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Violence and Police Diversity: A Call for Research

Mary D. Fan*

ABSTRACT

Deaths and protests in places where predominantly-white police forces patrol majority-black communities have focused the national spotlight on concerns over unrepresentative police Responding to the controversy, mayors and police chiefs in cities across the nation are announcing goals to hire more minority officers. But does police diversification actually reduce the risk of violence in police encounters? This Article addresses this timely question of legal and practical import to communities seeking to violence prevent and pursue policies that survive constitutional scrutiny.

Drawing on restricted-access Centers for Disease Control data and social-psychological insights, this Article shows that there is a good basis to hypothesize that police diversification has violence-prevention benefits, but further study is needed. This Article shows that as the nation's police forces have grown more diverse over the decades, the large racial disparity in the risk of deaths due to law enforcement has narrowed somewhat. Smaller-scale studies evaluating whether police diversification reduces the risk of deaths due to law enforcement have yielded mixed and null results. This Article argues that the failure to detect a significant effect is not fatal; the mixed and null findings are due to data limitations that obscure many cases of relevant harm. The quantitative data available from official sources is not sufficient to draw conclusions.

This Article is the first to propose the innovation of drawing on hospitalization data to address the oft-lamented lack of information on nonfatal injuries inflicted by police, opening a fresh avenue to investigate this important hidden issue.

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INTRODUCTION

Protests over police killings of unarmed black suspects drew national attention to places where majority-black communities are patrolled by predominantly-white police forces. A little-known place called Ferguson became a metaphor for concern over the use of force by unrepresentative police departments, as dramatic images of heavily-armored and primarily-white forces facing off against black

^{1.} E.g., Jeremy Ashkenas & Haeyoun Park, The Race Gap in America's Police Departments, INT'L N.Y. TIMES (Apr. 8, 2015), http://www.nytimes.com/interactive/2014/09/03/us/the-race-gap-in-americas-police-departments.html?_r=0; Emily Badger et al., Where Minority Communities Still Have Overwhelmingly White Police, WASH. POST (Aug. 14, 2014), http://www.washingtonpost.com/blogs/wonkblog/wp/2014/08/14/where-minority-communities-still-have-overwhelmingly-white-police/; Zachary Roth, Ferguson's Lack of Diversity Goes Way Beyond Its Cops, MSNBC (Aug. 14, 2014), http://www.msnbc.com/msnbc/ferguson-lack-diversity-goes-way-beyond-its-cops; Cory Shaffer, Cleveland vs. Ferguson: Two Police Shootings, THE PLAIN DEALER (Aug. 19, 2014), www.cleveland.com/metro/index.ssf/2014/08/ferguson_michael_brown_celvela.html.

community members beamed onto screens across the nation and the world.² Is Ferguson's stark racial contrast an anomaly? The answer is no—as President Barack Obama told the nation, this was "not just a Ferguson problem." A racially unrepresentative police force is not just a Ferguson phenomenon either. Despite changes in the composition and training of police forces over the decades, hundreds of cities still have substantial gaps between the proportion of minorities on the police force and the proportion of minority community members.⁴

Spurred by deaths and protests, police departments around the nation, including in Ferguson, are making efforts to hire more minority officers.⁵ But does police diversification actually help prevent violence in police encounters or address the heightened risk of death that minority community members face in police encounters?⁶ The question is of great practical and legal import. As a practical matter, communities and law enforcement agencies have a strong interest in preventing injuries and deaths in police encounters, rebuilding trust, and pursuing constitutionally defensible policies.

As a legal matter, race-conscious hiring is subject to strict scrutiny and must be narrowly tailored to meet a compelling

^{2.} See, e.g., Adam Taylor, How the Rest of the World Reacted to the Ferguson Verdict, WASH. POST (Nov. 25, 2014), http://www.washingtonpost.com/blogs/worldviews/wp/2014/11/25/how-the-rest-of-the-world-reacted-to-the-ferguson-verdict/ (discussing how Ferguson became "a focal point for the world's media[]" and a much-debated emblem of America's continuing racial tensions internationally as well as nationally).

^{3.} Gregory Korte, Obama: 'The Problem Is Not Just a Ferguson Problem,' USA TODAY (Nov. 25, 2014), http://www.usatoday.com/story/news/politics/2014/11/25/obama-ferguson-protests-immigration-speech/70111056/; see also, e.g., AMNESTY INTERNATIONAL, ON THE STREETS OF AMERICA: HUMAN RIGHTS ABUSES IN FERGUSON 4 (Amnesty Int'l Press, ed., 2014), http://www.amnestyusa.org/sites/default/files/onthestreetsofamerica amnestyinternational.pdf (describing the problems in Ferguson as emblematic of challenges elsewhere in the country).

^{4.} Ashkenas & Park, supra note 1; Badger et al., supra note 1.

^{5.} E.g., Meeting Minutes, Special Session, State of Kansas, Wyandotte County, City of Kansas, KS (Aug. 28, 2014) [hereinafter Kansas City Special Session] (on file with author); Yamiche Alcindor & Nick Penzenstadler, Police Redouble Efforts to Recruit Diverse Police Officers, USA TODAY (Jan. 21, 2015), http://www.usatoday.com/story/news/ 2015/01/21/policeredoubling-efforts-to-recruit-diverse-officers/21574081/; Shaila Dewan, Mostly White Forces in Mostly Black Towns: Police Struggle for Racial Diversity, N.Y. TIMES, Sept. 10, 2014, at A1; The Ferguson Riots: Overkill, ECONOMIST, Aug. 23, 2014, at 21.

^{6.} For a graphical illustration of the heightened risk of death that minority community members face compared to white community members, see *infra*, Section II.A., Figures 2 & 3.

governmental interest.⁷ Conclusory statements of good intention do not suffice to justify such practices.⁸ While strict scrutiny is not always "strict in theory, but fatal in fact," the stated justification for race-conscious practices must be firmly established by the evidentiary record.⁹

Formulated in the educational context to defend affirmative action programs, the diversity rationale justifies race-conscious preferences based on the benefits of having a diverse community, such as an enhanced educational experience. Much of the scholarly literature and court battles on the diversity rationale have focused on the educational context. Outside of the educational context, employment law scholars have explored whether the diversity rationale may also enter the workplace, thereby expanding the ability of employers regulated by Title VII's ban on employment discrimination to enact affirmative action policies. If police

^{7.} Adarand Constructors, Inc. v. Pena, 515 U.S. 200, 218 (1995); Petit v. City of Chicago, 352 F.3d 1111, 1114 (7th Cir. 2003).

^{8.} City of Richmond v. J.A. Croson Co., 488 U.S. 469, 500 (1989) (plurality opinion).

^{9.} Adarand, 515 U.S. at 237 (quoting Fullilove v. Klutznick, 448 U.S. 448, 519 (1980)).

^{10.} Grutter v. Bollinger, 539 U.S. 306, 330 (2003); Regents of the Univ. of Cal. v. Bakke, 438 U.S. 265, 312 (1978); Smith v. Univ. of Wash., 392 F.3d 367, 373 (9th Cir. 2004).

^{11.} E.g., Parents Involved in Cmty. Schs. v. Seattle Sch. Dist. No. 1, 551 U.S. 701, 703 (2007); Grutter, 539 U.S. at 330; Gratz v. Bollinger, 539 U.S. 244, 245 (2003); Johnson v. Bd. Regents of the Univ. of Ga., 263 F.3d 1234, 1252-53 (11th Cir. 2001); Hopwood v. Texas, 78 F.3d 932, 935 (5th Cir. 1996); Ian Ayres & Sydney Foster, Don't Tell, Don't Ask: Narrow Tailoring after Grutter and Gratz, 85 Tex. L. REV. 517, 541 (2007); Anita Bernstein, Diversity May Be Justified, 64 HASTINGS L.J. 201, 209 (2012); Lani Guinier, Commentary, Admissions Rituals as Political Acts: Guardians at the Gates of Our Democratic Ideals, 117 HARV. L. REV. 113, 173-76 (2003); Barbara Lauriat, Note, Trump Card or Trouble? The Diversity Rationale in Law and Education, 83 B.U. L. REV. 1171, 1173 (2003); Brian N. Lizotte, The Diversity Rationale: Unprovable, Uncompelling, 11 MICH. J. RACE & L. 625, 645-67 (2006); Angela Onwuachi-Willig, The Admission of Legacy Blacks, 60 VAND. L. REV. 1141, 1181-85 (2007); Reva B. Siegel, Equality Talk: Antisubordination and Anticlassification Values in Constitutional Struggles over Brown, 117 HARV. L. REV. 1470, 1538 (2004); Marcia G. Synnott, The Evolving Diversity Rationale in University Admissions: From Regents v. Bakke to the University of Michigan Cases, 90 CORNELL L. REV. 463, 469 (2005).

^{12.} E.g., Jessica Bulman-Pozen, Note, Grutter at Work: A Title VII Critique of Constitutional Affirmative Action, 115 YALE L.J. 1408, 1422-36 (2006); Kenneth R. Davis, Wheel of Fortune: A Critique of the "Manifest Imbalance" Requirement for Race-Conscious Affirmative Action Under Title VII, 43 GA. L. REV. 993, 999-1014 (2009); Cynthia L. Estlund, Putting Grutter to Work: Diversity, Integration, and Affirmative Action in the

diversification reduces the risk of violence in police encounters, this would be a powerfully compelling interest. Yet the sufficiency of the evidence for the assumption that police diversification can help reduce the risk of resorting to violence remains an open question in need of address.¹³

Moving beyond hope and assumptions, this Article addresses the question of whether police diversity actually protects against the risk of injury or death in law enforcement encounters. The Article is particularly timely as cities and their law enforcement agencies respond to calls for diversification of their forces in hopes that this might ameliorate the risk of violence. ¹⁴ Drawing on restricted-access Centers for Disease Control (CDC) data and social psychological insights, this Article shows that there is a good basis to hypothesize that police diversification has violence prevention benefits; however, further study is needed.

Smaller-scale studies have yielded mixed findings as to whether diversifying police forces with black officers, Hispanic officers, and female officers has any impact—or even an adverse impact—on the risk of a shooting by police. ¹⁵ This article analyzes the limitations of

Workplace, 26 BERKELEY J. EMP. & LAB. L. 1, 5–8 (2005); Tracy E. Higgins & Laura A. Rosenbury, Agency, Equality, and Antidiscrimination Law, 85 CORNELL L. REV. 1194, 1204 (2000); Patrick S. Shin & Mitu Gulati, Showcasing Diversity, 89 N.C. L. REV. 1017, 1027 (2011). But see Jared M. Mellott, Note, The Diversity Rationale for Affirmative Action in Employment After Grutter: The Case for Containment, 48 WM. & MARY L. REV. 1091, 1158 (2006); Ronald Turner, Grutter, The Diversity Justification, and Workplace Affirmative Action, 43 Brandels L.J. 199, 210–11 (2004); Rebecca Hanner White, Affirmative Action in the Workplace: The Significance of Grutter?, 92 Ky. L.J. 263, 265–69 (2003).

- 13. As David Alan Sklansky's important article on how the demographics of law enforcement have changed over the last decades noted, "[W]e simply do not know whether black officers, or minority officers more generally, bring a significantly different set of pertinent abilities and understandings to their work." David Alan Sklansky, Not Your Father's Police Department: Making Sense of the New Demographics of Law Enforcement, 96 J. CRIM. L. & CRIMINOLOGY 1209, 1225 (2006).
- 14. Kansas City Special Session, *supra* note 5, at 2–10; *The Ferguson Riots, supra* note 5, at 21; Dewan, *supra* note 5, at A1.
- 15. E.g., Joshua Correll et al., The Police Officer's Dilemma: Using Ethnicity to Disambiguate Potentially Threatening Individuals, 83 J. PERSONALITY & SOC. PSYCHOL. 1314, 1314–28 (2002); James J. Fyfe, Who Shoots? A Look at Officer Race and Police Shooting, 9 J. POL. SCI. & ADMIN. 367, 368–69 (1981); William A. Geller & Kevin J. Karales, Shootings of and by Chicago Police: Uncommon Crises, Part I: Shootings by Chicago Police, 72 J. CRIM. L. & CRIMINOLOGY 1813, 1826–64 (1981); James P. McElvain & Augustine J. Kposowa, Latino Officers and Their Involvement in Police Shootings, J. CRIMINOLOGY 1, 3–7 (2014), http://www.hindawi.com/journals/jcrim/2014/726492/abs/ [hereinafter, McElvain & Kposowa, Police Shootings]; James P. McElvain & Augustine J. Kposowa, Police Officer

existing empirical studies and argues that while there is insufficient direct evidence of a protective effect, it is too early to accept the null hypothesis of no beneficial effect. ¹⁶ The lack of a national database on police use of force has impeded the ability of investigators to study injuries due to law enforcement and curtailed the power to detect a significant effect due to small sample sizes and examination limited to subsets of harm and jurisdictions. ¹⁷

This Article presents restricted-access CDC data to reveal trends in the racially disproportionate distribution of deaths due to law enforcement over the decades, as police forces have grown more diverse. The graphs show that as police forces have grown more diverse, the disparity in the higher risk of black and Hispanic community members dying at the hands of law enforcement compared to whites has decreased. Further study is needed before any inferences may be drawn, but these portraits of trends are supplied in the spirit of hypothesis-generation. This Article presents a theoretical model drawing on social psychological findings regarding cross-race interactions and perceptions to explain how police diversification may reduce the risk of escalation to violence in police encounters. Encounters of the police encounters.

This Article concludes that ultimately the current state of quantitative data is not sufficient to draw any conclusions because a huge part of the picture of violence in police encounters is missing, limiting effective quantitative investigation. This Article proposes a methodological innovation for future studies to help shed light on the hidden issue of injuries incurred in police encounters.²¹ This project is the first to propose a new way to pierce the oft-lamented missing data problem when it comes to injuries of suspects in police encounters.²² The new approach draws on the interdisciplinary

Characteristics and the Likelihood of Using Deadly Force, 35 CRIM. JUST. & BEHAV. 505, 510–19 (2008) [hereinafter, McElvain & Kposowa, *Using Deadly Force*];. For a discussion, see infra Section I.B.

- 16. See infra Section I.B.
- 17. Id.
- 18. See infra Figures 1 & 2.
- 19. Id.
- 20. See infra Section II.B.
- 21. See infra Part III.

^{22.} For expressions of concern over the missing data problem, which limits the ability to study the extent and prevention of injuries to suspects in police encounters, see, e.g., James J. Fyfe, *Too Many Missing Cases: Holes in Our Knowledge About Police Use of Force*, 4 JUST. RES.

expertise of the rising field of epidemiological criminology, which applies the methods and insights from disease prevention to preventing violence and injury.²³ The goal is to prevent violence like a disease.²⁴ This Article discusses the value of using hospitalization data to study injuries due to law enforcement and addresses a problem obscured by lack of data.²⁵

This Article proceeds in three parts. Part I provides a legal and empirical grounding. Section I.A. provides legal background on the diversity rationale for race-conscious hiring and promotion policies. An assumed benefit—and a rationale of departments currently contemplating reform—is preventing injury or death in law enforcement encounters. Section I.B. discusses studies yielding mixed and null findings regarding whether police diversification actually offers a protective effect against the risk of violence in police encounters. Evaluating the limitations of these studies, this Part argues that it is too early to accept the null hypothesis of no effect.

Part II presents a circumstantial case for the violence-prevention aim to spur further empirical investigation and hypothesis building. Section II.A. graphs CDC-restricted data to reveal trends in the racial disproportionality in the distribution of deaths due to law enforcement during the period when police agencies began diversifying their officer ranks. The data from 1981 onward—the key period when agencies have diversified—reveals a downward trend in the racial disparity in the risk of death due to law enforcement. Section II.B. presents a theoretical model, drawing inferences from social-psychological findings about how police diversification may exert a beneficial effect.

Part III discusses future directions in adducing both direct and circumstantial evidence of a protective effect against the risk of violence. This Part proposes a methodological innovation, drawing on the interdisciplinary expertise of epidemiological criminology, to

[&]amp; POL'Y (SPECIAL ISSUE) 87, 87–98 (2002); David A. Klinger, On the Problems and Promise of Research on Lethal Police Violence: A Research Note, 20 HOMICIDE STUD. 78, 78–95 (2012).

^{23.} See, e.g., Timothy A. Akers & Mark M. Lainier, "Epidemiological Criminology": Coming Full Circle, 99 AM. J. Pub. HEALTH 397, 397–402 (2009) (explaining the interdisciplinary field of epidemiological criminology).

^{24.} See, e.g., David Polizzi & Mark M. Lanier, Crime as Dis-ease: Towards an Epidemiological Criminology of the Social Body, 25 S. AFR. J. CRIMINOLOGY 37, 37–49 (2012) (discussing the metaphor of crime as a disease).

^{25.} See infra Part III.

overcome the limitations of existing studies on whether police diversification protects against the risk of injury or death.

I. DIVERSITY AND RISK REDUCTION: LEGAL IMPORT, EMPIRICAL DOUBTS

Mayors, legislators and police leaders are championing police diversification after the national controversy over police use of force against minority community members—and retaliatory killing of police officers. ²⁶ As a police chief put it: "A lot of the issues we face as a police department—if we increase the diversity—I think are minimized." ²⁷ Part of the assumed benefits comes from optics: "when use-of-force incidents occur," departments with more minority officers "get the benefit of the doubt" because "[1]et's be honest: It's nice to have someone who looks like you show up to handle your call." ²⁸ Beyond hope, assumptions, and optics, does having more minority officers actually reduce the risk of violence? The question is of legal as well as social scientific import.

Law enforcement leaders and cities pursuing minority-preferential hiring and promotion policies may be held liable for compensatory and punitive damages to other candidates unless their practices pass strict scrutiny.²⁹ To pass strict scrutiny, governmental officials must build a sufficient evidentiary record establishing a compelling governmental interest and showing that the race-conscious policies are narrowly tailored to meet that interest.³⁰ If the assumption that police diversification reduces the risk of violence is correct, then this is a powerfully compelling governmental interest

^{26.} Kansas City Special Session, supra note 5, at 2–10; Dewan, supra note 5, at A1; The Ferguson Riots, supra note 5, at 21; Liz Robbins & Nikita Stewart, At Demonstrations, A Change in Tone After Officers Are Killed, N.Y. TIMES, Dec. 22, 2014, at A22.

^{27.} Roger Chesley, *Police Chiefs Need Officers and Diverse Pool of Recruits*, THE VIRGINIAN-PILOT (Aug. 17, 2013), http://hamptonroads.com/2013/08/police-chiefsneed-officers-and-diverse-pool-recruits#.

^{28.} Id. (quoting Chesapeake, Virginia Chief Kelvin Wright).

^{29.} See generally, e.g., Alexander v. City of Milwaukee, 474 F.3d 437, 441–45, 454 (7th Cir. 2007) (affirming a judgment of liability against a city and police commissioners for preferentially promoting blacks and women more quickly than white men though remanding for reconsideration of compensatory and punitive damages).

^{30.} See, e.g., City of Richmond v. J.A. Croson Co., 488 U.S. 469, 500 (1989) (plurality opinion) (noting that conclusory assertions are insufficient; there must be sufficient evidence of a compelling interest); Alexander, 474 F.3d at 445 (noting that there must be sufficient evidence that minority-preferential policies are narrowly tailored to meet the compelling interest).

that might justify race-conscious hiring and promotion practices.³¹ The challenge is building the evidentiary record and moving from assumption to empirical evidence. This Part begins by offering background on the rising import of the diversity rationale in the police recruitment, hiring, and promotion context. After the legal foundation is laid, the next Section turns to background on the empirical question and the sufficiency of evidence.

A. Surviving Strict Scrutiny Beyond the Remedial Rationale

Political will to diversify a police force is not enough to ensure success because there are high hurdles for recruiting, hiring, and promotion polices that take officer race into account.³² The Fourteenth Amendment's Equal Protection Clause prohibits state actors from denying "any person within its jurisdiction the equal protection of the laws."³³ To enforce this protection, race-based governmental decision-making is subject to strict scrutiny.³⁴ The Supreme Court has rejected the contention that strict scrutiny should only apply to classifications that disadvantage groups who bear the burden and history of societal discrimination.³⁵ Policies meant to benefit historically disadvantaged groups and "level the playing field" are also subject to strict scrutiny.³⁶ To survive strict scrutiny, race-conscious policies must be narrowly tailored to meet a compelling governmental interest.³⁷

Remedying the effects of past discrimination can be a compelling governmental interest—but only if policymakers satisfy exacting

^{31.} *Cf.*, *e.g.*, Petit v. City of Chicago, 352 F.3d 1111, 1114–17 (7th Cir. 2003) (applying the diversity rationale in evaluating a legal challenge to affirmative action in police promotion and hiring practices).

^{32.} E.g., Alexander, 474 F.3d at 444-45, 454; Cotter v. City of Boston, 323 F.3d 160, 168 (1st Cir. 2003).

^{33.} U.S. CONST. amend. XIV, § 1.

^{34.} Adarand Constructors, Inc. v. Pena, 515 U.S. 200, 218 (1995).

^{35.} Regents of Univ. of Cal. v. Bakke, 438 U.S. 265, 287–88 (1978) (noting "discrete and insular minorities" argument based on United States v. Carolene Products Co., 304 U.S. 144, 152 n.4 (1938)).

^{36.} E.g., Adarand, 515 U.S. at 218; Bakke, 438 U.S. at 287–88; see also, e.g., Coal. for Econ. Equal. v. Wilson, 122 F.3d 692, 712, 714 (9th Cir. 1997) (Norris, J., dissenting from denial of rehearing en banc) ("The proponents of affirmative action, responding on the level of social policy, would no doubt argue that such programs do in fact secure equality because they level the playing field by remedying the inequalities that are the product of the long history of state-sponsored discrimination that followed the Civil War.").

^{37.} Fisher v. Univ. of Tex.,133 S.Ct. 2411, 2417 (2013); Adarand, 515 U.S. at 235.

evidentiary requirements of proving past discrimination beyond "an amorphous claim that there has been past discrimination in a particular industry." Rather, the evidentiary record must establish discrimination by the particular agency or industry within the particular city. Evidence of discrimination within the industry generally, or in other jurisdictions, or in the nation generally, does not suffice—nor does evidence of low minority representation in the industry. For agencies voluntarily seeking to diversify, having to prove their own past wrongful discrimination is obviously a formidable disincentive.

Much of the integration of U.S. police departments during the 1980s and 1990s occurred in the wake of civil rights lawsuits resulting in a consent decree.⁴¹ Consent decrees can be vehicles for negotiated structural reform of governmental institutions.⁴² A strong body of research has found that affirmative action consent decrees have been a crucial driver of reducing the "representation gap" between the proportion of black police officers in a jurisdiction and the proportion of black community members.⁴³ The impact of many of the major consent decrees obtained in the 1970s began manifesting in the 1980s and 1990s because of the time-lag effect of remedial measures governing recruiting, hiring, and promotion.⁴⁴

Figure 1 maps the rise in the diversity of the nation's police forces over time. The graph shows the change in the ratio of black

^{38.} City of Richmond v. J.A. Croson Co., 488 U.S. 469, 499 (1989).

^{39.} Id. at 499-500.

^{40.} Id.

^{41.} Sklansky, supra note 13, at 1212.

^{42.} For a discussion, see, e.g., Maimon Schwarzschild, *Public Law by Private Bargain: Title VII Consent Decrees and the Fairness of Negotiated Institutional Reform*, 5 DUKE L.J. 887, 893–898 (1984) (discussing the popularity of negotiated consent decrees and affirmative action provisions of such decrees in the Title VII employment litigation context).

^{43.} See, e.g., William G. Lewis, Toward Representative Bureaucracy: Blacks in City Police Organizations, 1975-1985, 49 Pub. Admin. Rev. 257, 260–65 (1989); Justin McCrary, The Effect of Court-Ordered Hiring Quotas on the Composition and Quality of Police, 97 Am. Econ. Rev. 318, 336, 346 (2007) (finding that court-ordered integration played a major role in closing the representation gap in the large municipal police departments studied). But see Jihong Zhao & Nicholas Lovrich, Determinants of Minority Employment in American Municipal Police Agencies: The Representation of African American Officers, 26 J. CRIM. JUST. 267, 274 (1998) (presenting models finding that the significance of having an affirmative action program or Black leaders disappear after controlling for confounders and that increases in the African American population is the strongest predictor of the hiring of African American officers).

^{44.} Sklansky, supra note 13, at 1236.

officers to white officers and the ratio of Hispanic officers to white officers in a nationally representative sample of more than 2,850 law enforcement agencies. The data was extracted from the Law Enforcement Management and Administrative Statistics (LEMAS) program, which conducts a census of the demographics and practices of a nationally representative sample of general-purpose state and local police and sheriff's departments every three to four years.⁴⁵

As Figure 1 depicts, the ratio of black to white sworn officers has risen since 1987, the earliest available point for which law

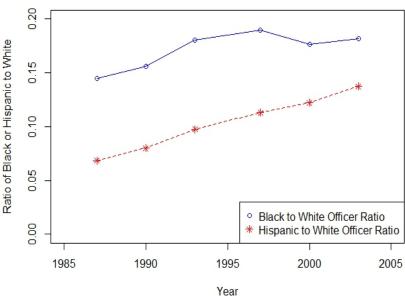


Fig. 1. Ratio of Black or Hispanic to White Sworn Officers: Nationally Representative Sample of Agencies

enforcement census data is available. The ratio of black to white officers peaked at around 1997 and then declined by 2000. In 2003, the ratio rose slightly from the dip in 2000, but did not regain its

^{45.} Law Enforcement Management and Administrative Statistics (LEMAS) 2007, 2003, 2000, 1997, 1993, 1990, 1987, BUREAU OF JUST. STAT., http://www.icpsr.umich.edu/icpsrweb/ICPSR/series/00092 (last visited Oct. 27, 2015). Data extraction and summation across all values of the sworn officer race variables were conducted using Stata and SAS statistical software. STATACORP, STATA STATISTICAL SOFTWARE: RELEASE 12 (2011); SAS INSTITUTE, SAS SOFTWARE, VERSION 9.4 (2013). Graphs were generated using the R language and environment for statistical computing. R FOUNDATION FOR STATISTICAL COMPUTING, R: A LANGUAGE AND ENVIRONMENT FOR STATISTICAL COMPUTING (2015).

1997 peak. It is noteworthy that in 1995, the Supreme Court decided *Adarand Constructors*, *Inc. v. Pena*, which firmly rejected a reduced standard of scrutiny for "benign" governmental programs meant to aid groups that have historically suffered discrimination.⁴⁶

The Court had issued conflict-ridden decisions before *Adarand*. In Regents of the University of California v. Bakke, the Court fractured without mustering enough consensus to provide an opinion of the Court.⁴⁷ Justice Powell's opinion announcing the Court's judgment rejected the argument that programs meant to benefit disadvantaged groups should not be subject to strict scrutiny.48 The Court again fractured without enough consensus to produce an opinion for the Court in Fullilove v. Klutznick, involving a federal program that set aside ten percent of awards for minorityowned businesses. 49 In Wygant v. Jackson Board of Education, a plurality of the Court held that "the level of scrutiny does not change merely because the challenged classification operates against a group that historically has not been subject to governmental discrimination."50 As Justice O'Connor noted in Adarand, "[t]he Court's failure to produce a majority opinion in Bakke, Fullilove, and Wygant left unresolved the proper analysis for remedial race-based governmental action."51

In the 1989 case of *City of Richmond v. J.A. Croson Co.*, five Justices finally agreed that strict scrutiny applied to all race-based classifications and "the standard of review under the Equal Protection Clause is not dependent on the race of those burdened or benefited by a particular classification"—even though Justice O'Connor's opinion so stating was only joined by three Justices.⁵² The fifth vote was supplied by Justice Scalia, who wrote in his concurrence that he agreed with Justice O'Connor's "conclusion that strict scrutiny must be applied to all governmental classification"

^{46.} Adarand Constructors, Inc. v. Pena, 515 U.S. 200, 239 (1995).

^{47. 438} U.S. 265 (1978).

^{48.} Id. at 287-88.

^{49. 448} U.S. 448 (1980).

^{50. 476} U.S. 267, 273 (1986) (plurality opinion).

^{51. 515} U.S. at 221 (citing United States v. Paradise, 480 U.S. 149, 166 (1987) (plurality opinion of Brennan, J.) ("[A]lthough this Court has consistently held that some elevated level of scrutiny is required when a racial or ethnic distinction is made for remedial purposes, it has yet to reach consensus on the appropriate constitutional analysis.").

^{52. 488} U.S. at 493–99 (opinion of O'Connor, J., joined by Rehnquist, C.J., White, J., and Kennedy, J.).

by race."53 Further sending states and localities confusing signals, a plurality in *Croson* dangled the possibility that a state or locality may pursue a program to address the effects of discrimination within its jurisdiction, but must offer "a strong basis in evidence for its conclusion that remedial action was necessary," and narrowly tailor its program to remedy such discrimination.⁵⁴

Moreover, in 1990, Justice Brennan secured a majority in *Metro Broadcasting, Inc. v. F.C.C.* to establish a more deferential standard of scrutiny for governmental programs that remedy the effects of society-wide discrimination.⁵⁵ The Court in *Metro Broadcasting* held that the interest in diversity in television broadcasting was "at the very least, an important governmental objective," justifying a program that gave minority-owned firms a preference in the award of radio and television broadcast licenses.⁵⁶ The *Adarand* majority overruled *Metro Broadcasting*'s reduced standard of scrutiny for "benign" racial classifications meant to help disadvantaged minorities.⁵⁷ The Court in *Adarand* held that "[m]ore than good motives should be required when government seeks to allocate its resources by way of an explicit racial classification system."⁵⁸

Figure 1 also depicts that the ratio of Hispanic to white officers has risen more steeply and steadily than the ratio of black to white officers. This trend must be interpreted in light of U.S. demographic trends. Between 1980 and 2000, the white population grew by 12.3% and the black population grew by 30.8%. ⁵⁹ In contrast, the Hispanic population expanded much more substantially, growing by 141.7%. ⁶⁰ The dramatic Hispanic population increase may be a major and more powerful driver of the Hispanic-to-white officer ratio trend line. In contrast, the black and white population growth trends are much more modest and commensurate.

^{53.} Id. at 520 (Scalia, J., concurring).

^{54.} *Id.* at 500, 508 (plurality opinion) (internal quotation marks and citation omitted).

^{55. 497} U.S. 547, 565-68 (1990), overruled by Adarand, 515 U.S. at 229.

^{56.} Id. at 567.

^{57.} Adarand, 515 U.S. at 226-33.

^{58.} Id. at 226 (quoting Drew S. Days, III, Fullilove, 96 YALE L.J. 453, 485 (1987)).

^{59.} Frank Hobbs & Nicole Stoops, Demographic Trends in the 20th Century: Census 2000 Special Reports 81 figs.3 & 7 (2002), http://www.census.gov/prod/2002pubs/censr-4.pdf.

^{60.} Id.

While the nation's police force as a whole is more diverse, the diversity is not evenly distributed. Large metropolitan areas under a consent decree generally have achieved more progress in closing the police representativeness gap between the proportion of minorities in the community and the proportion of minorities on the police force. Moreover, even in cities with consent decrees, the race-conscious hiring and promotion provisions of the decrees are expiring or facing legal challenges. 62

For the new wave of agencies voluntarily seeking to hire minority officers after Ferguson—as well as agencies with expiring consent decrees—the diversity rationale may be more palatable than building a record of agency discrimination. The diversity rationale justifies race-conscious practices in terms of the benefits provided by diversification such as enhancing the educational experience, introducing diverse viewpoints, and integration. While much of the litigation has occurred in the educational context, private employers subject to Title VII have been using the diversity rationale to justify race-conscious hiring. Though the vast majority of cases involving race-conscious hiring and promotion practices by police agencies involve the remedial rationale, the Seventh Circuit has ringingly

^{61.} See, e.g., McCrary, supra note 43, at 336, 346 (conducting analyses demonstrating that consent decrees have been a major driver in changing the degree of representativeness of police forces in a sample of large metropolitan areas); Badger et al., supra note 1 (examining police representativeness in cities across the United States) ("[M]any of America's biggest cities are hovering more closely around equality than others. These are the same cities where fierce battles were fought and federal lawsuits waged over unequal hiring practices after 1972, when amendments to the Civil Rights Act extended protection from discrimination to state and local government employers."); Dewan, supra note 5, at A1 (discussing the uneven diversification of police forces in American cities and the struggle of smaller cities to diversify).

^{62.} See, e.g., Vivenzio v. City of Syracuse, 611 F.3d 98, 99–103 (2d Cir. 2010); Rutherford v. City of Cleveland, 179 F. App'x 366, 367–71 (6th Cir. 2006); Cleveland Firefighters for Fair Hiring Pracs. v. City of Cleveland, 917 F. Supp. 2d 668, 670–73 (N.D. Ohio 2013); Cox v. City of Jackson, 343 F. Supp. 2d 546, 552–54 (S.D. Miss. 2004).

^{63.} Cf. City of Richmond v. J.A. Croson Co., 488 U.S. 469, 498–500 (1989) (holding that it is not enough to cite general societal discrimination, or discrimination elsewhere to invoke the remedial rationale).

^{64.} E.g., Fisher v. Univ. of Tex. at Austin, 133 S.Ct. 2411, 2418 (2013); Regents of the Univ. of Cal. v. Bakke, 438 U.S. 265, 307–09 (1978) (plurality opinion).

^{65.} See, e.g., PETER W. WOOD, DIVERSITY: THE INVENTION OF A CONCEPT 201–25, 257–70 (2003) (discussing examples); Michael L. Foreman, Kristin M. Dadey & Audrey J. Wiggins, The Continuing Relevance of Race-Conscious Remedies and Programs in Integrating the Nation's Workforce, 22 HOFSTRA LAB. & EMP. L.J. 81, 98–100 (2004) (discussing cases).

endorsed the value of diversity in policing.⁶⁶ The case involved the affirmative action policies of the Chicago Police Department—which initially adopted the remedial measures after a finding of past discrimination and the imposition of judicial oversight.⁶⁷

Independent of the remedial rationale, can the interest in police diversity be a compelling governmental interest? The Supreme Court has not examined the diversity rationale in the policing context. In dissent, however, former Supreme Court Justice Stevens posited that

in a city with a recent history of racial unrest, the superintendent of police might reasonably conclude that an integrated police force could develop a better relationship with the community and thereby do a more effective job of maintaining law and order than a force composed only of white officers.⁶⁸

Moreover, the national controversy over the deaths of minority suspects, which is spurring officials to announce police diversification goals, is also illuminating another potential compelling interest—reducing the risk of death or injury in police encounters. ⁶⁹ But does adding more minority officers actually reduce the risk of police encounters escalating to violence? The next Section discusses the mixed and null findings on the issue and the limitations of existing studies.

^{66.} See Petit v. City of Chicago, 352 F.3d 1111, 1114–17 (7th Cir. 2003) ("It seems to us that there is an even more compelling need for diversity in a large metropolitan police force charged with protecting a racially and ethnically divided major American city like Chicago. . . . We have previously recognized that a visible presence of minorities in supervisory positions is critical to effective policing in a racially diverse city like Chicago because supervisors 'set the tone for the department.' Equally important, the presence of minority supervisors is an important means of earning the community's trust: 'Effective police work, including the detection and apprehension of criminals, requires that the police have the trust of the community and they are more likely to have it if they have 'ambassadors' to the community of the same [race or] ethnicity.'") (quoting Reynolds v. City of Chicago, 296 F.3d 524, 529 (7th Cir. 2002)).

^{67.} For a history of the findings of discrimination and consent decree, see United States v. City of Chicago, 663 F.2d 1354, 1355–56, 1360–61 (7th Cir. 1981) (en banc).

^{68.} Wygant v. Jackson Bd. of Educ., 476 U.S. 267, 314 (1986) (Stevens, J., dissenting).

^{69.} Kansas City Special Session, *supra* note 5; Dewan, *supra* note 5, at A1; *The Ferguson Riots, supra* note 5.

B. From Assumption to Empirical Evidence: The Data Gap

While a substantial body of literature has illuminated socioeconomic factors associated with the use of force by officers, there is much less investigation of the impact of police diversification on the use of force. Scholars have highlighted how police use deadly force more often in communities with pronounced racial and economic stratification and in regions with a higher concentration of minorities. To Proponents of the "threat hypothesis" posit that officers act with greater violence to preserve the unequal distribution of power and prevent redistributive violence when there is strong economic and racial inequality or a large minority underclass. This "minority threat" thesis draws empirical force from findings that rates of police officers killing black community members are highest in jurisdictions with a larger concentration of black community members and a recent increase in black residents.

Socioeconomic inequalities by race have proved hard to dislodge over the decades.⁷³ In the search for other ways to reduce the risk of violence, reformers are looking to the diversification of police forces.⁷⁴ Yet there has been little empirical investigation of whether minority representation on the police force can help reduce the risk

^{70.} E.g., Mitchell B. Chamlin, Conflict Theory and Police Killings, 10 DEVIANT BEHAV. 353 (1989); James J. Fyfe, Police Use of Deadly Force: Research and Reform, 5 JUST. Q. 165 (1988); Malcolm D. Holmes, Minority Threat and Police Brutality: Determinants of Civil Rights Criminal Complaints in U.S. Municipalities, 38 CRIMINOLOGY 343 (2000); David Jacobs & Robert M. O'Brien, The Determinants of Deadly Force: A Structural Analysis of Police Violence, 103 Am. J. Soc. 837 (1998); Karen F. Parker et al., Racial Threat, Urban Conditions and Police Use of Force: Assessing the Direct and Indirect Linkages Across Multiple Urban Areas, 7 JUST. RES. & POL'Y 53 (2005); 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 (2014); Jonathan R. Sorensen et al., Factors Related to Killings of Felons by Police Officers: A Test of the Community Violence and Conflict Hypotheses, 10 JUST. Q. 417 (1993).

^{71.} E.g., Jacobs & O'Brien, supra note 70, at 837-50; Sorensen et al., supra note 70, at 417-23.

^{72.} Jacobs & O'Brien, supra note 70, at 837–45; Allen E. Liska & Jiang Yu, Specifying and Testing the Threat Hypothesis: Police Use of Deadly Force, in SOCIAL THREAT AND SOCIAL CONTROL 53 (Allen E. Liska ed., 1992).

^{73.} Jonathan Heathcote, Fabrizio Perri & Giovanni L. Violante, *Unequal We Stand: An Empirical Analysis of Economic Inequality in the United States, 1976–2006,* 13 REV. ECON. DYNAMICS 15, 15–18, 34–51 (2010); Edward N. Wolff, *Household Wealth Trends in the United States, 1983-2010,* 30 OXFORD REV. OF ECON. POL'Y 21, 21–24 (2014).

^{74.} Kansas City Special Session, supra note 5; Dewan, supra note 5, at A1; The Ferguson Riots, supra note 5.

of injuries or death to community members or officers. There is also mixed evidence regarding whether having more black leaders and police officers actually improves community trust.⁷⁵

The main study on police diversification and the risk of death due to law enforcement was based on 1990s data and limited consideration to large cities over 100,000 in population ⁷⁶—leaving out jurisdictions such as Ferguson, Missouri (population 21,111). ⁷⁷ This is a significant limitation because there is some preliminary indication—albeit in need of further investigation—that the greatest gaps between the population proportion of minorities and the proportion of minorities on the police force occur in smaller metropolitan areas. ⁷⁸ In contrast, larger cities have achieved more success in diversification. ⁷⁹

Ultimately, the study did not detect a significant association between the black or Hispanic representativeness of the police force and the number of homicides.⁸⁰ Rather, the strongest consistent association the study found was between the proportion of black residents in the city and the risk of homicide by law enforcement—again confirming the "minority threat" hypothesis widespread in sociological literature.⁸¹

^{75.} See, e.g., Melissa Marschall & Paru R. Shah, The Attitudinal Effects of Minority Incorporation: Examining the Racial Dimensions of Trust in Urban America, 42 URB. AFF. REV. 629, 645 (2007) (finding that having black leaders did not affect black community members' trust in their local government or local police even though having black leaders was correlated with a greater likelihood of having more black sworn officers); Weitzer, infra note 120, at 316–22 (reporting mixed survey findings on perceptions of black officers, including some residents' views that black officers are harder on black community members); Ronald Weitzer, Steven A. Tuch & Wesley G. Skogan, Police-Community Relations in A Majority-Black City, 45 J. RES. IN CRIME & DELINQ. 398, 401–08, 412–19 (2008) (reporting on differing trends in perceptions of minority-led police forces and officers based on the interaction of age, gender, race, and class).

^{76.} Brad W. Smith, The Impact of Police Officer Diversity on Police-Caused Homicides, 31 POL'Y STUD. J. 147, 155 (2003).

^{77.} State and County QuickFacts, Ferguson (city), Missouri, U.S. CENSUS BUREAU, (Feb. 5, 2015), http://quickfacts.census.gov/qfd/states/29/2923986.html.

^{78.} Ashkenas & Park, *supra* note 1; Badger et al., *supra* note 1; Dewan, *supra* note 5, at A1 (discussing the uneven diversification of police forces in American cities and the struggle of smaller cities to diversify).

^{79.} Dewan, supra note 5, at A1.

^{80.} Smith, *supra* note 76, at 155–59.

^{81.} *Id.* at 157–58. The level of community violence was also an important factor for cities with populations of more than 100,000 but less than 250,000. *Id.* at 158. In cities with populations of more than 250,000, however, community violence was not a significant

The only significant association the study detected between officer demographics and police killings was contrary to the author's hypothesis, and related to female officers. The analysis found that in cities with populations greater than 100,000 but less than 250,000, having a higher proportion of female officers was actually associated with a heightened risk of suspect killings by police. The author speculated that this may be because female officers in midsize cities work in departments that tend to have fewer females and therefore may be under greater pressure to "act more aggressively than male rookies to establish their willingness and ability to use force and thus gain acceptance."

Another plausible explanation for the finding regarding female officers is the multiple comparisons problem. The multiple comparisons problem refers to the risk of a false discovery of a seemingly statistically significant, but spurious, association by chance. This can happen if analysts perform repeated tests for associations on various subsets of data and predictors. South repeated searches for associations inflate the risk of a type 1 error—the risk of concluding there is an association when there really is not one. While the authors did not address the multiple comparisons problem, it is a risk, especially in studies where the data is sliced and diced by subsetting and searching for statistical significance.

Ultimately, while the study was an intriguing early foray, the scope and power of the study was limited by examining just homicides in large cities, excluding jurisdictions like Ferguson, and leaving out nonfatal injuries. Power is used here in two senses—the

predictor while the proportion of black residents became an even stronger predictor of the risk of homicides by police. *Id*.

^{82.} Id. at 158.

^{83.} Id.

^{84.} *Id.* (discussing the study of female police officers by Jennifer Hunt, *Police Accounts of Normal Force*, 4 URB. LIFE 315, 319 (1985)).

^{85.} See, e.g., Yoav Benjamini et al., Controlling the False Discovery Rate in Behavior Genetics Research, 125 BEHAV. BRAIN RES. 279, 279–81 (2001) (discussing the problem in the context of genetics research); Robert J. Cabin & Randall J. Mitchell, To Bonferroni or Not to Bonferroni: When and How Are the Questions, 81 BULL. ECOL. SOC'Y OF AM. 246, 246–48 (2000) (discussing corrections for the risk of error); Kenneth F. Schulz & David A. Grimes, Multiplicity in Randomised Trials II: Subgroup and Interim Analyses, 365 THE LANCET 7, 7–10 (2005) (discussing concerns over false-positives from testing too many subgroups).

^{86.} Ralf Bender & Stefan Lange, Adjusting for Multiple Testing-When and How?, 54 J. CLINICAL EPIDEMIOLOGY 343, 343–48 (2001); William R. Rice, Analyzing Tables of Statistical Tests, 43 EVOLUTION 223, 223–25 (1989).

ordinary meaning of limited impact, and the statistical sense of the reduced ability of a study to detect a significant effect, even if there actually is one.⁸⁷ Statistical power can be severely reduced by missing too many cases of relevant harm, so that the pool of outcomes to analyze is small.⁸⁸ Because many serious injuries may not prove fatal due to advances in medical trauma care, the focus on deaths leaves out many cases of relevant harm, including assaults or other forms of injury that do not become homicides.⁸⁹ Further investigation is needed, particularly as debates flare over representative policing, and as evidence mounts regarding cross-race implicit biases in the use of force.

There is a growing body of evidence from laboratory testing using simulations that black individuals are more likely to be perceived as dangerous and shot due to implicit associations of blacks with crime and danger. 90 Implicit biases are unconsciously held attitudes and stereotypes that may manifest in task performance

^{87.} For a concise discussion of statistical power, see, e.g., Jacob Cohen, *Statistical Power Analysis*, 1 CURRENT DIRECTIONS IN PSYCHOL. SCI. 98, 98–100 (1992).

^{88.} This is further aggravated in the study of relatively rare events, such as injury resulting in death inflicted by police. For a discussion, see, e.g., Gary King & Langche Zeng, Logistic Regression in Rare Events Data, 9 POL. ANALYSIS 137, 138–39, 142 (2001).

^{89.} See, e.g., Anthony R. Harris et al., Murder and Medicine: The Lethality of Criminal Assault 1960-1999, 6 HOMICIDE STUD. 128, 128–55 (2002) (discussing the impact of improvements in medical care in transforming what formerly would be murders into assaults because the victim's life is saved by trauma care).

^{90.} Joshua Correll et al., Across the Thin Blue Line: Police Officers and Racial Bias in the Decision to Shoot, 92 J. PERSONALITY & SOC. PSYCHOL. 1006, 1015 (2007) (finding that subjects drawn from the community were more "trigger-happy" with black targets than white targets but trained officers made more accurate judgments and had less or no bias in decisions regarding whether to shoot; but all subjects showed bias in their response times); Joshua Correll et al., The Police Officer's Dilemma: Using Ethnicity to Disambiguate Potentially Threatening Individuals, 83 J. Personality & Soc. Psychol. 1314, 1325 (2002) [hereinafter Correll et al., The Police Officer's Dilemma] (using a video simulation to evaluate the impact of race on the likelihood of being shot and finding that participants faced with making quick decisions were more likely to mistakenly unarmed black persons than white persons); Anthony G. Greenwald et al., Targets of Discrimination: Effects of Race on Responses to Weapons Holders, 39 J. EXPERIMENTAL SOC. PSYCHOL. 399, 403-05 (2003) (finding using a virtual reality simulation that unarmed blacks were incorrectly shot at higher rates than whites and objects were held by blacks were more likely to be perceived as weapons); E. Ashby Plant & Michelle B. Peruche, The Consequences of Race for Police Officers' Responses to Criminal Suspects, 16 PSYCHOL. SCI. 180, 181-83 (2005) (finding that law enforcement officers tested in a simulation were more likely to shoot unarmed black suspects than white suspects but training ameliorated this effect).

tests, despite consciously denied biases.⁹¹ While laboratory data focusing on the implicit attitudes of black subjects are more limited than the studies on white subjects, there is some evidence that blacks harbor less anti-black implicit bias than whites—albeit while still showing a weak preference for whites over blacks.⁹² In laboratory testing of the likelihood to shoot a suspect, however, there is also evidence of similar levels of implicit bias between black and white subjects.⁹³

Outside the lab, studies of on-the-ground behavior have yielded mixed findings as to whether women or men are more likely to shoot, whether Hispanic or non-Hispanic officers are more likely to shoot, and whether black or white officers are more likely to shoot.⁹⁴ Because of the lack of a national database on law enforcement use of force, such studies have tended to focus on

^{91.} Anthony G. Greenwald & Linda Hamilton Krieger, *Implicit Bias: Scientific Foundations*, 94 CAL. L. REV. 945, 951 (2006); Brian A. Nosek et al., *Harvesting Implicit Group Attitudes and Beliefs from a Demonstration Web Site*, 6 GROUP DYNAMICS: THEORY, RES. AND PRAC. 101, 102 (2002).

^{92.} Greenwald et al., *supra* note 90, at 401–05; Greenwald & Krieger, *supra* note 91, at 956–58; Robert W. Livingston, *The Role of Perceived Negativity in the Moderation of African Americans' Implicit and Explicit Racial Attitudes*, 38 J. EXPERIMENTAL SOC. PSYCH. 405, 406–13 (2002); Nosek et al., *supra* note 91, at 104–12.

^{93.} Correll et al., The Police Officer's Dilemma, supra note 90, at 1327.

^{94.} Compare McElvain & Kposowa, Using Deadly Force, supra note 15, at 515 (finding, in a Riverside County sample of officer-involved shootings, that white officers were more likely to shoot a suspect than Hispanic officers, and male officers were more likely than female officers to shoot a suspect), with McElvain & Kposowa, Police Shootings, supra note 15, at 8 (finding in a study of Southern California's largest sheriff's department that, as the number of Latino officers increased in the department, "their involvement in shootings actually outpaced their rising population in the department, while that of white officers remained relatively stable or decreased. Latino officers were involved in shootings at a much higher rate than their population growth in both the county and the department"), and Smith, supra note 76, at 158 (finding in cities of populations between 100,000 and 250,000, having more female officers was associated with a greater likelihood of officers killing suspects). See also James J. Fyfe, Who Shoots? A Look at Officer Race and Police Shooting, 9 J. POL. SCI. & ADMIN. 367, 378-81 (1981) (finding that black officers were more likely to shoot, but this was likely due to racial patterns of assigning minority officers to disadvantaged communities with higher rates of violent crime); William A. Geller & Kevin J. Karales, Shootings of and by Chicago Police: Uncommon Crises, Part I: Shootings by Chicago Police, 72 J. CRIM. L. & CRIMINOLOGY 1813, 1866 (1981) (finding in an analysis of shootings by officer race, that while on-duty, "officers of each race shoot approximately as often as might be expected from their representation on the police force").

officer-involved shootings in one jurisdiction, such as a county sheriff's department or city police department.⁹⁵

Research from the earlier days of police diversification, based on 1970s and 1980s data, found that black officers shot suspects at similar or even greater rates compared to white officers—though the higher rates may be due to the assignment of minority officers to disadvantaged communities with higher rates of violent crime. 96 A study of officer-involved shootings in Riverside County found that white officers were more likely to shoot at suspects than Hispanic officers.97 Yet a study of shooting trends during a period of rapid diversification in one of Southern California's largest sheriff's department found that Latino officer involvement in police shootings grew at a much faster rate than the population growth of Latinos. 98 In contrast, during the same time period, the involvement of white officers in shootings remained stable or decreased.99 However, the study did not consider or adjust for whether Latino officers were assigned to communities with a greater level of violence.100

In sum, studies on whether police diversification protects against violence have yielded mixed or null results; however, the studies are greatly limited in their power to detect an effect because of the lack of a national database on injuries of suspects in police encounters. ¹⁰¹ The forays into studying the important question of whether police diversification reduces the risk of violence have been salutary, early steps. Much more needs to be done. It still remains a mystery whether adding more minority officers contributes to violence prevention. ¹⁰²

^{95.} E.g., Geller & Karales, supra note 94, at 1826 (Chicago Police Department); McElvain & Kposowa, Using Deadly Force, supra note 15, at 510 (Riverside County Sheriff's Department); McElvain & Kposowa, Police Shootings, supra note 15, at 2 (Southern California's largest sheriff's department).

^{96.} Fyfe, supra note 94, at 378-81; Geller & Karales, supra note 94, at 1866.

^{97.} McElvain & Kposowa, Using Deadly Force, supra note 15, at 517.

^{98.} McElvain & Kposowa, Police Shootings, supra note 15, at 8.

^{99.} Id.

^{100.} Id.

^{101.} See discussion infra notes 89-91.

^{102.} Cf. Sklansky, supra note 13, at 1225 ("[W]e simply do not know whether black officers, or minority officers more generally, bring a significantly different set of pertinent abilities and understanding to their work.").

To address this puzzle, Part II presents trends in disproportionate mortality ratios and draws on findings from social psychology to build an inferential case for the police diversity rationale. Part III proposes an innovation for future studies, to address the lack of a national database of law enforcement use of force and to better develop direct evidence.

II. MODEL-BUILDING: POLICE DIVERSITY AND VIOLENCE PREVENTION

Racial disproportionality in the risk of being slain by police haunts the controversy over police uses of fatal force. At least 5,424 people died at the hands of law enforcement officers between 2000 and 2012—categorized by the Centers for Disease Control (CDC) as mortality due to "legal intervention." ¹⁰³ Bureau of Justice Statistics data indicate that nearly a third of people who died due to arrest-related homicide between 2003 and 2009 were black 104-2.3 times the proportion of black individuals in the U.S. population in 2010. 105 These figures do not capture the full extent of morbidity or mortality because data collection on fatal use of police force is incomplete, and there is no national data collection effort regarding suspects who are injured but do not die. 106 Even if incomplete, the best available data reveals a pronounced disproportionality for black Americans in the distribution of deaths at the hands of law enforcement officers. Racial inequality in the distribution of deaths due to law enforcement is well known—particularly after national

^{103.} Injury Prevention and Control: Data and Statistics (WISQARS™), CTR. FOR DISEASE PREVENTION & CONTROL, http://www.cdc.gov/injury/wisqars/fatal_injury_reports.html [hereinafter CDC] (last updated Jan. 22, 2015) (follow "Fatal Injury Reports 1999-2013 for National, Regional, and States (RESTRICTED)*" hyperlink).

^{104.} Andrea M. Burch, Bureau of Justice Statistics, Arrest-Related Deaths, 2003-2009 – Statistical Tables 6 tbl.6 (U.S. Dept. of Just. ed., 2011). While the category of arrest-related deaths due to homicide includes homicides by law enforcement and other persons, 96.4% of all arrest-related deaths due to homicide between 2003 and 2009 involved slayings by law enforcement officers. Of arrest-related homicides, 31.7% of the deceased were black. *Id.*

^{105.} Sonya Rastogi et al., U.S. Census Bureau, The Black Population: 2010 2, 4 (2011). The proportion of people reported as black alone or in combination with another race in 2010 was 13.6%. Using the 2000 proportions, the disproportionality is even greater, at a 2.5 higher proportion, because the percentage of people reporting as black alone or in combination was 12.9% in 2000. *Id.*

^{106.} Klinger, *supra* note 22, at 78–83.

protests over killings in Ferguson, Cleveland, New York, and elsewhere.¹⁰⁷

Less well known, but also striking, are the time trends in the disparity ratios regarding the risks of deaths, due to law enforcement, among minorities compared to whites. An analysis of several decades of CDC restricted data reveals that the racial disparity in the distribution of deaths has been decreasing as police forces have diversified. Examining time trends is more revealing than looking at a single snapshot in time of disproportionality, because it captures how disproportionality may be improving over the decades. This Part begins by showing trends in the distribution of deaths by race over the decades, and then proposes a theoretical model built on social-psychological findings about how diversification might reduce the risk of escalation to violence.

A. Trends in Racially Disproportionate Mortality Ratios

As Figure 1 depicts, the nation's police forces have grown more diverse over the last decades since the 1980s. 109 As agencies have added more minority officers, what has happened with the racial distribution in deaths due to law enforcement? Figure 2 shows the time trends in the racial disparity ratios for deaths due to law enforcement. The racial disparity ratios compare the rate of deaths due to law enforcement among blacks to the rate for whites. 110 A similar racial disparity ratio is also calculated and graphed for Hispanics. 111 The graph is based on age-adjusted rates to account for the different distribution of ages among blacks, whites and Hispanics

^{107.} See, e.g., Michael Wines, Are Police Bigoted?, N.Y. TIMES, Aug. 31, 2014, at SR1 ("If anything good has come out of this month's fatal shooting of Michael Brown in Ferguson, Mo., it is that the death of the black teenager shined a spotlight on the plague of shootings of black men by white police officers."). But see Klinger, supra note 22, at 78–83 (noting the lack of reliable numbers on police shootings renders estimates difficult).

^{108.} See infra Figures 2 & 3.

^{109.} See supra, Section I.A., Figure 1 and note 45.

^{110.} The most recently available age-adjusted rates were obtained from the CDC's Fatal Injury Reports (Restricted). CDC, *supra* note 103. The ratios were calculated by dividing the age-adjusted mortality rate for blacks by the age-adjusted mortality rate for whites.

^{111.} Similarly, the most recently available age-adjusted rates for Hispanics were obtained from the CDC's Fatal Injury Reports (Restricted). *Id.* The ratios were calculated by dividing the age-adjusted mortality rate for Hispanics by the age-adjusted mortality rate for whites.

and the fact that Hispanic and black populations tend to have a higher distribution of young people. 112

Halacks/Non-Hispanic Whites Hispanic/Non-Hispanic Whites Hispanic/Non-Hispanic Whites

Fig. 2. Racial Disparity Ratios, Deaths Due to Law Enforcement:
Black and Hispanic Compared to Non-Hispanic White

As Figure 2 depicts, the racial disparity ratios for law enforcement killings of blacks and Hispanics show a general downward trend over the last decades since the 1980s, as police forces diversified. The curves map yearly data. From year to year there are fluctuations, but the overall trend remains downward after 1980—the period when the effects of diversification consent decrees were expected to manifest.¹¹³ The fluctuations are to be expected because of the lack of comprehensive mandatory reporting of law enforcement uses of force, and the risk of substantial underreporting of mortality due to law enforcement by agencies.¹¹⁴

Year

Figure 3 shows the age-adjusted rates of death for each racial group. As depicted, the age-adjusted death rates have been most

^{112.} See, e.g., Jeffrey S. Passel, Gretchen Livingston & D'Vera Cohn, Explaining Why Minority Births Now Outnumber White Births, PEW RES. CTR. (May 17, 2012), http://www.pewsocialtrends.org/2012/05/17/explaining-why-minority-births-now-outnumber-white-births/#population-patterns (discussing how minority populations in the United States tend be younger than the white population).

^{113.} See discussion supra Section I.A.

^{114.} *Cf.* Fyfe, *supra* note 22, at 87–98 (discussing data availability and reporting challenges); Klinger, *supra* note 22, at 78–95 (expressing similar concerns).

elevated for blacks and lowest for non-Hispanic whites. Calculations based on CDC data indicate that between 2000 and 2012, black community members suffered 2.8 times the age-adjusted rate of being slain by a law enforcement officer compared to non-Hispanic whites (180% higher death rate).¹¹⁵

Age-Adjusted Mortality Rate Per 100,000 Persons 0.5 + Black Hispanic Non-Hispanic White 4 0.3 0.2 0. 0.0 1980 1985 1990 1995 2000 2005 2010 Year

Fig. 3. Age-Adjusted Rates of Death Due to Law Enforcement by Race and Year

As Figure 3 shows, Hispanics are also at greater risk of being slain by police compared to non-Hispanic whites. Calculations based on CDC data indicate that between 2002 and 2012, Hispanics had 1.8 times the age-adjusted rate of death by law enforcement compared to non-Hispanic whites (80% higher death rate). ¹¹⁶ Bureau

^{115.} The ratio of age-adjusted rates of death by law enforcement per 100,000 of the population for black community members to non-Hispanic white community members is 0.28/0.10, or 2.8. The most recently available age-adjusted rates were obtained from the CDC's Fatal Injury Reports (Restricted). CDC, *supra* note 103.

^{116.} The age-adjusted rate of deaths by law enforcement for Hispanic whites from 2010-2012 was 0.19. The overall age-adjusted rate for Hispanic whites, Hispanic blacks, and Hispanic Native Americans was 0.18. CDC, *supra* note 103.

of Justice Statistics (BJS) data indicates that about 20% of people who died due to arrest-related homicides between 2003 and 2009 were Hispanic.¹¹⁷ In contrast, the proportion of Hispanics in the United States was 12.5% in 2000 and 16.3% in 2010.¹¹⁸ While racial disproportionality in deaths is often portrayed as a black-white issue, the availability data suggests that there must also be greater scrutiny of whether Hispanics are at heightened risk of being injured or killed in a police encounter.

These trends data are offered in the spirit of hypothesis-generation and model-building to spur further investigations. To date, no study has examined the impact of police diversification on the risk of deaths due to law enforcement using post-1990s mortality data nor examined cities with populations of less than 100,000 as well as larger cities. The goal is to show that these longer trends in the relative risks of death due to law enforcement are worth investigating—particularly in light of the theoretical model framed in the next section regarding why non-representative police forces may be at heightened risk for escalation to violence in a police encounter.

B. Danger Management and the Diversity Rationale

The bodies of literature on perceptions of policing, cross-racial interactions, and the risk of inaccurate perceptions offer fertile grounds for building a model regarding the process behind the heightened risk of escalation to violence when police forces are unrepresentative. For perceptions of police at the community level, qualitative research has illuminated how minority communities perceive a seemingly all-white police presence as an "occupation force" that "would seem to personify White domination over poor Black people," and create the feel of a "slave neighborhood." ¹²⁰

At the level of cross-racial individual interactions, there is a growing body of evidence that both dominant-group members and minority, or "devalued" group members, show signs of stress and

^{117.} BUREAU OF JUSTICE STATISTICS, supra note 104, at 6 tbl.6.

^{118.} Sharon R. Ennis et al., U.S. Census Bureau, The Hispanic Population: $2010\,2,4\,(2011)$.

^{119.} See discussion supra Section I.B.

^{120.} Ronald Weitzer, White, Black, or Blue Cops? Race and Citizen Assessments of Police Officers, 28 J. CRIM. JUST. 313, 320 (2000).

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impaired performance in cross-racial interactions.¹²¹ Implicit attitudes also can influence nonverbal behaviors in interracial interactions, for example, manifesting in higher rates of blinking and less eye contact due to negative arousal and tension.¹²² Such nonverbal behaviors betray internal tension and aversion and heighten the level of mistrust and anxiety in an interracial interaction.¹²³

In studies focusing on majority-group individuals, researchers found that whites interacting with black confederates on a task performed more poorly and displayed physiological stress indicators—even when the white subjects self-reported greater liking and positive impressions of black compared to white partners.¹²⁴ Whites scoring higher on measures of implicit bias were particularly at risk of impairment in task performance tests when interacting with black confederates.¹²⁵

While many of the studies examine the impact of interracial contact on majority-group members, there is also evidence that African Americans may experience executive function depletion after interracial interactions. ¹²⁶ Executive function refers to the cognitive command center that regulates behavior, processes stimuli, and decides on the appropriate reaction to the situation. ¹²⁷ As with white subjects, the magnitude of performance impairment is associated with attitudes toward the other race. ¹²⁸ Minorities in interracial interactions experience anxiety over being targets of prejudice and

^{121.} E.g., Wendy Berry Mendes et al., Challenge and Threat during Social Interactions with White and Black Men, 28 PERSONALITY & SOC. PSYCHOL. BULL. 939 (2002); Jennifer A. Richeson et al., African Americans' Impicit Racial Attitudes and the Depletion of Executive Function after Intervacial Interactions, 23 SOC. COGNITION 336 (2005).

^{122.} John F. Dovidio et al., Why Can't We Just Get Along? Interpersonal Biases and Interracial Distrust, 8 CULTURAL DIVERSITY & ETHNIC MINORITY PSYCHOL. 88, 95–98 (2002).

^{123.} Id.

^{124.} Mendes et al., supra note 121, at 939-43.

^{125.} Richeson et al., supra note 121, at 336–42; Jennifer A. Richeson & J. Nicole Shelton, When Prejudice Does Not Pay: Effects of Interracial Contact on Executive Function, 14 PSYCHOL. SCI., 287, 287–90 (2003); Jennifer A. Richeson & Sophie Trawalter, Why Do Interracial Interactions Impair Executive Function? A Resource Depletion Account, 88 J. PERSONALITY & SOC. PSYCHOL. 934, 934–36 (2005).

^{126.} Richeson et al., *supra* note 121, at 336–38.

^{127.} Roy F. Baumeister & Kathleen D. Vohs, *Self-Regulation and the Executive Function of the Self, in* HANDBOOK OF SELF & IDENTITY 197 (Mark R. Leary & June Price Tangney, eds., 2003).

^{128.} Richeson et al., supra note 121, at 337.

manage their behavior to deal with potential stereotypes, which may contribute to executive function resource depletion. 129

A prominent model used to explain the impaired performance during interracial contact is impaired executive function. Executive function is impaired because the individuals are expending limited cognitive resources to manage automatic stereotypes and control outward manifestations of negative affect. ¹³⁰ In the stressful context of a cross-racial police encounter, such impaired executive function may prove particularly dangerous. There is evidence that low executive function and stress predict aggressive behavior. ¹³¹ In an interaction where both parties are experiencing such impairment and stress—and one or both parties may be armed—the risk of injury or death is heightened.

The danger of escalation to violence is compounded by the heightened risk of inaccurate perceptions in cross-racial encounters. There is evidence that police are less accurate in assessing the potential criminality and danger that minority subjects pose, as compared to assessments of white suspects. Unarmed black individuals are more likely to get shot in laboratory simulations and in the field. While the evidence on erroneous searches is more disputed, in some jurisdictions, black and Hispanic motorists and

^{129.} Id.; J. Nicole Shelton, Jennifer A. Richeson, & Jessica Salvatore, Expecting to Be the Target of Prejudice: Implications for Interethnic Interactions, 31 Personality & Soc. Psychol. Bull. 1189, 1189–1202 (2005).

^{130.} E.g., Jane M. Richards & James J. Gross, Emotion Regulation and Memory: The Cognitive Costs of Keeping One's Cool, 79 J. PERSONALITY & SOC. PSYCHOL. 410, 410–13 (2000); Jane M. Richards & James J. Gross, Composure at Any Cost? The Cognitive Consequences of Emotion Suppression, 25 PERSONALITY & SOC. PSYCHOL. BULL. 1033, 1033 (1999); Jennifer A. Richeson et al., An fMRI Investigation of the Impact of Interracial Contact on Executive Function, 6 NATURE NEUROSCIENCE 1323, 1323–26 (2003); Richeson et al., supra note 121, at 336–38; William von Hippel et al., Stereotyping Against Your Will: The Role of Inhibitory Ability in Stereotyping and Prejudice among the Elderly, 26 PERSONALITY & SOC. PSYCHOL. BULL. 523, 523–25 (2000).

^{131.} E.g., Jenessa Sprague et al., Moderators and Mediators of the Stress-Aggression Relationship: Executive Function and State Anger, 11 EMOTION 61, 61–71 (2011) (discussing evidence).

^{132.} E.g., Correll et al., The Police Officer's Dilemma, supra note 90, at 1327; Robin S. Engel & Richard Johnson, Toward A Better Understanding of Racial and Ethnic Disparities in Search and Seizure Rates, 34 J. CRIM. JUST. 605, 605–08 (2006); James J. Fyfe, Blind Justice: Police Shootings in Memphis, 73 J. CRIM. L. & CRIMINOLOGY 707, 707–09, 718–21 (1982); Greenwald et al., supra note 90, at 401–05.

^{133.} Fyfe, *supra* note 132, at 718–21; Greenwald et al., *supra* note 90, at 401–05; Plant & Peruche, *supra* note 90, at 180–83.

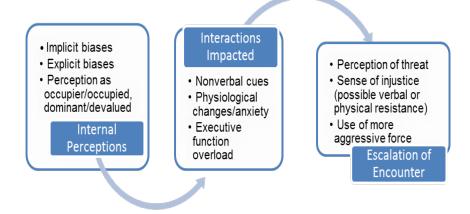
pedestrians are more likely to be searched compared to whites, even though the minority searches are significantly less likely to have illegal contraband when searched.¹³⁴

Linking these insights, Figure 5 summarizes a theoretical model of the aggravation of tension and risk of escalation in cross-racial contexts when police are perceived as unrepresentative. The model posits that the visibly unequal distribution of power embodied in mainly white officers policing black community members rouses particularly strong feelings of injustice that impact the interaction and raise the risk of violence. The danger of escalation and sense of injustice is compounded by officers' heightened perceptions of threat and suspicion in cross-racial encounters. The cumulative tension heightens the risk of escalation of a police encounter toward potential verbal and physical resistance, and the use of force by police in response to perceived or actual threat.

^{134.} See, e.g., IAN AYRES & JONATHAN BOROWSKY, A STUDY OF RACIALLY DISPARATE OUTCOMES IN THE LOS ANGELES POLICE DEPARTMENT 5–9, 16–18 (2008), http://www.scribd.com/doc/99227597/A-Study-of-Racially-Disparate-Outcomes-in-the-Los-Angeles-Police-Department (finding that African Americans and Hispanics are more likely to be stopped and searched by the Los Angeles Police Department but these searches are less likely to yield evidence than searches of whites); Engel, supra note 132, at 606–14 (reporting on mixed findings in various studies); Robin Shepard Engel & Jennifer M. Calnon, Examining the Influence of Drivers' Characteristics During Traffic Stops with Police: Results From a National Survey, 21 JUST. Q. 49, 56–60, 80 (2004) (analyzing "hit rate" data and evidence that officers searched minority drivers more frequently but the searches were less likely to yield a "hit" in terms of contraband); Bernard E. Harcourt, Rethinking Racial Profiling: A Critique of the Economics, Civil Liberties, and Constitutional Literature, and of Criminal Profiling More Generally, 71 U. CHI. L. REV. 1275, 1277–80, 1290–92 (2004) (discussing empirical debate).

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Figure 5. A Model of Cumulative Tension and Escalation



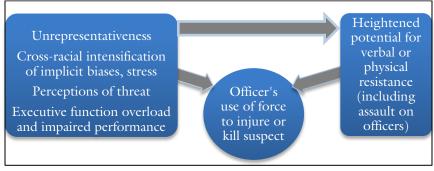
The theoretical model of tension and escalation in police encounters hypothesizes that police unrepresentativeness heightens the risk of resistance and assaults on officers as well as the risk of officers injuring or killing suspects. The model of the resulting risk of violence to officers as well as community members from police unrepresentativeness illuminates the convergence of interests in reducing this risk. This model resonates with interest-convergence theory, which underscores the import of identifying convergences of interest between the powerful and the subordinated to secure reform.¹³⁵

Figure 6 diagrams the theoretically complex role of the risk of resistance by suspects as a potential mediator of the relationship between unrepresentative policing and the risk of injuring or killing a suspect. The figure depicts at least two pathways. In one pathway, the stress in the unrepresentative policing context leads to the potential for resistance that then elicits the reaction of officers injuring or killing of suspects. In another pathway, the community member is at risk even in the absence of resistance. Thus, while the cumulative tension and escalation model captures interactions that may generate verbal and physical resistance by a suspect, it also

^{135.} Derrick A. Bell, Jr., Commentary, Brown v. Board of Education and the Interest-Convergence Dilemma, 93 HARV. L. REV. 518, 520-25 (1980).

includes interactions where perceptions of threat are unwarranted and mistaken.

Figure 6. Risk of Assaults on Officers as Potential Mediator



There is encouraging evidence that training can significantly impact the ultimate decision of officers regarding whether to use deadly force when encountering minority suspects. Moreover, there is also encouraging evidence that regular contact with blacks in a friendly context attenuates or even eliminates the findings of impaired performance and physiological threat responses among whites in cross-racial encounters. Scholars have also theorized that as a critical mass of minority officers enter a department, the officers can help shape and transform the values and culture of the agency. The theoretical framework offered above suggests that police diversification may operate at the level of community perception, officer behavior, or both, to ameliorate the mixed signals, threat perception, and risk of escalation to violence.

III. LIFTING THE VEIL ON THE RISK OF INJURIES IN POLICE ENCOUNTERS

Ultimately, to move from model-building to testing, improved data is needed to better capture the full scope of injury and deaths

^{136.} Correll et al., *The Police Officer's Dilemma*, *supra* note 90, at 1326, 1328; Plant & Peruche, *supra* note 90, at 180.

^{137.} See, e.g., Jim Blascovich et al., Perceiver Threat in Social Interactions with Stigmatized Others, 80 J. PERSONALITY & SOC. PSYCHOL. 253, 262, 264–66 (2001) (finding that increased intergroup contact and familiarity with out-group members reduced signs of threat perception).

^{138.} E.g., Lawrence W. Sherman, After the Riots: Police and Minorities in the United States, 1970–1980, in ETHNIC PLURALISM AND PUBLIC POLICY 212 (Nathan Glazer & Ken Young eds., 1983).

arising from police encounters. ¹³⁹ Currently there is substantial underreporting of data regarding deaths of community members at the hands of police—and no national database reporting nonfatal injuries incurred in police encounters. ¹⁴⁰ Even the official databases, limited to distributing death data, are vigorously criticized. ¹⁴¹ Some of the main studies on police use of force have been critiqued for relying on official databases even though they remain the best, albeit flawed, source available. ¹⁴²

The lack of data undermines the ability to accurately assess the effectiveness of reforms in preventing injury or death, and deprives the citizenry of important information regarding use of force by their police departments. To address this major challenge in the field, this Part proposes a data source innovation that has not yet been exploited in studies of police use of force. The hidden issue of nonfatal injuries sustained in police encounters can be better illuminated for the public as well as for researchers by mining hospitalization data.

A. Epicrim Innovation: Using Hospital Data to Study Injuries

Currently, researchers mine three main datasets for information on data regarding deaths at the hands of police. The first source comes from death certificate data, which is based on reports by medical professionals of the cause of death, including the category "death due to legal intervention." These vital records are managed by the National Center for Health Statistics (NCHS), under the umbrella of the CDC. The second source, the Supplementary Homicide Reports (SHR), is based on reports by law enforcement agencies to the FBI regarding the numbers of suspects killed by

^{139.} See discussion supra at notes 89–90, 106–107, 116.

^{140.} Klinger, supra note 22, at 79.

^{141.} *Id.*; Fyfe, *supra* note 22, at 87–98.

^{142.} Klinger, *supra* note 22, at 79 (criticizing, e.g., Jacobs & O'Brien, *supra* note 70; Smith, *supra* note 76).

^{143.} Id.

^{144.} BUREAU OF JUST. STAT., U.S. DEP'T OF JUST., THE NATION'S TWO MEASURES OF HOMICIDE (Jill Thomas ed., 2014), http://www.bjs.gov/content/pub/pdf/ntmh.pdf; *Fatal Injury Data*, CTRS. FOR DISEASE CONTROL & PREVENTION, http://www.cdc.gov/injury/wisqars/fatal.html (last updated July 13, 2015).

^{145.} BUREAU OF JUST. STAT., supra note 144, at 1-3.

officers in their jurisdiction.¹⁴⁶ The SHR data categorization used by scholars of police use of force is "felon killed by police"—a designation that contributes to confusion and underreporting because the person killed has not been adjudicated a felon and whether the suspected crime is a felony or a misdemeanor is disputable.¹⁴⁷ The third source is the Bureau of Justice Statistic's (BJS) Death in Custody Reporting Program (DCRP), which launched in 2000 as part of the Death in Custody Reporting Act of 2000.¹⁴⁸ In 2003, the program expanded to collecting arrest-related death records.¹⁴⁹ The BJS acquires data from state reporting coordinators, jails, and prisons.¹⁵⁰

To get a sense of the magnitude of the underreporting, a 1979 study estimated that the NCHS—the more comprehensive source—underreported the number of deaths due to killings by police officers by fifty-one percent.¹⁵¹ The estimated underreporting of deaths at the hands of police to the SHR is even greater than the underreporting to the National Vital Statistics System (NVSS), which contains mortality data.¹⁵² Finally, comparisons of BJS's DCRP and SHR data have found a substantial lack of correspondence—for example, the SHR figures counted 352 homicides by police officers in California between 2003 and 2005, whereas the BJS's DCRP data counted just 160.¹⁵³

More fundamentally, a focus on deaths does not capture the full scope of harm because many injuries—even extremely serious lifealtering ones—may not result in death thanks to advances in medical care. Researchers to date have been unable to study injuries

^{146.} Id.

^{147.} *Id.*; Fyfe, *supra* note 22, at 88–89.

^{148.} Death in Custody Reporting Act of 2000, Pub. L. No. 106-297, 114 Stat. 1045 (2000).

^{149.} Deaths in Custody Reporting Program, BUREAU OF JUST. STAT. (Aug. 29, 2015), http://www.bjs.gov/index.cfm?ty=tp&tid=19.

^{150.} Id.

^{151.} Lawrence W. Sherman & Robert H. Langworthy, *Measuring Homicide by Police Officers*, 70 J. CRIM. L & CRIMINOLOGY 546, 551–60 (1979).

^{152.} Colin Loftin et al., Underreporting of Justifiable Homicides Committed by Police Officers in the United States, 1976-1998, 93 Am. J. Pub. HEALTH 1117, 1117–20 (2003).

^{153.} Klinger, supra note 22, at 81.

^{154.} See, e.g., Harris et al., supra note 89, 128–55 (discussing how many cases of severe injuries that may have been homicides in the past are now assaults because of life-saving medical advances).

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incurred due to law enforcement except in a few cases where scholars gained access to a particular jurisdiction's data or records. ¹⁵⁵ Scholars have expressed grave dismay that in a free democratic society, citizens have so little access to information about the injurious use of force by their police forces. ¹⁵⁶

To penetrate this opaque domain, creative data-scavenging is needed. In this search, the interdisciplinary expertise of epidemiological criminology can illuminate new paths forward. Epidemiological criminology, or "epicrim" for short, draws on the methods, insights and analytical resources of epidemiology—a close adjunct to medical and public health research—to illuminate criminal justice issues. The interdisciplinarity makes sense because both criminal justice and public health have the shared goals of harm prevention, including injury and violence reduction. Moreover, epidemiology can open the horizon of potential data sources because epidemiologists are consummate data scavengers. Sentence of the same data scavengers.

Drawing on this interdisciplinary perspective, this Article is the first to propose addressing the challenge of the lack of data regarding non-fatal injuries due to law enforcement by drawing on hospitalization data. When patients are admitted to the hospital with non-fatal injuries, the CDC encourages physicians to enter "Ecodes" to record the injuries that brought them to the hospital. ¹⁶⁰ Ecode stands for external-cause-of-injury-coded data, which are used to better design injury prevention programs and policies. ¹⁶¹ E-codes E970 through E977 pertain to injuries at the hands of police and distinguish between:

^{155.} See, e.g., Geller & Karales, supra note 94, at 1826 (focusing on Chicago Police Department); McElvain, supra note 15, at 510–19 (focusing on Riverside County); McElvain & Kposowa, Police Shootings, supra note 15, at 1-3 (focusing on Southern California's largest sheriff's department).

^{156.} Fyfe, supra note 22, at 87–98; Klinger, supra note 22, at 78.

^{157.} Akers & Lanier, supra note 23 at 397–402; Polizzi & Lanier, supra note 24, at 37–49.

^{158.} Akers & Lanier, *supra* note 23 at 400-02.

^{159.} See, e.g., Noel S. Weiss & Thomas D. Koepsell, Epidemiologic Methods: Studying the Occurrence of Illness 105 (2d ed. 2014) ("Epidemiologists are often data scavengers.").

^{160.} See, e.g., Nat'l Ctr. for Inj. Prevention & Control, Recommended Actions to Improve External-Cause-of-Injury Coding in State-Based Hospital Discharge and Emergency Department Data Systems 7–10 (2009), http://www.cdc.gov/injury/pdfs/ecode-a.pdf.

^{161.} Id. at 7.

E970: Injury due to legal intervention by firearms;

E971: Injury due to legal intervention by explosives;

E972: Injury due to legal intervention by gas;

E973: Injury due to legal intervention by blunt object;

E974: Injury due to legal intervention by cutting and piercing instrument;

E975: Injury due to legal intervention by other specified means (blow, manhandling);

E976: Injury due to legal intervention by unspecified means; and E977: Late effects of injuries due to legal intervention. 162

While E-codes, like the data sources for deaths due to law enforcement, are subject to underreporting or non-reporting, their use in studying non-fatal injuries would be an important step forward from being completely in the dark as to nonfatal injuries incurred by people in police encounters. The use of hospitalization data will open new avenues for future investigations that move from model-building to evidence-testing. 163

B. What If Better Data Still Shows No Effect?

When subjected to direct testing, models founded on seemingly strong inferences and deeply-held hopes may fail.¹⁶⁴ Future studies

^{162.} International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), CDC (last updated June 18, 2013), http://www.cdc.gov/nchs/icd/icd9cm.htm.

^{163.} The author is part of a medical-legal partnership of researchers engaged in a project to use hospitalization data to address the neglect and opacity regarding the scope and prevention of nonfatal injuries in police encounters.

^{164.} Indeed, in the biomedical context, there are famous cases where investigators believed certain interventions would be beneficial based on strong inferences drawn from observational studies, but randomized controlled trials of the intervention—to the great dismay and horror of the investigators—showed the intervention might actually hurt rather than help. See, e.g., Debra S. Echt et al., Mortality and Morbidity in Patients Receiving Encainide, Flecainide, or Placebo: The Cardiac Arrhythmia Suppression Trial, 324 NEW ENGLAND J. MED. 781, 781-85 (1991) (discussing stoppage of trial of anti-arrhythmia drugs meant to reduce the risk of sudden death after a heart attack when preliminary results showed that the drugs were linked to a greater mortality rate); Gary E. Goodman et al., The Beta-Carotene and Retinol Efficacy Trial: Incidence of Lung Cancer and Cardiovascular Disease Mortality During 6-Year Follow-Up After Stopping β-Carotene and Retinol Supplements, 96 J. NAT'L CANCER INST. 1743, 1743-45 (2004) (discussing stoppage of trial of the use of daily beta-carotene and retinol supplements meant to improve cancer survival because of increased risk of deaths among the cancer patients taking beta carotene and retinol); Christine Laine, Editorial, Postmenopausal Hormone Replacement Therapy: How Could We Have Been So Wrong?, 137 ANNALS INTERNAL MED. 290, 290 (2002) (discussing the fallout from the early stoppage of a trial evaluating the health benefits of hormone replacement therapy in women-

examining a fuller universe of nonfatal injuries as well as deaths due to law enforcement might detect no protective effect from police diversification—or even an adverse effect of higher risk. Indeed, qualitative research has yielded mixed findings regarding the perceptions of minority police officers from minority community members.¹⁶⁵

Some black community members even reported feeling that black officers were tougher on them and felt more free to use force because of the cover of being a minority officer—and in the end all cops are "blue." ¹⁶⁶ Research respondents also said that black officers treated black people harshly because they are armed with a distinguishing power generally denied black community members. ¹⁶⁷ As one community member put it, "They seem to look down on their people. They kick them around." ¹⁶⁸ As another community member explained:

It's amazing but White officers are far more courteous to Black people than Black officers are. . . . You know, you've got a gun and you've got a badge. You're the baddest thing out there. And whatever you say goes. That's the Black man. That's the man in charge. The White officer, when he come to you [he says], "I'm sorry sir, but you ran that red light," or "Sir, you're doing this, that, and the other thing." But the Black officer, he's in charge, you see. It's because of the oppression that he comes up under.

formerly a widespread practice thought to *improve* women's health after menopause—because of findings that women on hormone replacement therapy had a *higher risk* of heart attacks, stroke, pulmonary embolism and breast cancer).

165. Weitzer, *supra* note 120, at 316–22 (reporting mixed survey findings on perceptions of black officers, including some residents' views that black officers are harder on black community members); Weitzer, Tuch & Skogan, *supra* note 75, at 401–08, 412–19 (reporting on differing trends in perceptions of minority-led police forces and officers based on the interaction of age, gender, race and class).

166. Irving A. Wallach & Colette C. Jackson, *Perception of the Police in a Black Community, in* THE URBAN POLICEMAN IN TRANSITION 382, 401 (John R. Snibbe & Homa M. Snibbe eds., 1973); Weitzer, *supra* note 120, at 316–18; *see also, e.g.*, EDWARD CONLON, BLUE BLOOD 320 (2004) ("Over time and in the main, cops tend to think like other cops."). *Cf.* Robert A. Brown & James Frank, *Race and Officer Decision Making: Examining Differences in Arrest Outcomes between Black and White Officers*, 23 JUST. Q. 96, 119–20 (2006) (finding that though white officers are more likely than black officers to arrest suspects in general, black suspects are at much greater risk for arrest when the decision maker is a black police officer rather than a white officer (81.7 times greater odds of arrest for black suspects where the decision maker is black rather than white)).

^{167.} Weitzer, supra note 120, at 317-18.

^{168.} Id. at 317.

Well, I understand that.... Not all of them are like that, but I would say maybe 80 percent of the Black ones. The White guys, I wouldn't say that.... [Black officers] have the power, and when you take a person and give them a pistol and a badge, he gonna talk to you any kind of way, be arrogant. I think that's the main thing, the arrogance that Black officers have about being in authority. 169

Another community member reported:

Just a general observation that I've made that Black policemen, especially when they're teamed up with the White policemen, are more aggressive than the Whites towards Blacks. I get the impression that they're trying to show everyone that they're not showing any favoritism because the party is Black.¹⁷⁰

Still other community members believed that both black and white officers act aggressively and the fact that the person beating you has the same skin color does not make it hurt less.¹⁷¹ In the words of a black community member:

[Black officers] treat you just as bad, and they say, "My brother." How can you be a brother when you just slammed my head up against that car, showing off in front of the White officer, trying to be like him? No, no, no, no. I've seen it done too many times.¹⁷²

The benefit of scientific study is to examine our assumptions beyond the veneer of rhetoric and hopes. Failure to examine the evidence presents the risks of being blinded by hopes and assumptions and pursuing superficial optics that do not address the core of concerns. Ultimately, communities of color, joined by concerned citizens of all races, are protesting police use of force out of concern for the risk of injury or death to themselves, friends, children and other loved ones. ¹⁷³ People are protesting because the ability to trust the police—to feel like police officers are protectors rather than hunters—is a fundamentally important good that is not

^{169.} *Id.* at 317–18.

^{170.} Id. at 318.

^{171.} Id.

^{172.} Id.

^{173.} See, e.g., John Eligon, Protesters United Against Ferguson Decision, but Challenged in Unity, N.Y. TIMES, Nov. 28, 2014, at A1 (discussing nationwide protests bridging generational, political, and age divides).

equally distributed between racial groups.¹⁷⁴ If police diversification actually helps address these profound social challenges, then there is a powerful case for a compelling governmental and shared social interest. It is important, however, to know whether police diversification addresses the root risks that produce such pain and fear in order to evaluate whether announced reforms are actually responsive to calls for change.

If police diversification does not actually protect against the risk of violence—even though it is offered as a reform in response to calls to reduce the risk of violence—are there other benefits beyond this utilitarian aim? Are there symbolic benefits to having representative police forces that can justify race-conscious hiring policies—even if behind the symbol, there remains the perception that all cops are blue and a disparate risk of injury or deaths in law enforcement encounters for minority community members? Is the political cover for the police department sufficient? This Article has consciously taken a utilitarian approach to define and evaluate a compelling governmental interest as preventing risk of injury and deaths because community members across the nation are seeking more than empty symbolism. There is a desire for substantive reforms to protect against the fears, pain, and harm that exact grave social costs and are prompting protests and calls for reform.

Even if ultimately there is no detectable violence prevention effect from police diversification, there may be a substantively compelling interest beyond empty symbolism. In *Grutter v. Bollinger*, the Supreme Court recognized that diversification in the law school setting served the compelling interests of promoting cross-racial understanding, breaking down racial stereotypes, and promoting integration so that students can better understand people of different races.¹⁷⁵ An analogously compelling interest can be established in the policing context. As Section II.B. discussed, there is evidence that regular, friendly contact with people of other races can reduce the impaired performance and physiological threat

^{174.} See, e.g., Marschall & Shah, supra note 75, at 645 (collecting studies repeatedly documenting much less trust in police among Black communities and reporting that even the presence of Black leaders did not affect Black community members' trust in their local government or local police—even though the police force was more likely to have a higher proportion of minorities where political leaders such as the mayor were Black).

^{175. 539} U.S. 306, 329-31 (2003).

responses detected in cross-racial encounters.¹⁷⁶ There is also some suggestion—in need of further investigation and development—that building a critical mass of minority officers can help shape and transform the values and culture of a police department.¹⁷⁷ As the theoretical model described in Section II.B. indicates, diversification may, over time, translate into a reduced risk of injury and deaths in law enforcement encounters with minority community members. But even if there is no detectable reduction in violence for the time being, these intermediate benefits are in themselves sufficient to be compelling interests.

CONCLUSION

The national and international attention to the deaths of minority suspects and racially unrepresentative police forces are spurring plans and promises to diversify. 178 Police diversification entails race-conscious recruiting, hiring and promotion practices subject to strict scrutiny under the Equal Protection Clause of the U.S. Constitution. 179 Hope, assumptions, and good intentions are not enough to survive strict scrutiny when governments enter the perilous terrain of race-conscious hiring and promotion practices. 180 The implicit assumption in turning to police diversification as a remedy in response to protests over injuries and death from police use of force is that adding more minority police officers will reduce the risk of violence that has aroused such national outcry. Yet, there is a conflict between assumptions and direct evidence regarding the police diversity and violence prevention rationale. The studies on the impact of police diversification have yielded mixed and null findings regarding whether adding more minority officers reduces the risk of injury or death due to law enforcement. The results are not fatal to the police diversity and violence prevention rationale, however.

^{176.} See, e.g., Jim Blascovich et al., supra note 137, at 262, 264–65 (finding that increased intergroup contact and familiarity with out-group members reduced signs of threat perception).

^{177.} E.g., Sherman, supra note 138, at 212-34.

^{178.} Kansas City Special Session, *supra* note 5, at 2–10; Dewan, *supra* note 5, at A1; *The Ferguson Riots, supra* note 5, at 22.

^{179.} Adarand Constructors, Inc. v. Pena, 515 U.S. 200, 218 (1995); Petit v. City of Chicago, 352 F.3d 1111, 1114 (7th Cir. 2003).

^{180.} City of Richmond v. J.A. Croson Co., 488 U.S. 469, 500 (1989) (plurality opinion).

Rather, the state of empirical studies on diversification and violence prevention is a symptom of another problem of great concern for a nation that prides itself on informed democratic control of the nation's police power—the lack of data regarding how many people are injured in police encounters. The power to detect significant effects from police diversification is currently severely curtailed by the absence of data. 181 This opacity does not doom the police diversity and violence prevention rationale. Rather, modelbuilding regarding the process by which unrepresentative policing might heighten the risk of escalation to violence can help build a circumstantial case for the police diversity rationale. This modelbuilding can also help shape and spur future investigations. This Article presented data indicating that the disparate distribution of the risk of death by race has decreased in the decades as the nation's police forces have become more diverse. This Article also drew on findings from social psychology to build a theoretical model for why diversification may alleviate some accumulated tension caused by non-representative policing.

To progress from model-building to testing, innovation in finding data to shed light on the extent of nonfatal injuries due to law enforcement use of force is needed. Such data is also needed to inform democratic deliberation about policing practices. This Article is the first to propose a new avenue of exploration—using hospitalization data—to begin the important work of studying nonfatal as well as fatal injuries sustained in police encounters. Without such data, researchers and the nation are blinded to a broad swathe of relevant harm. Pursuing this methodological innovation will help open the field of vision, and enrich democratic deliberation over police use of force.

^{181.} See discussion supra, notes 85–86.