02/06/803503292/u-s-charges-walmart-gunman-in-el-paso-with-hate-crimes.

<sup>&</sup>lt;sup>83</sup> Joshua Bote, *The El Paso Walmart Shooting Suspect Identified as a 21-year-old Man from a Dallas Suburb*, USA TODAY (Aug. 3, 2019, 7:28 PM), https://www.usatoday.com/story/news/nation/2019/08/03/el-paso-walmart-shooting-patrick-crusius-dentified-shooter/1912617001/.

<sup>&</sup>lt;sup>84</sup> Mike Pearl, Why Are Some People Saying Dylann Roof Was Given Special Treatment When He Was Arrested?, VICE (June 23, 2015, 6:00 PM), https://www.vice.com/en\_us/article/4wbnzd/why-aresome-people-saying-dylann-roof-was-given-special-treatment-when-he-was-arrested-623.

<sup>85</sup> Id.

<sup>86</sup> Id.

307

#### 2021] SCANNING FOR BIAS

Crusius into custody safe and sound, shortly after committing one of the deadliest mass shootings in modern United States history. The should raise even further concern about why Hill's running around naked in a parking lot resulted in him being shot twice, but police officers bought Dylann Roof—a man who had reportedly yelled "I'll give you something to pray about!" as he opened fire on a group of Black parishioners—a Burger King meal while in custody for gunning down congregated church members. 88

#### C. Identify the Problem: Understanding Implicit Racial Bias

Professor Nix interprets the disparate experiences between Black men like Eric Garner, George Floyd, and Anthony Hill and White men like Patrick Crusius and Dylann Roof as "preliminary evidence of an implicit bias effect" against Black Americans and people of color. 89 There is a notable difference between implicit racial bias and explicit racism or discrimination.<sup>90</sup> Implicit biases are activated involuntarily; the individual is likely unaware of the biased association. 91 These associations can cause an individual to unknowingly act in discriminatory ways because their perceptions have been formed by the social world around them, specifically by implicit attitudes (unconscious preferences) and implicit stereotypes (unconscious mental associations between a group and a particular trait), such as associating Black men with violence and White men with safety.92 Because implicit associations arise outside of unconscious awareness, they do not necessarily align with an individual's openly held beliefs and morals.<sup>93</sup> Therefore, a person can often harbor implicit bias even in the absence of outward bigotry or racism.<sup>94</sup> Implicit biases predict and affect everyday behavior, and especially influence nondeliberate or spontaneous discriminatory actions.95

In light of the fact that no one is immune from harboring unconscious thoughts and associations—even police officers—it is imperative to create a

<sup>87</sup> See Wheeler, supra note 3; Phil Helsel & Kalhan Rosenblatt, Horror in El Paso Another in a Long List of Mass Killings Plaguing the Nation, NBC NEWS (Aug. 3, 2019, 8:11 PM), https://www.nbcnews.com/news/us-news/mass-shooting-el-paso-deadliest-2019-among-worst-modernu-n1039016.

<sup>88</sup> See Fennessy, supra note 76; Pearl, supra note 84.

<sup>89</sup> See Mock, supra note 68.

<sup>&</sup>lt;sup>90</sup> JUSTICE RESEARCH AND STATISTICS ASS'N, IMPLICIT RACIAL BIAS FACT SHEET 1 (2018), http://www.jrsa.org/pubs/factsheets/jrsa-factsheet-implicit-racial-bias.pdf.

<sup>&</sup>lt;sup>91</sup> *Id*.

<sup>92</sup> Anthony G. Greenwald & Linda Hamilton Krieger, Implicit Bias: Scientific Foundations, 94 CAL. L. REV. 945 (2006).

<sup>93</sup> Id.

<sup>&</sup>lt;sup>94</sup> Id.

<sup>95</sup> Id. Implicit bias can unintentionally affect spontaneous behaviors such as eye contact, seating distance, and other such actions that may communicate social warmth or discomfort.

channel that addresses the importance of becoming aware of individualized implicit biases. <sup>96</sup>There may be contributing reasons, or no reasons, why men of color are more common victims to overall police contact, but implicit racial bias presumably influences these encounters since no one is immune to biased associations. <sup>97</sup> This Article does not attempt to address whether law enforcement is knowingly policing with racial bias, but instead expressly assumes that race *is* a factor to probe, especially when looking at data and evidence to expose the disparate police encounters men of color face when compared to police encounters faced by White men.

#### D. How Implicit Bias Influences Police Judgment

Understanding how implicit racial bias functions can help clarify why police officers may not be aware of how their implicit associations or animus perpetuate a racially unjust system. This should be concerning to officers who strive to uphold justice. Implicit racial bias intersects with policing when officers are faced with ambiguous situations (i.e., when an officer may not know what another person is doing or is going to do). <sup>98</sup> These situations force police officers to react quickly, leading them to rely on their implicitly associated stereotypes and prejudices. <sup>99</sup> Joshua Correll's experiment, *The Police Officer's Dilemma*, directly addresses police use of ethnicity to disambiguate potentially threatening individuals. <sup>100</sup> The experiment involved a videogame which showed participants images of young Black or White men, either holding weapons or innocuous objects, such as soda cans or cell phones. <sup>101</sup> The simulation required the participants to shoot armed targets but not unarmed targets. <sup>102</sup>

Correll found that the student participants would shoot armed targets more often and more quickly when they were Black and would refrain from shooting more frequently when an armed target was White. 103 The most common mistake among the participants was shooting an unarmed Black target and failing to shoot an armed White target. 104 These findings are consistent with prevailing racial stereotypes (i.e., that most White people

<sup>&</sup>lt;sup>96</sup> See JUSTICE RESEARCH AND STATISTICS ASS'N, supra note 90.

<sup>97</sup> See Id

<sup>&</sup>lt;sup>98</sup> Katherine B. Spencer et al., *Implicit Bias and Policing*, 10 Soc. & PERSONALITY PSYCHOL. COMPASS 50 (2016).

<sup>99</sup> Id.

<sup>&</sup>lt;sup>100</sup> Joshua Correll et al., *The Police Officer's Dilemma: Using Ethnicity to Disambiguate Potentially Threatening Individuals*, 83 J. PERSONALITY & SOC. PSYCHOL. 1314 (2002).

<sup>&</sup>lt;sup>101</sup> *Id*.

<sup>&</sup>lt;sup>102</sup> *Id*.

<sup>&</sup>lt;sup>103</sup> *Id*.

<sup>&</sup>lt;sup>104</sup> *Id*.

are unarmed and that Black people are armed), implicating that these stereotypes are being used to disambiguate targets. 105

The experiment was then performed using police officers as participants and found that the officers also showed "evidence of bias in their reaction times, more quickly reacting to armed Black targets and unarmed White targets—in other words, targets that aligned with racial stereotypes." Correll's experiment is only one example of how police officers are susceptible to stereotyping or associated prejudices. As officers are entrusted with significant power, discretion, and are frequently required to react quickly to life-threatening-sometimes ambiguous-situations, it is critical to understand the impact of implicit racial bias and its potential effect on police action.

#### IV. THE NEUROSCIENCE OF IMPLICIT RACIAL BIAS

Part II outlined how implicit associations arise outside of unconscious awareness, and how no one-not even police officers-is immune from implicit associations. 107 This section surveys the experiments that study the neuroscience behind implicit bias: where it is found in the brain, and how exactly it is detected. In sum, this section outlines the methods and measurement tools that are able to test for individualized racial bias.

Implicit attitudes and stereotypes specifically derive out of the fast. automatic neurological system; this is the system that performs rapid, intuitive thinking and makes automatic judgments without any conscious involvement. 108 The automatic neurological system is also the system that houses the amygdala. 109 The amygdala is a subcortical structure in the anterior-temporal lobe and is the brain area most commonly studied when measuring implicit biases (i.e., Black-White race attitudes, beliefs, and social decision-making). 110 Accordingly, experts have increasingly turned to functional magnetic resonance imaging ("fMRI") to view the mental responses to race and ethnicity, as the amygdala is the brain region most consistently implicated in fMRI studies of race. 111

309

<sup>105</sup> Kimberly Barsamian Kahn & Paul G. Davies, What Influences Shooter Bias? The Effects of Suspect, Race, Neighborhood, and Clothing on Decisions to Shoot, 73 J. SOC. ISSUES, 723, 728 (2017).

<sup>&</sup>lt;sup>106</sup> See Correll et al., supra note 100.

<sup>&</sup>lt;sup>107</sup> See JUSTICE RESEARCH AND STATISTICS ASS'N, supra note 90.

<sup>108</sup> Joshua Gowin, The Neuroscience of Racial Bias, PSYCHOL. TODAY (Aug. 20, 2012), https://www.psychologytoday.com/us/blog/you-illuminated/201208/the-neuroscience-racial-bias.

<sup>109</sup> Elizabeth A. Phelps et al., Intact Performance on an Indirect Measure of Race Bias Following Amygdala Damage, 41 NEUROPSYCHOLOGIA 203 (2003).

<sup>110</sup> Id.

<sup>&</sup>lt;sup>111</sup> *Id*.

Although amygdala activation consistently correlates with implicit racial preference measures, damage to the amygdala only impairs performance on physiological measures of implicit preference, so it is useful to implement other physiological methods to determine racial biases. The implicit association test ("IAT"), for example, measures the strength of association between concepts, such as White and Black, and attributes, such as good and bad; this test is an added method to measure implicit preferences. 113

A 2000 study by Elizabeth Phelps, a cognitive neuroscientist at New York University, evaluated fMRI for identifying amygdala activation to racial preferences and IAT testing as an indirect, evaluation for the same. 114 To examine whether the amygdala in fact correlated with racial bias, Phelps analyzed the unconscious bias of White participants while under an fMRI scanner by capturing the subject's amygdala activation responses to pictures of White and Black males. 115 Phelps also asked participants to categorize words as either "good" (joy, diamond, peace) or "bad" (grief, war, agony), while the subjects categorized the faces they saw in the fMRI machine as Black or White. 116 This part of the experiment is an IAT. 117 Half of the trials used the same response for good and White (left button for good/White, right for bad/Black), while the other half of the trials switched pairings and used the same response for good and Black (left for good/Black, right for bad/White). 118 Phelps interpreted bias by how much longer someone takes on good/Black compared to good/White trials. 119 Therefore, participants who took longer when good is paired with Black, or when bad is paired with White, evidences that they had greater implicit racial bias. 120

Participants with a slower response time, i.e., stronger racial bias, also had the most activation in their amygdala when viewing Black faces compared to viewing White faces.<sup>121</sup> In essence, the same participants who

<sup>112</sup> Id.

<sup>&</sup>lt;sup>113</sup> Anthony G. Greenwald et al., *Measuring Individual Differences in Implicit Cognition: The Implicit Association Test*, 74 J. PERSONALITY & SOC. PSYCHOL. 1464 (1998). Psychologists Banaji of Harvard; Greenwald, of the University of Washington; and Nosek of the University of Virginia created the IAT, which is designed to reveal various different kinds of biases—gender, race, body type, etc.

<sup>&</sup>lt;sup>114</sup> See generally, Elizabeth A. Phelps et al., Performance on Indirect Measures of Race Evaluation Predicts Amygdala Activation, 12 J. COGNITIVE NEUROSCIENCE 729 (2000).

<sup>&</sup>lt;sup>115</sup> *Id*.

<sup>&</sup>lt;sup>116</sup> *Id*.

<sup>&</sup>lt;sup>117</sup> *Id*.

<sup>&</sup>lt;sup>118</sup> *Id*.

<sup>&</sup>lt;sup>119</sup> *Id*.

<sup>120</sup> See Gowin, supra note 108.

See Phelps et al., supra note 114.

were the slowest at responding when Black was paired with good had the greatest amygdala activation when viewing Black faces. As Phelps explains, "the slower response time suggests that they have to override the automatic response of the amygdala that tells them that Black should be paired with bad, so it takes them longer to press the correct button when Black is paired with good." Less amygdala stimulation means fewer competing thoughts preventing someone from pressing the left button for both Black and good. 124

#### V. IT IS IMPERATIVE TO BE PROACTIVE, NOT REACTIVE

As touched on when introducing this Article, it is notoriously difficult to prosecute police officers who shoot and kill unarmed men of color, and even if these officers are put on trial, they are shielded by the doctrine of qualified immunity. Officials are immune from civil liability "so long as their conduct does not violate clearly established statutory or constitutional rights of which a reasonable person would have known." Justice Sotomayor notes that qualified immunity is "sanctioning a 'shoot first, think later' approach to policing."

Consequently, this section dives into potential proactive neuroscientific solutions aimed at reducing or eliminating police killings of unarmed men of color. First, this section addresses the direct and indirect costs associated with fatal police violence. Next, it will attempt to remediate those costs by proposing that the New York City Police Department implement a pilot program incorporating pre-employment fMRI and IAT police officer screenings. These screenings will detect and eliminate strong racial biases and thus strive to remove implicit associations while policing.

#### A. How Much is Police Violence Actually Costing the United States

Police violence not only directly impacts its victims and their families but is also a public health phenomenon and an economical drain for taxpayers. Daniel Pantaleo, the police officer who killed Eric Garner, was fired from the New York City Police Department and stripped of his

311

Phelps et al., supra note 114.

<sup>&</sup>lt;sup>123</sup> See Gowin, supra note 108.

Gowin, supra note 108.

<sup>&</sup>lt;sup>125</sup> See Mullenix v. Luna, 577 U.S. 7, 11 (2015).

<sup>126</sup> Id.

<sup>127</sup> Id. at 18.

pension benefits.<sup>128</sup> Therefore, even if officers are not held civilly liable, police departments likely feel pressured to fire officers rather than keeping them on the force, given the wide-spread media coverage surrounding police violence victims. Although optimists may consider the termination of these police officers to be a victory, it is only a reactive decision to a much larger problem—the evident interrelatedness between policing and implicit bias.

The decision to fire Officer Pantaleo only came *after* an "11 Days of Outrage" movement on behalf of Eric Garner. Hundreds of activists, including Garner's family, marched throughout New York City in protest of the Department of Justice's refusal to bring federal charges against Officer Pantaleo. In the same way, after George Floyd's death, protests erupted in over 140 cities across the country, the National Guard was activated in twenty-one states, and the police resorted to using tear gas and rubber bullets on crowds. Both the "11 Days of Outrage" movement and the protests which inaugurated after the death of George Floyd comprehensively illustrate the physical and mental impact police violence has on society.

For instance, Abigal A. Sewell, an associate professor of sociology at Emory University, conducted a study that examined whether excessive police use of force impacted the overall health of those living in minority communities. Professor Sewell found a link between "living in minority communities with a high concentration of use of force by police against pedestrians" and a higher risk of diabetes and obesity. A 2018 report published in the Journal of Epidemiology and Community Health also analyzed the rate of years of life lost for each person killed by police in 2015 and 2016 by dissecting their race and ages and then comparing them to the average life expectancy for those groups. A Namely, years of life lost

Devlin Barrett, NYPD Fires Officer at the Center of Eric Garner's Death, WASH. POST (Aug. 19, 2019, 8:13 PM), https://www.washingtonpost.com/national-security/nypd-fires-officer-in-eric-garner-case/2019/08/19/2d0ead96-c296-11e9-b72f-b31dfaa77212\_story.html.

<sup>&</sup>lt;sup>129</sup> Ray Villeda, *Arrests Made as Eric Garner Protests Break Out at Mayor's Office in Gracie Mansion*, NBC N.Y. (Jul. 18, 2019, 9:41 PM), https://www.nbcnewyork.com/news/local/arrests-made-as-eric-garner-protests-break-out-at-mayors-office-in-gracie-mansion/1527174/.

<sup>&</sup>lt;sup>130</sup> Bobby Allyn, NYPD Officer Will Not Face Federal Criminal Charges In Eric Garner's Death, NPR (July 16, 2019, 10:47 AM), https://www.npr.org/2019/07/16/742186042/nypd-officer-wont-face-federal-criminal-charges-in-eric-garner-s-death-sources-s.

<sup>&</sup>lt;sup>131</sup> Derrick Bryson Taylor, *George Floyd Protests: A Timeline*, N.Y. TIMES (July 10, 2020), https://www.nytimes.com/article/george-floyd-protests-timeline.html.

<sup>&</sup>lt;sup>132</sup> Abigail A. Sewell et al., *The Illness Associations of Police Violence: Differential Relationships by Ethnoracial Composition*, 32 SOCIOL. FORUM 975 (2017).

<sup>133</sup> Id.

<sup>&</sup>lt;sup>134</sup> Anthony L. Bui et al., Years of Life Lost Due to Encounters with Law Enforcement in the USA, 2015-2016, 72 J. EPIDEMIOL. COMMUNITY HEALTH 715 (2018).

were a key metric for evaluating the number of years a person could have lived had they not died prematurely because of police violence.<sup>135</sup> The report confirmed that 57,375 years of life were lost due to police violence in 2015, and 54,754 years of life were lost in 2016.<sup>136</sup> People of color accounted for 51.5 percent of years of life lost, and the most affected age group was 25–34.<sup>137</sup> According to the authors, "YLLs highlight that police violence disproportionately impacts young people, and the young people affected are disproportionately people of color. Framing police violence as an important cause of death among young adults provides another valuable lens to motivate prevention efforts." <sup>138</sup> According to another study published in the American Journal of Public Health, data substantiates the notion that even witnessing or hearing about police killings of unarmed Black Americans results in "poor mental health" days. <sup>139</sup>

In addition to the lingering mental health symptoms associated with police violence, there are also indirect financial costs. First, the legal system has to spend money investigating and litigating police brutality claims, which includes the costs to cities to prosecute these officers. Hotably, it is also important to dissect the cost of settling wrongful death suits brought on behalf of a victim's family. Although settlements are extremely rare, the average civil settlement in a wrongful death suit in the United States is between \$1 million to \$6 million. By way of example, the City of Cleveland paid \$6 million to settle the wrongful death lawsuit brought by Tamir Rice's parents. Tamir Rice was the 12-year-old Black boy who was fatally shot by a White police officer while holding a toy gun outside a recreation center on November 22, 2014. Tamir Rice's family sued City of Cleveland, Cleveland police officers and dispatchers who were allegedly negligent in Tamir's death and sought damages for his wrongful

<sup>&</sup>lt;sup>135</sup> *Id*.

<sup>136</sup> *Id*.

<sup>&</sup>lt;sup>137</sup> *Id*.

<sup>&</sup>lt;sup>138</sup> *Id*.

<sup>&</sup>lt;sup>139</sup> See Jacob Bor et al., Police Killings and Their Spillover Effects on the Mental Health of Black Americans: A Population-Based, Quasi-Experimental Study, 392 LANCET 302, 306 (2018).

<sup>&</sup>lt;sup>140</sup> See generally, Eleanor Lumsden, How Much Is Police Brutality Costing America?, 40 HAWAII L. REV. 141 (2017).

<sup>&</sup>lt;sup>141</sup> *Id*.

<sup>&</sup>lt;sup>142</sup> *Id*.

<sup>&</sup>lt;sup>143</sup> Trymaine Lee, *Analysis: The Cost of a Black Boy's Life*, MSNBC (Apr. 25, 2016, 4:34 PM), https://www.msnbc.com/msnbc/analysis-the-cost-black-boys-life-6-million-msna838596.

<sup>&</sup>lt;sup>144</sup> Breonna Taylor: Timeline of Black Deaths Caused by Police, BBC (Jan. 6, 2020), https://www.bbc.com/news/world-us-canada-52905408. Tamir Rice's death fueled the Black Lives Matter movement that took root in 2014 after the deaths of Michael Brown in Ferguson, Missouri, and Eric Garner in New York City.

death. 145 Although the city failed to admit any wrongdoing, they settled the matter on April 18, 2016. 146

Some major cities have already paid out more than \$50 million on police brutality claims. 147 Chicago, for example, paid \$521 million between 2004 and 2014. 148 The City of Los Angeles has paid approximately \$101 million between 2002 and 2011, and Oakland has paid \$74 million between 1990 and 2014. 149 New York City paid \$348 million between 2006 and 2011, and most recently, from January–July 2019, NYPD misconduct had already cost the city \$40 million in lawsuit settlements alone, a 50 percent spike from the prior year. 150 As noted, police violence is a public health issue that deserves to be addressed accordingly 151 and there are significant direct and indirect costs associated with police misconduct, and any attempt at remedying that cost to victims, families, and taxpayers should be embraced.

#### B. New York City Pilot Program

The direct and indirect costs attached to the effects of police violence can potentially be remediated through police screenings aimed at detecting strong racial biases. Acknowledging the problem is only half the battle—an attempt to address and potentially eliminate it is a separate hurdle. Citywide pilot programs are essentially small-scale trial runs that preliminarily evaluate feasibility, cost, consequences, and time spent in order to improve upon the program's design prior to performance of a full-scale research project. For example, in 2013, a federal judge ordered the New York City Police Department to test body cameras for one year in five precincts as a way of evaluating their effectiveness in curbing unwarranted and

<sup>&</sup>lt;sup>145</sup> Michael Pearson, *Tamir Rice Shooting: Cleveland to Pay \$6 Million to Settle Family's Lawsuit*, CNN (Apr. 25, 2016 10:56 PM), https://www.cnn.com/2016/04/25/us/tamir-rice-settlement/index.html.

<sup>&</sup>lt;sup>146</sup> *Id*.

Nick Wing, We Pay A Shocking Amount for Police Misconduct, And Cops Want Us Just To Accept It. We Shouldn't, HUFFINGTON POST (May 29, 2015, 7:39 AM), https://www.huffpost.com/entry/police-misconduct-settlements\_n\_7423386. See also Zusha Elinson & Dan Frosch, Cost of Police- Misconduct Cases Soars in Big U.S. Cities, WALL ST. J. (July 15, 2015), https://www.wsj.com/articles/cost-of-police-misconduct-cases-soars-in-big-u-s-cities-1437013834.

<sup>&</sup>lt;sup>148</sup> *Id*.

<sup>&</sup>lt;sup>149</sup> *Id*.

<sup>150</sup> *Id*; *See also* Jake Offenhartz, *NYPD Misconduct Lawsuits Have Already Cost NYC Taxpayers* \$40 *Million This Year*, GOTHAMIST (Jul. 31, 2019, 4:57 PM), https://gothamist.com/news/nypd-misconduct-lawsuits-have-already-cost-nyc-taxpayers-40-million-this-year (relying on New York City's numbers). In the beginning of 2019, there were 716 civil misconduct suits filed against 996 NYPD members with the cost of settlements totaling \$38,307,944 paid out from January-July of 2019, compared to roughly \$24 million over the same time period in 2018.

<sup>&</sup>lt;sup>151</sup> See generally, Osagie K. Obasogie & Zachary Newman, Police Violence, Use of Force Policies, and Public Health, 43 Am. J. L. AND MED, 279 (2017).

315

#### 2021] SCANNING FOR BIAS

unconstitutional stop and frisk ploys by officers. The precincts selected were in Harlem, the South Bronx, Brooklyn, Queens, and northeastern Staten Island (where Eric Garner died). The cost of beginning the program was \$60,000, but many details were not yet finalized. Wew York City eventually rolled out the program city-wide, as its advantages greatly outweighed its disadvantages—four of the five officer-related shootings that year were captured by body cameras, and the cameras were helped to keep the public and police safe, as New York's crime rate was the lowest it had been in half a century. The precincts selected were in Harlem, the program of the precincts selected were in Harlem, the program, and northeastern Staten Island of the program of the cost of beginning the program was \$40,000, but many details were not yet finalized. The program city-wide, as its advantages greatly outweighed its disadvantages—four of the five officer-related shootings that year were captured by body cameras, and the cameras were helped to keep the public and police safe, as New York's crime rate was the lowest it had been in half a century.

Similar to the body camera pilot program in 2014, New York City should also implement a pilot program incorporating pre-employment fMRI and IAT police officer screenings; these screenings will essentially mirror Elizabeth Phelps's aforementioned experiment. If proven to keep more people alive and to lower litigation costs, then the pilot program can in turn be improved upon, and ultimately incorporated as an across-the-board screening method used by all police departments.

The main idea of the IAT is to provide an understanding of the relative strength of automatic associations. <sup>156</sup> The IAT is the most prominent and widely utilized implicit bias measurement tool. <sup>157</sup> It is also highly successful at predicting prejudicial attitudes and stereotypes. <sup>158</sup> The race-based IAT works by flashing the test subject a random series of Black and White faces on a computer. <sup>159</sup> As mentioned in Part III when referencing Elizabeth Phelps's experiment, one part of the IAT involves asking the subject to click keys to associate negative terms like hurt, grief, agony, and evil with Black faces and positive terms like love, joy, diamond,

<sup>&</sup>lt;sup>152</sup> Joseph Goldstein, *Judge Rejects New York's Stop-and-Frisk Policy*, N.Y. TIMES (Aug. 12, 2013), https://www.nytimes.com/2013/08/13/nyregion/stop-and-frisk-practice-violated-rights-judge-rules.html?ref=nyregion.

<sup>&</sup>lt;sup>153</sup> J. David Goodman, *New York Police Officers to Start Using Body Cameras in a Pilot Program*, N.Y. TIMES (Sept. 4, 2014), https://www.nytimes.com/2014/09/05/nyregion/new-york-police-officers-to-begin-wearing-body-cameras-in-pilot-program.html. The pilot program began six months after Eric Garner's death.

<sup>&</sup>lt;sup>154</sup> *Id*.

<sup>&</sup>lt;sup>155</sup> New York Expands Police Cameras to All Patrol Officers, (Jan. 31, 2018), https://phys.org/news/2018-01-york-police-cameras-patrol-officers.html. Less than 300 homicides were recorded in 2017, figures not seen since 1951.

<sup>&</sup>lt;sup>156</sup> Anthony G. Greenwald et al., *Understanding and Using the Implicit Association Test: I: An Improved Scoring Algorithm*, 85 J. PERSONALITY & SOC. PSYCHOL. 197 (2003).

<sup>&</sup>lt;sup>157</sup> Adam Benforado, *Frames of Injustice: The Bias We Overlook*, 85 IND. L.J. 1333, 1363 (2010). (reporting that the IAT has "been the most widely employed in the 'hundreds (if not thousands) of studies on implicit bias'").

<sup>158</sup> Id.

<sup>&</sup>lt;sup>159</sup> Ralph Richard Banks & Richard Thompson Ford, (How) Does Unconscious Bias Matter?: Law, Politics, and Racial Inequality, 58 EMORY L.J. 1053, 1061 (2009).

peace, and happy with White faces.<sup>160</sup> In the other part of the test, the attributes are switched—the Black faces paired with the positive terms and the White faces matched with the negative ones.<sup>161</sup> At its conclusion, the race-based IAT compares how quickly the test subject links White faces with words associated with the concept "bad" and Black faces with words related to "good" or vice versa.<sup>162</sup> This suggests that because the computer records the person's response times to each stimulus, at the test's conclusion, an IAT score will be calculated based on the data collected. The prevailing theory is that IAT scores demonstrate implicit or unconscious bias.<sup>163</sup> Therefore, the objective will be to flag police participants with slower responses times.

In addition to incorporating race-based IATs into pre-employment police screening procedures, police applicants should participate in fMRI testing aimed at detecting race bias-indicating amygdala activation. For instance, Phelps's experiment proffered that White participants showed stronger amygdala activation with Black faces than with White faces, and Phelps found that the strength of this activation correlated with implicit measures of racial bias. 164 Furthermore, numerous other fMRI studies have illustrated that White subjects generate greater amygdala responses to Black faces than White faces. 165 In sum, these studies deduce that amygdala activity indexes early neural assessment of potential threat associated with unfamiliar members of certain racial groups. 166 This section proposes that aspiring police officers undergo fMRI scanning while simultaneously conducting an IAT in an effort to monitor for both strong amygdala activation and high IAT scores. The results should be viewed in the aggregate and applicants with the strongest amygdala activation when seeing certain faces in conjunction with the highest IAT scores should be flagged and potentially removed from the police officer applicant pool.

This section approximates that neuroscientific testing still be conducted pre-employment, and that the brain scans and IAT scores be kept

<sup>&</sup>lt;sup>160</sup> See Greenwald, supra note 113.

<sup>&</sup>lt;sup>161</sup> *Id*.

 $<sup>^{162}</sup>$  Beth Azar,  $\it IAT: Fad$  or  $\it Fabulous?, 39$  MONITOR ON PSYCHOL. 44 (2008), http://www.apa.org/monitor/2008/07-08/psychometric.aspx.

<sup>&</sup>lt;sup>163</sup> Samuel R. Bagenstos, *Implicit Bias, "Science," and Antidiscrimination Law*, 1 HARV. L. & POL'Y REV. 477 (2007).

See Phelps et al., supra note 109.

William A. Cunningham et al., Separable Neural Components in the Processing of Black and White Faces, 15 PSYCHOL. SCI. 806 (2004); Matthew D. Lieberman et al., An fMRI Investigation of Race-Related Amygdala Activity in African-American and Caucasian-American Individuals, 8 NATURE NEUROSCI. 720 (2005); Jennifer L. Eberhardt, Imaging Race, AM. PSYCHOLOGIST 181 (2005).

<sup>&</sup>lt;sup>166</sup> Jaclyn Ronquillo et al., *The Effects of Skin Tone on Race-Related Amygdala Activity: An fMRI Investigation*, 2 Soc. Cognitive & Affective Neurosci. 39 (2007).

in each officer's prospective file. Police officers showing a strong propensity for racial bias will be offered training, in an effort to curb any major issues. There is significant evidence that implicit biases are malleable. If Ignoring the fact that race matters can cause automatic behavior based on stereotyped-congruent responses. If Therefore, if police officers are aware of their biases, motivated to change their responses, and possess cognitive resources necessary to develop and practice correction strategies, implicit biases can be changed.

#### VI. POTENTIAL CHALLENGES AND THEIR SOLUTIONS

Some may be critical of the proposed reforms discussed in Part IV. However, it is important to note that the use of fMRI and IAT to measure implicit police applicant bias is not much different than employment screening practices the government currently uses. The Eederal law enforcement units, security agencies, and many state and local public safety employers use polygraph examinations as part of their pre-employment screening of applicants. Specifically, states such as Arizona, Washington state, and Pennsylvania mandate police applicants to take and pass a polygraph test as a pre-hiring requirement. The Employee Polygraph Protection Act of 1988 ("EPPA") regulates the use of lie detector devices in the workplace. The most part, the EPPA prohibits the use of lie detector tests by private employer, but does not reach federal and state government employers. The lawful use of polygraph examinations for government employers can be directly analogized to the proposed neuroscientific implicit bias testing.

317

<sup>&</sup>lt;sup>167</sup> See generally, Irene V. Blair, The Malleability of Automatic Stereotypes and Prejudice, 6 Personality & Soc. Psychol. Rev. 242 (2002).

<sup>&</sup>lt;sup>168</sup> *Id*.

<sup>&</sup>lt;sup>169</sup> Praatika Prasad, Implicit Racial Biases in Prosecutorial Summations: Proposing an Integrated Response, 86 FORDHAM L. REV. 3091 (2018).

<sup>&</sup>lt;sup>170</sup> Bernard J. Farber, *Pre-employment Polygraph Examinations of Public Safety Applicants*, 7 AELE MO. L. J. 201 (2011). In addition to polygraph tests, police officers often have to pass a cognitive ability test, a psychological evaluation, and a physical fitness test, to name a few. *The Hiring Process*, INTERNATIONAL ASSOCIATION OF CHIEFS OF POLICE (2018), https://www.discoverpolicing.org/about-policing/the-hiring-process/.

<sup>&</sup>lt;sup>171</sup> *Id*.

TODAY (Sept. 13, 2016, 3:54 PM), https://www.usatoday.com/story/news/nation/2016/09/13/police-departments-hiring-diversity/90307342/. See Pennsylvania State Police Applicant Polygraph Screening Booklet, https://www.psp.pa.gov/employment/Documents/Polygraph%20Screening%20Booklet.pdf.

<sup>&</sup>lt;sup>173</sup> Employee Polygraph Protection Act of 1988, 29 U.S.C. § 2001.

<sup>174</sup> Id.

Polygraph tests should be replaced with fMRI and IAT testing. Police officers are routinely subjected to polygraph tests, both during preemployment screening and during investigatory procedures involving potential misconduct. 175 Although the EPPA prohibits private employers from using polygraphs in the workplace, there is an exception for federal, state, and local government employees. 176 The EPPA was enacted in response to concerns with "the inability of lie detectors to measure and determine truthfulness, the substantive shortcomings of lie detector techniques, and the efficacy of countermeasures to obscure testing accuracy."<sup>177</sup> However, during the EPPA debates, the Congressional floor raised concerns regarding the inconsistency in the treatment of governmental and private employers.<sup>178</sup> Specifically, Congressman William Darden raised the issue of a "double standard," arguing "if this polygraph is such quackery or witchcraft, why do we not apply it fully across the board and give the same protection to everyone that we are giving to those employees within the private sector?"<sup>179</sup>

According to the American Polygraph Association, 62 percent of police departments across the country conducted polygraph examinations as part of their pre-employment selection process of officers in 2014, in order to evaluate the potential for unethical behavior. Another study found that one in four police applicants are disqualified solely based on their polygraph results, despite their unreliability and lack of judicial acceptance. In 1998, the Supreme Court even stated that "[t]here is simply no consensus that polygraph evidence is reliable." In a 2003 report, the National Academy of Sciences plainly stated that the majority of polygraph research was "[u]nreliable, [u]nscientific and [b]iased," as fifty-seven of eighty research studies relied on by polygraph proponents were flawed. That same report concluded that the government should not rely

<sup>&</sup>lt;sup>175</sup> Mark Harris, *The Lie Generator: Inside the Black Mirror World of Polygraph Job Screenings*, WIRED (October 1, 2020, 7:00 AM), https://www.wired.com/story/inside-polygraph-job-screening-black-mirror/.

<sup>&</sup>lt;sup>176</sup> 29 U.S.C. § 2006(a); 29 C.F.R. § 801.10(a) (2010).

<sup>&</sup>lt;sup>177</sup> Joseph M. Pellicciotti, *The Employee Polygraph Act of 1988: A Focus on the Act's Exemptions and Limitations*, 51 LOY. L. REV. 911, 917 (2005).

<sup>&</sup>lt;sup>178</sup> 134 Cong. Rec. H3726, 3728 (daily ed. June 1, 1988) (statement of Rep. Darden).

<sup>&</sup>lt;sup>179</sup> *Id*.

<sup>&</sup>lt;sup>180</sup> American Polygraph Association. (n.d.), from the American Polygraph Association website, polygraph.org

<sup>&</sup>lt;sup>181</sup> Brendan I. Koerner, *Lie Detector Roulette*, MOTHER JONES (Nov. 1, 2002, 4:00 AM), http://www.motherjones.com/politics/2002/11/lie-detector-roulette.

<sup>&</sup>lt;sup>182</sup> United States v. Scheffer, 523 U.S. 303, 305 (1998).

<sup>&</sup>lt;sup>183</sup> See Farber, supra note 170.

on polygraph examinations for screening employees due to its lack of scientifically established validity.<sup>184</sup>

Polygraph examinations are routinely utilized as a pre-employment practice for police screening despite their unreliability. Considering the government's current use of notoriously unreliable polygraph examinations to screen police applicants, courts should permit police departments to use fMRI and IATs as pre-employment screening tools to detect strong implicit The polygraph measures the overall physiological response that comes from lying, such as nervousness and stress, while the fMRI records the brain activity involved in executing the cognitive task of deception making it more difficult to deceive. 185 Although the IAT is not perfect and has been criticized, 186 it should still be used in conjunction with fMRI when screening for implicit biases. Some critics argue that the IAT is not reliable enough to test for implicit bias because, according to Russell Fazio, a social psychologist at Ohio State University, "[t]here's no way to determine whether it's measuring unconscious attitudes or simply associations picked up from the environment." <sup>187</sup> However, notwithstanding this criticism, the IAT has shown to be more reliable than polygraphs and should be implemented first into a pilot program to better gauge its reliability and validity.

#### VII. CONCLUSION

On September 22, 2020, former President Donald Trump issued an executive order banning anti-bias training for not only federal workers but also for corporations doing business with the government. During Donald Trump's first presidential debate with Joe Biden, Trump stated that he ended it because "it's racist." The executive order targeted sensitivity training that is "rooted in the pernicious and false belief that America is an

<sup>184</sup> Id. at 206.

<sup>&</sup>lt;sup>185</sup> Charles N.W. Keckler, *Cross-Examining The Brain: A Legal Analysis of Neural Imaging for Credibility Impeachment*, 57 HASTINGS L.J. 509, 543 (2006); Press Release, Radiological Soc'y of N. Am., *Who's the Liar? Brain Stands Up to Polygraph Test* (Jan. 31, 2006), available at https://www.eurekalert.org/pub\_releases/2006-01/rson-wtl013006.php (quoting researcher claiming that "since brain activation is arguably less susceptible to being controlled by an individual, our research will hopefully eliminate the shortcomings of the conventional polygraph test and produce a new method of objective lie detection that can be used reliably in a courtroom or other setting.").

<sup>&</sup>lt;sup>186</sup> See Azar, supra note 162.

<sup>&</sup>lt;sup>187</sup> *Id*.

<sup>&</sup>lt;sup>188</sup> Exec. Order No. 13950, 89 Fed. Reg. 60683 (Sep. 22, 2020).

Read the Full Transcript from the First Presidential Debate Between Joe Biden and Donald Trump, USA TODAY (Sept. 30, 2020, 1:10 PM), https://www.usatoday.com/story/news/politics/elections/2020/09/30/presidential-debate-read-full-transcript-first-debate/3587462001/.

irredeemably racist and sexist country."<sup>190</sup> Notwithstanding the former President's perspective, police responses to the June 2020 Black Lives Matter<sup>191</sup> protests and the January 6, 2021 breach of the U.S. Capitol Building illustrate the peremptory need for bias reform.<sup>192</sup> George Floyd's death on May 25, 2020 ignited hundreds of protests across the country, some of which resulted in black protestors being tear gassed, shot with rubber bullets, and arrested.<sup>193</sup> Conversely, a few days before President-Elect Joe Biden's inauguration, police officers were seen taking selfies with the Donald Trump supporters who stormed the U.S. Capitol while Congress validated President-Elect Joe Biden's electoral victory.<sup>194</sup>

Implicit bias is not quackery. During the first presidential debate, in September of 2016, Hillary Clinton discussed how implicit bias in policing can have "fatal consequences." More recently, at the vice-presidential debate between Kamala Harris and Mike Pence in October of 2020, Senator Harris 196 reiterated her initiative on training law enforcement on implicit bias because "Joe Biden and [Kamala Harris] recognize that implicit bias exists." The United States Department of Justice has also integrated training for more than 28,000 of its employees on how unconscious biases influence policing. And in 2015, the Supreme Court notably referenced

<sup>&</sup>lt;sup>190</sup> Exec. Order No. 13950, 89 Fed. Reg. 60683 (Sep. 22, 2020).

<sup>&</sup>lt;sup>191</sup> Black Lives Matter is an organization that began after George Zimmerman's acquittal in 2013, the police officer on trial for the murder of Trayvon Martin. The organization focuses on fighting for the equal rights of Black-Americans. Leah Asmelash, *How Black Lives Matter Went from a Hashtag to a Global Rallying Cry*, CNN (July 26, 2020 2:00 PM), https://www.cnn.com/2020/07/26/us/black-lives-matter-explainer-trnd/index.html.

Nicole Chavez, Rioters Breached US Capitol Security on Wednesday. This Was the Police Response When it was Black Protesters on DC Streets Last Year, CNN (Jan. 10, 2020 11:30 PM), https://www.cnn.com/2021/01/07/us/police-response-black-lives-matter-protest-us-capitol/index.html.

<sup>&</sup>lt;sup>193</sup> *Id*.

<sup>&</sup>lt;sup>194</sup> Id. The January 2021 breach of the U.S. Capitol is the first large-scale occupation of the building since 1814. Jason Puckett, VERIFY: Has the US Capitol Ever Been Attacked Before?, WUSA (Jan. 6, 2021, 9:00 PM), https://www.wusa9.com/article/news/verify/verify-has-capitol-been-attacked-before/507-df314b7f-33c3-4af4-8029-0ed7fb86fbbf.

<sup>&</sup>lt;sup>195</sup> Clinton on Implicit Bias in Policing, WASH. POST (Sept. 26, 2016, 9:00 PM), https://www.washingtonpost.com/video/politics/clinton-on-implicit-bias-in-policing/2016/09/26/46e1e88c-8441-11e6-b57d-dd49277af02f video.html.

<sup>196</sup> Now Vice President Kamala Harris

<sup>197</sup> Steve Nelson, Mike Pence Slams Kamala Harris for her Racial Disparities as Prosecutor, N.Y. POST (Oct. 7, 2020, 11:18 PM), https://nypost.com/2020/10/07/pence-berates-kamala-harris-for-her-racial-disparities-as-prosecutor/.

<sup>&</sup>lt;sup>198</sup> Science of Implicit Bias to Be Focus of US Law Enforcement Training, ASSOCIATION FOR PSYCHOLOGICAL SCIENCE (Jul. 29, 2016), https://www.psychologicalscience.org/publications/observer/obsonline/science-of-implicit-bias-to-be-focus-of-us-law-enforcement-training.html.

#### SCANNING FOR BIAS 2021] 321

implicit bias in a ruling allowing federal action against housing policies that have a disparate impact and are being overtly discriminating. <sup>199</sup>

The ideas and science behind implicit racial bias are gaining a strong foothold in modern-day society. Therefore, it is not a foreign concept to emphasize the need for police reform within the context of preemptively addressing and testing for implicit racial bias. In sum, the data and evidence proffered by this Article proves that men of color die at a disproportionate rate as a result of police violence in comparison to White men. The evidence also suggests that testing for implicit bias is becoming substantively more reliable, especially when compared to other examinations such as polygraph tests. Yet, notwithstanding the polygraph's unreliability, police departments have still chosen to implement polygraph tests into their application process. This Article proposed that instead of utilizing a knowingly undependable exam, police departments should introduce fMRI measuring and IATs into their screening processes to detect for strong indications for racial bias. However, at the outset, the New York City Police Department should launch a pilot program requiring police officers to undergo pre-employment neuroimaging screening in order to truly gauge the testing's capabilities, feasibility, cost, and consequences. This initiative would be similar to the 2014 body camera pilot program implemented in five of New York City's police precincts, which was ultimately rolled out across the entire city.<sup>200</sup> Policing is inextricably connected to race and any propositions aimed at exposing and remedying the effects of racially biased policing should be embraced.

199 Tex. Dep't of Hous. & Cmty. Affairs v. Inclusive Cmtys. Project, Inc., 576 U.S. 519, 521 (2015).

<sup>200</sup> See Goodman, supra note 153.