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ShotSpotter – The New Tool to Degrade What is Left of the Fourth Amendment, 54 UIC L. Rev. 797 (2021)

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SHOTSPOTTER – THE NEW TOOL TO DEGRADE WHAT IS LEFT OF THE FOURTH AMENDMENT

BENJAMIN GOODMAN*

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I. INTRODUCTION

A. *The Newest “Big Brother”*

For nearly a year, sixty-five year old Michael Williams spent his days alone in a Cook County jail cell accused of murder.¹ The

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Following the publication of this article, I was provided with copies of court documents from the Michael Williams case, which show that ShotSpotter did not change the location of the gunfire as had been previously reported but had identified the same GPS coordinates for the gunfire in both its initial real-time

Chicago Police Department arrested Williams for the murder of a young man that was shot in the head three months earlier amid the George Floyd protests.² But the key piece of evidence against him was not an eyewitness that could testify they saw Williams shoot the young man.³ It wasn't a witness that could even put a gun in his hand.⁴ Instead, a series of microphone sensors scattered throughout the city, tasked with detecting the sound and location of gunshots, was the instrumental piece of evidence responsible for taking a grandfather and husband away from his family.⁵ The Cook County State's Attorney's office eventually dismissed the charges against Williams for "insufficient evidence."⁶

alert and in its later detailed forensic report. *SSTI WILLIAMS_000107*, UIC LAW REV., <https://uofi.app.box.com/s/mq0ody3zrd50ul2eezth2ym98fokhnmy> (last visited Jan. 23, 2022); *Williams Detailed Forensic Report*, UIC LAW REV., <https://uofi.app.box.com/s/of3lm0yv3wbcwutx6n3rwyacu5c8c11q> (last visited Jan. 23, 2022).

In addition, an update was made to a source that I relied on, following the publication of my article. Stanley, *infra* note 7. The update, made by the ACLU on 10/14/2021, explains that ShotSpotter uses an algorithm to filter out sounds that are not gunfire before sending the audio recordings to human analysts for review, and that any inaccuracies in such an algorithm are not going to lead to unfair evidentiary judgments. *Id.*

I have also been made aware of a study done in collaboration with ShotSpotter and Cooper University Health Care, that concluded that ShotSpotter technology used in Camden, NJ decreased prehospital time for patients with gunshot wounds. Anna Goldenberg et al., *Use of ShotSpotter detection technology decreases prehospital time for patients sustaining gunshot wounds*, 87(6) J. OF TRAUMA & ACUTE CARE SURGERY 1253 (2019), www.journals.lww.com/jtrauma/Citation/2019/12000/Use_of_ShotSpotter_detection_technology_decreases.2.asp.

See generally Ralph Clark, *ShotSpotter's Response to Associated Press Article*, SHOTSPOTTER, INC. (Aug. 26, 2021), www.shotspotter.com/blog/shotspotter-response-to-associated-press-article [perma.cc/WR7M-JFSL] (outlining ShotSpotter's public response to the *Williams* case).

1. Todd Feathers, *Police Are Telling ShotSpotter to Alter Evidence From Gunshot-Detecting AI*, VICE NEWS (July 26, 2021), www.vice.com/en/article/qj8xbq/police-are-telling-shotspotter-to-alter-evidence-from-gunshot-detecting-ai [perma.cc/39U8-2JVY].

2. *Id.*

3. Garance Burke et al., *How ShotSpotter – an AI-powered gunshot-detecting device – landed a Chicago grandfather in jail for nearly a year with scant evidence*, CHICAGO TRIB. (Aug. 20, 2021), www.chicagotribune.com/news/criminal-justice/ct-shotspotter-chicago-man-jailed-20210820-krlg7y2gt5gwxyzolqvvslni4-story.html [perma.cc/BDF8-EGTZ].

4. *Id.*

5. *Id.*

6. *Id.* The algorithm that powers the microphone sensors first classified the sound as a firework before an analyst manually re-classified the sound as a gunshot. *Id.* Additionally, the microphone sensors first identified that the sounds originated from a location a mile away from where Mr. Williams allegedly committed the murder. *Id.* Then, months later, an analyst manually changed the location of the "gunshot" to coordinates near where Mr. Williams

This technology often makes mistakes, and Williams’s case is only one of dozens across the county that have illustrated its unreliability.⁷ These microphones and sensors are part of ShotSpotter’s acoustic gunshot detection technology and may be in a “high-crime” area near you.

The use of ShotSpotter by police departments throughout the United States presents issues beyond those exhibited in the case of Williams. This Note will argue that it is unconstitutional under the Fourth Amendment for police officers to use a ShotSpotter gunfire alert on its own to justify a police stop. Part II of this Note will provide an overview of ShotSpotter technology and its use by police departments throughout the United States. Additionally, it will provide an overview of the United States Supreme Court’s jurisprudence regarding what amounts to reasonable suspicion under the Fourth Amendment to justify an investigatory police stop.⁸ Part III will discuss the Seventh Circuit’s analysis in *United States v. Rickmon*,⁹ a case of first impression, where the Seventh Circuit justified a traffic stop on the basis of a localized gunfire detection alert by ShotSpotter. Part IV will discuss how the Seventh Circuit not only reached the wrong conclusion but also neglected to consider larger societal concerns. Part V will briefly conclude by summarizing this Note and noting some of the concerns of the continued use of this technology moving forward.

II. BACKGROUND

A. *ShotSpotter* – What is it?

ShotSpotter is a publicly traded organization that develops and

allegedly committed the murder. *Id.* Understandably, Mr. Williams case was dismissed for insufficient evidence, but not before he spent a year in jail. *Id.*

7. Jay Stanley, *Four Problems with the ShotSpotter Gunshot Detection System*, ACLU (Aug. 24, 2021), www.aclu.org/news/privacy-technology/four-problems-with-the-shotspotter-gunshot-detection-system/ [perma.cc/A2CC-PAQW]; Feathers, *supra* note 1.

8. There are other companies that make acoustic gunshot detection technology, including Raytheon Technologies with their Boomerang III, and Safety Dynamics with SENTRI. However, this Note focuses on ShotSpotter as it is the most prominently used acoustic gunshot detection technology in the United States. For more information on those technologies, *See Boomerang III*, RAYTHEON TECHNOLOGIES CORP., www.raytheon.com/capabilities/products/boomerang [perma.cc/H7CC-MCFQ] (last visited Sept. 20, 2020) (“Boomerang pinpoints the shooter’s location of incoming small arms fire.”). “Boomerang uses passive acoustic detection and computer-based signal processing to locate a shooter in less than a second.” *Id.*; *Products*, SAFETY DYNAMICS, INC., www.safetydynamics.net/prods.html (last visited Sept. 20, 2020) (“[SENTRI] is a breakthrough technology that recognizes gunshots and explosions and sends range and bearing details to cameras which can then locate the source of the event.”).

9. *United States v. Rickmon*, 952 F.3d 876 (7th Cir. 2020).

sells acoustic gunshot detection and precision-policing solutions.¹⁰ While the company is responsible for a number of products, this Note will focus specifically on their flagship product, ShotSpotter Flex (“ShotSpotter”).¹¹ In general, ShotSpotter listens for gunshots, identifies their location, and then, after a round of verification by artificial intelligence and experts, notifies the police so they can respond.¹²

At a more technical level, ShotSpotter is a combination of hardware and software.¹³ The hardware consists of acoustic sensors, each with four microphones that are installed high above the city, on various structures such as telephone poles and the roofs of buildings.¹⁴ The acoustic sensors are “[r]oughly the size of a medium pizza and designed to look like a rooftop fan.”¹⁵ To adequately detect gunshots in a particular area, ShotSpotter typically installs twenty to twenty-five sensors per square mile.¹⁶ The sensors are passive, meaning they are not actively recording “until they hear an ‘explosive type sound.’”¹⁷ When the sensors identify an explosive

10. *Company Overview*, SHOTSPOTTER INC., www.shotspotter.com/company/ [perma.cc/J4DV-5RYC] (last visited Sept. 20, 2020).

11. *Id.* ShotSpotter also sells a host of other products, including ShotSpotter SecureCampus and ShotSpotter SiteSecure. SecureCampus is billed by ShotSpotter as a product that can help accelerate the emergency response to a school shooting. *Don’t Risk Your College Campus Safety – Be Prepared for Gunfire Incidents*, SHOTSPOTTER INC., www.shotspotter.com/risk-management/campus-safety/ [perma.cc/4WY3-YTXD] (last visited Feb. 16, 2020). SecureCampus has a series of acoustic sensors that are triggered by the sound of gunshots, or other impulsive type sounds. *Id.* After the sensors are triggered, they determine the location of the shots through artificial intelligence and triangulation. *Id.* From there, if the sounds are confirmed as gunshots by analysts in ShotSpotter’s Incident Review Center, alerts are sent to campus and local police for dispatch. *Id.* From the moment the sensors are triggered until the sounds are confirmed as gunshots is marketed by ShotSpotter as taking less than sixty seconds. SiteSecure is a functionally similar product to SecureCampus, but is marketed towards businesses, rather than academic institutions. *Protect Your Staff, Visitors, & Physical Assets from Gunfire*, SHOTSPOTTER INC., www.shotspotter.com/risk-management/physical-security/ [perma.cc/E3CZ-43JP] (last visited Feb 16, 2020).

12. *Precision Policing Platform*, ShotSpotter Inc., www.shotspotter.com/platform/ [perma.cc/7Z4B-6JPK] (last visited Sept. 20, 2020) [hereafter *Precision*].

13. Nancy G. La Vigne et al., *Implementing Gunshot Detection Technology*, URBAN INST., 3-4 (Oct. 2019), www.urban.org/sites/default/files/publication/101161/implementing_gunshot_detection_technology_recommendations_forLaw_enforcement_and_municipal_partners.pdf [perma.cc/Z253-WWWN].

14. *Id.* at 3; Ethan Watters, *Shot Spotter*, WIRED (Apr. 1, 2007), www.wired.com/2007/04/shotspotter/ [perma.cc/SW54-67BM].

15. Watters, *supra* note 14.

16. Dawn Baumgartner Vaughan, *Leaders Weighs Pros and Cons of ShotSpotter in Durham, N.C.*, GOV’T TECH. (Mar. 8, 2019), www.govtech.com/biz/Leaders-Weighs-Pros-and-Cons-of-ShotSpotter-in-Durham-NC.html [perma.cc/NB2H-BX9S].

17. *Id.*

type sound, the software filters out background noise and creates a three second audio recording of the sound.¹⁸ If at least three sensors, through artificial intelligence, determine the sound to be a gunshot, the audio file is then sent to the final round of verification at ShotSpotter's Incident Review Center ("IRC").¹⁹ The IRC is staffed with a team of acoustic experts, that provides a human check on the artificial intelligence.²⁰ If the final round of acoustic review at the IRC affirmatively classifies the sound as gunfire, an incident notification is pushed out to the police.²¹

B. Paying for ShotSpotter, and Who Collects the Data?

About one hundred cities throughout the United States contract with ShotSpotter for their gun detection technology.²² The cities range from the large municipalities of Chicago, New York City, and Miami to smaller cities such as Wilmington, Delaware, and Youngstown, Ohio.²³ Regardless of its effectiveness, implementing ShotSpotter presents a financial challenge for many cities.²⁴ ShotSpotter markets its product under a subscription pricing model at between \$65,000 and \$90,000 per square mile per year.²⁵ They are, however, flexible in their pricing model.²⁶ Chicago, for instance,

18. *Precision*, *supra* note 12; Cale Guthrie Weissman, *The NYPD's Newest Technology May Be Recording Conversations*, BUSINESS INSIDER (Mar. 26, 2015), www.businessinsider.com/the-nypds-newest-technology-may-be-recording-conversations-2015-3 [perma.cc/38JS-AC5M] ("there is clear evidence that ShotSpotter can record conversations" (internal quotation marks omitted)).

19. *Precision*, *supra* note 12 (The software uses multi-lateration to determine the perceived location of the gunshots, a means by which it analyzes both the time difference of the sound's arrival at each sensor, as well as its angle of arrival).

20. *Id.*

21. *Id.*

22. ShotSpotter Cities, ShotSpotter Inc., www.shotspotter.com/cities/ (last visited Sept. 10, 2021) [perma.cc/K3WB-NE8E].

23. *Id.*

24. 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), www.forbes.com/sites/mattdrange/2016/11/17/shotspotter-struggles-to-prove-impact-as-silicon-valley-answer-to-gun-violence/ [perma.cc/2JV4-2VZ2] [hereinafter Drange I].

25. *Id.* The subscription pricing model was implemented by current CEO, Ralph Clark, in an effort to reduce the upfront cost and make ShotSpotter more affordable to cities and police departments. *Id.* The prior pricing model included a significant upfront cost of about \$200,000 to \$250,000 per square mile to install and included an annual maintenance fee of about fifteen percent of the installation price. Cara Buckley, *High-Tech 'Ears' Listen for Shots*, N. Y. TIMES (Nov. 20, 2009), www.nytimes.com/2009/11/22/nyregion/22shot.html [perma.cc/CEZ4-LQMB].

26. See e.g., Press Release, SHOTSPOTTER, *Chicago Signs \$23 Million Multi-year Agreement With ShotSpotter to Extend Gunshot Detection Coverage Into Next Decade* (Sep. 5, 2018), www.globenewswire.com/news-release/2018/09/05/1565583/0/en/Chicago-Signs-23-Million-Multi-year-

signed a three-year contract for more than 100 square miles of ShotSpotter coverage for \$23 million in 2018, at a discount from the advertised price per square and year.²⁷ Additionally, as recently as May 2020, the city of Springfield, Illinois signed a contract with ShotSpotter at both a discount and on a backloaded payment plan.²⁸

Under the subscription model, cities do not own the data accumulated by ShotSpotter sensors.²⁹ Instead, cities lease the data and are permitted to use it in an unrestricted manner, albeit the cities lose access when they cancel their contract with ShotSpotter.³⁰ In addition, while cities are paying for a ShotSpotter subscription, they are expressly forbidden from sharing the data with any research institutions.³¹ ShotSpotter CEO, Ralph Clark, has stated that “[ShotSpotter does not] want the data to be given away so that other people could derive value from the process,” and compared doing so with “taking someone else’s Netflix subscription.”³² However, by restricting the sharing of accumulated gunshot data, ShotSpotter makes it difficult for research organizations to study its effectiveness in action.³³

C. Assuming that ShotSpotter Functions as Intended, What are its Benefits?

In many cities throughout the United States, most gunshots go

Agreement-With-Shotspotter-to-Extend-Gunshot-Detection-Coverage-Into-Next-Decade.html [perma.cc/VT2K-7NVS] [hereinafter SS Press Release].

27. *Id.*

28. Brenden Moore, *At Reduced Cost, City Council Approves ShotSpotter*, STATE J.-REGISTER (May 5, 2020), www.sj-r.com/news/20200505/at-reduced-cost-city-council-approves-shotspotter [perma.cc/FF9Z-KK3P] (The deal was discounted from \$838,740, to \$643,750 for a three-year contract, and only required \$75,000 upfront in the first year, with \$284,375 due for both years two and three).

29. Jason, Tashea, *Should The Public Have Access To Data Police Acquire Through Private Companies?*, A.B.A. J. 6 (Dec. 1, 2016), www.abajournal.com/magazine/article/public_access_police_data_private_company [perma.cc/H2VK-F2CZ]; *ShotSpotter Frequently Asked Questions*, www.shotspotter.com/system/content-uploads/SST_FAQ_January_2018.pdf [perma.cc/S2G8-72WF] [hereinafter SST FAQ].

30. *Id.*; Jennifer L. Doleac, *To Reduce Gun Violence, Empower Citizens To Make Their Communities Safer*, Brookings (Feb. 4, 2016) www.brookings.edu/opinions/to-reduce-gun-violence-empower-citizens-to-make-their-communities-safer/ [perma.cc/2ERK-GLTM].

31. SST FAQ, *supra* note 29.

32. Tashea, *supra* note 29.

33. *See* Drange I, *supra* note 24 (Jennifer Doleac, as well as other researchers have tried to get ShotSpotter gunshot data from the company, “only to be told it was considered ‘trade secret’ and not subject to public records laws.” Additionally, in direct communication with CEO Ralph Clark, Doleac was told that ShotSpotter would provide her with gunshot data at a cost of \$50,000 per city, an outrageous sum for a researcher operating with an academic budget.).

undetected, and thus, unreported to the police.³⁴ Gunshots may go unreported for many reasons, including individuals not having faith that the police will respond, the existence of a “no-snitch”³⁵ culture, or just plain misidentification.³⁶ This environment of unreported gunshots has created a void that ShotSpotter has attempted to capitalize on, by “[g]uaranteeing that the system will capture at least [eighty] percent of all audible, outdoor gunfire in coverage zones”³⁷ and providing a location of the gunshot within eighty feet of where the gunfire occurred.³⁸ ShotSpotter also claims that they are able to notify police of a gunshot within thirty seconds, which is significantly quicker than the average response time from a 911 call.³⁹ So, according to ShotSpotter, not only does their product notify police of more gunshots than 911 calls do, but it also allows police to arrive at the scene of the crime faster and investigate sooner.⁴⁰ Furthermore, they also claim to be able to provide police with precise details of the potential crime scene, such as how many shots were fired, whether the shots came from a vehicle, and in what direction the vehicle was traveling.⁴¹

In practice, however, ShotSpotter does not appear to live up to

34. Press Release, OAKLAND POLICE DEPT, *86% Of Shootings In Oakland Are Unreported* (July 14, 2020), www.oaklandca.gov/news/2020/86-of-shootings-in-oakland-are-unreported [perma.cc/2UTN-ZKZY]; Andras Petho et al., *ShotSpotter Detection System Documents 39,000 Shooting Incidents In The District*, WASH. POST (Nov. 2, 2013), www.washingtonpost.com/investigations/shotspotter-detection-system-documents-39000-shooting-incidents-in-the-district/2013/11/02/055f8e9c-2ab1-11e3-8ade-a1f23cda135e_story.html?utm_term=.d4bfeb7815d3 [perma.cc/L48D-D8MD].

35. A “snitch” is someone that reports crime to the police. Ibram X. Kendi, *It’s Time for Police to Start Snitching*, ATLANTIC (May 14, 2018), www.theatlantic.com/ideas/archive/2018/05/quis-custodiet-ipsos-custodes/560324/ [perma.cc/T7ED-RRME]. Kendi points out that communities of color, where ShotSpotter devices are largely found, “are actually disproportionately *likely* to report crimes – it’s police themselves who have maintained a culture of silence.” *Id.* (emphasis added).

36. Will Kane, *Oakland Cops Aim to Scrap Gunfire-Detecting ShotSpotter*, SFGATE (Mar. 14, 2014), www.sfgate.com/crime/article/Oakland-cops-aim-to-scrap-gunfire-detecting-5316060.php [perma.cc/3BFG-9TEN]; Jacob Ryan, *Can This New Technology Reduce Shootings In Louisville?*, 89.3 WFPL (June 22, 2016), www.wfpl.org/shot-tracker-might-not-reduce-shootings-louisville/ [perma.cc/4L6V-4AMM]; Alex Knapp, *ShotSpotter Lets Police Pinpoint Exactly Where A Gun Was Fired*, FORBES (June 28, 2013), www.forbes.com/sites/alexknapp/2013/06/28/shotspotter-lets-police-pinpoint-exactly-where-a-gun-was-fired [perma.cc/QA4Z-6Y8E]; Petho et al., *supra* note 34 (demonstrating those who advocate in favor of gunshot detection technology argue that people often do not report gunfire because they misidentify the sound as a car backfiring, fireworks, or other explosive like sounds.).

37. Petho et al., *supra* note 34.

38. Buckley, *supra* note 25.

39. *Id.*

40. Watters, *supra* note 14 (“[eleven] rounds were fired from a car going [nine] miles an hour, northbound, in front of a specific address on Main Street.”).

41. *Id.*

these expectations. If the idea is to catch the criminal in the act by getting the cop to the scene faster, then ShotSpotter fails miserably.⁴² A study by the National Institute of Justice found that ShotSpotter correctly detected 99.6% of gunshots.⁴³ While on its face this number appears to advocate for ShotSpotter's widespread adoption, further analysis shows that it is deceiving. This number does not account for the false positive rate – that is, how often ShotSpotter incorrectly notifies police of a firework, a car backfiring, or a nail gun.⁴⁴ One study found that police were unable to find evidence of gunshots thirty to seventy percent of the time after receiving a ShotSpotter alert.⁴⁵ The alerts, in practice, rarely ever lead to arrests of the shooter or even witness reports taken by the police.⁴⁶ They are significantly more likely to lead to an unfounded result, meaning the police were unable to locate any evidence, speak with any witnesses, or even verify that there were in fact gunshots.⁴⁷ Further, no independent analysis exists to suggest that ShotSpotter has an impact on “getting victims to the hospital faster, clearing more cases, reducing crimes, or decreasing gun violence[.]”⁴⁸

42. Matt Drange, *ShotSpotter Alerts Police To Lots Of Gunfire, But Produces Few Tangible Results*, FORBES (Nov. 17, 2016), <https://www.forbes.com/sites/mattdrange/2016/11/17/shotspotter-alerts-police-to-lots-of-gunfire-but-produces-few-tangible-results/?sh=71aff5bd229e> [perma.cc/ECF2-T4PG] [hereinafter Drange II]. The majority of ShotSpotter alerts end with police closing out the incident without finding anything. *Id.* This was based on a study using data from more than two dozen cities that use ShotSpotter. *Id.*

43. Erica Goode, *Shots Fired, Pinpointed and Argued Over*, N.Y. TIMES (May 28, 2012), www.nytimes.com/2012/05/29/us/shots-heard-pinpointed-and-argued-over.html [perma.cc/3X49-NUZU].

44. Jay Stanley, *Gunshot Detectors: the ACLU's View*, ACLU (May 29, 2012), www.aclu.org/blog/national-security/privacy-and-surveillance/gunshot-detectors-aclus-view [perma.cc/YZ6Q-WKFR]. This is not meant to lead the reader to any conclusions, other than that this data may not be available because ShotSpotter maintains ownership and authority over its use by research organizations.

45. Drange II, *supra* note 42.

46. *See id.* (finding the following results: Brockton, MA 296 alerts; 152 unfounded; 43 reports taken; 2 arrests. East Palo Alto, CA 1,725 alerts; 1,089 unfounded; 237 reports taken; 4 arrests. Kansas City, MO 6,619 alerts; 2,513 unfounded; 714 reports taken; 108 arrests. Milwaukee, WI 10,285 alerts; 7,201 unfounded; 172 arrests. Omaha, NE 1,181 alerts; 737 unable to locate; 92 reports taken; 14 arrests. San Francisco, CA 4,385 alerts; 1,412 unfounded; 76 reports taken; 2 arrests. Wilmington, NC 1,278 alerts; 399 unfounded; 256 reports taken; 5 arrests.).

47. *Id.*

48. Rod McCullom, *Sensors and Software Listen for Gunfire in Chicago. Does it Make a Difference?*, UNDARK (Dec. 13, 2017), www.undark.org/2017/12/13/gunfire-detection-chicago-gun-violence/ [perma.cc/DBK3-HBEB].

D. Fourth Amendment Overview

To understand the issues presented in *Rickmon*⁴⁹, an analysis of the Court’s jurisprudence with respect to the Fourth Amendment will be illustrative. The Fourth Amendment provides:

“[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.”⁵⁰

It is often misconstrued that the Fourth Amendment requires a warrant for searches and seizures, when in reality, “it merely prohibits searches and seizures that are ‘unreasonable.’”⁵¹ Therefore, the Fourth Amendment does not mandate for searches and seizures to be pursuant to a warrant, but rather, that warrantless (and warrant-based) searches be reasonable.⁵² The Court, over time, has created countless exceptions to the warrant or probable cause requirement, including, as relevant in this Note, automobile searches and “stop and frisk” searches.⁵³

1. Stop and Frisk – *Terry v. Ohio*

*Terry v. Ohio*⁵⁴ was a landmark opinion by the Berger Court that has provided the basis for police officers to initiate an investigatory stop in the absence of a warrant. It was the first case in which the Court justified an investigatory police stop on less than

49. *Rickmon*, 952 F.3d 876.

50. U.S. CONST. amend. IV.

51. *California v. Acevedo*, 500 U.S. 565, 581 (1991) (Scalia, J., concurring).

52. This aligns with the Framers intent in drafting the Fourth Amendment as they were concerned with the use of “writs of assistance” by the British against American colonists. Tracey Maclin, *The Central Meaning of the Fourth Amendment*, 35 WM. & MARY L. REV. 197, 213 (1993). Writs of assistance were commonly used by the British to combat widespread smuggling in the colonies and gave customs officials “blanket authority to conduct general searches for goods imported to the Colonies in violation of the tax laws of the Crown.” *Berger v. New York*, 388 U.S. 41, 58 (1967). *See also* *Elkins v. United States*, 364 U.S. 206, 222 (1960) (explaining “[w]hat the Constitution forbids is not all searches and seizures, but unreasonable searches and seizures.”).

53. *Acevedo*, 500 U.S. at 582 (Scalia, J., concurring) (quoting Craig M. Bradley, *Two Models of the Fourth Amendment*, 83 MICH. L. REV. 1468, 1473-74 (1985) (footnotes omitted)) (although not relevant to this note, additional exceptions to the warrant requirement include

searches incident to arrest . . . border searches . . . administrative searches of regulated businesses . . . exigent circumstances . . . search[es] incident to nonarrest when there is probable cause to arrest . . . boat boarding for document checks . . . welfare searches . . . inventory searches . . . airport searches . . . school search[es]. . . .

54. *Terry v. Ohio*, 392 U.S. 1 (1968).

probable cause.⁵⁵ Terry was convicted for carrying a concealed weapon that was discovered by Officer McFadden while conducting a brief investigatory stop and frisk.⁵⁶ Officer McFadden initiated the traffic stop while patrolling downtown Cleveland after he noticed Terry and another man acting in a way that “didn’t look right to [Officer McFadden].”⁵⁷ Officer McFadden’s intuition would later be considered a significant factor as he was a veteran officer that had spent thirty years patrolling downtown Cleveland for shoplifters.⁵⁸ Terry and the other man walked back and forth past a few stores for more than ten minutes, leading Officer McFadden to believe that they were going to rob the store as their pacing suggested they were scoping the area.⁵⁹ It was at this point that Officer McFadden felt it was necessary to investigate further, in part, because he feared that they might have a gun.⁶⁰

Officer McFadden approached them and asked a few questions, but the men responded with incoherent mumbles.⁶¹ This is when Officer McFadden grabbed Terry, turned him around, and patted down the outside of his clothing.⁶² During the pat-down, Officer McFadden felt a pistol in one of Terry’s jacket pockets.⁶³ Ultimately, Terry was arrested and charged with carrying a concealed weapon.⁶⁴ He then filed a motion to suppress the evidence on the basis that the gun was uncovered incident to an unlawful search and seizure pursuant to the Fourth Amendment.⁶⁵

In an 8-1 decision, the Court held that the search and seizure were reasonable under the Fourth Amendment.⁶⁶ The Court created a balancing test that weighs the scope of the intrusion against the “specific and articulable facts which, taken together with rational inferences from those facts, reasonably warrant the intrusion.”⁶⁷

55. Daniel R. Dinger, *The Eighth Circuit: Is There a Seat For Miranda at Terry’s Table?: An Analysis of the Federal Circuit Court Split Over the Need for Miranda Warnings During Coercive Terry Detentions*, 36 WM. MITCHELL L. REV. 1467, 1476 (2010) (citing *Terry*, 392 U.S. at 9-10).

56. *Terry*, 392 U.S. at 4-8.

57. *Id.* at 5.

58. *Id.*

59. *Id.* at 6.

60. *Id.* at 6-7.

61. *Id.* at 7.

62. *Id.* The record also states that Officer McFadden did not place his hands beneath the outer clothing until he felt the weapon. *Id.*

63. *Terry*, 392 U.S. at 7.

64. *Id.*

65. *Id.* at 8.

66. *Id.* at 31.

67. *Id.* at 27 (“in determining whether the officer acted reasonably in such circumstances, due weight must be given, not to his inchoate and unparticularized suspicion or ‘hunch,’ but to the specific reasonable inferences which he is entitled to draw from the facts in light of his experience.”). This fact-based analysis has been informally codified as a “totality of the circumstances” approach in more recent cases. See *United States v. Arvizu*, 534 U.S. 266, 273 (2002) (stating that “we have said repeatedly that [courts] must look at the

The analysis is a two-step process: (1) is there a reasonable, articulable suspicion that crime is afoot, and (2) if the officer believes the individual is armed and dangerous, they may perform a protective and limited frisk for weapons.⁶⁸ In this instance, the majority found it reasonable for Officer McFadden to believe that Terry was armed and dangerous because his conduct was indicative of someone planning a robbery.⁶⁹ Officer McFadden was therefore justified in conducting a limited pat down for weapons for the safety of the officer and those around him.⁷⁰ The ripple effect of this decision is that it created an entirely new “reasonableness” test under the Fourth Amendment that is not confined by the Warrant Clause and its probable cause requirement.⁷¹

2. *The Anonymous Tip Cases – Alabama v. White and Florida v. J.L.*

Since the *Terry* decision, the Court has continued to develop case law defining the Fourth Amendment’s reasonableness standard in different situations. In order to shape the subsequent analysis, a discussion must be had on the Court’s jurisprudence regarding anonymous tips and reasonable suspicion under the Fourth Amendment. The Court has addressed a number of cases regarding anonymous tips over the years, including *Alabama v. White*.⁷² In that case, the Court held that an officer had reasonable suspicion to conduct a *Terry* traffic stop on the basis that he received an anonymous tip that was “sufficiently corroborated to furnish reasonable suspicion that [the individual] was engaged in criminal activity.”⁷³ The Montgomery, Alabama police department received an anonymous tip providing the location of the suspect, the time

‘totality of the circumstances’ of each case to see whether the detaining officer has a ‘particularized and objective basis’ for suspecting legal wrongdoing.”); *Navarette v. California*, 572 U.S. 393, 395 (2014) (holding under a totality of the circumstances that an officer had reasonable suspicion to initiate a traffic stop based on the fact that a truck matched the description of the truck that a 911 caller claimed had driven her off the road); *United States v. Cortez*, 449 U.S. 411, 419-21 (1981) (finding that an officer had reasonable suspicion to stop a vehicle on the southern border based on a totality of circumstances, including that the vehicle: (1) had a camper shell capable of carrying numerous people, (2) was in an area commonly used by human traffickers, and (3) had made a roundtrip from known human trafficking pickup point).

68. *Terry*, 392 U.S. at 27.

69. *Id.* at 30.

70. *Id.*

71. See Ryan J. Sydejko, *International Influence on Democracy: How Terrorism Exploited a Deteriorating Fourth Amendment*, 7 J.L. SOC’Y 220, 226-27 (2006) (explaining that the *Terry* court abandoned the uniform probable cause analysis under the Fourth Amendment, instead, “labeling this an entirely new rubric of police conduct which cannot realistically be subjected to the warrant requirement.”).

72. *Alabama v. White*, 496 U.S. 326, 326 (1990).

73. *Id.* at 331.

that they would leave an apartment complex, the car they would be driving (and specific issues with it), where they were going, and that they would be in possession of cocaine.⁷⁴ Officers went to the apartment complex where they observed the car referenced in the anonymous tip.⁷⁵ The officers then saw an individual leave the apartment building, get in the car, and drive in the direction of the hotel referenced in the anonymous tip.⁷⁶ Just before the car arrived at the motel, the officers initiated an investigatory *Terry* stop, where they ultimately found drugs.⁷⁷ On certiorari, the Court addressed whether the officers had the reasonable suspicion necessary to justify the initial stop of the vehicle based solely on the anonymous tip.⁷⁸

In the opinion authored by Justice White, the Court was clear that the anonymous tip, standing on its own, did not provide the “necessary indicia of reliability” to create reasonable suspicion to justify the initial stop.⁷⁹ Instead, in justifying the stop, the Court was fixated on the fact that the anonymous tipster was able to corroborate components of the individual’s *future* behavior.⁸⁰ The facts that the tipster was able to corroborate about the individual’s future movements were not all easily predicted, unless the tipster had “inside information [or] a special familiarity with respondent’s affairs.”⁸¹ Even with this corroboration, the Court still considered this scenario a “close question” as to whether they had reasonable suspicion.⁸²

Conversely, in *Florida v. J.L.*, the Court held that an anonymous tip did not produce the reasonable suspicion necessary to justify a *Terry* stop and frisk.⁸³ In *J.L.*, the Miami-Dade Police Department received a tip from an anonymous caller “that a young black male standing at a particular bus stop and wearing a plaid shirt was carrying a gun.”⁸⁴ Six minutes after the department received the anonymous tip, two officers arrived at the bus stop and saw three black males “just hanging out [there].”⁸⁵

The tip provided the only basis for the stop and frisk of J.L.,

74. *See id.* at 327.

75. *Id.*

76. *Id.*

77. *Id.*

78. *Id.* at 329.

79. *Id.*

80. *Id.* at 332.

81. *Id.*

82. *Id.* The officers were able to corroborate that (1) an individual left the specific apartment around the referenced time, (2) she entered the brown Plymouth station wagon with the broken right taillight, (3) and that she drove approximately four miles, in what was the most direct route to the referenced motel. *Id.* at 327.

83. *Florida v. J.L.*, 529 U.S. 266, 268 (2000).

84. *Id.*

85. *Id.*

a fifteen-year-old boy who happened to be wearing a plaid shirt.⁸⁶ Aside from the tip, the officers could not see a firearm in plain view, nor did J.L. or either of the other two individuals make any suspicious or threatening movements.⁸⁷ However, when an officer walked up to J.L. and asked him to put his hands up, he uncovered a gun in his pocket.⁸⁸

In a unanimous decision, Justice Ginsberg wrote that “[t]he tip in the [*J.L.*] lacked the moderate indicia of reliability present[ed] in *White* and essential to the Court’s decision in that case.”⁸⁹ Unlike in *White*, there was nothing predictive about the tip in *J.L.* as it merely suggested (without any corroboration) that someone with a specific shirt at a specific bus stop was in possession of a gun.⁹⁰ Anyone could have pointed out the person in the plaid shirt by virtue of them just driving by.⁹¹ Even though a gun was found on J.L.’s person, that “after-the-fact” finding cannot be used to deem the initial frisk reasonable under the Fourth Amendment.⁹²

The Court declined to adopt Florida’s argument that a *per se* “firearm exception” should be carved into the standard *Terry* analysis, which “would justify a stop and frisk [based on a tip alleging an illegal gun] even if the accusation would fail standard pre-search reliability testing.”⁹³ This standard would have permitted a frisk for weapons anytime that police received an anonymous tip that someone was in possession of a gun.⁹⁴

E. United States v. Rickmon

A ShotSpotter alert notifying police of gunfire is akin to an

86. *Id.*

87. *Id.*

88. *Id.* at 269 (He “was charged under state law with carrying a concealed firearm without a license and possessing a firearm while under the age of 18”).

89. *Id.* at 271.

90. *Id.* at 270 (quoting *White*, 496 U.S. at 329) (“[A]n anonymous tip alone seldom demonstrates the informant’s basis of knowledge or veracity.”).

91. *Id.* (citing *White*, 496 U.S. at 329).

92. *J.L.*, 529 U.S. at 271; see also David M. Hastings, *Sufficiency of Showing to Support No-Knock Search Warrant – Cases Decided After Richards v. Wisconsin*, 520 U.S. 385, 117 S. Ct. 1416, 137 L. Ed. 2d 615 (1997), 50 A.L.R. 6th 455, 10 (citing *State v. Henderson*, 629 N.W.2d 613 (2001)) (explaining that

“[t]he existing case law recognized that allowing the probable cause basis for the issuance of a warrant to be bolstered after the fact would render the warrant clause meaningless by essentially allowing warrants to be issued on less than probable cause, as long as the proper showing could be made later.”).

93. *J.L.*, 529 U.S. at 272 (quoting *Terry*, 392 U.S. at 30) (Stating that

“[f]irearms are dangerous, and extraordinary dangers sometimes justify unusual precautions. Our decisions recognize the serious threat that armed criminals pose to public safety; *Terry*’s rule, which permits protective police searches on the basis of reasonable suspicion rather than demanding that officers meet the higher standard of probable cause, responds to this very concern.”).

94. *J.L.*, 529 U.S. at 273.

anonymous tip relaying the same message.⁹⁵ The Seventh Circuit first made this determination in *United States v. Rickmon*, a case that reached the court on appeal from the United States District Court for the Central District of Illinois.⁹⁶

On July 29, 2018, Travis Ellefritz – an officer with the Peoria Police Department – was on duty in his patrol car in the early morning hours.⁹⁷ Shortly after 4:40 a.m., Officer Ellefritz received a ShotSpotter alert that reported two gunshots originating from 2203 North Ellis Street.⁹⁸ Before Ellefritz received any details from dispatch, he was en route to North Ellis.⁹⁹ While on his way, Officer Ellefritz heard the police dispatcher broadcast the same alert, along with an additional ShotSpotter alert identifying three more gunshots from the same location.¹⁰⁰ The dispatcher then relayed more information, including that there were several cars and a “black male on foot” seen leaving the scene.¹⁰¹ As Officer Ellefritz approached the location on North Ellis, he turned his vehicle’s headlights off.¹⁰² Moments later, he noticed a vehicle leaving North Ellis and driving in his direction.¹⁰³

As the vehicle approached, Officer Ellefritz went to initiate a traffic stop by turning on his patrol car’s emergency lights and blocking oncoming traffic.¹⁰⁴ Officer Ellefritz allegedly feared for a moment that the vehicle was attempting to get away from him, yet the vehicle stopped next to his patrol vehicle within seconds of his command for it to stop.¹⁰⁵ The occupants of the vehicle “pointed backward, in the direction from where they came, yelling: “They are down there! They are down there!”¹⁰⁶ Officer Ellefritz then observed what they were pointing and yelling about – “a crowd of about [fifteen] to [twenty] people at the street’s dead end, approximately 300 feet from him.”¹⁰⁷

Ellefritz remained at the vehicle, with his gun drawn until backup arrived.¹⁰⁸ Terrell Rickmon, along with the driver and owner of the vehicle, kept their hands up until additional officers arrived on the scene.¹⁰⁹ After backup arrived, Rickmon disclosed to Officer Ellefritz that he had been shot in the leg, presumably from one of

95. *Rickmon*, 952 F.3d at 882.

96. *Id.* at 878.

97. *Id.* at 879.

98. *Id.*

99. *Id.*

100. *Id.*

101. *Id.*

102. *Id.*

103. *Id.*

104. *Id.*

105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.*

109. *Id.*

the gunshots that were detected about five minutes earlier from ShotSpotter.¹¹⁰ After receiving consent from the driver, Officer Ellefritz searched the vehicle and found a handgun under Rickmon's passenger seat.¹¹¹ He was then arrested and later indicted for possession of a firearm by a felon in violation of 18 U.S.C. § 922(g)(1).¹¹²

On December 21, 2018, the district court denied Rickmon's motion to suppress evidence of the handgun.¹¹³ On appeal at the Seventh Circuit, Rickmon challenged the district court's denial of his motion to suppress.¹¹⁴ The Seventh Circuit affirmed the decision, explaining that "the reliability of the police reports, the dangerousness of the crime, the stop's temporal and physical proximity to the shots, the light traffic late at night, and the officer's experience with gun violence in that area – provided reasonable suspicion to stop [Rickmon's] vehicle."¹¹⁵

III. ANALYSIS

The issue on appeal in *Rickmon* was "whether law enforcement may constitutionally stop a vehicle because, among other articulable facts, it was emerging from the source of a ShotSpotter alert."¹¹⁶ In reviewing the reasonableness of a *Terry* stop, the Seventh Circuit applied a de novo standard, giving no deference to the trial court.¹¹⁷ This analysis will begin in sections A-F with a discussion of the factors that the Seventh Circuit used to justify the stop of the vehicle.¹¹⁸ Section G will discuss the dissenting opinion. This decision was a case of first impression involving ShotSpotter, and given the widespread use of the technology in states located in other Circuits, *Rickmon* has the potential to influence future decisions.¹¹⁹

A. What Officer Ellefritz Knew at The Time Of The Stop

According to Judge Flaum and Judge Ripple, this was not a case of a ShotSpotter alert on its own justifying a *Terry* stop of the

110. *Id.*

111. *Id.*

112. *Id.*

113. *Id.* at 879-80.

114. *Id.* at 880.

115. *Id.* at 885.

116. *Id.*

117. *Id.* at. 880-81 (citing *United States v. Watson*, 900 F.3d 892, 895 (7th Cir. 2018)).

118. *Id.* at 881-82.

119. *See id.* at 878 ("As a matter of first impression, this case requires us to consider whether law enforcement may constitutionally stop a vehicle because, among other articulable facts, it was emerging from the source of a ShotSpotter alert.").

vehicle that Rickmon was occupying.¹²⁰ The Seventh Circuit questioned “whether a single ShotSpotter alert would amount to reasonable suspicion.”¹²¹ The court continued by explaining that an officer must have “individualized suspicion” in order to stop a vehicle in the vicinity of a ShotSpotter alert.¹²² Rickmon argued that Officer Ellefritz did not have “individualized suspicion” to stop his vehicle because the ShotSpotter alert merely provided an approximate location of potential gunfire, but not anything specific regarding potential suspects or vehicles.¹²³ It is well established in the Seventh Circuit that an individual’s presence in an area of suspected criminal activity, without more, cannot justify a *Terry* stop.¹²⁴ While the Seventh Circuit agreed with this notion, it found that there were additional articulable facts that “taken together with rational inferences from those facts” created reasonable suspicion, as opposed to a mere “inarticulate hunch” that Rickmon was involved in criminal activity.¹²⁵

B. Individualized or Localized Suspicion?

The Seventh Circuit considered whether Officer Ellefritz had individualized suspicion that Rickmon *in particular* was involved in the shooting.¹²⁶ However, as the dissent explained, it appeared that Ellefritz merely had a localized suspicion that anybody in the vicinity of 2203 North Ellis Street could have fired the shots.¹²⁷ According to Ellefritz’s own admission, “he would have stopped literally any car he saw on North Ellis based on the information he had.”¹²⁸ Though a *Terry* analysis is objective, rather than subjective, this line of thinking suggests that Ellefritz did not have individualized suspicion for stopping Rickmon’s vehicle as opposed to someone else in the vicinity.¹²⁹

120. *Id.* at 881.

121. *Id.*

122. *Id.*

123. Brief for Appellant at 12, *United States v. Rickmon*, 952 F.3d 876 (2020) (No. 19-2054), 2019 WL 5328652, at *12.

124. See *United States v. Bohman*, 683 F.3d 861, 864 (7th Cir. 2012) (explaining that “[a] mere suspicion of illegal activity at a particular place is not enough to transfer that suspicion to anyone who leaves that property.”); *Matz v. Klotka*, 769 F.3d 517, 523 (7th Cir. 2014) (quoting *Ybarra v. Illinois*, 444 U.S. 85, 91 (1979)) (clarifying that “a person’s mere propinquity to others independently suspected of criminal activity does not, without more, give rise to probable cause to search that person.”).

125. *Rickmon*, 952 F.3d at 880 (quoting *United States v. Lewis*, 920 F.3d 483, 493 (7th Cir. 2019)).

126. *Rickmon*, 952 F.3d at 881.

127. *Id.* at 885-86 (Wood, J., dissenting).

128. *Id.* at 886.

129. *Terry*, 392 U.S. at 21-22 (discussing that it is imperative for a judge tasked with evaluating the reasonableness of a search to do so against the backdrop of an objective standard).

Despite only having a localized suspicion, the Seventh Circuit still held that the traffic stop was reasonable under the Fourth Amendment based on the totality of the circumstances.¹³⁰ The court stated that there were more circumstances, other than the mere fact that the vehicle was in the ShotSpotter coverage zone that justified the stop.¹³¹ These included:

“(1) the reliability of any reports to police; (2) the dangerousness of the crime; (3) the temporal and physical proximity of the stop to the crime; (4) any description of the vehicle and relevant traffic; and (5) the officer’s (or potentially even the department’s) experience with criminal activity in the area.”¹³²

C. “Corroborated Reports”

The Supreme Court and Seventh Circuit have both held that “[c]orroboration from multiple sources describing the general area and nature of the same crime exceeds the single police tip that alone can supply reasonable suspicion for a stop.”¹³³ For instance, in *Burgess*, the court justified a stop where officers responded to a shooting after receiving a dispatch (corroborated by multiple callers) that shots were fired from a black vehicle.¹³⁴ Based on these tips, the officers in *Burgess* knew they were looking for a black vehicle, as opposed to someone on foot, or in a residence.¹³⁵ In addition, while “an anonymous tip alone seldom demonstrates the informant’s basis of knowledge or veracity,” the Supreme Court recognizes that a “suitably corroborated” anonymous tip can exhibit a “sufficient indicia of reliability to provide reasonable suspicion to make the investigatory stop.”¹³⁶ Conversely, in *J.L.*, the Court held that an anonymous tip, standing on its own, without any form of corroboration, was not enough to justify an investigatory stop.¹³⁷

In *Rickmon*, the Seventh Circuit drew comparisons to the

130. *Rickmon*, 952 F.3d at 884-85.

131. *Id.* at 881-82.

132. *Id.*

133. *Id.* at 882 (citing *United States v Burgess*, 759 F.3d 708, 710); *J.L.*, 529 U.S. at 270.

134. *Burgess*, 759 F.3d at 711.

135. *Burgess*, 759 F.3d at 709.

136. *J.L.*, 529 U.S. at 270; *see also White*, 496 U.S. at 332 (finding that an anonymous tip can be suitably corroborated if the tipster is able to accurately predict the suspect’s future movements and the police are then able to corroborate before initiating an investigatory stop.).

137. *J.L.*, 529 U.S. at 271 (holding that “[t]he tip . . . lacked the moderate indicia of reliability present in *White* . . . [because] [t]he anonymous call concerning *J.L.* provided no predictive information and therefore left the police without means to test the informant’s knowledge or credibility.”).

Burgess¹³⁸ and White¹³⁹ line of cases.¹⁴⁰ The Seventh Circuit agreed with Rickmon's argument that the ShotSpotter alerts were "analogous to an anonymous tipster."¹⁴¹ However, the court disagreed with the notion that Ellefritz initiated the traffic stop based on uncorroborated information.¹⁴² In the eyes of the majority, the ShotSpotter alert was corroborated by the dispatches reporting to Ellefritz that shots were fired near the location of the ShotSpotter alerts.¹⁴³ Even though neither the ShotSpotter alerts nor the dispatches provided Ellefritz with a description of the shooter, the majority stated that he "had a good idea of what to be on the lookout for when he arrived."¹⁴⁴

D. Responding to an Emergency Situation

The Seventh Circuit used a balancing test of sorts in their reasonable suspicion analysis that ultimately justified the stop.¹⁴⁵ That is, one of the circumstances the court considered relevant in its analysis was "the dangerousness of the crime."¹⁴⁶ Guns are obviously inherently dangerous, with gun users killing nearly 40,000 people in 2019 — the year Rickmon was arrested.¹⁴⁷ The court distinguished between a tip from an anonymous caller reporting general criminality, like gun possession, versus an anonymous emergency report.¹⁴⁸ In doing so, the Seventh Circuit reasoned that "an emergency report 'can support an officer's reasonable suspicion with less objective evidence to corroborate the report.'"¹⁴⁹ It is true that the threat to public safety is greater in instances where there has actually been a shooting than when

138. *Burgess*, 759 F.3d. at 709.

139. *White*, 496 U.S. at 326.

140. *Rickmon*, 952 F.3d at 882.

141. *Id.*

142. *Id.* at 882-83.

143. *Id.*

144. *Id.* at 883.

145. *Id.*

146. *Id.* at 881-82. The court noted a number of relevant factors in a reasonable suspicion analysis "[i]n cases where an officer stops a car departing a suspected crime scene . . . [including]: (1) the reliability of any reports to police; (2) the dangerousness of the crime; (3) the temporal and physical proximity of the stop to the crime; (3) any description of the vehicle and relevant traffic; and (5) the officer's (or potentially even the department's) experience with criminal activity in that area." *Id.*

147. *All Injuries*, NAT'L CTR. FOR HEALTH STATISTICS, www.cdc.gov/nchs/fastats/injury.htm [perma.cc/V3EN-5TWV] (last visited Nov. 1, 2020).

148. *Rickmon*, 952 F.3d at 883; *But see J.L.*, 529 U.S. at 272 (recognizing that "[f]irearms are dangerous, and extraordinary dangers sometimes justify unusual precautions . . . [b]ut an automatic firearm exception to our established reliability analysis would rove too far.").

149. *Id.* (quoting *United States v. Williams*, 731 F.3d 678, 684 (7th Cir. 2013); *United States v. Hicks*, 531 F.3d 555, 559-60 (7th Cir. 2008)).

someone may merely be in illegal possession of a firearm.¹⁵⁰ As the Court in *Terry* Court, it would be unreasonable to keep a police officer from being able to disarm a potentially armed suspect.¹⁵¹ With this rationale as a backdrop, we will now take a closer look at the cases that the *Rickmon* court used to justify the distinction between anonymous tips reporting general criminality versus emergency reports.

In *Williams*, a Seventh Circuit case originating in Wisconsin, the court justified a stop where “there was a large group of people being loud and waving guns in a location at which violent crime and drug activity is regularly reported.”¹⁵² The anonymous caller reported that there was a group of about twenty-five people, three or four of which she observed with “guns out.”¹⁵³ The caller did not report that the group was exhibiting aggressive or otherwise threatening behavior – just that they “were being loud while loitering in the parking lot of . . . a local bar.”¹⁵⁴ This area was known to police to be a “high-crime area.”¹⁵⁵ Interestingly, Wisconsin is an open-carry state, meaning that adults over the age of eighteen are legally permitted to open-carry a loaded handgun.¹⁵⁶ While it is a misdemeanor for an individual to open-carry in a bar in Wisconsin, the law, as it is written, only applies within the premises, but not to the parking lot.¹⁵⁷ The Wisconsin legislature even made clear in 2011 that it is not considered disorderly conduct to open-carry a loaded gun “[u]nless other facts and circumstances . . . indicate a criminal or malicious intent.”¹⁵⁸

When police arrived at the bar’s parking lot about four minutes later, there was only a group of eight to ten people in the parking lot, and they were not acting disruptively.¹⁵⁹ There were no facts provided to suggest that the specific group was involved in any

150. *Rickmon*, 952 F.3d at 883.

151. *Terry*, 392 U.S. at 24.

152. *Rickmon*, 952 F.3d at 883 (quoting *Williams*, 731 F.3d at 684).

153. *Williams*, 731 F.3d at 681.

154. *Id.*

155. *Id.* at 684. See also Andrew Guthrie Ferguson & Damien Bernache, *The “High-Crime Area” Question: Requiring Verifiable And Quantifiable Evidence For Fourth Amendment Reasonable Suspicion Analysis*, 57 AM. U.L. REV. 1587, 1591 (2008) (stating that courts rarely ask an officer what makes an area a “high-crime area,” and “on what objective, verifiable, or empirical data the police officer has based his conclusion, or whether the officer knew this information before he made the stop.”). Additionally, courts do not ask whether the area is a “high drug area,” “high theft area,” or “high robbery area.” *Id.* This is problematic, but a discussion for another day.

156. WIS. STAT. § 175.60(2)(c) (West 2020) (“Unless expressly provided in this section, this section does not limit an individual’s right to carry a firearm that is not concealed.”).

157. WIS. STAT. § 941.237(2) (West 2020). “Premises” means the area described in a license or permit. WIS. STAT. § 125.02(14m) (West 2020).

158. WIS. STAT. § 947.01(2) (West 2020).

159. *Williams*, 731 F.3d at 685.

criminal activity.¹⁶⁰ Judge Stadtmueller, an appointee of “law and order” President Reagan¹⁶¹, nevertheless, considered the tip to be an emergency report, and determined that this justified the police officer stopping Williams, one of the people in the parking lot.¹⁶² Although the court in *Rickmon* used *Williams* to support their decision, *Williams* did not actually involve a shooting.¹⁶³

The court in *Rickmon*, as well as *Williams*, also leaned on *Hicks* for additional support for the notion that when police respond to emergency reports, they can have reasonable suspicion to conduct a stop based on an anonymous tip “with less objective evidence to corroborate the report.”¹⁶⁴ In *Hicks*, a police dispatcher relayed a tip to a responding officer that there was a domestic disturbance in progress involving an armed suspect.¹⁶⁵ The responding officer, based on information relayed from dispatch, believed that Hicks, the suspect he was looking for, was dressed in black.¹⁶⁶ When the responding officer arrived, he saw a man dressed in black (a factor that courts would find indicates an indicia of reliability), stopped him, and put him in handcuffs before he was able to enter a nearby home.¹⁶⁷ This case, unlike *Rickmon* and *Williams*, actually involved a tip with some level of specificity of who the officer was looking for, *as well as* what can be perceived as an active emergency.¹⁶⁸

E. Nothing Good Happens After 2 a.m., But Can That Justify a Stop?

According to the *Rickmon* court, “it was a ‘natural surmise that whoever fired the shots’ would be in the vehicle that Officer Ellefritz stopped.”¹⁶⁹ This conclusion was based in part on the fact that the stop occurred at approximately 4:45 a.m. when traffic is understandably light.¹⁷⁰ In other words, even though Ellefritz did not have a description of the shooter, the fact that *Rickmon* was out late at night reinforced Ellefritz’s suspicion.¹⁷¹ This line of

160. *Id.* (considering that the officers were unable to independently corroborate whether the group, or at least any individuals in the group were waving their guns, or being disruptive, as the anonymous tipster had indicated in her 911 call).

161. Allen Rostron, *The Law and Order Theme in Political and Popular Culture*, 37 OKLA. CITY U.L. REV. 323, 323 (2012) (“In the eyes of law and order conservatives, judges needed to stop coddling criminals and letting them go free on legal technicalities.”).

162. *Williams*, 731 F.3d at 684.

163. *Rickmon*, 952 F.3d at 883.

164. *Id.*; *Williams*, 731 F.3d at 684.

165. *Hicks*, 531 F.3d at 556-57.

166. *Id.* at 557.

167. *Id.*

168. *Id.*

169. *Rickmon*, 952 F.3d at 884 (quoting *Brewer*, 561 F.3d at 678).

170. *Id.*

171. *Id.* (citing *Brewer*, 561 F.3d at 678).

reasoning comes from *Brewer*¹⁷², a case that at face value appears comparable, but is actually quite distinguishable. For instance, in *Brewer*, an officer stopped the only vehicle leaving the only apartment complex at 2:30 a.m., seconds after he personally heard gunshots coming from inside the complex.¹⁷³ Just as in *Rickmon*, the officer did not know whether the shooter was on foot, in a vehicle, or in a residence.¹⁷⁴ However, the court in *Brewer* held that the stop was reasonable in part because of “the brevity of the interval between the firing of the shots and the spotting of the sole vehicle quickly exiting.”¹⁷⁵ This brevity was not present in *Rickmon*, as Officer Ellefritz arrived at the scene nearly five minutes after the shooting.¹⁷⁶ Importantly, the Seventh Circuit in *Brewer* saw the case as being “on the line between reasonable suspicion and pure hunch.”¹⁷⁷ However, the Seventh Circuit in *Rickmon* did not take issue with the significant time difference in arriving on the scene, or find that the facts pushed *Rickmon* into the sphere of “pure hunch.”¹⁷⁸

F. Nearly Blind Deference to Officer Ellefritz’s Experience

Finally, the Seventh Circuit looked to the fact that Ellefritz used to patrol this block and often responded to reports of shots fired in this area.¹⁷⁹ Though neither party referred to the area as a “high crime area,” “Ellefritz testified that he had personal knowledge of criminal activity in that part of Peoria.”¹⁸⁰ The court deferred to Ellefritz that he was “right to ‘draw on his own experience and specialized training to make inferences from and deductions about the cumulative information available.’”¹⁸¹ The majority did not attempt to explain how Ellefritz’s experience could have created particularized suspicion that the shooter was in *Rickmon*’s vehicle as opposed to any of the other people still on the scene. Nevertheless, based on the totality of the circumstances mentioned in sections A-F, the Seventh Circuit found that Ellefritz had reasonable and particularized suspicion to initiate a traffic stop of

172. *Brewer*, 561 F.3d at 676.

173. *Id.* at 678.

174. *Id.*

175. *Id.* at 679.

176. *Rickmon*, 952 F.3d at 883.

177. *Brewer*, 561 F.3d at 678.

178. *Id.*

179. *Rickmon*, 952 F.3d at 884.

180. *Id.* at 884.

181. *Id.* at 884 (quoting *United States v. Hill*, 818 F.3d 289, 294 (7th Cir. 2016); *See also Brewer*, 561 F.3d at 679 (considering in its totality of the circumstances analysis that the officer “had three years’ experience with criminal activity in the particular housing complex. . .”).

Rickmon's vehicle and denied his motion to suppress.¹⁸²

G. The Dissent – Upholding the Framers' Intent

Chief Judge Wood took issue with the broad discretion that the majority afforded to Officer Ellefritz in justifying the stop of Rickmon's vehicle.¹⁸³ His dissent began by looking to the Framers' intent with the Fourth Amendment, stating that "if the Fourth Amendment stands for anything, it stands for the proposition that police cannot seize anyone without adequate, individualized reason to do so."¹⁸⁴ In Judge Wood's eyes, the Seventh Circuit essentially gave Ellefritz a general warrant to stop anyone in the vicinity of a ShotSpotter alert, the exact type of conduct that the Framers sought to prohibit.¹⁸⁵ The comparison to a general warrant was made in this situation because "[t]he only thing that distinguished the car Ellefritz chose to stop was that it existed."¹⁸⁶

The dissent acknowledged that there were several facts Officer Ellefritz could have relied on when he initiated the traffic stop.¹⁸⁷ In addition, Chief Judge Wood acknowledged that it is illegal to fire

182. *Rickmon*, 952 F.3d at 885.

183. *Id.*

184. *Id.*

185. *Id.* A general warrant is one that fails "to name the individual possessing the things to be searched or seized." Eric Schnapper, *Unreasonable Searches and Seizures of Papers*, 71 VA. L. REV. 869, 874 (1985) (citing *Henry v. United States*, 361 U.S. 98, 100 (1959)). History reveals that the Framers were primarily concerned with forbidding the use of general warrants with their drafting of the Fourth Amendment. Thomas Y. Davies, *Recovering the Original Fourth Amendment*, 98 MICH. L. REV. 547, 600-01 (1999).

186. *Rickmon*, 952 F.3d at 886. Though not present in this case, one recognized exception to the need for police to have individualized suspicion is through highway sobriety checkpoints where it is permissible for officers to stop every vehicle passing through the checkpoint. *Michigan Dep't of State Police v. Sitz*, 496 U.S. 444, 447 (1990). Another noted exception to the need for individualized suspicion is highway checkpoints near the southern border to detect illegal aliens because of the significant government interest in reducing the flow of illegal aliens into the country. *United States v. Martinez-Fuerte*, 428 U.S. 543, 565-67 (1976).

187. *See id.* at 885 (noting the relevant facts include:

(1) [t]he ShotSpotter system in his squad car registered multiple gunshots at 2203 North Ellis around 4:40 a.m. on July 29, 2018, (2) [t]hat address is near the south end of the street, where it dead-ends, (3) [t]he police dispatcher announced two 'shots fired' alerts detected by ShotSpotter over the radio, (4) [t]he police dispatcher informed Ellefritz that a 911 call had come in reporting gunfire on North Ellis, (5) [t]he 911 caller also said that there were several cars leaving the location and one black male on foot, (6) [b]etween three and a half and five minutes after receiving the initial ShotSpotter dispatch, Ellefritz reached North Ellis Street, [and] (7) [a]s he drove south on the street, he saw a car turn from the east side of the street and proceeded north-bound. He saw no other cars on the road).

a gun within the city of Peoria, and thus, was reasonable based on the facts for Ellefritz to believe that the gunshots were unauthorized.¹⁸⁸ However, the dissent staunchly disagreed with the notion that Ellefritz had reasonable suspicion to believe Rickmon's vehicle, *in particular*, was responsible for the shots.¹⁸⁹ To that effect, none of the facts Ellefritz knew "even hinted at the shooter's car's make, color, age, style, or anything else."¹⁹⁰

Chief Judge Wood found it problematic that the majority justified this traffic stop, as he believed it was "pure speculation" that Rickmon's vehicle was associated with the shots.¹⁹¹ In fact, Judge Wood noted there were many reasons for cars to be on the road early in the morning, other than fleeing the scene of gunshots five minutes after they were fired.¹⁹² He found it even more troublesome that the majority stressed the fact that Ellefritz was responding to an emergency in that gunshots were fired, and they always constitute an emergency situation.¹⁹³

Lastly, the dissent dismissed the majority's concern that "compliance with the Fourth Amendment here might have allowed a culpable person to avoid being arrested."¹⁹⁴ In his dissent, Chief Judge Wood explained that "the requirement that the police must have either probable cause or at least reasonable suspicion before arresting someone will, in some instances, hamper their activities."¹⁹⁵ In addition, he argued that granting Rickmon's motion

188. *Rickmon*, 952 F.3d at 886 (citing PEORIA, IL., CODE OF ORDINANCES § 20-161(a) (stating that "[n]o person shall fire or discharge any gun, pistol or other firearm within the city, except on premises used by a duly licensed shooting gallery, gun club or rifle club.")).

189. *Id.*

190. *Id.*

191. *Id.* (finding that "virtually nothing connected [the gunshots] with the car [Ellefritz] decided to stop, or indeed with any car at all – it was just as likely that the shooter had retreated into a nearby house or fled on foot (as the 911 caller indicated.")).

192. *See id.* (suggesting a few scenarios where a driver would be on the road early in the morning, including

"some workplaces operate on a seven-day week, and early-morning shift are by no means unheard-of: think of production workers, grocery stockers, transportation workers, bakers, and baristas . . . [o]r the driver might have needed to go from Peoria to Chicago, or Springfield, or St. Louis, for social reasons or a business appointment and wanted an early start . . . [o]r maybe the drive was at a late party. The time of day, and the fact that the road was largely empty, do not add up to anything.").

193. *Id.* Chief Judge Wood does not believe that an officer responding to an "emergency situation" has the discretion to limit the protections afforded by the Fourth Amendment. *Id.* He notes that the fact that this was an "emergency situation" does not permit "police to force their way into every house on North Ellis, to make sure that the shooter was not threatening anyone in those houses" nor does it allow for "the police to stop any and every car they saw within 1,000 feet of the point that ShotSpotter identified," so why should it permit stopping "a single car proceeding north, at the speed limit." *Id.*

194. *Id.* at 887.

195. *Id.* (citing *Ybarra*, 444 U.S. at 100) (holding that a police officer did not

to suppress would not allow the source of the crime to go free as “[t]o this day, no one has suggested that he was the shooter.”¹⁹⁶

IV. PERSONAL ANALYSIS

In *Rickmon*, it appears that the Seventh Circuit prioritized governmental interests over individual rights in reaching their decision that justified the stop.¹⁹⁷ This is unfortunately not surprising as it is consistent with the discouraging trend of the reasonableness standard under the Fourth Amendment that prioritizes governmental interests at the expense of individual rights.¹⁹⁸ As with most decisions relating to the reasonableness standard, courts often give significant weight to governmental interests at the expense of an individual’s Fourth Amendment rights.¹⁹⁹ Sections A and B illustrate the doubt as to the capabilities of ShotSpotter and discussing the implications of the Seventh Circuit’s holding in *Rickmon*. Section C provides analysis as to how the Seventh Circuit *should have* handled this case and why an officer does not have reasonable suspicion to stop an individual in the vicinity of a ShotSpotter alert, absent any individualized or particularized suspicion. It will also provide some context as to why we as a society should be concerned about this “big brother”-like technology continuing to denigrate our privacy rights.

A. *Over-Policing of Black and Brown Neighborhoods*

The implementation of ShotSpotter can lead to over policing

have probable cause to frisk defendant in a bar and as a result, petitioners motion to suppress was granted even though the search uncovered criminal activity).

196. *Rickmon*, 952 F.3d at 887 (stating that “the fact that [Rickmon’s] leg had been wounded by a bullet indicated (after the fact) that he was a *victim* of the shooter”).

197. *Id.* at 885 (quoting *Burgess*, 759 F.3d at 711) (“In such a situation, it is reasonable for police to act quickly lest they lose the only opportunity they may have to solve a recent violent crime or to interrupt an advancing one”).

198. Thomas K. Clancy, *The Fourth Amendment’s Concept of Reasonableness*, 2004 UTAH L. REV. 977, 1026 (2004) (“Several twentieth century trends underline the need for objective criteria to measure reasonableness. The case-by-case and balancing tests lack objective criteria as guides and, when the Court has employed those models, it has steadily expanded the permissibility of governmental intrusions and deprecated individual liberty.”).

199. *See* *Camara v. Municipal Court*, 387 U.S. 523, 536-37 (1967) (“Unfortunately, there can be no ready test for determining reasonableness other than by balancing the need to search against the invasion which the search entails.”); *see also* *United States v. Knights*, 534 U.S. 112, 121 (2001) (“Although the Fourth Amendment ordinarily requires the degree of probability embodied in the term ‘probable cause,’ a lesser degree satisfies the Constitution when the balance of governmental and private interests makes such a standard reasonable.”).

in specific neighborhoods.²⁰⁰ What are these specific neighborhoods, one might ask. They are high-crime neighborhoods.²⁰¹ Although the Supreme Court has not explicitly defined “high-crime” neighborhoods, they often end up being neighborhoods inhabited largely by Black and Brown people.²⁰² For instance, in Chicago, an extremely diverse, yet racially segregated city, ShotSpotter devices were first installed in the Englewood neighborhood, with a demographic that was 94.6% Black as of 2019.²⁰³ Chicago later

200. See Jerry H. Ratcliffe et al., *A Partially Randomized Field Experiment On The Effect Of An Acoustic Gunshot Detection System On Police Incident Reports*, 15 J. EXPERIMENTAL CRIM. 67, 68 (2018). A study in Philadelphia of the effectiveness of an acoustic gunshot detection system found that gunshot incidents increased by 259% after its implementation, yet this did not coincide with a significant increase in the number of confirmed shootings. *Id.* This data illustrates that acoustic gunshot detection is not as perfect as it is made out to be, and often sends police to monitored locations for incidents that did not actually involve gunfire. *Id.* at 74. These false positives can only direct police to neighborhoods that are actually monitored by the acoustic gunshot detection system. *Id.* at 68.

201. Joella Baumann, *This Technology Helps Denver Police Hear Gunshots Remotely. But Does It Cut Crime?*, CPR NEWS (Oct. 30, 2019), www.cpr.org/2019/10/30/this-technology-helps-denver-police-hear-gunshots-remotely-but-does-it-cut-crime/ [perma.cc/E9P4-GQ6S]; La Vigne et al., *supra* note 13, at 8; Chris Weller, *There's A Secret Technology In 90 US Cities That Listens For Gunfire 24/7*, BUSINESS INSIDER (June 27, 2017), www.businessinsider.com/how-shotspotter-works-microphones-detecting-gunshots-2017-6 [perma.cc/8A3H-ZKLJ].

202. See Ferguson & Bernache, *supra* note 153, at 1590 (quoting *United States v. Montero-Camargo*, 208 F.3d 1122, 1138 (9th Cir. 2000) (high-crime area “can easily serve as a proxy for race or ethnicity”); David A. Sklanksy, *Traffic Stops, Minority Motorists, And The Future Of The Fourth Amendment*, 1997 SUP. CT. REV. 271, 328 (1997) (“[M]inority neighborhoods tend to be poorer and more crime-ridden”); David A. Harris, *Particularized Suspicion, Categorical Judgments: Supreme Court Rhetoric Versus Lower Court Reality Under Terry v. Ohio*, 72 ST. JOHN'S L. REV. 975, 1000 (1998) (“[T]hose who live in high crime areas will likely be poor and members of minority groups”). This is alarming when considering the inherently discriminatory nature of policing. See Emma Pierson et al., *A Large-scale Analysis Of Racial Disparities In Police Stops Across The United States*, 4 NATURE HUM. BEHAV. 736, 736 (2020) (finding in a study of 100 million traffic stops across the United States that black drivers are stopped more frequently during the day when their race can easily be distinguished than at night when it is difficult to determine their race prior to the stop); see also *Floyd v. City of N.Y.*, 959 F. Supp. 2d 540, 559 (S.D.N.Y. 2013) (finding that out of 4.4 million Terry stops conducted by NYPD between January 2004 and June 2012, eighty-three percent of stops were of black and Hispanic individuals, although the population of New York City was only fifty-two percent black and Hispanic) The data in this case shows that weapons or contraband were seized at approximately the same rate regardless of race. *Id.*

203. *Englewood: Community Data Snapshot, June 2020*, CHICAGO METRO. AGENCY FOR PLANNING, 1, 3 (June 2020), www.cmap.illinois.gov/documents/10180/126764/Englewood.pdf [perma.cc/QQM5-ANJG]. For a myriad of reasons, including “poverty, governmental neglect, high rates of mental illness, lead poisoning, drug abuse, and joblessness,” Englewood is known to have high rates of violent crime.” Don Terry, *In South Side Neighborhood, Violence Still Hard to Shake*, N. Y. TIMES

expanded the technology into twelve of the city's twenty-two districts, all in areas that are predominantly Black and brown.²⁰⁴ As ShotSpotter often points out, only about twelve percent of all gunfire is reported to the police.²⁰⁵ Given this statistic, coupled with ShotSpotter's claim that their technology detects upwards of ninety percent of gunfire in service areas, there have been considerably more police responses in these areas after the installation of the technology.²⁰⁶

At first glance, this appears uncontroversial. ShotSpotter alerts result in police responses to gunshots that were once unreported. However, upon closer review, there are some serious implications with the use of ShotSpotter technology. There has not been extensive independent research to verify that ShotSpotter is able to effectively distinguish between gunfire and other "bang-like" noises.²⁰⁷ A 2018 study of an acoustic gunshot detection system in Philadelphia found that after the implementation of the technology, gunshot incidents increased by 259%.²⁰⁸ Initially, this statistic appears to support the use of the technology, but the study also found that "there was not a significant increase in the number of confirmed shootings."²⁰⁹ In other words, the technology led to police frequently being dispatched to what they believe to be gunfire, only to find that there was not in fact a shooting.

This is an issue that should not be overlooked, especially as it relates to the holding in *Rickmon*. That is because the Seventh

(Feb. 4, 2012), www.nytimes.com/2012/02/05/us/in-chicago-neighborhood-of-englewood-violence-hard-to-shake.html?_r=0 [<https://perma.cc/EN5J-ZRHW>].

204. Michael Wasney, *The Shots Heard Round The City*, SOUTH SIDE WEEKLY (Dec. 19, 2017), www.southsideweekly.com/shots-heard-round-city-shotspotter-chicago-police/ [perma.cc/GG53-5P5F]. ShotSpotter in Chicago is used exclusively on the South, Southwest, and West sides of the city. *Id.*

205. *Reduce Gun Crime with Proven Gunshot Detection Technology*, SHOTSPOTTER INC., www.shotspotter.com/law-enforcement/gunshot-detection/ [perma.cc/QK5E-7W6N] (last visited Nov. 1, 2020).

206. Gabriel Sandoval & Rachel Holliday Smith, *'ShotSpotter' Tested As Shootings And Fireworks Soar, While Civil Rights Questions Linger*, THE CITY (July 5, 2020), www.thecity.nyc/2020/7/5/21312671/shotspotter-nyc-shootings-fireworks-nypd-civil-rights [perma.cc/NY7W-LB8Z].

207. Nick Selby et al., *ShotSpotter Gunshot Location System Efficacy Study*, CSG ANALYSIS 25 (2011), www.njdc.info/wp-content/uploads/2017/10/ShotSpotter-Gunshot-Location-System-Efficacy-Study.pdf [perma.cc/LX9L-LTZZ]. Even in a research study commissioned by ShotSpotter, thirty-three percent of gunfire alerts were false positives. Instead of alerting police to actual gunfire, they were alerting police to "dumpsters, trucks, motorcycles, helicopters, fireworks, construction, vehicles traveling over expansion plates on bridges or into potholes, trash pickup, church bells, and other loud, concussive sounds common to urban life." *Id.* See Ratcliffe et al., *supra* note 200, at 68 (referring to the same efficacy study, notes that "the research was commissioned by ShotSpotter and the researchers investigated agencies hand-picked by the company.").

208. Ratcliffe et al., *supra* note 200, at 67.

209. *Id.*

Circuit explained that responding to reports of gunfire constitutes an emergency, as opposed to one of general criminality.²¹⁰ As a result, in emergency situations, the bar for an officer to establish reasonable suspicion to stop an individual is lessened. However, the Philadelphia study²¹¹, as well as the ShotSpotter efficacy study²¹², present a contradiction to the assumption that a ShotSpotter alert automatically means gunfire.

B. The Police Have to Find Something

In a violent arrest captured on video, Fitzroy Gayle, a 20-year-old Black male, was arrested by six plain-clothes NYPD officers.²¹³ The police were only in the area because they were responding to a ShotSpotter alert of gunfire in the area.²¹⁴ When the officers arrived, they saw Gayle smoking marijuana with another individual, which prompted the arrest.²¹⁵ Gayle was not charged with any crimes related to the shooting but rather for resisting arrest, obstruction of government administration, and possession of marijuana.²¹⁶

According to Jerome Greco, an attorney at Legal Aid's Digital Forensics Unit in New York City, a ShotSpotter alert "gives [police] somewhat of a justification in their mind to harass people."²¹⁷ Greco bases his opinion on the fact that "Legal Aid has represented people who were charged with something other than gun-related offenses following what started as a ShotSpotter run."²¹⁸ With *Rickmon*, precedent has been set to allow officers to rely more on their subjective suspicion, as a ShotSpotter alert may provide the objective suspicion necessary to justify a stop.²¹⁹ It can be expected that in the Seventh Circuit, and other Circuits that adopt the rationale in *Rickmon*, that the situation Greco describes will become more commonplace. Given the claims by Greco and the arrests of Rickmon and Gayle, courts, cities, and the public should question whether ShotSpotter actually helps to arrest the shooter rather

210. *Rickmon*, 952 F.3d at 883.

211. Ratcliffe et al., *supra* note 200, at 68.

212. Selby et al., *supra* note 207, at 25.

213. See Marco Poggio & Noah Goldberg, *Man Punched And Tackled By Cops In Viral Video Meets With Brooklyn DA*, N.Y. DAILY NEWS (Mar. 11, 2020), www.nydailynews.com/new-york/nyc-crime/ny-brooklyn-man-cops-beat-marijuana-district-attorney-20200311-dmvdpnzh4neolcn3zy7fe6yeua-story.html [perma.cc/8ZYE-LLAY] (highlighting cellphone video taken by a bystander shows the officers tackle, kick, and punch him before eventually arresting him).

214. *Id.*

215. *Id.*

216. *Id.*

217. Sandoval & Smith, *supra* note 206.

218. *Id.*

219. *Rickmon*, 952 F.3d at 882-83.

than an innocent bystander.²²⁰

C. Fourth Amendment Protection – A Balancing Test of Conflicting Interests

The concept of policing invokes a balance of governmental interests of stopping crime and keeping the public safe with an individual's right to privacy under the Fourth Amendment.²²¹ Of course, it would be much easier for police to conduct surveillance and detect crime if they were not limited by the Fourth Amendment. However, the Framers drafted the Fourth Amendment to serve as a specific limit on police powers.²²² With that as a backdrop, the specific governmental interests in conducting a traffic stop in the vicinity of, and shortly after a ShotSpotter alert, are to arrest the shooter, and get a dangerous criminal off the street.²²³ However, when viewing ShotSpotter's own publicly available data, it is readily apparent that their technology rarely leads to arrests.²²⁴ More so, police departments struggle with solving gun-related crimes.²²⁵ Even though there is a governmental interest in stopping

220. *Results*, SHOTSPOTTER INC., [www.shotspotter.com/results/\[perma.cc/9YD7-9BAJ\]](http://www.shotspotter.com/results/[perma.cc/9YD7-9BAJ]) (last visited Sept. 11, 2021). On ShotSpotter's website, it notes success stories, including seventy arrests in Toledo, Ohio (in ten months), fifty arrests in Bakersfield, California (in one year), and 133 arrests in Columbus, Ohio (in sixteen months). *Id.* However, the website does not note whether these arrests figures are of the verified shooter, rather than an individual that was in the wrong place at the wrong time. *Id.*

221. Shima Baradaran, *Rebalancing the Fourth Amendment*, 102 GEO. L.J. 1, 8-9 (2013).

222. Daniel J. Polatsek, *Thermal Imaging and the Fourth Amendment: Pushing the Katz Test Towards Terminal Velocity*, 13 J. MARSHALL J. COMPUTER & INFO. L. 453, 478-89 (1995).

223. See Drange I, *supra* note 24 (“[m]any cities . . . pay for the technology thinking they will catch criminals in the act.”).

224. Drange II, *supra* note 42. This data can be interpreted in a number of ways. One side might argue that ShotSpotter has led to hundreds of arrests and this fact proves it's worth. However, the *percentage* of ShotSpotter arrests that are for shooting related crimes is not publicly known. Poggio & Goldberg, *supra* note 213 (emphasis added).

225. See Sarah Ryley et al., *5 Things To Know About Cities' Failure To Arrest Shooters*, THE TRACE (Jan. 24, 2019), www.thetrace.org/2019/01/gun-murder-solve-rate-understaffed-police-data-analysis/ [perma.cc/L898-5HB7] (noting “[d]etectives are stretched so thin in some cities that many nonfatal shootings don't get investigated at all.”); see also Aamer Madhani, *Unsolved Murders: Chicago, Other Big Cities Struggle; Murder Rate A 'National Disaster,'* USA TODAY (Aug. 10, 2018), www.usatoday.com/story/news/2018/08/10/u-s-homicide-clearance-rate-crisis/951681002/ [perma.cc/NVM5-KZQW] (stating “big cities such as Baltimore, Chicago and New Orleans . . . cleared less than 28 percent of its homicide cases in 2016.”). If ShotSpotter was so good at helping police catch shooting suspects, one may expect the clearance rate in Chicago to be higher, considering that nearly half of the city is patrolled by ShotSpotter sensors. See SS Press Release, *supra* note 26 (stating that ShotSpotter's contract with Chicago spans across a coverage area of 100 square miles and 12

crime, this interest is somewhat illusory because departments often do not arrest the shooter.²²⁶

The governmental interests in initiating the stop in *Rickmon* are not as significant as the Seventh Circuit perceived. Officer Ellefritz had no indication that the shooter was in Rickmon's vehicle rather than one of the fifteen to twenty additional people just down the street from where Rickmon was stopped.²²⁷ Given that the ShotSpotter alert did not provide any identification of the shooter, statistically speaking, it is more likely that the shooter was in the large crowd down the street, rather than in Rickmon's vehicle.²²⁸ In stopping the first vehicle he saw without any particularized suspicion, it is possible that Ellefritz's actions allowed the shooter to get away. Conversely, an individual walking or driving down a street has a right to privacy codified by the Fourth Amendment; "to be secure in their persons . . . against unreasonable searches and seizures."²²⁹ So long as an officer does not have probable cause or reasonable suspicion to stop an individual, whether in a car, or on foot, the Fourth Amendment provides protection from subsequent unreasonable searches or seizures.²³⁰ In essence, the greater the governmental interest, as compared with this right to privacy, the lower the burden is for an officer to establish reasonable suspicion to justify a stop, search, or seizure.²³¹

Courts must prioritize individual privacy rights when evaluating reasonable suspicion in ShotSpotter cases. The Seventh Circuit in *Rickmon* made too many assumptions that led to a flawed holding. For one, there has not been extensive independent research to indicate how accurate ShotSpotter is at distinguishing gunfire from other loud noises, and additionally, with pinpointing its location.²³² The Seventh Circuit brought up the fact that Rickmon,

police districts).

226. *Id.*

227. *Rickmon*, 952 F.3d at 886 (Wood, C.J., dissenting) (according to Ellefritz, he "would have stopped literally any car on North Ellis" based on the ShotSpotter alert).

228. *Id.* (noting that the ShotSpotter alert did not provide "the shooter's car's make, color, age, style, or anything else.").

229. U.S. CONST. amend. IV.

230. *Id.*; see *Knights*, 534 U.S. at 122 (2001) (explaining that although the Fourth Amendment ordinarily requires probable cause, the Fourth Amendment is still satisfied if an officer has reasonable suspicion).

231. See, e.g., *Terry*, 392 U.S. at 22-23 (justifying a police stop in part finding that the governmental interest in stopping crime was more significant than the scope of the privacy intrusion on the individual.).

232. See Gregory Yee, *When SC Residents Are Afraid To Call The Police, Technology Alerts Officers Of Gunshots*, POST & COURIER (Sep. 14, 2020), www.postandcourier.com/news/when-sc-residents-are-afraid-to-call-the-police-technology-alerts-officers-of-gunshots/article_d54f9cae-8308-11e9-a437-a3bae9e84ac7.html [perma.cc/4BAY-CWSQ] (noting "[d]espite ShotSpotter being around for more than 20 years, there is little independent research on the technology and how to best utilize it.").

as a pro se litigant, argued that ShotSpotter is not always accurate and that the record “does not demonstrate how often the Peoria Police Department received incorrect ShotSpotter reports.”²³³ However, the court brushed over this fact because Rickmon had a chance to cross examine the police witness about ShotSpotter’s reliability and because there was an additional tip about the shots fired.²³⁴ Even though Officer Ellefritz was cross-examined, he lacked the personal knowledge to testify to the reliability of the technology at a statistically significant level. Since the court analyzes the objective reasonableness of a *Terry* stop de novo, this should actually be quite significant.²³⁵ ShotSpotter and police departments are business partners and have a vested interest inflating the reliability of the technology. However, the reasonableness of the stop would have been called into question if the court did not simply assume that ShotSpotter was accurate at detecting gunfire or the location of gunfire.

Assuming *arguendo* that ShotSpotter is accurate at both distinguishing gunfire from loud noises and pinpointing its location, there are still tremendous flaws with the Seventh Circuit’s analysis. Most notably, there are no facts to suggest that Officer Ellefritz had individualized or particularized suspicion that the occupants of Rickmon’s vehicle were involved in the shooting, or otherwise armed and dangerous. Rickmon happened to be in the wrong place at the wrong time. Being in the wrong place, late at night with few other people on the road, should not automatically justify a *Terry* stop. The reasonableness standard under the Fourth Amendment is admittedly low, but it is not that low.²³⁶ *Terry* stops should not be permitted based on a ShotSpotter alert, unless there are other facts to warrant the stop of that *specific* person or vehicle. For instance, if an anonymous tipster also called in about shots fired from a black vehicle, then the officer knows to look for a black vehicle, rather than one that is red, white, blue, or orange. Ellefritz did not receive a tip with this level of particularity, or any particularity for that matter, he should not have been justified in stopping Rickmon’s vehicle.²³⁷ Though the Seventh Circuit found that the dispatcher announcing “shots fired” over the radio corroborated and helped to justify the stop, they failed to describe the suspect with any

233. *Rickmon*, 952 F.3d at 879 n.2.

234. *Id.*

235. *Id.* at 881.

236. *Dunaway v. New York*, 442 U.S. 200, 208-10 (1979) (explaining that *Terry* recognized the reasonableness standard as an exception to the requirements of the higher standard of probable cause.).

237. *Terry*, 392 U.S. at 27 (“[a]nd in determining whether the officer acted reasonably in such circumstances, due weight must be given, not to his inchoate and unparticularized suspicion or ‘hunch,’ but to the specific reasonable inferences which he is entitled to draw from the facts in light of his experience.”) (emphasis added).

particularity.²³⁸ Neither the ShotSpotter alerts, nor the dispatcher provided any specific details about a potential suspect.²³⁹ They simply provided information on what type of crime was likely committed.

The fact that *Rickmon* was a case of first impression gives even more reason to justify this requirement of particularity.²⁴⁰ Many have raised privacy concerns about ShotSpotter and likely do not want police officers randomly stopping people within the vicinity of ShotSpotter alerts.²⁴¹ This is a sure-fire way to decrease community trust in the police – when trust in police is already at an all-time low.²⁴² This analysis still gives police officers the leeway to do their job, without arming them with “general warrants” to stop anyone.²⁴³ The particularity standard is not asking for police to know with certainty that the individual they stop is the shooter but instead asks for there to be some objective reason for them to think that the *specific person* is the shooter.

Critics may argue that this standard hamstring police from being able to do their job. It requires them to stand idly by when they know that crime is afoot. It will lead to police watching the shooter flee the scene without being able to do anything. But police already have plenty of other tools at their disposal. Most notably, the Supreme Court permits police to make pretextual stops, such as a stop for a minor traffic infraction, so long as there exists an objective basis for the stop.²⁴⁴ They can then use that objective basis for the stop to gather additional factors that lead to a reasonable suspicion, such as something illegal in plain view, like drugs, a weapon, or the smell of drugs.²⁴⁵ This is not to say that the requirement of particularized suspicion should exist because the

238. *Rickmon*, 952 F.3d at 882.

239. *Id.* at 886.

240. *Id.* at 878. (“As a matter of first impression, the court considered whether law enforcement’s stop of a vehicle was constitutional under the Fourth Amendment because, among other articulable facts, the car was emerging from the source of [a ShotSpotter alert].”).

241. Stanley, *supra* note 7.

242. Aimee Ortiz, *Confidence In Police Is At Record Low, Gallup Survey Finds*, N. Y. TIMES (Aug. 12, 2020), www.nytimes.com/2020/08/12/us/gallup-poll-police.html [perma.cc/N5F6-U7Q3] (“Amid waves of civil unrest as protestors across the country continue to demonstrate against police brutality, Americans’ confidence in the police has dropped to a record low, according to a Gallup poll.”).

243. See Thomas Y. Davies, *Recovering the Original Fourth Amendment*, 98 MICH. L. REV. 547, 558 (1999) (explaining “[a] ‘general warrant’ [is] a [F]raming-era term for an unparticularized warrant, for example, ordering a search of ‘suspected places.’”).

244. See *Whren v. United States*, 517 U.S. 806, 808 (1996) (permitting officers to stop vehicles for pretextual reasons such as minor traffic violations).

245. The “plain view” doctrine is justified by the idea that if a police officer is lawfully present somewhere and it is immediately apparent that something in plain view is illegal, then its seizure is not an invasion of privacy. *Horton v. California*, 496 U.S. 128, 135-36 (1990).

police have other tools – it is just to say that this argument falls on deaf ears, as the police already have plenty of ability to stop potential suspects for other unrelated reasons. Additionally, ShotSpotter often does not lead to arrests, with a recent study by the MacArthur Justice Center finding that only 10% of over 40,000 ShotSpotter alerts in Chicago likely involved guns.²⁴⁶ Furthermore, the particularity standard is not unreasonably high – it is not asking for police to get a warrant to justify a stop.

The Fourth Amendment, at times, functions in a way that serves as a barrier to arrests.²⁴⁷ However, the last thing we should want as a society is to give police officers and departments more discretion, as the Seventh Circuit in *Rickmon* did. If the past is a predictor of the future, giving police discretion invariably will lead to racial bias.²⁴⁸ With ShotSpotter largely being located in Black and brown neighborhoods, this discretion can and has led to problematic outcomes.

V. CONCLUSION

ShotSpotter has the capability of being an excellent tool for identifying gun violence hot spots and providing cities with a better indication as to the prevalence of gun violence. This Note is not asking for courts to disobey precedent, or to reinvent the wheel. It is merely asking that courts require some level of objective particularity before a *Terry* stop is commenced within the vicinity of a ShotSpotter alert. In essence, the Seventh Circuit gave officers a general warrant to stop anyone within the vicinity of a ShotSpotter alert within a reasonable time after the alert. That is dangerous, problematic, and arguably will lead to more shooters being able to flee the scene.

The Fourth Amendment still provides individuals with a protection from the police, though the amendment has been stripped down by the courts over the years since *Terry*. As this Note explains, giving officers discretion to stop anyone within the vicinity of a ShotSpotter alert does not make cities safer, actually decreases community relations with the police, and sets a dangerous precedent for how police can utilize this surveillance technology in the future.

246. CST Editorial Board, *If ShotSpotter Constantly Misfires, What's Chicago Getting for its \$33 Million?*, CHICAGO SUN TIMES (May 4, 2021), www.chicago.suntimes.com/2021/5/4/22417660/shotspotter-analysis-macarthur-justice-center-chicago-police-chicago-gun-violence-editorial [perma.cc/MF83-UZC8].

247. *See* *Ex Parte Buford*, 7 U.S. (3 Cr.) 448 (1806) (reiterating that the Fourth Amendment was designed to protect individuals from arbitrary arrest).

248. *See Floyd*, 959 F. Supp. 2d at 559 (finding that out of 4.4 million *Terry* stops conducted by NYPD between January 2004 and June 2012, 83% of stops were of black and Hispanic individuals, although the population of New York City was only 52% black and Hispanic.).

