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Policing, Danger Narratives, and Routine Traffic Stops

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POLICING, DANGER NARRATIVES, AND ROUTINE TRAFFIC STOPS

*Jordan Blair Woods**

This Article presents findings from the largest and most comprehensive study to date on violence against the police during traffic stops. Every year, police officers conduct tens of millions of traffic stops. Many of these stops are entirely unremarkable—so much so that they may be fairly described as routine. Nonetheless, the narrative that routine traffic stops are fraught with grave and unpredictable danger to the police permeates police training and animates Fourth Amendment doctrine. This Article challenges this dominant danger narrative and its centrality within key institutions that regulate the police.

The presented study is the first to offer an estimate for the danger rates of routine traffic stops to law enforcement officers. I reviewed a comprehensive dataset of thousands of traffic stops that resulted in violence against officers across more than 200 law enforcement agencies in Florida over a 10-year period. The findings reveal that violence against officers was rare and that incidents that do involve violence are typically low risk and do not involve weapons. Under a conservative estimate, the rate for a felonious killing of an officer during a routine traffic stop was only 1 in every 6.5 million stops, the rate for an assault resulting in serious injury to an officer was only 1 in every 361,111 stops, and the rate for an assault against officers (whether it results in injury or not) was only 1 in every 6,959 stops.

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This Article is also the first to offer a comprehensive typology of violence against the police during traffic stops. The typology indicates that a narrow set of observable contextual factors precedes most of this violence—most commonly, signs of flight or intoxication. The typology further reveals important qualitative differences regarding violence during traffic stops initiated for only traffic enforcement versus criminal enforcement.

The study has significant implications for law enforcement agencies and courts. The findings and typology have the potential to inform police training and prompt questions about whether greater invocation of police authority during routine stops for traffic violations undermines, rather than advances, both officer and civilian safety. The findings also lay an early empirical foundation for rethinking fundamental assumptions about officer safety and routine traffic stops in Fourth Amendment doctrine. This Article ultimately urges institutional actors that regulate the police to abandon oversimplified danger narratives surrounding routine traffic stops in favor of context-rich archetypes that more accurately reflect the risks and costs of policing during these stops.

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INTRODUCTION

“Any vehicle encounter has the potential to be dangerous, so mitigate your risks on every stop.”¹

The traffic stop is the most common form of civilian interaction with the police.² Every year, police conduct tens of millions of traffic stops.³ The dominant narrative in policing is that each one of these stops is not just highly dangerous but also potentially fatal.⁴ Each stop is unique, and “there is no such thing as a routine traffic stop.”⁵

Over the past few decades, police authority to question drivers and passengers, order them out of cars, and conduct various searches and seizures

1. Amaury Murgado, *How to Approach Traffic Stops*, POLICE MAG. (Nov. 26, 2012), <http://www.policemag.com/channel/careers-training/articles/2012/11/traffic-stops.aspx> [<https://perma.cc/MR8H-QJ6F>] (offering guidance on best practices on how officers should approach routine traffic stops).

2. *Traffic Stops*, BUREAU JUST. STAT., <http://www.bjs.gov/index.cfm?ty=tp&tid=702> [<https://perma.cc/C98Y-UNM5>] (noting that “[t]he most common reason for contact with the police is being a driver in a traffic stop”).

3. ROBERT C. LAFOUNTAIN ET AL., NAT’L CTR. FOR ST. CTS., EXAMINING THE WORK OF STATE COURTS: AN ANALYSIS OF 2010 STATE COURT CASELOADS (2012), http://www.courtstatistics.org/~/media/Microsites/Files/CSP/DATA%20PDF/CSP_DEC.ashx. [<https://perma.cc/79FQ-SF9Y>]; 2015 *Statewide Traffic Case Loads and Rates – Trial Courts*, NAT’L CTR. FOR ST. CTS., http://www.ncsc.org/Sitecore/Content/Microsites/PopUp/Home/CSP/CSP_Traffic [<https://perma.cc/49U4-TS3D>] (showing that states had at least 43 million incoming traffic cases in 2016).

4. See, e.g., Murgado, *supra* note 1 (“Any vehicle encounter has the potential to be dangerous, so mitigate your risks on every stop.”); Chelsea Whitaker, *The Routine Traffic Stop*, LAW OFFICER (Nov. 21, 2016), <http://lawofficer.com/special-assignment-teams/officer-safety/the-routine-traffic-stop/> [<https://perma.cc/X2TE-K4FQ>] (“There isn’t a more dangerous aspect of policing than traffic stops.”); John Wills, *Routine Traffic Stops*, OFFICER.COM (June 3, 2013), <https://www.officer.com/on-the-street/body-armor-protection/article/10952972/routine-traffic-stops> [<https://perma.cc/CC9C-YYGT>] (“Pulling over a vehicle is inherently dangerous.”).

5. See, e.g., Craig McMorris, *Police: No Such Thing as a Routine Traffic Stop*, FOX CAROLINA (Mar. 23, 2012, 11:26 AM) (updated Apr. 20, 2012, 11:32 AM), <http://www.foxcarolina.com/story/17239535/police-say-no-such-thing-as-routine-traffic-stop> (on file with the *Michigan Law Review*) (quoting one police sergeant who supervises road patrol officers as saying “officers are taught from day one that there is no such thing as a routine traffic stop”); Whitaker, *supra* note 4 (“There is no such thing as a routine traffic stop.”); Wills, *supra* note 4 (“There is no such thing as a routine traffic stop.”).

has expanded significantly.⁶ The idea that routine traffic stops⁷ are fraught with grave and unpredictable danger to the police has animated this expansion. For instance, in several Fourth Amendment cases involving traffic stops, the U.S. Supreme Court has deferred to law enforcement based on officer safety concerns, stressing that officers must be empowered during these stops to take “unquestioned command of the situation.”⁸

The idea that routine traffic stops pose grave and unpredictable danger to the police also influences how officers are trained to approach and act during these stops. Police academies regularly show officer trainees videos of the most extreme cases of violence against officers during routine traffic stops⁹ in order to stress that mundane police work can quickly turn into a deadly situation if they become complacent on the scene or hesitate to use force.¹⁰ With technological advances, these violent examples are also included as scenarios in virtual simulation programs that train officers in how to protect themselves during routine traffic stops.¹¹ Video clips and simulations

6. See generally Lewis R. Katz, “Lonesome Road”: *Driving Without the Fourth Amendment*, 36 SEATTLE U. L. REV. 1413 (2013); Wayne R. LaFave, *The “Routine Traffic Stop” from Start to Finish: Too Much “Routine,” Not Enough Fourth Amendment*, 102 MICH. L. REV. 1843 (2004).

7. In this Article, I use the term “routine traffic stops” to refer to motor vehicle stops for purposes of only enforcing traffic violations and not enforcing the criminal law beyond a traffic violation.

8. See, e.g., *Arizona v. Johnson*, 555 U.S. 323, 330 (2009) (quoting *Maryland v. Wilson*, 519 U.S. 408, 414 (1997)); see also *Michigan v. Long*, 463 U.S. 1032, 1048 (1983) (recognizing the Court’s “view of the danger presented to police officers in ‘traffic stop’ and automobile situations”). For a broader discussion of courts’ deference to law enforcement and police expertise, see generally Anna Lvovsky, *The Judicial Presumption of Police Expertise*, 130 HARV. L. REV. 1995 (2017). See also Alice Ristroph, *The Constitution of Police Violence*, 64 UCLA L. REV. 1182, 1210 (2017) (“[C]ourts defer almost invariably to officers’ later accounts of their perceptions of danger or resistance.”).

9. Thomas Lake, *The Endless Death of Kyle Dinkheller*, CNN: STATE (Aug. 2017), <http://www.cnn.com/interactive/2017/politics/state/kyle-dinkheller-police-video/> [<https://perma.cc/4HKJ-MU74>]; Leon Neyfakh, *How Police Learn When to Shoot*, SLATE (May 21, 2015, 2:43 AM), http://www.slate.com/articles/news_and_politics/crime/2015/05/police_shootings_the_grim_videos_cops_watch_of_their_colleagues_being_killed.html [<https://perma.cc/J5SZ-S4ZN>]; Peter Robison, *Inside the School Teaching Cops When It’s OK to Kill*, BLOOMBERG (July 1, 2015, 2:39 AM), <https://www.bloomberg.com/news/articles/2015-07-01/the-policeman-s-id> [<https://perma.cc/6NKD-U6SV>].

10. Seth Stoughton, *Law Enforcement’s “Warrior” Problem*, 128 HARV. L. REV. F. 225, 227 (2015); Seth W. Stoughton, *Police Body-Worn Cameras*, 96 N.C. L. REV. 1363, 1397–98 (2018) [hereinafter Stoughton, *Police Body-Worn Cameras*] (discussing “officer survival” videos “which attempt to remind officers of the dangers of complacency by showing officers being brutally attacked, disarmed, or killed”); *id.* at 1297–98 nn.137–44 (providing examples of “officer survival videos”); Cammy Clark, *Training Helps Keys Cops Make Better Split-Second Decisions About When to Shoot*, MIAMI HERALD (Nov. 23, 2014, 1:20 PM), <http://www.miamiherald.com/news/local/community/florida-keys/article4077525.html> [<https://perma.cc/7MYF-4QWA>].

11. Clark, *supra* note 10; see, e.g., Sharon E. Crawford, *GSP Using Simulator to Train Officers for Lethal Encounters*, MACON TELEGRAPH, May 17, 2002, at B3.

make these extreme cases of violence all the more real for officers and define how they come to perceive the dangers of the routine traffic stops that they eventually conduct.¹²

The narrative that routine traffic stops are fraught with danger to the police is longstanding.¹³ But as this Article explains, this narrative finds little support in existing studies or data.¹⁴ One key shortcoming of leading sources is that they are largely devoid of context.¹⁵ These sources provide little to no insight into the sequences, patterns, or trends connected to this violence.¹⁶ They also offer no information on the contextual factors that precede this violence or the points of the traffic stop in which violence tends to occur. Given how little we know, it is not surprising that the most violent and extreme cases come to define the narrative surrounding routine traffic stops within key institutions that regulate the police (for instance, law enforcement agencies, courts, and legislatures).

To narrow this knowledge gap, I undertook the largest and most comprehensive study to date on violence against the police during routine traffic stops: defined in this Article as motor vehicle stops initiated only to enforce traffic violations. The study is the only qualitative study that systematically examines sequences, patterns, and trends surrounding this violence. Drawing on methods from the field of criminology, I gathered and analyzed incident narratives from a comprehensive sample of over 4,200 cases of violence against officers during traffic stops across more than 220 law enforcement agencies in the state of Florida over a 10-year period.¹⁷ This study is the first to offer an informed estimate of the danger rate that police officers actually face during routine traffic stops for traffic violations.

12. Neyfakh, *supra* note 9. Relevant to this point is the “availability heuristic” concept. See Christine Jolls, Cass R. Sunstein & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1477 (1998) (defining the availability heuristic as a rule of thumb “in which the frequency of some event is estimated by judging how easy it is to recall other instances of this type” and noting that the heuristic leads “us to erroneous conclusions”); Andrew E. Taslitz, *Police Are People Too: Cognitive Obstacles to, and Opportunities for, Police Getting the Individualized Suspicion Judgment Right*, 8 OHIO ST. J. CRIM. L. 7, 44 (2010) (“Police may also fall victim to the ‘availability heuristic,’ judging an event’s probability based on what images or data are most readily available in the individual’s memory.”). See generally Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, in JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES 163 (Daniel Kahneman et al. eds., 1982) (discussing the availability heuristic).

13. See, e.g., Long, 463 U.S. at 1048 (1983) (recognizing the Court’s view “of the danger presented to police officers in ‘traffic stop’ and automobile situations”); CHARLES REMSBERG, *THE TACTICAL EDGE* 271 (1986) (“The fact is that of officers who die making vehicle stops, MOST die making so-called LOW-RISK stops for MISDEMEANOR violations.”); see also sources cited *supra* notes 9–10 (discussing how the danger narrative surrounding traffic stops persists today).

14. See *infra* Part I.

15. See *infra* Part I.

16. See *infra* Part I.

17. I will provide a more detailed description of the study methodology *infra* in Part II.

To summarize, the findings do not support the dominant danger narrative surrounding routine traffic stops. Based on a conservative estimate, I found that the rate for a felonious killing of an officer during a routine traffic stop for a traffic violation was only 1 in every 6.5 million stops.¹⁸ The rate for an assault that results in serious injury¹⁹ to an officer was only 1 in every 361,111 stops. Finally, the rate for an assault (whether it results in officer injury or not) was only 1 in every 6,959 stops. Less conservative estimates suggest that these rates may be much lower.²⁰

In addition, the vast majority (over 98%) of the evaluated cases in the study resulted in no or minor injuries to the officers. Further, only a very small percentage of cases (about 3%) involved violence against officers in which a gun or knife was used or found at the scene, and the overwhelming majority of those cases resulted in no or minor injuries to an officer.²¹ Less than 1% of the evaluated cases involved guns or knives and resulted in serious injury to or the felonious killing of an officer.²²

The study also identified that routine traffic stops have a different risk profile than criminal enforcement stops: defined in this Article as stops initiated to investigate or enforce the criminal law beyond a traffic violation.²³ The study is the first to systematically examine how violence against the police may differ within these stop categories. I found that the most common weapons used to assault officers during routine traffic stops were “personal weapons”—namely, a driver’s or passenger’s hands, fists, or feet.²⁴ Converse-

18. See *infra* Section III.C (presenting danger ratios).

19. The Florida Department of Law Enforcement’s *Uniform Crime Reports Guide Manual* defines “serious injury” as “injury so severe that it results in disablement or disfigurement. . . . Examples of serious injury include broken bones, loss of teeth, lacerations so severe that stitches are needed, internal injuries, injuries resulting in paralysis or the deprivation of a limb/body part, loss of consciousness, etc.” FLA. DEP’T OF LAW ENF’T, UNIFORM CRIME REPORTS GUIDE MANUAL 27 (2017), <https://www.fdle.state.fl.us/FSAC/UCR/UCRGuideManual.aspx> [<https://perma.cc/BUA4-3BQG>].

20. See *infra* Section III.C (presenting danger ratios).

21. See *infra* Section III.B.

22. See *infra* Section III.B.

23. Here, I acknowledge that the line between traffic stops and criminal enforcement stops is not always clear. In fact, in 1974, Florida decriminalized the bulk of minor traffic offenses as civil violations. FLA. STAT. ANN. § 316.655 (West 2014) (noting that the bulk of traffic violations are civil infractions); see also Jordan Blair Woods, *Decriminalization, Police Authority, and Routine Traffic Stops*, 62 UCLA L. REV 672, 698 (2015). Florida, however, left a small group of more serious traffic violations classified as criminal traffic violations. Examples include driving while under the influence, reckless driving, leaving the scene of an accident, fleeing from a police officer, racing, and not having a valid license or registration. FLA. STAT. ANN. §§ 316.027, .191–.193; .1935, 322.34 (West 2014).

24. See *infra* Section III.B. For the purposes of the Federal Bureau of Investigation’s (FBI) Uniform Crime Reporting Program, “personal weapons” are defined as “hands, fists, feet, arms, teeth, etc.”). U.S. FED. BUREAU OF INVESTIGATION, CRIMINAL JUSTICE INFO. SERVICES DIV., UNIF. CRIME REPORTING PROGRAM, 2019 NATIONAL INCIDENT-BASED REPORTING

ly, the most common weapon used to assault officers during criminal enforcement stops was the motor vehicle itself (for instance, using the car to run over an officer).

To enhance our contextual understanding of this violence, this Article also draws on qualitative methods to offer the first comprehensive typology of major traffic stop scenarios that escalate into violence against the police.²⁵ In short, four variables preceded the violence in most (just under 94%) of the evaluated cases: (1) the encounter resulted from a criminal enforcement stop rather than a routine traffic stop; (2) the driver refused to submit to the encounter, either by refusing to pull over or by fleeing, on foot or in the vehicle, after initially pulling over; (3) the officer reported noticing clear signs of intoxication upon initial contact with the driver or passenger; or (4) the officer invoked their authority during the stop in some way beyond asking for basic information, requesting documentation, or running a records check—for instance, ordering drivers out of the car or placing their hands on the drivers.²⁶ Notably, only a very small percentage of violence against the police (just over 3%) involved violence that was random or unprovoked and was not preceded by one of these variables.²⁷ Only a handful of those cases involved guns or knives.

In enhancing our contextual understanding of this violence, this Article contributes to several discussions about policing in legal scholarship. To begin, the study provides further empirical support for the idea that we lack sufficient context-rich information to effectively regulate the police.²⁸ In so doing, it further establishes that this knowledge gap fosters inconsistencies between how key institutional actors that regulate the police perceive everyday police work and how everyday police work unfolds on the ground.²⁹ As Rachel Harmon explains, evaluating the true costs of policing requires us to

SYSTEM USER MANUAL 92 (2018), <https://ucr.fbi.gov/nibrs/nibrs-user-manual> [<https://perma.cc/74ZH-243L>].

25. The typology is structured around a hierarchy of observable contextual factors that preceded the violence in the evaluated cases, as the routine traffic stop unfolded into its major stages (its inception, during its course, and its conclusion). See *infra* Part IV.

26. See *infra* Part IV.

27. As discussed *infra* in Part IV, the remaining 3% of cases were situations involving bystander perpetrators of violence or situations in which the violence against officers occurred after the drivers or passengers had been apprehended by officers (for instance, the violence occurred at the police station or DUI testing center).

28. See Rachel Harmon, *Why Do We (Still) Lack Data on Policing?*, 96 MARQ. L. REV. 1119, 1119–20 (2013); see also Joanna C. Schwartz, *How Governments Pay: Lawsuits, Budgets, and Police Reform*, 63 UCLA L. REV. 1144, 1196–97 (2016) (“[F]or decades, commentators have noted with concern the lack of data collected about officer uses of force, civilian complaints, and other evidence of misconduct.”).

29. See generally, e.g., Brandon Garrett & Seth Stoughton, *A Tactical Fourth Amendment*, 103 VA. L. REV. 211 (2017) (advocating for a “tactical Fourth Amendment”); Seth W. Stoughton, *Policing Facts*, 88 TUL. L. REV. 847 (2014) (discussing problems when the U.S. Supreme Court grounds its justifications for constitutional norms on inaccurate factual or evidentiary grounds).

narrow these knowledge gaps, and that, in turn, requires new types of data collection.³⁰ It is especially important to narrow the knowledge gap involving violence against the police during routine traffic stops because of the serious consequences that stopped drivers and passengers may face (e.g., officer force, arrest, conviction, or incarceration) for even the most minor assault against an officer (e.g., nudging or slapping an officer's hand).

The study presented in this Article embodies this type of needed research in at least three important ways. First, the study shows that the dominant danger narrative surrounding routine traffic stops has many potential costs. Specifically, it facilitates a mindset of fear that can undermine the ability of police to develop effective de-escalation measures in the specific situations in which the findings suggest that most of this violence occurs.³¹ In addition, this danger narrative may instigate avoidable and unnecessary conflicts during routine traffic stops that undermine both officer and civilian safety.³²

Second, the study illustrates how the dominant danger narrative is a vastly oversimplified archetype and that there is a need for new theories and archetypes to accurately account for violence against the police during routine traffic stops. On a broader level, violence against the police—both during routine traffic stops and in other policing contexts—remains underexplored and undertheorized. Rather, existing scholarship largely focuses on *civilians* as the *targets* of police violence.³³ To the extent that policing law and policy rest on nonempirical assumptions and myths about officer safety, it is necessary to pay greater attention to how assumptions about police dangerousness shape the legal and desirable scope of police powers. The findings

30. Harmon, *supra* note 28, at 1120–21.

31. See *infra* Section V.A.

32. See *infra* Section V.A.

33. Cf. Illya Lichtenberg, *The Dangers of Warrant Execution in a Suspect's Home: Does an Empirical Justification Exist for the Protective Sweep Doctrine?*, 54 SANTA CLARA L. REV. 623, 630 (2014) (“[T]he application of research toward the violent victimization of the police in a context specific to the Fourth Amendment has only recently been examined.”). Several criminological studies in the past three decades, however, have broadly examined violence against police officers, especially with regard to the felonious killings of officers. See generally, e.g., JODI M. BROWN & PATRICK A. LANGAN, U.S. DEPT. OF JUST., POLICING AND HOMICIDE, 1976-98: JUSTIFIABLE HOMICIDE BY POLICE, POLICE OFFICERS MURDERED BY FELONS (2001); ROBERT J. KAMINSKI, A DESCRIPTIVE ANALYSIS OF FOOT PURSUITS IN THE LOS ANGELES COUNTY SHERIFF'S DEPARTMENT (2010); Shannon Bohrer et al., *Establishing a Foot Pursuit Policy*, FBI L. ENFORCEMENT BULL., May 2000, at 10; Steven G. Brandl, *In the Line of Duty: A Descriptive Analysis of Police Assaults and Accidents*, 24 J. CRIM. JUST. 255 (1996); Michele W. Covington et al., *Battered Police: Risk Factors for Violence Against Law Enforcement Officers*, 29 VIOLENCE & VICTIMS 34 (2014); Robert E. Crew, Jr., *An Effective Strategy for Hot Pursuit: Some Evidence from Houston*, 11 AM. J. POLICE, no. 3, 1992, at 89; Robert J. Kaminski, *Police Foot Pursuits and Officer Safety*, LAW ENFORCEMENT EXECUTIVE F., Mar. 2007, at 59; ROBERT J. KAMINSKI, THE MURDER OF POLICE OFFICERS (Marilyn McShane & Frank P. Williams III eds., 2004); Rebecca Reviere & Vernetta D. Young, *Mortality of Police Officers: Comparisons by Length of Time on the Force*, 13 AM. J. POLICE, no. 1, 1994, at 51; William Wilbanks, *Cops Killed and Cop-Killers: An Historical Perspective*, 13 AM. J. POLICE, no. 1, 1994, at 31.

and provisional typology move the conversation in this direction and lay an early empirical approach and foundation for generating new theories and testable hypotheses about this violence against the police during routine traffic stops as well as other policing contexts.³⁴ Put another way, the study findings and provisional typology broaden avenues for critiquing police power by considering *police officers* as the *targets* of civilian violence.

Both of these contributions are pertinent in the current political moment involving policing as well as for police reform moving ahead. On one hand, a long line of legal scholarship describes how pervasive police practices of racial profiling during routine traffic stops have taken, and continue to take, a harsh toll on minority drivers and passengers.³⁵ Several recently publicized cases and public protests have called attention to situations in which routine traffic stops escalate into fatal police shootings of unarmed people of color.³⁶ On the other hand, the former Obama Administration's more ag-

34. See *infra* Section V.C.

35. See CHARLES R. EPP ET AL., PULLED OVER: HOW POLICE STOPS DEFINE RACE AND CITIZENSHIP (2014); Mario L. Barnes & Robert S. Chang, *Analyzing Stops, Citations, and Searches in Washington and Beyond*, 35 SEATTLE U. L. REV. 673 (2012); Devon W. Carbado, (E)Racing the Fourth Amendment, 100 MICH. L. REV. 946 (2002); Devon W. Carbado, *From Stopping Black People to Killing Black People: The Fourth Amendment Pathways to Police Violence*, 105 CALIF. L. REV. 125, 149–62 (2017) [hereinafter Carbado, *From Stopping Black People to Killing Black People*]; Devon W. Carbado & Cheryl I. Harris, *Undocumented Criminal Procedure*, 58 UCLA L. REV. 1543 (2011); Angela J. Davis, *Race, Cops, and Traffic Stops*, 51 U. MIAMI L. REV. 425 (1997); Samuel R. Gross & Katherine Y. Barnes, *Road Work: Racial Profiling and Drug Interdiction on the Highway*, 101 MICH. L. REV. 651 (2002); David A. Harris, Essay, "Driving While Black" and All Other Traffic Offenses: The Supreme Court and Pretextual Stops, 87 J. CRIM. L. & CRIMINOLOGY 544 (1997) [hereinafter Harris, "Driving While Black"]; Elizabeth E. Joh, Essay, *Discretionless Policing: Technology and the Fourth Amendment*, 95 CALIF. L. REV. 199, 209 (2007); Kevin R. Johnson, Essay, *How Racial Profiling in America Became the Law of the Land: United States v. Brignoni-Ponce and Whren v. United States and the Need for Truly Rebellious Lawyering*, 98 GEO. L.J. 1005, 1009–45 (2010); Nancy Leong, *The Open Road and the Traffic Stop: Narratives and Counter-Narratives of the American Dream*, 64 FLA. L. REV. 305, 308 (2012); Tracey Maclin, *Race and the Fourth Amendment*, 51 VAND. L. REV. 333 (1998); L. Song Richardson, Response, *Implicit Racial Bias and the Perpetrator Perspective: A Response to Reasonable but Unconstitutional*, 83 GEO. WASH. L. REV. 1008 (2015); David A. Sklansky, *Traffic Stops, Minority Motorists, and the Future of the Fourth Amendment*, 1997 SUP. CT. REV. 271, 274 n.13; Nirej Sekhon, *Blue on Black: An Empirical Assessment of Police Shootings*, 54 AM. CRIM. L. REV. 189 (2017).

36. See Eric. J. Miller, *Encountering Resistance: Contesting Policing and Procedural Justice*, 2016 U. CHI. LEGAL F. 295, 296; see also Jess Bidgood, *No Third Trial for Ex-Officer Who Killed Cincinnati Driver*, N.Y. TIMES (July 18, 2017), <https://www.nytimes.com/2017/07/18/us/police-shooting-ray-tensing-cincinnati.html> (on file with the *Michigan Law Review*) (discussing the fatal police shooting of Sam DuBose); Bill Kirkos & Ralph Ellis, *Officer Who Shot Philando Castile: "I Thought I Was Going to Die,"* CNN (June 9, 2017, 10:50 PM), <http://www.cnn.com/2017/06/09/us/philando-castile-officer-trial/index.html> [<https://perma.cc/X385-5HMB?type=image>] (discussing the fatal police shooting of Philando Castile); Hayden Mitman, *David Jones Shooting Protesters Issue Demands to Police, Mayor*, METRO (July 28, 2017), <http://www.metro.us/news/local-news/philadelphia/david-jones-shooting-protesters-issue-demands-to-police-mayor> [<https://perma.cc/66S4-J45C?type=image>] (discussing the fatal police shooting of David Jones).

gressive stance toward police misconduct and abuse has led some commentators to argue that there is currently a “war on cops” that undermines both officer and civilian safety.³⁷ Consistent with this idea, Former Attorney General Jeff Sessions ordered the Department of Justice to conduct a sweeping review of DOJ-initiated reform agreements with troubled police forces nationwide.³⁸ This move is part of the Trump Administration’s broader agenda to promote “officer safety and morale while fighting serious crime.”³⁹ This Article intervenes in this debate by showing how laws, policies, and doctrine that rest on nonempirical assumptions about officer safety do not help to mediate these tensions and may even exacerbate them.

Third and finally, this Article informs scholarly discussions about which institutional actors are in the best position to regulate the police and to use data when doing so. Some scholars have discussed the shortcomings of courts and the limitations of contemporary constitutional frameworks to effectively regulate the police.⁴⁰ They have also expressed skepticism about the institutional competency of courts to create and use data in ways that appropriately regulate the police.⁴¹ Other scholars have advocated for courts to make greater use of empirical data when deciding cases involving police conduct and adopt a more favorable outlook on the institutional capacity of courts to accomplish this task.⁴² From this perspective, improving how

These cases often go unprosecuted. See Kate Levine, *How We Prosecute the Police*, 104 GEO. L.J. 745, 763 (2016) (“Prosecutors decline to charge officers who kill (often unarmed) suspects at an extremely high rate.”). See generally Kate Levine, *Police Suspects*, 116 COLUM. L. REV. 1197 (2016) (describing the ways in which criminal procedure rules advantage police suspects).

37. See generally, e.g., HEATHER MAC DONALD, *THE WAR ON COPS* (2016); Bianca Padró Ocasio, *Police Group Director: Obama Caused a “War on Cops,”* POLITICO (July 8, 2016, 11:19 AM), <http://www.politico.com/story/2016/07/obama-war-on-cops-police-advocacy-group-225291> [<https://perma.cc/S65Q-LYX4>]. Relatedly, some critics have argued that heightened scrutiny of the police increases crime rates by causing police officers to be less aggressive in enforcing the law. See Stephen Rushin & Griffin Edwards, *De-Policing*, 102 CORNELL L. REV. 721, 731–37 (2017) (discussing different versions of the “de-policing” hypothesis).

38. Sari Horwitz et al., *Sessions Orders Justice Department to Review All Police Reform Agreements*, WASH. POST (Apr. 3, 2017), https://www.washingtonpost.com/world/national-security/sessions-orders-justice-department-to-review-all-police-reform-agreements/2017/04/03/ba934058-18bd-11e7-9887-1a5314b56a08_story.html?utm_term=.7f27707d9b39 [<https://perma.cc/2S94-KJCK>].

39. *Id.*

40. See, e.g., Barry Friedman & Maria Ponomarenko, *Democratic Policing*, 90 N.Y.U. L. REV. 1827, 1882–83 (2015); Rachel A. Harmon, *The Problem of Policing*, 110 MICH. L. REV. 761, 762–63 (2012); Eric J. Miller, *Role-Based Policing: Restraining Police Conduct “Outside the Legitimate Investigative Sphere,”* 94 CALIF. L. REV. 617, 621 (2006); John Rappaport, *Second-Order Regulation of Law Enforcement*, 103 CALIF. L. REV. 205 (2015). In prior work, I have shared this skepticism about relying too much on constitutional law interventions to regulate the police. Woods, *supra* note 23, at 709–10.

41. See, e.g., Harmon, *supra* note 40, at 773–74.

42. See, e.g., Andrew Manuel Crespo, *Systemic Facts: Toward Institutional Awareness in Criminal Courts*, 129 HARV. L. REV. 2049, 2055–56 (2016); Tracey L. Meares, *Three Objections to the Use of Empiricism in Criminal Law and Procedure—And Three Answers*, 2002 U. ILL. L. REV. 851, 873; Tracey L. Meares & Bernard E. Harcourt, *Foreword: Transparent Adjudication*

courts regulate the police requires new forms of partnerships to equip judges with the type of empirical expertise that can inform judges' decisions.⁴³

The findings presented in this Article have much to offer all perspectives in this scholarly conversation. With regard to nonconstitutional interventions, the greater contextual understanding of violence against the police that the study offers can inform how law enforcement agencies train officers to approach and act during routine traffic stops.⁴⁴ Of course, the work police officers do can involve risks to their safety. But certain exercises of police authority during routine traffic stops (for instance, grabbing drivers or telling them to exit the car) may not be desirable, even if legal or constitutional, if they instigate escalation in ways that harm officers or civilians. Regarding constitutional interventions, the study prompts novel questions about longstanding Fourth Amendment doctrine that invokes officer safety as a justification to allow officers to conduct various searches and seizures during routine traffic stops, regardless of the basis or context of those stops. As this Article will discuss, the findings open avenues to fundamentally rethink assumptions engrained in Fourth Amendment doctrine in at least two areas: pretextual traffic stops⁴⁵ and the routine ordering of drivers and passengers out of vehicles.⁴⁶

This Article proceeds as follows. Part I explains the limitations of leading sources of information on violence against the police during routine traffic stops, which underscores the need for the study that I conducted. Part II explains the methodology of the study. Part III presents key statistical findings of the study. Part IV draws on qualitative methods to create a typology of major traffic stop scenarios that escalate into violence against the police. Finally, Part V examines the broader implications of the study for law enforcement agencies, courts, and future research on policing.

I. LIMITATIONS OF EXISTING DATA SOURCES

This Part evaluates existing data sources on violence against the police during routine traffic stops and identifies key limitations. The analysis shows that extant information is largely devoid of context. Specifically, existing data tell us very little about the patterns, sequences, and trends surrounding this violence against officers. As this Article will later discuss, this contextual knowledge is essential for institutional actors that regulate the police to accu-

and Social Science Research in Constitutional Criminal Procedure, 90 J. CRIM. L. & CRIMINOLOGY 733, 736–37 (2000).

43. Crespo, *supra* note 42, at 2105.

44. See *infra* Section V.A.

45. Joh, *supra* note 35, at 209 (defining pretextual traffic stops as “occasions when the justification offered for the detention is legally sufficient, but is not the actual reason for the stop” (footnote omitted)). In *Whren v. United States*, 517 U.S. 806, 819 (1996), the U.S. Supreme Court held that the subjective reasons why officers conduct traffic stops are irrelevant so long as the officers have probable cause of a traffic violation.

46. See *infra* Section V.B.

rately identify, measure, and mitigate the risks and costs of policing during routine traffic stops.

A. LEOKA Statistics

The leading source of official statistics on violence against the police, including violence during routine traffic stops, is the Federal Bureau of Investigation's "Law Enforcement Officers Killed and Assaulted" (LEOKA) program.⁴⁷ LEOKA statistics are gathered as follows: Officers who are assaulted by a civilian provide information about the incident to their respective departments by filling out an incident report.⁴⁸ Incident reports are not standardized; they can vary from state to state or even from agency to agency. To increase uniformity in reporting, however, the LEOKA program uses standardized offense definitions by which law enforcement agencies submit crime data without regard to local or state definitions of crime.⁴⁹ Each participating agency voluntarily collects, organizes, and sends assault data to the FBI. The FBI then compiles this information and uses it to generate and release a comprehensive annual report on violence against law enforcement officers across the United States.⁵⁰

The FBI has historically gathered and released LEOKA statistics on two categories of violence against the police that are relevant to this Article. First, the FBI has gathered and released annual national statistics on law enforcement officers *killed* in the line of duty since 1937.⁵¹ Second, annual national statistics involving *assaults* against officers were added in 1960.⁵² LEOKA reports are supposed to be based on actual assaults or homicides, and not mere

47. Brandl, *supra* note 33, at 256 (1996) ("Much of what is known regarding the felonious assault and murder of police officers comes from FBI annual data."). The LEOKA program is part of the FBI's annual Uniform Crime Reporting (UCR), which began in 1930 and is one of the main sources of official crime statistics in the United States. LARRY J. SIEGEL & JOHN L. WORRALL, *ESSENTIALS OF CRIMINAL JUSTICE* 31–32 (11th ed. 2017); *Uniform Crime Reporting*, FBI, <https://ucr.fbi.gov/> [<https://perma.cc/33NB-8L2W>].

48. See, e.g., ARK. CRIME INFO. CTR., LEOKA: LAW ENFORCEMENT OFFICER KILLED OR ASSAULTED, http://www.acic.org/Websites/acic/images/pdfs/2016_7NIBRS_LEOKA.pdf [<https://perma.cc/8256-NYTC>] (explaining LEOKA reporting procedures in Arkansas).

49. GENNARO F. VITO & JEFFREY R. MAAHS, *CRIMINOLOGY* 29 (4th ed. 2017) (noting that the Uniform Crime Report "features standardized definitions of crime").

50. *LEOKA Resources*, FBI, <https://ucr.fbi.gov/leoka-resources> [<https://perma.cc/T9EU-GPL9>]. The most recent report was based on statistics collected from just over 12,400 law enforcement agencies. According to the FBI, these agencies employed 586,466 officers and provided service to more than 268.2 million people in the United States (which covers approximately 83% of the U.S. population). See *2016 Law Enforcement Officers Killed & Assaulted*, FBI (2016), https://ucr.fbi.gov/leoka/2016/officers-assaulted/assaults_topic_page_-2016 [<https://perma.cc/4Q53-G7G6>].

51. *About Law Enforcement Officers Killed and Assaulted*, FBI, https://ucr.fbi.gov/leoka/2016/about-leoka/about_leoka_-2016 [<https://perma.cc/2PVE-8FAE>].

52. *Id.*

threats or simple resistance without violence.⁵³ Importantly, the FBI's intended purpose in gathering these statistics is to assist law enforcement agencies in developing policies that enhance officer safety.⁵⁴ Several courts have also referenced or relied on LEOKA statistics in their opinions when discussing the safety risks that routine traffic stops pose to law enforcement officers.⁵⁵

Until 2012, LEOKA statistics lumped together cases of violence against officers during *any* vehicle stop under a single category: "traffic pursuits and stops."⁵⁶ Critically, this category captured routine traffic stops, criminal enforcement stops, and felony vehicle stops for non-traffic-based offenses. This overinclusive classification makes it impossible to tell how many cases involve vehicle stops related to traffic enforcement, criminal enforcement, or both.

The problem with this overinclusive classification is that it fails to reflect important distinctions. Consider two hypotheticals. In the first, a police officer engages in a high-speed vehicle pursuit of an armed bank robber who fled the crime scene in a car. The robber eventually stops, and the officer approaches the car with her gun drawn. The robber puts the car into reverse and intentionally drives at the officer, who then falls back and suffers minor injuries from hitting the ground. In the second, a deputy sheriff pulls over a

53. *Id.* As I discuss later, a small subset of cases in my study were situations that involved mere threats against officers, and not actual or attempted violence against the officers.

54. *LEOKA Resources*, *supra* note 50.

55. See, e.g., *Maryland v. Wilson*, 519 U.S. 408, 413 (1997); *Pennsylvania v. Mimms*, 434 U.S. 106, 110 (1977) (per curiam) (citing *United States v. Robinson*, 414 U.S. 218, 234 n.5 (1973)); *United States v. Robinson*, 414 U.S. 218, 234 n.5 (1973); see also, e.g., *United States v. Robinson*, 846 F.3d 694, 699 (4th Cir. 2017) (en banc); *United States v. Rochin*, 662 F.3d 1272, 1273 (10th Cir. 2011) (Gorsuch, J.) (citing 2010 LEOKA statistics); *United States v. Bullock*, 510 F.3d 342, 349 (D.C. Cir. 2007) (Kavanaugh, J.); *United States v. Holmes*, 385 F.3d 786, 791 (D.C. Cir. 2004) (Roberts, J.) (citing 2002 LEOKA statistics); *United States v. Pecina*, No. 2:13-cr-00146, 2014 WL 3849847, at *9 (N.D. Ind. Aug. 4, 2014) (citing 2012 LEOKA statistics); *United States v. Dulaney*, No. 2:06-cr-00281-HDM-LRL, 2007 WL 680785, at *3 (D. Nev. Mar. 1, 2007) (quoting *Wilson*, 519 U.S. at 413) (citing 1994 LEOKA statistics), *aff'd*, 299 F. App'x 622 (9th Cir. 2008); *Aguiar v. State*, 199 So. 3d 920, 924 (Fla. Dist. Ct. App. 2016) (en banc) (quoting *Wilson*, 519 U.S. at 413-14) (citing 1994 LEOKA statistics); *Hiibel v. Sixth Judicial Dist. Ct. ex rel. County of Humboldt*, 59 P.3d 1201, 1205 n.20 (Nev. 2002) (citing 2000 LEOKA statistics), *aff'd*, 542 U.S. 177 (2004); *State v. Sloane*, 939 A.2d 796, 802 (N.J. 2008) (citing 2005 LEOKA statistics).

56. Prior to 1972, the LEOKA program only used the term "traffic stop" when classifying violence against police officers involving *any* vehicle stop. Although this term was never specifically defined in the pre-1972 LEOKA reports, the 1972 report abandons the term "traffic stops" in favor of "traffic pursuits and stops." After this change, the LEOKA report reframes the pre-1972 statistics as involving *both* "traffic pursuits and stops." The 1972 LEOKA report included the following statistics: (1) from 1963 to 1967, 11 of the 298 officer killings (or 3.7%) involved "traffic pursuits and stops," (2) from 1968 to 72, 49 of the 488 officer killings (or 10%) involved "traffic pursuits and stops," and (3) in 1972, 3,523 (approximately 10.5%) of all total assaults of police officers involved "traffic pursuits and stops." See FBI, U.S. DEP'T OF JUSTICE, UNIFORM CRIME REPORTS FOR THE UNITED STATES 46, 168 (1972) (containing the 1972 LEOKA report).

woman for failure to wear a seatbelt, orders her out of the car, and starts to frisk her for weapons. Feeling personally violated as the deputy runs the edge of his hands down her chest, the driver lightly slaps the officer's hand.

LEOKA statistics would have classified both of these cases together under the "traffic pursuits and stops" category, even though a traffic violation was only central in the second case.⁵⁷ This lack of a distinction is problematic. Criminal enforcement stops for suspected felonies (for instance, a bank robbery) arguably pose greater risks to officer safety on the whole than do routine traffic stops for minor traffic infractions (for instance, failure to wear a seatbelt).⁵⁸ The grave and persistent dangers of felony vehicle stops is why police training has traditionally categorized such stops as "high-risk."⁵⁹

Therefore, institutional actors that relied on pre-2013 LEOKA statistics to inform their decisions about appropriate policing during routine traffic stops did so with statistics that included a much broader swath of vehicle stops than routine traffic stops. In 1977, for example, the U.S. Supreme Court announced its decision in *Pennsylvania v. Mimms*, which held that officers may, at their discretion, routinely order drivers out of vehicles as a safety precaution.⁶⁰ To reach its holding, the Court relied on LEOKA statistics in the "traffic pursuits and stops" category to support its view that routine traffic stops are especially fraught with danger to the police.⁶¹ Twenty years later, in *Maryland v. Wilson*, the Court extended *Mimms* to hold that officers also have unbridled discretion to routinely order passengers out of vehicles as a safety precaution.⁶² The Court stressed the need for officers to "routinely exercise unquestioned command of the situation,"⁶³ again relying

57. We can assume that the fleeing bank robber likely committed a range of traffic violations, but those were incidental, at best, to the reason for the stop.

58. See, e.g., Duane Wolfe, *5 Felony Traffic Stop Tactical Tips for Police Officers*, POLICEONE.COM: THE WARRIOR'S PATH (Apr. 20, 2015), <https://www.policeone.com/police-products/vehicles/articles/8529241-5-felony-traffic-stop-tactical-tips-for-police-officers/> [<https://perma.cc/ET2P-Q7A4>] (describing the felony stop as "one of the most-common [sic] high-risk" policing situations).

59. See, e.g., FLA. HIGHWAY PATROL, POLICY MANUAL § 17.21.06(C) (2015), <https://www.flhsmv.gov/fhp/Manuals/1721.pdf> [<https://perma.cc/4UGU-BQBA>]; GA. DEP'T OF PUB. SAFETY, POLICY MANUAL § 11.03.3(E) (2011), <https://dps.georgia.gov/sites/dps.georgia.gov/files/Policies/Chapter11/11.03%20Traffic%20Stops%20revision%20March%204%2C%202011.pdf> [<http://perma.cc/ZQG3-MBLV>] (discussing protocol on felony/high risk traffic stops); N.M. DEP'T OF PUB. SAFETY, POLICIES AND PROCEDURES: TRAFFIC CONTROL AND ENFORCEMENT OPERATIONS § 6.0(G)(3) (2015), https://www.dps.nm.gov/templates/g5_hydrogen/custom/PDFs/AB&MOPR.41_Traffic_Control_Enforcement.pdf [<https://perma.cc/V8FU-TYJY>] (discussing protocol on felony/high risk stops).

60. 434 U.S. 106, 109–11 (1977).

61. *Mimms*, 434 U.S. at 110 (citing Allen P. Bristow, *Police Officer Shootings—A Tactical Evaluation* 54 J. CRIM. L. CRIMINOLOGY & POLICE SCI. 93, 93 (1963)) (relying on data from the 1961 LEOKA report that found 32% of shooting incidents occurred in the course of vehicle stops).

62. *Maryland v. Wilson*, 519 U.S. 408 (1997).

63. *Id.* at 414 (quoting *Michigan v. Summers*, 452 U.S. 692, 703 (1981)).

on overinclusive LEOKA statistics to reaffirm its view that routine traffic stops are especially dangerous settings for officers.⁶⁴

Even with this overinclusivity problem, LEOKA statistics from 2012, presented *infra* in Table 1, contradict the dominant danger narrative. Those statistics report that cases in the “traffic pursuits and stops” category accounted for only 8.41% of officers who reported assaults that year. Contrary to the dominant danger narrative, “traffic pursuits and stops” fell outside the top four major policing scenarios in which officers reported being victims of civilian-perpetrated assaults. Those scenarios included disturbance calls; attempted arrests on suspects other than burglary or robbery suspects; the handling, transporting, and custody of prisoners; and investigating suspicious persons/circumstances.

TABLE 1

Law Enforcement Officers Assaulted by Circumstance at Scene of Incident, 2012⁶⁵		
<i>Circumstance</i>	<i>Freq.</i>	<i>% Dist.</i>
Disturbance call	17,205	32.52
Attempting other arrest	8,057	15.23
Handling, transporting, custody of prisoner	7,173	13.56
Investigating suspicious person/circumstance	4,915	9.29
Traffic pursuit/stop	4,450	8.41
Handling person with mental illness	1,353	2.56
Burglary in progress/pursuing burglary suspect	760	1.44
Civil disorder (mass disobedience, riot, etc.)	722	1.36
Robbery in progress/pursuing robbery suspect	463	0.88
Ambush situation	267	0.50
All other	7,536	14.25
Total number of victim officers	52,901	100.00

64. *Id.*

65. This table was modified from FBI, LAW ENFORCEMENT OFFICERS KILLED AND ASSAULTED tbl.73 (2012), https://ucr.fbi.gov/leoka/2012/tables/table_73_leos_asltd_circum_at_scene_of_incident_by_type_of_weapon_and_percent_distribution_2012.xls [<https://perma.cc/76E5-2UR8>].

In 2013, the FBI made a significant change to the LEOKA program that is relevant to this Article: it separated the “traffic pursuits and stops” category into two subcategories: (1) “traffic violation stops” and (2) “felony vehicle stops.” These two new subcategories are now used to track the felonious killings of law enforcement officers as well as assaults against officers who are injured with “firearms or knives/other cutting instruments.”⁶⁶

These improved LEOKA statistics provide important insight into the problems with treating vehicle stops as a monolithic category. First, consider the improved statistics that separate incidents involving the felonious killings of officers during “traffic violation stops” versus “felony vehicle stops.” According to the most recent LEOKA statistics, presented *infra* in Table 2, a total of 509 officers were feloniously killed between 2007 and 2016;⁶⁷ 79 officers were feloniously killed during “traffic pursuits and stops.”⁶⁸ The total was more than the number of officers killed in any other single category except “arrest situations.” When “traffic pursuits and stops” are viewed as a monolithic category, then institutional actors could easily extrapolate from these LEOKA statistics that routine traffic stops are one of the deadliest settings for law enforcement officers.

66. FBI, LAW ENFORCEMENT OFFICERS KILLED AND ASSAULTED tbl.101 (2016), <https://ucr.fbi.gov/leoka/2016/detailed-assault-topic-page-summaries/tables/table-101.xls> [<https://perma.cc/56Y4-CH5U>].

67. FBI, LAW ENFORCEMENT OFFICERS KILLED AND ASSAULTED tbl.23 (2016), <https://ucr.fbi.gov/leoka/2016/tables/table-23.xls> [<https://perma.cc/M5MN-XA5H>].

68. *Id.*

TABLE 2

Law Enforcement Officers Feloniously Killed⁶⁹	
<i>Circumstance at Scene of Incident, 2007–2016</i>	
Arrest situation	89
<i>Robbery in progress/pursuing robbery suspect</i>	33
<i>Burglary in progress/pursuing burglary suspect</i>	10
<i>Drug-related matter</i>	9
<i>Attempting other arrest</i>	37
Traffic pursuit/stop	79
<i>Traffic violation stop</i>	48
<i>Felony vehicle stop</i>	31
Investigating suspicious person/circumstance	73
Disturbance call	63
<i>Disturbance (bar fight, person with firearm, etc.)</i>	37
<i>Domestic disturbance (family quarrel, etc.)</i>	26
Ambush (entrapment/premeditation)	55
Tactical situation (barricaded offender, hostage taking, high-risk entry, etc.)	54
Unprovoked attack	50
Investigative activity (surveillance, search, interview, etc.)	27
Handling, transporting, custody of prisoner	11
Handling person with mental illness	8
Civil disorder (mass disobedience, riot, etc.)	0
Total number of victim officers	509

Critically, a very different picture of the dangerousness of routine traffic stops emerges when “traffic violation stops” are separated from “felony vehicle stops.” These improved statistics show that of the 79 total officer killings during “traffic pursuits and stops,” 48 killings (or approximately 60%) involved “traffic violation stops,” and 31 killings (or approximately 40%) involved “felony vehicle stops.”⁷⁰ Contrary to the dominant danger narrative, these more nuanced statistics show that “traffic violation stops” accounted for fewer felonious killings of officers than six other major policing scenarios: disturbance calls, arrest situations, investigating suspicious persons/circumstances, ambushes, unprovoked attacks, and tactical situations. This more nuanced breakdown is also reflected *supra* in Table 2.

While “traffic violation stops” still account for a majority of the killings in the “traffic pursuits and stops” category, the 40% involving “felony vehicle stops” is far from insignificant—especially given that felony vehicle stops are conducted much less frequently than traffic violation stops.⁷¹ Put simply,

69. This table appears in FBI, LAW ENFORCEMENT OFFICERS KILLED AND ASSAULTED tbl.23 (2016), <https://ucr.fbi.gov/leoka/2016/tables/table-23.xls> [<https://perma.cc/M5MN-XA5H>].

70. *Id.*

71. See sources cited *supra* notes 2–3.

these more refined statistics show how categorizing felony vehicle stops and routine traffic stops for only minor traffic violations together provides an inflated metric of the number of officers that are feloniously killed during routine traffic stops. Several courts—including the U.S. Supreme Court—have relied on these overinclusive LEOKA statistics in cases involving police authority and routine traffic stops.⁷²

Second, consider the improved LEOKA statistics that separate incidents involving officers who are assaulted and injured with “firearms or knives/other cutting instruments” during “traffic violation stops” versus “felony vehicle stops.”⁷³ According to the most recent LEOKA statistics, presented *infra* in Table 3, a total of 522 officers reported assaults and injuries with firearms or knives/other cutting instruments between 2012 and 2016;⁷⁴ 47 officers reported assaults and injuries during “traffic pursuits and stops.”⁷⁵ This is not an insubstantial number, but it also does not rank as the most dangerous aspect of policing based on this metric: overinclusive “traffic pursuits and stops” accounted for fewer officer assaults and injuries with firearms or knives/other cutting instruments than four other major policing scenarios (disturbance calls, arrest situations, investigating suspicious persons or circumstances, and tactical situations).

72. See decisions cited *supra* note 55; see also *infra* Section V.B.2.

73. FBI, tbl.101, *supra* note 66.

74. *Id.*

75. *Id.*

TABLE 3

Law Enforcement Officers Assaulted and Injured with Firearms or Knives/Other Cutting Instruments⁷⁶	
<i>Circumstance at Scene of Incident, 2012–2016</i>	
Disturbance call	119
<i>Disturbance (bar fight, person with firearm, etc.)</i>	69
<i>Domestic disturbance (family quarrel, etc.)</i>	50
Tactical situation (barricaded offender, hostage taking, high-risk entry, etc.)	93
Investigating suspicious person/circumstance	78
Arrest situation	65
<i>Robbery in progress/pursuing robbery suspect</i>	15
<i>Drug-related matter</i>	13
<i>Burglary in progress/pursuing burglary suspect</i>	6
<i>Attempting other arrest</i>	31
Traffic pursuit/stop	47
<i>Traffic violation stop</i>	33
<i>Felony vehicle stop</i>	14
Handling person with mental illness	39
Investigative activity (surveillance, search, interview, etc.)	34
Ambush (entrapment/premeditation)	26
Unprovoked attack	15
Handling, transporting, custody of prisoner	4
Civil disorder (mass disobedience, riot, etc.)	2
Total number of victim officers	522

More relevantly, though, the more refined statistics that separate “traffic violation stops” from “felony vehicle stops” further undermine the dominant danger narrative. Of the 47 officers who reported assaults and injuries with firearms or knives/other cutting instruments, 33 incidents involved “traffic violation stops,” whereas 14 incidents involved “felony vehicle stops.”⁷⁷ As Table 3 shows above, “traffic violation stops” accounted for fewer assaults and injuries with a firearm or knife/cutting instrument than six other major policing scenarios (disturbance calls, arrest situations, investigating suspicious persons or circumstances, tactical situations, investigative activities, and handling individuals with mental illness).

The newer and improved LEOKA statistics cast doubt on whether routine traffic stops are truly exceptional with regard to the safety risks that they pose to law enforcement officers. These improved statistics also show the importance of separating vehicle stops for traffic enforcement from vehicle stops for felony criminal enforcement in order to accurately measure the

76. This table appears in FBI, LAW ENFORCEMENT OFFICERS KILLED AND ASSAULTED tbl.101 (2016), <https://ucr.fbi.gov/leoka/2016/detailed-assault-topic-page-summaries/tables/table-101.xls> [<https://perma.cc/56Y4-CH5U>].

77. *Id.*

dangerousness of routine traffic stops to officers. As explained later, my study expanded on this approach.⁷⁸

Although these improved LEOKA statistics offer important insights, they also have significant limitations. To begin, these improved statistics only involve a very small subset of cases involving violence against the police during routine traffic stops—namely, the most violent ones: encounters that result in an officer being injured by a deadly weapon or feloniously killed. As discussed later in this Article, the overwhelming majority of violence against the police during routine traffic stops does not involve felonious killings of officers or assaults with guns or knives that lead to injury.⁷⁹ Rather, the bulk of violence involves unarmed assaults that cause no injury or minor injuries to officers.⁸⁰ Therefore, the improvements to the LEOKA statistics do not address the overinclusivity problems.

Similarly, both the old and newly improved LEOKA statistics present small subsets of police–civilian encounters. They do not capture the fact that tens of millions of routine traffic stops occur every year.⁸¹ Traffic stops are the most common interaction between police and civilians,⁸² so the number of incidents that result in violence against the police is only a drop in the bucket compared to the total number of encounters.⁸³ Further, neither the old nor the newly improved LEOKA statistics provide any contextual information on the bases of the stops or the sequence of events that escalated into violence against the officers during those stops.

As a result, LEOKA statistics do not help to evaluate whether certain exercises of police power during routine traffic stops—such as ordering drivers or passengers out of cars—create avoidable and unnecessary conflicts that may undermine both officer and civilian safety. Further, these statistics do not tell us whether cases of violence against the police during felony vehicle stops follow different patterns or sequences than do cases of violence involving routine traffic stops for only minor traffic violations. These questions are essential to evaluate whether and when it is appropriate for institutional actors to rely on officer safety as a justification to permit certain invocations of authority during routine traffic stops.⁸⁴

B. *The Bristow Study*

Allen Bristow’s study on civilian shootings of police officers (“the Bristow study”) is a second major source of information on violence against the

78. See *infra* Part II (discussing the methodology of the study).

79. See *infra* Section III.B.

80. See *infra* Section III.B.

81. See *supra* note 3 and accompanying text.

82. See *supra* note 2 and accompanying text.

83. A more thorough discussion of this point will be provided *infra* Sections I.C and III.C.

84. See *infra* Sections V.A., V.B.

police during routine traffic stops.⁸⁵ Published in 1963, the Bristow study is important because courts have relied on, and still reference, the study when emphasizing the dangers of routine traffic stops to the police.⁸⁶ Moreover, the Bristow study has shaped a common statistic within law enforcement circles: one-third of all officer killings involve a routine traffic stop.⁸⁷

The continuing influence of the Bristow study warrants scrutiny, given that it was published over 50 years ago, in an era when routine traffic stops served a much different law enforcement purpose. Between the 1920s and 1970s, law enforcement agencies largely followed a reactive philosophy that was geared toward responding to civilian complaints of crime.⁸⁸ The Bristow study therefore applies to a time when reactive philosophies were the policing norm.

Dominant policing philosophies have shifted since then. During the 1960s and 1970s, rising crime rates and growing civil unrest generated skepticism over the effectiveness of reactive policing.⁸⁹ Proactive policing strategies emerged as the norm soon after in the 1980s.⁹⁰ These strategies shifted

85. Allen P. Bristow, *Police Officer Shootings—A Tactical Evaluation*, 54 J. CRIM. L. CRIMINOLOGY & POLICE SCI. 93, 93 (1963).

86. See, e.g., *Michigan v. Long*, 463 U.S. 1032, 1049 n.3 (1983); *Pennsylvania v. Mimms*, 434 U.S. 106, 110 (1977); *United States v. Robinson*, 414 U.S. 218, 234 n.5 (1973); *Adams v. Williams*, 407 U.S. 143, 147–48, 148 n.3 (1972); see also, e.g., *United States v. Washington*, 490 F.3d 765, 771 (9th Cir. 2007) (quoting *Adams*, 407 U.S. at 148 n.3); *United States v. Sakyi*, 160 F.3d 164, 168 (4th Cir. 1998) (citing *Mimms*, 434 U.S. at 110, and *Long*, 463 U.S. at 1048 n.13); *United States v. Stanfield*, 109 F.3d 976, 981 (4th Cir. 1997) (quoting *Mimms*, 434 U.S. at 110); *Ruvalcaba v. City of Los Angeles*, 64 F.3d 1323, 1327 (9th Cir. 1995) (quoting *Long*, 463 U.S. at 1047); *United States v. Pajari*, 715 F.2d 1378, 1383 (8th Cir. 1983) (quoting *Adams*, 407 U.S. at 148 n.3); *Flanegan v. O’Leary*, No. 14–1379, 2015 WL 5311271, at *3 (W.D. Pa. Sept. 11, 2015) (quoting *Mimms*, 434 U.S. at 110); *Hall v. Raech*, 677 F. Supp. 2d 784, 801 n.22 (E.D. Pa. 2010) (citing *Mimms*, 434 U.S. at 110); *Merring v. Town of Tuxedo*, No. 07–CV–10381 (CS), 2009 WL 849752, at *7 (S.D.N.Y. Mar. 31, 2009) (quoting *Adams*, 407 U.S. at 148 n.3); *United States v. Williams*, No. CRIM.A. H-05-68, 2005 WL 2171877, at *2 (S.D. Tex. Sept. 2, 2005) (citing *Mimms*, 434 U.S. at 110); *United States v. Garcia*, 279 F. Supp. 2d 294, 302 n.1 (S.D.N.Y. 2003) (citing *Mimms*, 434 U.S. at 110); *United States v. Younger*, No. 86–0036–F, 1986 WL 8790, at *5 (D. Mass. Aug. 11, 1986) (citing *Adams*, 407 U.S. at 148 n.3); *United States v. Balsamo*, 468 F. Supp. 1363, 1384 n.30 (D. Me. 1979) (quoting *Adams*, 407 U.S. at 148 n.3). In addition, David Harris has discussed that the U.S. Supreme Court has misused the Bristow study to support the proposition that “stops of cars pose such danger to officers that they necessitate broad police powers to conduct vehicle searches,” when the study does not support this conclusion. David A. Harris, *Frisking Every Suspect: The Withering of Terry*, 28 U.C. DAVIS L. REV. 1, 41 n.181 (1994).

87. This point is based on my conversations with several former law enforcement officers from different policing jurisdictions.

88. George L. Kelling & Mark H. Moore, *The Evolving Strategy of Policing*, PERSP. ON POLICING, Nov. 1988, at 4–5.

89. Bruce A. Green & Alafair S. Burke, *The Community Prosecutor: Questions of Professional Discretion*, 47 WAKE FOREST L. REV. 285, 287 (2012).

90. Debra Livingston, *Police Discretion and the Quality of Life in Public Places: Courts, Communities, and the New Policing*, 97 COLUM. L. REV. 551, 565–78 (1997) (discussing the historical development of community policing and problem-oriented policing).

the focus of policing away from individuals who committed crime toward individuals who had not yet committed crime, as well as the circumstances that might encourage them to offend.⁹¹

In this new policing climate, routine traffic stops assumed a greater role than mere traffic enforcement. Rather, law enforcement agencies came to view these stops as cost-effective tools for officers to stop and search “suspicious” drivers and passengers who the officers believed may be involved in nontraffic crime.⁹² As routine traffic stops became increasingly entwined with criminal enforcement, the protective tools that officers had at their disposal also improved (for instance, bulletproof vests⁹³ and improved tactics⁹⁴).

These important differences cast doubt on the applicability of the Bristow study to contemporary policing situations.⁹⁵ Beyond applicability concerns, however, the Bristow study also has several methodological shortcomings that undermine its ability to provide insight into the dangers of routine traffic stops to law enforcement. To begin, there are sampling problems with the study. The study examined a sample of 110 civilian shootings that resulted in injury or death involving 150 officers.⁹⁶ This sample was based on an informal collection of cases over a two-year period.⁹⁷ Bristow himself warned that the study was only intended to be a pilot study and that its findings should be viewed with caution.⁹⁸

Putting aside sampling limitations, the Bristow study found that 32% (or 35 of the 110 police shootings) occurred while police officers were attempting to “investigate, control, or pursue suspects who were in automobiles.”⁹⁹ Of those 35 cases, 7% of the officers were shot during a vehicle pursuit; 28% were shot while sitting in their patrol cars before exiting; 22% were shot while exiting from their vehicles or approaching a suspect’s vehicle; and 43% were shot after initial contact with the suspect while questioning, issuing a

91. FAIRNESS AND EFFECTIVENESS IN POLICING: THE EVIDENCE 85–88 (Welsey Skogan & Kathleen Frydl eds., 2004).

92. See Gross & Barnes, *supra* note 35, at 660 (discussing the use of traffic stops and racial profiling “to increase the probability of finding large hauls of drugs”).

93. OSHA GRAY DAVIDSON, UNDER FIRE 87 (1998); Ronnie Garrett, *Body Armor: Protecting Those Who Serve*, POLICE MAG., (July 17, 2012), <http://www.policemag.com/channel/patrol/articles/2012/07/protecting-those-who-serve.aspx> [<https://perma.cc/3Z79-DGAK>] (noting that the National Institute of Justice (NIJ) “began testing and developing body armor and performance standards for ballistic and stab resistance” in the mid-1970s).

94. See Garrett & Stoughton, *supra* note 29, at 244–49 (discussing the “revolution” in police tactics in the 1960s and 1970s).

95. Relevant to this idea, Illya Lichtenberg recently attempted to replicate the Bristow study using more recent LEOKA statistics and could not replicate its results. See generally “Police Officer Shootings—A Tactical Evaluation”: A Replication of the 1963 Bristow Study, 54 WILLAMETTE L. REV. 79 (2017).

96. Bristow, *supra* note 85, at 93.

97. *Id.*

98. *Id.*

99. *Id.*

citation, or requesting a record check on the suspect.¹⁰⁰ Critically, the study did not separate these 35 vehicle stop cases in terms of their underlying basis—the same shortcoming with most available LEOKA statistics.¹⁰¹ It is unclear how many of the 35 cases involved criminal enforcement stops as opposed to routine traffic stops for traffic violations. Because of the overinclusive nature of the findings, the Bristow study cannot provide insight into the dangers that routine traffic stops specifically pose to the police.¹⁰²

At the same time, the findings of the Bristow study are underinclusive in important ways. The Bristow study is limited to civilian *shootings* of police officers. But available LEOKA statistics show, and the findings presented in this Article further indicate, that only a very small percentage of violence against the police during routine traffic stops involves guns.¹⁰³ Therefore, because of its narrow focus, the Bristow study does little to enhance our understanding of the more common situations in which violence against the police during routine traffic stops occurs.

C. *Lichtenberg and Smith's Study*

The only other major published study that focuses on the dangerousness of routine traffic stops to law enforcement officers is Illya D. Lichtenberg and Alisa Smith's study.¹⁰⁴ Published over fifteen years ago, Lichtenberg and Smith examined 10 years of LEOKA statistics in the "traffic stops and pursuits" category between 1988 and 1997.¹⁰⁵ To measure the dangerousness of routine traffic stops to law enforcement officers, Lichtenberg and Smith used a metric called the "danger ratio."¹⁰⁶ This ratio, which researchers have also

100. *Id.*

101. *See supra* Section I.A.

102. Some U.S. Supreme Court justices stressed these problems with the Bristow study in their dissents. *See Pennsylvania v. Mimms*, 434 U.S. 106, 118 (1977) (Stevens, J., dissenting) ("These figures tell us very little about the risk associated with the routine traffic stop" and emphasizing that "the Court has based its legal ruling on a factual assumption about police safety that is dubious at best.").

103. *See infra* Section III.B (discussing the study findings on the nature of the violence). The most recent LEOKA statistics report that only 6.3% of assaults during "traffic pursuits [or] stops" involve firearms, and only 0.9% involve knives/other cutting instruments. FBI, LAW ENFORCEMENT OFFICERS KILLED AND ASSAULTED tbl.78 (2016), <https://ucr.fbi.gov/leoka/2016/officersassaulted/tables/table-78.xls> [<https://perma.cc/MU7W-LKV6>]. As discussed *infra* Section III.B, the percentage for routine traffic stops is likely less because the overinclusive "traffic pursuits [or] stops" category includes both routine traffic stops and felony vehicle stops. I also found many cases of assaults against an officer that were categorized as involving guns or knives/cutting instruments, but those weapons were merely found at the scene and were not the cause of the injuries the officer suffered.

104. Illya D. Lichtenberg & Alisa Smith, *How Dangerous Are Routine Police-Citizen Traffic Stops?* A Research Note, 29 J. CRIM. JUST. 419 (2001).

105. *Id.* at 421.

106. *Id.*

applied to measure the dangerousness of domestic disturbance calls to officers,¹⁰⁷ is calculated by dividing the total number of relevant harmful incidents to the police by the total number of relevant police responses.¹⁰⁸

Lichtenberg and Smith used LEOKA statistics from the overinclusive “traffic pursuits and stops” category to calculate the numerator of the danger ratio. According to these statistics, 89 law enforcement officers were feloniously killed in the line of duty during “traffic pursuits and stops” between 1988 and 1997,¹⁰⁹ which accounted for 12.9% of the total civilian killings of officers during that period.¹¹⁰ The LEOKA statistics also reported 58,502 incidents involving assaults against officers during “traffic pursuits and stops,” which accounted for 9.4% of the total assaults against officers during the same period.¹¹¹

As discussed above, the major shortcoming of using these LEOKA statistics to calculate the numerator of the danger ratio is that the statistics do not distinguish between routine traffic stops and criminal enforcement stops. The previous analysis of post-2013 LEOKA statistics that separate “traffic violation stops” from “felony vehicle stops” showed how this overinclusive classification offers an inflated vision of the dangerousness of routine traffic stops for only traffic violations. As explained later, the study presented in this Article analyzed the underlying incident narratives to estimate the extent to which the overinclusive “traffic pursuits and stops” category captures routine traffic stops versus criminal enforcement stops.

Further, with regard to the denominator of the danger ratio, one difficulty in calculating the total number of routine traffic stops is that many stops occur that do not result in a citation.¹¹² To reduce the effects of possible missing cases, Lichtenberg and Smith calculated the denominator based on three different frequency estimates of the total number of routine traffic stops each year that officers initiate nationwide: (1) a low-end estimate (60 million stops) based on the number of annual reported traffic filings in 1991 as reported by the National Center of State Courts; (2) a mid-range estimate (120 million stops) based on a scholarly estimate that only one-half of stopped drivers ever receive a traffic citation;¹¹³ and (3) a high-end estimate (180 million stops) based on a different scholarly estimate that only one-

107. *Id.* at 420 (citing Joel Garner & Elizabeth Clemmer, *Danger to Police in Domestic Disturbances—A New Look*, NAT’L INST. JUST. RES. BRIEF, Nov. 1986, at 1, 2).

108. *Id.*

109. *Id.* at 423–24.

110. *Id.* at 424.

111. *Id.*

112. *Id.* at 423. Issues surrounding how police exercise their discretion to issue citations, and how many, during routine traffic stops fit into broader debates about the role of under-enforcement in shaping the fairness and legitimacy of the criminal justice system. For a broader discussion of under-enforcement in the criminal justice system see generally, Alexandra Natapoff, *Underenforcement*, 75 *FORDHAM L. REV.* 1715 (2006).

113. Lichtenberg & Smith, *supra* note 104, at 423 (citing DAVID H. BAYLEY, *POLICE FOR THE FUTURE* 30 (1994)).

third of stopped drivers ever receive a traffic citation.¹¹⁴ Table 4 presents Lichtenberg and Smith’s danger ratios for each estimate.¹¹⁵

TABLE 4

Lichtenberg and Smith (2011) Danger Ratios		
	<i>Killings</i>	<i>Assaults</i>
<i>Low-End</i>	1 in 6.7M*	1 in 10,256*
<i>Mid-Range</i>	1 in 13.4M*	1 in 20,512*
<i>High-End</i>	1 in 20.1M*	1 in 30,768*
* Number of traffic stops		

As Table 4 reflects, even the most conservative low-end ratio reflects how uncommonly violence against the police during routine traffic stops occurs.¹¹⁶ That ratio suggests that based on nationwide LEOKA statistics, officers are at most feloniously killed by civilians in only 1 in every 6.7 million stops and assaulted—regardless of injury—in only 1 in every 10,256 stops. Based on these ratios, Lichtenberg and Smith concluded that the dangerousness of traffic stops to officers might not be as great as the U.S. Supreme Court has assumed in its Fourth Amendment jurisprudence.¹¹⁷

Although Lichtenberg and Smith’s danger ratios provide a better estimate of violence against officers, these ratios cannot tell us about violence against the police during routine traffic stops specifically because they rely on overinclusive LEOKA data. This metric of dangerousness also does not offer any contextual information about the circumstances, or the sequences, patterns, or trends, surrounding this violence against officers. Relatedly, danger ratios do not help to evaluate whether specific invocations of police authority (for instance, ordering drivers and passengers out of vehicles) instigate escalation in ways that compromise both officer and civilian safety. Danger ratios can thus offer insight into aggregate probabilities of violence against the police during routine traffic stops, but they do not help to evaluate how much of this violence was avoidable or unnecessary in the first place.

* * *

To summarize, leading sources of information on violence against the police during routine traffic stops have a common and significant shortcoming: they are largely devoid of context. The need for context-rich infor-

114. *Id.* (citing MICHAEL K. BROWN, WORKING THE STREET 227 (1981)).

115. *Id.* at 424–25.

116. In this regard, the danger ratio is predicated on what *actually* happened and not what *could* have happened during the traffic stop.

117. Lichtenberg & Smith, *supra* note 104, at 419.

mation on violence against the police during routine traffic stops informed the design of my study, which the Article will now describe.

II. METHODOLOGY

This Part explains the methodology of the study. It first explains the study design, data collection, and data analysis process. It then describes the limitations of the study.

The primary goal of the study was to further our contextual understanding of violence against the police during routine traffic stops.¹¹⁸ The study mostly relied on qualitative methods because the nature of the research was inductive and not hypothesis driven.¹¹⁹ I was also concerned with examining the ways in which violence against the police occurred in natural police settings as opposed to under experimental conditions.¹²⁰ A grounded-theory approach¹²¹ served as the methodological framework for data collection and analysis, allowing for the generation of better-informed theories and propositions about when violence against the police during routine traffic stops occurs.

I chose to gather the underlying data from law enforcement agencies in Florida. Florida has one of the most comprehensive public records laws in the United States.¹²² This level of access resulted in a nearly perfect response rate from the agencies that I contacted, although as explained further below,

118. CATHERINE MARSHALL & GRETCHEN B. ROSSMAN, *DESIGNING QUALITATIVE RESEARCH* 75 (6th ed. 2016) (noting that “[h]istorically, qualitative methodologists have described three major purposes for research: to *explore*, *explain*, or *describe* a phenomenon”).

119. MICHAEL QUINN PATTON, *QUALITATIVE EVALUATION AND RESEARCH METHODS* 44 (2d ed. 1990) (“Inductive analysis contrasts with hypothetical-deductive approach of experimental designs that requires the specification of main variables and the statement of specific research hypotheses *before* data collection begins.”); ANSELM STRAUSS & JULIET CORBIN, *BASICS OF QUALITATIVE RESEARCH* 11 (2d ed. 1998) (noting that “[i]n speaking about qualitative analysis, we are referring not to the quantifying of qualitative data but rather to a non-mathematical process of interpretation, carried out for the purpose of discovering concepts and relationships in raw data and then organizing these into a theoretical explanatory scheme”); *id.* at 136 (discussing how the concept of induction is often applied to qualitative research and that “[a]lthough statements of relationship or hypotheses do evolve from the data (we go from the specific case to the general), whenever we conceptualize data or develop hypotheses, we are interpreting to some degree”).

120. See EMMA WINCUP, *CRIMINOLOGICAL RESEARCH: UNDERSTANDING QUALITATIVE METHODS* 13 (2d ed. 2017) (noting that “qualitative techniques offer[] the opportunity to make a distinct contribution by elucidating the context in which offending takes place and the meanings attached to such behaviour”).

121. STRAUSS & CORBIN, *supra* note 119, at 12 (explaining “grounded theory” as the process by which theory is derived from data).

122. FLA. STAT. ANN. § 119.011–.19 (West 2014); FLA. GOV’T FIN. OFFICERS ASS’N, *BASIC GOVERNMENT RESOURCE MANUAL* 64 (2017) (noting that Florida has some of “the most comprehensive open government laws in the country,” which includes its public records law); Keith W. Rizzardi, *Sunburned: How Misuse of the Public Records Laws Creates an Overburdened, More Expensive, and Less Transparent Government*, 44 STETSON L. REV. 425, 425 (2015) (noting that Florida’s public records law “has been praised as a model of open government”).

those responding agencies did not necessarily have all the relevant cases on file.¹²³

Demographic factors also make Florida a prime location for the study. Florida is one of the most populous and diverse states with a mix of major urban, suburban, and rural areas.¹²⁴ Millions of traffic citations are issued in the state every year.¹²⁵

Moreover, in 1974, Florida decriminalized the bulk of minor traffic offenses by removing criminal penalties and reclassifying those offenses as civil violations.¹²⁶ Those decriminalization reforms were part of a broader wave of traffic decriminalization that swept across over twenty states in the 1970s and 1980s.¹²⁷ As I have discussed in prior work, this wave of traffic decriminalization was “largely [a] product[] of legislative and public judgments that [minor] traffic violations: (1) do not pose a serious enough threat to warrant the significant penalty of the criminal law; [and] (2) pose too great of a burden on courts when handled inside the criminal framework”¹²⁸ Importantly, these judgments are in tension with the dominant danger narrative surrounding routine traffic stops.

The study drew on two original sources of data. The first source (what I call “the Florida LEOKA Database”) was a comprehensive Excel database that I obtained through a public records request from the Florida Department of Law Enforcement.¹²⁹ The Florida LEOKA Database included all incidents of violence against officers during “traffic pursuits and stops” in Florida that resulted in a LEOKA report during the 10-year period of 2005 to

123. As discussed later, I did not receive responses from law enforcement agencies that had disbanded and, therefore, no longer existed when conducting the study. Several other agencies had been incorporated into a different Florida law enforcement agency, and I was able to obtain the relevant narratives by contacting the new agency if it held onto those records.

124. *Florida Passes New York to Become the Nation’s Third Most Populous State*, Census Bureau Reports, U.S. CENSUS BUREAU (Dec. 23, 2014), <http://www.census.gov/newsroom/press-releases/2014/cb14-232.html> [<https://perma.cc/GYC8-LXCS>].

125. This number has wavered between 2.8 million and 5.2 million during the past decade. *Crash and Citation Reports & Statistics*, FLA. DEP’T OF HIGHWAY SAFETY & MOTOR VEHICLES, <http://www.flhsmv.gov/resources/crash-citation-reports/> [<https://perma.cc/D46N-YALQ>].

126. See FLA. STAT. ANN. § 316.655 (West 2014) (noting that the bulk of traffic violations are civil infractions). Examples of criminal traffic violations include driving while under the influence, reckless driving, leaving the scene of an accident, fleeing from a police officer, racing, not having a valid license or registration, and having no or an expired tag. *Id.*; *id.* §§ 316.655; 318.17.

127. Woods, *supra* note 23, at 698.

128. *Id.* at 734–35.

129. The Florida Department of Law Enforcement is the primary entity that gathers data for the FBI’s Uniform Crime Report (UCR) from participating law enforcement agencies across the entire state of Florida. See *Uniform Crime Reports (UCR)*, FLA. DEP’T L. ENFT, <http://www.fdle.state.fl.us/FSAC/UCR-Reports> [<https://perma.cc/SXK2-DHLX>].

2014.¹³⁰ For each incident, the Florida LEOKA Database reported the year; case number; affiliated law enforcement agency; assignment description (whether the officer was alone or assisted, as well as the type of vehicle the officer was driving); the extent of officer injury (felonious killing, serious, major, none); whether a civilian assailant used a weapon and, if so, what type of weapon; the incident time; the officer's age; and the number of years of officer experience.¹³¹ The database included 6,903 total cases—9 involving felonious killings and 6,894 involving assaults against officers—from 288 law enforcement agencies across Florida.¹³² Almost all of the agencies were police departments or sheriff's offices.¹³³

Although the Florida LEOKA Database provided useful information, it did not describe the bases of the stops or the sequences of events leading to violence against the officers.¹³⁴ For these reasons, the centerpiece of the study was the second source—a large sample of incident narratives (and other supplemental information) from the underlying incidents in the Florida LEOKA Database. To create this large sample, I submitted public records requests to 221 of the 288 law enforcement agencies represented in the Florida LEOKA Database. For every case that an agency was affiliated with in the Florida LEOKA Database, I requested the pages of the incident report, arrest record, or probable-cause affidavit that included the officer's narrative of what occurred. Between March 2016 and May 2018, I collected 4,255 narratives that fit the inclusion criteria for the assault cases.¹³⁵

The sampling strategy, described in more detail below, guided which law enforcement agencies I decided to submit public records requests to. The

130. Fla. Dep't of Law Enf't, Law Enforcement Officers Killed or Assaulted, Florida Uniform Crime Report 2005–2014 [Computer Program] (2014) (on file with author) [hereinafter Florida LEOKA Database]. Some readers may wonder why the study stopped at 2014. When I began data collection in early 2016, some police departments had not yet compiled all of their relevant data for 2015 (especially during the later months of the year). In order to accurately calculate the danger rates of routine traffic stops, it was necessary to have the full universe of LEOKA “traffic pursuits and stops” cases over a particular year.

131. This Article only presents certain portions of this information, saving the rest for future scholarship.

132. Not included in these 6,903 cases were seven cases that I excluded from the Florida LEOKA Database involving duplicate incidents and five cases involving the accidental killings of officers. In addition, for simplicity purposes, I categorized cases coming from different station locations of the Florida Highway Patrol together as coming from a single agency—Florida Highway Patrol. The same applied to different station locations of the Florida Fish and Wildlife Conservation Commission.

133. Some exceptions included tribal police forces, station locations of the Florida Highway Patrol, and station locations of the Florida Fish and Wildlife Conservation Commission.

134. Harmon, *supra* note 28, at 1136 (discussing the FBI's Uniform Crime Reports and noting that “the federal government does not collect or analyze most of the extensive data produced by police departments through incident and arrest reports”).

135. I excluded 164 narratives that I could not read because of illegible handwriting or that had insufficient information to determine whether the case involved a vehicle stop. A total of 598 narratives were unavailable from the agencies that I contacted because they did not keep records dating back to 2005.

most common reasons why I did not submit public records requests to the other 67 of the 288 law enforcement agencies represented in the Florida LEOKA Database included (1) the agencies had disbanded, (2) the agencies had been subsumed by a different agency that did not have the prior records on file; (3) the agency reported fewer than 5 incidents in the database, and I had a sufficient number of agencies that matched that agency in terms of geography, size, and agency type; and (4) the public records request was too costly because the agency did not store the relevant records electronically or in a way that was easy to access or retrieve.

Having a detailed narrative allowed me to go beyond any previous study by separating the LEOKA cases that involved routine traffic stops for traffic violations from felony vehicle stops for nontraffic crime. To the best of my ability, I was also able to identify and separate pretextual stops, relying on officers' descriptions of using a traffic violation to pull over a vehicle that they suspected was engaged in crime or that appeared otherwise suspicious.¹³⁶ After categorizing the different types of vehicle stops, I then explored relevant sequences, patterns, and trends. To do this, I coded and analyzed the narratives (and other provided supplemental information) in the qualitative data analysis software ATLAS.ti.

The length and detail of the information included in the reports varied. In order to qualify for the study, the report at a minimum had to include the officer's narrative of the routine traffic stop. Most narratives typically included the following information: (1) the officer's basis for initiating the stop, (2) the sequence of events during the stop that resulted in violence against the officer, (3) the presence and severity of any injuries the officer sustained from the violence, (4) the crimes for which the driver or passenger was arrested, and (5) the ways in which police invoked their authority during the stop and whether that invocation resulted in the discovery of any illegal drugs, weapons, or other contraband.

On balance, the narratives typically included two to three pages of typed text, although lengths ranged from one paragraph to over one hundred pages. The longer reports usually involved assaults that resulted in serious injuries or death to either an officer or a driver or passenger. Many cases also included narratives from multiple officers who were involved in the stop. These supplemental reports could have been written by officers who were on patrol with the assaulted officer or by officers who responded as backup or became involved in the stop as a result of a BOLO ("be on the look-out") for a driver or passenger fleeing the scene. Multiple reports made it possible to compare and contrast different versions of the events for consistency and, to some extent, accuracy.

136. In identifying pretextual stops, I looked for specific indicators in the officers' descriptions that suggested that before the officers pulled a vehicle over for a traffic violation, they were suspicious that the vehicle or its occupants were involved in crime beyond that traffic violation. I did not categorize cases as pretextual stops simply because the officers discovered evidence of crime beyond a traffic violation after it pulled over the vehicle during a routine traffic stop.

Because the narratives were almost always specific sections from the incident or arrest reports, many agencies sent entire copies of the reports. Additional sections in the reports often included the same information that was listed in the Florida LEOKA Database, including the extent of the injury the officer suffered and the type of weapon used during the incident. I was then able to compare and contrast the information from both sources to check for consistency and, to some extent, accuracy.

I gathered as many narratives as possible and prioritized which narratives to obtain based on a purposeful sampling strategy known as maximum variation sampling.¹³⁷ This strategy is a common qualitative strategy when a random sample cannot be drawn,¹³⁸ and it aims to capture and describe central themes and patterns that cut across study sites with a great deal of variation.¹³⁹ To maximize variation in the sample, I chose a large sample of law enforcement agencies that varied based on agency size, geographic area (urban, rural, suburban), and agency type (police departments and sheriff's offices¹⁴⁰).¹⁴¹

137. See generally PATTON, *supra* note 119, at 172 (providing an overview of maximum variation sampling). In this regard, the results of the study are not derived from a random nonprobability sample, which undercuts the generalizability of the findings. At the same time, the study adopted a maximum-variation sampling strategy with this limitation in mind.

138. STRAUSS & CORBIN, *supra* note 119, at 211 (explaining that “the ideal form of theoretical sampling might be difficult to carry out if a researcher does not have unlimited access to persons or sites” and that “[r]ealistically, the researcher might have to sample on the basis of what is available”). Because the study is based on a nonprobability sample, I did not use confidence intervals to validate my results. At the same time, the study adopted a maximum variation sampling strategy and a robust coding process with this limitation in mind.

139. PATTON, *supra* note 119, at 172 (noting that maximum-variation strategy sampling “aims at capturing and describing the central themes or principal outcomes that cut across a great deal of participant or program variation”).

140. The distinction between police departments versus sheriff's offices was important for the study because 66 “of Florida’s 67 counties have elected sheriffs as their chief law enforcement officers”: only one county has an appointed sheriff as its chief law enforcement officer. *Florida Sheriff Directory: Majority Elected*, FLA. SHERIFF’S ASS’N, <https://www.flsheriffs.org/sheriffs/directory> [<https://perma.cc/KGV2-7JUF>]. Conversely, police chiefs in Florida are appointed officials. See, e.g., Frank Maradiaga, *Boynton Beach Has Appointed a New Police Chief*, CBS 12 (Dec. 8, 2017), <http://cbs12.com/news/local/boynton-beach-has-appointed-a-new-police-chief> [<https://perma.cc/ZHN6-REYZ>] (describing appointment of Boynton Beach police chief); Linda Trischitta, *Miramar Appoints Longtime City Police Leader as Chief*, SUNSENTINEL (Mar. 18, 2016, 4:21 PM), <http://www.sun-sentinel.com/local/broward/fl-miramar-police-chief-20160318-story.html> (on file with the *Michigan Law Review*) (describing appointment of Miramar police chief). Distinguishing between police departments and sheriff's officers in methodological terms is also important given the tendency in the literature to think of these entities as the same. See, e.g., James Tomberlin, Note, “Don’t Elect Me”: *Sheriffs and the Need for Reform in County Law Enforcement*, 104 VA. L. REV. 113, 116 (2018) (noting that “within policing scholarship, the county sheriff does not have an identity separate and distinct from other local law enforcement officers”).

141. Kathleen M.T. Collins, *Advanced Sampling Designs in Mixed Research: Current Practices and Emerging Trends in the Social and Behavioral Sciences*, in SAGE HANDBOOK OF MIXED METHODS IN SOCIAL & BEHAVIORAL RESEARCH 353, 361 (Abbas Tashakkori & Charles Teddlie eds., 2d ed. 2010) (noting that “if the researcher’s goal is to assess a range of variability

I adopted this sampling strategy because I expected that it would not be possible to collect all the narratives from the 6,903 total cases in the Florida LEOKA Database.¹⁴² As explained above, the most common obstacle I encountered during data collection was that many law enforcement agencies did not keep records dating as far back as 2005. A few law enforcement agencies did not electronically store their case files, which made it difficult for custodians to retrieve the records. In addition, several departments had disbanded by the time of the study.

At the same time, it is important to emphasize that the rules regarding sample size differ for qualitative and quantitative methods.¹⁴³ In quantitative research, large sample sizes are typically needed for statistical tests that use deductive reasoning to generalize from a sample to an underlying population.¹⁴⁴ Large sample sizes for quantitative research thus serve the purpose of reducing sampling error.¹⁴⁵ In contrast, the inductive nature of qualitative research means that the validity and insights generated from qualitative data have “more to do with the information-richness of the cases selected” than with the size of the sample itself.¹⁴⁶ Decisions about sample size are largely guided by whether increasing the sample would provide new information that is not already forthcoming from the sampled units.¹⁴⁷

Consistent with a major tenet of qualitative analysis, I did not come to the data in advance with presuppositions or hypotheses.¹⁴⁸ Rather, data analysis unfolded in three stages.¹⁴⁹ During the first stage—deconstruction (*open coding*)—I perused the data with an open mind to look for topics and concepts of interest. I then created subcategories in order to operationalize those

within a sample” then “[w]hen using a maximum variation sampling scheme, the researcher likely would conduct a cross-case analysis involving a relatively large sample”).

142. See generally JENNIFER MASON, *QUALITATIVE RESEARCHING* 91 (1996) (“[T]he pursuit of representativeness often requires the construction of very large samples which make the use of qualitative data generation methods very time consuming and costly and in many instances therefore impossible to achieve.”).

143. David L. Morgan, *Sample*, in 2 *THE SAGE ENCYCLOPEDIA OF QUALITATIVE RESEARCH METHODS* 797 (Lisa M. Given ed., 2008) (noting that “qualitative and quantitative research emphasize different sample selection procedures that are specifically adapted to the purposes and goals that guide each kind of research”).

144. *Id.*

145. JOHN W. CRESWELL, *A CONCISE INTRODUCTION TO MIXED RESEARCH METHODS* RESEARCH 76 (2015) (noting that for quantitative sampling “[i]t is important to select as large a sample as possible, because with a large sample there is less room for error in how well the sample reflects the characteristics of the population”).

146. PATTON, *supra* note 119, at 185 (emphasis omitted).

147. *Id.* at 185–86 (quoting YVONNA S. LINCOLN & EGON G. GUBA, *NATURALISTIC INQUIRY* 202 (1985)).

148. *Id.* at 44 (“The qualitative methodologist attempts to understand the multiple inter-relationships among dimensions that emerge from the data without making prior assumptions or specifying hypotheses about the linear or correlative relationships among narrowly defined, operationalized variables.”).

149. These distinctions were only analytical, and the stages interweave in practice.

topics and concepts. During the second stage—construction (*axial coding*)—I went beyond labeling and categorizing the data to look for connections and relationships within and among the categories. I then reassembled the topics and concepts developed in the deconstruction phase into new patterns that reflected these connections and relationships. I also explored interesting patterns, whether the data related to what one might expect based on previous research or common sense, and whether there were any contradictions in the data. During the last phase—confirmation (*selective coding*)—I triangulated the data in order to confirm the validity of the study findings and conclusions.¹⁵⁰ I triangulated the data in several ways, including comparing data from law enforcement agencies based on agency size, geographic area (urban, rural, suburban), and agency type (police departments versus sheriff's offices).

To maximize the success of the data analysis process, I conducted a pilot phase of coding on a smaller subsample of narratives. This pilot phase assisted in identifying relevant codes for the broader sample. I also coded each narrative twice at different times of the data analysis process. In addition, to maximize the reliability of the coding process and the findings, four research assistants independently verified my codes for each narrative.¹⁵¹

The study, like all empirical studies, has limitations. The Florida LEOKA Database and the collected narratives derive from the FBI's LEOKA program. Because agencies voluntarily submit data to the LEOKA program, there are uncertainties about the extent to which law enforcement agencies in Florida participate in the LEOKA program. At the same time, it is important to keep in mind that LEOKA statistics are still viewed as the best official source of statistics on violence against officers in the United States, in spite of the voluntary reporting limitation.¹⁵²

Nonetheless, I cross-checked the law enforcement agencies represented in the Florida LEOKA Database with a comprehensive list of law enforcement agencies in Florida and discovered 9 sheriff's offices and 60 police departments that were not represented in the Florida LEOKA Database. Most of these unrepresented agencies served smaller areas in terms of population.¹⁵³ It is impossible to know whether these agencies are not represented in the Florida LEOKA Database because they did not participate in the LEOKA program or, because of their smaller size, they had no incidents to

150. STRAUSS & CORBIN, *supra* note 119, at 230 (noting that selective coding “denotes the final step in the analysis—the integration of concepts around a core category and the filling in of categories in need of further development and refinement”).

151. DAVID SILVERMAN, *INTERPRETING QUALITATIVE DATA: METHODS FOR ANALYZING TALK, TEXT AND INTERACTION* 148 (1993) (noting that inter-rater reliability “involves giving the same data to a number of analysts (or raters) and asking them to analyze it according to an agreed set of categories”).

152. See Brandl, *supra* note 33, at 256.

153. As mentioned previously, in executing the maximum-variation sampling strategy, I distinguished agencies by their size. Therefore, smaller policing jurisdictions were sufficiently represented in the study.

report involving violence against officers during “traffic pursuits and stops” between 2005 and 2014.

Further, because arrest reports and probable cause affidavits tell versions of the events from the officer’s perspective, perhaps the greatest methodological limitation of the study involves the limits of the arrest reports and probable cause affidavits themselves. For this reason, the decision to focus on the incident narratives warrants explanation. Arrest reports and probable cause affidavits often contain valuable information that the FBI does not collect or analyze under the LEOKA program.¹⁵⁴ In this study, almost all of the drivers and passengers in the evaluated cases were not only cited for traffic infractions, but also arrested for the crime of assault or battery on a law enforcement officer. Most narratives included detailed information about the incident, which was likely motivated by the officer’s desire for the arrest and subsequent criminal charges to hold up in court.

Another benefit of these narratives is that their content often provided a lens into what the officers believed and saw, at what point of the routine traffic stop those beliefs and observations were made, and the time and events between those beliefs and observations and the purported violence against the officers. An understanding of these elements is critical given that institutional actors commonly prioritize officer perceptions in making determinations about the reasonableness of police activity and are hesitant to substitute their own judgment for that of trained officers.¹⁵⁵

In addition, a sample based on the officers’ perspectives should in theory provide the set of cases with versions of the events that are most favorable to affording deference to the police. That is especially the case for this study given that the officers had an incentive to include detail beyond boilerplate language in the incident description so that the arrest and subsequent charge for assaulting an officer could hold up in court. Accordingly, if the study findings from this set of cases casts doubt on officer safety as a justification for expansive police powers during routine traffic stops, then future research based on interviews of the stopped drivers and passengers would likely cast even further doubt.

At the same time, I fully recognize that officer and civilian descriptions of police encounters can and often do differ in meaningful ways. The rise of police body cameras and “copwatching” via cell phone recording has brought many discrepancies and questionable versions of police events into

154. Harmon, *supra* note 28, at 1136.

155. See Lvovsky, *supra* note 8 (discussing judicial presumptions involving police expertise); see also *Graham v. Connor*, 490 U.S. 386, 396 (1989) (noting that the reasonableness of police use of force under the Fourth Amendment “must be judged from the perspective of a reasonable officer on the scene, rather than with the 20/20 vision of hindsight”); Ristroph, *supra* note 8, at 1210 (noting that courts almost invariably defer to officers’ perceptions of danger and resistance).

the public view.¹⁵⁶ Therefore, the narratives provide only one of many possible lenses to study violence against the police during routine traffic stops.

III. STATISTICAL FINDINGS

This Part presents key statistical findings of the study. In short, the findings do not support the dominant danger narrative surrounding routine traffic stops. The findings are organized into three Sections. First, I found that the bases of the stops in approximately one in every three of the assault narratives involved more than traffic enforcement or did not involve traffic enforcement at all. Second, the bulk of violence against officers was relatively minor—both in terms of the degree of officers' injuries and the weapons used against them. At the same time, I discovered that a very different picture of assaults against officers emerged when routine traffic stops were separated from criminal enforcement stops. This finding underscores the need to avoid adopting a monolithic conceptualization of routine traffic stops: the very error that enables oversimplified danger narratives. Third, the danger ratios involving routine traffic stops were low.

156. See generally David A. Harris, *Picture This: Body-Worn Video Devices (Head Cams) as Tools for Ensuring Fourth Amendment Compliance by Police*, 43 TEX. TECH. L. REV. 357, 364 (2010) (noting that police body cams will sometimes support citizen complaints over the officer's version of the events); Laurent Sacharoff & Sarah Lustbader, *Who Should Own Police Body Camera Videos?*, 95 WASH. U. L. REV. 269 (2017) (discussing police body cams and their connection to police accountability); Jocelyn Simonson, *Copwatching*, 104 CALIF. L. REV. 391 (2016) (describing the phenomenon of organized copwatching and its connection to police accountability); Stoughton, *Police Body-Worn Cameras*, *supra* note 10 (discussing the arguments for and against police body-worn cameras); Molly Hennessy-Fiske, *In Ferguson, Volunteers Have Electronic Eyes on Police*, L.A. TIMES (Oct. 3, 2014, 8:00 AM), <http://latimes.com/nation/la-na-copwatch-20141003-story.html> [<https://perma.cc/DVG5-AWYP>]. Advocates of body cameras within law enforcement circles have also argued that body cameras may assist in reducing false complaints of police misconduct. Mary D. Fan, *Justice Visualized: Courts and the Body Camera Revolution*, 50 U.C. DAVIS L. REV. 897, 926 & n.163 (2017).

A. *The Bases of the Stops*

Analysis of the 4,255 assault narratives that met the inclusion criteria of this study revealed four major types of stops in the sample. First, “routine traffic stops,” which include motor vehicle stops based only on a traffic violation¹⁵⁷ or a checkpoint. Second, “criminal enforcement stops,” which include motor vehicle stops initiated for the purpose of criminal enforcement beyond a traffic violation. These stops could also be, but are not necessarily, based on a traffic violation. Examples include felony vehicle stops, suspicious vehicle stops, pretextual stops,¹⁵⁸ hit-and-run cases, and motor vehicle stops for outstanding warrants. Third, “indeterminate stops,” which include stops that involved a traffic violation, but it was unclear whether they fell into the routine traffic stop or criminal enforcement stop category. Fourth, “other stops,” which include stops that did not involve motor vehicles (and were often erroneously classified as “traffic pursuits or stops”) and encounters arising from motor vehicle accidents or crashes.

As Table 5 below shows, approximately one in every three of the 4,255 assault narratives did not involve a routine traffic stop. Rather, the stops had to do with criminal enforcement (for instance, a pretextual stop) or nothing to do with motor vehicle traffic enforcement (for instance, motor vehicle accidents or crashes). Put simply, many “traffic pursuits and stops” cases in the Florida LEOKA Database did not involve routine traffic stops, illustrating the breadth of this LEOKA category.

157. Although some traffic violations were more common than others, a broad range of traffic violations were represented in the sample, and many cases involved more than one observed traffic violation. Of the 2,911 cases in the “routine traffic stops” category, the most common reasons for pulling a car over were speeding (526 cases); erratic or reckless driving (378 cases); failing to stop at a stop sign (258 cases); no, improper, or expired tags or registration (231 cases); having no lights on or a broken headlight or taillight (224 cases); failure to maintain a single lane (126 cases); illegal window tints (123 cases); not wearing a seatbelt (118 cases); failure to stop at a red light (118 cases); suspicion of driving under the influence (109 cases); no tag light (108 cases); and knowledge of driving with no or an invalid or suspended license (87 cases). In 381 cases, the narratives simply stated “traffic infraction(s)” or “traffic violations.” (Data on file with the author.)

158. Here, I acknowledge that the number of pretextual stops could be even higher in the sample for narratives that did not mention that the officers were suspicious that a vehicle or its occupants were engaged in crime beyond a traffic violation.

TABLE 5

Frequencies of Type of Stop for Assaults Against Officers	
Routine traffic stops	2,911
<i>Traffic violation</i>	2,897
<i>Checkpoint</i>	14
Criminal enforcement stops	804
<i>Pretextual stop</i>	256
<i>Stolen vehicle/tag</i>	251
<i>Felony vehicle stop</i>	141
<i>Hit and run</i>	54
<i>Outstanding warrant</i>	45
<i>Suspicious vehicle stop</i>	44
<i>Previously eluded police</i>	13
Indeterminate stops	64
<i>Unclear whether traffic or criminal</i>	64
Other stops	476
<i>Not a vehicle stop</i>	208
<i>Bicycle case</i>	142
<i>Crash or accident</i>	89
<i>Golf cart/ATV</i>	17
<i>Pedestrian</i>	19
<i>Gas station drive off</i>	1
Total number of narratives	4,255

In my analysis, I separated the 9 cases involving the felonious killings of officers from the 4,255 narratives involving assaults against officers. A similar diversity emerged in the 9 felonious killings of officers. Five cases involved routine traffic stops: those stops were based on speeding, not stopping at a stop sign, no visible license plate, careless driving, and an unidentified minor traffic violation. Three cases involved criminal enforcement stops: one of those stops was initiated to investigate robbery suspects, another involved an officer who was checking the license plate of a parked car to see if the car was stolen, and the other involved a pretextual stop of a suspicious vehicle in a high-crime area. In the remaining case, the basis of the vehicle stop was unclear from the available information.¹⁵⁹

B. *Nature of the Violence: Officer Injury, Weapon Type, and Time of Day*

Going beyond what previous studies have done, the stop classification scheme described above allowed me to examine whether the nature of the

159. At the same time, the low number of felonious killings of officers makes it difficult, if not impossible, to apply common statistical methods to identify relationships beyond these basic qualitative trends. See *supra* notes 141–148 (discussing the differences between the different uses and purposes of large sample sizes in qualitative and quantitative research).

violence against officers differed across major stop types. Here, I was particularly concerned with routine traffic stops and criminal enforcement stops. I then compared this more granular view within both stop categories with the overall totals in the Florida LEOKA Database.¹⁶⁰

Consistent with the LEOKA reporting scheme, officer injuries were separated into three categories: no injury, minor injury, or serious injury.¹⁶¹ Table 6 below shows that, contrary to the dominant danger narrative, most assault cases in the routine traffic stop and criminal enforcement stop categories as well as in the Florida LEOKA Database involved no injury or minor injuries to officers. Incidents that resulted in serious injuries to officers accounted for less than 2% of the cases in both major stop categories as well as in the Florida LEOKA Database overall.

TABLE 6

Frequencies of Injury by Type of Stop for Assault Cases ¹⁶²						
	Routine Traffic Stops		Criminal Enforcement Stops		Florida LEOKA Database	
Injury	Freq.	% Dist.	Freq.	% Dist.	Freq.	% Dist.
None	2,253	77.40	671	83.46	5,299	76.86
Minor	615	21.13	118	14.68	1,464	21.24
Serious	43	1.48	15	1.87	131	1.90
Total	2,911	100	804	100	6,894	100

With regard to weapons, my analysis of the narratives revealed that many cases categorized under the “gun” or “knife/cutting object” category in the Florida LEOKA Database did not actually involve a gun or a knife that caused injury to an officer. Rather, a gun or knife had been found at the scene, and to the extent that an officer suffered an injury, it derived from another

160. As discussed *supra* in Part II, extent of the injury and weapon used were codes in the Florida LEOKA Database. To reiterate, this database includes the total number of LEOKA “traffic pursuits and stops” cases during the relevant years (whether I was able to obtain a narrative or not).

161. As noted previously, the Florida Department of Law Enforcement’s *Uniform Crime Reports Guide Manual* defines “serious injury” as “injury so severe that it results in disablement or disfigurement.” FLA. DEP’T OF LAW ENF’T, *supra* note 19, at 27. “Examples of serious injury include broken bones, loss of teeth, lacerations so severe that stitches are needed, internal injuries, injuries resulting in paralysis or the deprivation of a limb/body part, loss of consciousness, etc.” *Id.*

162. Although not presented in this table, I also calculated these figures for the indeterminate stops and other stops. For the 64 indeterminate stops, 53 (82.81%) involved no injury, 10 (15.63%) involved a minor officer injury, and 1 (1.56%) involved a serious officer injury. For the 476 “other” stops, 345 (72.48%) involved no injury, 116 (24.37%) involved a minor injury, and 15 (3.15%) involved a serious injury.

er weapon source. Table 7 below presents the findings regarding the type of weapon for the assault cases. Cases in which guns or knives were used or found accounted for approximately 2.5% to 4% of cases in both major stop type categories as well as in the Florida LEOKA Database overall. Although more sophisticated quantitative tools are necessary to determine whether the differences are significant, a higher percentage of evaluative narratives in criminal enforcement stops (3.36%) involved guns than in routine traffic stops (1.99%) or the Florida LEOKA Database overall (2.48%).

Further analysis also revealed that, contrary to the dominant danger narrative, cases involving officers who were seriously injured or feloniously killed with guns or knives were even more rare and comprised less than 1% of the cases in both major stop categories as well as in the Florida LEOKA Database overall. Specifically, these incidents comprised 0.31% of the routine traffic stops, 0.50% of the criminal enforcement stops, and 0.29% of the cases in the Florida LEOKA Database.¹⁶³

163. These percentages were calculated as follows: *routine traffic stops* [(4 felonious killing cases involving guns or knives during routine traffic stops + 5 serious injury cases involving guns or knives during routine traffic stops)/(5 felonious killings involving routine traffic stops + 2,911 assault cases involving routine traffic stops)]; *criminal enforcement stops* [(3 felonious killings involving guns or knives during criminal enforcement stops + 1 serious injury case involving guns or knives during criminal enforcement stops)/(3 felonious killings involving criminal enforcement stops + 804 assault cases involving criminal enforcement stops)]; *Florida LEOKA Database* [(9 felonious killings involving “traffic pursuits and stops” + 11 serious injury cases involving guns or knives during “traffic pursuits and stops”)/(9 felonious killings involving “traffic pursuits and stops” + 6,894 assault cases involving “traffic pursuits and stops”)].

TABLE 7

Frequencies of Weapons by Type of Stop for Assault Cases ¹⁶⁴						
Weapon	Routine Traffic Stops		Criminal Enforcement Stops		Florida LEOKA Database	
	Freq.	% Dist.	Freq.	% Dist.	Freq.	% Dist.
Hands/Fists/Feet	1,761	60.49	262	32.59	3,898	56.54
Other	998	34.28	474	58.96	2,564	37.19
Blunt Object	60	2.06	27	3.36	157	2.28
Gun ¹⁶⁵	58	1.99	27	3.36	171	2.48
Knife/Cutting Object	17	0.58	4	0.50	40	0.58
Unknown	14	0.48	10	1.24	58	0.84
Fire/Incendiary	3	0.10	0	0	6	0.09
Total	2,911	100	804	100	6,894	100

Moreover, Table 7 above shows that two very different pictures of violence emerged under the routine traffic stop and criminal enforcement stop categories. For routine traffic stops, the most commonly used weapon against officers was “personal weapons”—namely, the driver’s or passenger’s hands, fists, or feet. For the criminal enforcement stops, “other” weapons were the most commonly used weapon against officers. From the narratives, I discovered that “other” weapons usually involved the use of the motor vehicle as a weapon against the officer while it was moving (for instance, attempting to use a car to hit an officer who then gets injured while trying to get out of the way) or parked (for instance, opening and hitting an officer with a car door).¹⁶⁶ As Table 7 shows, approximately three in every five routine traffic stops in which an assault on an officer occurred involved an assault with a driver’s or passenger’s hands, fists, or feet, whereas approximately

164. Although not presented in this table, I also calculated these figures for the indeterminate stops and “other” stops. For the 64 indeterminate stops, 35 cases (54.69%) involved “other,” 24 cases (37.50%) involved hands/fists/feet; 3 cases (4.69%) involved a blunt object, and 2 cases (3.13%) involved a gun. For the 476 “other” stops, 344 cases (72.27%) involved hands/fists/feet, 105 cases (22.06%) involved “other,” 10 cases (2.10%) involved a knife/cutting object, 8 cases (1.68%) involved a gun, 6 cases (1.26%) involved a blunt object, 2 cases (0.42%) involved unknown weapons, and 1 case (0.21%) involved fire/incendiary.

165. This category combines incidents involving firearms, handguns, rifles, and shotguns—each of which have their own codes under the LEOKA program.

166. More specifically, I discovered from the narratives that for routine traffic stops, 904 of the 998 “other” weapon cases (90.58%) involved vehicles used as weapons against officers. Moreover, 44 of the 60 “blunt object” cases (73.33%) and 7 of the 14 “unknown” weapon cases (50.00%) also involved vehicles used as weapons against officers. Common “other” weapons besides vehicles included spit, dogs, and car keys. For criminal enforcement stops, 459 of the 474 “other” weapon cases (96.84%) involved vehicles used as weapons against officers. Moreover, 25 of the 27 “blunt object” cases (92.59%) and 6 of the 10 “unknown” weapon cases (60.00%) also involved vehicles used as weapons against officers.

one in every three assaults involved the car itself as a weapon. These ratios flipped for criminal enforcement stops.

This contrasting picture of violence held steady when separating the smaller subset of cases that resulted in serious injury to officers by weapon type. Table 8 presents these findings.

TABLE 8

Frequencies of Weapons by Type of Stop for Assault Cases that Resulted in Serious Injury to an Officer ¹⁶⁷						
Weapon	Routine Traffic Stops		Criminal Enforcement Stops		Florida LEOKA Database	
	Freq.	% Dist.	Freq.	% Dist.	Freq.	% Dist.
Hands/Fists/Feet	27	62.79	4	26.67	78	59.54
Other	11	25.58	10	66.67	42	32.06
Gun	5	11.63	1	6.67	10	7.63
Knife/Cutting Object	0	0	0	0	1	0.76
Total	43	100	15	100	131	100

As Table 8 shows, hands/fists/feet were the most common weapon used during routine traffic stops that resulted in serious injury to an officer. In addition, hands/fists/feet accounted for 62.79% of routine traffic stops that resulted in serious injury to an officer, whereas “other” weapons (mostly, the motor vehicle)¹⁶⁸ accounted for 25.58%. These percentages flipped for criminal enforcement stops. “Other” weapons accounted for 66.67% of the criminal enforcement stops that resulted in serious injury to officers, whereas hands/fists/feet accounted for 26.67%.¹⁶⁹

167. Although not presented in this table, I also calculated these figures for the indeterminate stops and “other” stops. Only 1 of the 64 indeterminate stops resulted in serious injury to an officer and that case involved an “other” weapon. Of the 476 “other” stops, 15 cases involved a serious injury to officers. Of those cases, 10 (66.67%) involved hands/fists/feet and 5 (33.37%) involved “other” weapons.

168. Motor vehicles were used to assault officers in 9 of the 11 routine traffic stop cases involving “other” weapons that resulted in serious injury to an officer.

169. The narratives revealed that all 10 of the criminal enforcement stops involving “other” weapons that resulted in serious injury to an officer involved motor vehicles used as weapons against officers. In addition, different patterns regarding gun violence emerged within the routine traffic stop and criminal enforcement stop categories. On one hand, Table 7, *supra*, shows that guns were found or used in a higher proportion of cases for criminal enforcement stops compared to routine traffic stops (3.36% versus 1.99%). On the other hand, Table 8, *supra*, shows that guns were found or used in a higher proportion of cases that resulted in serious injuries to officers during routine traffic stops compared to criminal enforcement stops (11.63% versus 6.67%). The number of cases in the gun violence category, however, was small and could be driving these patterns. Therefore, one caveat that is important to stress is that

Table 8 above further shows that the proportion of assaults that involve hands/fists/feet versus “other” weapons in the Florida LEOKA Database was more consistent with the routine traffic stops than the criminal enforcement stops. Put another way, the overall picture of violence that emerges from the official LEOKA statistics did not map onto all stop types. In this regard, the findings indicate that the overinclusive “traffic pursuits and stops” LEOKA category can obscure differences in the nature of the violence between different stop types. As discussed later in this Article, this point has significant implications for police training and Fourth Amendment doctrine, and it underscores the need to avoid conceptualizing routine traffic stops through monolithic classifications and oversimplified danger narratives.¹⁷⁰

Finally, common trends emerged regarding time of day that applied to both routine traffic stops and criminal enforcement stops. As Table 9 below shows, in both stop categories assaults against officers started to increase in the late afternoon to early evening hours, hit their peak during the late night hours, and began to decline in the early morning hours.

TABLE 9

Frequencies of Assaults by Time of Day						
	Routine Traffic Stops		Criminal Enforcement Stops		Florida LEOKA Database	
	Freq.	% Dist.	Freq.	% Dist.	Freq.	% Dist.
12:00am–2:59am	700	24.05	167	20.77	1,535	22.27
3:00am–5:59am	236	8.11	64	7.96	605	8.78
6:00am–8:59am	94	3.23	29	3.61	252	3.66
9:00am–11:59am	177	6.08	76	9.45	462	6.70
12:00pm–2:59pm	228	7.83	72	8.96	588	8.53
3:00pm–5:59pm	322	11.06	115	14.30	843	12.23
6:00pm–8:59pm	456	15.66	138	17.16	1,115	16.17
9:00pm–11:59pm	698	23.98	143	17.79	1,494	21.67
Total	2,911	100	804	100	6,894	100

C. *Danger Ratios*

This Section presents two levels of danger ratios¹⁷¹ from the sample. First, to provide a point of comparison with Lichtenberg and Smith’s study, it presents danger ratios for the “traffic pursuits and stops” cases in the Flor-

more nuanced statistics are needed to make sense of these patterns and to determine whether they apply on a more general scale.

170. See *infra* Part V.

171. To reiterate, danger ratios are a metric that captures the dangerousness of police encounters to officers. These ratios are calculated by dividing the total number of relevant harmful incidents by the total number of relevant police responses. See Lichtenberg & Smith, *supra* note 104, at 422.

ida LEOKA Database. Second, going beyond what previous studies have been able to do, this Section then provides the first estimate of danger ratios for routine traffic stops that only involve traffic violations. Consistent with prior studies, both levels of danger ratios were low—providing additional empirical evidence that undermines the dominant danger narrative surrounding routine traffic stops.

Beginning with the denominator of the danger ratio, the State of Florida keeps records of the total number of citations issued for traffic violations each year, but not the total number of conducted stops. Just under 46 million traffic citations were issued in Florida between 2005 and 2014, which translates into a yearly average of just under 4.6 million citations.¹⁷² Two uncertainties, however, arise from citation data: (1) the number of traffic stops that are conducted that do not result in a citation; and (2) the number of traffic stops that result in multiple citations.

To account for the number of stops that are conducted that do not result in a citation, I followed the approach from Lichtenberg and Smith's study to calculate low-end (4.6 million stops), mid-range (9.2 million stops), and high-end (13.8 million stops) frequency estimates. The low-end estimate assumes that the number of citations is equivalent to the number of traffic stops. The mid-range estimate is based on one scholarly approximation that only 1 in every 2 traffic stops results in a citation.¹⁷³ The high-range estimate is based on an alternative scholarly estimate that only 1 in every 3 traffic stops results in a citation.¹⁷⁴

There is a dearth of research on how many traffic stops involve multiple citations and how many citations are issued during those stops. It is important to attempt to account for multiple-citation stops, however, because of the disparities that are involved in those stops. Research shows that people of color are more likely to be cited multiple times in an individual traffic stop than white individuals.¹⁷⁵ To account for multiple-citation stops, I relied on

172. See *Crash and Citation Reports & Statistics*, FLA. HIGHWAY SAFETY & MOTOR VEHICLES, <http://www.flhsmv.gov/resources/crash-citation-reports/> [<https://perma.cc/D46N-YALQ>]. The minimum total number of annual citations was in 2014 (approximately 3.6 million) and the maximum was in 2007 (approximately 5.3 million). *Id.*

173. Lichtenberg & Smith, *supra* note 104, at 421 (citing DAVID H. BAYLEY, POLICE FOR THE FUTURE 30 (1994)).

174. *Id.* (citing MICHAEL K. BROWN, WORKING THE STREET 227 (1981)).

175. See Barnes & Chang, *supra* note 35, at 687 (critically evaluating one study by stressing that “[w]e question why the researchers find the one recorded violation condition so helpful in a data set where the most concerning racially disparate result has to do with multiple citations and citation seriousness”). The report from the U.S. Department of Justice on the Ferguson Police Department documented such evidence of racial disparities in multiple citations for individual traffic stops. U.S. DEP’T OF JUSTICE, CIVIL RIGHTS DIV., INVESTIGATION OF THE FERGUSON POLICE DEPARTMENT 66 (2015), https://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/03/04/ferguson_police_department_report.pdf [<https://perma.cc/X5Q6-2JRB>]. The report stressed that in 2013, more than 50% of all African Americans received multiple citations with a single encounter with the Ferguson Police De-

two studies that offer different estimates of the percentage of traffic stops that involve multiple citations. I then used both approximations to split the low-end, mid-range, and high-end estimates derived from the approach taken in Lichtenberg and Smith's study into three additional frequency tiers.

For the high frequency estimate in each tier, I assumed that each individual traffic citation corresponded to an individual traffic stop. In this regard, the low-end, mid-range, and high-end estimates using the approach in Lichtenberg and Smith's study became the high frequency estimate in each of these three new frequency tiers (high-high-end; high-mid-range; and high-low-end). I adopted the following formula to calculate a middle frequency estimate in each tier (mid-high-end; mid-mid-range; and mid-low-end): 88.5% of stops result in 1 citation; 10% result in 2 citations; and 1.5% result in 3 or more citations.¹⁷⁶ Finally, I adopted the following formula to calculate a low frequency estimate in each tier (low-high-end; low-mid-range; low-low-end): 71.75% of stops result in 1 citation; 18.75% result in 2 citations; 6.5% result in 3 citations; 2% result in 4 citations; and 1% result in 5 or more citations.¹⁷⁷ These three approaches yielded nine separate danger

partment, whereas only 26% of non-African Americans did. *Id.* The racial disparities were even greater for incidents that resulted in more than two citations. *Id.* Some jurisdictions use traffic fines as a means of revenue and target low-income communities and communities of color to do so. See Beth A. Colgan, *The Excessive Fines Clause: Challenging the Modern Debtors' Prison*, 65 UCLA L. REV. 2, 23 & n.23, 31, 34 (2018).

176. To calculate this mid-frequency range estimate, I looked to one recent study of a major police department in Virginia that tracked over 75,000 traffic stops over a 4-year period and found that 88.6% of the traffic stops resulted in only a single citation; 9.85% resulted in 2 citations; and 1.55% involved 3 or more citations. See CYNTHIA LUM & XIAOYUN WU, BASIC ANALYSIS OF TRAFFIC CITATION DATA FOR THE ALEXANDRIA POLICE DEPARTMENT (2011-2015) 22 (2017), <https://www.alexandriava.gov/uploadedFiles/police/info/AlexandriaPDTrafficCitationAnalysisReportFINAL.pdf> [https://perma.cc/428B-CVSH].

177. A different 3-year statewide study on traffic stops in Arizona tracked the number of citations issued in traffic stops conducted by officers each year. The study reported data for 2008, 2007, and 2006, but only the 2007 and 2006 data reported detailed data on the percentages of individual traffic stops that resulted in 3 or more citations. Therefore, I only used the 2007 and 2006 data to approximate the percentage of stops that result in 3 or more citations.

For 2007, the study reported 485,183 recorded traffic stops initiated by police officers. ROBIN S. ENGEL ET AL., TRAFFIC STOP DATA ANALYSIS STUDY: YEAR 2 FINAL REPORT x (2008), http://www.azdps.gov/sites/default/files/media/Traffic_Stop_Data_Report_2008.pdf [https://perma.cc/FSL9-U8KV]. The number of traffic citations issued during an individual traffic stop ranged from 0 to 6 citations. *Id.* at 71. Regarding number of citations, 54.8% of stops did not result in a citation, 32.8% resulted in 1 citation, 8.4% resulted in 2 citations, 2.9% resulted in 3 citations, 0.8% resulted in 4 citations, 0.4% resulted in 5 citations; and less than 0.001% resulted in 6 citations. *Id.* Excluding the stops that did not result in a citation yields the following estimates for the number of stops that resulted in a citation for 2007: 159,140 stops (1 citation), 40,755 stops (2 citations), 13,585 stops (3 citations), 3,881 stops (4 citations), 1,940 stops (5 or more citations).

For 2006, the study reported 460,545 recorded traffic stops initiated by police officers. ROBIN S. ENGEL ET AL., TRAFFIC STOP DATA ANALYSIS STUDY: YEAR 1 FINAL REPORT xii (2007), http://www.azdps.gov/sites/default/files/media/Traffic_Stop_Data_Report_2007.pdf [https://perma.cc/F8SL-63N6]. The number of citations issued during an individual traffic stop

ratios for each examined type of violence against officers that ranged from most to least conservative.

Table 10 presents and compares the danger ratios from the Florida LEOKA Database with the danger ratios from Lichtenberg and Smith's study. Overall, the danger ratios from the Florida LEOKA Database were higher than the danger ratios from Lichtenberg and Smith's study for both officer killings and assaults.¹⁷⁸

ranged from 0 to 6. *Id.* at 122. Regarding number of citations, 54% of the stops did not result in a citation, 32.7% resulted in 1 citation, 8.7% resulted in 2 citations, 3.2% resulted in 3 citations, 1.0% resulted in 4 citations, 0.4% resulted in 5 citations, and 0.001% resulted in 6 citations. *Id.* Excluding the stops that did not result in a citation yields the following estimates for the number of stops that resulted in a citation for 2006: 150,598 stops (1 citation), 40,067 stops (2 citations), 14,737 stops (3 citations), 4,605 stops (4 citations), 1,842 stops (5 or more citations).

Averaging these estimates from the 2007 and 2006 data yielded the following results: 71.84% (1 citation), 18.74% (2 citations), 6.57% (3 citations), 1.97% (4 citations), .88% (5 or more citations). This formed the basis of the final low frequency tier estimates for the percentage of stops that result in a citation, excluding the stops that did not result in a citation: 71.75% (1 citation), 18.75% (2 citations), 6.5% (3 citations), 2% (4 citations), 1% (5 or more citations).

178. There are many ways to interpret these differences. One takeaway is that danger ratios may vary within and across geographic areas. Lichtenberg and Smith's ratios were based on national estimates, suggesting that the stops from the Florida LEOKA Database were on average more dangerous than the national averages captured in Lichtenberg and Smith's study.

TABLE 10

Danger Ratio Comparisons ¹⁷⁹					
Lichtenberg & Smith (2001)			Florida LEOKA Database		
	Killings	Assaults		Killings	Assaults
Low-End	1 in 6.7 M	1 in 10,256	Low-Low-End	1 in 3.61M*	1 in 4,714*
			Mid-Low-End	1 in 4.52M*	1 in 5,904*
			High-Low-End	1 in 5.11M*	1 in 6,672*
Mid-Range	1 in 13.4 M	1 in 20,512	Low-Mid-Range	1 in 7.22M*	1 in 9,428*
			Mid-Mid-Range	1 in 9.04M*	1 in 11,807*
			High-Mid-Range	1 in 10.22M*	1 in 13,345*
High-End	1 in 20.1 M	1 in 30,768	Low-High-End	1 in 10.83M*	1 in 14,143*
			Mid-High-End	1 in 13.57M*	1 in 17,711*
			High-High-End	1 in 15.33M*	1 in 20,017*

* Number of "traffic pursuits [or] stops"

At the same time, the danger ratios from the Florida LEOKA Database were still very low. Taking the most conservative ratio (the low-low-end estimate), the rate of a felonious killing of an officer was only 1 in every 3.6 million stops. Moreover, the rate for an assault (whether it resulted in injury or not to an officer) was only 1 in every 4,714 stops. The least conservative estimate suggests that the rate of violence for felonious killings and assaults is much lower: 1 in 15.3 million stops for felonious killings and 1 in 20,017 stops for assaults.

To provide an idea of how these danger ratios compare to other policing contexts, consider Rose Mary Stanford and Bonney Lee Mowry's study, which calculated the danger ratios for domestic and general disturbance calls.¹⁸⁰ Notably, Stanford and Mowry's study was based on a large dataset

179. The danger ratios involving felonious killings and assaults in the Florida LEOKA Database were calculated as follows. For the denominator for both felonious killings and assaults, I first calculated the three frequency tiers for the low-end estimate. The high-low-end estimate is based on the assumption that each individual stop produces a single traffic citation. On average, 4.6 million traffic citations were issued year, rendering a high-low-end estimate of 4.6 million stops.

The mid-range estimate is based on the approximation described above that 88.5% of stops result in 1 citation; 10% result in 2 citations; and 1.5% result in 3 or more citations. To simplify the calculation, I limited 3 or more citations to only 3. Based on these figures, every 200 stops

from the Tampa Police Department,¹⁸¹ which is one of the police agencies included in my study. Stanford and Mowry estimated that the rate for assault against an officer while handling a domestic disturbance call was 1 in every 385 calls,¹⁸² which is over 12 times higher than the most conservative low-end danger ratio for assaults in the Florida LEOKA Database. In addition, Stanford and Mowry estimated that the rate for assault against an officer while handling a general disturbance call was 1 in every 323 calls,¹⁸³ which is over 14 times higher than the most conservative low-end danger ratio for assaults in the Florida LEOKA Database.

The findings presented in Section III.B revealed that only a very small percentage (less than 2%) of the total 6,894 “traffic pursuits and stops” assault cases in the Florida LEOKA Database resulted in serious injury to officers. With more detailed information on the extent of officer injury, I was able to go beyond Lichtenberg & Smith’s study to calculate the danger ratios for assault cases based on injury. As Table 11 shows, the danger ratios for assaults resulting in serious injury to officers were dramatically lower than assaults that resulted in no or minor injury to officers.¹⁸⁴ Taking the most con-

will yield 226 citations: 177 stops will involve 1 citation, 20 stops will involve 2 citations, 3 stops will involve 3 citations. Applying these figures, 4.6 million citations equate to mid-low-range estimate of approximately 4.07 million stops: 3.6 million stops will involve 1 citation, 0.41 million stops will involve 2 citations, and 0.06 million stops will involve 3 citations.

The high-range estimate is based on the approximation that 71.75% of stops result in 1 citation; 18.75% result in 2 citations; 6.5% result in 3 citations; 2% result in 4 citations; and 1% result in 5 or more citations. To simplify the calculation, I limited 5 or more citations to only 5. Based on these figures, every 400 stops will yield 567 citations: 287 stops will involve 1 citation, 75 stops will involve 2 citations, 26 stops will involve 3 citations, 8 stops will involve 4 citations, and 4 stops will involve 5 citations. Applying these figures, 4.6 million citations equate to a high-low-end estimate of approximately 3.25 million stops: 2.34 million will involve 1 citation, 0.61 million will involve 2 citations, 0.21 million will involve 3 citations, 0.06 million will involve 4 citations, and 0.03 million will involve 5 or more citations.

For the numerator for felonious killings, I divided the total number of felonious killings involving “traffic pursuits and stops” (9 felonious killings) by 10 to obtain the average number of felonious killings of officers per year. I then took the reciprocal of the denominator divided by the numerator to obtain the appropriate ratio. For the numerator for assaults, I divided the total number of assaults involving “traffic pursuits and stops” (6,894 assaulted cases) by 10 to obtain the average number of assaults against officers per year. I then took the reciprocal of the denominator divided by the numerator to obtain the appropriate ratio.

Once I had the three frequency tier estimates for the low-end estimates, I could then divide those estimates by two and three to obtain the three frequency tier estimates for the mid-range and high-range estimates.

180. Rose Mary Stanford & Bonney Lee Mowry, *Domestic Disturbance Danger Rate*, 17 J. POLICE SCI. & ADMIN. 244 (1990).

181. *Id.* at 245.

182. *See id.* at 276 (reporting that “the potential for assault while handling a domestic disturbance call is estimated at 2.6 per 1000 calls”).

183. *See id.* (reporting that the rate of assault against an officer while handling general disturbance calls is 3.1 assaults per 1000 calls).

184. Here, I acknowledge that the line between no injury, minor injury, and serious injury is arguably fortuitous. An assault that ended in no injury very well could have resulted in a

servative estimate (low-low-end ratio), the rate for an assault that resulted in serious injury to an officer (regardless of weapon type) was only 1 in every 248,092 “traffic pursuits [or] stops.” The least conservative estimate suggests that the rate of violence that results in serious injury to an officer is much less: 1 in 1.05 million stops.

TABLE 11

Danger Ratio Comparisons for the Florida LEOKA Database, ¹⁸⁵			
Assaults Based on Officer Injury			
	No Injury	Minor Injury	Serious Injury
Low-Low-End	1 in 6,133*	1 in 22,199*	1 in 248,092*
Mid-Low-End	1 in 7,681*	1 in 27,801*	1 in 310,687*
High-Low-End	1 in 8,681*	1 in 31,421*	1 in 351,145*
Low-Mid-Range	1 in 12,266*	1 in 44,399*	1 in 496,183*
Mid-Mid-Range	1 in 15,361*	1 in 55,601*	1 in 621,374*
High-Mid-Range	1 in 17,362*	1 in 62,842*	1 in 702,290*
Low-High-End	1 in 18,400*	1 in 66,598*	1 in 744,275*
Mid-High-End	1 in 23,042*	1 in 83,402*	1 in 932,061*
High-High-End	1 in 26,043*	1 in 94,262*	1 in 1.05M*
* Number of “traffic pursuits [or] stops”			

Although the danger ratios that emerge from the Florida LEOKA Database provide useful insight, even these estimates are too high because of the overinclusivity problems with available LEOKA statistics. In analyzing the incident narratives of the underlying LEOKA cases, I was able to provide the first estimates of danger ratios for routine traffic stops that only involve traffic violations. These danger ratios are a major contribution given the methodological shortcomings of available LEOKA statistics and the tendency for institutional actors to rely on LEOKA statistics when evaluating the dangerousness of routine traffic stops based on traffic violations.¹⁸⁶

For routine traffic stops, I calculated moderate and maximum estimates for three sets of danger ratios: (1) felonious officer killings; (2) assaults resulting in serious injuries to officers; and (3) assaults against officers (whether resulting in officer injury or not). The moderate estimate captures where the direction of the data from the sample indicates that the danger ratios

serious injury. To reiterate, the danger ratio is predicated on what *actually* happened and not what *could* have happened during the traffic stop.

185. To calculate these danger ratios, I used the same method discussed in *supra* note 179 to calculate the denominator. The value of the numerator, however, changed. As Table 6 shows, 5,299 of the 6,894 total assault cases resulted in no injury; 1,464 cases resulted in minor injury; and 131 cases resulted in serious injury. I divided those values by 10 to obtain the average number of cases each year that resulted in no injury, minor injury, or serious injury to an officer.

186. See *supra* Part I; see also *infra* Section V.B.2.

most likely fall, whereas the maximum estimate captures the mathematically highest possibility for the danger ratios. At the outset, it is important to recognize that several methodological assumptions shaped the calculations. These assumptions took different approaches to account for the narratives that I was unable to obtain and thus analyze from the Florida LEOKA Database.¹⁸⁷ Table 12 presents the danger ratios for the routine traffic stops.

187. To explain those methodological assumptions in greater detail, first, for the danger ratios involving felonious killings, my analysis revealed that of the 9 cases involving felonious killings, 5 involved routine traffic stops, 3 involved criminal enforcement stops, and 1 involved indeterminate stops. For the moderate estimate, I assumed that the 1 indeterminate stop did not involve a routine traffic stop. For the maximum estimate, I assumed that the indeterminate stop involved a routine traffic stop, bringing the total to 6 felonious killings. Although the basis of the indeterminate stop is not entirely clear, the record indicates that the officer who conducted the vehicle stop was part of an agency operation in a high-crime neighborhood that attempted to catch thieves looking to steal recently bought Christmas gifts from homes or cars.

For the danger ratios involving assaults generally, my analysis revealed that 2,911 of the 4,255 assault narratives that met the inclusion criteria fell under the routine traffic stop category and 1,344 assault cases did not involve routine traffic stops (804 criminal enforcement stops, 476 “other” stops, and 64 cases indeterminate stops). *See supra* Section III.A, Table 5. This left 2,639 assault narratives to account for. For the moderate estimate, I calculated the total number of assaults for routine traffic stops as 4,670. Here, I applied my finding that two in every three cases in the Florida LEOKA Database fell into the routine traffic stop category in order to approximate that 1,759 (or two-thirds) of the 2,639 narratives that I could not obtain, read, or that had insufficient information involved a routine traffic stop. I then added this 1,759 value to the 2,911 cases that fell under the routine traffic stop category from the evaluated assault narratives to arrive at a total moderate estimate of 4,670. For the maximum estimate, I calculated the total number of assaults for routine traffic stops as 5,550. Here, I assumed that each of the 2,639 cases for which I was unable to obtain, read, or that had insufficient information fell under the routine traffic stops category and added that value to the 2,911 cases that fell under the routine traffic stop category from the evaluated assault narratives.

For the danger ratios that involved assaults resulting in serious injury to officers, three findings shaped my assumptions in calculating the moderate and maximum estimates. First, my analysis of the narratives that met the inclusion criteria revealed 43 cases that involved routine traffic stops that resulted in serious injury to officers and 31 cases that did not involve routine traffic stops (15 criminal enforcement stops, 15 “other” stops, and 1 indeterminate stop). *See supra* Part III.B, Table 6 & note 160. Second, from the information in the Florida LEOKA Database, I also knew that 131 of the 6,894 assault cases in the database involved serious injuries against officers. Therefore, there were 57 remaining cases involving serious injury to officers to account for. *See supra* Section III.B, Table 6. Third, less than 2% of all stops under each major stop category in which the basis was described (routine traffic stops, criminal enforcement stops, and “other” stops) as well as in the total number of “traffic pursuits and stops” cases in the Florida LEOKA database involved serious injuries to officers. *See supra* Section III.B, Table 6 & note 160. Thus, for the moderate estimate, I estimated the total number of routine traffic stops that resulted in serious injury to officers by averaging two estimates: (1) two-thirds of 131 = 87 (based on my estimate that two-thirds of the total cases in the Florida LEOKA Database involved routine traffic stops), and (2) 2% of 4,670 = 93 (which combined: (1) my findings that just under 2% of the cases in each major stop category resulted in serious injuries to officers and (2) my moderate estimate above that 4,670 cases in the Florida LEOKA Database involved routine traffic stops). The average of those two calculations came to a moderate estimate of 90 cases that involved routine traffic stops that resulted in serious injury to an officer. For the maximum estimate, I assumed that all of the 57 narratives involving serious officer injuries

TABLE 12

Danger Ratios for Routine Traffic Stops						
	Moderate Estimate			Maximum Estimate		
	Killings	Assaults	Serious Injury	Killings	Assaults	Serious Injury
Low-Low-End	1 in 6.5M*	1 in 6,959*	1 in 361,111*	1 in 5.42M*	1 in 5,856*	1 in 325,000*
Mid-Low-End	1 in 8.14M*	1 in 8,715*	1 in 452,222*	1 in 6.78M*	1 in 7,333*	1 in 407,000*
High-Low-End	1 in 9.2M*	1 in 9,850*	1 in 511,111*	1 in 7.67M*	1 in 8,288*	1 in 460,000*
Low-Mid-Range	1 in 13M*	1 in 13,919*	1 in 722,222*	1 in 10.83M*	1 in 11,712*	1 in 650,000*
Mid-Mid-Range	1 in 16.28M*	1 in 17,430*	1 in 904,444*	1 in 13.57M*	1 in 14,667*	1 in 814,000*
High-Mid-Range	1 in 18.4M*	1 in 19,700*	1 in 1.02M*	1 in 15.33M*	1 in 16,577*	1 in 920,000*
Low-High-End	1 in 19.5M*	1 in 20,878*	1 in 1.08M*	1 in 16.25M*	1 in 17,568*	1 in 975,000*
Mid-High-End	1 in 24.42M*	1 in 26,146*	1 in 1.36M*	1 in 20.35M*	1 in 22,000*	1 in 1.22M*
High-High-End	1 in 27.6M*	1 in 29,550*	1 in 1.53M*	1 in 23M*	1 in 24,865*	1 in 1.38M*

* Number of routine traffic stops

As Table 12 shows, the danger ratios are even lower in the routine traffic stop category than the danger ratios based on official statistics in the Florida LEOKA Database. Under the most conservative moderate estimate, the rate for a felonious killing of an officer during a routine traffic stop was 1 in every 6.5 million stops. The rate for an assault that results in serious injury to an officer was only 1 in every 361,111 stops. Finally, the rate for an assault (whether it results in officer injury or not) was only 1 in every 6,959 stops. The least conservative moderate estimate suggests that the rates are much less: 1 in every 27.6 million stops for a killing, 1 in every 1.53 million stops involving an assault that results in serious injury to an officer, and 1 in every 29,550 stops for an assault (whether it resulted in officer injury or not).

* * *

In sum, the dominant danger narrative suggests that routine traffic stops are highly dangerous settings for police because officers are more frequently injured or killed during them compared to other police settings. The statistical findings, however, do not support this narrative. The bulk of violence

that I was unable to obtain, read, or that had insufficient information fell under the routine traffic stop category. That resulted in a maximum estimate of 100 cases.

against the officers in the evaluated cases was relatively minor—both in terms of the extent of the officer injuries and the weapons used against them. The danger ratios were also low, especially for cases that resulted in serious injury to officers. Having presented these findings, the next Part shifts gears to the typology and offers a more contextual interpretation of the circumstances under which violence against the police during routine traffic stops occurs.

IV. TYPOLOGY

This Part draws on qualitative methods to develop a typology of major traffic stop scenarios that escalate into violence against the police. I was specifically interested in exploring the context surrounding the cases in the routine traffic stop and criminal enforcement stop categories, and whether overall trends of violence in the Florida LEOKA Database were more consistent with one or both categories.¹⁸⁸ Notably, over 99% of the 3,715 evaluated narratives involving routine traffic stops or criminal enforcement stops fit within the typology.¹⁸⁹ For simplicity purposes, in the Sections below I label the sum of the routine traffic and criminal enforcement stops as “total evaluated stops.”¹⁹⁰

Before presenting the typology, it is useful to explain its structure. The typology is organized around a hierarchy of mutually exclusive and observable contextual factors that preceded the violence in the evaluated cases and as the stop unfolded along its major phases: at inception, during its course, and after its conclusion.¹⁹¹ I divided “during its course” into two separate stages related to officers’ invocation of authority: First, violence that occurred *before* officers invoked their authority beyond that authority incidental to the traffic stop (i.e., asking for basic information, requesting documentation, or running a records check). Second, violence that occurred *after* officers invoked some additional authority such as orders to exit the vehicle, touching or handcuffing drivers or passengers, reaching inside the vehicle, telling drivers or passengers that they were under arrest, or asking for permission to search or searching the vehicle or its occupants.

At the outset, it is important to note a caveat concerning the typology. The typology is intended to be descriptive, not predictive. It enhances our

188. Therefore, for the purposes of the typology, I omitted cases in the indeterminate stop and “other” stop categories.

189. There were 2,911 cases in the routine traffic stop category and 804 cases in the criminal enforcement stop category. See *supra* Section III.A, Table 5.

190. In less than 1% of the total evaluated stops (34 cases), the violence was unclear, it appeared as though there was no violence and only threats or simple resistance, or the situations did not neatly fit into the major traffic stop scenarios. Of those cases, 20 involved routine traffic stops and 14 involved criminal enforcement stops.

191. Under the hierarchy, once a case satisfied a set of contextual factors, it was accounted for in the typology. In this regard, multiple sets of contextual factors might have applied to a specific case if the typology were organized in a nonhierarchical fashion.

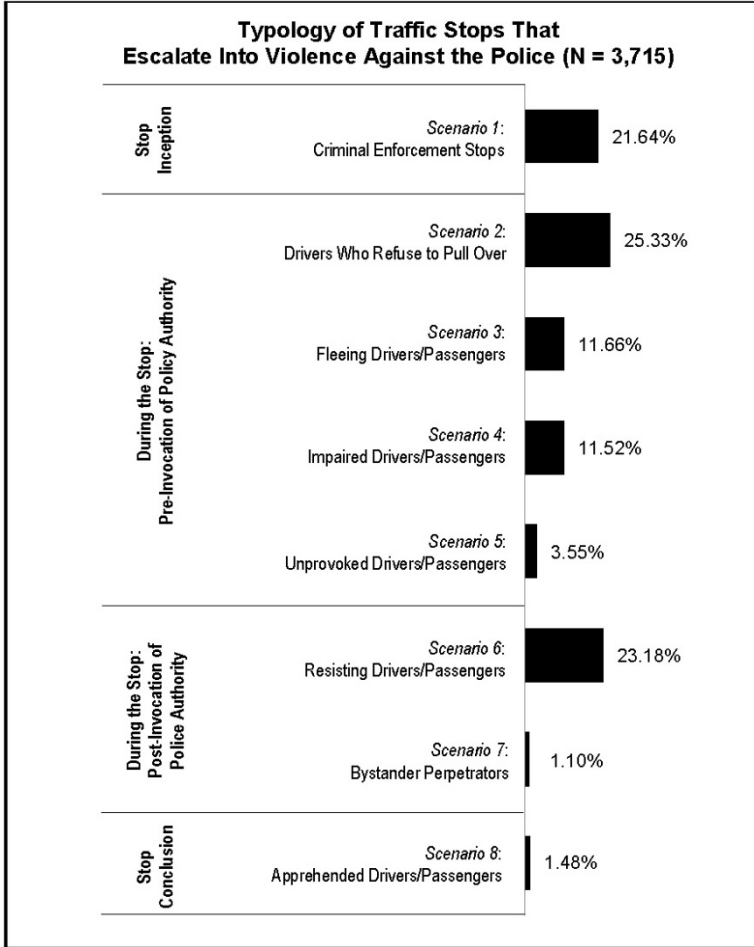
contextual understanding of violence against the police during routine traffic stops through a heuristic that organizes and attempts to make sense of the many different contextual factors surrounding this violence. It does not establish causal relationships between the identified contextual factors and the violence. In addition, similar to many other typologies that have been introduced in the criminological realm, future research is necessary to continue to test the typology and explore its broader applicability.¹⁹²

My analysis revealed eight major traffic stop scenarios, which are organized in the typology in hierarchical order as follows: (1) criminal enforcement stops; (2) drivers who refused to pull over; (3) drivers or passengers who attempted to flee after stopping but before the violence occurred against the officers; (4) drivers or passengers who officers noticed were possibly impaired immediately or soon after initiating the stop; (5) drivers or passengers who engaged in violence before the officers invoked their authority during the stop; (6) drivers or passengers who violently resisted after the officers invoked their authority during the stop; (7) bystander perpetrators (usually bystanders who assaulted the officers after the officers invoked their authority during the stop); and (8) drivers or passengers who assaulted an officer after they were already apprehended (for instance, at the police station after the stop concluded).

Figure 1 below presents the typology and the proportion of the total evaluated stops that fell under each scenario based on this hierarchy.

192. See, e.g., Lallen T. Johnson, *Drug Markets, Travel Distance, and Violence: Testing a Typology*, 62 *CRIME & DELINQ.* 1465 (2016) (testing Reuter and MacCoun's typology of drug market violence); Nickie D. Phillips, *The Prosecution of Hate Crimes: The Limitations of the Hate Crime Typology*, 24 *J. INTERPERSONAL VIOLENCE* 883 (2009) (testing Levin and McDevitt's hate crime typology).

FIGURE 1



As Figure 1 shows, qualitative analysis revealed that four sets of observable contextual factors preceded the violence in just under 94% of the total evaluated stops: (1) the encounter resulted from a criminal enforcement stop rather than a routine traffic stop (*scenario 1*); (2) the driver refused to submit to the encounter, either by refusing to pull over or by fleeing, on foot or in the vehicle, after initially pulling over (*scenarios 2 and 3*); (3) the officer reported noticing clear signs of intoxication upon initial contact with the driver or passenger (*scenario 4*); or (4) the officer invoked his or her authority during the stop in some way beyond asking for basic information, requesting documentation, or running a records check—for instance, ordering drivers out of the car or placing his or her hands on the drivers (*scenario 6*). Contrary to the dominant danger narrative, only a very small percentage of cases (just over 3%) involved violence against officers that did not precede one of these four sets of contextual factors and appeared unprovoked. Only a hand-

ful of those cases involved guns or knives. The remaining 3% were situations involving bystander perpetrators of violence or situations in which the violence against officers occurred after the drivers or passengers had been apprehended by officers (for instance, the violence occurred at the police station or DUI testing center).

The Sections below explain the findings within each of the eight major scenarios in greater detail.

A. *Inception of the Stop*

Scenario 1: Criminal Enforcement Stops

The first major scenario in the typology involves stops that are initiated for the purpose of criminal enforcement to some degree. The stops under this scenario accounted for almost 21.64% (804 cases) of the total evaluated stops. During these stops, officers have at least some suspicion at the very inception of the stop that a vehicle, driver, or passenger is involved in crime beyond a traffic violation. As Table 5 (presented *supra* in Section III.A) reflects, the categories of stops that fall under this scenario include felony vehicle stops, suspicious vehicle stops, pretextual stops, stolen vehicles, hit-and-run suspects, suspects with outstanding warrants, and re-engagement with drivers who had previously eluded the police.

At this early point of the typology, all the criminal enforcement stops have been accounted for, leaving only the routine traffic stops to examine. In Section IV.D, I will provide a more refined analysis of how the picture of violence that emerges from the criminal enforcement stops differs from the routine traffic stops.

B. *During the Stop*

The next group of scenarios involves contextual factors that appear during the course of the routine traffic stop. Given that this stage of the routine traffic stop is when officers have the most contact with drivers and passengers, it is not surprising that most evaluated cases fell under this phase of the stop. As noted previously, I separated this phase of the routine traffic stop into two distinct stages: contextual factors that appeared *before* and *after* officers invoked police authority beyond asking for basic information, requesting documentation, and conducting a records check. To be clear, the violence against officers did not necessarily occur during this part of the encounter, although it could have—the key point is that it is at this stage of the routine traffic stop when the first relevant factor is observed.

1. During the Stop: Pre-Invocation of Police Authority

Scenario 2: Drivers Who Refuse to Pull Over

This second scenario involves situations in which officers initiated traffic stops for traffic violations, and the officers noticed clear signs that drivers were refusing to pull over or accelerating to elude them. Another 25.33% of the total evaluated stops (941 cases) fell under this scenario. In many of the cases, a vehicle pursuit ensued, and often, drivers used their vehicles as weapons to hit (or attempt to hit) the officers or their patrol cars. In some cases, the drivers successfully eluded the officers. In situations when the drivers eventually stopped, violence against the police fell into two patterns. First, violence occurred when officers attempted to apprehend the drivers or passengers outside of the car. Second, after fleeing on foot, drivers or passengers assaulted the officers to get away or to physically resist detention or arrest.

Scenario 3: Fleeing Drivers/Passengers

Another 11.66% of the total evaluated stops (433 cases) fell under this third scenario, which involves drivers or passengers who complied with an officer's initial orders to pull over and then fled or attempted to flee before assaulting the officer. To clarify, under this scenario the evidence of flight had to occur after the vehicle initially pulled over but before the officer invoked police authority beyond asking for basic information, requesting documentation, or conducting a records check. These cases followed two patterns. First, in approximately two-thirds of these cases, the drivers pulled over and drove away as the officers were approaching or soon after the officers made contact. Second, in approximately one-third of these cases, the drivers pulled over, and drivers or passengers fled via foot as the officers approached or soon after the officers made contact.

Scenario 4: Impaired Drivers/Passengers

An additional 11.52% of the total evaluated stops (428 cases) fell under this fourth scenario, which involves impaired drivers and passengers. Here, the officers initiated traffic stops for traffic violations (most commonly DUI suspicion or erratic, reckless, or aggressive driving), and upon making contact with the drivers or passengers, the officers observed clear signs of intoxication. Common cues included a smell of alcohol emanating from inside the vehicle or the driver or passenger's breath, slurred speech, glassy eyes, uncoordinated conduct, or drivers who were unconscious.

Interestingly, although this contextual factor came into play prior to an officer's invocation of authority, the evaluated cases in this category were quite diverse in terms of when the violence ultimately occurred during the stop. In one-fourth of the cases, the violence occurred before the drivers or passengers were searched or apprehended; in about half, the violence occurred while the drivers or passengers were being searched or apprehended;

and in one-fourth, the violence occurred after the drivers or passengers were already apprehended and were being placed into patrol vehicles, tested at the DUI centers, or processed at the police station or jail.¹⁹³ Moreover, drivers or passengers who appeared intoxicated were often belligerent before assaulting the officers. This belligerent behavior, however, did not always begin upon immediate contact with officers. In many instances, this behavior started after the officers asked the intoxicated drivers or passengers whether they had been drinking, ordered them out of the vehicles to perform field sobriety exercises, or told them that they were under arrest for driving under the influence.

Scenario 5: Unprovoked Drivers/Passengers

This fifth scenario, which accounted for an additional 3.55% (132 cases) of the total evaluated stops, involved what I call “unprovoked drivers/passengers.” This scenario includes cases of violence that occurred after the officers made contact with the drivers or passengers and before the officers invoked any additional police authority beyond initiating the stop, asking for documentation, or running a records check. Importantly, this scenario captures the prototypical cases of apparently random and unprovoked violence that animate the dominant danger narrative surrounding routine traffic stops. Therefore, institutional actors that are especially concerned with random or unprovoked violence against the police would likely be most interested in this scenario.

In general, the small proportion of cases that fell under this scenario followed two patterns. The first pattern includes cases that are apparently random violence. In some cases, the vehicle pulled over, and the driver or passenger immediately exited and charged at the officer. In other cases, the officers approached the driver or passenger window, and the driver or passenger opened the car door to hit the officer with it. A handful of cases involved serious violence in which the drivers or passengers pulled over and brandished a gun or knife, or shot at or cut the officers.

In the second pattern, the violence immediately preceded a driver or passenger’s attempt to flee the scene. Put another way, the violence was intended as an aggressive attack on the officer as opposed to violence incidental to escape. To avoid confusion, what distinguishes these cases of violence from Scenario 3 (“fleeing drivers/passengers”) is that the violence here occurred before, not after, the drivers or passengers fled or attempted to flee. Usually, this violence occurred after the drivers or passengers realized that the officers had discovered that they were driving with no or an invalid license, had outstanding warrants, or saw illegal drugs, drug paraphernalia, or weapons in plain view. In some of the plain view cases, the officers saw drugs, drug paraphernalia, or weapons through the driver or passenger win-

193. Future research is necessary to make better sense of these cases, but one possibility is that the diversity of the violence could be a reflection of people’s unpredictable behavior while they are intoxicated. These questions, however, are beyond the scope of this Article.

dow. In other cases, drugs, drug paraphernalia, or weapons fell out of the drivers' or passengers' clothing after they exited the vehicle on their own initiative, without any prior orders from the officers to exit.

2. During the Stop: Post-Invocation of Police Authority

Scenario 6: Resisting Drivers/Passengers

Another 23.18% of the total evaluated stops (861 cases) fell under this sixth scenario, which involved officers who were assaulted after they invoked their authority beyond asking for basic information, requesting documentation, or running a records check. In general, the cases under this scenario followed three patterns.

The first pattern was the most common and involved drivers or passengers who resisted apprehension or arrest.¹⁹⁴ Here, officers pulled over a vehicle for a traffic violation. The encounter either started civilly or the drivers or passengers expressed frustration or disagreement with being pulled over. The situation then quickly escalated once the officer attempted to restrain or apprehend the driver or passenger for safety purposes, to prevent them from ingesting drugs, or to conduct an arrest. Examples of relevant police conduct include pulling drivers or passengers out of vehicles, telling drivers or passengers that they were under arrest, or attempting to apply handcuffs on the drivers or passengers. The most common reasons why police invoked or attempted to invoke these forms of authority were to subdue angry drivers and passengers; arrest them for having an outstanding warrant or not having a valid drivers' license or registration; arrest them for obstruction of justice after not complying with an officer's request during the stop; or arrest them after discovering contraband (most often, drugs) after a pat down, search of their person or vehicles, or discovering contraband in plain view.

The second pattern, which was less common,¹⁹⁵ involved drivers or passengers who resisted during a pat down of their outer clothing, search of their person or vehicles, or during a dog sniff of the vehicles. In many cases, the officers discovered contraband (usually drugs), but that discovery did not precipitate the violence—the request to conduct the pat down or search did.

The third pattern, which was also less common,¹⁹⁶ involved drivers or passengers who resisted exercises of police authority that did not involve a pat down of their clothing, search, or arrest. Examples include officers telling the driver to turn off the car, ordering a driver or passenger out of the car, grabbing the driver or passenger's cell phone, reaching inside the car, or touching the driver or passenger. These cases also involved drivers who refused to sign citations and the situation escalated when the officers told them that they had to sign.

194. This first pattern accounted for 14.10% of the total evaluated stops (524 cases).

195. This second pattern accounted for 2.64% of the total evaluated stops (98 cases).

196. This third pattern accounted for 5.95% of the total evaluated stops (221 cases).

Scenario 7: Bystander Perpetrators

The seventh scenario accounted for 1.10% of the total evaluated stops (41 cases) and involved third parties who arrived at the scene of the traffic stop and assaulted the officers. Most often, the third parties were relatives of the drivers or passengers, or community members who were attempting to defend the drivers or passengers during the police encounter. More often than not, the officers dismissed or abruptly told the bystanders to leave the scene or risk being arrested themselves, after which the situation escalated.

C. Conclusion of the Stop

Scenario 8: Apprehended Drivers/Passengers

This last scenario involves drivers and passengers who assaulted officers after they were already apprehended. This scenario accounted for an additional 1.48% of the total evaluated stops (55 cases). The cases under this scenario fell into three patterns. Under the first pattern, drivers or passengers who were already handcuffed assaulted officers while they were being escorted to, or placed into, patrol cars. Under the second pattern, the drivers or passengers were already secured in the back of patrol cars and either spat at the officers or kicked officers while they were standing beside the patrol car. Under the third pattern, drivers or passengers assaulted officers outside of the setting where the traffic stop occurred (for instance, at the police station, jail, DUI testing center, or hospital).

D. Comparing Routine Traffic Stops and Criminal Enforcement Stops

My study is the first to offer a more nuanced view of how violence within different vehicle stop types captured in official LEOKA data may vary. This Section shows that when the typology is applied separately to criminal enforcement and routine traffic stops, a very different picture of violence emerges. This discovery underscores a need to avoid conceptualizing traffic stops as a monolithic category when assessing their dangerousness to police officers—a point that I will discuss later in this Article in greater detail.¹⁹⁷

Figure 2 below shows how the typology separately maps onto criminal enforcement and routine traffic stops, as well as how that mapping compares to the overall proportions of violence when classified together.¹⁹⁸

197. See *infra* Part V.

198. To explain the frequencies that support Figure 2, there were 2,911 routine traffic stops in the “total evaluated stops.” In 20 routine traffic stops, the violence was unclear, it appeared as though there was no violence and only threats or simple resistance, or the situations did not neatly fit into the major traffic stop scenarios. As shown in Figure 2, 941 stops fell under Scenario 2, 433 stops fell under Scenario 3, 428 stops fell under Scenario 4, 132 stops fell under Scenario 5, 861 stops fell under Scenario 6, 41 stops fell under Scenario 7, and 55 stops fell under Scenario 8.

FIGURE 2

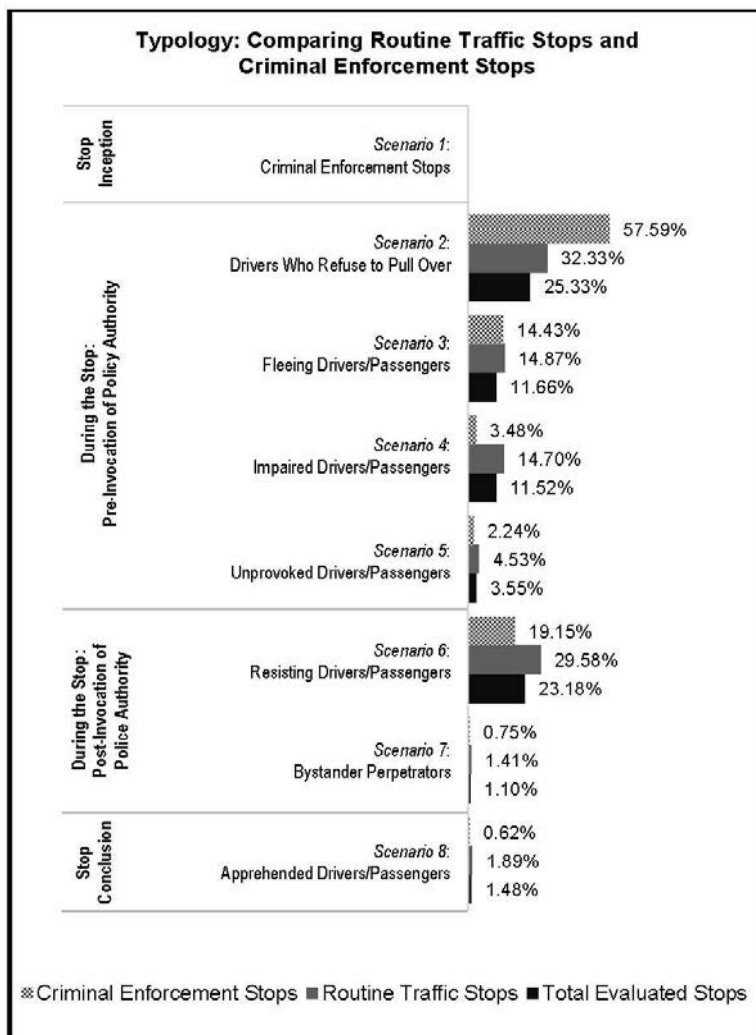


Figure 2¹⁹⁹ reveals two meaningful differences. First, a much higher proportion of criminal enforcement stops fell under Scenario 2, which includes

There were 804 criminal enforcement stops in the “total evaluated stops.” In 14 criminal enforcement stops, the violence was unclear, it appeared as though there was no violence and only threats or simple resistance, or the situations did not neatly fit into the major traffic stop scenarios. 463 stops fell under Scenario 2, 116 fell under Scenario 3, 28 fell under Scenario 4, 18 stops fell under Scenario 5, 154 stops fell under Scenario 6, 6 stops fell under Scenario 7, and 5 stops fell under Scenario 8.

199. Because criminal enforcement stops defined Scenario 1 in the typology, I excluded Scenario 1 from Figure 2 in order to compare and contrast the proportions of violence in the criminal enforcement and routine traffic stop categories. In addition, the percentages do not

cases in which drivers refused to pull over (57.59% versus 32.33%). Strikingly, qualitative analysis revealed that in more than 70% of criminal enforcement stops, the driver refused to pull over, or, the driver stopped and immediately or soon after stopping the driver or a passenger fled via vehicle or foot (*scenarios 2 and 3*). Figure 2 also shows that this difference was overshadowed in the typology when criminal enforcement and routine traffic stops were considered together—as they are in official LEOKA statistics.

Second, a lower proportion of the criminal enforcement stops fell under Scenario 6, which includes cases in which the violence occurred after officers exercised authority beyond asking for basic information, requesting documentation, or running a records check (19.15% versus 29.58%). At the same time, the proportion of criminal enforcement stops that fell under this scenario is not trivial. As the next Part discusses in more detail, this finding raises questions about the extent to which greater invocation of police power during routine traffic stops—especially for only traffic violations—creates avoidable and unnecessary conflicts that undermine both officer and civilian safety.

Figure 2 also illustrates an important similarity in how the typology maps onto the criminal enforcement and routine traffic stops. Specifically, the proportion of cases in Scenario 5—which captures random and unprovoked violence against officers—was very small for both criminal enforcement and routine traffic stops. As emphasized above, this scenario captures the stereotypical cases of random and unprovoked violence that animate the dominant danger narrative surrounding routine traffic stops.

* * *

In sum, the presented typology provides a better contextual understanding of violence against the police during routine traffic stops. Contrary to the dominant danger narrative, only a very small proportion of cases in the sample involved apparently random or unprovoked violence that did not precede evidence of flight or intoxication. Further, applications of the typology suggest that monolithic conceptions of routine traffic stops can overshadow important contextual differences surrounding violence against officers during traffic stops, particularly when officers execute stops for only traffic enforcement and not criminal enforcement purposes. As the next Part discusses, these insights illustrate that an accurate evaluation of the risks and costs of policing during routine traffic stops requires abandoning the oversimplified danger narrative in favor of more sophisticated archetypes.

add up to 100 percent in light of the small subset of narratives that did not fit into the typology because the basis of the violence was unclear, because the incident involved only threats of violence, or because the situation did not fit under any of the major scenarios.

V. IMPLICATIONS

At a conceptual level, the findings and typology illustrate that oversimplified archetypes of police encounters—such as the dominant danger narrative surrounding routine traffic stops—can distort how institutional actors, the public, and researchers evaluate the risks and costs of policing. Put differently, oversimplified archetypes frustrate the ability to achieve what Rachel Harmon has coined “harm-efficient policing”—that is, “policing that imposes harms only when, all things considered, the benefits for law, order, fear reduction, and officer safety outweigh the costs of those harms.”²⁰⁰ In this regard, the findings and typology offer empirical support for the idea that more accurate evaluations of the costs and harms of policing require context-rich information and more sophisticated archetypes.

In the routine traffic stop context more specifically, the findings undermine prevailing assumptions about the dangers of routine traffic stops within key institutions that regulate the police. Official LEOKA statistics reflect a tendency among institutional actors to think of all traffic stops alike, regardless of their basis or context. This monolithic view of the routine traffic stop overshadows the various contextual circumstances surrounding violence against officers during these stops and enables sensationalized danger narratives to shape how these stops are viewed within key institutions that regulate the police.

This Part examines the above points in greater detail. First, it discusses how the findings and typology can inform law enforcement policy and police training on routine traffic stops. Second, it explains how the findings and typology are relevant to Fourth Amendment doctrine involving police authority during routine traffic stops. Finally, it discusses the implications of the findings and typology for future research on policing.

A. Law Enforcement

The findings and typology can inform law enforcement policy and police training in several respects.

The presented danger ratios suggest that routine traffic stops are not as dangerous as conventionally assumed in the law enforcement domain.²⁰¹ The findings further suggest that a considerable amount of violence against the police during routine traffic stops occurs when the stops escalate after officers invoke their authority in a substantial way during the stop (for instance, ordering drivers or passengers out of cars, touching drivers or passengers, or searching them or their vehicles).²⁰² In this regard, the exact things that officers may do to protect their safety—which, critically, the dominant danger

200. Harmon, *supra* note 40, at 792.

201. See *supra* Section III.C.

202. See *supra* Section IV.B.

narrative suggests that they should do, and which may be perfectly legal and constitutional—may be the exact things that officers should not do.

Currently, police academies regularly show officer trainees videos of the most extreme cases of violence against officers during routine traffic stops in order to stress that everyday police work can quickly turn into a deadly situation if they become complacent or hesitate to use force.²⁰³ When police training places primacy on the worst-case scenario, it should be expected that officers may have misguided perceptions of danger during the routine traffic stops that they conduct.²⁰⁴ It should be further expected that officers may respond to perceptions of danger during routine traffic stops in hyper-aggressive ways that instigate escalation, and as a result, potentially undermine both officer and civilian safety. Explicit and implicit racial biases can further shape these perceptions and dangers.²⁰⁵ Given how rare random and deadly violence with guns or knives against officers during routine traffic stops appears to occur, the study lays an early empirical foundation for critically examining whether, or the extent to which, police training should emphasize the worst-case scenario. On balance, showing videos of the most violent routine traffic stops may create avoidable and unnecessary problems during the stops that trainees will eventually conduct.

The findings also prompt important questions about whether the interplay between monolithic conceptions of routine traffic stops and police practices of pretextual traffic stops may exacerbate these problems. Today, pretextual traffic stops are a pervasive law enforcement practice.²⁰⁶ As the next Section will discuss in further detail, Fourth Amendment doctrine has created a regime under which the subjective reasons why officers conduct traffic stops are irrelevant for the purposes of evaluating the reasonableness of the stop, so long as officers have probable cause of a traffic violation.²⁰⁷ Legal scholars have critiqued this regime on the grounds that it enables harmful practices of racial profiling by obscuring when the real reason why officers

203. Stoughton, *Police Body-Worn Cameras*, *supra* note 10, at 1397–98 (discussing “officer survival” videos “which attempt to remind officers of the dangers of complacency by showing officers being brutally attacked, disarmed, or killed”); *id.* at *1997–98 nn.137–44 (providing examples of “officer survival videos”).

204. Here, the concept of the availability heuristic is relevant. *See* sources cited *supra* note 12.

205. L. Song Richardson, *Arrest Efficiency and the Fourth Amendment*, 95 MINN L. REV. 2035, 2045 (2011) (discussing how subconscious racial biases of police officers can result in officers unconsciously associating people of color with danger); Andrew E. Taslitz, *Racial Profiling, Terrorism, and Time*, 109 PENN ST. L. REV. 1181, 1196 (2005) (discussing connections between subconscious racial stereotypes and officer perceptions of danger).

206. Carbado, *From Stopping Black People to Killing Black People*, *supra* note 35, at 155–56 (noting how law enforcement agencies are “very much aware of the on-the-ground implications” of *Whren v. United States*).

207. *See infra* Section V.B; *Whren v. United States*, 517 U.S. 806, 819 (1996) (holding that the subjective reasons why officers conduct traffic stops are irrelevant so long as the officers have probable cause of a traffic violation).

conduct stops is the race or ethnicity of drivers or passengers.²⁰⁸ As explained below, the findings open new avenues for critique by illuminating how obscuring whether stops are based on traffic enforcement or criminal enforcement can undermine officer safety. In this regard, pretextual traffic stops are not only bad for over-policed minority communities but are also bad for the police.

When the distinction between whether officers initiate traffic stops for only traffic enforcement versus criminal enforcement is legally and constitutionally irrelevant, the distinction also becomes obscured in law enforcement policy. Consider the policies and standards from one police department in Florida included in the study. The policies and standards provide guidelines for how police officers should conduct themselves during two types of stops: (1) felony vehicle stops²⁰⁹ and (2) stops for traffic violations.²¹⁰ By its very definition, the latter category includes both traffic stops for only traffic enforcement and pretextual stops that also involve criminal enforcement. A similar distinction appears in the policy manual of the Florida Highway Patrol. The policy manual includes guidance on procedures for “traffic stops” and “felony/high risk traffic stops.”²¹¹

This point is engrained at the highest level in the FBI’s LEOKA statistics. As discussed previously, the newly improved post-2013 LEOKA statistics separate vehicle stops into two categories: “felony vehicle stops” and “traffic violation stops.”²¹² Everything in between “felony vehicle stops” and “traffic violation stops”—including pretextual stops—is obscured.

When the distinction between whether officers initiate traffic stops for only traffic enforcement versus criminal enforcement is obscured in law enforcement policy and is legally and constitutionally irrelevant, then the distinction also becomes obscured in everyday police work. Put another way, once a vehicle stop becomes about traffic, officers come to see the stop as a traffic stop. This applies to pretextual traffic stops. Officers come to view pretextual traffic stops as traffic stops when in reality they are criminal enforcement stops.

208. See, e.g., Carbado, *From Stopping Black People to Killing Black People*, *supra* note 35, at 152–56 (discussing the racialized consequences of pretextual traffic stops); Gabriel J. Chin & Charles J. Vernon, *Reasonable but Unconstitutional: Racial Profiling and the Radical Objectivity of Whren v. United States*, 83 GEO. WASH. L. REV. 882, 886 (2015) (“[S]cholars have been overwhelmingly critical of *Whren*.”); Harris, “*Driving While Black*”, *supra* note 35, at 546; Joh, *supra* note 35, at 209.

209. PALM BEACH GARDENS POLICE DEP’T, “FELONY VEHICLE STOPS,” POLICY AND PROCEDURE 4.2.1.26, <https://egov.pbgfl.com/cp/data/pdpolicies/4.2.1.26.pdf> [<https://perma.cc/ST9H-SFA8>].

210. PALM BEACH GARDENS POLICE DEP’T, “STOPPING AND APPROACHING TRAFFIC VIOLATORS,” POLICY AND PROCEDURE 4.2.3.8, <https://egov.pbgfl.com/cp/data/pdpolicies/4.2.3.8.pdf> [<https://perma.cc/CYB9-8HVR>].

211. FLA. HIGHWAY PATROL, POLICY MANUAL, “TRAFFIC STOPS” 17.21, <https://www.flhsmv.gov/fhp/Manuals/1721.pdf> [<https://perma.cc/JAU7-WHE3>].

212. See *supra* Section I.A.

Importantly, the findings suggest that when pretext obscures the subjective basis of a traffic stop in law enforcement policy and everyday police work, the dangers of the stop itself can become obscured. The findings and typology indicate that traffic stops based only on traffic violations and traffic stops based on criminal enforcement may have different risks to law enforcement, both qualitatively and quantitatively.²¹³ Therefore, even if legally and constitutionally irrelevant, distinctions between the subjective bases of traffic stops may have practical significance to officer safety on the ground. For instance, criminal enforcement stops in the study were much more likely to involve assaults with motor vehicles against officers rather than assaults with a driver or passenger's hands, fists, or feet.²¹⁴ Although more research is necessary, the findings illustrate that conceptualizing traffic stops in monolithic terms (such as under the LEOKA "traffic pursuits and stops" category) hides this important contextual difference.²¹⁵

Therefore, one potential takeaway from the findings is that law enforcement agencies should stop conceptualizing pretextual traffic stops as traffic stops; instead, they should start thinking of those stops in terms of what they are—criminal enforcement stops. With greater context-rich information—like the findings and typology in the study—law enforcement agencies can then direct officers and officer trainees to approach routine traffic stops and traffic stops for criminal enforcement purposes differently. First, consider criminal enforcement stops. The findings and typology suggest that law enforcement should be most concerned about drivers or passengers who attempt to flee or elude the police and that they should take steps to minimize the risk of vehicles being used as weapons against them.²¹⁶

The focus on danger involving flight and vehicles in current law enforcement policy, however, narrowly centers on high-speed vehicle pursuits. Calls for law enforcement agencies to adopt policy restrictions on high-speed vehicle chases go back decades²¹⁷ and persist today.²¹⁸ Two concerns animat-

213. See *supra* Section III.B, Part IV.

214. See *supra* Section III.B.

215. See *supra* Section III.B.

216. See *supra* Sections III.B, IV.B; see also Jeffrey J. Noble & Geoffrey P. Alpert, *State-Created Danger: Should Police Officers Be Accountable for Reckless Tactical Decision Making?*, in *CRITICAL ISSUES IN POLICING* 567, 569 (Roger G. Dunham & Geoffrey P. Alpert eds., 7th ed. 2015) ("Officer-created jeopardy often results when dealing with suspects inside vehicles.").

217. See, e.g., HUGH NUGENT ET AL., U.S. DEP'T OF JUSTICE, NAT'L INST. OF JUSTICE, *RESTRICTIVE POLICIES FOR HIGH-SPEED POLICE PURSUITS* (1990), <https://www.ncjrs.gov/pdffiles1/Digitization/122025NCJRS.pdf> [<https://perma.cc/2BK4-SNAK>].

218. Recent incidents of serious injuries and fatalities during high-speed pursuits have prompted critical discussions about high-speed pursuit policies in several policing jurisdictions. See, e.g., Corey Jones, *With Three Fatal Crashes Since May, OHP Pursuit Policy Remains Confidential*, *TULSAWORLD* (Dec. 25, 2016), http://www.tulsaworld.com/news/local/with-three-fatal-crashes-since-may-ohp-pursuit-policy-remains/article_4a38ba2b-7740-581a-aec6-f62364bc42a1.html [<https://perma.cc/CB9P-R756>]; Sharon Ko, *Bexar County Sheriff's Office Changing Pursuit Policy to Protect Citizens*, *KENS5* (July 19, 2017, 11:27 PM);

ed these calls. First, Geoffrey Alpert's groundbreaking research in the 1980s called attention to the fact that most high-speed vehicle pursuits result from an observed traffic violation, not a serious crime.²¹⁹ Second, evidence suggested that high-speed vehicle pursuits posed great risk of serious injury and death to officers, drivers, passengers, and innocent bystanders.²²⁰ In 1990, the U.S. Department of Justice described these pursuits as "the most dangerous of all ordinary police activities."²²¹ Since then, many law enforcement agencies have adopted policies that restrict when officers can engage in high-speed vehicle pursuits.²²²

The findings reveal that this focus on high-speed vehicle pursuits in law enforcement policy is far too narrow. Specifically, it does not capture the breadth of criminal enforcement stops in which vehicles are commonly used as weapons against the police. In the study, many criminal enforcement stops that involved vehicles used as weapons against officers did not involve "high-speed" pursuits. Rather, those cases involved drivers who hit or ran patrol cars off the road (or attempted to) while driving under or near the speed limit. In other cases, violence against an officer with a motor vehicle occurred before a vehicle pursuit, or in cases that did not involve a vehicle pursuit at all. For instance, some drivers hit (or attempted to hit) stationary patrol cars while the officers were inside or outside of the patrol cars, or tried to hit the officers as they approached the stopped vehicle. Other motorists used the car doors to hit officers or rolled up the windows while the officers reached inside. Those cases did not necessarily unfold into a high-speed vehicle pursuit.

Next, consider routine traffic stops. The findings and typology suggest that law enforcement should be especially concerned about drivers and passengers who use their hands, fists, or feet to assault officers after they exer-

<http://www.kens5.com/news/local/bexar-county-sheriffs-office-pursuit-policy-changes-da-reviewing-draft/458079966> [<https://perma.cc/E72J-HY2K>]; Jacob Tierney, *Allegheny County Police Departments Revisit High-Speed Chase Policies*, TRIBLIVE (Jan. 11, 2017, 12:16 AM), <http://triblive.com/local/valleynewsdispatch/11757116-74/police-pursuit-policy> [<https://perma.cc/JWK9-J5S9>]. In addition, a recently released study that received nationwide media coverage found that between 1979 and 2013, more than 5,000 passengers and innocent bystanders were killed, and tens of thousands were injured, during high-speed vehicle pursuits. In that same time frame, 139 police officers and 6,300 suspects died during these pursuits. Thomas Frank, *High-Speed Police Chases Have Killed Thousands of Innocent Bystanders*, USA TODAY (July 30, 2015, 12:05 PM), <https://www.usatoday.com/story/news/2015/07/30/police-pursuits-fatal-injuries/30187827/> [<https://perma.cc/63RY-NZ5N>].

219. See, e.g., Geoffrey P. Alpert & Patrick R. Anderson, *The Most Deadly Force: Police Pursuits*, 3 JUST. Q. 1, 10 (1986).

220. See *id.*

221. Patrick Oliver & Samuel Kirchhoff, *Managing High-Speed Pursuits*, POLICE MAG. (June 15, 2017), <http://www.policemag.com/channel/vehicles/articles/2017/06/managing-high-speed-pursuits.aspx> [<https://perma.cc/9T98-TD76>].

222. John Rappaport, *How Private Insurers Regulate Public Police*, 130 HARV. L. REV. 1539, 1596 (2017) (noting that "insurers typically require police agencies to maintain adequate policies on vehicle pursuits"); Oliver & Kirchhoff, *supra* note 221.

cise authority beyond asking for basic information, requesting documentation, or running a records check.²²³ This insight prompts questions about whether and when officers should exercise more authority than necessary to accomplish those tasks.

Accordingly, law enforcement policy might discourage officers from routinely ordering drivers and passengers out of vehicles during traffic stops based only on traffic violations, in the absence of convincing grounds that the drivers or passengers pose a threat. Or, with greater contextual information that a motorist's hands, fists, or feet are the most common threat during stops for only traffic violations, law enforcement agencies might discourage officers from responding to minor civilian resistance or aggression (for instance, cursing, pulling away, or pushing) with force in order to reduce possibilities for escalation. Some law enforcement policies, however, do the exact opposite.²²⁴

In certain instances, these greater invocations of police authority embody hyperaggressive officer responses to perceptions of danger. In other instances, however, these exercises of authority may be connected to authoritarian or hypermasculine officer personalities.²²⁵ The findings and typology

223. See *supra* Section III.B.

224. For instance, consider the Tampa Police Department's policy on the use of tasers. On one hand, the policy states that a taser may not be used on a subject fleeing a traffic infraction stop when the only known criminal offense is obstruction based solely on the flight from the stop. On the other hand, the policy provides that officers may use the taser if the traffic violator engages in *any* physical resistance other than flight. Specific examples listed include pushing, pulling away, or striking. TAMPA POLICE DEP'T, STANDARD OPERATING PROCEDURES § 521.2. V.H.4(c) (2016), <https://www.tampagov.net/sites/default/files/police/files/tpd-sop-2016-09-01.pdf> [<https://perma.cc/JB6Z-YUVN>] (section on "Electronic Control Device (Tasers)"); see also Seth W. Stoughton, *Principled Policing: Warrior Cops and Guardian Officers*, 51 WAKE FOREST L. REV. 611, 652–58 (2016) (discussing how officers are taught to have a "command presence," which could increase the potential for conflict between police and civilians).

225. For a discussion of authoritarian officer personalities and policing and masculinity see generally Frank Rudy Cooper, "Who's the Man?": *Masculinities Studies, Terry Stops, and Police Training*, 18 COLUM. J. GENDER & L. 671 (2009) (discussing masculinity, policing, and Terry stops); Eric J. Miller, *Detective Fiction: Race, Authority, and the Fourth Amendment*, 44 ARIZ. ST. L.J. 213 (2012) (discussing authoritarian personalities and policing). See also Richard Delgado & Jean Stefancic, *Critical Perspectives on Police, Policing, and Mass Incarceration*, 104 GEO. L.J. 1531, 1542–50 (2016) (discussing hyperaggressive policing and authoritarian officer personalities); Angela P. Harris, *Gender, Violence, Race, and Criminal Justice*, 52 STAN. L. REV. 777, 781–83 (2000) (discussing masculinity and policing). Focus on authoritarian personalities in police work goes back several decades. See David Alan Sklansky, *Police and Democracy*, 103 MICH. L. REV. 1699, 1733–34 (2005) (discussing police sociology in the 1960s and 1970s); see also Jonathan Simon, *Speaking Truth and Power*, 36 LAW & SOC'Y REV. 37, 39 (2002) (same). Relevant here is Seth Stoughton's explanation of the "[w]arrior mindset" in policing, which he describes as in part defined by an officer's resolve and willingness to engage in righteous violence on the job. Stoughton, *supra* note 224, at 638–39. Stoughton describes four elements to this "Warrior mindset": honor, duty, resolve, and a willingness to engage in righteous violence. *Id.* at 668.

also shed light on how police training might address officers who conduct routine traffic stops who fit this personality type.²²⁶

In the routine traffic stop context, drivers or passengers may not immediately comply with an officer's request or may directly challenge that officer's authority during the stop. Officers who fit this personality type may be more likely to lose their calm and assert their authority in more aggressive ways.²²⁷ The findings suggest that such responses can facilitate escalation in ways that undermine both officer and civilian safety.

On this point, consider the facts surrounding the Sandra Bland case. Bland—a black woman—was pulled over in the middle of the day by a white male Texas state trooper for failing to signal during a lane change.²²⁸ The trooper asked Bland for her driver's license and registration and walked to his patrol car with the documents. Several minutes later, the trooper—intending to give Bland a warning—approached the driver's window. Sensing that Bland was irritated, the trooper asked if she was okay. Bland responded that she was unhappy about being pulled over. After Bland explained why she was upset, the trooper asked, “are you done,” and then requested she put out her cigarette. Bland responded, “I'm in my car, why do I have to put out my cigarette?”

The encounter then took a turn for the worst. The trooper, irritated that Bland would not put out her cigarette, ordered her out of the car. Bland refused, expressing that she did not have to step out. The trooper opened the driver's door and tried to pull Bland from the car. Bland refused to get out of the car and did not want to talk to the cop other than to identify herself for the purposes of the traffic ticket. The officer then grabbed Bland, after which she screamed “Don't touch me, I'm not under arrest.” The trooper then yelled that she was under arrest. Bland asked, “For what?” The trooper continued to order her out of the car, yelling “I will light you up!” while pointing a Taser. Bland yelled, “You're doing all of this for a failure to signal?” After exiting the car, the trooper put her hands behind her back, handcuffed her, slammed her head on the ground, and told her that she was being arrested for failure to comply.²²⁹ The trooper told Bland that he was initially going to

226. Other legal scholars have recommended that police training address how officers with authoritarian personalities should engage with members of over-policed communities. See, e.g., Mary Fan, *Street Diversion and Decarceration*, 50 AM. CRIM. L. REV. 165, 204 (2013) (stressing that officers should “be trained to guard against aggravating mistrust among minority communities by adopting more authoritarian communication styles with people of color”).

227. See, e.g., Josh Bowers, *Annoy No Cop*, 166 U. PA. L. REV. 129, 183–85 (2017) (discussing how disrespect of police led to state intrusions in the Sandra Bland case). See generally Phillip Atiba Goff et al., *Illegitimacy is Dangerous: How Authorities Experience and React to Illegitimacy*, 4 PSYCHOLOGY 340 (2013).

228. The facts to follow were captured on a released dashcam video. *Dashcam Footage of Sandra Bland's Arrest During a Traffic Stop Before Her Death in Police Custody - Video*, GUARDIAN (July 21, 2015, 9:40 PM), <https://www.theguardian.com/us-news/videos/2015/Jul/22/dash-cam-sandra-bland-arrest-video> [<https://perma.cc/2WAB-4RJG>].

229. See *id.*

give her a warning, but was now throwing her in jail. Three days later, Bland was found hanging from a plastic bag in her cell in an apparent suicide.²³⁰

These troubling facts call attention to how issues concerning implicit racial bias must inform policy and practice surrounding how officers respond to minor civilian resistance or aggression during routine traffic stops. In her work, Professor L. Song Richardson has thoroughly discussed how police officers' implicit racial stereotypes and racial anxieties²³¹ can shape interactions with civilians in ways that facilitate escalation.²³² Studies have found that officers who perceive civilians as not respecting them are also more likely to view those civilians as more dangerous.²³³ Richardson stresses that these safety concerns are especially relevant to officer interactions with black individuals.²³⁴ Critically, misguided assumptions about the dangers of routine traffic stops only boost the conditions for implicit racial stereotypes and racial anxieties to escalate encounters during routine traffic stops in ways that result in violence against the police (as well as civilians).

Of course, the analysis above does not discount the fact that there are times when it will be appropriate for officers to exercise police authority during routine traffic stops beyond asking for basic information, requesting documentation, and conducting a records check. For instance, perhaps an officer sees evidence of crime in plain view while conducting a traffic stop. When the cases simply involve a traffic violation, however, the key inquiry becomes whether the safety risks surrounding the power to detain, apprehend, and arrest for both officers and civilians is worth the perceived safety or authority benefits. To the extent that these exercises of authority create avoidable and unnecessary conflicts during routine traffic stops, they might not be.²³⁵

230. Katie Rogers, *The Death of Sandra Bland: Questions and Answers*, N.Y. TIMES (July 23, 2015), <https://www.nytimes.com/interactive/2015/07/23/us/23blandlisty.html> (on file with the *Michigan Law Review*).

231. L. Song Richardson, *Implicit Racial Bias and Racial Anxiety: Implications for Stops and Frisks*, 15 OHIO ST. J. CRIM L. 73, 79 (2017) (defining "racial anxiety" as "the worry that they will be perceived as racist by the civilians they encounter" (footnote omitted)). Richardson explains that racial anxiety is associated with a variety of physiological responses, including "sweating, increased heart rate, facial twitches, fidgeting, and avoiding eye contact." *Id.* (footnotes omitted).

232. *Id.*

233. *Id.* at 80–81 (citing Goff et al., *supra* note 227, at 343).

234. *Id.* at 80 (describing that connections between racial anxiety and safety concerns are especially relevant to police interactions with Black individuals because "the stereotype of police racism will be more salient").

235. *Cf.* Rachel A. Harmon, *Why Arrest?*, 115 MICH. L. REV. 307 (2016) (providing a comprehensive critique of the police power to arrest and arguing that this power should be curtailed).

B. Courts

In addition to law enforcement, the findings and typology are also relevant to courts. This Section demonstrates how the findings and typology lay an early empirical foundation for rethinking fundamental assumptions in two important areas of Fourth Amendment doctrine on police authority and routine traffic stops: (1) pretextual traffic stops and (2) the routine ordering of drivers and passengers out of vehicles. Although this Section focuses on the U.S. Supreme Court's Fourth Amendment jurisprudence, insights from this study could apply to lower federal or state courts in assessing the reasonableness of police conduct during routine traffic stops under either the federal or state constitutions.

1. Pretextual Stops

Whren v. United States is the U.S. Supreme Court's foundational case on pretextual traffic stops.²³⁶ *Whren* involved a pretextual stop: a stop initiated on the basis of an observed traffic violation but that was really a criminal enforcement stop. The officers were patrolling a "high drug area" of Washington D.C. in an unmarked car.²³⁷ The officers became suspicious when they passed a truck that had temporary license plates waiting at a stop sign.²³⁸ The truck had youthful occupants, and the officers noticed the driver looking down into the lap of the passenger.²³⁹ The truck remained at the stop sign for 20 seconds, which seemed like an unusually long time to the officers.²⁴⁰ When the police car made a U-turn to head back to the truck, the truck then turned without signaling and sped off at what the officers deemed an "unreasonable" speed.²⁴¹ The officers initiated a traffic stop and, upon approaching the driver's window, noticed Whren in the passenger's seat holding two plastic bags of what appeared to be crack cocaine.²⁴² After arresting the vehicle occupants, the officers found several illegal drugs in the truck.²⁴³

The defendants challenged the pretextual traffic stop on Fourth Amendment grounds. Specifically, they argued for the Court to adopt a test that evaluated whether a reasonable officer in the same circumstances would have made the stop for the reasons given.²⁴⁴ The Court specifically rejected the idea that a police officer's subjective motivation for conducting a traffic

236. 517 U.S. 806 (1996). See generally Harris, "Driving While Black," *supra* note 35 (exploring the consequences of *Whren* in pretextual traffic stops).

237. *Id.* at 808.

238. *Id.*

239. *Id.*

240. *Id.*

241. *Id.*

242. *Id.* at 808–09.

243. *Id.* at 809.

244. *Id.* at 810.

stop (for instance, criminal enforcement) is relevant under the Fourth Amendment so long as the officer has valid objective grounds for stopping the vehicle (namely, probable cause of a traffic violation).²⁴⁵ Based on this idea, the Court held that traffic stops are reasonable under the Fourth Amendment when police officers have probable cause that a traffic violation occurred.²⁴⁶

The defendants' challenge emphasized the racial consequences of pretextual traffic stops.²⁴⁷ They argued that total compliance with traffic laws is nearly impossible, and as a result, officers would almost always be able to pull over almost any driver for a technical violation.²⁴⁸ They claimed that this breadth creates opportunities for law enforcement to use probable cause of a traffic violation as a pretext to stop drivers and passengers—and in particular, minority drivers and passengers—for suspicion of crimes when officers do not have probable cause of those crimes.²⁴⁹ The Court, however, concluded that these concerns about racial inequality were irrelevant for the purposes of the Fourth Amendment when officers have probable cause of a traffic violation.²⁵⁰ It viewed those concerns as relevant to equal protection under the Fourteenth Amendment instead.²⁵¹

In deeming the subjective basis of a traffic stop irrelevant under the Fourth Amendment, the Court in *Whren* did not just strip the stop at issue of its racial context.²⁵² Rather, it also stripped the stop of its criminal enforcement context. The officers were on patrol in a high crime area and were suspicious that the youthful vehicle occupants were involved in crime.²⁵³ Nonetheless, the message that emerges from the Court's reasoning is that a vehicle stop based on a traffic violation is a traffic stop, regardless of whether officers have ulterior criminal enforcement motives.

The Court never mentions officer safety in *Whren*. As discussed in Section V.A, however, the findings and typology illustrate that obscuring the subjective bases of traffic stops can also obfuscate the potentially different danger risks that criminal enforcement and routine traffic stops pose to law enforcement. Nonetheless, *Whren* constitutionalized pretextual traffic stops under the Fourth Amendment and inspired a regime in which pretextual stops have become an institutionalized law enforcement practice to further

245. *Id.* at 813, 819.

246. *Id.* at 819.

247. *Id.* at 810.

248. *Id.*

249. *Id.*

250. *Id.* at 813.

251. *Id.*

252. Maclin, *supra* note 35, at 336–38 (discussing how the Court in *Whren* rendered police motives based on racial stereotypes or bias irrelevant for Fourth Amendment purposes).

253. *Whren*, 517 U.S. at 808.

criminal enforcement goals.²⁵⁴ As explained below, this regime has significant implications for police safety from at least two perspectives.

First, from the perspective of law enforcement, this regime encourages a race to the bottom in terms of the quantum of evidence of crime that officers need to pull over traffic violators whom they suspect of crime. This low floor then shapes how much evidence officers obtain in everyday police work before initiating the vehicle stops. As scholars have described, officers use probable cause of the traffic violation as a means to sniff for criminal activity before they have reasonable suspicion or probable cause of crime beyond the traffic violation.²⁵⁵ The defendants in *Whren* stressed this point²⁵⁶—although the implications for officer safety were never considered.

This race to the bottom, however, encourages uncertainty in the sense that officers have less and arguably insufficient information to assess whether the situation they are about to enter is really just about traffic or more serious crime. In some situations, this uncertainty might cause officers to overestimate the risks during pretextual stops and respond in hyperreactive and overaggressive ways that increase the likelihood of escalation. In other situations, this uncertainty might cause officers to underestimate danger risks when they have insufficient information to evaluate whether the traffic violators they approach during pretextual stops are engaged in more serious and potentially violent crime.

In these latter situations, an odd paradox arises. Pretextual traffic stops are a key tool of modern proactive policing.²⁵⁷ From an officer safety perspective, however, pretextual traffic stops actually put officers in a reactive position. In obscuring the dangers of the stop at hand, officers can be caught off guard when a violent threat emerges during the stop, and that surprise can lead them to respond in aggressive ways that facilitate escalation and violence during the encounter. With greater knowledge about whether they are initiating encounters with criminal suspects, officers could proactively take control of the situation by using the minimum amount of force necessary.

Second, from the perspective of drivers and passengers, pretextual traffic stops have become so commonplace that it is difficult for civilians to discern when they are being pulled over for just a traffic violation or something

254. Carbado, *From Stopping Black People to Killing Black People*, *supra* note 35, at 155–56.

255. Tracey Maclin, *Let Sleeping Dogs Lie: Why the Supreme Court Should Leave Fourth Amendment History Unabridged*, 82 B.U. L. REV. 895, 943–944 (2002) (“[O]fficers who initiate these intrusions may well lack the requisite level of suspicion required to stop and search for criminal activity, and these minor traffic offenses may be used as a pretext to facilitate the discovery of illegal narcotics or other criminal evidence.” (footnote omitted)).

256. *Whren*, 517 U.S. at 810.

257. Steven Maynard-Moody & Michael Musheno, *Social Equities and Inequities in Practice: Street-Level Workers as Agents and Pragmatists*, 72 PUB. ADMIN. REV. S16, S21 (2012) (“[O]ne of the primary and most institutionalized ‘crime-fighting’ tools of modern proactive policing is the investigatory stop of drivers and pedestrians.”).

else—like their race.²⁵⁸ Put differently, *Whren* not only obscures the subjective basis of the traffic stop in doctrine, but it also encourages a regime in which the basis of a traffic stop is obfuscated for drivers and passengers—and in particular, overpoliced minority drivers and passengers, who are more commonly subjected to pretextual traffic stops.²⁵⁹ As a result, drivers and passengers may view traffic stops as instances of profiling (perhaps correctly in many cases), and that anxiety can encourage escalation during the encounters that unfolds into violence against officers. The findings suggest that this violence is not necessarily major or serious and can stem from simple traffic violators using their hands, fists, and feet to assault officers.²⁶⁰

To make these points more concrete, consider the following narrative from the study.²⁶¹ At 7:30 AM, an officer stopped a black mother with her three children in the car for driving 28 miles per hour in a school zone that had a posted speed limit of 15 miles per hour. According to the officer, the driver refused to sign the citation and exhibited “a belligerent, sarcastic, and insulting manner of speech and demeanor” by demanding that she see the digital read out of the radar unit. The officer told the driver that she would be arrested if she refused to sign the citation. The driver refused the citation and stated “[g]o ahead arrest me. That’s what you want to do anyway. I can see how this works. All you are is a redneck hick, who only targets young black women with out of state tags.” When the officer then radioed for back-up, she mumbled “[o]h just give it to me,” grabbed the citation book, and signed the citation while repeatedly stating “I know my rights, I know my rights you redneck hick.” After signing the citation, the driver aggressively tore off the citation and threw the citation book at the officer, striking him on the hand and chest. The officer then forcibly removed her from the car and placed her into handcuffs. Her vehicle was towed and an officer transported her three children to the police station, where she was processed in the main county jail for assaulting an officer.

As will become clearer in the next Section, the state interest in officer safety has animated Fourth Amendment jurisprudence in situations other than pretextual stops.²⁶² The findings reveal that if the Court is truly committed to officer safety in assessing the constitutional reasonableness of police conduct during routine traffic stops, then Fourth Amendment doctrine should not ignore the subjective bases of those stops. Rather, Fourth Amendment rules should encourage a regime in which officers have more, not less, information about the context surrounding the stops that they initiate.

258. Cf. Richardson, *supra* note 231, at 80 (discussing how racial anxiety can contribute to “Black individuals approaching police interactions with heightened suspicion and anxiety”).

259. Maclin, *supra* note 35, at 336.

260. See *supra* Sections III.B, IV.B.

261. Narrative No. 1221 (on file with author). All quotes in the following paragraph are contained within this narrative. Narrative No. 1221 (on file with the author).

262. See *infra* Section V.B.2.

These critiques are salient in the current moment. *Whren* was unanimously decided in 1996.²⁶³ Last term, however, the Court decided *District of Columbia v. Wesby*.²⁶⁴ In *Wesby*, the Court held that officers had probable cause to arrest partygoers for unlawful entry and emphasized that the probable cause inquiry was an objective one.²⁶⁵ Justice Ginsburg opened her concurrence by stating that the case led her to “question whether this Court, in assessing probable cause, should continue to ignore why police in fact acted.”²⁶⁶ Justice Ginsburg further stressed that a number of commentators had criticized the path that the Court had taken in *Whren*, and that ignoring the subjective basis of police conduct may weigh too heavily in favor of law enforcement to the detriment of Fourth Amendment protection.²⁶⁷ Although it is unclear whether the Court will ultimately reexamine this issue, the findings and typology indicate that the path the Court took in *Whren* may also have dangerous consequences for law enforcement.

2. Orders to Exit Vehicles

As discussed below, officer safety is a major theme in the U.S. Supreme Court’s Fourth Amendment jurisprudence on the routine ordering of drivers and passengers out of vehicles. Contrary to the image of routine traffic stops as mundane and unexceptional in *Whren*, these decisions emphasize that routine traffic stops pose grave danger to officers. The findings and typology call into question whether the Court’s assumptions about the dangers of routine traffic stops are correct.

In its 1977 decision in *Pennsylvania v. Mimms*, the Court held that officers may routinely order drivers out of vehicles as a safety precaution without violating the Fourth Amendment.²⁶⁸ *Mimms* involved a routine traffic stop in which officers discovered a gun—which, critically, my findings suggest is rarely the weapon used to assault officers during these stops.²⁶⁹ In *Mimms*, two officers conducted a traffic stop on a car with an expired license plate.²⁷⁰ One of the officers approached the car and asked the driver to step out and produce his driver’s license and registration.²⁷¹ When the driver stepped out, the officer noticed a large bulge under the driver’s sports jacket.²⁷² Fearing

263. *Whren v. United States*, 517 U.S. 806 (1996).

264. 138 S. Ct. 577 (2018).

265. *Id.* at 589.

266. *Id.* at 593 (Ginsburg, J., concurring in judgment in part).

267. *Id.* at 594.

268. 434 U.S. 106, 107 (1977).

269. *See supra* Section III.B.

270. *Mimms*, 434 U.S. at 107.

271. *Id.*

272. *Id.*

that the driver may possess a weapon, the officer frisked the driver and discovered a gun.²⁷³

The driver argued that the officer's request to exit the car violated the Fourth Amendment.²⁷⁴ To reach its holding, the Court balanced the asserted governmental interests against the extent of the individual intrusion. The Court considered the intrusion that stemmed from the officer's request to exit the vehicle as "*de minimis*" and "a mere inconvenience,"²⁷⁵ especially because the vehicle was already lawfully stopped. On the other side of the balancing scale, the Court considered the government's interest in protecting officer safety.²⁷⁶

Importantly, before the officer requested that the driver exit the car, there were no facts to suggest that the driver posed a safety risk or that the driver was involved in crime.²⁷⁷ The government conceded this point, but argued that the state interest in officer safety weighed in favor of granting officers authority to routinely order drivers out of stopped vehicles.²⁷⁸ The Court agreed with the government, stressing that it was "too plain for argument" that the government's interest in officer safety was "both legitimate and weighty."²⁷⁹ Based on this idea, the Court concluded that the officer's command did not violate the Fourth Amendment.²⁸⁰

The Court in *Mimms* rooted its intuitions about the dangers of routine traffic stops in empirical data. It first cited the finding of the Bristow study that approximately 30% of shootings of police officers occurred when they "approached a suspect seated in an automobile."²⁸¹ The Bristow study, however, never separated those shootings in terms of their underlying basis (as explained in the previous Parts).²⁸² It is unclear how many of those shootings involved traffic stops, and specifically traffic stops based only on traffic violations.²⁸³ In addition, the Court in *Mimms* relied on LEOKA statistics to conclude that "a significant percentage" of civilian killings of officers occurs during traffic stops.²⁸⁴ Those statistics, however, include a much broader swath of vehicle stops than routine traffic stops, including felony vehicle stops (as also explained in the previous Parts).²⁸⁵

273. *Id.*

274. *Id.* at 108.

275. *Id.* at 109–11.

276. *Id.* at 110–11.

277. *Id.* at 109.

278. *Id.* at 109–10.

279. *Id.* at 110.

280. *Id.* at 111.

281. *Id.* at 110 (citing Bristow, *supra* note 85, at 93).

282. *See supra* Section I.B.

283. *See supra* Section I.B.

284. *Mimms*, 434 U.S. at 110 (quoting *United States v. Robinson*, 414 U.S. 218, 234 n.5 (1973)).

285. *See supra* Section I.A.

The Court in *Mimms* acknowledged that not all shootings of officers during routine traffic stops occur when officers issue traffic citations.²⁸⁶ Nonetheless, it declined to view the circumstances under which officers may be at greater risk of harm during routine traffic stops as relevant to its Fourth Amendment analysis.²⁸⁷ It further rejected the idea that routine traffic stops involve less danger to officers than other types of police encounters.²⁸⁸ The danger ratios presented in this Article, however, support this very point.²⁸⁹ The Court's refusal to consider these important contextual differences in its analysis contributes to the idea that all routine traffic stops are potentially dangerous, no matter what their basis or context. In this regard, the anticontextualist approach of the Court in *Mimms* laid the groundwork for the dominant danger narrative to shape how routine traffic stops are perceived in Fourth Amendment doctrine.²⁹⁰

The findings and typology prompt questions about whether this anticontextualist approach fosters Fourth Amendment rules that undermine officer safety on the whole. For instance, the findings suggest that the most common weapons used against officers during routine traffic stops for only traffic violations involve drivers' hands, fists, or feet.²⁹¹ In many cases, violence occurred after the officers invoked their authority in a substantial way during the stop—including ordering drivers to exit the car—after which the situation soon escalated.²⁹² Some narratives clearly reflected that the drivers perceived the officer requests to exit the car as illegitimate, especially since they were being pulled over for only a minor traffic infraction.²⁹³ A constitutional rule that authorizes officers to routinely order drivers out of stopped vehicles only increases opportunities for drivers to use their hands, fists, or feet to assault officers when those stops escalate.

Justice Stevens' dissent in *Mimms* offers a glimpse into how greater contextual information—like the findings and typology presented in this Arti-

286. *Mimms*, 434 U.S. at 110.

287. *See id.* at 110–11.

288. *Id.* at 110 (citing *United States v. Robinson*, 414 U.S. 218, 234 (1973)).

289. *See supra* Section III.C.

290. Related to this point, some scholars have recently critiqued the ways in which Fourth Amendment doctrine should recognize tactical training. This perspective calls attention to other ways in which Fourth Amendment rules operate in ways that are divorced from context during police work on the ground. *See generally* Garrett & Stoughton, *supra* note 29 (advocating for a “tactical Fourth Amendment”).

291. *See supra* Section III.B.

292. *See supra* Section IV.

293. Although future research is necessary to more fully theorize these findings, Monica Bell's work discusses how experiences in which individuals feel unfairly treated by law enforcement (what she labels as “procedural injustice”) are an underlying feature of a new concept she advances called “legal estrangement.” Bell stresses that “[l]egal estrangement is a theory of detachment and eventual alienation from the law's enforcers, and it reflects the intuition among many people in poor communities of color that the law operates to exclude them from society.” Monica C. Bell, Essay, *Police Reform and the Dismantling of Legal Estrangement*, 126 *YALE L.J.* 2054, 2054 (2017).

cle—might inform Fourth Amendment doctrine. Justice Stevens critiqued the majority’s conclusion that routine traffic stops pose serious dangers to law enforcement.²⁹⁴ He emphasized that the majority made no attempt to distinguish among the different situations in which an officer may approach a person seated in a car, and the different safety risks to officers that those situations might pose.²⁹⁵ Justice Stevens noted that the Bristow study never distinguished traffic stops for common traffic offenses versus other incidents involving civilians in vehicles who killed police officers.²⁹⁶

In this regard, Justice Stevens’ dissent challenges a monolithic conception of the routine traffic stop. Unlike the majority, his analysis rejects the idea that all vehicle-stop types pose similar dangers to law enforcement. With better context-rich information, Justice Stevens might have successfully advanced an alternative Fourth Amendment rule that restricted officers from ordering drivers out of vehicles without specific facts to suggest that the officers are in danger.

Twenty years later, in *Maryland v. Wilson*,²⁹⁷ the Court extended *Mimms* to hold that officers may also routinely order passengers to exit a vehicle during a traffic stop.²⁹⁸ The Court’s analysis includes different assumptions about police danger and routine traffic stops that are worthy of scrutiny. In considering the governmental interests, the Court affirmed its view in *Mimms* that it is “too plain for argument” that the government’s interest in officer safety is “both legitimate and weighty.”²⁹⁹ The Court again rooted its intuition about the risks of routine traffic stops to officer safety in empirical data. This time it cited more recent, yet still overinclusive, LEOKA statistics that reported 5,762 assaults against officers and 11 felonious killings during “traffic pursuits and stops” in 1994.³⁰⁰

The Court in *Wilson* also explained its view as to why passengers contributed to the danger that officers face during routine traffic stops. It stressed that “the fact that there is more than one occupant of the vehicle increases the possible sources of harm to the officer.”³⁰¹ It further explained that outside the car, passengers would not have access to any weapons concealed in the interior of the passenger compartment.³⁰² Finally, it noted that “the possibility of a violent encounter stems . . . from the fact that evidence of

294. *Pennsylvania v. Mimms*, 434 U.S. 106, 117 (1977). (Stevens, J., dissenting) (“[T]he Court has based its legal ruling on a factual assumption about police safety that is dubious at best.”).

295. *Id.* at 117–18.

296. *Id.* at 118 n.8.

297. 519 U.S. 408 (1997).

298. *Id.* at 411.

299. *Id.* at 412 (quoting *Mimms*, 434 U.S. at 110).

300. *Id.* at 413.

301. *Id.*

302. *Id.* at 414.

a more serious crime might be uncovered during the stop.”³⁰³ The Court viewed the passenger’s motivation to use violence as a means to prevent officers from discovering evidence of crime as just as strong as that of the driver.³⁰⁴

This discussion in *Wilson* is significant because it reveals that criminal opportunity theory is the theoretical frame through which the Court is evaluating the dangers of routine traffic stops to officers. Criminal opportunity theory assumes that offenders are rational actors and asserts that there are three essential elements to crime: (1) a motivated offender, (2) a suitable target, and (3) the absence of a capable guardian.³⁰⁵ Under this theory, one could conceptualize the routine traffic stop as a situation in which motivated offenders (the drivers and passengers who are stopped and involved in crime) come into regular contact with suitable targets (officers who initiate and conduct the traffic stops) in relatively unguarded locations (streets, roads, and highways).

The findings suggest that this theoretical frame is far too narrow and too simplistic to account for violence against the police during routine traffic stops. In particular, this frame ignores the racialized consequences of how traffic enforcement has become intertwined with criminal enforcement.³⁰⁶ The institutionalization of pretextual traffic stops and concentrated police surveillance in certain communities can lead not only drivers, but also passengers, who are innocent of non-traffic-based crime to resist officers with minor violence when officers invoke greater authority than necessary during the stops. That greater authority includes the routine ordering of drivers and passengers out of vehicles. For these reasons, the findings and typology prompt questions about whether the rule announced in *Wilson* is both empirically and theoretically unsound.

C. *Toward a New Research Agenda*

The presented findings and provisional typology are just a beginning. They open avenues and lay a foundation for a new research agenda on how to conceptualize and evaluate dangerousness in everyday police work, including routine traffic stops. This new research agenda is consistent with broader calls in legal scholarship for better contextual data on policing to inform laws, policy, and doctrine.³⁰⁷ My study focused on the routine traffic stop because it is the most common interaction that civilians have with the

303. *Id.*

304. *Id.*

305. Ronald V. Clarke & Marcus Felson, *Introduction: Criminology, Routine Activity, and Rational Choice*, in 5 *ROUTINE ACTIVITY, AND RATIONAL CHOICE* (Ronald V. Clarke & Marcus Felson eds., 1993).

306. Woods, *supra* note 23, at 709.

307. Harmon, *supra* note 40, at 773–74.

police.³⁰⁸ Future research, however, can shed insight into whether oversimplified archetypes and misguided perceptions of “dangerousness” are also distorting evaluations of policing risks and costs in other policing situations.

In addition, there are still many significant questions about violence against the police during routine traffic stops and other policing contexts that remain unexplored and undertheorized.³⁰⁹ Scholarship has largely centered on *civilians* as the *targets* of police violence.³¹⁰ In the traffic stop context, these critiques have described how expansive police powers to conduct various searches and seizures during traffic stops create multiple pathways to officers victimizing minority drivers and passengers.³¹¹ Although these critiques have done important work to expose and explain injustices in the traffic stop setting, these critiques are limited in their potential to challenge the dominant danger narrative because they focus on civilians as the targets of police violence.

In this regard, the study findings and provisional typology broaden avenues in legal scholarship for critiquing police powers, including the vast powers that officers now have in traffic stop settings, by considering *police officers* as the *targets* of civilian violence. To the extent that doctrine, law, and policy rest on non-empirically-based assumptions and myths about officer safety—such as the dominant danger narrative in the routine traffic stop context—it is necessary to pay greater scholarly and empirical attention to connections between assumptions about police dangerousness and the legal and desirable scope of police power. Although more research and theorization are necessary, the findings and provisional typology push the scholarly conversation in this direction.

With regard to the provisional typology, two major areas are especially ripe for exploration. First, future research is necessary to provide a more fine-grained understanding of violence against the police under each of the eight major traffic-stop scenarios. Second, the study did not focus on the question of *why* civilians use violence against the police at these different points of the routine traffic stop. Having an understanding of these motivations can inform whether it is desirable for institutional actors to grant officers vast police powers under one or more of the major scenarios in the interest of officer safety. This is especially the case given that the findings and proposed typology raise questions about whether greater invocations of police power during routine traffic stops foster escalation in ways that may undermine both officer and civilian safety.

308. See *Traffic Stops*, *supra* note 2.

309. In future work, I intend to examine the questions prompted in this Section through additional findings from the study as well as data from new sources.

310. See sources cited *supra* note 35.

311. See, e.g., Carbado, *From Stopping Black People to Killing Black People*, *supra* note 35, at 149–62.

CONCLUSION

Although more research is necessary, this Article makes an important first step in enhancing our contextual understanding of violence against the police during routine traffic stops. This Article has called attention to how the dominant danger narrative surrounding routine traffic stops is an oversimplified archetype that hinders key institutional actors from accurately evaluating the risks and costs of policing during these stops. The presented findings and typology raise significant questions about the validity of laws, policies, and doctrine that rely on this oversimplified archetype.

At the same time, leading sources of information on violence against the police during routine traffic stops provide information that is largely devoid of context. Only by equipping relevant institutional actors with appropriate context-rich information can they move beyond the dominant danger narrative when defining the legitimate and desirable scope of police power in routine traffic-stop settings. The research presented in this Article moves us further in that direction.