

## *Symposium Book Review*

### Reducing Gun Violence with ShotSpotter Gunshot Detection Technology and Community-Based Plans: What Works?

BLEEDING OUT: THE DEVASTATING CONSEQUENCES OF URBAN VIOLENCE—AND A BOLD NEW PLAN FOR PEACE IN THE STREETS. Thomas Abt. NY: Basic Books, 2019. ISBN - 13: 978-1541645721. Pp. 304. \$30.

WE SEE IT ALL: LIBERTY AND JUSTICE IN AN AGE OF PERPETUAL SURVEILLANCE. Jon Fasman. NY: PublicAffairs, 2021. ISBN - 13: 978-1541730670. Pp. 288. \$28.

REVIEWED BY HARVEY GEE\*

*“Urban violence is better understood as a grievous injury, a gushing wound that demands immediate attention in order to preserve life and limb.”<sup>1</sup>*

---

\* The author is an attorney with the City Attorney’s Office, City of San Jose. He previously served as an attorney with the Office of the Federal Public Defender in Las Vegas and Pittsburgh, the Federal Defenders of the Middle District of Georgia, and the Office of the Colorado State Public Defender. The views expressed in this Review are solely of the author. The author thanks the editors at the Oregon Law Review, including Caleb Crahan, Natalie Fisher, Zoë Habekost, Lindsey Hagmaier, Grace Kaesermann, and Kaitlyn Lindaman, for their hard work, comments, suggestions, and invitation to participate in the Oregon Law Review Volume 100 Symposium: “Looking to the Future of Racial Justice & Criminal Law.”

<sup>1</sup> THOMAS ABT, BLEEDING OUT: THE DEVASTATING CONSEQUENCES OF URBAN VIOLENCE—AND A BOLD NEW PLAN FOR PEACE IN THE STREETS 2 (2019).

“*[T]he panoptic powers of modern surveillance . . . imperil our democracy in a way that we’ve never before seen. . . . It is our responsibility to speak up for ourselves, our civil liberties, and the sort of world we want to see.*”<sup>2</sup>

## INTRODUCTION

The COVID-19 pandemic brought isolation and economic turmoil and accelerated the gun violence crisis in America with 3,906 more gun deaths and 9,278 more gun injuries in 2020 than 2019.<sup>3</sup> The crisis is worsening: skyrocketing gun violence is sweeping the nation, with the rate of shootings climbing toward a twenty-year peak this year and more than 24,000 gun fatalities reported as of July 25, 2021.<sup>4</sup> In the first half of 2021, 800 juveniles were victims of gun violence, and there were eighteen mass shootings in twelve cities that left nineteen dead and seventy-four wounded.<sup>5</sup> The West and East Coasts experienced the largest spikes: a recent California Department of Justice report shows that California homicides jumped 31% in 2020; in New York City, shootings in June 2020 increased by 130% compared to the same time the year prior.<sup>6</sup>

Gun violence affects us all. Yet people of color have been disproportionately affected by this unrelenting violence. In New York City, about 95–100% of shooting victims were Black and Hispanic in June 2020.<sup>7</sup> Although African Americans made up 6.5% of California’s

---

<sup>2</sup> JON FASMAN, WE SEE IT ALL: LIBERTY AND JUSTICE IN AN AGE OF PERPETUAL SURVEILLANCE 5 (2021).

<sup>3</sup> *Gun Violence and COVID-19 in 2020: A Year of Colliding Crises*, EVERYTOWN RESEARCH (May 7, 2021), <https://everytownresearch.org/report/gun-violence-and-covid-19-in-2020-a-year-of-colliding-crises/> [<https://perma.cc/U5LK-CHC8>]; see also Nicole Goodkind, *The Pandemic and Gun Violence Created a ‘Perfect Storm of Tragedy,’* FORTUNE (June 25, 2021, 6:51 AM), <https://fortune.com/2021/06/25/pandemic-gun-violence-moms-demand-action-shannon-watts/> [<https://perma.cc/983M-CUEL>].

<sup>4</sup> See Marlene Lenthag et al., *One Nation Under Fire: A Week’s Glance at Gun Violence Ripping Across America*, ABC NEWS (July 25, 2021, 6:22 AM), <https://abcnews.go.com/US/nation-fire-weeks-glance-gun-violence-ripping-america/story?id=78852666> [<https://perma.cc/6E7M-WLFD>].

<sup>5</sup> *Id.*

<sup>6</sup> David Aaro, *California Homicides Jumped 31% Last Year, State Report Says*, FOX NEWS (July 2, 2021), <https://www.foxnews.com/us/california-homicides-jumped-31-last-year-state-report-says> [<https://perma.cc/6TUU-3VUD>]; Christina Maxouris, *Black and Latino Communities Face Another Public Health Crisis Amid the Pandemic – Gun Violence*, CNN (July 15, 2020, 6:36 AM), <https://www.cnn.com/2020/07/15/us/gun-violence-covid-crisis-black-latino-communities/index.html> [<https://perma.cc/L5FR-PXR5>].

<sup>7</sup> Maxouris, *supra* note 6.

population, African Americans accounted for 31% of all victims in 2020.<sup>8</sup> In comparison, Hispanics, who make up 39% of the population of California, accounted for 45% of all victims. Only 16% of victims were white.<sup>9</sup> Approximately 74.2% of the killings in California in 2020 involved a firearm, an increase from 69% in 2019.<sup>10</sup>

Added to the mix, more than 6,603 hate incidents against Asian Americans were reported across the United States from March 2020 to March 2021.<sup>11</sup> Incidentally, this anti-Asian racism surge led to a 42% increase in purchases of firearms and ammunition by Asian Americans nationwide.<sup>12</sup>

The government has responded to this out-of-control gun violence. For instance, then-New York Governor Andrew Cuomo issued an executive order declaring a gun violence emergency, treating gun violence as a public health emergency.<sup>13</sup> The order calls for targeting gun violence hot spots, engaging with at-risk youth, getting illegal guns off the streets and out of the hands of dangerous people, and rebuilding police-community relations.<sup>14</sup> Following up, President Biden announced

---

<sup>8</sup> Aaro, *supra* note 6.

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

<sup>10</sup> *Id.*

<sup>11</sup> See, e.g., Andrew Weil, *Stop AAPI Hate Releases New Data on Hate Incidents During COVID Pandemic*, KING 5 (May 6, 2021, 8:50 AM), <https://www.king5.com/article/news/nation-world/stop-aapi-hate-data-on-hate-incidents-against-asian-americans-and-pacific-islanders/507-85373361-3ae0-4f8f-90c2-3e171e2a0f1d> [<https://perma.cc/5YUR-7LJH>]; Michael Barba, *Son of Chinese Immigrants, 19, Fatally Shot in Suspected Robbery Gone Awry*, S.F. EXAM'R (June 12, 2020, 5:35 PM), <https://www.sfexaminer.com/news/son-of-chinese-immigrants-19-shot-and-killed-in-suspected-robbery-gone-awry/> [<https://perma.cc/WT76-H985>]; Harry Harris, *Man Shot While Trying to Stop Oakland Chinatown Robbery*, MERCURY NEWS (Aug. 9, 2021, 2:14 PM), <https://www.mercurynews.com/2021/08/07/man-shot-during-oakland-chinatown-robbery/> [<https://perma.cc/QHG6-E3DC>]; Marlene Lenthag, *Atlanta Shooting and the Legacy of Misogyny and Racism Against Asian Women*, ABC NEWS (Mar. 21, 2021, 6:28 AM), <https://abcnews.go.com/US/atlanta-shooting-legacy-misogyny-racism-asian-women/story?id=76533776> [<https://perma.cc/27H3-P66D>].

<sup>12</sup> Melissa Chan, *'I've Never Seen This Level of Fear.' Why Asian Americans Are Joining the Rush to Buy Guns*, TIME (July 21, 2021, 1:05 PM), <https://time.com/6080988/asians-buying-guns/> [<https://perma.cc/J4ZT-EQL2>].

<sup>13</sup> See Artemis Moshtaghian & Steve Almasy, *New York Gov. Andrew Cuomo Declares Gun Violence Emergency in His State*, CNN (July 6, 2021, 11:02 PM), <https://www.cnn.com/2021/07/06/us/new-york-gun-violence-emergency-declaration/index.html> [<https://perma.cc/35Y3-78EY>].

<sup>14</sup> *Id.*

a new plan this summer giving increased funding to local law enforcement departments to better fight increased crime.<sup>15</sup>

Still, more must be done to reduce gun violence and improve community policing. *Bleeding Out: The Devastating Consequences of Urban Violence—and a Bold New Plan for Peace in the Streets*<sup>16</sup> and *We See It All: Liberty and Justice in an Age of Perpetual Surveillance*<sup>17</sup> bridge the chasm between academic research and practice on matters of violence and policing. Each volume is considerable on its own, but when paired together they are especially potent. The volumes are especially significant because there is a dearth of new ideas on how to reduce gun violence and what kinds of restrictions or regulations are needed to rein in police surveillance technology.

In *Bleeding Out*, Thomas Abt<sup>18</sup> looks at what works best to reduce this urban violence, which he too insists should be considered an urgent national emergency.<sup>19</sup> Abt implores communities and law enforcement to work together to reduce gun violence in a new paradigm for addressing urban violence in America,<sup>20</sup> one that implicates crime and violence deterrence strategies that target high-risk offenders and mayhem-prone groups, and that deploys additional police patrols to high crime neighborhood “hot spots” to quell criminal activity and get guns off the streets.<sup>21</sup> Abt’s schema is evidence and data informed, and moreover, it gives a platform for members of the affected community to speak out about these issues.<sup>22</sup>

In *We See It All*, Jon Fasman<sup>23</sup> examines how the police and justice systems use the immense power of surveillance technology and its unavoidable impact on privacy, liberty, and civil rights, as well as the associated moral, legal, and political issues implicated by these law enforcement tools. Certainly policing technology can help efforts to investigate and solve crime: after the deadly January 6th Capitol riot, prosecutors relied on surveillance technology including license plate

---

<sup>15</sup> See Zolan Kanno-Youngs, *Biden Aims to Bolster Police Department as Homicides Increase*, N.Y. TIMES (July 12, 2021), <https://www.nytimes.com/2021/06/23/us/politics/crime-biden.html> [<https://perma.cc/NQ7Y-9Z4D>].

<sup>16</sup> ABT, *supra* note 1.

<sup>17</sup> FASMAN, *supra* note 2.

<sup>18</sup> Senior Fellow on the Council on Criminal Justice and Director of the National Commission on COVID-19 and Criminal Justice. See ABT, *supra* note 1, at 291.

<sup>19</sup> *Id.* at 2.

<sup>20</sup> *Id.* at 2–3.

<sup>21</sup> *Id.* at 43.

<sup>22</sup> *Id.* at 9.

<sup>23</sup> Washington correspondent for *The Economist*. See FASMAN, *supra* note 2, at 1.

readers, high-definition security cameras at the U.S. Capitol Building, facial recognition technology, cellphone location data, cell-site simulator surveillance technology, and pictures and video posted on social media by participants and bystanders to identify, arrest, and prosecute individuals who breached the barricades of the Capitol.<sup>24</sup> Unfortunately, as this Review will show, the purported benefits of having public surveillance are significantly outweighed by the government's abuse of surveillance technology against communities of color, low-income communities, and immigrant communities. This targeted surveillance has been seen up close as law enforcement in major cities, where cities used surveillance technology to watch and track protesters in the mass protests over the deaths of George Floyd, Ahmaud Arbery, Breonna Taylor, Rayshard Brooks, and other young African Americans.<sup>25</sup> The Department of Homeland Security monitored and tracked Black Lives Matter (BLM) protests in more than fifteen cities using military-grade technology, including helicopters, airplanes, and "electrical optical-infrared ball" devices on drones.<sup>26</sup> On the ground, the San Francisco Police Department conducted real-time mass video surveillance of BLM protesters, despite a citywide ban on such conduct.<sup>27</sup>

---

<sup>24</sup> See Don Hummer & James Byrne, *How Law Enforcement is Using Technology to Track Down People Who Attacked the U.S. Capitol Building*, MINN. POST (Jan. 20, 2021), <https://www.minnpost.com/other-nonprofit-media/2021/01/how-law-enforcement-is-using-technology-to-track-down-people-who-attacked-the-u-s-capitol-building/> [https://perma.cc/KGP8-NX9F]; Tim McMillan, *A Secretive Technology Could Be Bad News for Capitol Rioters*, THE DEBRIEF (Jan. 12, 2021), [https://thedebrief.org/a-secretive-technology-could-be-bad-news-for-capitol-rioters/?utm\\_sq=gmlh398r41](https://thedebrief.org/a-secretive-technology-could-be-bad-news-for-capitol-rioters/?utm_sq=gmlh398r41) [https://perma.cc/VL24-GS47]; Drew Harwell & Craig Timberg, *How America's Surveillance Networks Helped the FBI Catch the Capitol Mob*, WASH. POST (Apr. 2, 2021, 9:00 AM), <https://www.washingtonpost.com/technology/2021/04/02/capitol-siege-arrests-technology-fbi-privacy/> [https://perma.cc/7W9D-P872].

<sup>25</sup> See Zolan Kanno-Youngs, *U.S. Watched George Floyd Protests in 15 Cities Using Aerial Surveillance*, N.Y. TIMES (June 19, 2020), <https://www.nytimes.com/2020/06/19/us/politics/george-floyd-protests-surveillance.html> [https://perma.cc/99RZ-88XX]; "Say Their Names:" *New Analysis Identifies Link Between Online Social Justice Conversation and Legislative Action*, AP NEWS (Mar. 17, 2021), <https://apnews.com/press-release/pr-newswire/breonna-taylor-race-and-ethnicity-police-african-americans-ahmaud-arbery-c93a0cdb6aa51eeecda6d41bf999e9b> [https://perma.cc/U5PC-JXT5].

<sup>26</sup> Kanno-Youngs, *supra* note 25.

<sup>27</sup> See Dave Maass & Matthew Guariglia, *San Francisco Police Accessed Business District Camera Network to Spy on Protesters*, ELEC. FRONTIER FOUND. (July 27, 2020), <https://www.eff.org/deeplinks/2020/07/san-francisco-police-accessed-business-district-camera-network-spy-protestors> [https://perma.cc/929N-Z2WE].

Fasman believes societies need both police and civilian oversight of police so as to avoid allowing the state to arbitrarily act.<sup>28</sup> To that end, he proposes a complementary framework to help citizens understand how surveillance technology has changed policing to ensure accountability for the use of these surveillance tools.<sup>29</sup> Unique to *We See It All* is its analysis of ShotSpotter gun detection technology. For the uninitiated, ShotSpotter technology is a rapid identification system used in more than eighty-five American cities, designed to detect gunshots and dispatch police.<sup>30</sup> While ShotSpotter has received scant attention in discussions about the efficacy of predictive policing technologies and efforts to regulate them, the technology is widespread—even President Biden knows about them, seeing as he considers gunshot detection systems an effective tool for mayors to use in preventing gun violence.<sup>31</sup>

The increased use of ShotSpotter over the past decade has spurred fiery debate about its use. On the one hand, the police embrace ShotSpotter as an effective crime-fighting tool that alerts them of gunshot sounds so that they can respond to the scene in minutes.<sup>32</sup> On the other hand, community activists strenuously argue that ShotSpotter technologies create opportunities for police officers who answer gunshot alerts to disproportionately stop and target African Americans and Latinos, and to indulge in abusive policies and practices.<sup>33</sup> As a group of San Diego community activists alleged, “The technology generates more false alarms than advertised, sending police officers into neighborhoods where they haven’t been called, armed and ready for the worst” and “the surveillance technology has only been deployed

---

<sup>28</sup> See FASMAN, *supra* note 2, at 227–28.

<sup>29</sup> *Id.* at 5.

<sup>30</sup> See SHOTSPOTTER, SHOTSPOTTER FREQUENTLY ASKED QUESTIONS 1–3 (2018), [https://www.shotspotter.com/system/content/uploads/SST\\_FAQ\\_January\\_2018.pdf](https://www.shotspotter.com/system/content/uploads/SST_FAQ_January_2018.pdf) [<https://perma.cc/U2RH-3JZM>].

<sup>31</sup> See Abbie Alford, *Decision on ShotSpotter Contract Delayed in San Diego*, CBS 8 (July 27, 2021, 10:33 PM), <https://www.cbs8.com/article/news/crime/decision-on-shotspotter-contract-delayed-in-san-diego-gunfire-detection-system-city-council-police-tool/509-dc7b0c82-7c82-40c5-bf0e-0007fafd87bd> [<https://perma.cc/TGD9-DS47>].

<sup>32</sup> See Francisco Alvarado, *Millions Spent on ShotSpotter to Support Policing*, BISCAYNE TIMES, <https://www.biscaynetimes.com/news/millions-spent-on-shotspotter-to-support-policing/> [<https://perma.cc/8PLL-33YL>].

<sup>33</sup> See Todd Feathers, *Gunshot-Detecting Tech Is Summoning Armed Police to Black Neighborhoods*, VICE: MOTHERBOARD (July 19, 2021, 7:17 AM), <https://www.vice.com/en/article/88nd3z/gunshot-detecting-tech-is-summoning-armed-police-to-black-neighborhoods> [<https://perma.cc/AH3B-JYU2>].

in largely Black and Brown neighborhoods in southeast San Diego despite gunshots being an issue across many parts of San Diego.”<sup>34</sup>

In this Review, I engage in a necessary conversation about an overlooked issue: the police too often rely on ShotSpotter alerts to come up with some kind of “suspicious” behavior to justify a stop and frisk under *Terry v. Ohio*.<sup>35</sup> To the chagrin of criminal and racial justice reform activists and defense attorneys across the county, law enforcement is increasingly reliant on using ShotSpotter as a means to create reasonable suspicion where it does not exist.<sup>36</sup> Oftentimes, ShotSpotter gives courts a reason to defer to police judgment and practices where initial detentions are brief and police officers’ hunches prove to be correct. Through this lens, this Review argues that ShotSpotter is a powerful yet costly and ineffective surveillance tool that should be replaced with community-based solutions and alternatives to reduce gun violence.

This Review is less of a traditional book review and more of an essay considering points from *Bleeding Out* and *We See It All* to highlight the often-overlooked connections between gun detection technology, racial policing, and a vanishing Fourth Amendment. This Review fills a gap in the literature because it combines public policy analysis with legal analysis to initiate a new dialogue about the existing tensions and real and potential conflicts between surveillance technology and grassroots community plans to reduce gun violence.

Part I of this Review explains how the problematic use of ShotSpotters contributes to law enforcement’s ability to bypass the Fourth Amendment and search young African Americans and Latinos on the streets of low-income minority communities. When responding to ShotSpotter alerts, police have ample opportunity to rely on longstanding criminal offender stereotypes to disproportionately stop and target African Americans and Latinos, and indulge in abusive policies and practices.<sup>37</sup>

---

<sup>34</sup> See Lilly Irani, *Opinion: San Diego Shouldn’t Approve Gun Surveillance Technology Without Community Input*, SAN DIEGO UNION-TRIB. (July 29, 2021, 5:28 PM), <https://www.sandiegouniontribune.com/opinion/commentary/story/2021-07-29/shotspotter-gun-surveillance-tech-san-diego> [https://perma.cc/J29Z-CH5T].

<sup>35</sup> *Terry v. Ohio*, 392 U.S. 1, 10–11 (1968).

<sup>36</sup> See CITY OF CHI. OFF. OF INSPECTOR GEN., THE CHICAGO POLICE DEPARTMENT’S USE OF SHOTSPOTTER TECHNOLOGY 19 (2021).

<sup>37</sup> See Bryce Huffman, *Arrests, Privacy Concerns Mark First Month of ShotSpotter’s Use in Detroit*, BRIDGE MICH.: URB. AFFS. (Apr. 29, 2021), <https://www.bridgemi.com/urban-affairs/arrests-privacy-concerns-mark-first-month-shotspotters-use-detroit> [https://

Undoubtedly, this practice of racialized policing is widespread and the need to address it is gaining urgency by the day. Yet this need has gone overlooked in the growing literature about gun detection technology, which has tended to focus on privacy issues and the use of ShotSpotter evidence in courtrooms.<sup>38</sup> First, there is the personal privacy concern of whether ShotSpotter can capture conversations of individual persons near the sensors. These arguments have been refuted by the Policing Project at New York University in its 2019 independent privacy audit, which concluded that there are “relatively limited privacy risks” of voice surveillance when using ShotSpotter.<sup>39</sup> Second, the Electronic Frontier Foundation has reported on some documents showing that ShotSpotter employees may be altering alerts to support criminal prosecutions.<sup>40</sup> ShotSpotter refuted such assertions on its website: “The idea that ShotSpotter ‘alters’ or ‘fabricates’ evidence in any way is an outrageous lie and would be a criminal offense. We follow the facts and data for our forensic analysis. Period.”<sup>41</sup>

---

perma.cc/89GP-MQCR] (relaying that ShotSpotter surveillance is deepening over-policing in African American and Latino communities); Freddy Martinez & Lucy Parsons Labs, *Op-Ed: End the City’s ShotSpotter Contract*, SOUTHSIDE WKLY. (Apr. 28, 2021), <https://southsideweekly.com/end-the-citys-shotspotter-contract/> [https://perma.cc/F8BN-2EM3]; Prince Shakur, *Gunshot Detection Technology Raises Concerns of Bias and Inaccuracy*, CODA STORY: AUTHORITARIAN TECH (Mar. 3, 2020), <https://www.codastory.com/authoritarian-tech/gun-violence-police-shotspotter/> [https://perma.cc/6PN2-83NT] (questioning the accuracy of ShotSpotter gun detection technology across the country).

<sup>38</sup> See, e.g., Amanda Busljeta, *How an Acoustic Sensor Can Catch a Gunman*, 32 J. MARSHALL J. INFO. TECH. & PRIV. L. 211, 229–30 (2016); *Acoustic Gunshot Detection*, ELEC. FRONTIER FOUND., <https://www.eff.org/pages/gunshot-detection> [https://perma.cc/X4HL-LFFY]; see also Cale Guthrie Weissman, *The NYPD’s Newest Technology May Be Recording Conversations*, BUS. INSIDER (Mar. 26, 2015, 10:05 AM), <https://www.businessinsider.com/the-nypds-newest-technology-may-be-recording-conversations-2015-3?op=1> [https://perma.cc/LF54-DBY3]; *Is ShotSpotter Violating Your Fourth Amendment Rights and You Don’t Even Know?*, DEF. RTS. & DISSENT (May 8, 2015), <https://www.rightsanddissent.org/news/is-shotspotter-violating-your-fourth-amendment-rights-and-you-dont-even-know/> [https://perma.cc/WV7T-RUKK].

<sup>39</sup> See THE POLICING PROJECT AT N.Y.U., *PRIVACY AUDIT & ASSESSMENT OF SHOTSPOTTER, INC.’S GUNSHOT DETECTION TECHNOLOGY 4* (2019); see also CITY OF N.Y. POLICE DEP’T, *SHOTSPOTTER: IMPACT AND USE POLICY 3* (2021), [https://www1.nyc.gov/assets/nypd/downloads/pdf/public\\_information/post-final/shotspotter-nypd-impact-and-use-policy\\_4.9.21\\_final.pdf](https://www1.nyc.gov/assets/nypd/downloads/pdf/public_information/post-final/shotspotter-nypd-impact-and-use-policy_4.9.21_final.pdf) [https://perma.cc/V6EE-XFXE] (stating that ShotSpotters cannot be used to covertly listen to conversations and do not allow live streaming of ShotSpotter sensor audio).

<sup>40</sup> See Matthew Guariglia, *It’s Time for Police to Stop Using ShotSpotter*, ELEC. FRONTIER FOUND. (July 29, 2021), <https://www.eff.org/deeplinks/2021/07/its-time-police-stop-using-shotspotter> [https://perma.cc/FUC4-W4R7].

<sup>41</sup> *ShotSpotter Responds to False and Misleading Allegations by Vice News*, SHOTSPOTTER (July 27, 2021), <https://www.shotspotter.com/press-releases/shotspotter>

Obviously, both of these privacy issues are important; however, lost in this emphasis is the equally pressing issue of young African Americans and Latino youths dying because of gun violence and police violence.

Part II examines how surveillance technology is used to police minority communities, while allowing abuses in policing to happen. This Part moves beyond abstract arguments about ShotSpotter by analyzing a recent lawsuit filed by Chicago community activists who claim ShotSpotter is ineffective and has a disproportionate racial impact on African American and Latino communities. A recent press release from the MacArthur Justice Center reports that there is no evidence that ShotSpotter reduces crime, but there is evidence showing that ShotSpotter is an unreliable technology that increases the number of times police are deployed and increases the likelihood that people are charged with something other than gun-related offenses, or are wrongfully arrested, detained, or worse.<sup>42</sup> This Review disrupts the outmoded black-and-white racial binary of criminal justice scholarship by giving attention to Latinos, the nation's largest minority group, in the context of racialized policing.

Part III examines the divergent approaches taken by major cities, such as Oakland, Baltimore, and Chicago, to address gun violence, including innovative plans to build trust in the community and curb the continual increase in gun violence. Yet before any remedial measures can be considered, the root problem inherent in the use of ShotSpotter by the police must first be addressed.

## I

### SHOTSPOTTER GUN DETECTION TECHNOLOGY, RACIALIZED VIOLENCE, AND THE FOURTH AMENDMENT

This Part explains how ShotSpotter gun detection technology works, examines the ways police departments are using it, and then analyzes the emerging problems caused by its use. To begin, ShotSpotter provides automated reports of gunshots, alerting police to possible violent crime before it is reported by human witnesses. “As soon as the

---

-responds-to-false-and-misleading-allegations-by-vice-news/ [https://perma.cc/RY4U-U48B].

<sup>42</sup> See *Press Release: ShotSpotter Generated Over 40,000 Dead-End Police Deployments in Chicago in 21 Months, According to New Study*, MACARTHUR JUST. CTR. (May 3, 2021), <https://www.macarthurjustice.org/shotspotter-generated-over-40000-dead-end-police-deployments-in-chicago-in-21-months-according-to-new-study/> [https://perma.cc/2JGM-CE8H].

highly sensitive microphone hears the sound of a gunshot, police are dispatched to the targeted location.”<sup>43</sup>

The ShotSpotter system consists of an arrangement of fifteen to twenty powerful sensors per square mile placed to detect the location of a shooting by triangulation.<sup>44</sup> These white diamond-like sensors pinpoint the exact location of a gunshot through microphones and “GPS for clock data, memory and processing, [with] cell capability to transmit data.”<sup>45</sup> Typically, ShotSpotter sensors are placed on neighborhood rooftops and traffic light poles as low as twenty feet above the ground in undisclosed locations in low-income minority neighborhoods.<sup>46</sup> Based on the company’s algorithm, the microphones suppress ambient noises and are triggered only by impulsive noises such as “booms” and “bangs.” The system can also determine the direction of the shooters relative to the sensor locations.<sup>47</sup>

The ShotSpotter begins recording one second before the triggering sound and stops one second afterward.<sup>48</sup> An alert is sent to a twenty-four-hour monitoring center in Newark, California, or in ShotSpotter’s new Washington, DC, office, where trained acoustic experts determine the origin of the sound and decide if it is gunfire.<sup>49</sup> Local police receive alerts via their smartphones or by dispatch in “no more than 45 seconds

---

<sup>43</sup> ANDREW GUTHRIE FERGUSON, *THE RISE OF BIG DATA POLICING: SURVEILLANCE, RACE, AND THE FUTURE OF LAW ENFORCEMENT* 88 (2017).

<sup>44</sup> See Jay Stanley, *ShotSpotter CEO Answers Questions on Gunshot Detectors in Cities*, ACLU (May 5, 2015, 9:15 PM), <https://www.aclu.org/blog/privacy-technology/surveillance-technologies/shotspotter-ceo-answers-questions-gunshot> [<https://perma.cc/WT45-M9AB>].

<sup>45</sup> *Id.*

<sup>46</sup> See *id.*; *The Danger of Surveillance Technology to Communities of Color Needs to Be Closely Examined*, GRAND RAPIDS TIMES (July 2, 2021), <https://grtimes.com/2021/7-2-2021/the-danger-of-surveillance-technology-to-communities-of-color-needs-to-be-closely-examined.html> [<https://perma.cc/DVY2-GNSY>]; Shakur, *supra* note 37.

<sup>47</sup> See Stanley, *supra* note 44; Guariglia, *supra* note 40.

<sup>48</sup> See Gabriel Sandoval & Rachel Holliday Smith, *‘ShotSpotter’ Tested as Shootings and Fireworks Soar, While Civil Rights Questions Linger*, THE CITY (July 5, 2020, 3:53 PM), <https://www.thecity.nyc/2020/7/5/21312671/shotspotter-nyc-shootings-fireworks-nypd-civil-rights> [<https://perma.cc/KT6V-AZEU>].

<sup>49</sup> Many of these employees are former law enforcement. See Michael Quander, *Gunshot Tracking Technology Company Opens Office in DC to Help Police Curb Crime*, WUSA9 (July 14, 2021, 12:19 PM), <https://www.wusa9.com/article/news/local/dc/shotspotter-technology-company-expands-offices-to-dc/65-9a1e0121-3728-4cee-a723-78164b682ccb> [<https://perma.cc/2TPB-J33Z>] (reporting that ShotSpotter recently opened a new office in Washington, DC); Clarence Williams, *How ShotSpotter Locates Gunfire, Helps Police Catch Shooters and Works to ‘Denormalize’ Gun Violence*, WASH. POST (May 10, 2017), <https://www.washingtonpost.com/news/true-crime/wp/2017/05/10/how-shotspotter-locates-gunfire-helps-police-catch-shooters-and-denormalize-gun-violence/> [<https://perma.cc/K2CG-TQRG>].

after a shooting.”<sup>50</sup> ShotSpotter is used in ninety US cities, including Baltimore; Boston; Chicago; Miami; Milwaukee; Minneapolis; Newark; Oakland; San Francisco; Washington, DC; and Worcester.<sup>51</sup> ShotSpotter charges law enforcement agencies subscription fees ranging from \$65,000 to \$80,000 per square mile per year for installed sensors, which includes the data captured by sensors.<sup>52</sup> Law enforcement’s fondness for ShotSpotter has been conveyed by Bill Bratton, former New York Police Commissioner and current member of the Board of Directors of ShotSpotter, in testimony before the Senate Judiciary Committee that praised gun detection technology:

The introduction of gunshot detection can lead to a complete transformation of the gun crime response, investigation process and community involvement, ultimately breaking the cycle of gun violence. More automated alerts lead to comprehensive responses which lead to more evidence collection and witness interviews, which then lead to quicker identification of and interventions with serial shooters with help from the community. All of this ultimately leads to gun crime reductions as cities that use this tool have seen.<sup>53</sup>

Additional qualifications are offered in ShotSpotter’s promotional materials:

*Saving lives and improving the quality of life in neighborhoods, while improving officer safety, is our number one mission. . . . [W]e believe that we will be able to measurably reduce gun violence and improve public safety, and in the process, enhance the resiliency of the communities we serve.*<sup>54</sup>

Many of the police departments across the country who use ShotSpotter are satisfied customers.<sup>55</sup> Oakland, a city with a high rate of violent crime and a steadily increasing number of annual homicides, noticed ShotSpotter’s effectiveness almost immediately in 2013.<sup>56</sup> A ShotSpotter study showed that its microphones detected 8,769 gunfire

---

<sup>50</sup> ALYSSON GATENS & JESSICA REICHERT, POLICE TECHNOLOGY: ACOUSTIC GUNSHOT DETECTION SYSTEMS I (2019).

<sup>51</sup> See *ShotSpotter Cities*, SHOTSPOTTER, <https://www.shotspotter.com/cities/> [<https://perma.cc/JYQ5-T3CR>]; SHOTSPOTTER, *supra* note 30, at 3.

<sup>52</sup> GATENS & REICHERT, *supra* note 50.

<sup>53</sup> *Hearing on Constitutional and Common Sense Steps to Reduce Gun Violence Before the S. Comm. on the Judiciary*, 117th Cong. (2021) (emphasis added), <https://www.judiciary.senate.gov/shotspotter-letter> (statements of Bill Bratton, ShotSpotter).

<sup>54</sup> SHOTSPOTTER, *supra* note 30, at 3 (emphasis added).

<sup>55</sup> See Quander, *supra* note 49.

<sup>56</sup> See *OPD Has Tools to Combat Guns, but Needs More Cops*, ABC7 NEWS (Jan. 3, 2013), <https://abc7news.com/archive/8941389/> [<https://perma.cc/UB5N-Q73G>].

incidents in 2012 and 2013, but Oakland residents reported less than an eighth of those incidents to police.<sup>57</sup> Today, a dozen ShotSpotters are strewn across sixteen miles of the city.<sup>58</sup> In 2019, there was an average of ten gunfire incidents per day, and ShotSpotter recorded fifty shots fired. In 2020, there were more than 2,600 ShotSpotter activations.<sup>59</sup> To the Oakland Police Department, ShotSpotter is a useful crime fighting tool that fairly balances between individual privacy and public safety.<sup>60</sup> Likewise pleased with ShotSpotter's ability to capture gunfire, the City Council of Oakland and its Privacy Advisory Commission unanimously approved the continued use of ShotSpotter as an important tool for public safety after a rigorous review in 2019.<sup>61</sup>

One of ShotSpotters's biggest contracts is with the New York Police Department (NYPD), which started using ShotSpotter in seven precincts in the Bronx and ten in Brooklyn in 2015 in the wake of the NYPD's notorious racial profiling controversy.<sup>62</sup> A 2012 NYPD Report relayed that 96% of shooting victims are African American or

---

<sup>57</sup> See Will Kane, *Oakland Cops Aim to Scrap Gunfire-Detecting ShotSpotter*, SF GATE (Mar. 14, 2014, 8:37 AM), <https://www.sfgate.com/crime/article/Oakland-cops-aim-to-scrap-gunfire-detecting-5316060.php> [<https://perma.cc/93BB-DX5B>]; Darwin BondGraham, *ShotSpotter Lobbied Oakland Officials in Apparent Violation of Law*, E. BAY EXPRESS (Apr. 29, 2014), <https://www.eastbayexpress.com/oakland/shotspotter-lobbied-oakland-officials-in-apparent-violation-of-law/Content?oid=3907581> [<https://perma.cc/XKGG-RGKG>].

<sup>58</sup> *86% of Shootings in Oakland are Unreported*, CITY OF OAKLAND (July 13, 2020, 10:45 AM), <https://www.oaklandca.gov/news/2020/86-of-shootings-in-oakland-are-unreported> [<https://perma.cc/UW9C-JH7L>]; *Police Report Stunning Rise in Gunfire on Oakland Streets*, S.F. CBS LOC. (July 14, 2020, 6:30 AM), <https://sanfrancisco.cbslocal.com/2020/07/14/police-report-stunning-rise-in-gunfire-on-oakland-streets/> [<https://perma.cc/ZFA4-Y39C>].

<sup>59</sup> *86% of Shootings in Oakland are Unreported*, *supra* note 58; *Police Report Stunning Rise in Gunfire On Oakland Streets*, *supra* note 58.

<sup>60</sup> *ShotSpotter's Gunshot Detection Technology Unanimously Passes Oakland's Rigorous Surveillance Ordinance*, OFFICER (Dec. 3, 2019), <https://www.officer.com/investigations/gunshot-location-systems/press-release/21116653/shotspotter-shotspotters-gunshot-detection-technology-unanimously-passes-oaklands-rigorous-surveillance-ordinance> [<https://perma.cc/7S32-L6GP>]; BondGraham, *supra* note 57; see generally Jason Tashea, *Gunshot Detection Technology Company Voluntarily Submitted Itself for an Audit After Privacy Concerns*, ABA J. (Apr. 1, 2020, 1:50 AM), <https://www.abajournal.com/magazine/article/amid-privacy-concerns-a-gunshot-detection-technology-company-voluntarily-submitted-itself-for-an-audit-and-reaped-the-benefits> [<https://perma.cc/A5N5-JWMR>].

<sup>61</sup> *ShotSpotter's Gunshot Detection Technology Unanimously Passes Oakland's Rigorous Surveillance Ordinance*, *supra* note 60; Tashea, *supra* note 60.

<sup>62</sup> See Sandoval & Smith, *supra* note 48; *ShotSpotter Announces Three-Year \$4.27 Million Contract with Puerto Rico for GunShot Detection Technology*, YAHOO (Nov. 26, 2019), <https://www.yahoo.com/now/shotspotter-announces-three-4-27-140110798.html> [<https://perma.cc/K2DE-B59Z>].

Latino, and that nearly 90% of New Yorkers stopped and frisked at the time of publication in 2012 were African American and Latino.<sup>63</sup> The NYPD made 4.4 million stops between January 2004 and June 2012 and over 80% of those stopped were African American or Hispanics, and only 10% of those stopped were white.<sup>64</sup> These racist and ineffective uses of stop-and-frisks were found to be unconstitutional in *Floyd v. City of N.Y.* by Judge Shira Scheindlin in 2013.<sup>65</sup> Unfortunately, since that ruling, these kinds of stop-and-frisks continue and are now further enabled by ShotSpotter.

Currently, ShotSpotter monitors seventy square miles in New York City under a \$28 million five-year contract.<sup>66</sup> Approximately 75% of shots captured by ShotSpotters in New York were never called into 911.<sup>67</sup> Then Mayor Bill de Blasio insisted that ShotSpotter helps the relationship between the police and the communities that they protect.<sup>68</sup> But with regard to the NYPD's use of secret spying devices, including ShotSpotter, generally, New York Civil Liberties Union Executive Director Donna Liebermann argued that they are a threat to the safety and privacy of New Yorkers: "These technologies pose a unique risk to Black and Brown New Yorkers who the NYPD has subjected to dangerous, invasive policing tactics for decades. . . . [M]ore action is needed to curtail NYPD policing and surveillance abuses."<sup>69</sup> Similar criticisms come from the Center for Constitutional

---

<sup>63</sup> See John Rudolf, *NYPD Report Says 96 Percent of Shooting Victims Are Black or Latino*, HUFF. POST (Sept. 7, 2012), [https://www.huffpost.com/entry/nypd-report-details-crime\\_n\\_1862771#:~:text=The%20statistics%2C%20which%20cover%20crime,2012%20were%20black%20and%20Latino](https://www.huffpost.com/entry/nypd-report-details-crime_n_1862771#:~:text=The%20statistics%2C%20which%20cover%20crime,2012%20were%20black%20and%20Latino) [https://perma.cc/JJP8-QEXC]; Juan Cartagena, *Latino Stop & Frisk*, HUFF. POST (July 18, 2012), [https://www.huffpost.com/entry/latino-stop-frisk\\_b\\_1522893](https://www.huffpost.com/entry/latino-stop-frisk_b_1522893) [https://perma.cc/C575-N3KA]; Bridge Initiative Team, *Factsheet: NYPD Stop and Frisk Policy*, BRIDGE: A GEO. UNIV. INITIATIVE (June 5, 2020), <https://bridge.georgetown.edu/research/factsheet-nypd-stop-and-frisk-policy/> [https://perma.cc/7YRL-EUKH].

<sup>64</sup> Bridge Initiative Team, *supra* note 63.

<sup>65</sup> *Floyd v. City of N.Y.*, 959 F. Supp. 2d 540 (S.D.N.Y. 2013).

<sup>66</sup> See Sandoval & Smith, *supra* note 48.

<sup>67</sup> See Tatiana Schlossberg, *New York Police Begin Using ShotSpotter System to Detect Gunshots*, N.Y. TIMES (Mar. 16, 2015), <https://www.nytimes.com/2015/03/17/nyregion/shotspotter-detection-system-pinpoints-gunshot-locations-and-sends-data-to-the-police.html> [https://perma.cc/L9UX-MP4K].

<sup>68</sup> See Jackson Mote, *Opinion: ShotSpotter - An Advanced Shot at Crime Prevention*, THE DEPAUW (Mar. 16, 2015), <https://thedepauw.com/opinion-shotspotter-an-advanced-shot-at-crime-prevention/> [https://perma.cc/C55J-SM4H].

<sup>69</sup> See NYCLU *Statement on Passage of Post Act*, ACLU (June 18, 2020), <https://www.aclu.org/press-releases/nyclu-statement-passage-post-act> [https://perma.cc/43CN-7AUG].

Rights (CCR), which voiced concern over ShotSpotter sensor locations causing a disparate impact on minority communities.<sup>70</sup> In *ShotSpotter: Impact and Use Policy*, the NYPD avoided giving a direct answer on this issue by explaining instead that the determinations as to where the sensors are placed are made by the ShotSpotter company, not the NYPD:

The NYPD uses a data-driven approach to request ShotSpotter coverage in areas experiencing recurrent or an increased number of shooting incidents. ShotSpotter engineers determine where to place sensors to optimize even gunshot detection throughout an area. *The NYPD does not determine sensor locations and does not have access to a database of sensor locations kept by ShotSpotter.*<sup>71</sup>

Unsatisfied with the NYPD's evasion, CCR posited ShotSpotter uses increased surveillance of African Americans and Latino communities as an extension of the continual discriminatory enforcement by NYPD through stop-and-frisk practices.<sup>72</sup> CCR especially faulted the NYPD's omission of information about the accuracy of ShotSpotter, the location of its sensors, and its data analysis protocol.<sup>73</sup> More to the point, CCR argued that the NYPD fails to acknowledge the disparate impact that ShotSpotter technology has on African Americans and Latinos—NYPD officers are more often deployed in minority communities than racially diverse or predominately white neighborhoods.<sup>74</sup> CCR also criticized the NYPD's neglect to survey residents living in communities where ShotSpotter sensors are placed: "It is critical that communities most impacted by policing be given regular opportunities for input into how and whether the technology should continue to be used, and be able to voice their concerns regarding such surveillance technology."<sup>75</sup>

Upon greater scrutiny, ShotSpotter is not as effective as the manufacturer and police claim. On this point, Fasman bluntly questions ShotSpotter effectiveness and error rate.<sup>76</sup> Despite the touting of ShotSpotter as an important tool in reducing gun violence and its decades-long track record, he professes it still remains unclear whether

---

<sup>70</sup> DARIUS CHARNEY ET AL., CTR. FOR CONST. RTS., & JONATHAN MOORE ET AL., BELDOCK LEVINE & HOFFMAN, COMMENTS ON NYPD SHOTSPOTTER IMPACT AND USE POLICY 1–2 (2021).

<sup>71</sup> See CITY OF N.Y. POLICE DEP'T, *supra* note 39, at 9 (emphasis added).

<sup>72</sup> CHARNEY ET AL., *supra* note 70.

<sup>73</sup> *Id.* at 2.

<sup>74</sup> *Id.*

<sup>75</sup> *Id.* at 5.

<sup>76</sup> FASMAN, *supra* note 2, at 55.

the technology reduces the crime rate or helps to solve crimes.<sup>77</sup> The thrust of Fasman's pushback against ShotSpotter is apparent when he refers to a widely cited Forbes 2016 article that analyzed the effectiveness of the technology in more than two dozen cities.<sup>78</sup> There have been many false positives in which there is a gunshot reported with no evidence of any gunshot:

30 to 70 percent of Shotspotter [sic] alerts produced no evidence of gunfire. The disparities are striking: in a thirty-month period in San Francisco, for instance, 4,385 Shotspotter alerts led to 2 arrests, while nearly one-third were "unfounded/unable to locate/gone on arrival." In thirty-two months in Omaha, Nebraska, 37 of 1,181 alerts were similarly classified, with just 14 leading to arrests.<sup>79</sup>

There are plausible explanations for errors because ShotSpotter is prone to false positives when it mistakenly categorizes environmental noises, such as fireworks, car backfire, or construction work (jackhammer, a nail gun, or a hammer) as gunfire.<sup>80</sup>

In the face of such criticisms about ShotSpotter's accuracy, the company is quick to respond that "[o]ver the last two years, ShotSpotter has maintained a 97% accuracy rate including a 0.5% false positive rate

---

<sup>77</sup> *Id.* at 56–57.

<sup>78</sup> See Matt Drange, *We're Spending Millions on This High-Tech System Designed to Reduce Gun Violence. Is It Making a Difference?*, FORBES (Nov. 17, 2016, 8:30 AM), <https://www.forbes.com/sites/mattdrange/2016/11/17/shotspotter-struggles-to-prove-impact-as-silicon-valley-answer-to-gun-violence/?sh=142fa3fd31cb> [<https://perma.cc/3F4J-WRUF>]; Chris Weller, *There's a Secret Technology in 90 Cities That Listens for Gunfire* 24/7, YAHOO! FINANCE (June 27, 2017), <https://finance.yahoo.com/news/theres-secret-technology-90-us-145900618.html> [<https://perma.cc/J89P-2CWW>].

<sup>79</sup> FASMAN, *supra* note 2, at 55.

<sup>80</sup> See Kara Grant, *ShotSpotter Sensors Send SDPD Officer to False Alarms More Often Than Advertised*, VOICE OF SAN DIEGO (Sept. 22, 2020), <https://www.voiceofsandiego.org/topics/public-safety/shotspotter-sensors-send-sdpd-officers-to-false-alarms-more-often-than-advertised> [<https://perma.cc/R9KW-WM43>]; Sandoval & Smith, *supra* note 48; GATENS & REICHERT, *supra* note 50. In 2015, the National Institute of Justice commissioned the Urban Institute to evaluate the effectiveness of gunshot detection technology (GDT) to prevent and respond to firearms violence by law enforcement agencies in Denver, Milwaukee, and Richmond. The Urban Institute's report was inconclusive as to whether the benefits in crime reduction brought by GDT outweighed the costs of the technology, yet it nevertheless offered sage recommendations about improving police-community relations such as (1) engaging community members to enhance investigations about reducing gun violence, (2) informing community members that GDT is not a substitute for resident engagement and outreach to police about public safety, and (3) informing the community about the exact extent of GDT in order to encourage community members to report gunfire. See DANIEL S. LAWRENCE ET AL., URB. INST., EVALUATION OF GUNSHOT DETECTION TECHNOLOGY TO AID IN THE REDUCTION OF FIREARMS VIOLENCE 1, i, 10 (2015).

aggregated across all customers.”<sup>81</sup> But staunch ShotSpotter critics will still unlikely be swayed given the results of a new study by the MacArthur Justice Center at Northwestern Pritzker School of Law that claims that the Chicago police’s use of ShotSpotter technology is inaccurate and dangerous.<sup>82</sup> The study was designed to test the veracity of ShotSpotter’s claims of accuracy and explore the impact of the ShotSpotter system on Chicago’s marginalized communities.<sup>83</sup> Confirming Fasman’s suspicions, attorney Jonathan Manes with the Justice Center states:

Surveillance technology has a veneer of objectivity, but many of these systems do not work as advertised . . . . High-tech tools can create a false justification for the broken status quo of policing and can end up exacerbating existing racial disparities. We needed to know whether this system actually does what it claims to do. It does not.<sup>84</sup>

The MacArthur Justice Center study is also corroborated by the recent report by the City of Chicago Office of Inspector General (OIG) that found ShotSpotter alerts are unreliable. OIG analyzed data from 50,176 ShotSpotter alerts between January 1, 2020, and May 31, 2021. The Report concluded that the Chicago Police Department’s responses to ShotSpotter alerts rarely produced evidence of a gun-related crime and rarely rose to investigatory stops.<sup>85</sup> Specifically, the vast majority of ShotSpotter alerts were unconnected to any shooting incident, and only a small minority of ShotSpotter alerts indicated evidence of a gun-related criminal offense.<sup>86</sup> Only 2% of all ShotSpotter alerts resulted in officer-written investigatory stops reports.<sup>87</sup>

Equally damning was the Report’s finding that ShotSpotters contribute to wrongful stop-and-frisks. OIG suggested that the reliance on ShotSpotter technology gives Chicago Police officers an additional rationale to conduct stop-and-frisks in already over-policed Black areas, such as South Chicago and Calumet, where alerts are concentrated.<sup>88</sup> In areas where there is a high frequency of ShotSpotter alerts, officers are more inclined to find reasonable suspicion that a

---

<sup>81</sup> See Alford, *supra* note 31.

<sup>82</sup> See *Press Release: ShotSpotter Generated Over 40,000 Dead-End Police Deployments in Chicago in 21 Months, According to Study*, *supra* note 42.

<sup>83</sup> *Id.*

<sup>84</sup> *Id.*

<sup>85</sup> See CITY OF CHI. OFF. OF INSPECTOR GEN., *supra* note 36, at 2–3.

<sup>86</sup> *Id.* at 16.

<sup>87</sup> *Id.*

<sup>88</sup> *Id.* at 19.

person was involved in a gun-related crime.<sup>89</sup> This assertion is supported by the defined pattern of police conducting stop-and-frisks based on proximity to an aggregate number of *past* alerts in a specific area—which purportedly establishes police justification for stopping and searching a person.

If nothing else, these critiques of ShotSpotter reliance in minority communities create mistrust among neighborhood residents. This comes at a time when improved communication between citizens and the police is needed. Fasman says we need to rethink how the police and the communities they police relate to each other and to move away from the mutual contempt and mistrust that currently exist between law enforcement and residents.<sup>90</sup> Along a similar line, Abt warns that, without transparency in policing tactics, the concept of “legal cynicism” will continue to pervade neighborhoods.<sup>91</sup> Without trust, residents will be reluctant to call the police and cooperate in police investigations.<sup>92</sup>

It is worth mentioning that as insightful as Fasman’s ShotSpotter analysis is, the author misses an opportunity to explore how patterns are emerging showing law enforcement’s increasing reliance on using ShotSpotter as a means to create reasonable suspicion where it does not exist. The remainder of this Part fills that void. Briefly, the origins of the modern police practice of targeting African Americans can be traced to *Terry*,<sup>93</sup> where the Court ruled that a police officer may stop and conduct routine searches and seizures under the guise of “reasonableness.”<sup>94</sup> Under *Terry*, officers must point to some objective facts or observations that are sufficient to show reasonable suspicion under the circumstances, and courts assess the reasonableness of searches and seizures from an objective point of view.<sup>95</sup> Officers have broad and completely unfettered discretion to conduct searches and seizures because the requirement to demonstrate reasonable suspicion

---

<sup>89</sup> *Id.*

<sup>90</sup> See FASMAN, *supra* note 2, at 227–29.

<sup>91</sup> See ABT, *supra* note 1, at 62, 66–67.

<sup>92</sup> See Barry Friedman, *Disaggregating the Police Function*, 169 U. PA. L. REV. 925, 943 (2021).

<sup>93</sup> *Terry v. Ohio*, 392 U.S. 1, 9 (1968).

<sup>94</sup> See STEPHEN A. SALTZBURG & DANIEL J. CAPRA, *AMERICAN CRIMINAL PROCEDURE: CASES AND COMMENTARY* 201 (9th ed. 2010).

<sup>95</sup> Professor Stephen Saltzburg explains, “The [*Terry*] Court not only permitted stops and frisks on less than probable cause; it also explicitly invoked the reasonableness clause over the warrant clause as the governing standard.” *Id.*

of criminal wrongdoing has been diluted so much since *Terry*.<sup>96</sup> In that seminal Fourth Amendment case, police can justify their decision to stop and frisk, regardless of the true motivation, and courts tend to give them the benefit of the doubt.<sup>97</sup>

It was only a matter of time before *Terry* intersected with the issue of gun detection technology alerting officers arriving on the scene looking for a shooter. For example, the Seventh Circuit in *Rickmon* considered whether law enforcement may constitutionally stop a vehicle based on a ShotSpotter alert and 911 calls.<sup>98</sup> Notably, the Seventh Circuit's majority opinion, written by Judge Joel Flaum, punted on the issue of whether the ShotSpotter system was reliable by explaining in a footnote that it was unnecessary to decide this issue because the 911 calls corroborated the ShotSpotter reports and *Rickmon* was in the system's coverage zone.<sup>99</sup> The majority opinion instead raised *sua sponte* the argument that a ShotSpotter alert generates a report of an "emergency," not just a sound.<sup>100</sup> To the court, an alert is the equivalent of an anonymous tip, and therefore a ShotSpotter report can support an officer's reasonable suspicion. This cleared the way for the panel majority's affirmance of the district court decision. In the eyes of the panel, the totality of the circumstances provided reasonable suspicion for the officer based on his experience to initiate the traffic stop.<sup>101</sup>

However, the facts can support an opposite conclusion: the first officer on the scene failed to identify specific articulable facts supporting the stop and acted only on a hunch about the car. In her dissent, Chief Judge Dianne Wood argued the majority panel erred by applying a lax exigent circumstances standard that did not meet the *Terry* standard. She especially took issue with the majority's declaration that the sound of gunshots translates into an emergency.<sup>102</sup> As such, they do not provide the necessary individualized suspicion as to who in particular may have committed a crime. Chief Judge Wood challenged both the majority's assumption that the car must have been

---

<sup>96</sup> After *Terry* it became increasingly unclear when stops are permissible. BARRY FRIEDMAN, UNWARRANTED: POLICING WITHOUT PERMISSION 154 (2017).

<sup>97</sup> See DAVID GRAY, THE FOURTH AMENDMENT IN AN AGE OF SURVEILLANCE 279 (2017).

<sup>98</sup> *United States v. Rickmon*, 952 F.3d 876, 879–80 (7th Cir. 2020).

<sup>99</sup> *Id.* at 879 n.2.

<sup>100</sup> *Id.* at 883.

<sup>101</sup> See Sandoval & Smith, *supra* note 48.

<sup>102</sup> *Rickmon*, 952 F.3d at 886 (Wood, C.J., dissenting).

connected to the shots because it was the only car found on the street within five minutes of ShotSpotter alert as “pure speculation,” and its justification for the stop under the less-demanding exigent circumstances standard.<sup>103</sup>

Another Seventh Circuit case highlights the ease in which police officers can execute stop-and-frisks on any given day, even when a ShotSpotter alert did not go out. *Richmond*<sup>104</sup> assessed the constitutionality of Milwaukee Police Officers following Richmond in a high crime neighborhood when he was walking on a sidewalk with his right hand in his pocket, creating a protruding bulge.<sup>105</sup> Officers suspected Richmond had a concealed firearm and saw him walk across the yard to a building that turned out to be his residence.<sup>106</sup> The officers testified that Richmond opened the outer screen door and placed an object that could have been a gun between the screen door and front door.<sup>107</sup>

On appeal, the Seventh Circuit’s majority opinion, written by Judge Michael Brennan, concluded that the facts supported a finding of reasonable suspicion that Richmond was illegally carrying a gun or was otherwise engaged in unlawful activity.<sup>108</sup> Brennan acknowledged that Richmond’s presence in a neighborhood prone to drug and gun violence was not dispositive, but was an important factor.<sup>109</sup> He added that public safety was a significant concern because the identity of the property owner was unknown, and Richmond was “large, muscular, and unrestrained.”<sup>110</sup>

The majority further reasoned that Richmond was near a gun between the outer screen door and the closed front door of the house, and it was possible that his cooperative demeanor could change at any moment and that he could try to physically overwhelm the officers and get the gun.<sup>111</sup> Therefore, the majority panel concluded that, on

---

<sup>103</sup> *Id.*

<sup>104</sup> *United States v. Richmond*, 924 F.3d 404 (7th Cir. 2019).

<sup>105</sup> *Id.* at 408.

<sup>106</sup> *Id.* at 409.

<sup>107</sup> *Id.*

<sup>108</sup> *Id.* at 413.

<sup>109</sup> *Id.* at 411.

<sup>110</sup> *Id.* at 417.

<sup>111</sup> *Id.*

balance, the degree of intrusion on Richmond's privacy was reasonable and minimal.<sup>112</sup>

Chief Judge Wood again dissented, but in this case she criticized the majority panel opinion for relying on the officers' hunch that Richmond's "bulge was caused by a gun."<sup>113</sup> From her perspective, Richmond was not doing anything wrong. The officers did not have a warrant or probable cause to enter Richmond's home.<sup>114</sup> She noted that while Richmond was walking in a known high crime area, Wisconsin allows the legal concealed carrying of a firearm.<sup>115</sup> "The act of walking down the street with a visible gun or a possible gun under some clothing thus does not, without more, give rise even to a reasonable suspicion that the person is violating the law, much less probable cause."<sup>116</sup> Chief Judge Wood argued the majority downgraded *Terry*'s probable cause requirement into mere reasonable suspicion.<sup>117</sup> Chief Judge Wood explained that Richmond was merely walking in a high crime neighborhood with a bulge in his front pocket, and that the police had no support for a reasonable suspicion of any misconduct. Yet the majority believed that this bulge was a gun.<sup>118</sup> Chief Judge Wood thought this was mere guesswork, and "[r]easonable suspicion requires more than educated speculation."<sup>119</sup>

---

<sup>112</sup> *Id.* As a reminder that Fourth Amendment cases are fact specific, the Seventh Circuit reached an opposite conclusion in *United States v. Howell* which considered an anonymous call to the Chicago Police Department that merely reported a Hispanic man in a black sweater and black hat, carrying a bag, and climbing a warehouse fence in a high crime area, absent any mention of an ongoing crime or emergency, much less any suspect being armed or dangerous. *United States v. Howell*, 958 F.3d 589, 592 (7th Cir. 2020). Upon arrival on the scene, Howell, who was white and wearing a black jacket and dark hat, was crossing the street toward the officers. Howell looked panicked and failed to answer an officer's question as he put his hands in his pockets. The officer then patted down Howell and found a gun in his jacket. *Id.* The Seventh Circuit reversed the district court's denial of Howell's motion to suppress the gun recovered because the police did not have reasonable suspicion to frisk him. The panel stressed that there was no suggestion that Howell was armed or that he tried to flee. As for Howell's "panicked look and silence," the court reasoned that Howell simply wanted to move along and avoid talking to the police. In short, the circumstances were insufficient to support a frisk. *Id.* at 601. Unfortunately for Howell, the court affirmed his conviction for possessing guns when the police executed a subsequent search of his apartment three months after his arrest. *Id.* at 603.

<sup>113</sup> *Richmond*, 924 F.3d at 419 (Wood, C.J., dissenting).

<sup>114</sup> *Id.*

<sup>115</sup> *Id.*

<sup>116</sup> *Id.*

<sup>117</sup> *Id.*

<sup>118</sup> *Id.* at 423.

<sup>119</sup> *Id.*

To be sure, majority-minority neighborhoods are overpoliced, and search and seizure laws have been enforced disproportionately against African Americans. There has been cutting-edge research conducted by scholars who offer more searching and critical analyses of racially targeted policing that are unrestrained by strict doctrinal analysis. First, Professor Devon Carbado asserts that *Terry* allows officers to use the reasonable suspicion excuse to stop and question people without any concern about officer or public safety.<sup>120</sup> More precisely, *Terry* enables “wholesale harassment” of African Americans through “prophylactic racial profiling” where the police officers aggressively target African Americans just to deter them from possessing weapons or engaging in crime without any belief the hassling will turn up evidence of criminality.<sup>121</sup> Carbado says racialized police violence is a systemic and structural problem.<sup>122</sup> He asserts that African Americans are made vulnerable to harassment through proactive policing in “high crime areas” and are made criminals for relatively nonserious conduct.<sup>123</sup> Throughout his work, Carbado decries the racial stereotyping of African Americans as being violent, dangerous, and criminally inclined.<sup>124</sup>

Second, Professor Michelle Alexander offers a broader context for Carbado’s sentiments in insisting that the American criminal justice system empowers police officers to systematically harass and kill with impunity.<sup>125</sup> Alexander argues that the increased scrutiny of racial biases in stop and searches extends to plea bargaining and sentencing. She insists that attention must be paid to the caste system that depends on the prison label affixed to felons, not the time they served in

---

<sup>120</sup> See Devon Carbado, *From Stop and Frisk to Shoot and Kill: Terry v. Ohio’s Pathway to Police Violence*, 64 UCLA L. REV. 1508, 1512 (2017).

<sup>121</sup> *Id.* at 1537.

<sup>122</sup> See Devon W. Carbado & Patrick Rock, *What Exposes African Americans to Police Violence?*, 51 HARV. C.R.-C.L. L. REV. 159, 160 (2016).

<sup>123</sup> *Id.* at 163.

<sup>124</sup> In *Chokehold: Policing Black Men*, Paul Butler explains how the American criminal justice system has effectively transformed Black men, as a group and as individuals, into “thugs” deserving of contempt and punishment. Butler presents a raw and unapologetic indictment of the purposefully broken American criminal justice system that targets African American men and pushes them into incarceration through lawful means. Butler reveals African American men are incarcerated largely because of their race—not because of poverty or poor choices. Instead, the racial disparity in the criminal justice system results from the structural racism that encourages dissimilar treatment of similarly situated people based on race. See PAUL BUTLER, *CHOKEHOLD: POLICING BLACK MEN* 5–7, 9–10 (2017).

<sup>125</sup> See Michelle Alexander, *America, This Is Your Chance*, N.Y. TIMES (June 8, 2020), <https://www.nytimes.com/2020/06/08/opinion/george-floyd-protests-race.html> [https://perma.cc/2LMJ-KWBW].

prison.<sup>126</sup> The felon label precludes a felon from employment and access to housing, voting, and jury service. Felons will continue to be cycled in and out of prison, monitored by the police, and precluded from participating in mainstream society.<sup>127</sup> She argues police reforms are needed, and mindsets about racialized policing must be changed: “[M]ass incarceration and mass deportation have less to do with crime and immigration than the ways we’ve chosen to respond to those issues when black and brown people are framed as the problem.”<sup>128</sup>

Third, Barry Friedman offers some ideas for policing reform. Since current generalized policing practices based on force and law are not working, he wants police officers to provide public safety effectively and in “non-harm producing ways.”<sup>129</sup> Friedman suggests that new training is needed for police because fighting crime is only a small portion of their duties, and modern street policing often requires them to have skills in mediation, social work, and victim assistance abilities as well; ideally, police officers would be “super-trained generalist first responders—whether the police or something else entirely—who, much like emergency medical technicians or emergency room doctors, have a broad enough set of skills to triage and address what they are asked to do until longer-term solutions can be put in place.”<sup>130</sup>

As Part I has hopefully illustrated, there are tensions existing between the police use of ShotSpotter and community policing. The next Part digs deeper to uncover how ShotSpotter allows increased surveillance of African American and Latino communities and extends the continual discriminatory application of stop-and-frisk practices.

## II

### HOT SPOT POLICING AND THE RACIAL IMPACT OF SHOTSPOTTER SURVEILLANCE ON CHICAGO’S TARGETED NEIGHBORHOODS

Hot spot policing increases police attention to specific geographic areas where there is a high concentration of crime, and the authors’

---

<sup>126</sup> See Michelle Alexander Gives Keynote Speech at AFSC Dinner, June 9, 2011, <https://www.afsc.org/story/michelle-alexander-gives-keynote-speech-afsc-dinner>.

<sup>127</sup> *Id.*

<sup>128</sup> Following 2020’s racial reckoning on this nation’s city streets, policing and criminal justice academics offer reform ideas that are worth considering. Brandon Garrett and Christopher Slobogin also blame current Fourth Amendment law for giving police too much leeway in using deadly force, making aggressive custodial arrests, and stopping and frisking individuals. See generally Christopher Slobogin & Brandon Garrett, *The Law on Police Use of Force in the United States*, 21 GERMAN L.J. 1526, 1526 (2020).

<sup>129</sup> See Friedman, *supra* note 92, at 980.

<sup>130</sup> *Id.* at 934.

belief in the viability of hot spot policing as an effective predictive policing technique is the connective tissue binding together *Bleeding Out* and *We See It All*.<sup>131</sup> Abt suggests hot spot policing can be an effective means of assigning limited police resources to violent hot spots to combat crime and reduce the number of guns on the street, at least temporarily.<sup>132</sup> A properly designed plan for hot spot policing of high crime areas covers several city blocks and can effectively suppress violence as it reshapes the community.<sup>133</sup> Abt carefully draws a distinction between modest hot spots and true hot spots where there is the highest concentration of crime and violence. He explains that police should be on high alert when they observe a suspected shooter in a hot spot with a bulge in his waistband; however, there is no need for the officers to apply the same alert to non-dangerous people outside the hotspot.<sup>134</sup> Overall, Abt stresses that policing of hot spots must be done lawfully and with transparency.<sup>135</sup>

Fasman is noticeably more cautious about recommending hot spot policing as a first option. Because of the racial component in hot spot policing, he says there is a risk of racial bias coming into play when police officers observe crimes such as vagrancy, loitering, or public intoxication and enforce the laws in poor, minority communities.<sup>136</sup> Racial bias can be replicated and perpetuated when predictive policing algorithms are aimed on drug crimes. According to Fasman, subsequent arrest patterns stemming from racial bias are used to determine where to send police to find other crimes.<sup>137</sup> Though the technology itself is not racially biased, he says the real problem is unaddressed racial bias—which is based on racially biased practices and data in the criminal justice system.<sup>138</sup>

---

<sup>131</sup> See Natalia Lazzati & Amilcar A. Menichini, *Hot Spot Policing: A Study of Place-Based Strategies for Crime Prevention*, 82 S. ECON. J. 893, 893 (2016). Barry Friedman also looks favorably upon hot spot policing. See Friedman, *supra* note 92, at 975 (“In study after study, hot spot policing has been shown to lower crime, without displacing it to surrounding areas, although the degree to which it does so also varies from study to study and in some of the most careful studies the effects can be small.”).

<sup>132</sup> See ABT, *supra* note 1, at 47.

<sup>133</sup> See *id.* at 117.

<sup>134</sup> See *id.* at 123.

<sup>135</sup> *Id.*

<sup>136</sup> See FASMAN, *supra* note 2, at 171.

<sup>137</sup> See *id.* at 170, 179, 181.

<sup>138</sup> See *id.* at 128.

Elsewhere, legal scholar Andrew Ferguson also analyzes the same racial biases that concern Fasman, but offers more discrete details. Ferguson asserts that big data policing relies on the analysis of collected data to employ place-based predictive policing using a data-driven approach, relying on advanced data analytics to identify criminal patterns in specific geographic locations and to deploy police resources.<sup>139</sup> Big data targeting distorts and lowers the reasonable suspicion requirement for stop-and-frisks for reasons correlated with race and class.<sup>140</sup> This creates a repeated cycle of racial profiling, whereby the police, fueled by suspicions, use information to make inferences about residents.<sup>141</sup>

Additional illumination about racial biases in hot spot policing was projected by the Fourth Circuit in 2020. Indeed, the issue of whether hot spot policing is used to justify racial profiling was a subject of debate among jurists in *United States v. Curry*<sup>142</sup> wherein Richmond Police Officers arrived at the Walcott Place housing projects responding to several gunshots that were fired nearby less than a minute before.<sup>143</sup> Curry and five to eight other men were calmly walking away from the general area where the officers believed the shots originated.<sup>144</sup> With no suspect description, and having only corroborating reports of the shots fired in the area, the officers fanned out and began approaching the men. Curry was stopped, and then one officer noticed a bulge under his shirt. A struggle ensued during a pat down, which led to the discovery of a gun.<sup>145</sup>

The district's ruling that exigent circumstances did not justify the suspicionless investigatory stop was reversed by an appellate panel.<sup>146</sup> But an *en banc* Fourth Circuit disagreed and held that the stop was not justified by exigent circumstances to the Fourth Amendment.<sup>147</sup> The *Curry* majority applied the court's reasoning from "exigent circumstances" cases, and determined that no exigent circumstances existed.<sup>148</sup> Although the officers heard shots and received corroboration

---

<sup>139</sup> See FERGUSON, *supra* note 43, at 62–63.

<sup>140</sup> *Id.* at 57.

<sup>141</sup> *Id.*

<sup>142</sup> *United States v. Curry*, 965 F.3d 313 (4th Cir. 2020).

<sup>143</sup> *Id.* at 317.

<sup>144</sup> *Id.*

<sup>145</sup> *Id.*

<sup>146</sup> *Id.* at 318.

<sup>147</sup> *Id.* at 331.

<sup>148</sup> *Id.* In *Mincey v. Arizona*, the Court explained that the exception applies where "'the exigencies of the situation' make the needs of law enforcement so compelling that the

that the shots came from the apartment complex, the police lacked any description of the suspect or indication that the suspect was nearby.<sup>149</sup> Knowledge about prior shootings in the area was also not enough.<sup>150</sup> All told, there were insufficient facts to provide a basis to justify a suspicionless seizure.<sup>151</sup> The court applied a *Terry* analysis to conclude that the police had no reasonable basis to suspect that Curry fired the gunshots either.<sup>152</sup> From the court's vantage point, if the officers were allowed to circumvent *Terry*'s individualized suspicion requirement it "would completely cripple a fundamental Fourth Amendment protection and create a dangerous precedent."<sup>153</sup>

The debate over the efficacy of big data policing was especially pointed between Judge Thacker and Judge Wilkinson. On the one hand, Judge Thacker wrote a separate concurrence, joined by Judge Keenan, where he strongly criticized Judge Wilkinson's dissent for hailing predictive policing as an "innovation" in policing. Judge Thacker argued predictive policing is not a panacea.<sup>154</sup>

Although of relatively recent vintage, the "innovation" of preventive policing, which uses computer algorithms to predict high crime areas, is no longer the shiny new object it may once have appeared to be, but instead has revealed itself to be tarnished with racial bias. Predictive policing is merely a covert effort to attempt to justify racial profiling.<sup>155</sup>

Of particular concern to him was the racial implication of "hot spot policing," which uses historical crime data to predict future crime hot spots.<sup>156</sup>

On the other hand, dissenting Judge Wilkinson commended the Richmond Police Department's use of "predictive policing" strategies

---

warrantless search is objectively reasonable under the Fourth Amendment." *Mincey v. Arizona*, 437 U.S. 385, 394 (1978). The Court in *Brigham City v. Stuart* defined exigent circumstances to include the need to "prevent the imminent destruction of evidence." *Brigham City v. Stuart*, 547 U.S. 398, 403 (2006). In *Kentucky v. King*, the Court analyzed the "'police-created exigency' doctrine" and assessed that officers may "conduct an otherwise permissible search without first obtaining a warrant." *Kentucky v. King*, 563 U.S. 452, 452, 455 (2011).

<sup>149</sup> *Curry*, 965 F.3d at 325.

<sup>150</sup> *Id.* at 325–26.

<sup>151</sup> *Id.* at 331.

<sup>152</sup> *Id.*

<sup>153</sup> *Id.* at 326.

<sup>154</sup> *Id.* at 344 (Thacker, J., concurring).

<sup>155</sup> *Id.*

<sup>156</sup> *Id.* at 344–45.

such as “hot spot policing” and posited that “[t]he majority has delivered a gut-punch to predictive policing.”<sup>157</sup> According to Judge Wilkinson, the majority opinion required responding police officers to wait for identifying information before taking action, leading to unsafe communities.<sup>158</sup>

Judge Thacker’s characterization of hot spot policing as a facilitator of racism is bolstered by developing litigation and activism against the use of ShotSpotter in Chicago’s minority neighborhoods, combined with Fasman’s query about the measurable impact ShotSpotter has had in reducing crime in Chicago. To begin with, Fasman notes that Chicago expanded its ShotSpotter coverage area to more than a hundred square miles from just three in 2012, yet the number of shooting victims and incidents began to sharply decline four years later.<sup>159</sup> The “Chicago Police Department police uses ShotSpotter technology in 12 of its 22 districts.”<sup>160</sup> These targeted districts are the ones with the highest proportion of African American and Latino residents in the city.<sup>161</sup> ShotSpotter covers one hundred square miles and costs \$1.5 million per district.<sup>162</sup> In 2018, the City of Chicago entered into a three-year contract with ShotSpotter costing \$33 million.<sup>163</sup> Chicago is experiencing high levels of violence with more than 524 murders in 2020.<sup>164</sup> In this current climate, city officials are in lockstep in their support for gun detection technology. Chicago’s police chief, Eddie Johnson, praises ShotSpotter for alerting police to

---

<sup>157</sup> *Id.* at 347–48, 350 (Wilkinson, J., dissenting).

<sup>158</sup> *Id.* at 350.

<sup>159</sup> See FASMAN, *supra* note 2, at 56; Press Release: ShotSpotter Generated Over 40,000 Dead-End Police Deployments in Chicago in 21 Months, According to a New Study, <https://www.macarthurjustice.org/shotspotter-generated-over-40000-dead-end-police-deployments-in-chicago-in-21-months-according-to-new-study/> (The “Chicago Police Department police uses ShotSpotter technology in 12 of its 22 districts.”).

<sup>160</sup> Patrick Elwood, *Study: ShotSpotter Technology Led to over 40K Dead-End CPD Deployments in 21 Months*, WGNTV (May 3, 2021, 9:49 PM), <https://wgntv.com/news/chicago-news/study-shotspotter-technology-led-to-over-40k-dead-end-cpd-deployments-in-21-months/> [<https://perma.cc/X6YC-TBK6>].

<sup>161</sup> See Chris Mills Rodrigo, *Police Technology Under Scrutiny Following Chicago Shooting*, THE HILL (Apr. 21, 2021, 6:24 PM), <https://thehill.com/homenews/state-watch/549612-police-technology-under-scrutiny-following-chicago-shooting> [<https://perma.cc/8AAM-FCE8>].

<sup>162</sup> GATENS & REICHERT, *supra* note 50, at 2.

<sup>163</sup> Elwood, *supra* note 161.

<sup>164</sup> Chip Mitchell, *At Summer’s End, Chicago Murders Are Outpacing Any Year in a Quarter Century*, WBEZ CHI. (Sept. 1, 2021, 1:00 PM), <https://www.wbez.org/stories/at-summers-end-chicago-murders-outpacing-any-year-in-a-quarter-century/5385cdb4-ee0e-4d10-bf38-4e85daa98fa0> [<https://perma.cc/6DYP-N49D>].

shootings they otherwise would have missed, resulting in more arrests and gun confiscations.<sup>165</sup> Mayor Lori Lightfoot also sees ShotSpotter technology as an important part of the city's overall crime detection system.<sup>166</sup>

Next, the recent lawsuit filed by Chicago community activists claims ShotSpotter is ineffective and has a disproportionate racial impact of Black and Latino communities, leading to overpolicing minority communities and abuse in policing.<sup>167</sup> The suit relies on the MacArthur Justice Center's recently released study reporting that there is no evidence that ShotSpotter reduces crime.<sup>168</sup> The study is revealing on at least three fronts. First, the study itself is a rejoinder to ShotSpotter's unsubstantiated claims that its technology is 97% accurate.<sup>169</sup> The Center, via the Illinois Freedom of Information Act, secured data on ShotSpotter deployments from July 1, 2019, through April 14, 2021.<sup>170</sup> The City of Chicago data showed that "89% [of alerts] turned up no gun-related crime and 86% led to no report of any crime at all," and "there were more than 40,000 dead-end ShotSpotter deployments."<sup>171</sup>

Second, since ShotSpotters are installed only in the Chicago police districts with the highest proportion of African Americans and Latino residents, ShotSpotter exacerbates discriminatory patterns of policing based on inflated statistics about gunfire only in predominantly African American and Latino neighborhoods.<sup>172</sup> This practice received national media attention last spring when a ShotSpotter alert summoned Chicago Police Officer Eric Stillman to the scene where he shot and killed 13-year-old Adam Toledo.<sup>173</sup> As shown in officer body

---

<sup>165</sup> See FASMAN, *supra* note 2, at 56.

<sup>166</sup> See Megan Hickey, *ShotSpotter Gunshot Detection Technology Has Become a Crucial Police Tool in Chicago, but Is It Worth the \$33 Million the City Is Paying?*, CBS CHI. (May 3, 2021, 10:21 PM), <https://chicago.cbslocal.com/2021/05/03/shotspotter-chicago-police-contract-questions/> [<https://perma.cc/B8CK-HLP7>].

<sup>167</sup> *Groups Say Chicago Gunshot Detection Systems Unreliable, Seek Review*, NBC CHI. (May 3, 2021, 4:34 PM), <https://www.nbcchicago.com/news/local/groups-say-chicago-gunshot-detection-systems-unreliable-seek-review/2501165/> [<https://perma.cc/8LZN-CB66>].

<sup>168</sup> See MACARTHUR JUST. CTR., *supra* note 42.

<sup>169</sup> *Id.*

<sup>170</sup> *Id.*

<sup>171</sup> *Id.*

<sup>172</sup> See Motion for Leave to File Brief as Amici Curiae in Support of Def.'s Motion for a Frye Hearing at 21, *State v. Williams*, No. 20 CR 0899601 (Ill. Cir. Ct. filed May 3, 2021); *Groups Say Chicago Gunshot Detection Systems Unreliable, Seek Review*, *supra* note 168.

<sup>173</sup> See Martinez & Labs, *supra* note 37; David K. Li, *Video of Fatal Chicago Police Shooting of 13-Year-Old Adam Toledo Released*, NBC NEWS (Apr. 15, 2021, 11:45 AM), <https://www.nbcnews.com/news/us-news/video-fatal-chicago-police-shooting-13-year-old>

camera footage, Toledo dropped a gun and lifted his empty hands in the air in the moments before Officer Stillman shot him.<sup>174</sup> Twenty-one-year-old Ruben Roman, who was walking with Toledo, was later charged with firing his gun at a passing car, which prompted the alert.<sup>175</sup> Toledo was shot when he and Roman allegedly ran away from police.<sup>176</sup> Toledo's death sparked a protest rally against police violence and demands by community activists for the city of Chicago to end its use of ShotSpotters.<sup>177</sup>

As was demonstrated by Toledo's death, increased dangerous and unnecessary police deployments not involving gun-related offenses can indeed escalate police encounters leading to excessive force and violence. This reinforces existing racial inequities in a city with a history of discriminatory patterns of policing, such as stop-and-frisk.<sup>178</sup> Anticipating more wrongful arrests, detentions, and other harms caused by police deployments, Jonathan Manes remarked, "The ShotSpotter system in Chicago prompts thousands of deployments by police hunting for gunfire in vain. . . . It creates a powder keg situation for residents who just happen to be in the vicinity of a false alert."<sup>179</sup>

As an aside, Toledo's death and the increased attention about the overpolicing of majority-minority neighborhoods effectively disrupts the outmoded black-and-white paradigm of racial justice.<sup>180</sup> The minimal attention that has been paid to Latinos can be attributed to

---

-adam-toledo-n1264172 [https://perma.cc/G2GW-852J]; Joe Berkowitz, *Violent Crime Is Up. Expanding the Surveillance State Is Not the Solution*, FAST CO. (July 30, 2021), <https://www.fastcompany.com/90659445/violent-crime-is-up-expanding-the-surveillance-state-is-not-the-solution> [https://perma.cc/9J5S-28DS].

<sup>174</sup> Carlos Ballesteros, *In Little Village, Adam Toledo's Death Spurs Reflection on Police, Gangs, and Race*, INJUSTICE WATCH (Apr. 23, 2021), <https://www.injusticewatch.org/news/police-and-prosecutors/2021/adam-toledo-little-village-police-gangs/> [https://perma.cc/VED5-EJEW].

<sup>175</sup> See Patrick Elwood, *Community Groups Demand City Oust ShotSpotter Gunshot Detection System*, WGNTV (Aug. 2, 2021, 10:40 AM), <https://wgntv.com/news/community-groups-demand-city-oust-shotspotter-gunshot-detection-system> [https://perma.cc/35SJ-K39Q].

<sup>176</sup> *Id.*

<sup>177</sup> *See id.*

<sup>178</sup> *See* Motion for Leave to File Brief as Amici Curiae in Support of Def.'s Motion for a Frye Hearing at 11–12, 18, *State v. Williams*, No. 20 CR 0899601 (Ill. Cir. Ct. filed May 3, 2021).

<sup>179</sup> *See* Elwood, *supra* note 161.

<sup>180</sup> *See* Robert J. Duran, *Latinos and the Police: A Critical Analysis of Officer-Involved Shootings*, 43 AZTLÁN: J. CHICANO STUD. 167, 177 (2018). Asian Americans are also largely missing from the criminal racial justice literature. *See* Harvey Gee, *Asian Americans and Criminal Law and Criminal Procedure: A Missing Chapter from the Race Jurisprudence Anthology*, 2 GEO. J. L. & MOD. CRITICAL RACE PERSPS. 185 (2010).

difficulties in analyzing the impact of police violence on Latinos because most data fails to disaggregate Latinos from other racial or ethnic groups, leading to the omission of Latinos from research studies about racial and ethnic disparities.<sup>181</sup> Since Latino communities are often poor, racially and socially isolated, and heavily policed, they are often caught up in stop-and-frisk policing practices, subjected to racial profiling, and questioned by police about their citizenship and potential gang affiliation.<sup>182</sup> Further, Latinos, the nation's largest minority group, are disproportionately twice as likely to be killed in gun homicide as whites.<sup>183</sup> In California, Latinos represented 46% of deadly police shootings between 2016 and 2018.<sup>184</sup> Police violence against Latinos is likely to continue in California, given that the San Jose Police Department began testing out ShotSpotter technology in 2019.<sup>185</sup> As we have seen in Part I of this Review, ShotSpotter creates opportunities for the police to encounter young men under the auspices of a shooting investigation. Remarkably, 5,300 of the nearly 13,000 resident reports of gunshots in San Jose were not even gun related.<sup>186</sup>

---

<sup>181</sup> See Duran, *supra* note 181, at 169.

<sup>182</sup> *The Impact of Gun Violence on Latinx Communities*, EVERYTOWN (Jan. 17, 2022), <https://www.everytown.org/report/the-impact-of-gun-violence-on-latino-communities> [<https://perma.cc/G5TV-RCGV>]; Victor M. Rios et al., *Mano Suave-Mano Dura: Legitimacy Policing and Latino Stop-and-Frisk*, 85 AM. SOCIO. REV. 58, 71–72 (2020).

<sup>183</sup> See Kenya Downs, *Why Aren't More People Talking About Latinos Killed by Police?*, PBS NEWSHOUR (July 14, 2016, 1:21 PM), <https://www.pbs.org/newshour/nation/black-men-werent-unarmed-people-killed-police-last-week> [<https://perma.cc/8K5Y-AM44>].

<sup>184</sup> See Mario Koran, *'We're Suffering the Same Abuses': Latinos Hear Their Stories Echoed in Police Protests*, THE GUARDIAN (June 12, 2020, 9:16 AM), <https://www.theguardian.com/world/2020/jun/12/latinos-police-brutality-protests-george-floyd> [<https://perma.cc/7WYZ-UQDQ>]. The Violence Policy Center reports that nearly 54,000 Hispanics were killed by guns between 1999 and 2015, including 35,553 gun homicide victims and 15,593 gun suicides. *Latino Victimization*, VIOLENCE POL'Y CTR., <https://vpc.org/revealing-the-impacts-of-gun-violence/hispanic-homicide-victimization> [<https://perma.cc/S2CL-M9KM>]. Gun violence is the second-leading cause of death for Latino males aged fifteen through thirty-four. *Nearly 70,000 Hispanics Have Died by Gunfire in U.S. Since 1999, Nearly Two-Thirds of the Deaths Are Homicides*, NEWS DIRECT (July 28, 2021, 10:15 AM), <https://newsdirect.com/news/nearly-70-000-hispanics-have-died-by-gunfire-in-u-s-since-1999-nearly-two-thirds-of-the-deaths-are-homicides-study-finds-704724494?category=Professional%20Services> [<https://perma.cc/ERV9-M4NG>].

<sup>185</sup> See Carly Wipf, *San Jose to Test Gunshot Detection Technology*, SAN JOSÉ SPOTLIGHT (Oct. 16, 2020), <https://sanjosespotlight.com/san-jose-to-test-gunshot-detection-technology/> [<https://perma.cc/JDW7-J2GX>].

<sup>186</sup> *Id.*

Thus far, sensors have been placed in the Cadillac Winchester area where there has been ongoing violent crime involving Latinos.<sup>187</sup>

Third, the Justice Center Study argues that ShotSpotter provides a false technological justification for overpolicing and encourages radicalized patterns of overpolicing in Chicago that have resulted in community distrust.<sup>188</sup> The Justice Center concluded that both false and accurate ShotSpotter alerts combined together inflate a false and distorted perception of gun violence in predominantly minority neighborhoods.<sup>189</sup> ShotSpotter responded with its own retort: “The MacArthur Justice Center Report draws erroneous conclusions from researchers’ interpretation of police report categorizations, falsely equating them with no shots fired. . . . 911 call center data alone provides an incomplete and misleading picture of ShotSpotter’s accuracy and effectiveness.”<sup>190</sup>

These issues are not exclusive to Illinois or California. In fact, residents of any neighborhood in America deemed to be a “high crime area” are especially vulnerable after the Court’s far-reaching *Utah v. Strieff* decision,<sup>191</sup> which allows police officers to stop and question citizens based on a hunch or whim that a criminal violation has occurred.<sup>192</sup> The Court ruled five to three in favor of the State of Utah and held that contraband obtained over the course of an illegal search did not violate Strieff’s Fourth Amendment rights and, as a result, was not subject to suppression under the exclusionary rule.<sup>193</sup> The issue presented to the Court was whether the attenuation doctrine applies where an unconstitutional detention leads to the discovery of a valid arrest warrant.<sup>194</sup> *Strieff* allows officers to retroactively claim grounds for making an unconstitutional stop and circumvent the exclusionary rule. In essence, *Strieff* allows police officers to stop people to check

---

<sup>187</sup> See Jana Kadah, *San Jose Gunshot Detection System Trial Has Some Fearing It Could Target Minorities*, LOC. NEWS MATTERS (Apr. 29, 2021), <https://localnewsmatters.org/2021/04/29/san-jose-gunshot-detection-system-trial-has-some-fearing-it-could-target-minorities/> [https://perma.cc/MBC6-X8F4].

<sup>188</sup> See Motion for Leave to File Brief as Amici Curiae in Support of Defendant’s Motion for a *Frye* Hearing at 16, *State v. Williams*, No. 20 CR 0899601 (Ill. Cir. Ct. filed May 3, 2021).

<sup>189</sup> See *id.* at 22.

<sup>190</sup> Alford, *supra* note 31.

<sup>191</sup> *Utah v. Strieff*, 579 U.S. 232 (2016).

<sup>192</sup> See The Editorial Board, *Another Hit to the Fourth Amendment*, N.Y. TIMES (June 20, 2016), <https://www.nytimes.com/2016/06/21/opinion/another-hit-to-the-fourth-amendment.html> [https://perma.cc/7992-ZBEF].

<sup>193</sup> *Strieff*, 579 U.S. at 242–43.

<sup>194</sup> *Id.* at 237.

for warrants, regardless of any belief of wrongdoing.<sup>195</sup> If there is no warrant, the suspect will be allowed to leave. If there is a warrant, he can be searched incident to arrest and questioned further.

If Justice Sotomayor's dissent in *Strieff*<sup>196</sup> is any indication, there will be at least one justice who is receptive to hearing about the modern realities of racialized policing should ShotSpotter or issues related to gun sound detection reach the Court. Justice Sotomayor took issue with *Strieff*'s far-reaching effects on minority communities.<sup>197</sup> Strikingly, citing to social science studies outside the record about the influence of race on criminal procedure, Justice Sotomayor was the only justice to acknowledge the racial realities of American society.<sup>198</sup> She made insightful points about the majority opinion, even though race was not an explicit issue because *Strieff* was not a racial minority: “[The ruling] allows the police to stop you on the street, demand your identification, and check it for outstanding traffic warrants—even if you are doing nothing wrong.”<sup>199</sup>

Between the two books, the influence of race on crime and gun violence is probed more deeply in *Bleeding Out*, and it reaches an apex when Abt criticizes the mainstream media for sustaining the false and limited optic that crime is strictly about African Americans committing crimes against other African Americans.<sup>200</sup> Even though African Americans are disproportionately represented as victims and perpetrators of violent crime, Abt insists that this crime should not be perceived as being “black.”<sup>201</sup> It is erroneous, he insists, to assume a connection between African Americans and violence and that urban violence is merely a byproduct of lawless behavior enabled by community tolerance for criminality.<sup>202</sup> African Americans should not be blamed for urban violence. Instead, racism is the true driving force for the high rates of criminality and violence among isolated and poor

---

<sup>195</sup> See Ronald Tyler, *Utah v. Strieff: A Bad Decision on Policing with a Gripping Dissent by Justice Sotomayor*, STAN. L. SCH. BLOGS (July 5, 2016), <https://law.stanford.edu/2016/07/05/utah-v-strieff-a-bad-decision-on-policing-with-a-gripping-dissent-by-justice-sotomayor/> [<https://perma.cc/82GY-VTWP>].

<sup>196</sup> *Strieff*, 579 U.S. at 243–54 (Sotomayor, J. dissenting).

<sup>197</sup> *Id.* at 254.

<sup>198</sup> *Id.*

<sup>199</sup> *Id.* at 244 (Sotomayor, J. dissenting).

<sup>200</sup> See ABT, *supra* note 1.

<sup>201</sup> See *id.* at 159.

<sup>202</sup> *Id.*

African Americans who are not more violent than other racial groups.<sup>203</sup> With that in mind, Abt wholeheartedly rejects claims that African Americans alone should take responsibility for addressing urban violence themselves whenever there are allegations of law enforcement abuse and misconduct.<sup>204</sup> Once a true understanding of these issues is established, Abt suggests that we can apply reforms in policing and the criminal justice system to better build legitimacy and decrease violence over time.<sup>205</sup>

In sum, this Part provided an overview of the relationship between hot spot policing and the racial consequences of ShotSpotter surveillance that compel these interrelated questions:

- (1) Do we think that cities should continue to use expensive sensors installed in minority communities to listen for sounds that may or may not be gunshots, as determined by a ShotSpotter employee?
- (2) Do residents of such communities want to be targeted by this 24/7 surveillance, which always creates a risk that responding police will stop and harass them just because they were nearby where a gunshot was supposedly heard?
- (3) If ShotSpotters were installed in predominately white neighborhoods, would residences in those communities tolerate police stopping them for having a “bulge” in their jacket pocket?

If we are truly seeking police accountability, equity, and racial justice, the answers to each question should be a resounding “no.”

With that as a baseline, moving forward, if we as a society can agree to look at other ways to reduce violence, and if we can cut through both the political left’s belief that defunding the police will reduce or eliminate brutality and misconduct and the political right’s rigid adherence to get “tough on crime” through a harsh punishment approach, we might be able to reasonably consider grassroots-level action. Such action would be narrowly designed and aimed to determine who is responsible for shootings in the community and to stop future gun violence.

These focused measures would not cast a wide net and attempt to catch only bad actors who pulled or will pull a trigger. These types of city programs have proven to be effective before and show great promise to reducing gun violence now and for the foreseeable future. As described in the next Part, innovative plans by cities to build trust

---

<sup>203</sup> *Id.* at 160–61.

<sup>204</sup> *Id.* at 161.

<sup>205</sup> *Id.* at 164.

in the community to curtail the continual increase in gun violence make more sense than spending money on expensive ShotSpotter technology that do not reduce gun violence or increase public safety. Basically, the way to reduce gun violence is to rely on human capital rather than on new technologies.

### III

#### DOING THE NECESSARY WORK AND TAKING COMMUNITY ACTION TO ADDRESS GUN VIOLENCE

This last Part first broadly looks at the tremendous promise presented by community actions and then transitions into a focused discussion of the city government's experience with reducing gun violence in Oakland, Baltimore, and Chicago. *Bleeding Out* is especially relevant here. Abt explains how cognitive behavior therapy helps high-risk adolescents manage their emotions and address conflicts constructively, while investing in crime-prone places and restoring services makes them less susceptible to violence.<sup>206</sup> Abt says offenders are directed away from crime and violence early on through diverting potentially violent youth from arrest and incarceration as adults.<sup>207</sup> Aggressive law enforcement should be reserved only for the most dangerous behaviors, such as unlawfully carrying firearms, because overly aggressive policing does not guarantee less violence.<sup>208</sup> Abt also wants to build legitimacy using assurances of public safety facilitated through focused deterrence on the street level.<sup>209</sup>

As ambitious as city plans can be, and as commendable as their goals may be, Abt cautions that there are potential obstacles to reform if the terms "community," "holistic," and "comprehensive" are ill defined.<sup>210</sup> Abt recommends evidence-informed strategies that are identified and selected based on the specific needs and abilities of the community and that funds should be earmarked for ongoing analysis, performance management, and evaluation. Proposed plans work with potential shooters and try to remove actual shooters from the street.<sup>211</sup> Finally, the plan should include efforts to reduce violence in crime hot spots, starting with policing and leading to community building through

---

<sup>206</sup> *See id.* at 3.

<sup>207</sup> *Id.* at 47.

<sup>208</sup> *See id.*

<sup>209</sup> *See id.* at 87–89, 96.

<sup>210</sup> *Id.* at 126.

<sup>211</sup> *Id.* at 203.

partnerships with community members, business and property owners, and other stakeholders.<sup>212</sup>

Abt applies these guiding principles to the example of community action taken in Oakland, which is the centerpiece for both books. Both Fasman and Abt support Oakland's iteration of Group Violence Intervention or Group Violence Reduction Strategy (GVRS), which is best known for its effectiveness in reducing serious gun and group violence by using focused deterrence.<sup>213</sup> Beginning in 2012, Oakland formed crucial inclusive partnerships with police, prosecutors, key community members, and social service providers to create trust and legitimacy.<sup>214</sup> As a result, Oakland's Ceasefire program reduced fatal and nonfatal shootings in Oakland for five years straight.<sup>215</sup>

The effectiveness of Oakland's Ceasefire is summarized in *Oakland Ceasefire Evaluation: Final Report to the City of Oakland*.<sup>216</sup> "Ceasefire greatly enhanced the City's capacity to systematically and thoughtfully reduce shootings and homicides."<sup>217</sup> "Between 2010 and 2017, total Oakland shooting victimizations peaked at 710 in 2011 . . . and decreased by 52.1 percent to a low of 340 in 2017 . . ."<sup>218</sup> "The Ceasefire intervention was associated with an estimated 31.5%" citywide reduction of gun homicides.<sup>219</sup> Unfortunately, the Ceasefire program in Oakland has been less effective of late because of the COVID-19 pandemic, which reduced opportunities for human contact and which coincided with a contraction of police budgets.<sup>220</sup> There were eighty-four shooting-related deaths and 495 firearms cases in 2020, and Oakland will likely exceed those numbers again in 2021.<sup>221</sup>

---

<sup>212</sup> See *id.* at 202–03.

<sup>213</sup> See *id.* at 88–89; see also ANTHONY A. BRAGA ET AL., OAKLAND CEASEFIRE EVALUATION: FINAL REPORT TO THE CITY OF OAKLAND 7 (2019).

<sup>214</sup> See BRAGA ET AL., *supra* note 214, at 1.

<sup>215</sup> DAVID MUHAMMAD, NAT'L INST. FOR CRIM. JUST. REFORM, OAKLAND'S SUCCESSFUL GUN VIOLENCE REDUCTION STRATEGY 1 (2018).

<sup>216</sup> See generally BRAGA ET AL., *supra* note 214.

<sup>217</sup> *Id.* at 7.

<sup>218</sup> *Id.* at 1.

<sup>219</sup> *Id.* at 2.

<sup>220</sup> See, e.g., Darwin BondGraham, *Gun Violence: The Other Public Health Crisis That Spiked in Oakland Last Year*, THE OAKLANDSIDE (Apr. 27, 2021), <https://oaklandside.org/2021/04/27/gun-violence-shootings-epidemic-public-health-crisis-oakland-2020-covid/> [<https://perma.cc/PRR4-ANRE>]; Cristina Rendon, *Oakland City Council Restores \$10M in Funds to Police, Fire Departments Amid Spike in Violence*, KTVU (Apr. 12, 2021, 9:16 PM), <https://www.ktvu.com/news/oakland-city-council-restores-10m-in-funds-to-police-fire-departments-amid-spike-in-violence> [<https://perma.cc/GF9P-P8GM>].

<sup>221</sup> BondGraham, *supra* note 221; David Debolt & Annie Sciacca, *After Deadliest Day of 2021, Oakland Reels from Gun Violence*, MERCURY NEWS (Apr. 19, 2021, 4:21 AM),

Abt attributes GVRS's success to its hyper-focused intervention addressing a specific range of behaviors among small groups and group members. GVRS's intervention is balanced because group members can either be punished for persisting in violent behavior or choose opportunities to improve their lives. GVRS aims to treat group members with dignity and allows autonomy.<sup>222</sup> How does it work in practice? GVRS allows for key groups and group members who are connected to prior shootings to be identified by looking at the victim and identifying everyone they were criminally connected to. "Very [h]igh-[r]isk [i]ndividuals" likely to be involved in shootings are young Black and Latino men ages eighteen-to-thirty-five with extensive criminal histories, who are affiliated with gangs, have been shot before, or have a close friend or family member who was shot.<sup>223</sup> At the core of GVRS are human interactions in groups and one-on-one meetings in neutral settings such as a churches or community centers.<sup>224</sup> Here, law enforcement officials admonish group members involved in the shootings and explain why the violence must stop.<sup>225</sup> Individuals and groups are sanctioned through prosecution. The process is inclusive because members of the community, including neighbors, elders, preachers, and mothers, convince group members to stop the violence.<sup>226</sup>

Accountability afterward comes in the form of the partnership facilitating safe surrenders to law enforcement and mediating individual and group conflicts.<sup>227</sup> Long-term plans for group members may entail treatment, counseling, mentoring, and access to employment, education, and housing.<sup>228</sup> Critical to positive outcomes are the efforts of outreach workers who mediate disputes before they become deadly, connecting violent individuals to social services and changing attitudes about violence.<sup>229</sup> Outreach workers, focused on those prone to perpetrate deadly violence, gather facts and intelligence about violent incidents to learn about potential retaliation, rumors, and

---

<https://www.mercurynews.com/2021/04/18/after-deadliest-day-of-2020-oakland-reels-from-epidemic-violent-crime/> [<https://perma.cc/32MH-N29S>].

<sup>222</sup> See ABT, *supra* note 1, at 3.

<sup>223</sup> See MUHAMMAD, *supra* note 215, at 3.

<sup>224</sup> See ABT, *supra* note 1, at 90.

<sup>225</sup> *Id.*

<sup>226</sup> See *id.* at 91.

<sup>227</sup> *Id.*

<sup>228</sup> See *id.* at 92.

<sup>229</sup> See *id.* at 94.

encourage potential shooters to walk away.<sup>230</sup> “Outreach also empowers communities to voluntarily avoid bloodshed, and by strengthening informal social control it minimizes the need for formal social control in terms of arrests and incarceration.”<sup>231</sup> Abt explains:

When it works, the GVRS pacifies the groups responsible for much of a city’s violence. These groups may remain involved in criminal activity, but they resort to gunplay far less frequently. When a city’s most notoriously violent groups stand down, it lessens the need for violence among other criminal groups in the city, leading to less violence citywide.<sup>232</sup>

Oakland is not an outlier. Boston’s reconstituted Ceasefire program, specifically focused on gangs, proved to be effective. Ceasefire intervention was credited with statistically significant reductions in gun violence trends. The Boston Ceasefire program generated a 31% reduction in total shootings.<sup>233</sup> The concept of active city involvement in reducing violent crime seems to be gaining traction. Consider Baltimore Mayor Brandon Scott’s creation of the Mayor’s Office of Neighborhood Safety and Engagement (MONSE) in 2020 to launch Baltimore’s new holistic “community healing and trauma-informed practice” and a coordinated strategy to combat gun violence as a public health crisis.<sup>234</sup> The three pillars of MONSE are (1) taking a public health approach to violence through reducing harm to communities by empowering community-based alternatives in juvenile and nonviolent matters; (2) improving community engagement and interagency coordination through partnerships and reconciliation; and (3) relying on evaluation and accountability to create strategies that are data, evidence, and community-based best practices.<sup>235</sup> MONSE also

---

<sup>230</sup> See *id.* There have been recent examples of similar strategies to reduce violent conflicts. See Ivan Natividad, *Berkeley Study: California Gun Violence Program Saves Lives, Taxpayers Millions*, BERKELEY NEWS (Mar. 17, 2021), <https://news.berkeley.edu/2021/03/17/berkeley-study-california-gun-violence-program-saves-lives-taxpayers-millions/> (discussing the Advance Peace Program’s success in Stockton by using formerly incarcerated community members to engage with perpetrators of gun violence, thereby saving taxpayers millions of dollars while serving as model for police reform) [<https://perma.cc/R6J8-3YGC>].

<sup>231</sup> See ABT, *supra* note 1, at 96.

<sup>232</sup> See *id.* at 93.

<sup>233</sup> See Anthony A. Braga et al., *Deterring Gang-Involved Gun Violence: Measuring the Impact of Boston’s Operation Ceasefire on Street Gang Behavior*, 30 J. QUANT. CRIMINOLOGY 113, 134 (2013).

<sup>234</sup> See BRANDON M. SCOTT, BALTIMORE CITY COMPREHENSIVE VIOLENCE PREVENTION PLAN 15 (2021), [https://monse.baltimorecity.gov/sites/default/files/Mayor\\_Scott-ComprehensiveViolencePreventionPlan\\_1.pdf](https://monse.baltimorecity.gov/sites/default/files/Mayor_Scott-ComprehensiveViolencePreventionPlan_1.pdf) [<https://perma.cc/SL5D-4LWC>].

<sup>235</sup> *Id.* at 15.

addresses joblessness, homelessness, and poor education and health.<sup>236</sup> MONSE further purports to add value to the city's gun violence prevention infrastructure by providing support via a coordinated shooting response system after incidents of gun violence to decrease retaliation, address trauma, and promote healing.<sup>237</sup>

Not explicitly mentioned in Baltimore's *Violence Prevention Framework Plan* is the necessity for the plan to coexist with its police department's use of surveillance technology, which has been criticized for its disproportionate impact on African American communities, and which conflicts with the goals of building trust, encouraging cooperation, and moving away from legal cynicism.<sup>238</sup> Few are aware that facial recognition technology was employed in 2015 as a spying tool used by the Baltimore Police Department (BPD) during the riots following the death of Freddie Gray at the hands of the Baltimore police and during peaceful BLM demonstrations calling for police accountability.<sup>239</sup> A companion surveillance tool is Stingray, the military grade cell-site simulators that track the location of cellphones and capture texts, numbers of outgoing calls, emails, serial numbers, identification, GPS location, and actual content of conversation from unsuspecting phones.<sup>240</sup> The BPD, the heaviest user of Stingrays in the country, routinely deployed Stingray cell simulators thousands of times in low-income African American sections of the city in 90% of Stingray incidents mapped.<sup>241</sup>

---

<sup>236</sup> *Id.* at 16.

<sup>237</sup> *Id.*

<sup>238</sup> See Brian Barrett, *The Baltimore PD's Race Bias Extends to High-Tech Spying, Too*, WIRED (Aug. 16, 2016, 8:01 AM), <http://www.wired.com/2016/08/baltimore-pds-race-bias-extends-high-tech-spying> [<https://perma.cc/5VCR-CUVF>].

<sup>239</sup> See Kate Klonick, *Stingrays: Not Just For Feds! How Local Law Enforcement Uses an Invasive, Unreliable Surveillance Tool*, SLATE (Nov. 10, 2014, 9:52 AM), <https://slate.com/technology/2014/11/stingrays-imsi-catchers-how-local-law-enforcement-uses-an-invasive-surveillance-tool.html> [<https://perma.cc/5YD8-UT5Q>].

<sup>240</sup> See, e.g., Andrew Hemmer, *Duty of Candor in the Digital Age: The Need for Heightened Judicial Supervision of Stingray Searches*, 91 CHI.-KENT L. REV. 295, 296 (2016) (describing the tracking abilities of Stingrays and how they can "hijack" a phone to perform calls and texts disguised as the targeted phones); Stephanie K. Pell & Christopher Soghoian, *A Lot More than a Pen Register, and Less Than a Wiretap: What the Stingray Teaches Us About How Congress Should Approach the Reform of Law Enforcement Surveillance Authorities*, 16 YALE J.L. & TECH. 134, 145 (2013-2014).

<sup>241</sup> See Colin Daileda, *The Police Technology Intensifying Racial Discrimination*, MASHABLE (Oct. 3, 2016), <https://mashable.com/article/police-technology-surveillance-racial-bias> [<https://perma.cc/A2UT-85TD>]; George Joseph, *Racial Disparities in Police 'Stingray' Surveillance, Mapped*, BLOOMBERG CITYLAB (Oct. 18, 2016, 4:00 AM), <https://www.citylab.com/equity/2016/10/racial-disparities-in-police-stingray-surveillance>

As for the kind of facial recognition technology BPD uses and the technology's growing popularity, Fasman states that "facial recognition is dangerous when it's unreliable, because it risks getting innocent people arrested. But it's dangerous when it's reliable, too, because it lets governments track us in public anytime."<sup>242</sup> Facial recognition and facial surveillance technology are not governed by any legislation, and it remains an open question as to whether the use of such technology by law enforcement constitutes a search for the purposes of the Fourth Amendment. Increased media attention on these systems has illuminated their manifold problems. The National Institute of Standards and Technology's negative performance review of facial recognition technology is one of the largest examinations of the technology.<sup>243</sup> The agency culled through eighteen million photos from mug shots, passports, and travel databases and tested 189 facial recognition algorithms to conclude that facial recognition programs are racially biased because they erroneously identify the faces of African Americans, Asians, and Native Americans ten-to-one-hundred times more than white faces.<sup>244</sup> Such concerns are why Fasman is against the unregulated use of surveillance tools by the police and favors civilian oversight of police.<sup>245</sup> He suggests that rigorous usage policies, with independent auditing, public-reporting requirements, and a punishment mechanism, are necessary to ensure police accountability.<sup>246</sup>

In closing the loop opened in Part II, Chicago is also committed to addressing gun violence and invested more than \$11 million in 2020 toward violence reduction efforts.<sup>247</sup> Mayor Lori Lightfoot acknowledged that policing alone is not the solution to reduce systemic

---

-mapped/502715/ [https://perma.cc/5TVN-XLQ7]. In *State v. Andrews*, the Maryland Court of Special Appeals was the first state court to rule on the issue of whether a cell phone transformed into a real-time tracking device by the government without a warrant, and held that the Baltimore Police Department's use of Hailstorm, an upgraded version of the Stingray, required a valid search warrant based on probable cause. *State v. Andrews*, 134 A.3d 324 (Md. Ct. Spec. App. 2016). The appellate court was the first state appellate court to order evidence obtained using a Stingray suppressed. *Id.*

<sup>242</sup> FASMAN, *supra* note 2, at 6.

<sup>243</sup> See Natasha Singer & Cade Metz, *Many Facial-Recognition Systems Are Biased, Says U.S. Study*, N.Y. TIMES (Dec. 19, 2019), <https://www.nytimes.com/2019/12/19/technology/facial-recognition-bias.html> [https://perma.cc/T8NV-ZYV2].

<sup>244</sup> *See id.*

<sup>245</sup> *See* FASMAN, *supra* note 2, at 20.

<sup>246</sup> *Id.*

<sup>247</sup> *See* CITY OF CHI., OUR CITY, OUR SAFETY: A COMPREHENSIVE PLAN TO REDUCE VIOLENCE IN CHICAGO, 5–6 (2020), <https://www.chicago.gov/content/dam/city/sites/public-safety-and-violenc-reduction/pdfs/OurCityOurSafety.pdf> [https://perma.cc/AM6W-NG5P].

violence in Chicago and endorsed a gun violence reduction plan that focuses on individuals, communities, and systems in the next three years.<sup>248</sup> Its guiding principles are focused on reducing the racial “safety gap across Chicago communities” and the people and vulnerable families who are at the highest risk of violence.<sup>249</sup> The plan employs intervention and prevention strategies and advances anti-poverty, economic development, and community-driven, data-informed education policies.<sup>250</sup> Traces of Oakland’s GVRS blueprint are inherent in the Chicago plan, given that it relies on intervention activities focused on high-risk perpetrators and victims, concentrates on relationship-based policing to build trust, and strengthens police legitimacy.<sup>251</sup> By developing credibility and trust between community members and police, residents will perceive law enforcement as being legitimate.<sup>252</sup>

#### CONCLUSION

*Bleeding Out* and *We See It All* feature important themes that deeply resonate during this time of racial reckoning and unbridled violence against communities of color. In the final analysis, surveillance technologies like ShotSpotter are not the ideal or only solution to reducing gun violence. Law enforcement’s use of ShotSpotter illustrates how much the notion of technology as an effective crime fighting tool is overrated. As the curtain on ShotSpotter continues to be drawn back further and further, we see that gun detection technology does more harm than good. In particular, ShotSpotter encourages racialized violence in communities of color and has a definite racial impact. Given that reality, law enforcement, affected communities, and everyone else who wants to live in a free society must work together and harder than ever before to take back the streets and reduce violence.

---

<sup>248</sup> *See id.*

<sup>249</sup> *Id.*

<sup>250</sup> *Id.* The Chicago plan’s aim is building an effective community-based violence reduction infrastructure using five violence reduction pillars: empowering and healing people through prevention and intervention and alleviating fear of violence; protecting and securing safe places and providing stable housing, commerce, and opportunities; improving and advancing police legitimacy and trust in humane, effective, and constitutional law enforcement practices; ensuring that city laws and policies related to public safety and gun violence prevention and policies reflect the values, aspirations, and safety of residents; and development of realistic, actionable plans to prevent and reduce violence. *Id.*

<sup>251</sup> *Id.* at 7.

<sup>252</sup> *Id.* at 22.

It behooves us all to follow Fasman's lead in taking a firm stand against the unfettered use of surveillance technology and consider Abt's meaningful advice about developing community plans to curb gun violence. By doing so, we can maybe slow down the bleeding in this surveillance state.