
**RACIAL DISPARITIES IN FATAL POLICE SHOOTINGS:
AN EMPIRICAL ANALYSIS INFORMED BY
CRITICAL RACE THEORY**

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ABSTRACT

Although the use of excessive force by police has been a concern within communities of color for decades, the issue recently reached the public consciousness through media coverage of a number of high-profile police killings of unarmed Black victims. In explaining these events, the common understanding has been that there are some “bad apples” among police forces who exert excessive force due to personal conscious bias or implicit racial bias. The most widespread institutional response has been the implementation of implicit bias trainings and the use of body cameras to shape and monitor individual police-citizen interactions. This Essay adopts a different perspective. Using critical race theory and the Public Health Critical Race Praxis, it asks a novel set of questions regarding the marked racial disparities in police violence. In particular, it attempts to explain the striking differences in the magnitude of racial disparities in fatal police shootings across states and major U.S. cities. The Essay reviews research that examines structural racism as a possible explanation for the “disparities in racial disparities” across spaces and considers the potential role of racially identified spaces in molding the way police officers perceive not only individuals but also entire neighborhoods. It concludes that individual-level interventions cannot adequately address racial disparities in fatal police violence and that confronting and remedying the consequences of a long history of racial residential segregation and structural racism is necessary.

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CONTENTS

INTRODUCTION	1071
I. AN EMPIRICAL ANALYSIS INFORMED BY CRITICAL RACE THEORY	1073
A. <i>Critical Race Theory</i>	1073
B. <i>Critical Race Theory and Empirical Methods</i>	1076
C. <i>Applying Critical Race Theory to Public Health Problems</i>	1076
D. <i>Applying Critical Race Theory and Empirical Methods to the Problem of Racial Disparities in Fatal Police Shootings Using the Public Health Critical Race Praxis Approach</i>	1077
II. A DISPARITY IN DISPARITIES: CAN INDIVIDUAL BIAS EXPLAIN A PHENOMENON WITH A THIRTY-FOLD DIFFERENCE ACROSS STATES AND A THIRTY-SIX-FOLD DIFFERENCE ACROSS CITIES?	1080
III. EMPIRICAL APPROACH	1081
IV. RESULTS	1084
A. <i>Results</i>	1084
B. <i>Other Studies</i>	1085
C. <i>Synthesis of Findings</i>	1087
CONCLUSION.....	1091

INTRODUCTION

Although the problem of racially disproportionate police use of excessive force—especially police shootings—is a longstanding problem, it has received increasing attention as a result of the widespread media coverage of several high-profile, video-recorded events, including the killings of Eric Garner, Michael Brown, Tamir Rice, Alton Sterling, and Philando Castile.¹ Generating even more outrage were the announcements not to seek charges and the acquittals of the involved officers in each of these cases.² The problem of police shootings goes far beyond these highly publicized incidents. Between 2013 and 2018, there were a total of 6176 fatal police shootings in the United States.³ Of the 5700 shootings in which the race of the victim was known, 1565 (27.5%) involved Black victims, representing more than twice the proportion of Blacks in the overall population (13%).⁴

In the media, among public officials and policy makers, within police departments, and even in most research, racial bias in the use of force by police officers is largely viewed as an individual issue. The focus in all of these settings has been analyzing the individual interactions between police officers and suspects. At the crudest level, racial disparities in police violence are explained by a “bad apple” theory of violence, which holds that the inappropriate behavior of a small number of police officers is responsible.⁵ At a more evidence-based

¹ The dates of the shootings were: Eric Garner (July 17, 2014), Michael Brown (August 9, 2014), Tamir Rice (November 22, 2014), Alton Sterling (July 5, 2016), and Philando Castile (July 6, 2016).

² The dates of the announcements of the decisions not to press charges or of the acquittals were: Michael Brown (November 24, 2014), Tamir Rice (December 28, 2015), Philando Castile (June 16, 2017), Alton Sterling (March 27, 2018), and Eric Garner (July 16, 2019).

³ These data sets are from the Mapping Police Violence Project, which is considered the most comprehensive source for data on fatal police shootings. It combines data from the three largest crowdsourced databases: FatalEncounters.org, KilledbyPolice.net, and the U.S. Police Shootings Database. *Mapping Police Violence*, MAPPING POLICE VIOLENCE PROJECT, <https://mappingpoliceviolence.org> (last visited Apr. 3, 2020).

⁴ *Id.*

⁵ Professors Thibaut Horel, Trevor Campbell, Lorenzo Masoero, Raj Agrawal, Andrew Papachristos, and Daria Roithmayr have called this theory the “bad apple micro-level theory of violence.” See Thibaut Horel et al., *The Contagiousness of Police Violence 2* (2018) (unpublished manuscript), https://www.law.uchicago.edu/files/2018-11/chicago_contagiousness_of_violence.pdf [<https://perma.cc/AWZ2-8AJE>]. Similarly, Professors Charles E. Menifield, Geiguen Shin, and Logan Strother called this the “rotten apple” theory of police misconduct, writing: “The dominant explanation for disproportionate police violence and police bias in general is what has been called the ‘rotten apple’ theory of police misconduct.” Charles E. Menifield, Geiguen Shin & Logan Strother, *Do White Law Enforcement Officers Target Minority Suspects?*, 79 PUB. ADMIN. REV. 56, 56-57 (2019) (citing Donald P. Haider-Markel & Mark R. Joslyn, *Bad Apples? Attributions for Police Treatment of African Americans*, 17 ANALYSES SOC. ISSUES & PUB. POL’Y 358, 360-62 (2017)).

level, racial disparities in police violence are explained largely by implicit racial bias on the part of police officers more generally.⁶

An example of the “bad apple” theory is a 2019 assessment of why there is a “super-concentration” of Black victims of police violence.⁷ Professor Franklin E. Zimring, who has written extensively about police use of lethal force, including the book *When Police Kill*,⁸ explains that police shootings are rare anomalies that deviate from the norms of police behavior, and that these incidents are a result of unusual officers who are racially, albeit implicitly, biased: “The one officer in 800 provocations who shoots and kills the unarmed sets himself apart from the other 799.”⁹ He then asks:

Is this large overkill in the ninety-four unarmed victim cases conclusive evidence that most American police officers . . . are racially biased? The answer is negative, and the reason why the pattern of racial bias cannot be attributed to all or most police is the highly unrepresentative character of the lethal force responses. Those who shoot may well be racially biased, but they are in no sense typical police.¹⁰

Professor Zimring goes on to suggest screening police officers for racial bias, writing, “[S]creening to eliminate officers with pronounced *racial fears* can be justified as a public health necessity.”¹¹

The hallmark of the nation’s response to racial bias in police shootings has also been focused at the individual level. The use of body cameras and the implementation of implicit bias training have been the most common responses. For example, in 2018, New York City spent \$4.5 million to provide implicit bias training to all police officers.¹² Fair and Impartial Policing, LLC—the company

⁶ See, e.g., Joshua Correll et al., *The Police Officer’s Dilemma: Using Ethnicity to Disambiguate Potentially Threatening Individuals*, 83 J. PERSONALITY & SOC. PSYCHOL. 1314, 1315 (2002) (examining effect of “shoot/don’t shoot decisions”); William T.L. Cox et al., *Toward a Comprehensive Understanding of Officers’ Shooting Decisions: No Simple Answers to This Complex Problem*, 36 BASIC & APPLIED SOC. PSYCHOL. 356, 358 (2014) (examining how methodology, officers, suspects, and neighborhoods may inform police shootings); Justin Nix et al., *A Bird’s Eye View of Civilians Killed by Police in 2015: Further Evidence of Implicit Bias*, 16 CRIMINOLOGY & PUB. POL’Y 309, 316-17 (2017) (analyzing role of civilians in fatal police shootings); Katherine B. Spencer, Amanda K. Charbonneau & Jack Glaser, *Implicit Bias and Policing*, 10 SOC. & PERSONALITY PSYCHOL. COMPASS 50, 54-55 (2016) (discussing role of implicit bias in police shootings).

⁷ Franklin E. Zimring, *The Death of the Unarmed Assailant: On Racial Fears, Ambiguous Movement, and the Vulnerability of Armed Police*, in THE LIVES OF GUNS 152, 152-63 (Jonathan Obert, Andrew Poe & Austin Sarat eds., 2019) (discussing vulnerability of African Americans to police violence).

⁸ See generally FRANKLIN E. ZIMRING, *WHEN POLICE KILL* (2017).

⁹ Zimring, *supra* note 7, at 157.

¹⁰ *Id.*

¹¹ *Id.*

¹² Al Baker, *Confronting Implicit Bias for Everyone’s Safety*, N.Y. TIMES, July 16, 2018, at A16 (describing New York City’s new police training program).

that provided the training—is a private organization that has conducted hundreds of implicit bias trainings with city, state, regional, and university police agencies throughout the country.¹³ At least one state makes implicit bias training mandatory for police officers: a Minnesota statute enacted in 2017 requires implicit bias training for every state and local law enforcement official.¹⁴ Implicit bias trainings have received so much attention that a single study compared the effectiveness of seventeen different implicit racial bias interventions.¹⁵ None of them were consistently effective.

I. AN EMPIRICAL ANALYSIS INFORMED BY CRITICAL RACE THEORY

A. *Critical Race Theory*

Critical race theory challenges traditional ways of thinking about racism, especially the idea that if we eliminate intentional, interpersonal racial discrimination or bias, then we will eliminate racism itself.¹⁶ The first basic tenet of critical race theory is that racism is structural—that is, it is built into our systems, institutions, and culture—yet most conceptions of racism do not recognize this.¹⁷ As described by Professors Richard Delgado and Jean Stefancic:

The first feature, ordinariness, means that racism is difficult to address or cure because it is not acknowledged. Color-blind, or “formal,” conceptions of equality, expressed in rules that insist only on treatment that is the same across the board, can thus remedy only the most blatant forms of discrimination, such as mortgage redlining or an immigration dragnet in a food-processing plant that targets Latino workers or the refusal to hire a

¹³ For a description of the approach and its conceptual model, see Lorie Fridell & Sandra Brown, *Fair and Impartial Policing: A Science-Based Approach*, POLICE CHIEF MAG., June 2015, at 20, 20-21.

¹⁴ MINN. STAT. § 626.8469 (2017) (listing requirements of law enforcement training).

¹⁵ See generally Calvin K. Lai et al., *Reducing Implicit Racial Preferences: I. A Comparative Investigation of 17 Interventions*, 143 J. EXPERIMENTAL PSYCHOL. 1765 (2014) (comparing interventions for reducing expression of implicit racial prejudice).

¹⁶ See generally DERRICK BELL, *AND WE ARE NOT SAVED: THE ELUSIVE QUEST FOR RACIAL JUSTICE* (1987) (discussing barriers to racial justice in United States); DERRICK BELL, *FACES AT THE BOTTOM OF THE WELL: THE PERMANENCE OF RACISM* (1992) (discussing anti-Black racism and African American experience); DERRICK BELL, *RACE, RACISM, AND AMERICAN LAW* (6th ed. 2008); Alan David Freedman, *Legitimizing Racial Discrimination Through Antidiscrimination Law: A Critical Review of Supreme Court Doctrine*, in CRITICAL RACE THEORY: THE KEY WRITINGS THAT FORMED THE MOVEMENT 29-45 (Kimberlé Crenshaw et al. eds., 1995) [hereinafter CRITICAL RACE THEORY: THE KEY WRITINGS]; *Introduction to CRITICAL RACE THEORY: THE KEY WRITINGS*, *supra*, at xiii, xiii-xxxii.

¹⁷ RICHARD DELGADO & JEAN STEFANCIC, *CRITICAL RACE THEORY: AN INTRODUCTION* 31-38 (3d ed. 2017) (2001).

black Ph.D. rather than a white college dropout, which stand out and attract our attention.¹⁸

Traditional civil rights scholarship suggests that once racial bias, prejudice, and discrimination are eliminated, racial equality will reign. In contrast, critical race theory acknowledges that racial injustice is built into society's infrastructure and will not be fully addressed until radical reform produces a collapse of that infrastructure:

Along with the suppression of explicit white racism (the widely celebrated aim of civil rights reform), the dominant legal conception of racism as a discrete and identifiable act of "prejudice based on skin color" placed virtually the entire range of everyday social practices in America—social practices developed and maintained throughout the period of formal American apartheid—beyond the scope of critical examination or legal remediation. . . . Rather than engaging in a broad-scale inquiry into why jobs, wealth, education, and power are distributed as they are, mainstream civil rights discourse suggests that once the irrational biases of race-consciousness are eradicated, everyone will be treated fairly, as equal competitors in a regime of equal opportunity.¹⁹

Professor Camara Phyllis Jones, in integrating critical race theory into public health, has described three forms of racism: (1) personally mediated, (2) institutionalized, and (3) internalized.²⁰ When most people think of racism, they are thinking about personally mediated racism—that is, individual prejudice and discrimination against another individual. However, Jones's delineation of three levels of racism makes it clear that even if all personally mediated racism were instantly to disappear, racism would still be rampant. Institutionalized racism is unequal access to rights, privileges, benefits, resources, and power mediated by societal structure and institutions and the destructive consequences of this unequal access. It is built into the structure of society and will not disappear even if personally mediated racism is eliminated. Finally, personalized racism is the psychological impact of racism and its labeling, stigmatization, and oppression of individuals in the oppressed racial group. Importantly, Jones opines that "institutionalized racism is the most fundamental of the 3 levels and must be addressed for important change to occur. . . . [O]nce institutionalized racism is addressed, the other levels of racism may cure themselves over time."²¹

Critical race theory takes us an additional step beyond this. It posits that even if institutionalized racism were to be eliminated—that is, if society became colorblind and legal systems completely protected equal rights—racism would

¹⁸ *Id.* at 8-9.

¹⁹ *Introduction*, *supra* note 16, at xv-xvi.

²⁰ Camara Phyllis Jones, *Levels of Racism: A Theoretic Framework and a Gardener's Tale*, 90 AM. J. PUB. HEALTH 1212, 1213-14 (2000).

²¹ *Id.* at 1214.

endure because its impact will not dissipate unless its consequences are repaired.²²

An important component of critical race theory is the concept that racism must be viewed not merely as an unjust process but as an unjust set of consequences for the disadvantaged racial group.²³ Thus, even if racially discriminatory behavior, policies, and processes were to be halted, racism would endure because its victims are left with disadvantages in life conditions, choice, opportunity, and power. Professor Alan David Freeman describes traditional civil rights legal principles as taking a “perpetrator” perspective to racial discrimination, which “sees racial discrimination not as conditions but as actions, or series of actions, inflicted on the victim by the perpetrator.”²⁴ In contrast, critical race theory takes a “victim” perspective:

The victim, or “condition,” conception of racial discrimination suggests that the problem will not be solved until the conditions associated with it have been eliminated. To remedy the condition of racial discrimination would demand affirmative efforts to change the condition. The remedial dimension of the perpetrator perspective, however, is negative. The task is merely to neutralize the inappropriate conduct of the perpetrator.²⁵

A consequence of the victim perspective—and a key premise of the approach taken in this Essay—is that structural racism is not merely the *processes* that have led to disadvantaged conditions for people of color, but the *current conditions* that resulted from structural racism, even if the discriminatory processes occurred in the past.²⁶

²² For a discussion of how critical race theory supports the legal concept of reparations, see Mari J. Matsuda, *Looking to the Bottom: Critical Legal Studies and Reparations*, 22 HARV. C.R.-C.L. L. REV. 323, 324 (1987) (“Looking to the bottom—adopting the perspective of those who have seen and felt the falsity of the liberal promise—can assist critical scholars in the task of fathoming the phenomenology of law and defining the elements of justice.”).

²³ See generally Freedman, *supra* note 16, at 29-46.

²⁴ *Id.* at 29.

²⁵ *Id.*

²⁶ Under the perpetrator perspective, “the actual conditions of racial powerlessness, poverty, and unemployment can be regarded as no more than conditions—not as racial discrimination.” *Id.* at 41. Professor Kimberlé Williams Crenshaw also describes two conflicting views of racial justice. The “restrictive” vision “treats equality as a process, downplaying the significance of actual outcomes.” See Kimberlé Williams Crenshaw, *Race, Reform, and Retrenchment: Transformation and Legitimation in Antidiscrimination Law*, in CRITICAL RACE THEORY: THE KEY WRITINGS, *supra* note 16, at 103, 105. The expansive view “stresses equality as a result, and it looks to real consequences for African-Americans.” *Id.* In a similar way, Professor Gary Peller contrasts what he calls an integrationist view of racial justice—which merely changes the “rules of social decision-making” without changing the racial power structure—with a Black nationalist view, which sought Black power as a change in racial social structure. See Gary Peller, *Race-Consciousness*, in CRITICAL RACE THEORY: THE KEY WRITINGS, *supra* note 16, at 127, 127-58. In the legal context, Professor Derrick Bell contrasts legal realism—the use of the law to achieve racial equality by seeking the end of

B. *Critical Race Theory and Empirical Methods*

There has been a recent move within critical race theory scholarship to combine the unique theoretical perspective of critical race theory with social science research methods to measure and analyze new constructs that emerge from critical race theory. Professor Kimani Paul-Emile has referred to this new field as critical race theory and empirical methods (“eCRT”) and describes it as follows:

Thus, eCRT begins with the premise that the significant issues raised by CRT [critical race theory] could be strengthened by increased reliance on social science research methods that quantitatively and qualitatively measure the structural inequities exposed through CRT analysis. Likewise, eCRT scholars contend that social scientific research on race and identity could profit from the adoption of theoretical frameworks that are more sophisticated than those that currently animate empirical methods.²⁷

Professor Osagie K. Obasogie adds:

While these insights are profound, the methods used to substantiate them have often not been as robust as they could be. Critical race theory has often focused on internal inconsistencies in legal doctrine or historical and theoretical critiques that, while important, often do not offer a measurable basis from which to understand the depth of these on-the-ground trends and social dynamics.²⁸

This Essay uses eCRT methods that incorporate insights on the problem of racial disparities in fatal police violence that can be derived from critical race theory. It marries these with strong empirical methods from the social sciences that allow us to operationalize, measure, and analyze structural racism and its on-the-ground impact in actual differences in race disparities that occur across different geographic locations.

C. *Applying Critical Race Theory to Public Health Problems*

Critical race theory was developed by legal scholars, but public health researchers and advocates have made recent efforts to apply critical race theory

“discriminatory racial practices”—with racial realism, which seeks a new type of jurisprudence that takes into account the long history of racial insubordination of Black people by White people and the unequal balance of power, resources, and conditions that exists today because of that history. See Derrick A. Bell Jr., *Racial Realism*, in *CRITICAL RACE THEORY: THE KEY WRITINGS*, *supra* note 16, at 302, 302-14.

²⁷ Kimani Paul-Emile, Foreword, *Critical Race Theory and Empirical Methods Conference*, 83 *FORDHAM L. REV.* 2953, 2957 (2015); see also Osagie K. Obasogie, Foreword, *Critical Race Theory and Empirical Methods*, 3 *U.C. IRVINE L. REV.* 183, 186 (2014) (discussing goals of incorporating empirical research into critical race theory).

²⁸ Obasogie, *supra* note 27, at 184.

to public health problems and to develop an empirical approach to doing so.²⁹ Professors Chandra L. Ford and Collins O. Airhihenbuwa first published an introduction to the application of critical race theory to public health in 2010.³⁰ They then developed a formal methodology—the Public Health Critical Race Praxis—to conduct antiracism research on health inequities.³¹ Professor Louis Graham and his coauthors discussed critical race theory as both a theoretical framework and an analytic approach to studying racial disparities in population health.³² The four foci in the Public Health Critical Race Praxis model are: (1) contemporary racialization (considering the primacy of racism, race as a social construct, the ordinariness of racism, and structural determinism), (2) knowledge production (critical questioning of widely held theories), (3) conceptualization and measurement (operationalizing racism measures), and (4) action.³³

D. *Applying Critical Race Theory and Empirical Methods to the Problem of Racial Disparities in Fatal Police Shootings Using the Public Health Critical Race Praxis Approach*

Instead of viewing racial disparities in the police use of lethal force as rooted in the ways in which individual police officers interact with individual citizens—a view that is dependent upon the paradigm that the disproportionate police shootings of Black people are a deviation of individual police officers from some perceived norm—what if we consider the possibility that this problem is structural? That is, what if we understand the problem as a natural consequence of the racially unfair way in which we have constructed our neighborhoods and communities? Applying critical race theory to the problem of racial disparities in fatal police shootings (the first step of the Public Health Critical Race Praxis approach) opens the possibility that radical change in the structure of our neighborhoods and communities may be necessary to overcome entrenched racial inequities caused by a long history of structural racism, rather than simply the individual-level approach of training police officers to avoid acting on their inherent biases in a moment of panic.

²⁹ For an excellent historical overview, see generally Chandra L. Ford & Collins O. Airhihenbuwa, Commentary, *Just What Is Critical Race Theory and What's It Doing in a Progressive Field Like Public Health?*, 28 ETHNICITY & DISEASE 223 (2018) [hereinafter Ford & Airhihenbuwa, *Just What Is Critical Race Theory*].

³⁰ Chandra L. Ford & Collins O. Airhihenbuwa, Commentary, *Critical Race Theory, Race Equity, and Public Health: Toward Antiracism Praxis*, 100 AM. J. PUB. HEALTH S30, S32-34 (2010).

³¹ Chandra L. Ford & Collins O. Airhihenbuwa, *The Public Health Critical Race Methodology: Praxis for Antiracism Research*, 71 SOC. SCI. & MED. 1390, 1391-96 (2010).

³² Louis Graham et al., *Critical Race Theory as Theoretical Framework and Analysis Tool for Population Health Research*, 21 CRITICAL PUB. HEALTH 81, 83-84 (2011).

³³ Ford & Airhihenbuwa, *Just What Is Critical Race Theory*, *supra* note 29, at 227-28.

In a 2015 article, Professor L. Song Richardson eloquently explained why, from a critical race theory approach, the problem of police racial violence must be viewed from a structural—not individual—level:

[R]educing the problem of racial violence to the individual police-citizen interaction at issue obscures how current policing practices and culture entrench racial subordination and, thus, racial violence. This is because as a result of our nation's sordid racial history, white supremacy and racial subordination have become embedded not only within social systems and institutions but also within our minds. As a result, unless corrective structural and institutional interventions are made, racial violence is inevitable regardless of whether officers have malicious racial motives or citizens engage in objectively threatening behaviors.³⁴

As a direct consequence of using the critical race praxis approach, this Essay reviews research that explicitly models the racial disparity in fatal-police-shooting rates as a primary outcome variable and analyzes structural racism as the primary explanatory variable. Although a number of articles have examined factors related to the excessive use of force against Black suspects, I am aware of only two previous studies to model the racial disparity in police killings as an outcome in order to identify factors that explain this disparity. Professor Cody T. Ross reported a positive relationship between a measure of county-level racism and county-specific disparities in police shooting deaths between Blacks and Whites; however, the study used a crude measure of racism: the number of Google searches for a derogatory racial term.³⁵ Thus, it measured only interpersonal racism and not institutional or structural racism. Professors Kendra Scott, Debbie S. Ma, Melody S. Sadler, and Joshua Correll examined racial disparities in fatal-police-shooting rates across 213 metropolitan areas and found a higher disparity in areas with a greater proportion of Black residents.³⁶ However, they did not examine the impact of racial segregation.

Why is it important to directly model racial disparities as an outcome variable rather than simply as the overall rate of fatal police shootings of Black victims? It is possible that factors that explain higher rates of police violence against Black victims, such as social inequality, may also result in more police violence against white victims. Scott and her colleagues pose a critical question: “[I]n

³⁴ L. Song Richardson, *Police Racial Violence: Lessons from Social Psychology*, 83 *FORDHAM L. REV.* 2961, 2962 (2015).

³⁵ Cody T. Ross, *A Multi-level Bayesian Analysis of Racial Bias in Police Shootings at the County-Level in the United States, 2011-2014*, *PLOS ONE*, Nov. 5, 2015, at 1, 14 (“[T]he results of this study provide evidence that there is racial bias in police shootings that is not explainable as a response to local-level crime rates, and is related to either: 1) racial bias in police encountering suspects/civilians, or 2) racial bias by police in the use of force upon encountering suspects/civilians.”).

³⁶ Kendra Scott et al., *A Social Scientific Approach Toward Understanding Racial Disparities in Police Shooting: Data from the Department of Justice (1980-2000)*, 73 *J. SOC. ISSUES* 701, 715-20 (2017).

situations with higher levels of social inequality and presence of minorities, do police respond with greater force towards all suspects, or only Black suspects?”³⁷ This “critical comparison,” as they frame it, can be carried out best by studying *racial disparities* in police violence as the primary outcome variable.

Implementing the second step of the Public Health Critical Race Praxis approach, I question the prevailing theory that implicit racial bias is the primary explanation for racial disparities in fatal police shootings. What if, instead, the observed racial disparities are historical and structural in origin? What if these disparities are a result of longstanding structural racism and its current legacy—the creation of racially segregated neighborhoods with high levels of concentrated disadvantage?

Implementing the third step of the Public Health Critical Race Praxis approach, I explain one of the first attempts made to operationalize and measure structural racism at the state and local levels. Based on these results, I conclude by making an initial effort to implement the fourth step of the Public Health Critical Race Praxis approach by advocating for actions that are a logical extension of this Essay’s findings.

In this Essay, I provide empirical evidence that even if overt racial bias, inherent racial bias, and discrimination by all police officers against Black individuals were eliminated, the racial disparity in fatal police shootings would remain. The hypothesis is that racial disparities in the lethal use of force are a consequence of structural racism, especially residential segregation, that results in police officers viewing and policing not Black individuals but Black neighborhoods in inherently different ways. I provide empirical evidence that racial residential segregation—the current conditions that resulted from a long history of structural racist practices and policies—is a strong predictor of racial disparities in police use of lethal violence.

This is not the first attempt to use critical race theory and the Public Health Critical Race Praxis to analyze the problem of racial disparities in the excessive use of force by police. In 2015, Professors Keon L. Gilbert and Rashawn Ray first applied critical race theory to the problem of police brutality against Black males, using the Public Health Critical Race Praxis and intersectionality to analyze why Black males are subject to disproportionate policing and police violence and what policies might help ameliorate the problem.³⁸

This Essay builds on Gilbert and Ray’s analysis by applying an empirical approach using common social science methods to examine statistically the most comprehensive database of fatal police shootings across the United States. It responds to Gilbert and Ray’s assertion that “researchers and policymakers need readily accessible valid and reliable data that disaggregate homicides by law

³⁷ *Id.* at 704.

³⁸ Keon L. Gilbert & Rashawn Ray, *Why Police Kill Black Males with Impunity: Applying Public Health Critical Race Praxis (PHCRP) to Address the Determinants of Policing Behaviors and “Justifiable” Homicides in the USA*, 93 J. URB. HEALTH S122, S125-36 (2016).

enforcement officers across region, state, and municipal census tracts.”³⁹ In particular, I review two studies conducted by my research team that took advantage of a newly available, comprehensive, crowdsourced database of police killings, disaggregating police shootings at the state and city levels and examining the potential role of structural racism in explaining differences between states and cities in the magnitude of the racial disparity in the rates of these shootings.⁴⁰

II. A DISPARITY IN DISPARITIES: CAN INDIVIDUAL BIAS EXPLAIN
A PHENOMENON WITH A THIRTY-FOLD DIFFERENCE ACROSS STATES
AND A THIRTY-SIX-FOLD DIFFERENCE ACROSS CITIES?

Although public health research that identifies racial disparities in health outcomes is common, an intriguing question that arises out of the Public Health Critical Race Praxis approach is whether there is a “disparity” in racial disparities across different places because those places differ in terms of the extent of historical structural racism. Why, for example, is a Black person in Chicago thirty-eight times more likely than a White person to be killed by the police, while a Black person in Las Vegas is only twice as likely to be killed by the police?⁴¹ There is a huge “disparity in disparities” across states and cities—larger than any racial disparities we have ever seen in public health.⁴²

This discovery forced us to consider the possibility that individual police-officer bias against individual citizens does not explain the racial disparity in fatal police shootings. If excessive police force against Black people results from implicit bias among police officers, then one would expect similar levels of racial disparities in fatal police shootings to exist across different cities.

However, we found that among the fifty states with at least one fatal police shooting of a Black individual between 2013 and 2017, the ratio of rates of fatal police shootings of unarmed Black victims compared to that of White victims ranged from 0.7 in South Carolina to 20.8 in Illinois—a thirty-fold difference.⁴³ During the same time period, we found that among the sixty-nine largest cities with at least one fatal police shooting of a Black individual, the ratio of rates of fatal police shootings of Black victims compared to White victims ranged from

³⁹ *Id.* at S134.

⁴⁰ Aldina Mesic et al., *The Relationship Between Structural Racism and Black-White Disparities in Fatal Police Shootings at the State Level*, 110 J. NAT’L MED. ASS’N 106, 110-12 (2018); Michael Siegel et al., *The Relationship Between Racial Residential Segregation and Black-White Disparities in Fatal Police Shootings at the City Level, 2013-2017*, 111 J. NAT’L MED. ASS’N 580, 583-84 (2019).

⁴¹ See Siegel et al., *supra* note 40, at 583-84.

⁴² A recent study found dramatic differences across U.S. Census divisions in the racial disparity in fatal police interactions. See Frank Edwards, Michael H. Esposito & Hedwig Lee, *Risk of Police-Involved Death by Race/Ethnicity and Place, United States, 2012-2018*, 108 AM. J. PUB. HEALTH 1241, 1242 (2018).

⁴³ Mesic et al., *supra* note 40, at 110-12.

1.3 in Fresno to 46.7 in Santa Ana—a thirty-six-fold difference.⁴⁴ The problem with attributing these massive differences to variation in levels of implicit racial bias is that implicit racial bias simply does not vary that much across geographic areas. For example, the average level of implicit racial bias of people living in the state with the highest average level (measured by scores on the racial Implicit Attitudes Test⁴⁵) differs from that in the state with the lowest average level by only 34%.⁴⁶

A second factor that makes us question the conclusion that racial bias by police officers against individual civilians can explain fatal police shootings are the findings that White officers are no more likely than non-White officers to use lethal force against Black suspects⁴⁷ and that the racial diversity of a city's police force has no effect on rates of police killings.⁴⁸ This finding led Menifield, Shin, and Strother to conclude that “there is no compelling evidence that micro-level racism drives the killing of black suspects.”⁴⁹

If individual racial bias by police officers against individual civilians is not an adequate explanation for the wide differences in the racial disparity in fatal police shootings across cities, then what is? Critical race theory would have us consider the possibility that variations in the racial structure and racial conditions within different cities, which have resulted from a long history of structural racism, might explain the observed differences. However, how does one measure structural racism?

III. EMPIRICAL APPROACH

Looking at differences in the magnitude of racial disparities in fatal police shootings first across *states* and second across *cities*, our methodology offered

⁴⁴ Siegel et al., *supra* note 41, at 580.

⁴⁵ PROJECT IMPLICIT HEALTH, <https://implicit.harvard.edu/implicit/user/agg/blindspot/indexrk.htm> [<https://perma.cc/ZN4L-B63T>] (last visited Apr. 3, 2020) (testing attitudes and beliefs toward health issues).

⁴⁶ Jordan Axt, *Mapping Geographic Variation in Implicit Racial Attitudes*, PROJECT IMPLICIT, <https://implicit.harvard.edu/implicit/user/jaxt/blogposts/piblogpost005.html> [<https://perma.cc/VL53-NHSB>] (last visited Apr. 3, 2020).

⁴⁷ David J. Johnson et al., *Officer Characteristics and Racial Disparities in Fatal Officer-Involved Shootings*, 116 PROC. NAT'L ACAD. SCI. U.S. 15,877, 15,878 (2019) (“White officers were no more likely to fatally shoot Black or Hispanic civilians than non-white officers.”); Hoon Lee, Michael S. Vaughn & Hyeyoung Lim, *The Impact of Neighborhood Crime Levels on Police Use of Force: An Examination at Micro and Meso Levels*, 42 J. CRIM. JUST. 491, 496-97 (2014) (“The current study . . . found that citizen race and officer race do not significantly alter the amount of police force used”); Menifield, Shin & Strother, *supra* note 5, at 62 (“[African Americans] are killed at much higher rates by nonwhite officers than by white officers.”).

⁴⁸ Brad W. Smith, *The Impact of Police Officer Diversity on Police-Caused Homicides*, 31 POL'Y STUD. J. 147, 158 (2003).

⁴⁹ Menifield, Shin & Strother, *supra* note 5, at 65.

two novel empirical approaches: one regarding the dependent variable and the other regarding the primary independent variable.

Dependent variable: Because we are attempting to explain variation in the magnitude of the Black-White racial disparity in fatal police shootings across states or cities, we explicitly model the level of this disparity in a state or city as the dependent variable.

Primary independent variable: Because we are exploring the potential role of structural racism, we make an explicit attempt to measure structural racism at the state or city level as our primary independent variable.

In both studies, we used the Mapping Police Violence Project database to identify all fatal police shootings occurring during the period from January 1, 2013, through December 31, 2017.⁵⁰ This is the most comprehensive database of fatal police killings that combines data from the three largest crowdsourced databases: FatalEncounters.org, KilledbyPolice.net, and the U.S. Police Shootings Database. Professor Ted R. Miller and his coauthors have demonstrated that the Mapping Police Violence database is superior to any other source of such data, including the Centers for Disease Control and Prevention's ("CDC") National Vital Statistics Program, the CDC's National Violent Death Reporting System, and the FBI's Uniform Crime Reporting System.⁵¹ We calculated state- and city-specific rates of fatal police shootings of White and Black victims by dividing the total number of reported shootings of White and Black victims between 2013 and 2017 by the average White or Black population of each city or state during the same time period. For the state-level study, we separately examined fatality rates for victims known to be armed (coded as "armed," "allegedly armed," or "vehicle") and those not known to be armed (coded as "unarmed" or "unclear"). The Black-White racial disparity in police shootings was calculated as the ratio of police-shooting rates for Black victims compared to White victims.

Measures of structural racism: For the state-level study,⁵² we developed an index to measure structural racism by combining and adapting two previous measures.⁵³ Our structural-racism index included two factors: (1) the level of racial residential segregation, operationalized as the average of the index of

⁵⁰ *Mapping Police Violence*, *supra* note 3.

⁵¹ See Ted R. Miller et al., *Perils of Police Action: A Cautionary Tale from US Data Sets*, 23 *INJ. PREVENTION* 27, 31 (2017) (concluding that firearm and police intervention statistics undercounted police shootings and arrest data).

⁵² Mesic et al., *supra* note 43, at 107.

⁵³ See Alicia Lukachko, Mark L. Hatzenbuehler & Katherine M. Keyes, *Structural Racism and Myocardial Infarction in the United States*, 103 *SOC. SCI. & MED.* 42, 45 (2014) (identifying state-level indicators of structural racism, including political participation, employment and job status, educational attainment, and judicial treatment); Adam McCann, *2020's States with the Most Racial Progress*, WALLETHUB (Jan. 14, 2020), <https://wallethub.com/edu/states-with-the-most-and-least-racial-progress/18428/#rankings-integration> [<https://perma.cc/B6JG-ZC6P>] (determining racial integration within states by analyzing employment and wealth, education, social and civic engagement, and health).

dissimilarity and the isolation index of the Black population in the state and calculated at the Census block level,⁵⁴ and (2) racial gaps in incarceration rates, educational attainment, employment status, and indicators of economic status.⁵⁵ The employment status indicators were unemployment rate and labor-nonparticipation rate. The economic status indicators were median household income, poverty rate, and proportion of persons living in rental housing. The index of dissimilarity and isolation index were calculated using block-level data from the 2010 Decennial Census. The other measures used averaged data from the U.S. Census Bureau's American Community Surveys from 2013 to 2017. The state-structural-racism index was calculated by averaging a state's scores in each of the five dimensions and then scaling the scores so that they range from zero to one hundred, with increasing values indicating higher levels of structural racism.

For the city-level study,⁵⁶ we used the index of dissimilarity of each city as the primary independent variable. We separately examined the effect of racial gaps in educational attainment, employment status, and indicators of economic status.

Statistical analysis: The outcome variable in the state-level study was the ratio of fatal-police-shooting rates of Black victims compared to White victims not known to be armed. Because of the much lower numbers of fatal police shootings at the city level, we could not separately examine fatality rates for armed and unarmed victims, so we modeled the ratio of total police-shooting rates for Black victims compared to White victims. When displayed in a histogram, the racial disparity in fatal-police-shooting rates among states and among cities was not normally distributed but was skewed toward the left, with many zeroes and low numbers and a rapidly declining number of observations as the disparity level increased, which is a typical distribution for a count

⁵⁴ See DOUGLAS S. MASSEY & NANCY A. DENTON, AMERICAN APARTHEID: SEGREGATION AND THE MAKING OF THE UNDERCLASS 23 (1998) ("Given racial breakdowns for ward populations, the percentage of blacks in the ward of the average black citizen can be computed. This average, known as the isolation index, measures the extent to which blacks live within neighborhoods that are predominantly black.").

The index of dissimilarity measures the degree to which the racial composition of the Census blocks in a state or city differs from that of the overall state or city. *Id.* at 20. The index of dissimilarity is measured on a scale of 0 to 100, with 0 representing perfect integration and 100 representing complete segregation. *Id.* at 23. The isolation index measures the probability that a Black person in a particular Census block will not encounter a non-Black person in that same block. The isolation index is also measured on a scale of 0 to 100, with 0 representing perfect integration and 100 representing complete isolation. *Id.*

⁵⁵ To derive an overall structural racism index, we combined a state's scores on residential segregation, gaps in incarceration, gaps in education, gaps in employment, and gaps in economic status. The index was scaled to go from 0 to 100, with higher scores indicating a higher level of structural racism. See Mesic et al., *supra* note 43, at 108.

⁵⁶ Siegel et al., *supra* note 41, at 581 (examining relationship between racial residential segregation and rates of fatal police shootings at city level).

variable.⁵⁷ In the state-level analysis, we used a regression analysis that is designed for count variables: a Poisson regression.⁵⁸ In the city-level analysis, we conducted a linear regression on the log of the racial disparity, as this transformed the outcome variable in a way that produced a near-normal distribution.

Control variables: In the state-level analysis, we controlled for the following state-level factors: total population, population density, percentage of Black residents, percentage of Hispanic residents, Gini coefficient (a measure of income inequality), median household income, nonhomicide violent crime rate, per capita number of police officers, proportion of the population living in an urban area, poverty rate, unemployment rate, divorce rate, incarceration rate, proportion of households with a firearm, overall rate of police shootings of Black victims in the state, and Black adult arrest rate.

In the city-level analysis, we controlled for the following city-level variables: degree of Black representation in the city's police force, size of the police force, murder rate, nonhomicide violent crime rate, property crime rate, percentage of Black residents, percentage of Hispanic residents, and overall population. In addition, to examine whether racial segregation was an independent predictor of racial disparities in fatal police shootings or whether it was merely an indicator for a lower level of economic resources, we controlled for the Black median household income and the proportion of Black people living in rental housing.

IV. RESULTS

A. Results

State-level analysis: Even after controlling for the overall rate of fatal police shootings of Black victims in a state and the Black adult arrest rate, the state structural racism index was positively and significantly related to the magnitude of the Black-White disparity in fatal-police-shooting rates of people not known to be armed.⁵⁹ Of the five dimensions within the overall structural racism index, three were significantly associated with the racial disparity in unarmed police shootings: the segregation index, the economic disparity index, and the employment disparity index.⁶⁰ By far, the factor that was most strongly associated with the magnitude of the racial disparity in unarmed police shootings was the segregation index. We found that for each increase of ten in the segregation index, there was a 67% increase in the magnitude of the racial disparity in unarmed-police-shooting rates.⁶¹ This indicates that due to its higher

⁵⁷ See Mesic et al., *supra* note 43, at 109.

⁵⁸ See *id.* at 109.

⁵⁹ Mesic et al., *supra* note 43, at 113 tbl.2 (displaying overall state racism index, consisting of segregation index, economic disparity index, employment disparity index, incarceration gap, and education attainment gap).

⁶⁰ *Id.*

⁶¹ *Id.* at 113.

degree of racial residential segregation, the ratio of fatal-police-shooting rates of Black unarmed victims compared to White unarmed victims in the state with the highest segregation index (New York, with a segregation index of 78.1) is predicted to be eight times higher than in the state with the lowest segregation index (Hawaii, with a segregation index of 37.3).⁶² The strongest individual predictor of the observed racial disparities was the index of dissimilarity, which alone explained one-third of the variation in the racial disparity in fatal-police-shooting rates of unarmed victims across the fifty states.⁶³

The results of the state-level study suggest that racial segregation is a strong predictor of the observed geographic variation in the racial disparity in fatal police shootings. We sought to confirm this by replicating the study at the city level. In addition, we explored the question of whether residential segregation solely explains the level of the racial disparity in fatal police shootings or whether it is the fact that segregation correlates with a lower level of economic status.

City-level analysis: Even after controlling for crime rates, differences in the racial composition of the police force, and the median income and rental housing status of the Black population in a city, the level of racial residential segregation was significantly and positively associated with the Black-White disparity in fatal-police-shooting rates.⁶⁴ For each one standard deviation increase in the index of dissimilarity, the ratio of Black to White fatal-police-shooting rates increased by 44%.⁶⁵ This indicates that due to its higher degree of racial residential segregation, the ratio of fatal-police-shooting rates of Black victims compared to White victims in the city with the highest level of racial segregation (Chicago, Illinois, with an index of dissimilarity of 87) is predicted to be four times higher than in the city with the lowest segregation index (Aurora, Colorado, with an index of dissimilarity of 42).⁶⁶

While this study found that residential segregation is a strong predictor of a city's racial disparity in fatal police shootings, the racial composition of a city's police force was not associated with this outcome.⁶⁷ The racial disparity was significantly higher in cities with a higher per capita police-force size, a higher percentage of Hispanic residents, and a lower percentage of Black residents.⁶⁸

B. *Other Studies*

Evidence from three other studies supports our research finding that residential racial segregation is strongly associated with racial disparities in the excessive use of force by police. Professors Brad W. Smith and Malcolm D.

⁶² *Id.*

⁶³ *Id.* at 113 tbl.2.

⁶⁴ Siegel et al., *supra* note 41, at 583-84 tbl.1.

⁶⁵ *Id.* at 585 tbl.2.

⁶⁶ *Id.* at 583-84 tbl.2.

⁶⁷ *Id.*

⁶⁸ *Id.*

Holmes studied factors associated with differences in the rate of resident complaints regarding excessive use of force by police officers across 218 large U.S. cities.⁶⁹ They found that “cities with extremely high levels of black segregation, which is closely tied to black disadvantage, have a far higher incidence of sustained excessive force complaints compared to less segregated cities.”⁷⁰ Professors William Terrill and Michael D. Reisig examined differences across neighborhoods in observations by trained researchers of the excessive use of force by police officers in Indianapolis, Indiana, and in St. Petersburg, Florida.⁷¹ They found that concentrated disadvantage—the presence of high levels of poverty and unemployment in racially segregated neighborhoods—was a significant predictor of higher rates of police use of excessive force.⁷² Professor Odis Johnson Jr. and his coauthors used data from crowdsourced databases of police killings to examine the rates of fatal interactions with police by race and gender among a national sample of neighborhoods, studying zip-code-level data in relation to characteristics of those neighborhoods.⁷³ They found that Black males were significantly more likely to be victims of a fatal interaction with a police officer in areas with a higher level of racial segregation.⁷⁴ The study also found that racial composition of the police force was not related to the probability of a fatal interaction with a police officer.⁷⁵ Professors David Jacobs and Robert M. O’Brien’s analysis of 170 cities revealed that cities with a higher Black population and greater levels of racial economic inequality experienced higher rates of killings of Black residents.⁷⁶

Although this Essay focuses on police shootings, it is important to point out that our research has also demonstrated that racial residential segregation is strongly associated with the Black-White racial disparity in *overall* rates of firearm homicide at the state level.⁷⁷ We found that the index of dissimilarity in a state predicts the ratio of Black to White firearm-homicide rates in that state, even after controlling for race-specific levels of incarceration, employment, and

⁶⁹ Brad W. Smith & Malcolm D. Holmes, *Police Use of Excessive Force in Minority Communities: A Test of the Minority Threat, Place, and Community Accountability Hypotheses*, 61 SOC. PROBS. 83, 89 (2014).

⁷⁰ *Id.* at 97.

⁷¹ William Terrill & Michael D. Reisig, *Neighborhood Context and Police Use of Force*, 40 J. RES. CRIME & DELINQ. 291, 292 (2003).

⁷² *Id.* at 291.

⁷³ Odis Johnson Jr. et al., *How Neighborhoods Matter in Fatal Interactions Between Police and Men of Color*, 220 SOC. SCI. & MED. 226, 229 (2019).

⁷⁴ *Id.* at 233 (“[R]acially mixed neighborhoods to some degree shield Black males from police homicides . . .”).

⁷⁵ *See id.* at 231 tbl.3.

⁷⁶ David Jacobs & Robert M. O’Brien, *The Determinants of Deadly Force: A Structural Analysis of Police Violence*, 103 AM. J. SOC. 837, 837 (1998).

⁷⁷ Mesic et al., *supra* note 43, at 113 (adding to existing literature, which also “found racial segregation to be significantly associated with Black-White disparities in overall homicide rates”).

economic status in a state.⁷⁸ For each ten percentage point increase in a state's index of dissimilarity, the ratio of Black to White firearm-homicide rates in that state increased by 40%.⁷⁹ This indicates that due to its higher degree of racial residential segregation, the ratio of firearm-homicide rates for the Black population compared to the White population in the state with the highest index of dissimilarity (Wisconsin, with an index of dissimilarity of 85.4) is predicted to be three times higher than in the state with the lowest segregation index (Hawaii, with an index of dissimilarity of 58.1).⁸⁰

C. *Synthesis of Findings*

Taken together, the findings of our research and other related studies suggest that structural racism—especially racial residential segregation—is the predominant reason why the Black-White racial disparity in fatal police shootings differs so dramatically across locations. Both residential segregation and racial gaps in economic resources and employment predict the magnitude of the racial disparity in fatal police violence in a geographic location. Simply put, the likelihood of a Black person being fatally shot by the police compared to the likelihood of a White person being fatally shot by the police appears not to be primarily a function of individual-level factors, such as implicit bias against Black individuals or the racial composition of the police force. Rather, the disparity appears to be primarily a function of: (1) the degree of historical structural racism in that location and (2) the degree to which Black people living in that location are segregated into neighborhoods with concentrated disadvantage.

In many ways, it appears that *current* racial disparities in police violence are determined by the power differential and use of that power to oppress and disadvantage Black people that occurred in the *past*, which has created neighborhood living situations that foster completely different patterns of policing. In other words, the presence and magnitude of systems that are rigged to benefit White people at the expense of Black people are responsible for the marked racial disparity that we now observe in the rates of fatal police violence. This is not merely an individual-level problem; it is a structural problem with the way we have constructed our society and our neighborhoods.

Racial disparities in police violence appear to be less related to individual biases than to the fact that a long history of structural racism in our cities has created what Professor Richard Thompson Ford refers to as “racially identified spaces,” which he defines as “physical space primarily associated with and

⁷⁸ Anita Knopov et al., *The Role of Racial Residential Segregation in Black-White Disparities in Firearm Homicide at the State Level in the United States, 1991-2015*, 111 J. NAT'L MED. ASS'N 62, 66 fig.1 (2019) (displaying relationship between average index of dissimilarity and average Black-White firearm homicide disparity ratio).

⁷⁹ *Id.* at 68 tbl.2 (displaying “[f]actors associated with the black-white disparity in firearm homicide rates at the state level”).

⁸⁰ *Id.* at 65-66 tbl.1.

occupied by a particular racial group.”⁸¹ These areas are policed differently in systematic ways; it is not simply that police officers are reacting in a different way to White people compared to Black people. Police behavior is fundamentally different in these neighborhoods precisely because the police in these neighborhoods have a fundamentally different view of racially identified spaces, including more negative images, less personal investment, and a higher level of perceived threat as soon as they enter that space.⁸² Professor David A. Klinger points out that this “territorial stereotyping” can result in officers having a more negative view of the residents in a neighborhood; in particular, officers may tend to “view citizens who live in higher crime areas as generally less worthy than those who reside in less crime-filled districts.”⁸³ As Professors Douglas S. Massey and Nancy A. Denton explain, racial segregation creates “uniquely disadvantaged environments that become progressively isolated—geographically, socially and economically—from the rest of society.”⁸⁴ That isolation extends to the relationship between these racially identified spaces and law enforcement officers.

There is abundant evidence that police officers view certain racially identified spaces—especially highly racially segregated neighborhoods that are predominantly comprised of Black residents—as inherently more threatening.⁸⁵

⁸¹ Richard Thompson Ford, *The Boundaries of Race: Political Geography in Legal Analysis*, in CRITICAL RACE THEORY: THE KEY WRITINGS, *supra* note 16, at 449, 450. Professor Hannah Cooper and her coauthors use the term “racialized risk environments” to denote the increased health risks that result from the racialization of neighborhoods: “Predominately Black and poor neighborhoods are stigmatized as ‘ghettoes,’ whereas predominately White neighborhoods are marketed as havens, regardless of resident class.” Hannah Cooper et al., *Population-Attributable Risk Percentages for Racialized Risk Environments*, 106 AM. J. PUB. HEALTH 1789, 1790 (2016).

⁸² See, e.g., DAVID H. BAYLEY & HAROLD MENDELSON, MINORITIES AND THE POLICE: CONFRONTATION IN AMERICA 88-99 (1969) (describing police reaction to perceived “cues to danger” across neighborhoods divided by socioeconomic class and race); Hyeyoung Lim, Lorie A. Fridell & Hoon Lee, *The Impact of Supervision and Neighborhood Context on Police Use of Less-Lethal Force: A Multi-level Analysis*, 14 J. POLICE STUD. 155, 174 (2014) (analyzing neighborhood-level variables); Nix et al., *supra* note 6, at 329 (describing police department efforts to “reduce bias through contact”); Douglas A. Smith, *The Neighborhood Context of Police Behavior*, 8 CRIME & JUST. 313, 329-33 (1986); Terrill & Reisig, *supra* note 71, at 307 (explaining disparate levels of force in different neighborhoods, including perceived danger, and “officers’ views towards neighborhoods”).

⁸³ David A. Klinger, *Negotiating Order in Patrol Work: An Ecological Theory of Police Response to Deviance*, 35 CRIMINOLOGY 277, 291 (1997).

⁸⁴ MASSEY & DENTON, *supra* note 54, at 3.

⁸⁵ An excellent review of the literature on the relationship between the context of a neighborhood and the excessive use of force by police is provided by Terrill and Reisig, who conclude that “everyone encountered in designated ‘bad’ neighborhoods assume[s] moral liability. In effect, the socioeconomic character of the area in which the police encounter the suspect may attach to the individual suspect, independent of the suspect’s personal characteristics or behavioral manifestations.” Terrill & Reisig, *supra* note 71, at 295.

Smith and Holmes argue that “spatially segregated minority populations are the primary targets of coercive control”⁸⁶ and that “simply entering disadvantaged minority neighborhoods may activate various emotional and cognitive processes that can trigger the use of excessive force by the police.”⁸⁷ They describe a process of “ecological contamination” by which “everyone encountered in such places is perceived as a potential threat. Whether symbolic or real, threats perceived by police may elicit emotions such as fear and anger. Emotional responses to aversive stimuli such as ‘dangerous’ neighborhoods and citizens play a major role in triggering aggression.”⁸⁸

Professor Douglas A. Smith has documented that police officers who work in highly segregated Black neighborhoods are much more likely to use excessive force against Black suspects in those areas compared to other neighborhoods in an otherwise similar urban environment.⁸⁹ Similarly, Professor Robert J. Kane demonstrated that the level of structural disadvantage of a neighborhood is a strong predictor of police misconduct in that neighborhood.⁹⁰ Furthermore, Terrill and Reisig found that the racial makeup of a neighborhood moderates the perceived threat level posed by minority suspects:

Perhaps officers do not simply label minority suspects according to what Skolnick termed “symbolic assailants,” as much as they label distressed socioeconomic neighborhoods as potential sources of conflict. If, as noted by Skolnick, officers tend to view minorities as individuals associated with an increased likelihood of violence, it may also be that officers apply a similar, and even more powerful, perceptual framework around geographic space. Within this context, the influence of so-called symbolic neighborhoods outweighs the perception of individual symbolic assailants with respect to how the police go about applying coercive forms of control.⁹¹

In an experimental study, Professors Kimberly Barsamian Kahn and Paul G. Davies found that simply exposing an individual to a racially identified space prior to a simulated shooting task significantly predicted the degree of racial bias

⁸⁶ Smith & Holmes, *supra* note 69, at 83.

⁸⁷ *Id.* at 86.

⁸⁸ *Id.* at 87 (citations omitted) (first citing Smith, *supra* note 82, at 338; then citing MALCOLM D. HOLMES & BRAD W. SMITH, RACE AND POLICE BRUTALITY: ROOTS OF AN URBAN DILEMMA 89 (2008); then citing Malcolm D. Holmes & Brad W. Smith, *Intergroup Dynamics of Extra-Legal Police Aggression: An Integrated Theory of Race and Place*, 17 *AGGRESSION & VIOLENT BEHAV.* 344, 349 (2012); and then citing LEONARD BERKOWITZ, *AGGRESSION: ITS CAUSES, CONSEQUENCE, AND CONTROL* 51-55 (1993)).

⁸⁹ See Smith, *supra* note 82, at 329.

⁹⁰ See Robert J. Kane, *The Social Ecology of Police Misconduct*, 40 *CRIMINOLOGY* 867, 867 (2002).

⁹¹ Terrill & Reisig, *supra* note 71, at 309 (citations omitted) (citing JEROME H. SKOLNICK, *JUSTICE WITHOUT TRIAL: LAW ENFORCEMENT IN DEMOCRATIC SOCIETY* 217 (3d ed. 1994)).

in shooting decisions.⁹² Racial bias was markedly greater when told a neighborhood was located in “South Central” as opposed to “Beverly Hills,” even though the scenarios were identical.⁹³ Synthesizing the literature, Professor Odis Johnson Jr. and his coauthors put it simply: “[O]fficers are more likely to use lethal force in areas where people of color are most concentrated.”⁹⁴

The actions of individual police officers in racially identified spaces may be influenced not only by their personal stereotypes but also by normative factors that influence the police collectively. Territorial stereotypes could result in greater use of force because “police malpractice may also come to be regarded as ‘normal’ within such settings as officers experience conflict and legitimacy problems between themselves and citizens.”⁹⁵ Moreover, there is evidence of contagion in police violence among officers who work the same neighborhoods.⁹⁶ This may also contribute to the normalization of police violence in racially identified spaces.

Not only is there evidence that individual police officer actions and police norms differ because of the nature of place, but there is also evidence that institutional policies and practices systemically differ based on the perceived racial identity of spaces. For example, Smith and Holmes cite multiple studies showing that “residents of minority neighborhoods are targeted for aggressive policing strategies.”⁹⁷ Professors Hannah L.F. Cooper and Mindy Fullilove note that “policing is inherently spatial, and law enforcement strategies associated with excessive police violence are more likely to be deployed in predominately impoverished Black and Latino neighborhoods than elsewhere.”⁹⁸ Because only a few of the largest U.S. cities explicitly address racial bias in their use of force

⁹² Kimberly Barsamian Kahn & Paul G. Davies, *What Influences Shooter Bias? The Effects of Suspect Race, Neighborhood, and Clothing on Decisions to Shoot*, 73 J. SOC. ISSUES 723, 731 (2017).

⁹³ *Id.* at 727.

⁹⁴ Johnson et al., *supra* note 73, at 233.

⁹⁵ Kane, *supra* note 90, at 871.

⁹⁶ See Horel et al., *supra* note 5, at 19-20.

⁹⁷ Smith & Holmes, *supra* note 69, at 87 (citations omitted) (citing respectively STEVE HERBERT, *POLICING SPACE: TERRITORIALITY AND THE LOS ANGELES POLICE DEPARTMENT* 95 (1997); VICTOR M. RIOS, *PUNISHED: POLICING THE LIVES OF BLACK AND LATINO BOYS* 5 (2011); SUDHIR ALLADI VENKATESH, *AMERICAN PROJECT: THE RISE AND FALL OF A MODERN GHETTO* 198 (2000); Rod K. Brunson & Jody Miller, *Young Black Men and Urban Policing in the United States*, 46 BRIT. J. CRIMINOLOGY 613, 613 (2006); William J. Chambliss, *Policing the Ghetto Underclass: The Politics of Law and Law Enforcement*, 41 SOC. PROBS. 177, 181 (1994); Richard Curtis, *The Improbable Transformation of Inner-City Neighborhoods: Crime, Violence, Drugs, and Youth in the 1990s*, 88 J. CRIM. L. & CRIMINOLOGY 1233, 1275 (1998)).

⁹⁸ Hannah L.F. Cooper & Mindy Fullilove, Editorial, *Excessive Police Violence as a Public Health Issue*, 93 J. URB. HEALTH S1, S5 (2016).

policies, targeted policy changes may be one step necessary to begin the process of changing the way minority neighborhoods are policed.⁹⁹

Based on these empirical findings, lessening racial segregation and pouring resources into neighborhoods to reduce income inequality are critical to reducing racial disparities in fatal police violence. In addition, structural change in the relationship between law enforcement officers and the neighborhoods they police is essential. Police officers and community members must “build relationships that are not defined by distrust and suspicion.”¹⁰⁰ As Richardson articulates, “The key to reducing racial violence is to transform current policing strategies and cultures that create an ‘us-versus-them’ mentality between officers and the non-white communities they police. . . . [B]uilding relationships between officers and the community can reduce racial violence.”¹⁰¹

In summary, there is strong evidence that police officers do not merely act differently because of the race of an *individual suspect* but because of the perceived racial identity of a *neighborhood*. Smith summarizes this ecological contamination theory succinctly, concluding that “the propensity of police to exercise coercive authority is not influenced by the race of the individual suspect per se but rather by the racial composition of the area in which the encounter occurs.”¹⁰² Implicit bias training would not address this problem, unless it is modified to provide officers with insights about their inherent biases towards the neighborhoods they serve. Johnson and his colleagues conclude that “racially mixed neighborhoods to some degree shield Black males from police homicides, and that . . . officers are more likely to use lethal force in areas where people of color are most concentrated.”¹⁰³

Taken together, the segregation results imply that our social commitment to living racially separate lives exacerbates the dilemma of racial/ethnic disparities in fatal interactions with police and that “police reforms will need to address officer perspectives about the composition of the neighborhoods they serve in order to eliminate these associations.”¹⁰⁴

CONCLUSION

The problem of police shootings has typically been viewed at the individual level; interventions, such as inherent-bias training, aim to alter the way police officers interact with Black *individuals*. The empirical evidence discussed in this Essay suggests that training and interventions that change the way police interact

⁹⁹ See Osagie K. Obasogie & Zachary Newman, *Police Violence, Use of Force Policies, and Public Health*, 43 AM. J.L. & MED. 279, 286 (2017) (finding “lack of substance and depth in conferring guidance, restriction, or description beyond the constitutional bare minimum” in police-force policies addressing racial bias among twenty largest U.S. cities).

¹⁰⁰ Richardson, *supra* note 34, at 2972.

¹⁰¹ *Id.* at 2972-73.

¹⁰² Smith, *supra* note 82, at 331-32.

¹⁰³ Johnson et al., *supra* note 73, at 233.

¹⁰⁴ *Id.* at 234.

with Black *neighborhoods* are needed. Efforts to ameliorate the problem of fatal police violence must move beyond the individual level and consider the interaction between law enforcement officers and the neighborhoods they police. Ultimately, countering structural racism itself, particularly in the form of racial segregation, is critical.

The most immediate implication for city officials is that inherent-bias training offered to police officers should include not only training in how they deal with individuals on account of race but also training in how they deal with entire neighborhoods based on the racial makeup of those neighborhoods. While the focus of police training has typically been related to the *person* and the *situation*, more attention needs to be given to the *place*. As Professor Emma E. Fridel, Keller G. Sheppard, and Gregory M. Zimmerman have pointed out, “It is therefore likely that types of places—in addition to types of people and situations—can stimulate police officers’ sense of danger, thereby increasing their likelihood of mitigating perceived threat with lethal force.”¹⁰⁵

At a somewhat deeper level, the entire relationship between police officers and the communities living in largely Black neighborhoods must be restructured. Police officers must invest in the neighborhoods they police. They must begin to see these neighborhoods in an entirely different way. They must learn to see not only the segregation, not only the disadvantage, but also the humanity, the resilience, the love, the strength, the hope, and the promise. At an even deeper level, cities must ultimately confront the fact that they have segregated their Black population into neighborhoods with concentrated disadvantage. This can be remedied only by programs designed to racially integrate neighborhoods (where the community favors such an approach) and otherwise to pour resources into segregated neighborhoods to repair the damage that has resulted from racial inequities.

¹⁰⁵ Emma E. Fridel, Keller G. Sheppard & Gregory M. Zimmerman, *Integrating the Literature on Police Use of Deadly Force and Police Lethal Victimization: How Does Place Impact Fatal Police-Citizen Encounters?*, J. QUANTITATIVE CRIMINOLOGY, Nov. 30, 2019, at 1, 2, <https://doi.org/10.1007/s10940-019-09438-5>.