

# FROM THEORY TO DOCTRINE: AN EMPIRICAL ANALYSIS OF THE RIGHT TO KEEP AND BEAR ARMS AFTER *HELLER*

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## ABSTRACT

*As a matter of constitutional doctrine, the right to keep and bear arms is coming of age. But although the doctrine has begun to mature in the decade since District of Columbia v. Heller, scholars, advocates, and judges disagree about (and sometimes simply do not know) how to characterize it.*

*This Article is the first comprehensive empirical analysis of post-Heller Second Amendment doctrine. Beginning with a set of more than one thousand Second Amendment challenges, we have coded every available Second Amendment opinion—state and federal, trial and appellate—from Heller up until February 1, 2016. The dataset is deep as well as broad, including dozens of variables regarding the content of each challenge, not just whether it prevailed. Our findings help provide an objective basis for characterizing Second Amendment doctrine and framing new scholarly inquiries. This is a particularly important task now, as the Amendment becomes a part of “normal” constitutional law and increasingly susceptible to the standard tools of legal analysis.*

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## INTRODUCTION

For at least a generation, the predominant—nearly sole—question for Second Amendment law and scholarship was whether the right to keep and bear arms extends beyond the organized militia. In *District of Columbia v. Heller*,<sup>1</sup> the Supreme Court resolved that question: As a matter of constitutional doctrine, the right protects keeping and bearing arms for private purposes like self-defense against crime.<sup>2</sup>

In the decade since *Heller*, Second Amendment law, scholarship, and advocacy have moved on to new battlefields.<sup>3</sup> Disputes about the underlying purposes and themes of the Second Amendment remain important and, in significant ways, unresolved.<sup>4</sup> But most of the

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1. *District of Columbia v. Heller*, 554 U.S. 570 (2008).

2. *Id.* at 636.

3. Eric M. Ruben & Darrell A. H. Miller, *Preface: The Second Generation of Second Amendment Law & Policy*, 80 *LAW & CONTEMP. PROBS.* 1, 4–9 (2017).

4. *See, e.g.*, Joseph Blocher & Darrell A.H. Miller, *What Is Gun Control? Direct Burdens,*

important, timely, and difficult questions involve determining what kinds of regulations are consistent with the individual right to keep and bear arms. An entire field of constitutional doctrine is being built from the ground up—a rare challenge and opportunity for judges, lawyers, and scholars.

The maturation of the Second Amendment debate has simultaneously required and generated a new set of legal tools. Throughout the first generation of the Second Amendment debate, many scholars and advocates argued that the right to keep and bear arms must be taken seriously as an individual constitutional right.<sup>5</sup> The underlying materials supporting this argument were not drawn primarily from case law—indeed, with the exception of a district court opinion that was later overturned, no federal court prior to *Heller* had ever struck down a gun regulation on Second Amendment grounds.<sup>6</sup> Instead, the argument was essentially one from constitutional first principles, and it correspondingly made heavy use of constitutional text, history, and the like.<sup>7</sup>

Those tools are still useful and important. But now that the individual right to keep and bear arms is regularly invoked in court—generating more than one thousand Second Amendment opinions since *Heller*—those involved in the gun debate must also account for

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*Incidental Burdens, and the Boundaries of the Second Amendment*, 83 U. CHI. L. REV. 295, 301–02 (2016) (investigating whether incidental burdens do or should trigger Second Amendment scrutiny); see also Michael C. Dorf, *Incidental Burdens and the Nature of Judicial Review*, 83 U. CHI. L. REV. ONLINE 97, 103–07 (2016) (discussing whether the Second Amendment is distinct from other rights in that it does not have an equality component).

5. See, e.g., STEPHEN P. HALBROOK, THAT EVERY MAN BE ARMED: THE EVOLUTION OF A CONSTITUTIONAL RIGHT, at xi–xii, 3–6, 197 (1984); Sanford Levinson, *The Embarrassing Second Amendment*, 99 YALE L.J. 637, 658–59 (1989).

6. Clark Neily, *District of Columbia v. Heller: The Second Amendment Is Back, Baby*, 2007–2008 CATO SUP. CT. REV. 127, 140. In *United States v. Emerson*, 46 F. Supp. 2d 598 (N.D. Tex. 1999), *rev'd and remanded*, 270 F.3d 203 (5th Cir. 2001), the district court declared 18 U.S.C. § 922(g)(8) (2012) (criminalizing possession of a firearm while under a restraining order) unconstitutional on its face and held that the Second Amendment guarantees an individual right to bear arms. *Id.* at 614. The Fifth Circuit agreed with the district court that the Second Amendment guarantees an individual right to bear arms, but reversed on the basis that the statute did not violate that right. *Emerson*, 270 F.3d at 264–65.

7. Treatises, books, collections, law review articles, online articles, and newspaper articles account for ninety-four of the 175 sources cited by the majority in *Heller*. Dictionaries account for another six. The remainder includes federal and state cases, state and federal statutes, state constitutions, and legislative history. Those ninety-four sources make up 136 of the 270 citations in the opinion (150 if one counts dictionaries). We are grateful to Alyssa Rutsch, Duke Law Class of 2015, for reviewing the citations.

evolving precedent.<sup>8</sup> In the first generation of the gun debate, legal doctrine was the desired output; now it must be an input as well. If the first question was *whether* to treat the Second Amendment right as unconnected to militia service, the second question is *how* to do so. Put simply, the debate has shifted not only in substance, but in methodology—generally, from interpretation to construction;<sup>9</sup> meaning to implementation;<sup>10</sup> first principles to doctrine. And those involved in that debate must therefore work not only to shape doctrine but, increasingly, to respect it.

This does not mean that the kinds of textual, historical, and structural inquiries on display in *Heller* are no longer relevant. Second Amendment doctrine can and sometimes does direct decisionmakers back to first principles,<sup>11</sup> as when determining whether concealed carrying falls outside the scope of the Second Amendment because it has historically been prohibited.<sup>12</sup> But the scope and propriety of these inquiries are increasingly circumscribed by precedent, which, as Justice Benjamin Cardozo put it, “fix[es] the point of departure from which the labor of the judge begins.”<sup>13</sup> Precedent has a tendency to crowd out other modalities of argument, such as those based on history.<sup>14</sup> A

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8. PHILIP BOBBITT, *CONSTITUTIONAL FATE: THEORY OF THE CONSTITUTION* 7, 93 (1982); PHILIP BOBBITT, *CONSTITUTIONAL INTERPRETATION* 12–13 (1991) (identifying text, history, structure, precedent, consequences, and ethos as the “modalities” with which constitutional argument is conducted).

9. See Lawrence B. Solum, *The Interpretation-Construction Distinction*, 27 *CONST. COMMENT.* 95, 100 (2010) (“In general, interpretation recognizes or discovers the linguistic meaning of an authoritative legal text.”); *id.* at 103 (“Conceptually, construction gives legal effect to the semantic content of a legal text.”).

10. See RICHARD H. FALLON, JR., *IMPLEMENTING THE CONSTITUTION* 5 (2001) (observing how judicial “design of implementing strategies” follows “the identification of constitutional meaning”).

11. Darrell A.H. Miller, *Text, History, and Tradition: What the Seventh Amendment Can Teach Us About the Second*, 122 *YALE L.J.* 852, 861–63 (2013).

12. See, e.g., *District of Columbia v. Heller*, 554 U.S. 570, 626 (2008) (“[T]he majority of the 19th-century courts to consider the question held that prohibitions on carrying concealed weapons were lawful under the Second Amendment or state analogues.”); *Peruta v. Cty. of San Diego*, 824 F.3d 919, 927 (9th Cir. 2016) (en banc) (“Based on the overwhelming consensus of historical sources, we conclude that the protection of the Second Amendment—whatever the scope of that protection may be—simply does not extend to the carrying of concealed firearms in public by members of the general public.”); *United States v. Chester*, 628 F.3d 673, 680 (4th Cir. 2010) (“This historical inquiry seeks to determine whether the conduct at issue was understood to be within the scope of the right . . .”).

13. BENJAMIN N. CARDOZO, *THE NATURE OF THE JUDICIAL PROCESS* 20 (1921).

14. See, e.g., Joseph Blocher & Margaret Lemos, *Practice and Precedent in Historical Gloss Games*, 106 *GEO. L.J. ONLINE* 1, 5–8 (2017) (arguing that precedent generally displaces arguments based on historical practice).

federal court of appeals facing a novel Second Amendment question might, for example, decline to follow the two-part test that “has emerged as the prevailing approach.”<sup>15</sup> But doing so would, at the very least, call for an explanation.<sup>16</sup>

Understanding what Second Amendment doctrine *is* has therefore never been more important.<sup>17</sup> The project of this Article is to facilitate such an understanding—one that includes not only the result of every available Second Amendment opinion (state and federal, trial and appellate) from the day *Heller* was decided until February 1, 2016,<sup>18</sup> but also aspects of the judicial reasoning employed to justify those results. In other words, we go beyond the results in Second Amendment cases, considering their *content* as well.<sup>19</sup> By analyzing reasoning as well as outcomes, we can provide a more complete account of the doctrine’s substance and development, while avoiding some of the most central objections to case coding projects.<sup>20</sup>

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15. Nat’l Rifle Ass’n of Am. v. Bureau of Alcohol, Tobacco, Firearms, & Explosives, 700 F.3d 185, 194 (5th Cir. 2012); *see, e.g.*, United States v. Chovan, 735 F.3d 1127, 1136 (9th Cir. 2013); United States v. Greeno, 679 F.3d 510, 518 (6th Cir. 2012); *Heller v. District of Columbia (Heller II)*, 670 F.3d 1244, 1252 (D.C. Cir. 2011); *Ezell v. City of Chicago*, 651 F.3d 684, 701–04 (7th Cir. 2011); *Chester*, 628 F.3d at 680; United States v. Reese, 627 F.3d 792, 800–01 (10th Cir. 2010); United States v. Marzzarella, 614 F.3d 85, 89 (3d Cir. 2010). As we explain in more detail below, *infra* notes 86–93, this two-step inquiry first asks whether the challenged regulation implicates the Second Amendment at all, and, if so, whether it is justifiable in light of the individual burden and the government interest being served.

16. *See, e.g.*, *Friedman v. City of Highland Park, Ill.*, 784 F.3d 406, 410 (7th Cir. 2015) (acknowledging Second Amendment doctrine applied by other circuits in challenges to assault rifle bans and explaining deviation from it).

17. Mark A. Hall and Ronald F. Wright note that empirical content analysis of judicial opinions “may not eliminate all disagreement, but at least it sharpens the issues,” and point as an illustration to the use of content analysis “to challenge the emerging scholarly consensus that promissory estoppel was overtaking consideration as the basis for enforcing contracts.” Mark A. Hall & Ronald F. Wright, *Systematic Content Analysis of Judicial Opinions*, 96 CALIF. L. REV. 63, 85 (2008) (first citing Robert A. Hillman, *Questioning the “New Consensus” on Promissory Estoppel: An Empirical and Theoretical Study*, 98 COLUM. L. REV. 580 (1998); then citing Juliet P. Kostritsky, *The Rise and Fall of Promissory Estoppel or Is Promissory Estoppel Really as Unsuccessful as Scholars Say It Is: A New Look at the Data*, 37 WAKE FOREST L. REV. 531 (2002)).

18. As noted below, *see infra* note 114, we coded state trial court opinions, but omitted them from the analysis because most state trial courts do not regularly publish opinions on Westlaw.

19. By content analysis, we simply mean the method by which “a scholar collects a set of documents, such as judicial opinions on a particular subject, and systematically reads them, recording consistent features of each and drawing inferences about their use and meaning.” Hall & Wright, *supra* note 17, at 64.

20. Harry T. Edwards & Michael A. Livermore, *Pitfalls of Empirical Studies that Attempt to Understand the Factors Affecting Appellate Decisionmaking*, 58 DUKE L.J. 1895, 1926 (2009) (“A final, and perhaps the most troubling, problem with coding decisions—and one well recognized by many scholars who undertake empirical legal scholarship—is that only the outcomes of the

Doing this meant identifying the proper set of Second Amendment opinions, asking dozens of questions about each of them, and analyzing the results. We designed questions to maximize consistency and reliability, employed survey technology, trained coders to review the cases, and conducted an independent quality review.<sup>21</sup> Past systematic reviews and consultations with an empiricist played a central part of the process.<sup>22</sup>

Our goals are primarily descriptive and analytic.<sup>23</sup> But positive and normative analysis are unavoidably intertwined here, as in any area of constitutional law. Case outcomes reveal, influence, and are shaped by normative judgments about the Second Amendment's proper purpose and application. Second Amendment scholarship and commentary are particularly riven with fundamental disagreements, some of which are insoluble. There is no single way to interpret the twenty-seven words of the Amendment, let alone the vast historical materials relating to their meaning. That makes it all the more important to be clear about the things that are measurable and subject to proof.

The Article proceeds in four parts. Part I establishes the stakes and goals of the study. Part II describes the methodology. Parts III and IV report and analyze the results. The Conclusion identifies major takeaways and potential future avenues of research.

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decisions are coded, not the content.”); Lee Epstein, Nancy Staudt & Peter Wiedenbeck, *Judging Statutes: Thoughts on Statutory Interpretation and Notes for a Project on the Internal Revenue Code*, 13 WASH. U. J.L. & POL'Y 305, 320–23 (2003) (advocating an approach that codes both outcomes and content); Gregory C. Sisk, *The Quantitative Movement and the Qualitative Opportunity: Legal Studies of Judicial Decision Making*, 93 CORNELL L. REV. 873, 885 (2008) (concluding that empirical legal scholarship must “move beyond asking which litigant prevailed in a case and now also ask how the advocates and the court framed the question presented and how the legal analysis unfolded in the opinion”).

21. See *infra* Part II.

22. See, e.g., William Baude, Adam S. Chilton & Anup Malani, *Making Doctrinal Work More Rigorous: Lessons from Systematic Reviews*, 84 U. CHI. L. REV. 37, 47–51 (2017); Hall & Wright, *supra* note 17, at 64. Although we make no pretensions to having advanced the state of the empirical art, our experience confirms the value of consulting existing scholarship for methodological guidance. Hall & Wright, *supra* note 17, at 74 (noting that more than half of legal scholars doing content analysis cited no methodological literature at all, and that “[i]n project after project, legal researchers reinvent this methodological wheel on their own”); Peter J. Hammer & William M. Sage, *Antitrust, Health Care Quality, and the Courts*, 102 COLUM. L. REV. 545, 560 (2002) (acknowledging a “tendency for each new enterprise to invent its own wheel, often in a fairly ad hoc manner”). We found it particularly useful to learn how others have approached questions of survey design, use and training of student coders, and reliability review.

23. Theodore Eisenberg, *Why Do Empirical Legal Scholarship?*, 41 SAN DIEGO L. REV. 1741, 1741 (2004) (concluding that empirical legal studies can “help[] inform litigants, policymakers, and society as a whole about how the legal system works”).

## I. THE SECOND AMENDMENT COMES OF AGE

The contemporary Second Amendment is well-suited for empirical study. For one thing, the right to keep and bear arms is beginning to take shape—the decade since *Heller* has seen more than one thousand lower court challenges testing the boundaries and strength of the right.<sup>24</sup> Moreover, the debate about gun rights and regulation is still rife with broad but unsubstantiated claims about the state of the law, often driven by rancor and partisanship. Close reading and case coding can provide the kind of objective information that might help discipline and professionalize the discussion.

A. *From Should to Is: Why Claims about Second Amendment Doctrine Matter*

Ever since *Heller*, the debate about how the Second Amendment *should* be interpreted and applied has necessarily involved claims about how it *is* treated by the courts. Questions that were exclusively the province of scholars and advocates less than a decade ago<sup>25</sup> are now being resolved by judges. Judicial opinions now address whether a ban on “assault weapons” is constitutional,<sup>26</sup> whether the right to keep and bear arms extends outside the home,<sup>27</sup> whether the Second Amendment extends to people convicted of misdemeanor crimes of domestic violence,<sup>28</sup> and so on. As the doctrine comes into focus through such opinions, claims by advocates, scholars, and others about doctrinal content should become correspondingly more disciplined. As we describe in Part I.B, such claims are made frequently, but are rarely

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24. Frank B. Cross, *Decisionmaking in the U.S. Circuit Courts of Appeals*, 91 CALIF. L. REV. 1459, 1459 (2003) (arguing that circuit court decisions are “probably the decisions of greatest importance for the development of the law in the United States”). See generally Doni Gewirtzman, *Lower Court Constitutionalism: Circuit Court Discretion in a Complex Adaptive System*, 61 AM. U. L. REV. 457, 459–62 (2012) (describing how “lower federal court judges” are “active players in the creation of constitutional meaning”).

25. See *supra* notes 5–10.

26. See, e.g., *Kolbe v. Hogan*, 849 F.3d 114, 121 (4th Cir. 2017) (en banc) (finding that certain semiautomatic rifles and high capacity magazines are not covered by the Second Amendment). In keeping with common practice, we use the phrase “assault weapons,” recognizing that the label is imprecise and frequently misunderstood.

27. Some have held as much. See, e.g., *Moore v. Madigan*, 702 F.3d 933, 935–36 (7th Cir. 2012); *Wrenn v. D.C.*, No. 16-7025, 2017 WL 3138111, at \*3 (D.C. Cir. July 25, 2017). Others have deferred the question, while upholding the challenged laws on other grounds. See, e.g., *Drake v. Filko*, 724 F.3d 426, 430–32 (3d Cir. 2013); *Woollard v. Gallagher*, 712 F.3d 865, 875–76 (4th Cir. 2013); *Kachalsky v. Cty. of Westchester*, 701 F.3d 81, 89 (2d Cir. 2012).

28. See, e.g., *United States v. White*, 593 F.3d 1199, 1205–06 (11th Cir. 2010) (upholding federal ban); *United States v. Skoien*, 614 F.3d 638, 639 (7th Cir. 2010) (same).

backed up by more than the commentator's impressions. But they are, in important ways, empirical statements, and can be evaluated as such. Claiming that a federal Circuit is especially hostile to the Second Amendment, for example, can be tested by measuring outcomes and doctrine in that Circuit and comparing to others. But such analysis is almost never done.

In the immediate wake of *Heller*—and, later, *McDonald v. City of Chicago*<sup>29</sup>—judges, advocates, and commentators disagreed sharply about the result and implications. Some predicted (happily or not) a wave of litigation and a radical change to the nation's firearm laws.<sup>30</sup> Others suggested that the cases' impact would be minimal, given the paucity of laws as strict as those struck down in *Heller* and *McDonald*.<sup>31</sup>

There was, however, broad agreement that the Court had left open many important and difficult questions regarding the scope and protection of the right to keep and bear arms. At the same time as it recognized the existence (and, later, fundamentality) of an individual right to keep and bear arms for private purposes like self-defense in the home, the Court also noted that this right, “[l]ike most rights, . . . is not unlimited.”<sup>32</sup> Justice Antonin Scalia's majority opinion explained:

From Blackstone through the 19th-century cases, commentators and courts routinely explained that the right was not a right to keep and carry any weapon whatsoever in any manner whatsoever and for whatever purpose. For example, the majority of the 19th-century courts to consider the question held that prohibitions on carrying concealed weapons were lawful under the Second Amendment or state analogues. Although we do not undertake an exhaustive historical analysis today of the full scope of the Second Amendment, nothing in our opinion should be taken to cast doubt on longstanding prohibitions on the possession of firearms by felons and the mentally ill, or laws forbidding the carrying of firearms in sensitive places such as schools and government buildings, or laws imposing conditions and qualifications on the commercial sale of arms.

We also recognize another important limitation on the right to

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29. *McDonald v. City of Chicago*, 561 U.S. 742 (2010).

30. *See, e.g.*, *District of Columbia v. Heller*, 554 U.S. 570, 680 (2008) (Stevens, J., dissenting) (“I fear that the District's policy choice [that was struck down in *Heller*] may well be just the first of an unknown number of dominoes to be knocked off the table.”).

31. *See, e.g.*, Adam Winkler, *Heller's Catch-22*, 56 UCLA L. REV. 1551, 1577 (2009) (“A few additional extreme laws will be invalidated under the reinigorated Second Amendment, but these, like the D.C. law in *Heller*, are likely to be outliers.”).

32. *Heller*, 554 U.S. at 626.



keep and carry arms. *Miller* said, as we have explained, that the sorts of weapons protected were those “in common use at the time.” We think that limitation is fairly supported by the historical tradition of prohibiting the carrying of “dangerous and unusual weapons.”<sup>33</sup>

These paragraphs were immediately and widely recognized as a key to the constitutionality of gun regulation going forward.<sup>34</sup>

As expected, post-*Heller* litigation has focused on justifying, limiting, extending, or reasoning by analogy from the restrictions that the Court seemed to approve.<sup>35</sup> There are, of course, deep debates about where the lines should be drawn and how much of a burden the government must bear in order to justify particular restrictions. The debates are also methodological, involving questions like whether and to what degree the analysis should depend on original review of the historical record.<sup>36</sup>

But in addition to these arguments from first principles, advocates, scholars, and judges are also making claims about the state of the evolving doctrine. *Heller* essentially introduced a new constitutional right, and recognized the wide range of questions it left open to future cases.<sup>37</sup> Subsequent decisions have answered some of those questions, and have therefore provided further guidance and rules for future cases. Just as lower courts are bound vertically by Supreme Court precedent, they are also bound horizontally by their own. So when a federal court of appeals holds that undocumented immigrants do not

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33. *Id.* at 626–27 (citations omitted).

34. *See, e.g.,* Winkler, *supra* note 31, at 1561 (“The vast majority of gun control laws fits within these categories. So while forcefully declaring an individual right to keep and bear arms, the Court suggests that nearly all gun control laws currently on the books are constitutionally permissible.”).

35. *See infra* note 240 and accompanying text.

36. *Compare Heller II*, 670 F.3d 1244, 1252 (D.C. Cir. 2011) (upholding gun regulation under intermediate scrutiny), *with id.* at 1271 (Kavanaugh, J., dissenting) (concluding that “*Heller* and *McDonald* leave little doubt that courts are to assess gun bans and regulations based on text, history, and tradition, not by a balancing test such as strict or intermediate scrutiny,” and that the laws at issue should be struck down); *compare* Drake v. Filko, 724 F.3d 426, 431 (3d Cir. 2013) (noting that the court was “not inclined to . . . engag[e] in a round of full-blown historical analysis” regarding whether concealed carrying is covered by the Second Amendment), *with id.* at 449 (Hardiman, J., dissenting) (concluding on the basis of such an analysis that the “crux of [the] historical precedents, endorsed by the Supreme Court, is that a prohibition against both open and concealed carry without a permit is different in kind, not merely in degree, from a prohibition covering only one type of carry”).

37. *Heller*, 554 U.S. at 635 (“[S]ince this case represents this Court’s first in-depth examination of the Second Amendment, one should not expect it to clarify the entire field . . . [T]here will be time enough to expound upon the historical justifications for the exceptions we have mentioned if and when those exceptions come before us.”).

fall within the Amendment's scope, or that eighteen- to twenty-one-year-olds do, it has also effectively determined the outcome of future Second Amendment challenges in its circuit. And, considering the degree to which courts borrow from one another's tests, it has perhaps even influenced cases outside its jurisdiction.<sup>38</sup>

As Second Amendment doctrine has begun to take shape and solidify, advocates and scholars have begun to characterize it in general terms. These claims are empirical in the sense that they are not statements about what the law *should* be, but what it *is*. They are therefore subject to proof in ways that normative claims about the underlying purpose or meaning of the Amendment might not be.

These factual claims matter, as does their accuracy. Generally speaking, falsifiable claims about the content of law should be true. In this particular area of law, however, accuracy is especially important. The post-*Heller* Second Amendment is no longer in its infancy, and people are starting to form understandings of what Second Amendment doctrine is all about. Those impressions, once formed, will not be easy to shake.

And as a practical matter, such beliefs—accurate or not—can have a major impact on the future of the Amendment. For example, gun rights proponents regularly claim that lower courts are rejecting nearly all Second Amendment challenges, refusing to apply *Heller*'s reasoning, or that there is mass confusion in the lower courts.<sup>39</sup> All of these assertions are then invoked as reasons why the Court should grant cert in another Second Amendment case.<sup>40</sup>

Such arguments can also be influential in the policy realm. Politicians regularly make claims about the content of Second Amendment doctrine,<sup>41</sup> often suggesting that courts cannot be trusted

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38. To take just one prominent example, the Third Circuit's decision in *United States v. Marzarella* is credited as the first to describe the two-part test that has now been adopted across the circuits:

First, we ask whether the challenged law imposes a burden on conduct falling within the scope of the Second Amendment's guarantee. If it does not, our inquiry is complete. If it does, we evaluate the law under some form of means-end scrutiny. If the law passes muster under that standard, it is constitutional. If it fails, it is invalid.

*United States v. Marzarella*, 614 F.3d 85, 89 (3d Cir. 2010) (citation omitted) (citing *United States v. Stevens*, 533 F.3d 218, 233 (3d Cir. 2008), *aff'd*, 559 U.S. 460 (2010)); see *N.Y. State Rifle & Pistol Ass'n v. Cuomo*, 804 F.3d 242, 254 (2d Cir. 2015), *cert. denied*, 136 S. Ct. 2486 (2016) (noting that the two-part test had been largely adopted by the Third, Fourth, Fifth, Sixth, Seventh, Ninth, Tenth, Eleventh, and D.C. Circuits).

39. See *infra* Part I.B.1.

40. See *infra* notes 75–78.

41. See, e.g., *Senator Ted Cruz at 2017 Conservative Political Action Conference*, C-SPAN

to enforce the right to keep and bear arms<sup>42</sup> or supporting state constitutional amendments requiring strict scrutiny for gun rights claims.<sup>43</sup>

It is not our goal to suggest that all of these claims are falsifiable or that Second Amendment doctrine can be reduced to a single doctrinal test or soundbite. No other constitutional right can be described in such simplistic terms, and it would be too much (or too little) to expect such of the right to keep and bear arms. But we think it matters that some of these claims are subject to proof. And if Second Amendment law, scholarship, and rhetoric are to be disciplined, then they should be accurate.

We are not the first scholars to systematically review and analyze lower court cases on the Second Amendment. Three prior projects in particular demand close attention. Although none analyzes the same breadth of cases as we do, and only one is quantitative, they each represent welcome efforts to investigate Second Amendment doctrine outside the Supreme Court.

In the first, Michael P. O’Shea reviews 225 federal appellate and trial court opinions to determine “whether the right remains underenforced.”<sup>44</sup> If so, he argues, a slippery slope from background check legislation to firearm confiscation is a plausible concern.<sup>45</sup> He observes that some judges provide institutional explanations for

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(Feb. 23, 2017), <https://www.c-span.org/video/?424394-8/senator-ted-cruz-speaks-cpac> [<https://perma.cc/KLA5-2RHU>] (04:36–08:30):

The Fourth Circuit used to be the most conservative court in the country. . . . The Fourth Circuit now, they invented this new test for the Second Amendment and here’s what their test says: The Second Amendment doesn’t protect a weapon if it would be useful in a military context. . . . This test isn’t just sort of questionable. It isn’t just a little bit out there. It’s nuts. . . . This is lawless. And it’s why after eight years of Obama, there are few if any things more important than putting principled constitutionalists on the Supreme Court.

42. See, e.g., AWR Hawkins, *Ted Cruz: U.S. Is One Liberal Justice Away From End of Gun Rights*, BREITBART (Oct. 25, 2015), <http://www.breitbart.com/big-government/2015/10/25/ted-cruz-u-s-one-liberal-justice-away-end-gun-rights/> [<https://perma.cc/88EM-3W3K>].

43. See, e.g., ALA. POLICY INST., *GUIDE TO THE ISSUES, STATEWIDE AMENDMENT 3: THE RIGHT TO BEAR ARMS AS A FUNDAMENTAL RIGHT 1* (2014) (“The driving force behind Amendment 3 [requiring courts to apply strict scrutiny to gun restrictions] is the growing concern at the federal level that courts have become more lenient and may back away from applying strict scrutiny to Second Amendment challenges.”).

44. Michael P. O’Shea, *The Steepness of the Slippery Slope: Second Amendment Litigation in the Lower Federal Courts and What It Has to Do with Background Recordkeeping Legislation*, 46 CONN. L. REV. 1381, 1410 (2014).

45. *Id.* at 1408 (“Courts that recognize and credibly enforce constitutional rights provide assurance that legislation imposing additional regulation (A) will not be allowed to lead to drastic or prohibitory restrictions (B) . . .”).

deferring to legislatures about public safety—a factor that can be suggestive of underenforcement.<sup>46</sup> In addition, though judges nominated by both Republican and Democratic presidents have upheld most gun laws, only Republican-nominated judges voted to strike any down.<sup>47</sup> (This pattern ceased soon after the end of the study period.<sup>48</sup>) O’Shea concludes that the right is being underenforced, thereby buttressing fears of a slippery slope.<sup>49</sup>

In a more recent review of federal appellate cases, David B. Kopel and Joseph G.S. Greenlee describe doctrine being applied in challenges to various categories of gun laws.<sup>50</sup> Their analysis is more normative, generally critiquing decisions perceived to under-enforce the Second Amendment. Opinions upholding regulations in the face of Second Amendment challenges are characterized as “deservedly unpublished,”<sup>51</sup> “willful[ly] oblivious[] to the facts,”<sup>52</sup> “schizophrenic,”<sup>53</sup> and applying an “eccentric and feeble version of heightened scrutiny.”<sup>54</sup> Opinions espousing a broad view of the Second Amendment, most often dissents, are used to exemplify sound doctrine.<sup>55</sup>

These first two articles might best be characterized as large-n qualitative studies.<sup>56</sup> Such qualitative analyses have the potential to

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46. *Id.* at 1413 (citing Lawrence Gene Sager, *Fair Measure: The Legal Status of Underenforced Constitutional Norms*, 91 HARV. L. REV. 1212, 1218–19 (1978)).

47. *Id.* at 1423–24. O’Shea notes one exception that confirms the rule: a former Republican congressional staffer appointed by President Clinton as a compromise with Republicans. *Id.*

48. *Id.* at 1426–27 (counting three opinions in the months after the study period that “deviated from the party-of-appointment pattern”).

49. *Id.* at 1425 (noting the “tenor” of decisions “is deeply skeptical, bordering on hostile, to claims that the Second Amendment limits government action”).

50. David B. Kopel & Joseph G.S. Greenlee, *The Federal Circuits’ Second Amendment Doctrines*, 61 ST. LOUIS U. L.J. 193, 196 (2017) (noting that the authors “examined every post-*Heller* circuit case, including the unpublished ones”).

51. *Id.* at 254.

52. *Id.* at 298.

53. *Id.* at 299.

54. *Id.* at 268.

55. *See id.* at 206 (citing *Friedman v. City of Highland Park, Ill.*, 784 F.3d 406, 417 (7th Cir. 2015) (Manion, J., dissenting)); *id.* at 265 (citing *Drake v. Filko*, 724 F.3d 426, 445 (3d Cir. 2013) (Hardiman, J., dissenting)); *id.* at 280 (citing *United States v. Chovan*, 735 F.3d 1127, 1145, 1149 (9th Cir. 2013) (Bea, J., dissenting)); *id.* at 286 (citing *Jackson v. City of San Francisco*, 135 S. Ct. 2799, 2801 (2015) (Thomas, J., dissenting from denial of certiorari)); *id.* at 301 (citing *Heller II*, 670 F.3d 1244, 1285 (D.C. Cir. 2011) (Kavanaugh, J., dissenting)).

56. *See generally* Thomas M. Keck, *Medium- and Large-N Qualitative Methods in Constitutional Law*, in *HANDBOOK ON RESEARCH METHODS IN CONSTITUTIONAL LAW* (Malcolm Langford and David Law, eds. forthcoming), <https://ssrn.com/abstract=3070348>

capture the “normative influence of law” that is “difficult to capture in statistical research designs.”<sup>57</sup> But quantitative designs have their own advantages, such as enabling comparisons between discrete variables and limiting the subjectivity inherent in qualitative analysis.

A third review of Second Amendment case law employs quantitative analysis and thus has methodological similarities to our approach. Adam Samaha and Roy Germano compare federal appellate success rates in five areas of constitutional litigation, one of which is Second Amendment challenges.<sup>58</sup> Samaha and Germano’s goal is largely attitudinalist: they ask whether three proxies for judicial ideology are predictive of outcomes.<sup>59</sup> They conclude that ideology “might play a small role” in resolving gun rights claims, but that the correlation between ideology and outcomes appears much stronger in cases involving abortion rights, the Establishment Clause, and affirmative action.<sup>60</sup> Samaha and Germano’s analysis also tees up interesting questions about the state of Second Amendment litigation, including how the high failure rate of Second Amendment claims can be explained.<sup>61</sup>

We seek to create a more complete picture of the state of Second Amendment case law. As described in greater detail in Part II, by comprehensively coding all available state and federal trial and appellate opinions, and counting nearly one hundred variables for each Second Amendment challenge therein, we can provide the most detailed account of Second Amendment doctrine to date. Like Samaha and Germano, our approach is quantitative. Unlike them, however, we make no effort to measure the impact of ideology.

### *B. Characterizing Second Amendment Doctrine*

What, then, are the kinds of claims that are commonly made about the content of Second Amendment doctrine? We see two major classes of claims: broad characterizations of judicial treatment of the right to keep and bear arms and more granular characterizations about

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[<https://perma.cc/ZWU4-WNS8>] (describing methodology).

57. *Id.*

58. Adam M. Samaha & Roy Germano, *Are Commercial Speech Cases Ideological? An Empirical Inquiry*, 25 WM. & MARY BILL RTS. J. 827, 829 (2017).

59. *Id.* at 849–50 (describing the three proxies: (1) “political party of the appointing president,” (2) “Judicial Common Space” scores, and (3) “Database on Ideology, Money in Politics, and Elections” scores).

60. *Id.* at 861.

61. *Id.*

doctrine.

1. *Overall Characterizations.* Perhaps the most widely accepted characterization of Second Amendment challenges as a whole is that they have been overwhelmingly rejected.<sup>62</sup> As the Law Center to Prevent Gun Violence puts it:

Regardless of the level of scrutiny that has been applied, nearly all of these cases have one thing in common: [T]he Second Amendment challenge has been rejected and the statute at issue has been upheld. Of the more than 900 cases tracked by the Law Center, 96% have rejected the Second Amendment challenge.<sup>63</sup>

Closely related to that overall assessment are characterizations about regional variations. A common refrain has been that certain federal appellate courts—especially the Second, Fourth, and Ninth Circuits—are particularly opposed to enforcing the Second Amendment right, suggesting a higher failure rate for challenges to gun laws there than in other places.<sup>64</sup> This characterization is often accompanied by emphasis on the political makeup of the court under discussion.<sup>65</sup>

However one defines success and failure,<sup>66</sup> such claims depend in

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62. *Id.* at 860 (characterizing Second Amendment challenges as “outstanding losers”).

63. LAW CTR. TO PREVENT GUN VIOLENCE, POST-*HELLER* LITIGATION SUMMARY 6 (Mar. 31, 2015), <http://smartgunlaws.org/wp-content/uploads/2014/11/Post-Heller-Litigation-Summary-March-2015-Final-Version.pdf> [<https://perma.cc/C5RC-ZC3E>].

64. *See, e.g.*, Petition for Writ of Certiorari at 21, *Silvester v. Harris*, 843 F.3d 816 (9th Cir. 2016), *petition for cert. filed sub nom.*, *Silvester v. Becerra*, No. 17-342 2017 WL 3948480 (U.S. Sept. 1, 2017) (No. 17-342) (“It is no secret that various lower courts, and the Ninth Circuit especially, are engaged in systematic resistance to this Court’s *Heller* and *McDonald* decisions.”); AWR Hawkins, *President Trump Can Free Second Amendment From Ninth Circuit’s Grip*, BREITBART (Jan. 3, 2017), <http://www.breitbart.com/big-government/2017/01/03/president-trump-can-free-2nd-amendment-ninth-circuits-grip/> [<https://perma.cc/GUA7-FYG6>] (singling out the Ninth Circuit as “chipping away at the Second Amendment”); Daniel Horowitz, *4th Circuit Limits Second Amendment Right to Own Common Firearms*, CONSERVATIVE REV. (Feb. 22, 2017, 6:00 AM), <https://www.conservativereview.com/commentary/2017/02/fourth-circuit-limits-second-amendment-right-to-possess-common-firearms> [<https://perma.cc/E5GE-H9J9>]; David Kopel, *The 2nd Circuit’s Second-Class Second Amendment Intermediate Scrutiny*, WASH. POST (Oct. 23, 2015), <https://www.washingtonpost.com/news/volokh-conspiracy/wp/2015/10/23/the-2nd-circuits-second-class-second-amendment-intermediate-scrutiny> [<http://perma.cc/ZW7Z-RFD>] (suggesting that the Second Circuit is applying a uniquely deferential version of scrutiny to uphold gun laws against Second Amendment challenges).

65. *See, e.g.*, Horowitz, *supra* note 64.

66. As explained in more detail below, *infra* notes 136–40 and accompanying text, we focus on the failure rate, counting as a “success” any challenge that is not rejected, including those that simply survive a motion for summary judgment or motion to dismiss. Such claims might ultimately

part on facts. As we note below, it is true that the vast majority of Second Amendment claims fail, but it is also true that the Second, Fourth, and Ninth Circuits—those typically criticized as being hostile to gun rights—upheld Second Amendment claims at a *higher* rate than the overall average.<sup>67</sup> Moreover, the meaning and significance of failure rates, including whether Second Amendment claims are being treated fairly by courts, also depends in part on empirical facts. Is the failure rate high because so many objectively weak claims are brought—for example, by people who *Heller* carves out of Second Amendment coverage, but who have nothing to lose by raising constitutional claims, like convicted felons-in-possession? (We find the answer to be a partial yes.<sup>68</sup>) Or, in contrast, are there indicia that the failure rate is high because judges are hostile to the right to keep and bear arms?

The latter has become a central talking point for many who favor broad gun rights.<sup>69</sup> Indeed, it is perhaps the most common argument in favor of granting cert in another Second Amendment case. In *McDonald*, the plurality opinion noted that the Second Amendment is not a “second-class right.”<sup>70</sup> Judges, advocates, and scholars frequently invoke that language in the course of suggesting that a particular court has interpreted the right to keep and bear arms too narrowly.<sup>71</sup> Perhaps

fail in a later opinion. In that case, the earlier case outcome (say, surviving a motion to dismiss) would be coded as a success and the later outcome would be coded as a failure.

67. See *infra* Table 1 (showing overall success rate of 9 percent) and Table 2 (showing that Second, Fourth, and Ninth Circuits have higher success rates).

68. See *infra* Part III.A.2 (finding that nearly two thirds of challenges are brought by criminal defendants, who have a success rate of only 6 percent) and Part III.A.3 and Appendix C, <https://dlj.law.duke.edu/wp-content/uploads/sites/2/2018/04/Ruben-and-Blocher-App-C-1.pdf> [<https://perma.cc/9PQG-7WY6>] (showing that out of that 273 challenges to felon-in-possession statutes—nearly a quarter of the set—just three succeeded, for a 1 percent success rate).

69. See, e.g., Robert J. Cottrol & George A. Mocsary, *Guns, Bird Feathers, and Overcriminalization: Why Courts Should Take the Second Amendment Seriously*, 14 GEO. J.L. & PUB. POL’Y 17, 33 (2016) (arguing that lower courts are “undercutting . . . Supreme Court precedent” in a way that is suggestive of “something other than a desire to control crime”); O’Shea, *supra* note 44, at 1425 (characterizing the “tenor” of lower court Second Amendment decisions as “deeply skeptical, bordering on hostile, to claims that the Second Amendment limits government action”); Editorial, *Waiting for Justice Gorsuch*, WALL ST. J. (Feb. 23, 2017, 7:17 PM), <https://www.wsj.com/articles/waiting-for-justice-gorsuch-1487893991> [<https://perma.cc/VCU6-SBYS>] (postulating a “lower-court assault on gun rights”); Charles C.W. Cooke, *The Fourth Circuit Runs Roughshod Over Heller and the Second Amendment*, NAT’L REV. (Feb. 22, 2017, 2:19 PM), <http://www.nationalreview.com/article/445145/fourth-circuit-decision-maryland-assault-weapons-ban-constitutional-travesty> [<https://perma.cc/349K-XLAC>] (suggesting “the Fourth Circuit has taken it upon itself to rewrite *Heller*”).

70. *McDonald v. City of Chicago*, 561 U.S. 742, 780 (2010) (plurality).

71. It is, for example, the first line of the en banc dissent in *Peruta v. County of San Diego*,

most prominently, Justice Clarence Thomas has repeatedly suggested that the Second Amendment is being subject to second-class treatment: he has done so not only in opinions<sup>72</sup> and dissents from denials of certiorari,<sup>73</sup> but in his first questions at oral argument in nearly a decade.<sup>74</sup>

Dozens of briefs have invoked the same “second class” language, often as a means of pressing the Supreme Court to grant cert.<sup>75</sup> And as one would expect with cert petitions, which typically aim to show more than simply the existence of an erroneous decision,<sup>76</sup> those briefs have often made the broader empirical claim that the error is widely replicated.<sup>77</sup> A brief filed by dozens of members of Congress is

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824 F.3d 919 (9th Cir. 2016) (en banc): “The Second Amendment is not a ‘second-class’ constitutional guarantee.” *Id.* at 945 (Callahan, J., dissenting).

72. *Voisine v. United States*, 136 S. Ct. 2272, 2292 (2016) (Thomas, J., dissenting) (“In construing the statute before us expansively so that causing a single minor reckless injury or offensive touching can lead someone to lose his right to bear arms forever, the Court continues to ‘relegat[e] the Second Amendment to a second-class right.’” (quoting *Friedman v. City of Highland Park*, 136 S. Ct. 447, 450 (2015) (Thomas, J., dissenting from denial of certiorari))).

73. *Silvester v. Becerra*, No. 17-342, 2018 WL 943032, at 8\* (U.S. Feb. 20, 2018) (Thomas, J., dissenting from denial of certiorari) (“The right to keep and bear arms is apparently this Court’s constitutional orphan.”); *Peruta v. California*, 137 S. Ct. 1995, 1999 (2017) (Thomas, J., dissenting from denial of certiorari) (“The Court’s decision to deny certiorari in this case reflects a distressing trend: the treatment of the Second Amendment as a disfavored right.”); *Friedman*, 136 S. Ct. at 450 (Thomas, J., dissenting from denial of certiorari) (“I would grant certiorari to prevent the Seventh Circuit from relegating the Second Amendment to a second-class right.”).

74. Transcript of Oral Argument at 35–39, *Voisine*, 136 S. Ct. 2272 (No. 14-10154); Josh Blackman, *Justice Thomas Speaks Truth To Power: Second Amendment Is Not a Second-Class Right*, JOSH BLACKMAN’S BLOG (Mar. 1, 2016), <http://joshblackman.com/blog/2016/03/01/justice-thomas-speaks-truth-to-power-second-amendment-is-not-a-second-class-right/> [<https://perma.cc/FCC7-VVNF>] (referring to a “rank double standard” and concluding that “Thomas’s questions from the bench are meant to illicit [sic] the subjugation of the Second Amendment”).

75. *See, e.g.*, Brief for National Rifle Association of America as Amici Curiae Supporting Petitioner at 22, *Walker v. United States*, 136 S. Ct. 2387 (2016) (No. 15-1027) (“The rights secured by the Second Amendment are not second-class rights, and this Court should grant certiorari to ensure that they are not relegated to that disfavored status.” (citation omitted)); Brief for the American Civil Rights Union as Amici Curiae Supporting Petitioners at 4, *Kachalsky v. Cacace*, 133 S. Ct. 1806 (2013) (No. 12-845) (“The court below also embraced stepchild, second class status for the Second Amendment, contrary to both *Heller* and *McDonald*.”).

76. SUP. CT. R. 10 (listing factors for certiorari, including existence of a circuit split or important question of federal law); *id.* (“A petition for a writ of certiorari is rarely granted when the asserted error consists of erroneous factual findings or the misapplication of a properly stated rule of law.”).

77. *See, e.g.*, Petitioners’ Reply Brief at 2, *Bonidy v. U.S. Postal Serv.*, 136 S. Ct. 1486 (2016) (No. 15-746) (“This Court’s review is further warranted because the deferential form of intermediate scrutiny applied by the panel majority below is inconsistent with this Court’s precedents regarding how infringements on fundamental rights are analyzed and demonstrates



representative:

Unfortunately, such second-class treatment of the Second Amendment pervades the lower courts. Purported judicial restraint in the form of extreme deference to legislative action is flatly at odds with *Heller*, *McDonald*, and indeed all decisions involving the protection of fundamental *individual* rights against majoritarian impulses. The Court must act to ensure that citizens have a means of enforcing their individual right to keep and bear arms when legislative bodies infringe that right.<sup>78</sup>

The suggestion is that resolving the particular case on appeal could have far-reaching benefits by addressing an objectionable doctrinal trend.

To be clear, these arguments are not purely empirical. Saying that a right is systematically underenforced involves at least two steps: a conclusion about how stringently it should be enforced, and an assessment of how it actually is enforced in practice. Parties in the gun debate disagree about both of these things, but our focus in this Article is the latter. In other words, we do not purport to resolve whether upholding a federal ban on eighteen- to twenty-year-olds buying handguns equates to “second-class” treatment of the Second Amendment right.<sup>79</sup> Our goal is to help evaluate whether such a holding represents any part of a trend. Moreover, we consider other objective factors that bear on the question, including those that reflect the strength or weakness of a claim and the seriousness with which a judge considered it. The end result is a more empirically-grounded baseline with which to evaluate claims of underenforcement.

Of course, any discussion of the proper degree of enforcement will always have a normative dimension. Consider, for example, the more radical version of the “second class” argument—the suggestion that

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how the lower courts are turning the Second Amendment into a second-class right.”); Petition for Writ of Certiorari at 12, *Jackson v. City of San Francisco*, 135 S. Ct. 2799 (2014) (No. 14-704) (“[E]ven after this Court’s admonishment that the Second Amendment may not ‘be singled out for special—and specially unfavorable—treatment,’ courts continue to do just that. Whether through summary reversal or plenary review, this Court should use this opportunity to put an end to this disturbing trend.” (citation omitted) (quoting *McDonald v. City of Chicago*, 561 U.S. 742, 778–79 (2010))).

78. Brief for Members of Congress as Amici Curiae Supporting the Petition for a Writ of Certiorari at 4–5, *Drake v. Jerejian*, 134 S. Ct. 2134 (2014) (No. 13-827).

79. Reply Brief for Petitioner at 3, *Nat’l Rifle Ass’n of Am. v. McCraw*, 134 S. Ct. 1365 (2014) (No. 13-390) (“We urge this Court to grant review in this case both to reaffirm that the Second Amendment’s guaranty is not a ‘second-class’ fundamental right and to establish that responsible, law-abiding 18-to-20-year-old adults are not second-class citizens.”).

lower courts are engaging in a campaign of “massive resistance” to gun rights, a phrase made famous by white segregationists opposing school integration and now frequently invoked to describe the courts’ treatment of the Second Amendment.<sup>80</sup> The appropriateness of this analogy cannot be evaluated solely by empirics, but depends also on one’s belief about how the Second Amendment right should be treated.<sup>81</sup>

But such characterizations gain strength and relevance from the suggestion that they represent a snapshot of broader case law, not least because the Court is far more likely to intervene to correct a common error than a narrow one. It thus matters when briefs and commentators suggest that “lower courts” are “attempting to eradicate the Second Amendment.”<sup>82</sup> Eventually, those claims find their way to the Justices, as in Justices Thomas and Scalia’s dissent from certiorari in *Jackson v. City of San Francisco*, which arose out of the Ninth Circuit:

Despite the clarity with which we described the Second Amendment’s core protection for the right of self-defense, lower courts, including the ones here, have failed to protect it. Because Second Amendment rights are no less protected by our Constitution

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80. This claim has been made in briefs, scholarship, and major editorials. See, e.g., Petition for Writ of Certiorari at 24, *Friedman v. City of Highland Park*, 136 S. Ct. 447 (2015) (No. 15-133); Petition for Writ of Certiorari at 3, *Jerejian*, 134 S. Ct. 2134 (No. 13-827) (describing “lower courts’ massive resistance to *Heller*”); Alice Marie Beard, *Resistance by Inferior Courts to Supreme Court’s Second Amendment Decisions*, 81 TENN. L. REV. 673, 673 (2014) (“In the wake of the Supreme Court’s *District of Columbia v. Heller* (*‘Heller I’*) and *McDonald v. Chicago* decisions that clarify, expand, and protect Second Amendment rights, federal and state inferior courts have been engaging in massive resistance.” (citations omitted)); Editorial, *Massive Gun Resistance*, WALL ST. J. (Apr. 12, 2013, 6:38 PM) <https://www.wsj.com/articles/SB10001424127887324600704578402760760473582> [<https://perma.cc/YQ7N-UJ5E>]. Sometimes, comparisons are explicitly made between post-*Heller* developments in gun rights and the struggle for racial equality after *Brown v. Board of Education*. See Alan Gura, *The Second Amendment as a Normal Right*, 127 HARV. L. REV. F. 223, 224 (2014); David B. Kopel, *Does the Second Amendment Protect Firearms Commerce?*, 127 HARV. L. REV. F. 230, 230 (2014).

81. Joseph Blocher, *Good Cause Requirements for Carrying Guns in Public*, 127 HARV. L. REV. F. 218, 218 n.1 (2014) (pointing to the differing political power of contemporary gun owners and black schoolchildren in the 1950s).

82. Brief for National Rifle Association of America as Amici Curiae Supporting Petitioners for Writ of Certiorari at 16, *Friedman*, 136 S. Ct. 447 (No. 15-133) (“Rather than perform their duty to enforce the Constitution, lower courts are attempting to eradicate the Second Amendment by disregarding the Bill of Rights and the precedents of this Court.”); Josh Blackman, *Justice Thomas: Second Amendment Is Not a ‘Second-Class Right,’* NAT’L REV. (Dec. 8, 2015, 4:00 AM), <http://www.nationalreview.com/article/428173/justice-thomas-second-amendment-not-second-class-right-josh-blackman> [<https://perma.cc/DEP4-K9LA>] (“By refusing to intervene when lower courts disregard the right to keep and bear arms, the Supreme Court has done exactly what Chicago wanted, and abdicated this cornerstone of the Bill of Rights.”).

than other rights enumerated in that document, I would have granted this petition.<sup>83</sup>

Whether “lower courts . . . have failed to protect” *Heller*’s right is a foundation of this argument, and empirical study can help determine whether that foundation is sound. We can measure the proportion of cases in which litigants challenge policies that *Heller* suggested fell outside the bounds of Second Amendment coverage, determine if a given court is handling categories of Second Amendment claims differently than others, compare appeal rates and success rates to those in other areas of litigation, evaluate proxies for whether judges are giving serious consideration to Second Amendment claims, and so on. Such measures, while not perfect, provide a better basis for broad Second Amendment claims than intuition or cherry-picked case law.

2. *Claims About the Content of the Law.* In addition to broad characterizations about how cases are being decided, scholars, advocates, and even judges have begun to characterize the content of the emerging law. Some advocates, taking the same basic tack as the “second class” line of argument, suggest that the lower courts are “deeply divided” over the applicable standards,<sup>84</sup> or that “there is great confusion in the lower courts on the meaning of *Heller*’s ‘presumptively lawful regulatory measures.’”<sup>85</sup>

Although it may still be true that “[t]he federal judiciary has taken only the first steps in developing Second Amendment jurisprudence,”<sup>86</sup> there is wide agreement about what those first steps should be. Commentators have, for example, noted that “the most common framework is a two-pronged inquiry that first asks whether a challenged law imposes a burden on conduct falling within the scope of the Second Amendment, and, second, if it does, whether the law satisfies the applicable level of scrutiny.”<sup>87</sup> Courts, advocates, and

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83. *Jackson v. City & Cty. of San Francisco*, 135 S. Ct. 2799, 2799–2800 (2015) (Thomas, J., dissenting from denial of certiorari).

84. Petition for Writ of Certiorari at 37, *Friedman*, 136 S. Ct. 447 (No. 15-133) (“The better part of a decade after this Court’s landmark decision in *Heller*, the lower courts remain deeply divided over how to assess Second-Amendment claims, and that confusion poses a serious threat to liberty.”).

85. Petitioners’ Reply Brief at 3, *Bonidy v. U.S. Postal Serv.*, 136 S. Ct. 1486 (2016) (No. 15-746).

86. Kenneth A. Klukowski, *Making Second Amendment Law with First Amendment Rules: The Five-Tier Free Speech Framework and Public Forum Doctrine in Second Amendment Jurisprudence*, 93 NEB. L. REV. 429, 433 (2014).

87. LAW CTR. TO PREVENT GUN VIOLENCE, *supra* note 63, at 3.

scholars generally agree that some version of the two-part test predominates throughout the lower courts.<sup>88</sup>

There remains substantial disagreement about how those two steps play out in practice. In applying the first step, some courts take a deeply historical approach, looking to whether a challenged regulation is one of the “presumptively lawful” regulatory measures mentioned in *Heller*,<sup>89</sup> or whether “the record includes persuasive historical evidence establishing that the regulation at issue imposes prohibitions that fall outside the historical scope of the Second Amendment.”<sup>90</sup> Some commentators, however, have concluded that “originalism has had a limited role in post-*Heller* Second Amendment litigation.”<sup>91</sup>

As for the second stage of the two-step test, many scholars and advocates agree (some celebrate, while others bemoan) that lower courts “have effectively embraced the sort of interest-balancing approach that Justice Scalia condemned, adopting an intermediate scrutiny test and applying it in a way that is highly deferential to legislative determinations and that leads to all but the most drastic restrictions on guns being upheld.”<sup>92</sup> The alleged permissiveness of this second step is of particular concern to litigants challenging gun laws, who argue that “[t]he very fact that a court reaches the second step all

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88. See Nat'l Rifle Ass'n of Am. v. Bureau of Alcohol, Tobacco, Firearms, & Explosives, 700 F.3d 185, 194 (5th Cir. 2012) (“A two-step inquiry has emerged as the prevailing approach . . .”); see also N.Y. State Rifle & Pistol Ass'n v. Cuomo, 804 F.3d 242, 254 (2d Cir. 2015), cert. denied, 136 S. Ct. 2486 (2016) (noting that the two-part test had been largely adopted by the Third, Fourth, Fifth, Sixth, Seventh, Ninth, Tenth, Eleventh, and D.C. Circuits).

89. Jackson v. City & Cty. of San Francisco, 746 F.3d 953, 960 (9th Cir. 2014), cert. denied, 135 S. Ct. 2799 (2015).

90. *Id.* (citing, with approval, United States v. Chovan, 735 F.3d 1127, 1137 (9th Cir. 2013)).

91. Lawrence Rosenthal, *The Limits of Second Amendment Originalism and the Constitutional Case for Gun Control*, 92 WASH. U.L. REV. 1187, 1200 (2015) (“The emerging consensus in the lower courts uses original meaning only as a threshold test, which screens out some claims, but contemplates that laws—even those limiting the extent to which individuals can exercise the textually recognized right to keep and bear arms—may be sustained upon sufficient justification.”); Eric M. Ruben, *Justifying Perceptions in First and Second Amendment Doctrine*, 80 LAW & CONTEMP. PROBS. 149, 163 (2017) (“[O]riginalism has not been the primary means of deciding cases.”).

92. Allen Rostron, *Justice Breyer's Triumph in the Third Battle Over the Second Amendment*, 80 GEO. WASH. L. REV. 703, 706–07 (2012); see Brief of Firearms Policy Coalition, Inc. et al. as Amici Curiae Supporting Petitioners at 10, *Jackson*, 135 S. Ct. at 2799 (No. 14-704) (“De Facto Interest-Balancing Is Now The Prevailing Rule In The Lower Courts.”); Brief of Members of Congress, *supra* note 78, at 10 (criticizing “the prevailing, nearly automatic application of ‘intermediate scrutiny’”); see also Brief for the United States as Amicus Curiae at 20, *District of Columbia v. Heller*, 128 S. Ct. 2783 (2008) (No. 07-290) (arguing that, “[l]ike rights conferred by surrounding provisions of the Bill of Rights, the individual right guaranteed by the Second Amendment is subject to reasonable restrictions and important exceptions”).

but guarantees that the challenged law will survive.”<sup>93</sup>

For present purposes, what interests us is not the normative valence of these claims—for example, that the Second Amendment is underprotected, or that the Supreme Court should grant cert again—but rather their factual predicates: that courts are, in fact, rejecting the vast majority of Second Amendment claims, that they are applying divergent methodologies, that historical argument is or is not crucial in resolving those claims, and so on.

### C. *Measuring Doctrine*

Doctrinally, our focus is the Second Amendment. But we hope that our efforts also reflect and contribute to broader debates about content analysis and rigor in doctrinal scholarship.

Content analysis of law is not novel. In “Systematic Content Analysis of Judicial Opinions,” Mark A. Hall and Ronald F. Wright conclude that the practice—albeit not named as such—is decades old and, at its best, “brings the rigor of social science to our understanding of case law, creating a distinctively legal form of empiricism.”<sup>94</sup> Hall and Wright review 134 legal content analyses published between January 1, 1998 and June 30, 2006, in an effort to “describe past practices and to point the way to a better future.”<sup>95</sup> They find that such studies have evaluated a broad range of legal subject areas, including “administrative law, constitutional law, corporate and securities law, criminal law and procedure, contracts, employment discrimination, health law, and torts.”<sup>96</sup>

And yet, despite the frequency with which scholars, lawyers, and judges make falsifiable claims about the content of legal doctrine, the state of the scholarly art rarely demands more than a “*See, e.g.*,” signal followed by three case citations. As Will Baude, Adam Chilton, and Anup Malani note, nearly half of the articles published in one volume of the top ten law reviews included a claim about the state of legal doctrine in the abstract, but only 25 percent of those articles provided

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93. Petition for Writ of Certiorari at 25, *Jackson*, 135 S. Ct. 2799 (No. 14-704); *id.* at 20 (“Time and again, courts have used this open-ended inquiry to constrain the scope of the Second Amendment by deeming everything other than the precise conduct at issue in *Heller* outside its ‘core.’ And even if laws burden conduct within that core, anything less than a complete ban is deemed ‘only a minimal burden.’”).

94. Hall & Wright, *supra* note 17, at 64.

95. *Id.* at 66; *see also id.* at 70–71 & n.29.

96. *Id.* at 73 (citations omitted).

any form of systematic review to support the doctrinal claim.<sup>97</sup> Even those articles that seek to employ content analysis have yet to develop anything like a set of best practices. As a result, Peter Hammer and William Sage's observation likely remains true fifteen years later: this is "a confused area of legal scholarship, with few clear norms or standards to guide researchers."<sup>98</sup>

It is not hard to imagine why content analysis has not yet played a more prominent role in legal scholarship. Case coding does not come naturally to doctrinal scholars, and it requires an unfamiliar toolkit. As we explain in detail below, even the most cautious and rigorous coding project will involve difficult judgment calls and serious caveats. Moreover, some scholarly goals are not well suited to the approach. But for those that are—including, we think, mapping the content of Second Amendment doctrine—the benefits are considerable.<sup>99</sup>

Content analysis should generally be distinguished from projects that seek to understand judicial behavior. Our focus here is on doctrine, not judges, and our goals are not attitudinalist. We therefore make no attempt to show whether, for example, judicial votes can be explained by judicial ideology.<sup>100</sup>

## II. METHODOLOGY

Our goal was to conduct a comprehensive analysis of post-*Heller* Second Amendment cases. Getting there involved six stages: selecting the dataset, constructing the survey, defining key variables, coding the

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97. Baude, Chilton & Malani, *supra* note 22, at 40; *see also* Kay L. Levine, *The Law Is Not the Case: Incorporating Empirical Methods into the Culture of Case Analysis*, 17 U. FLA. J.L. & PUB. POL'Y 283, 284 (2006) ("Can anyone know the state of the law from reading a handful of select cases?").

98. Hammer & Sage, *supra* note 22, at 560.

99. Hall and Wright conclude that content analysis is a powerful way to "identify surface patterns" and "verify or refute descriptions of case law that are based on more anecdotal or subjective study." Hall & Wright, *supra* note 17, at 99–100.

100. The attitudinalist project has spawned its own meta-literature of critique, one major fault line of which lies between the positive and normative. *See, e.g.*, Jeffrey M. Chemerinsky & Jonathan L. Williams, *Foreword: Measuring Judges and Justice*, 58 DUKE L.J. 1173, 1173–74 (2009) (introducing symposium focused on evaluating and critiquing quantitative measurements of judicial behavior). Many critics argue that empirical scholarship about judges should focus on what judges do in practice, rather than characterizing them as "political" or not. Michael Boudin, *A Response to Professor Ramseyer, Predicting Court Outcomes through Political Preferences*, 58 DUKE L.J. 1687, 1688–89 (2009) (cautioning against the use of "political"); David F. Levi, *Autocrat of the Armchair*, 58 DUKE L.J. 1791, 1795, 1795 n.15 (2009) (same); H. Jefferson Powell, *A Response to Professor Knight, Are Empiricists Asking the Right Questions About Judicial Decisionmaking?*, 58 DUKE L.J. 1725, 1725–26 (2009) (same).

opinions, reviewing for reliability, and analyzing the data.<sup>101</sup> This Part explains the first five stages, as well as limitations and advantages of our methodology. Readers who are primarily interested in the survey results and analysis can turn to Parts III and IV.

#### A. *Data Selection*

Our final dataset includes 997 opinions issued between June 26, 2008, the date *Heller* was decided, and February 1, 2016, the date we ran our final search. Some litigants challenged more than one law or policy in a single case;<sup>102</sup> as a result, the 997 opinions address 1,153 distinct Second Amendment challenges. We analyze the challenges, not the opinions as a whole.

The end date, while selected initially because it happened to be the time we were ready to begin work, turns out to correspond almost exactly with the period of Second Amendment development between *Heller* and Justice Antonin Scalia's passing on February 13, 2016. Perhaps more than any other constitutional issue, the future of the Second Amendment was a flashpoint in the debate over Justice Scalia's replacement.<sup>103</sup> After all, *Heller* has been characterized as Scalia's "legacy," the "most important [opinion] in his 22 years on the court," and "easily the most significant opinion Scalia has written."<sup>104</sup> But often lost in the debate is the fact that, even while Justice Scalia was on the bench, the Supreme Court refused to intervene in more than sixty post-*Heller* Second Amendment cases, leaving doctrinal development primarily to the lower courts. Those courts, in turn, might have been

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101. Substantively, these six stages are the same as the three "components" described by Hall and Wright. Hall & Wright, *supra* note 17, at 79 ("There are three distinct components of content analysis: (1) selecting cases; (2) coding cases; and (3) analyzing the case coding, often through statistical methods.").

102. To be exact, eighty-four opinions decided more than one Second Amendment challenge.

103. The reaction about the future of Second Amendment jurisprudence came almost immediately after Justice Scalia's passing. The very next day, Senator Ted Cruz defended delaying the confirmation of the next Justice, noting "[w]e are one justice away from the Second Amendment being written out of the constitution altogether." Matt Flegenheimer, *The Death of Justice Scalia: Reactions and Analysis*, N.Y. TIMES (Feb. 14, 2016), <https://www.nytimes.com/live/supreme-court-justice-antonin-scalia-dies-at-79/cruz-we-are-one-justice-away-from-the-second-amendment-being-written-out-of-the-constitution/> [https://perma.cc/2S4S-SDXT]. But see Joseph Blocher, *Scalia's Gun Rights Legacy Is Likely to Stand, No Matter Who Replaces Him*, TRACE (Feb. 15, 2016), <https://www.thetrace.org/2016/02/antonin-scalia-legacy-gun-rights/> [https://perma.cc/Q3LJ-AYFE]. In any event, President Donald Trump's election and the confirmation of Justice Gorsuch have almost certainly rendered the point moot for the meantime.

104. ADAM WINKLER, GUNFIGHT: THE BATTLE OVER THE RIGHT TO BEAR ARMS IN AMERICA 281 (2011) (collecting quotes) (citations omitted).

responding in part to Justice Scalia's presence on the Court.<sup>105</sup>

Many empirical studies require, as a practical matter, the selection of a subset from a prohibitively large population, which opens the door to selection bias.<sup>106</sup> Fortunately, the universe of post-*Heller* opinions was small enough to be reviewed in toto, allowing us to avoid that problem.

Nevertheless, we still needed to decide whether to target state or federal courts and trial or appellate courts. Analyzing cases from both state and federal courts—which no post-*Heller* review of Second Amendment case law has done—enables a comparison of how the two systems have handled Second Amendment claims. We thought that exercise might be instructive for at least two reasons. First, it would allow us to see if federal courts were less receptive to Second Amendment challenges than state courts. Second, state courts have had more than a century of experience deciding right-to-keep-and-bear-arms cases under state constitutional amendments, but have generally applied a different standard than the two-step test ultimately adopted by most federal circuits.<sup>107</sup>

We also saw a benefit in reviewing opinions from both trial and appellate courts. If our project were solely to count final outcomes, reviewing trial court in addition to appellate court decisions would unnecessarily double-count some cases. But we also wanted to evaluate and compare judicial reasoning. How trial courts explain their Second Amendment decisions is relevant to that evaluation. We therefore decided to cast the net as broadly as possible, reviewing available Second Amendment opinions on Westlaw—both formally published in official reporters and not—from every jurisdiction and every tier of the court system.<sup>108</sup>

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105. Stuart Minor Benjamin & Georg Vanberg, *Judicial Retirements and the Staying Power of U.S. Supreme Court Decisions*, 13 J. EMPIRICAL L. STUDS. 5, 5 (2016) (finding that negative treatments of Supreme Court opinions increase when Justices who supported the opinions retire).

106. Hall & Wright, *supra* note 17, at 102.

107. For a description of the “reasonableness” standard used in most state cases, see generally Adam Winkler, *Scrutinizing the Second Amendment*, 105 MICH. L. REV. 683 (2007). The standard applied in post-*Heller* Second Amendment cases is described *supra* notes 86–93 and accompanying text.

108. Westlaw’s “All State Cases” database includes “all available cases from state jurisdictions with coverage beginning in 1658.” *State Cases Scope Information*, WESTLAW [https://1.next.westlaw.com/Browse/Home/Cases/StateCases?transitionType=Default&contextData=\(sc.Default\)#](https://1.next.westlaw.com/Browse/Home/Cases/StateCases?transitionType=Default&contextData=(sc.Default)#) (emphasis added). As we explain below, *infra* note 114 and accompanying text, Westlaw contains a spotty collection of state trial court opinions. The Westlaw collection of state appellate court opinions is much more comprehensive, though we emphasize that the scope of



To isolate those opinions, we conducted a search in Westlaw<sup>109</sup>:  
advanced: “second amendment” & (arms OR “district #of columbia  
v. heller” OR firearm!) & DA(aft 06-25-2008 & bef 02-02-2016)<sup>110</sup>

Our search terms were the result of a process of trial and error that sought to capture all of the relevant opinions while omitting false positives. For example, the term “second amendment” returned more than four thousand opinions, but many of them had nothing to do with the Second Amendment.<sup>111</sup> Our final search terms returned more than 2,200 opinions.<sup>112</sup> A quick review revealed overbreadth—some

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our dataset is constrained by Westlaw’s collection, which in turn was constrained by the universe of “available” opinions. *Id.* For more discussion of limitations of our dataset, see *infra* note 111 and Part II.F.

109. Some organizations maintain lists of post-*Heller* Second Amendment opinions. However, we chose not to use a premade list to ensure consistency and avoid any semblance of bias. We also decided not to use Westlaw’s own coding system. Westlaw tags Second Amendment opinions with a unique identifier (“U.S.C.A. Const.Amend. 2”), as it does for opinions discussing other Amendments. Westlaw also utilizes topic identifiers and “key numbers” suggestive of Second Amendment challenges. Our initial review of the cases containing Westlaw’s identifiers, however, revealed significant omissions. After consulting with a Westlaw reference attorney, we opted to use our own search terms.

110. Initially, one required search term was “constitution,” but we subsequently decided that term was unduly restrictive, so we reran the search without “constitution.” Because we decided to rerun the search after coding was underway, our dataset is separated into two mutually exclusive halves: one with opinions containing “constitution!” and the other without that term.

111. The words “second amendment” appear in various contexts, including discussions of a “second amendment” to a complaint or contract. *See, e.g.,* Oakes v. United Home Life Ins., No. 3:15cv242-MHT, 2015 WL 5234945, at \*1 (M.D. Ala. Sept. 8, 2015) (discussing a “second amendment” to complaint); Dollar Tree Stores Inc. v. Toyama Partners LLC, Nos. C 10–0325 SI, C 11–2696 SI, 2011 WL 3295420, at \*2 (N.D. Cal. Aug. 1, 2011) (mentioning a “second amendment” to contract). Thus, we sought to limit our search by adding additional required words. In addition to “second amendment,” most post-*Heller* Second Amendment cases we reviewed also referenced either *Heller* or the “right to keep and bear arms,” so we added a requirement that opinions include either “arms” or “district of columbia v. heller.” When we conducted our initial quality review, however, we found a few Second Amendment opinions referencing neither term. *See, e.g.,* Commonwealth v. Leverone, 31 N.E.3d 1192 (Table), 2015 WL 3539763 (Mass. App. Ct. June 5, 2015), *review denied*, 36 N.E.3d 30 (Mass. App. Ct. 2015). Those few opinions did, however, include “firearm” or “firearms,” so we added “firearm!” to the search. Of course, the Second Amendment is potentially implicated by other types of “arms,” such as knives. Since the addition of “firearm!” only captured the odd opinion that did not mention “arms” or “district of columbia v. heller,” we were content adding “firearm!” as a search term without adding terms for every other type of weapon we could imagine.

112. This figure includes cases from two Westlaw databases: the main database of published opinions and a separate database of trial court orders. Of course, relying on Westlaw meant that we did not include opinions that were not loaded into Westlaw by the time we ran our search. We are aware of one opinion, *Baker v. Kealoha*, No. 1:11-cv-00528-ACK-KSC, 2012 WL 12886818 (D. Haw. Apr. 30, 2012), *vacated*, 679 F. App’x. 625 (9th Cir. 2017), which would have been returned by our search terms, but was added to the Westlaw database on February 21, 2017. This

opinions containing the search terms did not have a Second Amendment holding, as we defined it<sup>113</sup>—but we opted to err on the side of inclusiveness rather than risk omitting Second Amendment cases. As described below, coders manually removed false positives and duplicates.

Unfortunately, the subset of state trial court opinions was woefully incomplete. Most state trial court decisions do not result in published opinions that are submitted to Westlaw. As a result, the dataset included 441 state appellate court challenges, but just forty-two state trial court challenges.<sup>114</sup> We therefore decided to omit state trial court opinions, resulting in a final dataset of 997 opinions that included 1,153 Second Amendment challenges.

### *B. Survey Construction*

Once we had a dataset, we needed a mechanism to consistently code it. To do this, we created a survey that would capture the variables we hoped to test.<sup>115</sup> Those variables included case caption information (for example, judge names, jurisdiction, identity of plaintiff or defendant), procedural posture (that is, motion to dismiss, summary judgment, and so on), factual information (for example, law being challenged), outcome (whether the Second Amendment claim failed),<sup>116</sup> and aspects of the judicial reasoning justifying the outcome (as in reliance on historical analysis or tiered scrutiny). The survey contained ninety questions for each challenge in each Second Amendment opinion, though some questions are conditioned on answers to previous questions. For example, each category of gun restriction at issue would prompt certain subquestions. The broad range of questions allowed us to gather granular information for each case. Moreover, by measuring reliability, we could draw conclusions about survey design that hopefully will assist future systematic reviews.

Some of the questions are designed to be objective proxies for potentially subjective concepts. For example, we asked whether the

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opinion was not coded and is not part of our analysis. It is possible that other responsive opinions were similarly backfilled.

113. *See infra* Part II.C.

114. The only state that seems to regularly submit trial court opinions to Westlaw is New York, which accounts for twenty-three of the forty-one state trial court opinions we collected.

115. A copy of our survey is included as Appendix A, <https://dlj.law.duke.edu/wp-content/uploads/sites/2/2018/04/Ruben-and-Blocher-App.-A.pdf> [https://perma.cc/A6DW-29YL].

116. *See infra* Part II.C.

Second Amendment discussion was three or fewer paragraphs—a fairly objective measure. If it was, one might fairly say that the analysis was conclusory, which is a more subjective concept.<sup>117</sup> Similarly, we asked whether the court cited historical sources from various time periods as a way to measure the degree to which its analysis was originalist. But some aspects of a judge’s reasoning necessarily require inference on the part of the reader; a judge might, for example, apply intermediate scrutiny without expressly saying so. Like anyone relying on the text of legal opinions, we are somewhat constrained by what courts *say* they are doing.<sup>118</sup>

To avoid inconsistency in the responses to more evaluative questions, we engaged in a lengthy process of drafting, testing, and revising our questions.<sup>119</sup> When we arrived at a near-final survey, we tested it by asking three independent coders to code the same ten cases. We chose the ten cases to reflect the range of complex opinions we believed coders would encounter in the full dataset. We then compared results. After making a few adjustments based on our review and feedback we received, we were ready to move on to the next steps: making some definitional choices, training the coders, and coding the dataset.<sup>120</sup>

### C. *Defining Variables*

Any case coding project requires some forethought into how variables should be understood by the coders and, later, by the

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117. Other studies have similarly relied on the amount of text devoted to certain legal factors as a proxy for those factors’ importance. *See, e.g.*, Jennifer L. Groscup, Steven D. Penrod, Christina A. Studebaker & Matthew T. Huss, *The Effects of Daubert on the Admissibility of Expert Testimony in State and Federal Criminal Cases*, 8 PSYCH. PUB. POL’Y & L. 339, 343 (2002).

118. The significance of this caveat depends on the degree to which one believes, as Richard Posner has put it, that “there is no recognized duty of candor in judicial opinion writing” and that judges write opinions that do not track their actual decisional process. Richard Posner, *Some Realism About Judges: A Reply to Edwards and Livermore*, 59 DUKE L.J. 1177, 1182 (2010); *see also* CASS SUNSTEIN, LEGAL REASONING AND POLITICAL CONFLICT 93 (1996) (“Judges may write as if they are analogizers, but the analogies are often boilerplate disguising a political judgment, rather than a helpful guide to judicial reasoning.”). Our study does not give us any definitive insight on this question. But since the text of judicial opinions, not judges’ secret motivations, are what are generally thought to constitute precedent, we think that the project has significant value even if the Posnerian objection is entirely correct.

119. Drafting, testing, and revising the survey took about three months.

120. Two questions were added to the survey that required coders to revert and supply answers to opinions previously coded. Those questions were (1) “Is the individual plaintiff proceeding pro se?” and (2) “Did the court reject the Second Amendment claim on the grounds that the Second Amendment did not apply to state or local regulations?”

readers.<sup>121</sup> Most of our choices were straightforward, but some merit explanation.

At the outset, we needed to define what counts as a “Second Amendment holding” and, by extension, which cases should be tagged as false positives. The Second Amendment arises in various legal contexts, some of which are insufficiently direct to shed much light on Second Amendment doctrine. In particular, we excluded two broad categories of opinions touching on the Second Amendment: opinions that are not decisional and opinions that only incidentally rely on Second Amendment law.

By nondecisional opinions, we mean those that are not controlling. For example, we asked about the existence of dissenting and concurring opinions because they can serve as a proxy for contentious Second Amendment issues, but we excluded content analysis of those opinions because they are not controlling.<sup>122</sup> Similarly, our dataset does not include dissents from denials of certiorari<sup>123</sup> or of rehearing in the lower courts,<sup>124</sup> nor does it include reports and recommendations by magistrate judges unless they were subsequently endorsed by the district court.<sup>125</sup> We also omit opinions that were vacated by the same judge or judges who issued a prior opinion, as opposed to being vacated on appeal or on rehearing en banc.<sup>126</sup> In such cases, only the subsequent, controlling opinion filed by the judge or panel is counted. Of course, if our goal were an attitudinalist assessment, the content of these opinions would be important. But they are less relevant to an analysis of actual case outcomes and prevailing doctrine.

Likewise, we decided not to include cases in which the Second

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121. See, e.g., Samaha & Germano, *supra* note 58, at 847–60.

122. We collected data on these opinions, and may use that data for a future article, but it is not part of our analysis here.

123. The Supreme Court denied cert to more than sixty petitions in Second Amendment cases during the study period, and Justice Thomas, joined by Justice Scalia, filed dissents from the denial of certiorari in two of those cases. See generally *Friedman v. City of Highland Park, Ill.*, 136 S. Ct. 447 (2015) (Thomas, J., dissenting); *Jackson v. City of San Francisco*, 135 S. Ct. 2799 (2015) (Thomas, J., dissenting).

124. See, e.g., *Moore v. Madigan*, 708 F.3d 901, 902–05 (7th Cir. 2013) (Hamilton, J., dissenting).

125. This choice was intended to avoid duplication at the district court level. In particular, it controls for cases in which both the magistrate judge and district judge publish an opinion with Second Amendment analysis about the same issue. Compare *Dority v. Roy*, No. 5:08cv127, 2010 WL 3257788 (E.D. Tex. 2010) (district court), with *Dority v. Roy*, No. 5:08cv127, 2010 WL 3257793 (E.D. Tex. 2010) (magistrate).

126. See, e.g., *United States v. Chester*, 367 F. App'x 392, 399 (4th Cir. 2010), *vacated on reh'g*, *United States v. Chester*, 628 F.3d 673, 683 (4th Cir. 2010).

Amendment analysis was merely incidental to other legal issues. Such opinions surely reflect *Heller*'s impact on the law generally, but their Second Amendment discussion was often too tentative to count as a Second Amendment holding. Five examples warrant mention. First, some opinions include a discussion of the Second Amendment in the course of applying the doctrine of constitutional avoidance to avoid ruling on the Second Amendment claim.<sup>127</sup> Second, other opinions only briefly discuss the Second Amendment claim in order to determine justiciability, such as whether a plaintiff has standing to challenge a gun law.<sup>128</sup> Third, opinions deciding whether to grant qualified immunity to police officers who have seized a weapon depend in part on whether aspects of the Second Amendment right are well established.<sup>129</sup> Fourth, a similar analysis occurs when a court decides if counsel was ineffective for failing to make a Second Amendment argument.<sup>130</sup> Finally, when an offense is deemed unconstitutional on Second Amendment grounds, subsequent opinions may ask whether a conviction for that offense can still serve as a predicate for another offense—discussing, in the process, the earlier constitutional ruling. This posture was particularly common in Illinois after a major part of the state's public carry regime was struck down.<sup>131</sup>

These rules eliminated some, but not all, of the challenges that arose for coders deciding when to count an opinion for the purposes of our survey. Judicial opinions decide Second Amendment questions

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127. *United States v. Rehlander*, 666 F.3d 45 (1st Cir. 2012), is exemplary. In *Rehlander*, the First Circuit considered whether Maine's emergency psychiatric admission law triggered 18 U.S.C. § 922(g)(4) (2012), the ban on firearm possession by a person "committed to a mental institution." *Id.* at 46. Before *Heller*, the outcome would have been easy: the First Circuit had already held that such admissions triggered § 922(g)(4). But in *Rehlander*, the court reconsidered that conclusion since it now would result in the deprivation of a constitutional right. *Rehlander*, 666 F.3d at 48–49. Widespread invocation of constitutional avoidance could conceivably suggest that courts perceive—even if they are not directly holding—that the Second Amendment right is robust. We do not undertake the analysis necessary to show such a conclusion here.

128. *See, e.g., Dearth v. Holder*, 641 F.3d 499, 501–02 (D.C. Cir. 2011).

129. *See, e.g., Baker v. Smiscik*, 49 F. Supp. 3d 489, 500–01 (E.D. Mich. 2014).

130. *See, e.g., Carter v. United States*, No. 12–0344–CV–W–ODS, 2012 WL 3230032 (W.D. Mo. 2012).

131. For a short time, Illinois courts refused to affirm convictions for being an Armed Habitual Criminal where a predicate offense was violation of Illinois's public carry law, which had been struck down in *People v. Aguilar*, 2 N.E.3d 321, 328 (Ill. 2013). *See, e.g., People v. Lester*, No. 1–12–1882, 2014 IL App. (1st) 121882-U (2014). Ultimately, the decisions in *Lester* and others like it were reversed in light of the Illinois Supreme Court decision in *People v. McFadden*, 61 N.E.3d 74, 82 (Ill. 2016), that a constitutionally infirm prior felony conviction could be used by the government as a predicate felony in a subsequent case. *See People v. Lester*, No. 1–12–1882 2017 IL App. (1st) 121882-UB (2017).

with varying degrees of definiteness, making it difficult to craft a set of rules that would encompass every scenario. Consider the Fourth Circuit's opinion in *United States v. Guerrero-Leco*.<sup>132</sup> Daniel Guerrero-Leco argued that a federal statute prohibiting firearm possession by certain undocumented immigrants violated his Second Amendment rights.<sup>133</sup> After his appeal was filed, the Fourth Circuit decided *United States v. Chester*, adopting the two-part test for evaluating Second Amendment claims.<sup>134</sup> Rather than ruling on the merits of Guerrero-Leco's Second Amendment claim, the Fourth Circuit vacated and remanded in a per curiam opinion instructing the district court to apply *Chester's* two-part analysis.<sup>135</sup>

Should the per curiam opinion in *Guerrero-Leco* be counted as a Second Amendment opinion? Reasonable minds could argue both sides. For the purposes of our analysis, we decided to include *Guerrero-Leco* and others like it, because the Second Amendment is outcome determinative, even though that outcome is just vacature and remand.

Another challenge in defining "Second Amendment holding" was how to define whether a Second Amendment claim "succeeds" or "fails." Lee Epstein and Gary King note that there are at least ten possible dispositions of cases decided by appellate courts, which complicates even this seemingly straightforward task.<sup>136</sup> We considered counting only final judgments as Second Amendment successes or failures, relegating the broad range of interlocutory outcomes to some intermediate status. Ultimately, however, we decided on a scheme we thought simpler and less error prone. For each opinion, we asked whether the court rejected the Second Amendment claim. We count as a "success" anything short of rejection. Because we are focused on individual challenges within the context of particular cases, this seems like the simplest and most straightforward approach: the party that raised the Second Amendment claim prevailed at that stage.

This choice results in a larger number of "successes" than if we only counted final rulings, but we think this makes sense. Interlocutory rulings, such as the one in *Guerrero-Leco*, are relevant evidence of whether appellate courts are reflexively rejecting Second Amendment challenges. Moreover, such judgments can have a powerful effect on

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132. *United States v. Guerrero-Leco*, 446 F. App'x. 610 (4th Cir. 2011).

133. *Id.* at 610; 18 U.S.C. § 922(g)(5) (2012).

134. *Guerrero-Leco*, 446 F. App'x. at 610.

135. *Id.* at 611.

136. Lee Epstein & Gary King, *The Rules of Inference*, 69 U. CHI. L. REV. 1, 85 tbl.5 (2002).

litigation incentives that likewise reflect the potency of the Second Amendment right and sometimes lead to ultimate success for a challenger—for example, a government motion to dismiss an indictment, which would not otherwise be captured in a case coding project.<sup>137</sup>

But this choice meant that our dataset includes opinions where the Second Amendment claim prevailed in a given opinion, but did not ultimately succeed at the conclusion of the litigation. After the remand in *Guerrero-Leco*, for example, the Fourth Circuit applied the two-part test in a similar case and declared the law at issue in *Guerrero-Leco* constitutional.<sup>138</sup> In light of that precedent, on remand the district court reimposed Guerrero-Leco's conviction and sentence.<sup>139</sup> Thus, despite prevailing at one stage of litigation, Guerrero-Leco's Second Amendment claim ultimately failed. A similar situation sometimes arose when courts rejected the government's motion to dismiss a Second Amendment claim, only to later grant the government's motion for summary judgment.<sup>140</sup>

One final definitional note concerns categorizing the numerous different types of weapon laws. Soon after *Heller*, Eugene Volokh created a helpful and influential categorization scheme.<sup>141</sup> We began with that scheme and expanded it to generate the taxonomy in Appendix B.<sup>142</sup> Some regulations reasonably could fit into more than one category. For example, a ban on handgun ownership for anyone under twenty-one years of age might be accomplished through a registration scheme and thus reasonably could be classified as either a

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137. See, e.g., *United States v. Glisson*, 460 F. App'x. 259, 263 (4th Cir. 2012) (remanding challenge to 18 U.S.C. § 922(g)(9) (2012) for application of two-part test); Motion to Dismiss Count Five of Indictment at 1, *United States v. Glisson*, No. 08-cr-405 (D.S.C. Feb. 27, 2012) (government motion to dismiss conviction for violating § 922(g)(9) in “interest of judicial economy or the interests of justice”); *United States v. Glisson*, No. 08-cr-405 (D.S.C. Feb. 28, 2012) (order granting government's motion to dismiss conviction for violating § 922(g)(9)).

138. See *United States v. Carpio-Leon*, 701 F.3d 974, 982 (4th Cir. 2012).

139. See *United States v. Guerrero-Leco*, No. 08-CR-00118 (W.D.N.C. Oct. 9, 2014) (order entering judgment and sentence).

140. Compare *Peruta v. Cty. of San Diego*, 678 F. Supp. 2d 1046, 1061 (S.D. Cal. 2010) (denying government's motion to dismiss claim that permitting scheme violated Second Amendment), with *Peruta v. Cty. of San Diego*, 758 F. Supp. 2d 1106, 1121 (S.D. Cal. 2010) (granting government's motion for summary judgment and dismissing claim that permitting scheme violated Second Amendment).

141. See Eugene Volokh, *Implementing the Right To Keep and Bear Arms for Self-Defense: An Analytical Framework and a Research Agenda*, 56 UCLA L. REV. 1443, 1475–1545 (2009).

142. See Appendix B, <https://dlj.law.duke.edu/wp-content/uploads/sites/2/2018/04/Rubens-and-Blocher-AppB.pdf>, [<https://perma.cc/Q2SP-U9WN>].

“who” ban or a “registration to possess” requirement. In such situations, we chose one category (in this case, “Who” ban/”Minors”) and made a note in the Appendix.

#### D. Coding and Reliability Review

Once the survey was complete and we defined key variables, we carefully trained law student coders at Duke Law School and New York University School of Law.<sup>143</sup> The decision to rely on student coders rather than personally coding each opinion in the first instance was not an easy one. Legal scholars have had differing experiences with student coders and sometimes opt to code datasets themselves.<sup>144</sup> Author coding, however, tends to involve datasets much smaller than ours,<sup>145</sup> and it raises its own problems.<sup>146</sup> Furthermore, there is good reason to believe that law students are capable of accurately coding a wide range of variables.<sup>147</sup>

Ultimately, we adopted an approach that we believe limits the impact of coding errors. Initially, the coders reviewed and coded the entire database. When they finished, we conducted a reliability review<sup>148</sup> and, with the exceptions described below,<sup>149</sup> threw out some survey questions and report qualified results on others.

Our reliability review proceeded in two steps. We first asked two students to code the same group of Second Amendment opinions without informing them that their work was duplicative. We then

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143. Before beginning, each coder read the two most important Supreme Court decisions on the Second Amendment, *Heller* and *McDonald*. Next, we conducted an orientation with each coder, during which we provided an overview of Second Amendment law, explained the survey, and fielded questions. During the coding process, we checked in frequently, and responded to questions as they arose. The coding process lasted twelve months.

144. Hall & Wright, *supra* note 17, at 110–11.

145. Hall and Wright describe as follows:

85% of case-coding projects [including author- and student-coded projects] used universal sampling limited only by year. Of these 114 universal samples, only 11 coded more than 1000 cases, and 21 coded from 500 to 1000. Twenty-six of these projects coded fewer than 100 cases (with 13 of these fewer than 51), and 39 coded between 100 and 300.

*Id.* at 102.

146. *See id.* at 111 (“From a social science perspective, [researchers coding their own datasets] is the height of unmitigated subjectivism—the opposite of good scholarship.”).

147. Charles A. Johnson, *Content-Analytic Techniques and Judicial Research*, 15 AM. POL. Q. 169, 182–96 (1987).

148. According to Hall and Wright, fewer than fifteen percent of systematic reviews include statistical testing for intercoder reliability, but we agree that “[g]ood technique” requires reliability testing “in some fashion.” *See* Hall & Wright, *supra* note 17, at 113.

149. *See infra* notes 160–61 and accompanying text.



compared their answers using two statistical measures: percent agreement and Cohen's kappa.<sup>150</sup> Neither of these measures is perfect. Percent agreement is the most common measure, but does not account for chance agreement.<sup>151</sup> Kappa adjusts for chance agreement, but does so by making assumptions that can themselves be questioned, like assuming that coders know, *ex ante*, the distribution of particular answers (which is impossible in a novel study such as ours).<sup>152</sup> Unless noted, the student-coded data we use received a kappa score of 0.60-1.00, reflecting substantial to near-perfect agreement.<sup>153</sup>

Our second step was to compare the list of opinions in which the coders indicated that the Second Amendment claim succeeded with the similar list underlying Samaha and Germano's study, which is maintained by the Law Center to Prevent Gun Violence.<sup>154</sup> The comparison reflected substantial overlap, as expected, but also omissions on both lists that reflect different methodological choices. The Law Center dataset, for example, was built by searching Lexis Nexis for opinions citing *Heller*, whereas our search was built by searching Westlaw for opinions referencing "Second Amendment" plus one other relevant term (one such term being "District of Columbia v. Heller").<sup>155</sup> Our search therefore missed opinions that did not mention "Second Amendment,"<sup>156</sup> and the Law Center list missed

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150. See Mary L. McHugh, *Interrater Reliability: The Kappa Statistic*, 22 *BIOCHEMIA MEDICA* 276, 282 (2012) (suggesting that researchers "calculate both percent agreement and kappa" in the context of healthcare research projects). We are greatly indebted to Guangya Liu for assisting with the statistical analysis necessary for the completion of this project, including determining how to judge intercoder reliability.

151. Hall & Wright, *supra* note 17, at 113.

152. See McHugh, *supra* note 150, at 281-82 (concluding that assumptions underlying kappa "may lower the estimate of agreement excessively").

153. *Id.*; Hall & Wright, *supra* note 17, at 115-16. Cohen's kappa figures "can range from -1 to +1, where 0 represents the amount of agreement that can be expected from random chance, and 1 represents perfect agreement between the raters." McHugh, *supra* note 150, at 279. Researchers, including the creator of the measure, Jacob Cohen, have interpreted kappa values between 0.21-0.40 as "fair" agreement, 0.41-0.60 as "moderate" agreement, 0.61-0.80 as "substantial" agreement, and 0.81-1.00 as "almost perfect" agreement. *Id.*

154. The Law Center to Prevent Gun Violence tracks every opinion on Lexis Nexis that cites *Heller* and codes for the outcome of the Second Amendment claim. The Law Center's list also contains other opinions that Law Center staff come across in the course of their work. The spreadsheet is not publicly available, but a 2015 version is on file with the authors.

155. See *supra* text accompanying note 110.

156. Two such opinions are *Welsch v. Twp. of Upper Darby*, No. 07-4578, 2008 U.S. Dist. LEXIS 65500 (E.D. Pa. Aug. 26, 2008) and *In re Weapons of A.S.*, No. A-3192-10T4, 2012 N.J. Super. Unpub. LEXIS 256 (App. Div. Feb. 6, 2012).

opinions that did not cite *Heller*.<sup>157</sup> Moreover, the Law Center dataset picks up opinions that did not include a Second Amendment holding under our definition.<sup>158</sup> As a result of our comparison, seven opinions were recoded to indicate that a Second Amendment challenge prevailed. For the most part, these seven opinions reflected the definitional challenge of defining success: six of the seven contained either a split decision or an otherwise ambiguous Second Amendment victory.<sup>159</sup>

At the end of this process, we knew which questions returned more or less consistent results and qualified our conclusions accordingly.<sup>160</sup> In two places we decided to code responses ourselves. First, intercoder agreement naturally drops as the quantity of possible answers increases,<sup>161</sup> and the large number of subcategories in our initial taxonomy (fifty-eight) exceeded whatever number could lead to consistent student coding. Moreover, laws often do not fit neatly into a single category, which further undermines consistency. For example, weapons bans are often implemented through registration laws and were thus classified by the student coders inconsistently, yet correctly, as either a “weapon ban” or “registration law.” These questions called for a different approach. Accordingly, we refined our categorization scheme, attached here as Appendix B, and author-coded according to

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157. See, e.g., *Commonwealth v. Leverone*, No. 14-P-400, 2015 WL 3539763 (Mass. App. Ct. June 5, 2015).

158. See *supra* notes 127–31 and accompanying text.

159. Those six opinions were: *Baker v. Holder*, No. 11-55067, 2012 WL 3044165, at \*1–2 (9th Cir. July 25, 2012) (affirming dismissal on standing grounds, but reversing dismissal on FED. R. CIV. P. 12(b)(6) grounds and remanding with leave to amend complaint); *Rhein v. Pryor*, No. 13-C-843, 2014 WL 1099157, at \*1 (N.D. Ill. Mar. 20, 2014) (granting motion to dismiss official capacity claim, but rejecting motion to dismiss individual capacity claim); *Plouffe v. Town of Dighton*, 984 F. Supp. 2d 1, 4–5 (D. Mass. 2013) (denying motion to dismiss challenge to discretionary denial of gun permit in one-sentence order, but after longer discussion of various claims that “could not creditably” succeed); *Fisher v. Kealoha*, 869 F. Supp. 2d 1203, 1209–25 (D. Haw. 2012) (dismissing claims against city, unnamed individual defendants, and named individual defendant, but denying motion to dismiss claim against individual defendant for injunctive relief); *People v. Bell*, 2014 IL App (1st) 120314-U, at \*4–5 (Ill. App. Ct. June 11, 2014) (affirming denial of motion to dismiss for one count, but reversing for two others in light of *People v. Aguilar*); *People v. Campbell*, 2 N.E.3d 1249, 1250–53 (Ill. App. Ct. 2013) (reversing one conviction on Second Amendment grounds, but remanding to enter a judgment of conviction and sentence for a separate, constitutional part of the statutory scheme). One case presented a clearer Second Amendment success. See *Wilson v. Cty. of Cook*, 968 N.E.2d 641, 654–58 (Ill. 2012) (remanding challenge to assault weapon ban for further factfinding).

160. See *infra* Part III.B (noting tentativeness of conclusions based on coding of doctrinal questions, for which intercoder reliability measures were lower).

161. Hall & Wright, *supra* note 17, at 113.

that scheme.

Second, we wanted to analyze the entire range of questions with a particularly high degree of reliability for those cases in which the Second Amendment claim succeeded. Thus, instead of making tentative conclusions for this group of opinions, we recoded them ourselves. For clarity, we separate the analysis of these author-coded opinions in Part IV.

Even with these precautions and checks, our results inevitably include some errors. This is unavoidable for a large-scale project such as ours. Given the number of challenges we coded and the number of questions asked about each one, the dataset involved roughly 100,000 data entry points, any one of which could be subject to a typo or other error. That same size, however, provides some assurance that such errors—so long as they are not systematic—will not dramatically impact the conclusions.

#### *E. Caveats and Lessons*

All systematic reviews have their limitations and advantages, and ours is no exception.<sup>162</sup> The subject, scope, and nature of our study raises a few particular caveats and lessons worth emphasizing.

*Ambiguities and judgment calls are unavoidable.* Our project confirms that coding cases inevitably involves difficult and contestable judgment calls.<sup>163</sup> Many prior debates about the difficulty of coding cases have focused on the appropriateness or accuracy of calling particular outcomes “liberal” or “conservative,” or on how to classify case results.<sup>164</sup> We do not attempt the former, but faced plenty of challenges with regard to the latter.

As noted above, it was difficult at times to determine whether a case even had a Second Amendment holding<sup>165</sup> or whether the Second

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162. Edwards & Livermore, *supra* note 20, at 1966 (“In order for empirical scholarship to serve its highest function, it is of the utmost importance that scholars in this field acknowledge the limits of their research and maintain an appropriate level of modesty in their claims.”).

163. Hall & Wright state as follows:

It is inevitable that some measure of ambiguity will remain in how coding categories should apply to particular cases. Often, there is no obvious right way to resolve these judgment calls but such ambiguity is not disabling as long as coders are reasonably consistent in how they apply coding categories across a range of cases.

Hall & Wright, *supra* note 17, at 109.

164. See, e.g., Andreas Broscheid, *Comparing Circuits: Are Some U.S. Courts of Appeals More Liberal or Conservative Than Others?*, 45 LAW & SOC’Y REV. 171, 175 (2011).

165. See *supra* notes 132–35 and accompanying text.

Amendment claim prevailed.<sup>166</sup> Consistently placing gun laws into one of fifty-eight oft-overlapping subcategories was also understandably challenging, and called for an approach other than student coding.<sup>167</sup> Similar challenges arose for many of the other issues that we attempted to code.

These are unavoidable challenges for empirical projects<sup>168</sup> and we do not think that ours faces them in any unique way. There are, moreover, standard responses. One is to reiterate the disclaimer that our study—like all empirical studies—does not eliminate discretion, disagreement, and outright error.<sup>169</sup> We have attempted to minimize these issues to the degree possible by carefully defining key variables and conducting a reliability review that helps confirm both the accuracy and consistency of our results.

*Treating all cases equally does not account for the significance of appellate precedent.* Coding a large number of cases from various tiers of the court system cannot fully capture the potentially relevant and important differences among them. Circuit opinions bind trial courts within the circuit and therefore generally have greater impact. Even within court systems, some decisions have more weight than others.<sup>170</sup> Because systematic analyses treat every opinion as an equal unit of measurement, they cannot perfectly capture the hierarchical nature of American jurisprudence. Of course, we can and do analyze district and appellate opinions separately as well as together. Some of our questions are also intended to be rough approximations of the authoritativeness of an opinion,<sup>171</sup> but they are only approximations.

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166. See *supra* notes 136–40 and accompanying text.

167. See *supra* note 161 and accompanying text.

168. See, e.g., Epstein & King, *supra* note 136, at 74–76 (discussing conceptual difficulties in empirical projects and the importance of “develop[ing] working definitions that minimize loss from concept to definition”).

169. William M. Landes & Richard A. Posner, *Rational Judicial Behavior: A Statistical Study* 3 (Univ. of Chi. L. & Econ., Olin Working Paper No. 404, 2008), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1126403](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1126403) [<https://perma.cc/FUD6-U2RZ>] (finding “a high error rate” in parts of the Songer court of appeals database commonly used by empirical legal scholars); Reed C. Lawlor, *Fact Content Analysis of Judicial Opinions*, 8 JURIMETRICS J. 107, 124 (1968) (noting a mix of simple errors, inherent ambiguities and other issues leading to coding disagreement, and the near-impossibility of eliminating all such disagreement).

170. See Thomas A. Smith, *The Web of Law*, 44 SAN DIEGO L. REV. 309, 325 (2007) (“[T]he concentration of legal authority (at least as measured by citation frequency) [is] in only a relative few cases . . .”).

171. For example, we ask whether a court concluded that the case was governed by existing precedent. Moreover, we ask whether a Second Amendment discussion is three paragraphs or less, which is a rough approximation for whether an opinion contains the rigorous analysis one

*Precedent is hard to measure or even to define.* Unlike most prior empirical work, we have attempted to code not just case outcomes but case content—and, in particular, to investigate the impact of *Heller*. Doing so yields valuable information about the state of Second Amendment law and many of the legal factors that seem to be driving it, while facing the same practical challenges as any other empirical effort to measure precedent.<sup>172</sup> But it also helps illustrate and potentially sharpen questions about the nature of precedent and legal reasoning.<sup>173</sup>

The simple view of precedent is that it refers to situations in which a case is governed by a prior case or rule, in the sense that its result is compelled by the result in a prior case regardless of the decisionmaker's agreement with the prior case.<sup>174</sup> But that depends on a question of causation that is just as fundamentally open textured (and perhaps even normative) as those that arise in other areas of law. Our dataset included a wide range of illustrative examples. It is clear that *Guerrero-Leco* would not have been decided the way it was had it not been for *Heller*. And yet it is still debatable whether it is a Second Amendment case.<sup>175</sup>

Such jurisprudential questions do not have to be answered in order to perform empirical analysis. One can measure the influence of precedent by asking about express reliance on it or by using proxies for

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would expect from an influential opinion. *See supra* note 117 and accompanying text.

172. FRANK B. CROSS, *DECISION MAKING IN THE U.S. COURTS OF APPEALS* 202 (2007) (“The close study of precedents and their impact [on appellate decisionmaking] is impossible with currently available or readily foreseeable empirical tools.”). Some notable attempts have nonetheless been made. *See generally* William M. Landes & Richard A. Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 J.L. & ECON. 249 (1976) (studying age of typical citations to precedents from the Supreme Court and lower courts).

173. Stefanie A. Lindquist & Frank B. Cross, *Empirically Testing Dworkin's Chain Novel Theory: Studying the Path of Precedent*, 80 N.Y.U. L. REV. 1156, 1157 (2005) (“Perhaps the most important, yet understudied, area of legal research involves precedent.”); Adam M. Samaha, *Looking Forward Over a Crowd—Do More Interpretive Sources Mean More Discretion?*, 92 N.Y.U. L. REV. 554, 593–99 (2017) (discussing “competing predictions about the effects of precedent accumulation on judicial discretion” and challenging earlier findings that as precedent mounts, judicial discretion increases).

174. Fredrick Schauer, *Precedent*, 39 STAN. L. REV. 571, 575–76 (1987); *see also* Larry Alexander, *Constrained by Precedent*, 63 S. CAL. L. REV. 1, 59 (1989) (“[I]f incorrectness were a sufficient condition for overruling, there would be no precedential constraint in statutory and constitutional cases.”); Michael J. Gerhardt, *The Role of Precedent in Constitutional Decisionmaking and Theory*, 60 GEO. WASH. L. REV. 68, 73 (1991) (supporting “the traditional view that precedents should be overruled only when the prior decision was wrongly decided *and* there is some other important disadvantage in respecting that precedent”) (emphasis in original).

175. *See supra* notes 132–35 and accompanying text.

it, both of which are strategies that we have utilized here. But these measurements likely over- or understate a precedent's influence—the former because express reliance may not mean much, and the latter because once a leading case becomes “domesticated” by circuit precedent (as is increasingly true of *Heller*), analysis could become more concise even though the influence is just as strong.

*Judicial language might not reflect judicial reasoning.* Another limitation is inherent in our objective of identifying trends by quantifying repetitive aspects of judicial reasoning. In particular, what judges *say* they are doing in their opinions might not always be an accurate indicator of what they are “really” doing.<sup>176</sup> Express reasoning may simply be a judge's effort to justify his or her desired end.

This caveat, however, is not unique to systematic content analysis. All doctrinal analysis relies heavily on express judicial reasoning. The alternative would be to take the attitudinalist approach and focus on judges' perceived politics. But that approach faces challenges of its own,<sup>177</sup> and in any event should probably begin with an analysis of what judges actually say they are doing. Moreover, we also find comfort in Samaha and Germano's conclusion that judicial ideology plays a relatively small role, if any at all, in Second Amendment cases.<sup>178</sup>

*The importance of procedural posture significantly complicates the analysis.* Litigants face differing burdens depending on the posture of a case. For example, a plaintiff seeking a preliminary injunction against a gun regulation would have to show that “he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest.”<sup>179</sup> A criminal defendant raising a Second Amendment defense would simply have to convince a court of his claim.

We have not coded for these burdens systematically. But we have

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176. Sanford Levinson, *Why Didn't the Supreme Court Take My Advice in the Heller Case? Some Speculative Responses to an Egocentric Question*, 60 HASTINGS L.J. 1491, 1497 (2009) (“For many, especially political scientists, the best explanation for the kind of differences observed in *Heller* (and, of course, many other cases) is that legal arguments per se are relatively weak explanations for judicial votes.”); see also SUNSTEIN, *supra* note 118, at 191–96 (summarizing range of considerations and pressures that can underlie judicial reasoning); Posner, *supra* note 118, at 1182 (arguing that judicial opinions may be written in a legalistic style because that is most familiar to law clerks or may be politically useful, but that judicial decisionmaking itself is far less constrained by precedent or legalistic thinking).

177. See *supra* note 100.

178. See Samaha & Germano, *supra* note 58, at 861.

179. *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008).

no reason to think that such burdens would look any different in Second Amendment cases than in other sets of cases. And we did code for the procedural postures of the cases, which allows us to compare success rates on different types of motions.

*Out-of-court resolutions are not considered.* Finally, our dataset is comprised of judicial opinions, and therefore does not directly account for the effect of out-of-court resolutions. If a municipality adjusts a gun policy after an adverse ruling in trial court, for example, then there will be no appellate litigation on point.<sup>180</sup> This would distort comparisons between trial and appellate court successes.<sup>181</sup>

Likewise, if a municipality preemptively rescinds or decides not to adopt a policy based on Second Amendment concerns, or if civil litigants settle Second Amendment claims out of court, or if criminal defendants receive favorable plea agreements on the basis of a Second Amendment claim, those outcomes are not counted in our dataset.<sup>182</sup> How *Heller* has affected decisionmaking outside of the courtroom is more difficult to measure, and we do not attempt to do so systematically in this study.

### III. THE STATE OF THE SECOND AMENDMENT: EMPIRICAL FINDINGS

This Part summarizes our empirical findings. First, we report characteristics of Second Amendment challenges subject to litigation and evaluate how those characteristics correlate with success. Second, we quantify doctrinal trends that are guiding the lower courts in Second Amendment cases.

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180. See, e.g., *Wrenn v. District of Columbia*, 864 F.3d 650, 655 (D.C. Cir. 2017) (noting that, after district court struck down the District of Columbia's public carry ban in *Palmer v. District of Columbia*, 59 F. Supp. 3d 173 (D.D.C. 2014), the D.C. Council opted to amend its code rather than appeal the adverse decision); *Veasey v. Wilkins*, No. 5:14-CV-369-BO, 2015 WL 7776557, at \*1 (E.D.N.C. Dec. 2, 2015) (noting that after district court granted preliminary injunction against North Carolina's requirement that a person demonstrate American citizenship prior to obtaining a concealed carry permit in *Veasey v. Wilkins*, No. 5:14-CV-369-BO, 2015 WL 1884832 (E.D.N.C. Apr. 24, 2015), North Carolina removed the requirement).

181. On the other hand, this circumstance reflects an argument in favor of including district court opinions in the dataset. If we limited ourselves to appellate courts, such litigation victories would not be captured at all. See *supra* note 137 and accompanying text.

182. See, e.g., Brief for the Villages of Winnetka and Skokie, Illinois, the City of Evanston, Illinois, the Illinois Municipal League, & the International Municipal Lawyers Ass'n as Amici Curiae Supporting Respondents at 15, *McDonald v. City of Chicago*, 130 S. Ct. 3020 (2010) (No. 08-1521) ("Winnetka and Evanston[, Illinois] repealed longstanding handgun laws to avoid costly litigation brought by respondent NRA and others.").

Our primary goal is to give a descriptive account of the doctrine, and not to test particular hypotheses, let alone make normative assessments of the results or the law. We present our results in the form of contingency tables (also known as cross-tabulations or crosstabs), a common means of displaying frequency counts.

We think that this straightforward approach is the best way to present the kind of generalized, foundational information we hope to provide. Considering the lack of any large-scale quantitative study of post-*Heller* Second Amendment doctrine, straightforward information like the success rate of challenges in criminal cases—with the two variables being success and criminal case—is a necessary starting point. Simply knowing when two variables appear to intersect can help frame questions about why or how they do so—the kinds of questions we address in our regression analysis in Part IV.C—but, again, our primary goal is simply to report the results.

#### A. *Characterizing Second Amendment Challenges*

Consistent with the common wisdom, the vast majority of Second Amendment claims fail. Of the 1,153 Second Amendment challenges in the database, only 108 were not rejected, for an overall success rate of 9 percent.<sup>183</sup> This subpart breaks down these figures.

1. *Where Is the Second Amendment Action?* We coded whether a challenge was brought in federal appellate, federal trial, or state appellate court. We also collected more granular data on specific jurisdictions.

a. *State or Federal, Trial or Appellate.* Naturally, there is more Second Amendment litigation in federal trial courts (491 challenges) than in federal appellate courts (221 challenges). This reflects, in part, logical attrition: not all litigants appeal adverse decisions. Notably, however, our numbers suggest that the appeal rate is higher in Second Amendment cases than in many other areas of law. Ted Eisenberg found that, in general, 19 percent of nontried civil cases resulting in a definitive judgment are appealed.<sup>184</sup> Based on the raw numbers in our

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183. This success rate is higher than recorded by the Law Center to Prevent Gun Violence, which reports that ninety-six percent of claims fail. LAW CTR. TO PREVENT GUN VIOLENCE, *supra* note 63, at 6. Methodological differences could easily account for the variance. *See supra* notes 154–58 and accompanying text. Throughout this discussion, we round percentiles to the nearest whole number.

184. Theodore Eisenberg, *Appeal Rates and Outcomes in Tried and Nontried Cases: Further*



dataset, it appears that as many as 28 percent of federal trial court civil decisions involving the Second Amendment are appealed. The number may even be higher, since some trial opinions had yet to result in an appellate opinion when we conducted our search.<sup>185</sup>

The majority of Second Amendment litigation, however, has been in the state courts. Our dataset includes 441 challenges decided by state appellate courts, compared to 221 by federal appellate courts. This disparity, though not surprising, is significant, since post-*Heller* scholarship has focused almost exclusively on the federal courts.<sup>186</sup> On the whole, Second Amendment claims have succeeded most frequently in federal appellate courts (13 percent), compared to federal trial courts (8 percent) and state appellate courts (9 percent):

*Table 1: Success Rates by Court System*

	<b>Federal Trial Court</b>	<b>Federal Appellate Court</b>	<b>State Appellate Court</b>	<b>Total</b>
<b>Successful Challenges</b>	38 8%	29 13%	41 9%	108 9%
<b>Total Challenges</b>	491	221	441	1153

Across all groups,  $p < 0.10$ ; Federal Trial vs. Federal Appellate,  $p < 0.025$ .<sup>187</sup>

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*Exploration of Anti-Plaintiff Appellate Outcomes*, 1 J. EMPIRICAL LEGAL STUD. 659, 660 (2004).

185. Explaining these numbers is beyond the scope of the project, and would likely require a different set of tools. Perhaps Second Amendment litigants are strongly motivated or certain of the merits of their cases, and thus more willing than other litigants to pursue their claims on appeal. Or perhaps actual or perceived uncertainty in the doctrine produces more appeals, because arguments are not clearly understood to be weak. Because we do not have a comparable dataset of state trial court decisions, we cannot conduct this analysis for state litigation.

186. See *supra* notes 44–61 and accompanying text.

187. We report probability values, or p-values, to reflect the statistical significance of our results. P-values are calculated using statistical tests that differ depending on the inference being drawn. For Tables 1–7, which test whether there is a relationship between categorical variables and success (like court system and success), p-values are calculated using the chi-square statistic. See DAVID KREMELBERG, PRACTICAL STATISTICS: A QUICK AND EASY GUIDE TO IBM SPSS STATISTICS, STAT, AND OTHER STATISTICAL SOFTWARE 120, 124–29 (2010) (describing the chi-square statistic and how it is appropriate for categorical comparisons). For Tables 8–16, which test changes over time (like success rates by year), p-values are calculated using Pearson’s correlation coefficient, or Pearson’s *r*. See *id.* at 120–24 (describing Pearson’s correlation coefficient and how it is appropriate for relationships over time). These statistics function by testing the “null hypothesis” that two variables are independent and that chance alone resulted in any correlation. See James J. Brudney, *A Famous Victory: Collective Bargaining Protections and the Statutory Aging Process*, 74 N.C. L. REV. 939, 972 n.100 (1996) (describing p-values in the context of the chi-square statistic). A commonly accepted threshold for statistical significance is

The fact that Second Amendment appeals lose at a high rate is not news to those who follow Second Amendment litigation. Until now, though, no study has shown an above-average appeal rate in these cases. The two trends are likely intertwined, perhaps due to uncertainty in the doctrine (whether real or perceived), strongly motivated or overconfident litigants, or some other reason hard to pin down with our data.<sup>188</sup> Whatever the reason, the high rate of appeal for failed claims further inflates the overall failure rate. Below we add another layer, discussing data pointing to the relative weakness of a large proportion of Second Amendment claims.

b. *Regional Variation.* Second Amendment litigation is not distributed evenly. In the federal courts of appeals, two courts account for roughly one-third of 219 challenges<sup>189</sup>: the Fourth Circuit (thirty-six challenges) and Ninth Circuit (thirty-one challenges).

Two potential explanations for this distribution are circuit sizes and regional differences in gun control regimes. The Ninth Circuit is the largest in the country, handling more appeals than any other circuit.<sup>190</sup> But that alone cannot explain the variance in Second Amendment caseloads. The Fourth Circuit has a much smaller overall caseload than the Ninth,<sup>191</sup> but hears a similarly high number of Second Amendment challenges. Another factor is the presence of gun-control-friendly states within these circuits. California (Ninth Circuit) and

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p < 0.05. *Id.* (collecting sources). We separate p-values into six ranges: p < 0.001, p < 0.01, p < 0.025, p < 0.05, p < 0.10, and p > 0.10. We do not include p-values for Tables 17–24, which simply report the characteristics of successful challenges.

188. As noted above, *supra* notes 180–82 and accompanying text, our analysis does not take into account settlements, and we make no claims about the impact of settlement rates across different types of litigation.

189. Two federal appellate decisions are excluded from this regional analysis: *McDonald v. City of Chicago*, 561 U.S. 742 (2010) and *United States v. Cooper*, No. ACM 38307, 2014 WL 4894599 (A.F. Ct. Crim. App. Sept. 24, 2014).

190. See ADMIN. OFFICE OF THE U.S. COURTS, JUDICIAL BUSINESS OF THE UNITED STATES COURTS: ANNUAL REPORT OF THE DIRECTOR tbl.B-7 (2016) (showing relative caseloads of different circuits). Relative caseload can also explain why sixteen Second Amendment opinions were published in the Fifth Circuit, despite the fact that every state in the Fifth Circuit received an “F” rating by the Law Center to Prevent Gun Violence—an indication of lax gun laws. See *id.* (6,359 cases commenced in Fifth Circuit in the twelve months ending March 31, 2015, reflecting second largest docket among circuits); *2016 Gun Law State Scorecard*, LAW CTR. PREVENT GUN VIOLENCE, <http://gunlawscorecard.org/> [<https://perma.cc/9XX3-4R8G>] (showing “F” rating for Louisiana, Mississippi, and Texas).

191. ADMIN. OFFICE OF THE U.S. COURTS, *supra* note 190, at tbl.B-7 (7,134 cases commenced in the Ninth Circuit and 3,769 commenced in the Fourth Circuit during the twelve months ending March 31, 2015).

Maryland (Fourth Circuit) are known to have some of the strongest gun laws in the country, which in turn makes them target-rich environments for Second Amendment claims. But again, this is only a partial explanation. Far fewer Second Amendment challenges were heard in the Second Circuit (eleven challenges), which has a case load similar to the Fourth<sup>192</sup> and is home to two states associated with strong gun laws, New York and Connecticut. Differences exist between the dockets and priorities of the various circuits in other areas of substantive law, which may help explain their differing rates of Second Amendment litigation.<sup>193</sup>

Second Amendment claims have had relatively high success rates in the courts that have been criticized as giving the Second Amendment right second-class treatment.<sup>194</sup> Overall, claims have succeeded most frequently—both in absolute terms and proportionally—in the Second, Fourth, Seventh, Ninth, and D.C. Circuits. Indeed, with the exception of one case in the Sixth Circuit, these are the *only* circuits that have upheld a Second Amendment challenge. As we note, these are the circuits with the strongest gun laws and, thus, the best litigation targets. Likely for that reason, they also have been a primary focus for impact litigation efforts by sophisticated gun rights advocates.

*Table 2: Success Rates by Federal Circuit*

Circuit	Successes	Success Rate	Total Challenges	Circuit	Successes	Success Rate	Total Challenges
<b>First</b>	0	0%	7	<b>Seventh</b>	3	16%	19
<b>Second</b>	2	18%	11	<b>Eighth</b>	0	0%	23
<b>Third</b>	0	0%	12	<b>Ninth</b>	4	13%	31
<b>Fourth</b>	4	11%	36	<b>Tenth</b>	0	0%	15
<b>Fifth</b>	0	0%	15	<b>Eleventh</b>	0	0%	17
<b>Sixth</b>	1	9%	11	<b>D.C.</b>	14	64%	22
				<b>Total</b>	28	13%	219

p < 0.001

192. *Id.* (3,676 cases commenced in the Second Circuit during the twelve months ending March 31, 2015).

193. See Marin K. Levy, *The Mechanics of Federal Appeals: Uniformity and Case Management in the Circuit Courts*, 61 DUKE L.J. 315, 366–75 (2011).

194. See *supra* note 64 and accompanying text.

In state courts as well, the bulk of Second Amendment litigation has occurred in geographic areas known to have stronger gun regulations.<sup>195</sup> Of 438 state appellate challenges in the database,<sup>196</sup> 66 percent are from Illinois (167), California (59), Massachusetts (36), and New Jersey (26). Of these four states, only appellate courts in Illinois have granted Second Amendment relief. Those litigation rates are dramatically different than in states thought to be more gun friendly. For example, appellate courts in the twenty-five states that have received an “F” rating from the Law Center to Prevent Gun Violence for their gun laws<sup>197</sup> heard thirty-one Second Amendment challenges and rejected all of them. We cannot show causation, but it is not hard to imagine why states with less gun regulation would spawn fewer complaints about gun laws and be less attractive to impact litigators. (This despite the fact that voters who do not push legislatures to pass stringent gun laws are also likely to elect gun-friendly judges). Second Amendment litigants simply are not bringing cases in those states, perhaps because they lack targets.

The large number of challenges and successes in Illinois can be explained by a feature of Illinois’s former scheme for regulating public carry. Before 2013, it was illegal for a person to carry a firearm “uncased, loaded and immediately accessible.”<sup>198</sup> In *People v. Aguilar*<sup>199</sup> and *People v. Burns*,<sup>200</sup> the Illinois Supreme Court struck down this scheme as violating the Second Amendment. As a result, dozens of criminal convictions were challenged and vacated, producing numerous opinions on Westlaw. The summary chart of successes by state is below:

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195. Our data alone cannot cast light on another significant issue: the degree to which, after *Heller*, the Second Amendment has replaced state constitutional analogues as the basis for gun rights challenges in state courts.

196. This number and the following analysis exclude three challenges from the Virgin Islands. See *Nicholas v. People of the Virgin Islands*, 56 V.I. 718, 750–52 (2012) (one challenge); *Virgin Islands v. James*, 54 V.I. 45, 47 (2010) (two challenges).

197. See *2016 Gun Law State Scorecard*, *supra* note 190 (listing Alabama, Alaska, Arizona, Arkansas, Florida, Georgia, Idaho, Kansas, Kentucky, Louisiana, Maine, Mississippi, Missouri, Montana, New Mexico, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, West Virginia, and Wyoming as having an “F” score).

198. 720 ILL. COMP. STAT. ANN. 5/24–1.6(a)(3)(A) (West 2008).

199. *People v. Aguilar*, 2 N.E.3d 321 (Ill. 2013), *modified*, *People v. Burns*, 79 N.E.3d 159 (Ill. 2015).

200. *People v. Burns*, 79 N.E.3d 159 (Ill. 2015).

Table 3: Success Rates in State Appellate Cases

State	Successes	Success Rate	Total Challenges	State	Successes	Success Rate	Total Challenges
AL	0	0%	0	MT	0	0%	0
AK	0	0%	7	NE	0	0%	0
AZ	0	0%	3	MV	0	0%	1
AR	0	0%	0	NH	0	0%	0
CA	0	0%	59	NJ	0	0%	26
CO	0	0%	1	NM	0	0%	0
CT	2	40%	5	NY	0	0%	9
DE	0	0%	0	NC	1	33%	3
DC	5	14%	35	ND	0	0%	0
FL	0	0%	3	OH	2	13%	16
GA	0	0%	1	OK	0	0%	0
HI	0	0%	1	OR	0	0%	2
ID	0	0%	1	PA	0	0%	7
IL	28	17%	167	RI	0	0%	0
IN	0	0%	1	SC	0	0%	0
IA	0	0%	1	SD	0	0%	0
KS	0	0%	3	TN	0	0%	1
KY	0	0%	0	TX	0	0%	1
LA	0	0%	8	UT	0	0%	0
ME	0	0%	0	VT	0	0%	1
MD	0	0%	4	VA	0	0%	1
MA	0	0%	36	WA	0	0%	8
MI	2	18%	11	WV	0	0%	0
MN	0	0%	7	WI	1	17%	6
MS	0	0%	1	WY	0	0%	0
MO	0	0%	1	<b>Total</b>	41	9%	438

p &gt; 0.10

2. *Who Is Bringing Second Amendment Challenges?* We collected data on various characteristics of the litigants bringing Second

Amendment challenges. Here, we use that data to compare civil plaintiffs and criminal defendants, pro se and represented plaintiffs, and individual and organizational plaintiffs.

a. *Criminal or Civil.* Sixty-four percent of the challenges in the database were initiated by criminal defendants, with significant variations between court systems: 45 percent of federal trial challenges, 66 percent of federal appellate challenges, and 85 percent of state appellate challenges. The defendants in these cases succeeded in just 6 percent of their challenges, though with meaningful distinctions between federal trial court (0.5 percent), federal appellate court (4 percent), and state appellate court (10 percent). The latter figure is a function of the *Aguilar* litigation in Illinois, as described above.<sup>201</sup> If we omit Illinois criminal cases, the state appellate court success rate drops to 6 percent, more in line with the rate in federal appellate court.

Litigants fared considerably better in civil cases. About 36 percent of the database involved civil claims, again with variance between court systems: civil challenges accounted for 55 percent of federal trial challenges, 34 percent of federal appellate challenges, and 15 percent of state appellate challenges. Overall, civil litigants succeeded in 15 percent of challenges, though that rate jumped to 30 percent in federal appellate court.

Table 4: Success Rates in Civil and Criminal Cases

	Federal Trial Court		Federal Appellate Court		State Appellate Court		Total	
	Successes	Success Rate	Successes	Success Rate	Successes	Success Rate	Successes	Success Rate
<b>Civil</b>	37/269	14%	23/76	30%	2/66	3%	62/411	15%
<b>Criminal</b>	1/222	0%	6/145	4%	39/375	10%	46/742	6%
<b>Total</b>	38/491	8%	29/221	13%	41/441	9%	108/1153	9%
	p < 0.001		p < 0.001		p < 0.10		p < 0.001	

b. *Pro Se or Represented.* Within the subset of civil cases, the success rate varied considerably depending on whether a plaintiff was represented by counsel (21 percent) or not (2 percent).<sup>202</sup> The impact

201. See *supra* notes 198–200 and accompanying text.

202. This calculation excludes eight challenges in which it was not clear whether a plaintiff was represented and one challenge involving only an organizational plaintiff for which the representation question was not asked.

of representation was most apparent at the federal appellate level, where represented parties succeeded 40 percent of the time. Federal appellate courts rejected all of the Second Amendment claims brought by pro se litigants.

Our data cannot explain *why* pro se litigants are particularly unsuccessful—for example, whether they are disadvantaged by a lack of formal legal training or simply select weaker cases. Whatever the reason, self-representation closely correlates with failure in Second Amendment litigation.

*Table 5: Success Rates by Representation in Civil Cases*

	Federal Trial Court		Federal Appellate Court		State Appellate Court		Total	
	Successes	Success Rate	Successes	Success Rate	Successes	Success Rate	Successes	Success Rate
<b>Pro Se</b>	3/98	3%	0/17	0%	0/11	0%	3/126	2%
<b>Represented</b>	34/166	20%	23/58	40%	2/52	4%	59/276	21%
	p < 0.001		p < 0.01		p > 0.10		p < 0.001	

*c. Individual or Organizational.* The existence of an organizational plaintiff, meanwhile, correlated with more success at the federal trial level, but not at the federal appellate level. In federal trial court, cases brought by an organizational plaintiff were successful 29 percent of the time, compared to 9 percent for individual plaintiffs.<sup>203</sup> This variance disappears on appeal, where individual and organizational appellants had success rates of 31 percent and 28 percent, respectively.

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203. Cf. Gillian K. Hadfield, *Exploring Economic and Democratic Theories of Civil Litigation: Differences Between Individual and Organizational Litigants in the Disposition of Federal Civil Cases*, 57 STAN. L. REV. 1275, 1280–81 (2005) (reporting that cases involving organizational plaintiffs are more likely than cases involving individual plaintiffs to be resolved through settlements instead of through adjudication).

Table 6: Success Rates for Organizational and Individual Plaintiffs

	Federal Trial Court		Federal Appellate Court		State Appellate Court		Total	
	Successes	Success Rate	Successes	Success Rate	Successes	Success Rate	Successes	Success Rate
<b>Individual</b>	19/205	9%	16/51	31%	2/65	3%	37/321	12%
<b>Org. Only</b>	0/1	0%	0/0	0%	0/0	0%	0/1	0%
<b>Both</b>	18/63	29%	7/25	28%	0/1	0%	25/89	28%
	p < 0.001		p > 0.10		p > 0.10		p < 0.001	

3. *What Types of Laws Are Being Challenged?*<sup>204</sup> It will come as no surprise that litigation and success rates vary depending on the type of weapon regulation challenged. Both *Heller* and *McDonald* expressly affirmed the constitutionality of certain restrictions—like firearm bans for convicted felons<sup>205</sup>—which thus present relatively weak claims. But the Supreme Court left open the constitutionality of dozens of others. We sought to compare litigation and success rates across the full range of challenged weapons regulations. Appendix C contains the results of this effort for all subclassifications in our scheme. The next table reports the results of just our highest-level categorizations.

204. As noted above, Appendix B provides our categorization scheme.

205. *District of Columbia v. Heller*, 554 U.S. 570, 626–27; *McDonald v. City of Chicago*, 561 U.S. 742, 786 (2010).



Table 7: Success Rates by Category of Law Challenged

Category	Federal Trial Court		Federal Appellate Court		State Appellate Court		Total	
	Successes	Success Rate	Successes	Success Rate	Successes	Success Rate	Successes	Success Rate
<b>Who</b>	13/218	6%	7/117	6%	2/162	1%	22/497	4%
<b>What</b>	4/47	9%	4/26	15%	6/31	19%	14/104	13%
<b>Where</b>	7/29	24%	1/12	8%	0/4	0%	8/45	18%
<b>When</b>	3/54	6%	0/26	0%	1/28	4%	4/108	4%
<b>How</b>	1/4	25%	0/1	0%	1/10	10%	2/15	13%
<b>Bus. Res.</b>	3/28	11%	0/5	0%	0/1	0%	3/34	9%
<b>Pub. Car.</b>	5/34	15%	3/9	33%	29/127	23%	37/170	22%
<b>Gun Reg.</b>	2/35	6%	14/19	74%	2/60	3%	18/114	16%
<b>Official</b>	0/32	0%	0/5	0%	0/7	0%	0/44	0%
<b>Misc.</b>	0/10	0%	0/1	0%	0/11	0%	0/22	0%
	p < 0.05		p < 0.001		p < 0.001		p < 0.001	

By far, the most common type of challenge was to “who” bans, or prohibitions on possession by certain classes of people. This category accounted for 43 percent of all challenges in the dataset. Challenges that fell into the “who” category were generally losers, with a success rate of just 4 percent.<sup>206</sup> This relatively low success rate was largely due to 273 challenges to felon-in-possession statutes. These challenges, which account for 24 percent of the entire dataset, were rejected 99 percent of time and enjoyed no success at the federal appellate level during our study period.<sup>207</sup>

Three categories of challenges fared worse than challenges to

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206. Unlike the dataset as a whole, federal appellate and trial courts were equally likely to reject challenges in this category (6 percent success rates in both court systems). Meanwhile, both were more receptive than state appellate courts, where litigants had success in only 1 percent of challenges.

207. Of all subcategories, however, this one seems most likely to experience an upsurge in successes going forward. After our study period concluded, the Third Circuit granted as-applied relief to two plaintiffs challenging the federal felon-in-possession law, 18 U.S.C. § 922(g)(1) (2012). See *Binderup v. Att’y Gen.*, 836 F.3d 336, 356–57 (3d Cir. 2016) (en banc), *cert. denied*, 137 S. Ct. 2323 (2017). That opinion will likely incentivize more challenges and lead to more successes. This likely effect of *Binderup* exemplifies an important limitation: the data presented in Table 7 is not temporally weighted, meaning that challenges decided early and late in the study period are counted the same. The discussion therefore does not purport to account for the impact of controlling precedent established after the accumulation of contrary case law.

“who” bans: challenges to “when” bans, official action, and twenty-two challenges that defied easy categorization. “When” bans, or temporary restrictions on the possession of weapons, accounted for 9 percent of the dataset and had a success rate of just 4 percent. Challenges to official action—including gun seizures during arrests, court rulings on burdens in criminal cases, and employee policies—made up 4 percent of the database and uniformly failed. Miscellaneous challenges, such as those contesting a state’s gun control regime generally<sup>208</sup> or a murder conviction,<sup>209</sup> accounted for 2 percent of the dataset and also had no success.

Litigants targeting other types of restrictions succeeded at a higher rate. Challenges to “what” restrictions, or those on weapon categories,<sup>210</sup> accounted for 9 percent of the dataset and had a 13 percent success rate, more than three times as high as “who” bans. Within “what” restrictions, litigants did better in federal appellate court (15 percent success) than federal trial court (9 percent success). Litigants also fared better when they challenged regulations on nonlethal weapons (25 percent success) than other types of weapons.<sup>211</sup> This last observation is logical: the lethality of a regulated weapon and the government’s concern for public safety—the usual rationale for weapon regulation<sup>212</sup>—should rise and fall together.<sup>213</sup>

One controversial policy in the public debate has been less so in court: bans on assault weapons. The database contains eighteen challenges to assault weapon bans—ten in federal court and eight in

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208. See, e.g., *Mongiolo v. Cuomo*, 968 N.Y.S.2d 828, 829–30 (N.Y. Sup. Ct. 2013).

209. See, e.g., *Klinefelter v. Pennywell*, No. EDCV 12–1847–R (OP), 2013 WL 5840309, at \*20 (C.D. Cal. Oct. 30, 2013).

210. This category contains challenges to both outright bans and highly restrictive registration schemes. See, e.g., 18 U.S.C. § 922(o); 26 U.S.C. §§ 5841, 5845(a)–(b) (2012) (banning possession of machine guns unless lawfully possessed before enactment of the Firearm Owners Protection Act of 1986; banning possession of such lawfully possessed machine guns subject to federal registration and fees).

211. See Appendix C.

212. See Ruben, *supra* note 91, at 164 (“[Public safety] was the interest set forth by the government in *Heller* and . . . has been the interest relied upon in almost all Second Amendment cases thereafter.” (citations omitted)).

213. See generally Joseph Blocher & Darrell A.H. Miller, *Lethality, Public Carry, and Adequate Alternatives*, 53 HARV. J. ON LEGIS. 279 (2016) (arguing that regulations of lethal weapons are more constitutionally defensible where adequate nonlethal alternatives are available); Eugene Volokh, *Nonlethal Self-Defense, (Almost Entirely) Nonlethal Weapons, and the Rights to Keep and Bear Arms and Defend Life*, 62 STAN. L. REV. 199, 216 (2009) (concluding that nonlethal weapons are covered by the Second Amendment and noting that they facilitate crime “at a lower level of harm than lethal weapons such as guns and knives”).

state appellate court. During the study period, courts rejected all but two: *Wilson v. County of Cook*, in which the Illinois Supreme Court remanded for further fact finding,<sup>214</sup> and *Cutonilli v. State*,<sup>215</sup> in which the district court stayed proceedings pending the outcome in a similar case, *Kolbe v. Hogan*. In *Kolbe*, the Fourth Circuit ultimately upheld the ban.<sup>216</sup>

“Where” bans, or prohibitions on weapons possession, shooting ranges, and gun stores in specified places, made up 4 percent of the database. These challenges fared better than challenges to most other categories of laws, with a success rate of 18 percent. Courts facing challenges in this subset generally agreed that bans on possession in or near schools are constitutional, consistent with *Heller*’s carve-out for “sensitive places.”<sup>217</sup> Some courts disagreed about what makes a space “sensitive” beyond certain obvious categories, with two federal district courts granting relief from restrictions they deemed too broad.<sup>218</sup> One of those decisions was reversed on appeal.<sup>219</sup> In the wake of the other, the federal government reconsidered a restriction on firearms on U.S. Army Corps of Engineers property.<sup>220</sup> Aside from successful challenges to location-based bans on possession, several restrictions on gun stores and shooting ranges within Chicago were struck down.<sup>221</sup>

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214. See generally *Wilson v. Cty. of Cook*, 968 N.E.2d 641 (Ill. 2012). In July 2017, a revised complaint was filed in this case. See Complaint, *Wilson v. Cty. of Cook*, No. 2017-CH-10345 (Ill. Cir. Ct. Jul. 28, 2017).

215. *Cutonilli v. State*, No. JKB-15-629, 2015 WL 5719572 (D. Md. Sept. 28, 2015).

216. See *id.* at \*6; *Kolbe v. Hogan*, 849 F.3d 114, 135–41 (4th Cir. 2017) (en banc).

217. *District of Columbia v. Heller*, 554 U.S. 570, 626 (2008).

218. See *Morris v. U.S. Army Corps of Eng’rs*, 60 F. Supp. 3d 1120, 1125–26 (D. Idaho 2014) (holding unconstitutional an “outright ban” on handguns on Army Corps of Engineers property); *Morris v. U.S. Army Corps of Eng’rs*, 990 F. Supp. 2d 1082, 1088–89 (D. Idaho 2014) (enjoining the Army Corps of Engineers from enforcing a ban on handguns possessed by law-abiding individuals on Corps-owned public lands); *Bonidy v. U.S. Postal Serv.*, No. 10-CV-02408-RPM, 2013 WL 3448130, at \*5–7 (D. Colo. July 9, 2013) (holding that a ban on firearms within U.S. Post Offices was constitutional, but banning firearms in the surrounding parking lot was not), *rev’d*, 790 F.3d 1121 (10th Cir. 2015) (holding both bans—in U.S. Post Office parking lots and buildings—constitutional).

219. *Bonidy*, 790 F.3d at 1128–29, *rev’g* No. 10-CV-02408-RPM, 2013 WL 3448130 (D. Colo. July 9, 2013).

220. See News Release, Mountain States Legal Found., Trump Administration Seeks Resolution of Idaho Woman’s Army Corps Gun Ban Battle (Mar. 3, 2017), <https://www.mountainstateslegal.org/news-updates/news-releases/2017/03/03/trump-administration-seeks-resolution-of-idaho-woman-s-army-corps-gun-ban-battle#.WYEDNITYtpg> [<https://perma.cc/23XY-FT67>] (noting that federal lawyers filed a motion indicating the government’s willingness to “reconsider[] the firearms policy” (alteration in original)).

221. See *Ezell v. City of Chicago*, 651 F.3d 684, 771 (7th Cir. 2011) (overturning ban on firing ranges); *Ezell v. City of Chicago*, 70 F. Supp. 3d 871, 884 (N.D. Ill. 2014) (overturning requirement

“How” restrictions, those requiring safe storage of firearms, have rarely been a litigation target—they account for just 1 percent of the dataset. Overall, this category has a 13 percent success rate, with a single victory at each of the federal trial and state appellate levels.<sup>222</sup> This is one area, however, where success may prove short-lived. The court in one of the two cases denied a motion to dismiss a complaint challenging Illinois’s safe storage law, but noted that the plaintiffs “may face an uphill battle on the merits of their claim” at later stages.<sup>223</sup> The claim then became moot and was dismissed after a plaintiff in the case moved to another state.<sup>224</sup> In the other case, the court remanded for the trial court to apply heightened scrutiny to Ohio’s vehicle storage law.<sup>225</sup> On remand and in a subsequent appeal, the law was upheld.<sup>226</sup>

Challenges to business restrictions and fees accounted for 3 percent of the dataset and had a 9 percent success rate. Courts rejected the few Second Amendment challenges to background check requirements and dealer license requirements. Two challenges to restrictions on the sale or transfer of firearms<sup>227</sup> and one challenge to restrictions placed on shooting ranges<sup>228</sup> succeeded in federal district court.

Challenges to public carry restrictions had a success rate of 22 percent, which is the highest in our dataset. This category, which included both public carry bans and public carry permitting schemes, touches on the contentious issue of to what extent the government can regulate weapons outside the home. Much of the success in this litigation, however, was limited to *bans* on public carry, which were ultimately struck down in Washington, D.C., and Illinois, both of the

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that shooting ranges be located in manufacturing districts); *Ill. Ass’n of Firearms Retailers v. City of Chicago*, 961 F. Supp. 2d 928, 931 (N.D. Ill. 2014) (overturning ban on gun stores).

222. See *Second Amendment Arms*, 135 F. Supp. 3d at 765 (denying motion to dismiss safe-storage law); *State v. Shover*, No. 25944, 2012 WL 3595127, at \*3–4 (Ohio Ct. App. Aug. 22, 2012) (remanding vehicle safe-storage law for application of heightened scrutiny).

223. *Second Amendment Arms*, 135 F. Supp. 3d at 765.

224. See Notification of Docket Entry at 1, *Second Amendment Arms v. City of Chicago*, No. 10-cv-04257 (N.D. Ill. Apr. 27, 2016).

225. *Shover*, 2012 WL 3595127, at \*3–4.

226. See *State v. Shover*, 8 N.E.3d 358, 361–65 (Ohio Ct. App. 2014).

227. See *Mance v. Holder*, 74 F. Supp. 3d 795, 803–13 (N.D. Tex. 2015); *Ill. Ass’n of Firearms Retailers v. City of Chicago*, 961 F. Supp. 2d 928, 936–47 (N.D. Ill. 2014). In January 2018, the Fifth Circuit reversed the district court decision in *Mance*. See *Mance v. Sessions*, 880 F.3d 183 (5th Cir. 2018) (upholding federal law banning sale of firearms to out-of-state residents).

228. See *Ezell v. City of Chicago*, 70 F. Supp. 3d 871, 881–92 (N.D. Ill. 2014). In January 2017, the Seventh Circuit agreed with the district court that certain restrictions on shooting ranges in Chicago violated the Second Amendment. See *Ezell v. City of Chicago*, 846 F.3d 888, 898 (2017).

places they existed. The success rate in those cases was 47 percent, with fifty-seven of the sixty-two total challenges in this subcategory arising out of Illinois. Just one federal appellate court has considered the constitutionality of a public carry ban, striking down the Illinois law.<sup>229</sup>

The database includes eighty-nine challenges to licensing regimes for public carry (either open or concealed), eight of which succeeded, for an overall success rate of 9 percent. No court held that requiring public carry licenses was *per se* unconstitutional, and challenges in “shall-issue” jurisdictions<sup>230</sup> uniformly failed. Five of the eight successful challenges arose from the “may-issue” policies<sup>231</sup> in Maryland or California,<sup>232</sup> policies which later were upheld by the Fourth and Ninth Circuits.<sup>233</sup> The other three successes were in the D.C. District Court and Court of Appeals.<sup>234</sup> One of the three District of Columbia successes was a challenge to a may-issue policy similar to Maryland’s and California’s.<sup>235</sup> Unlike in those two places, however, the D.C. Circuit recently agreed that the policy was unconstitutional,<sup>236</sup> setting up a clear circuit split. The D.C. Circuit’s opinion came after the conclusion of our study period, and so was not coded.

The final category of challenges involved laws calling for the permitting of firearms or of people desiring to possess or purchase them.<sup>237</sup> These restrictions have also been controversial, resulting in 114 challenges and a 16 percent success rate. Much of that success

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229. See *Moore v. Madigan*, 702 F.3d 933, 935–42 (7th Cir. 2012).

230. See Blocher, *supra* note 81, at 219 (defining “shall issue” regimes as those that “compel states to issue public carrying licenses to anyone who is not a felon, mentally ill, or otherwise excluded from the scope of Second Amendment coverage”).

231. *Id.* at 218 (describing “may issue” regimes as those that require a showing of good cause in order to obtain a public carry permit).

232. See *Richards v. Prieto*, 560 F. App’x 681, 682 (9th Cir. 2014), *rev’d on reh’g sub nom.*, *Peruta v. Cty. of San Diego*, 824 F.3d 919 (9th Cir. 2016); *Peruta v. Cty. of San Diego*, 742 F.3d 1144, 1148 (9th Cir. 2014), *rev’d on reh’g en banc*, 824 F.3d 919 (9th Cir. 2016); *Birdt v. San Bernardino Sheriff’s Dept.*, No. EDCV 13–0673–VAP (JEM), 2014 WL 2608127, at \*8 (C.D. Cal. June 9, 2014); *Woollard v. Sheridan*, 863 F. Supp. 2d 462, 464–65 (D. Md. 2012), *rev’d*, 712 F.3d 865 (4th Cir. 2013); *Peruta v. Cty. of San Diego*, 678 F. Supp. 2d 1046, 1055–56 (S.D. Cal. 2010).

233. See *Peruta*, 824 F.3d at 942; *Woollard*, 712 F.3d at 882.

234. See *Wrenn v. District of Columbia*, 107 F. Supp. 3d 1, 14 (D.D.C. 2015), *rev’d*, 864 F.3d 650 (D.C. Cir. 2017); *Jackson v. United States*, 76 A.3d 920, 943–48 (D.C. 2013); *Plummer v. United States*, 983 A.2d 323, 334–42 (D.C. 2009).

235. See *Wrenn*, 107 F. Supp. 3d at 3–4.

236. See *Wrenn v. District of Columbia*, 864 F.3d 650, 668 (D.C. Cir. 2017).

237. Our study categorized three types of licenses/permits: for public carry, for particular firearms, and for people desiring to possess firearms. The discussion in this paragraph refers to the latter types of licensing—those involving firearms and people, rather than the manner of bearing.

corresponds to litigation involving the District of Columbia’s evolving regulatory regime.<sup>238</sup> Absent the litigation in the District of Columbia, the success rate in this category drops to 3 percent.

### B. Trends in the Evolving Second Amendment

The preceding section has given a snapshot of Second Amendment outcomes over the past decade, across a variety of different measures. In this section, we introduce a new metric—that of time. Based on our data, Second Amendment challenges experienced a steadily increasing success rate, from 0 percent in the challenges brought after *Heller* in 2008 to 19 and 15 percent in 2014 and 2015, respectively.

Table 8: Success Rate by Year

	Opinion year									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Successful Challenges	0	4	7	12	14	13	36	22	0	108
	0%	4%	5%	7%	9%	9%	19%	15%	0%	9%
Total Challenges	70	114	143	178	161	144	193	145	5	1153

p < 0.001\*  
\*Excluding 2016

Because we have coded not just case results but the content of judicial opinions, we explore what is happening doctrinally as success rates rise. Doing so, however, presents empirical problems, for at least two reasons. First, the kinds of questions one must ask in order to code methodology are almost inevitably more subjective than those regarding the content of the law at issue. We have tried to minimize this problem by translating subjective questions into objective ones. For example, instead of asking “whether the court employed an originalist methodology,” we asked coders whether the court cited materials from various historical periods. By using such proxies we can

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238. See *Heller v. District of Columbia*, 801 F.3d 264, 270 (D.C. Cir. 2015); *Heller II*, 670 F.3d 1244, 1248 (D.C. Cir. 2011).

at least gain some traction on larger and potentially more subjective questions.

The second problem, which is related to the first, is that courts do not always announce what they are doing. By this we do not mean that the attitudinalists are necessarily right about ideology—a matter on which, again, we are not attempting to weigh in—but simply that doctrinal analysis may be *sub silentio*. A court might do a tiers-of-scrutiny analysis by analyzing the government interest and assessing whether a law is tailored to meet it, without ever invoking words like “compelling,” “narrowly,” “substantially,” and so on. Such a case might then escape coding, particularly as the survey questions themselves become more objective and precise in order to meet the first objection about subjectivity.

Perhaps as a result of these two problems (although it is hard to know for certain), our tests of intercoder reliability returned lower scores for doctrinal questions than for the kinds of categorization questions discussed in Part III.A. The following conclusions are accordingly tentative.

In order to set the chronological stage, we can start with objective numbers:

*Table 9: Second Amendment Challenges by Opinion Year*

	Opinion year									Total
	2008	2009	2010	2011	2012	2013	2014	2015	2016	
<b>Federal Trial</b>	57	51	81	54	57	41	82	64	4	491
<b>Federal Appellate</b>	8	30	25	44	35	24	26	29	0	221
<b>State Appellate</b>	5	33	37	80	69	79	85	52	1	441
<b>Total</b>	70	114	143	178	161	144	193	145	5	1153

p > 0.10\*

\*P-value calculated for final row: overall challenges per year; excluding 2008 and 2016

One might have expected an initial wave of cases addressing the questions *Heller* left open and then a decrease over time as the law became clear and litigants began to “price in” their likelihood of success.<sup>239</sup> That does not seem to have happened. Other than a bump

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239. Cf. George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 4–6 (1984) (explaining how litigants consider the likelihood of a judicial decision in selecting disputes for litigation).

in appeals cases a year after *Heller*—giving time for 2008 trials to conclude and be appealed—and a bump in state cases in 2011—after *McDonald* made the Second Amendment applicable to state and local regulations—the numbers are relatively flat across time.

Our primary interest is in what is happening *within* those cases, and whether methodology has changed over time. Perhaps the broadest hypothesis is that, in the years since *Heller*, the Second Amendment has increasingly become “normal,” in the sense that Second Amendment cases are increasingly resolved by precedent and standard legal tests rather than original historical research. If so, our data should show increases in cases decided based on controlling precedent, and corresponding decreases in matters of first impression and direct citations to historical materials.

Our data provides only partial support for this hypothesis. *Heller* remains the lodestar,<sup>240</sup> in particular the paragraphs regarding “presumptively lawful” regulations. Courts considering a majority of the challenges in our study (60 percent) explicitly cited those paragraphs, though the ratio trended downward over time, perhaps reflecting the fact that *Heller* itself has now been baked into circuit precedent.

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240. This provides some support—consistent with other empirical studies—that vertical precedent matters. See John Gruhl, *The Supreme Court's Impact on the Law of Libel: Compliance by Lower Federal Courts*, 33 W. POL. Q. 502, 517 (1980) (finding high rates of compliance with *New York Times v. Sullivan*, 376 U.S. 254 (1964)); Donald R. Songer & Reginald S. Sheehan, *Supreme Court Impact on Compliance and Outcomes: Miranda and New York Times in the United States Court of Appeals*, 43 W. POL. Q. 297, 313 (1990) (finding “nearly universal compliance” with *Miranda v. Arizona*, 384 U.S. 436 (1966)).



Table 10: Citations to *Heller* Paragraphs on “Presumptively Lawful” Regulations

	Opinion year									Total
	2008	2009	2010	2011	2012	2013	2014	2015	2016	
<b>Invoke "Presumptively Lawful" Paragraphs</b>	56	75	95	109	104	94	90	66	2	691
	80%	66%	66%	61%	65%	65%	47%	46%	40%	60%
<b>Do Not Invoke "Presumptively Lawful" Paragraphs</b>	14	39	48	69	57	50	103	79	3	462
	20%	34%	34%	39%	35%	35%	53%	54%	60%	40%
<b>Total Challenges</b>	70	114	143	178	161	144	193	145	5	1153

$p < 0.010^*$

\*Excluding 2016

Courts that invoke the “presumptively lawful” regulations paragraphs are much more likely (71 percent versus 45 percent) to devote more than three paragraphs to Second Amendment analysis, suggesting perhaps that *Heller*’s exceptions are not being used as a shortcut to avoid scrutiny. Moreover, the proportion of cases devoting more than three paragraphs of analysis to the Second Amendment challenge has not changed noticeably since *Heller*, and in fact was higher in 2015 than in 2009.

Table 11: Number of Paragraphs Devoted to Second Amendment Discussion

	Opinion year									Total
	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Three Paragraphs or Less	27	58	62	62	58	61	69	54	2	453
	39%	51%	43%	35%	36%	42%	36%	37%	40%	39%
More Than Three Paragraphs	43	56	81	116	103	83	124	91	3	700
	61%	49%	57%	65%	64%	58%	64%	63%	60%	61%
Total Challenges	70	114	143	178	161	144	193	145	5	1153

$p > 0.10^*$

\*Excluding 2016

Identifying the content of that analysis presents challenges. It is often said, both by critics and supporters, that the courts of appeals have universally adopted a two-part test for analyzing Second Amendment claims.<sup>241</sup> But only a minority of the challenges in our dataset (41 percent) explicitly involved that test.<sup>242</sup>

There are good reasons to suppose that these results underreport the influence and adoption of the two-part test, however, at least within the federal courts. Just 32 percent of state appellate challenges applied the two-part test, compared with 46 percent of federal challenges. Moreover, as in other areas, courts may not be explicit when they are using the two-part test—many of the cases that involve the application of tiered scrutiny might actually be instances of courts assuming coverage and skipping to the second step.<sup>243</sup> Finally, the percentage of

241. See *supra* notes 87–88 and accompanying text.

242. Use of the two-part test increased from 2009 to 2010, when the test was first articulated in *United States v. Marzzarella*, 614 F.3d 85, 89 (3d Cir. 2010). But, interestingly, our coders identified fifty-five cases in 2008 and 2009 that applied the two-part test, suggesting that *Marzzarella* effectively codified a test that was already in use, rather than creating one from scratch.

243. The dataset shows one hundred challenges involving application of scrutiny but not the two-part test. Reviewing these cases confirms that courts seem to be following the basic outlines of the two-part test even when they do not say so explicitly. The First Circuit, for example, does not seem to have officially adopted the two-part test, and none of its decisions in our dataset are coded as applying it. But in *United States v. Booker*, 644 F.3d 12 (1st Cir. 2011), the court apparently assumed that the conduct at issue was covered and went on apply heightened scrutiny.

cases applying the two-part test increased steadily after 2012. This may reflect the growing impact of circuit opinions expressly adopting this decisional framework.<sup>244</sup> Of the nine circuits that expressly adopted the two-part test, six did so in 2011 or later.<sup>245</sup>

Table 12: Application of Two-Part Test

	Opinion year									Total
	2008	2009	2010	2011	2012	2013	2014	2015	2016	
<b>Applies Two-Part Test</b>	27	28	52	84	65	61	84	66	2	469
	39%	25%	36%	47%	40%	42%	44%	46%	40%	41%
<b>Does Not Apply Two-Part Test</b>	43	86	91	94	96	83	109	79	3	684
	61%	75%	64%	53%	60%	58%	56%	54%	60%	59%
<b>Total Challenges</b>	70	114	143	178	161	144	193	145	5	1153

p < 0.10\*

\*Excluding 2016

Our data provides support for the proposition—occasionally phrased as a complaint—that original historical analysis is not the sole driving force in Second Amendment cases.<sup>246</sup> In just a small minority

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Similarly, in *Hightower v. City of Boston*, 693 F.3d 61 (1st Cir. 2012), the court held that the Second Amendment “claim fail[ed] whatever standard of scrutiny is used, even assuming there is some Second Amendment interest in carrying the concealed weapons at issue.” *Id.* at 74.

244. See *United States v. Chovan*, 735 F.3d 1127, 1136 (9th Cir. 2013); *Nat’l Rifle Ass’n of Am., Inc. v. Bureau of Alcohol, Tobacco, Firearms, & Explosives*, 700 F.3d 185, 194 (5th Cir. 2012); *GeorgiaCarry.Org, Inc. v. Georgia*, 687 F.3d 1244, 1261 n.34 (11th Cir. 2012); *United States v. Decastro*, 682 F.3d 160, 163–64 (2d Cir. 2012); *United States v. Greeno*, 679 F.3d 510, 518 (6th Cir. 2012); *Heller II*, 670 F.3d 1244, 1252 (D.C. Cir. 2011); *United States v. Chester*, 628 F.3d 673, 680 (4th Cir. 2010); *United States v. Reese*, 627 F.3d 792, 800–01 (10th Cir. 2010); *Marzzarella*, 614 F.3d at 89. We omit the Seventh Circuit from this list. Though the Seventh Circuit purported to adopt the test in *Ezell v. City of Chicago*, 651 F.3d 684, 700–04 (7th Cir. 2011), subsequent circuit precedent has opted for other doctrinal frames. For instance, in *Friedman v. City of Highland Park, Ill.*, 784 F.3d 406 (7th Cir. 2015), *cert. denied*, 136 S. Ct. 447 (2015), Judge Easterbrook explained:

[I]nstead of . . . decid[ing] what “level” of scrutiny applies, and how it works . . . we think it better to ask whether a regulation bans weapons that were common at the time of ratification or those that have “some reasonable relationship to . . . a well regulated militia,” and whether law-abiding citizens retain adequate means of self-defense.

*Id.* at 410 (citation omitted) (first citing *District of Columbia v. Heller*, 554 U.S. 570, 622–25 (2008); then citing *United States v. Miller*, 307 U.S. 174, 178–79 (1939)).

245. See *Chovan*, 735 F.3d 1127; *Nat’l Rifle Ass’n of Am., Inc.*, 700 F.3d 185; *GeorgiaCarry.Org, Inc.*, 687 F.3d 1244; *Decastro*, 682 F.3d 160; *Greeno*, 679 F.3d 510; *Heller II*, 670 F.3d 1244.

246. See *supra* note 91; see also *Peruta v. Cty. of San Diego*, 742 F.3d 1144, 1174–75 (9th Cir.

of challenges (16 percent) did the court cite historical sources from one of the periods we coded. Cited sources most commonly dated between 1935 and 1968 (in 116 of 184 challenges), and only twenty-nine challenges prompted citations to the pre-1791 sources that played a prominent role in *Heller*.<sup>247</sup>

Table 13: Citations to Historical Sources

	Opinion year									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
<b>Pre-1791 Sources</b>	3	3	7	3	6	0	5	2	0	29
<b>1791-1868 Sources</b>	2	5	6	4	6	4	10	5	0	42
<b>1869-1891 Sources</b>	5	9	10	7	5	5	7	2	0	50
<b>1892-1934 Sources</b>	2	8	8	7	8	4	7	4	0	48
<b>1935-1968 Sources</b>	5	11	26	19	24	4	13	14	0	116
<b>Total</b>	11	19	36	30	31	11	29	17	0	184
<b>Total challenges</b>	70	114	143	178	161	144	193	145	5	1153
<b>% Citing Hist. Sources</b>	16%	17%	25%	17%	19%	8%	15%	12%	0%	16%

p > 0.10\*

\*P-value calculated for last row: likelihood of citing any historical sources; excluding 2016

Interestingly for our chronological story, the quantity of these citations did not change as we had predicted during the course of the study. We had expected that historical analysis would be displaced by precedent. It appears that original historical analysis has more longevity, albeit less initial prominence, than we imagined.

Along the same lines, a similarly small percentage of challenges (18 percent) involved explicit consideration of whether a law was “longstanding” so as to fall within *Heller*’s exceptions. The data reflects no significant variation over time.

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2014), *rev'd on reh'g en banc*, 824 F.3d 919 (9th Cir. 2016) (“In light of *Heller*, the Second Circuit erred in outright rejecting history and tradition as unhelpful and ambiguous, and the Third and Fourth Circuits erred in following suit.” (citation omitted)).

247. Some opinions cite from more than one historical period, which is why row values do not sum to total values in Table 12.

Table 14: Consideration of Whether Weapon Law is Longstanding

	Opinion year									Total
	2008	2009	2010	2011	2012	2013	2014	2015	2016	
<b>Considers Whether Law "Longstanding"</b>	15	21	21	39	25	25	25	33	1	205
	21%	18%	15%	22%	16%	17%	13%	23%	20%	18%
<b>Does Not Consider Whether Law "Longstanding"</b>	55	93	122	139	136	119	168	112	4	948
	79%	82%	85%	78%	84%	83%	87%	77%	80%	82%
<b>Total Challenges</b>	70	114	143	178	161	144	193	145	5	1153

p &gt; 0.10\*

\*Excluding 2016

If not originalism, on what basis are courts deciding Second Amendment cases? One possibility, as suggested above, is that they are increasingly relying on the ever-growing body of controlling precedent. And yet the proportion of cases in which courts expressly held that the Second Amendment issue was already decided by a controlling opinion has remained near constant and has always been low, representing only 239 total cases, no higher than 25 percent in any given year (29 of 114 in 2009). That said, this variable seems susceptible to undercoding—in only forty-eight cases did the court characterize the issue as one of first impression, leaving roughly three-quarters of the challenges coded as being neither expressly controlled by precedent nor involving issues of first impression.

*Table 15: Challenges Governed by Controlling Opinions*

	Opinion year									Total
	2008	2009	2010	2011	2012	2013	2014	2015	2016	
<b>Controlling Opinion</b>	11	29	35	39	28	27	40	28	2	239
<b>Total Cases</b>	70	114	143	178	161	144	193	145	5	1153
<b>Percentage</b>	16%	25%	24%	22%	17%	19%	21%	19%	40%	21%

$p > 0.10^*$

\*Excluding 2016

There has been, however, at least one noticeable change in the doctrine over time: an increasing application of levels-of-scrutiny analysis. Challenges decided by levels-of-scrutiny analysis still represent a minority—just 29 percent of the entire dataset—but the proportion generally increased during the study period.

Table 16: Success Rates and Trends for Levels-of-Scrutiny Analysis

	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
<b>Strict Scrutiny</b>	0/4	0/4	0/2	0/1	1/2	0/1	2/9	2/3	0/1	5/27
	0%	0%	0%	0%	50%	0%	22%	67%	0%	19%
<b>Intermediate Scrutiny</b>	0/1	1/6	1/28	0/38	2/45	4/41	5/50	11/33	0/0	24/242
	0%	17%	4%	0%	4%	10%	10%	33%	0%	10%
<b>Rational Basis Review</b>	0/0	0/1	0/2	0/1	0/2	0/1	0/3	0/0	0/0	0/10
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>“Reasonableness” Review</b>	0/0	0/0	1/1	0/2	0/1	0/0	0/6	0/2	0/0	1/12
	0%	0%	100%	0%	0%	0%	0%	0%	0%	8%
<b>Applied a Level-of-Scrutiny Analysis, But Did Not Specify</b>	0/3	0/2	1/2	1/7	2/7	0/9	4/10	0/1	0/0	8/41
	0%	0%	50%	14%	29%	0%	40%	0%	0%	20%
<b>Combined Scrutiny</b>	0/8	1/13	3/35	1/49	5/57	4/52	11/78	13/39	0/1	38/332
	0%	8%	9%	2%	9%	8%	14%	33%	0%	11%
<b>Total Challenges</b>	70	114	143	178	161	144	193	145	5	1153
<b>Percentage Applying Scrutiny</b>	11%	11%	24%	28%	35%	36%	40%	27%	20%	29%

$p < 0.025^*$

\*P-value calculated on final row: percentage of challenges facing scrutiny analysis; excluding 2016

Intermediate scrutiny has been the most prevalent form of scrutiny, no matter which category of court one considers. As between the court systems, when levels-of-scrutiny analysis is applied, federal appellate courts select intermediate scrutiny 79 percent of the time, more frequently than federal district courts (74 percent of the time) and state appellate courts (68 percent). Contrary to the common assertion, application of intermediate scrutiny has not invariably been fatal to Second Amendment claims. In fact, challenges subject to intermediate scrutiny prevailed at a rate (10 percent) slightly higher than the overall success rate for Second Amendment claims (9 percent). Obviously the two variables are related—the former being a subset of the latter—but since intermediate scrutiny cases only account for 21 percent of the overall set, they are not entirely confounding. Claims triggering strict scrutiny succeeded at a higher rate (19 percent), but strict scrutiny was far from fatal to challenged weapon laws.<sup>248</sup> Fully understanding those victories, however, requires a closer look at the subset of successful Second Amendment challenges, which is the subject of the next Part.

#### IV. WHAT MAKES FOR A SUCCESSFUL SECOND AMENDMENT CHALLENGE?

There are innumerable reasons why a court might reject a Second Amendment challenge—perhaps it was brought by a felon (273 challenges) and therefore governed directly by *Heller*, or perhaps the government has shown that the law sufficiently furthers a sufficiently strong government interest (237 challenges). Particularly in light of the low success rate, the most interesting set of challenges are the exceptions: those that *have* succeeded.<sup>249</sup> What do they have in common? What can they tell us about Second Amendment doctrine?

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248. Cf. Adam Winkler, *Fatal in Theory and Strict in Fact: An Empirical Analysis of Strict Scrutiny in the Federal Courts*, 59 VAND. L. REV. 793, 869–71 (2006) (concluding that challenges subject to strict scrutiny succeed at different rates, depending on the right invoked and other specified factors).

249. As noted above, our analysis in this section focuses not on cases, but on *challenges*—of which one opinion might address many. See, e.g., *Ezell v. City of Chicago*, 70 F. Supp. 3d 871, 875, 882 (N.D. Ill. 2014) (addressing separately each of the plaintiffs' eleven separate Second Amendment claims).



### A. High-Level Observations

About two-thirds of successful challenges in the dataset are at the appellate level (70 out of 108). And of those, the appellate court rejected at least part of the lower court's Second Amendment holding 96 percent of the time. This suggests that, at least in these cases, the appeals courts are not acting as rubber stamps after trial courts dismiss Second Amendment claims.

Table 17: Affirmance Rates in Successful Appeals

	Federal Appellate Court	State Appellate Court	Total
<b>Affirmed</b>	1 3%	2 5%	3 4%
<b>Did Not Affirm</b>	12 41%	19 46%	31 44%
<b>Affirmed in part</b>	16 55%	20 49%	36 51%
<b>Total</b>	29	41	70

Within federal courts of appeals, about 96 percent of successes came out of the Second, Fourth, Seventh, Ninth, and D.C. Circuits—far higher than the 54 percent (119 of 219) of Second Amendment cases heard by those circuits. These are circuits where states with relatively strict gun laws are located,<sup>250</sup> so it may well be the case that other circuits have fewer Second Amendment “wins” because they do not have as many strict gun laws to challenge. For example, challenges to municipal gun regulations succeed more frequently than challenges to state or federal regulations (22 percent versus 12 and 3 percent), and municipal gun regulation is strictly preempted in every state outside of the circuits listed above.<sup>251</sup> Regardless of such discrepancies, the relatively high proportion of successes in the Second, Fourth, Seventh, Ninth, and D.C. Circuits is consistent with the view that these courts are not in open rebellion against the Second Amendment.<sup>252</sup>

250. See *supra* notes 190–94 and accompanying text.

251. Jon S. Vernick & Lisa M. Hepburn, *State and Federal Gun Laws: Trends for 1970–99*, in *EVALUATING GUN POLICY: EFFECTS ON CRIME AND VIOLENCE* 345, 349 (Jens Ludwig & Philip J. Cook eds., 2003).

252. See *supra* note 64 and accompanying text.

Table 18: Successful Challenges by Circuit

Circuit	Successful Challenges	Circuit	Successful Challenges
<b>First</b>	0 (0%)	<b>Seventh</b>	3 (11%)
<b>Second</b>	2 (7%)	<b>Eighth</b>	0 (0%)
<b>Third</b>	0 (0%)	<b>Ninth</b>	4 (14%)
<b>Fourth</b>	4 (14%)	<b>Tenth</b>	0 (0%)
<b>Fifth</b>	0 (0%)	<b>Eleventh</b>	0 (0%)
<b>Sixth</b>	1 (4%)	<b>D.C.</b>	14 (50%)
		<b>Total</b>	28 (100%)

Six states and the District of Columbia account for all successes at the state appellate level, with the vast majority occurring in Illinois (68 percent). These are overwhelmingly a result of the decision in *Aguilar* striking down Illinois's public carry ban, which gave way to a deluge of attacks on past convictions for violating that law.

Table 19: Successful Challenges by State<sup>253</sup>

State	Successful Challenges	Percent of Total
<b>Connecticut</b>	2	5%
<b>District of Columbia</b>	5	12%
<b>Illinois</b>	28	68%
<b>Michigan</b>	2	5%
<b>North Carolina</b>	1	2%
<b>Ohio</b>	2	5%
<b>Wisconsin</b>	1	2%
<b>Total</b>	41	100%

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253. This chart omits states without any successful challenges.

### B. Doctrinal Observations

The way challenges are presented to the courts—either facially or as-applied<sup>254</sup>—matters, and the latter can be expected to have a higher rate of success.<sup>255</sup> That is certainly true of Second Amendment litigation in federal court, as the majority of all Second Amendment successes (66 percent) came in cases where at least one form of relief sought was as applied. State appellate litigation deviates from this pattern as a result of the high number of post-*Aguilar* opinions out of Illinois granting facial relief.

Table 20: Facial or As-Applied in Successful Challenges

	Federal Trial Court	Federal Appellate Court	State Appellate Court	Total
<b>Facial</b>	9 24%	9 31%	18 44%	36 33%
<b>As-applied</b>	14 37%	4 14%	6 15%	24 22%
<b>Both</b>	13 34%	13 45%	13 32%	39 36%
<b>Unspecified</b>	2 5%	3 10%	4 10%	9 8%
<b>Total</b>	38	29	41	108

Recent cases have expanded the availability of as-applied challenges in the Second Amendment context,<sup>256</sup> which suggests that the number of successful challenges is likely to rise as well.

Our evidence suggests that, within successful challenges, where

254. Michael C. Dorf, *Facial Challenges to State and Federal Statutes*, 46 STAN. L. REV. 236, 236 (1994) (“Conventional wisdom holds that a court may declare a statute unconstitutional in one of two manners: (1) the court may declare it invalid on its face, or (2) the court may find the statute unconstitutional as applied to a particular set of circumstances.”).

255. *Wash. State Grange v. Wash. State Republican Party*, 552 U.S. 442, 449–51 (2008) (explaining preference for as-applied challenges).

256. *Tyler v. Hillsdale Cty. Sheriff’s Dep’t*, 837 F.3d 678, 682 (6th Cir. 2016) (en banc) (permitting as-applied challenge to federal prohibition on possession by people subject to a prior involuntary mental health commitment, 18 U.S.C. § 922(g)(4) (2012)); *Binderup v. Att’y Gen. U.S.*, 836 F.3d 336, 356–57 (3d Cir. 2016) (en banc) (granting as-applied relief to plaintiffs challenging the federal felon-in-possession law, § 922(g)(1)). *But see* *Hamilton v. Pallozzi*, 848 F.3d 614, 626 (4th Cir. 2017) (rejecting analysis from *Binderup* and holding that “conviction of a felony necessarily removes one from the class of ‘law-abiding, responsible citizens’ for the purposes of the Second Amendment absent . . . narrow exceptions”).

the court finds that a law infringes on the “core” or “central component” of the right, the burden on the government increases. In 94 percent of the successful challenges where the court found that the burden was *not* on the core of the right, the court applied intermediate, as opposed to strict, scrutiny. Meanwhile, courts applied intermediate scrutiny only 14 percent of the time when a burden *did* fall on the core of the right. Otherwise, the court applied strict scrutiny (29 percent) or, more commonly, granted relief without making clear what standard the court was applying (57 percent).

*Table 21: Burden on Second Amendment “Core” vs. Level of Scrutiny in Successful Challenges*

	Strict Scrutiny	Intermediate Scrutiny	Rational Basis Review	“Reasonableness” Review	Applied a Level-of-Scrutiny Analysis, But Did Not Specify Which One	Total
<b>Burden on “core”</b>	4 29%	2 14%	0 0%	0 0%	8 57%	14 100%
<b>Burden not on “core”</b>	1 6%	15 94%	0 0%	0 0%	0 0%	16 100%
<b>Total</b>	5	17	0	0	8	30

Only federal courts appear to regularly make the “core” inquiry: it was explicit in just four successful state appellate challenges, perhaps because fewer state courts are relying on the two-part test.

*Heller* looked to history to strike down the District of Columbia’s handgun ban. Since then, briefs, scholars, and litigants have debated whether history supports one side or the other in Second Amendment cases.<sup>257</sup> Courts explaining why Second Amendment challenges succeed cite to historical sources (defined as non-case-law sources from before 1968) 20 percent of the time, a slightly higher proportion than the set as a whole (16 percent). This suggests that judicial historical

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257. *Compare* Brief for Everytown for Gun Safety as Amici Curiae Supporting Appellees and Affirmance at 10–27, *Wrenn v. District of Columbia*, 864 F.3d 650 (D.C. Cir. 2017) (en banc) (No. 16-7025) (arguing historical evidence supports constitutionality of D.C. gun regulation), *with* Brief for National Rifle Association of America, Inc., as Amici Curiae Supporting Plaintiffs-Appellees and Affirmance at 10–15, *Wrenn v. District of Columbia*, 864 F.3d 650 (D.C. Cir. 2017) (en banc) (No. 16-7067) (arguing the contrary).

analysis may influence success in Second Amendment litigation, though we found no evidence of a significant relationship in regression.<sup>258</sup> A majority of these challenges cite to pre-1891 sources, which *Heller* deemed most probative. Federal courts are much more likely than state appellate courts to cite history when explaining why a Second Amendment claim prevails.

*Table 22: Historical Citations in Successful Challenges*

	Federal Trial Court	Federal Appellate Court	State Appellate Court	Total
<b>Pre-1791 Sources</b>	2	6	0	8
<b>1791-1868 Sources</b>	2	3	2	7
<b>1869-1891 Sources</b>	3	3	2	8
<b>1892-1934 Sources</b>	3	2	2	7
<b>1935-1968 Sources</b>	4	4	1	9
<b>Any Period</b>	10	9	3	22
<b>Total Successes</b>	38	29	41	108
<b>Percentage</b>	26%	31%	7%	20%

The two-part test was applied in 50 percent of successful challenges. Interestingly, that number jumps to 79 percent in federal appellate court, but drops to just 22 percent in state appellate court, a reflection that the two-part test is more prevalent in federal court.

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258. Cf. Richard A. Posner, *In Defense of Looseness: The Supreme Court and Gun Control*, NEW REPUBLIC, Aug. 27, 2008, at 35 (concluding that *Heller*'s approach was "not evidence of disinterested historical inquiry" but rather "evidence of the ability of well-staffed courts to produce snow jobs").

Table 23: Application of Two-Part Test in Successful Challenges

	Federal Trial Court	Federal Appellate Court	State Appellate Court	Total
<b>Court Applies Two-Part Test</b>	22	23	9	54
	58%	79%	22%	50%
<b>Court Does Not Apply Two-Part Test</b>	16	6	32	54
	42%	21%	78%	50%
<b>Total</b>	38	29	41	108

When the two-part test was applied in these cases, the court either applied heightened scrutiny to strike down the challenged policy (61 percent) or dealt with the case in another way. Federal appellate courts, for example, often remanded to district courts to apply heightened scrutiny in the first instance.

Table 24: Outcome of Two-Part Test in Successful Challenges

	Federal Trial Court	Federal Appellate Court	State Appellate Court	Total
<b>Found Second Amendment coverage and law failed heightened scrutiny</b>	19	8	6	33
	86%	35%	67%	61%
<b>Other</b>	3	15	3	21
	14%	65%	33%	39%
<b>Total</b>	22	23	9	54

### C. Regressions

The empirical results reported until this point include direct results and contingency tables for one or more coded variables. The former are simply the survey results, reported either in raw numbers or percentages. The latter give a basic view of the interaction between multiple variables.

We have also made use of another statistical modeling tool: regression analysis. Regressions can help demonstrate how a dependent variable—in our case, the success or not of a Second Amendment claim—changes when other, independent variables are changed. The basic idea is to establish which of many possible independent variables is most closely associated with changes in the

dependent variable. For example, regression analysis can help show not just whether success rates are higher in particular courts but whether, holding all else equal, filing a particular claim in one court as opposed to another will increase its odds of success.

But many variables are related—the impact, or odds multiplier, of one variable can have an impact on another. This complicates the analysis. One way to capture these interrelationships is through the use of multiple regression: identifying a cluster of independent variables and testing them simultaneously. The calculation and interpretation of results are complex when using multiple regression analysis, precisely because of the possible interrelationship between those variables. Multiple regression is therefore especially sensitive to the choice of independent variables—a strongly predictive variable can be weaker, or even negative, with the addition of other variables.

Using fixed effects logit models and with the assistance of an empiricist,<sup>259</sup> we tested five clusters of independent variables to see if and how well they predict success. We settled on these five models after initially testing a larger range of variables and ruling out those that were not predictive, statistically significant, or otherwise noteworthy. We plan to return to those variables in future work. The results are contained in Table 25.

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259. *See generally* PAUL D. ALLISON, *FIXED EFFECTS REGRESSION MODELS* (2009). We owe an enormous debt of gratitude to Guangya Liu of the J. Michael Goodson Law Library at Duke Law School for her help in designing and performing the regression analysis.

Table 25: Odds Ratios for Winning Second Amendment Challenges

	Model 1 (n=712)	Model 2 (n=662)	Model 3 (n=1,153)	Model 4 (n=1,153)	Model 5 (N=1,153)
<b>Year</b>	1.35	1.25	1.28	***	***
<b>Court</b>					
Federal Appellate (v. Federal Trial)	1.84	*			
Federal Appellate (v. State Appellate)		1.65	#		
<b>Authority</b>					
Civil (v. Criminal)			1.71	*	2.06
Authority Federal (v. State Authority)			0.37	**	
Authority Municipal (v. State Authority)			1.86	*	
Authority Other (v. State Authority)			0.40		
<b>Regulation</b>					
Who Bans (v. All Other Categories ("AOC"))				0.40	***
What Bans (v. AOC)				1.35	
Where Bans (v. AOC)				1.61	
When Bans (v. AOC)				0.40	#
How Bans (v. AOC)				1.34	
Public Carry (v. AOC)				3.72	***
Business Registration (v. AOC)				0.60	
Firearm registration (v. AOC)				1.62	#
Official Action (v. AOC)				0.00	
Miscellaneous (v. AOC)				0.00	
<b>Doctrinal</b>					
3 Paragraphs or less (v. > 3 Paragraphs)					0.44
Invoke <i>Heller</i> ¶s re Presumptive Lawful Regs (v. Did Not)					0.97
Apply Two Part Test (v. Did Not)					1.29
Apply Scrutiny Analysis (v. Did Not)					1.10
Find Burden on Core of Right (v. Did Not)					5.76

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , #  $p < .10$   
 Note: Variables were entered one at a time in Models 4 and 5 but presented in one model for space purposes. Odds ratios for year varied slightly by variable in these models, but were always statistically significant at  $p < 0.001$ .



Models 1 and 2 seek to test the hypothesis, explicit in a common critique of Second Amendment case law,<sup>260</sup> that federal appellate courts are especially resistant to granting Second Amendment relief. Contrary to that theory, Models 1 and 2 show that litigation in federal appellate courts is correlated with success, not failure, as compared to litigation in federal trial courts or state appellate courts. If a Second Amendment challenge is litigated in federal appellate court as opposed to state appellate court, the odds of success increase by 65 percent. If the challenge is litigated in federal appellate court as opposed to federal trial court, the odds of success increase by 84 percent. These models suggest that claims about neglect of the Second Amendment right in the federal appellate courts are overblown.

Of course, the venue of litigation is not the only important driver of success or failure. Other substantive factors matter, and rightly so. Models 3 and 4 seek to test some of them. Model 3 includes variables relating to the context in which a challenge is brought (civil versus criminal) and the authority for the challenged law, policy, or official action, be it state, federal, municipal, or other. Three sets of variables stand out as having a statistically significant impact on success.<sup>261</sup> First, a civil claim is 71 percent more likely to succeed than a criminal claim. Second, challenges to federal laws, as opposed to state laws, correspond with a 63 percent decrease in the odds of success. Third, challenges to municipal laws, as opposed to state laws, correspond with an 86 percent increase in the odds of success.

Model 4 asks whether the category of law matters. In this model, two categories returned statistically significant results at the  $p < 0.05$  level. Challenges to “who” bans, as opposed to the other categories, are 60 percent less likely to succeed. This is consistent with our analysis of Table 7, and the fact that 96 percent of challenges to “who” bans failed during the study period.

Challenges to public carry regimes, by contrast, have a higher rate of success than the average Second Amendment case—a result that increases when one controls for year. As noted in Table 7, these challenges have prevailed 22 percent of the time—roughly two and a half times the overall success rate—and our regression reflects that

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260. See *supra* notes 64–83 and accompanying text.

261. Not all variables we tested in these models returned statistically significant results. We consider statistically significant those variables that returned a  $p$ -value less than 0.05, which is a commonly accepted threshold. See ALLISON, *supra* note 259. Such variables are indicated with \*\*\*, \*\*, or \* in Table 25.

they multiply the odds of success by 3.72.

But success is not static across public carry subcategories, and much of the high success rate can be attributed to litigation involving bans on public carry in Illinois and the District of Columbia. In particular, challenges to the Illinois and D.C. bans are almost 16 times more likely to succeed than challenges to other types of public carry restrictions. Compared to the entire universe of gun laws in the database, challenges to these public carry bans are close to 19 times more likely to succeed. Challenges to permitting schemes for open or concealed carry, meanwhile, are 74 percent less likely to succeed than challenges to public carry bans.

Finally, Model 5 looks at select doctrinal considerations. Our goal with this model was to test whether certain doctrinal features are related to the success of Second Amendment claims. We selected these variables based in part on our own sense of what would likely correlate with success (for example, a finding that a regulation touches on the “core” of the Amendment) and a preliminary regression of many doctrinal variables.

The results confirm that certain factors relating to how a court considers Second Amendment claims point to success or failure. Two factors stood out as particularly significant. First, challenges that spawn less than three paragraphs of attention have a 56 percent lower chance of winning. Second, if the court concludes that the challenged regulation burdens the “core” of the right to keep and bear arms, the odds of success multiply by 5.76.

These simple models represent five different ways to understand the factors driving the success or failure of Second Amendment claims. They are by no means the only ways to do so, and in future work we plan to pursue deeper analysis of these and other variables.

## CONCLUSION

In important ways, the Second Amendment belongs increasingly to lawyers and legal analysis. The Supreme Court’s decision in *District of Columbia v. Heller* presented judges, advocates, and scholars with a remarkable responsibility and opportunity to construct constitutional doctrine regarding the right to keep and bear arms. Over the past decade, more than one thousand opinions, scores of scholarly books and articles, and innumerable public and private debates show that this task is well underway. We have attempted to provide an empirical account of where the doctrine is and how it got there.

That does not mean that Second Amendment doctrine can be reduced to an equation or that it is susceptible to the kind of soundbite analysis that some advocates urge. But our analysis does suggest at least a few major observations:

*The low success rate of Second Amendment claims does not show that the right is being underenforced.* It has become an article of faith in some quarters that courts are refusing to enforce the Second Amendment right articulated in *Heller*.<sup>262</sup> Fully evaluating this claim would require the establishment of a baseline that is beyond the scope of this paper.<sup>263</sup> But our data shows that the low rate of success probably has more to do with the claims being asserted than with judicial hostility to the right. Fully 24 percent of the challenges in our set are to felon-in-possession laws, all but 1 percent of which are failures—a result easily reconciled with *Heller*'s plain text. In fact, a clear majority of the challenges—742 of 1,153—arose in criminal cases, in which defense counsel might be expected to raise any nonsanctionable defense. The low rate of success in those cases (6 percent) and the 126 cases involving *pro se* litigants (2 percent) pulls down the success rate as a whole.

*The Second Amendment is becoming more “legalistic.”* Since *Heller*, Second Amendment cases have made increasing use of the common tools of constitutional doctrine. *Heller*'s own reference to “presumptively lawful” regulations is cited in 60 percent of the cases in our dataset. A steadily increasing percentage of courts—and a solid majority of federal courts of appeal—have applied the two-part test<sup>264</sup> or a levels-of-scrutiny analysis<sup>265</sup> familiar to other areas of constitutional law.

*The doctrinal landscape is more diverse, nuanced, and interesting than many suppose.* In the ten years since *Heller*, many broad and confident assertions have been made about Second Amendment doctrine, including by the authors of this paper: that it is governed by history, that the two-part test has been universally adopted, or that intermediate scrutiny is a rubber-stamp for regulation. Our data shows that the reality is far more complex—neither history<sup>266</sup> nor the two-part

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262. See *supra* Part I.B.1.

263. See *supra* notes 79–81 and accompanying text.

264. See *supra* Table 12.

265. See *supra* Table 16.

266. See *supra* Table 14.

test<sup>267</sup> control the field, and intermediate scrutiny challenges actually succeed at a higher rate than the set as a whole.<sup>268</sup> One possible interpretation of this is that Second Amendment doctrine exhibits the kind of complexity and demands the kind of attention as that of the First Amendment and others.

*Litigation, and especially successful litigation, is not evenly distributed geographically or across court systems.* The Second Amendment is, in many ways, a profoundly regional Amendment. Two courts account for about one-third of the challenges in the federal courts of appeal; four states account for 68 percent of the state appellate challenges.<sup>269</sup> Unsurprisingly, these circuits and states are among those with comparatively stringent gun control.<sup>270</sup> Many also have relatively high success rates, both in absolute terms and proportionally.<sup>271</sup> Moreover, a solid majority of Second Amendment litigation occurs in state courts (441 of 662 appellate challenges), although those cases rarely garner attention in scholarship.

*Party identity matters.* The success rate of Second Amendment claims is highly correlated with who makes them, and whether and how they are represented. Civil litigants succeeded two and half times more often than criminal defendants.<sup>272</sup> Represented civil plaintiffs had a success rate of 40 percent in the federal appellate courts.<sup>273</sup> These trends are likely due, at least in part, to case selection: civil attorneys are selecting better cases to litigate.

In addition to identifying these baselines, we also hope to have highlighted trends and issues that warrant further study, and which our dataset might help address.<sup>274</sup> Future projects might pursue the attitudinalist angle, seeking to determine whether judicial ideology has more explanatory or predictive power than the doctrinal variables we have identified. Or, perhaps with the aid of deeper qualitative analysis, scholars might be able to further explain why so many apparently weak

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267. See *supra* Table 12.

268. See *supra* Table 16 (10 percent for intermediate scrutiny cases, as compared to 9 percent for the set as a whole).

269. See *supra* notes 189–94 and accompanying text.

270. *Id.*

271. See *supra* Tables 2 & 3.

272. See *supra* Table 4. It would, of course, be equally proper to call this a difference in the substance of the claim, not party identity.

273. See *supra* note 202 and accompanying text.

274. Hall & Wright, *supra* note 17, at 87 (identifying this as a basic purpose of content analysis).

Second Amendment claims are filed in the first place.

While our primary goal has been to investigate Second Amendment doctrine empirically, doing so inevitably raises broader questions—and at least some lessons—about doctrinal empiricism more broadly. We place ourselves squarely in the camp of those who believe that careful, systematic study of case content can yield valuable insights about the development and content of law.