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The Urgent Need for Legal Scholarship on Firearm Policy

DRU STEVENSON

Restrictions on federal funding for research pertaining to firearm policy have stymied academic inquiry by social science and public health researchers for over two decades. As a result, most researchers agree that our public discourse about this urgent issue is woefully under-informed, or even ill-informed, on both sides of the debate. Legal academia, which does not operate under the same grantwriting regime as most other disciplines, can and should help fill this gap in researching and theorizing the unresolved questions related to firearm policy. In fact, theoretical development and clarification from the legal academy is often a necessary antecedent for empirical researchers in other fields to frame and develop their own studies properly, especially about the real-world effects of competing policy approaches to firearms. This Essay sets forth a plea to law professors to undertake much-needed research in this area and offers suggestions of understudied topics with low entry barriers for legal commentators. Recommendations for interdisciplinary collaborative efforts round out this discussion. A brief conclusion reaches the endgame issue: ensuring access to the work we produce.

I. Introduction

This Essay is a plea for more legal scholarship about gun prevalence, gun violence, and the legal system's response. Public discourse on this topic suffers from a chronic dearth of reliable data, even-handed analysis, or truly innovative policy proposals.¹

Federal law currently restricts research funding for studies or scholarship that could somehow support "gun control." For the last twenty years—the same period when mass shootings became an epidemic and annual gunshot fatalities reached parity with annual traffic fatalities—the CDC, the NIH, and other federal agencies that normally fund research have refused to fund much-needed studies about gun violence and gun prevalence. 3 Commonly known as the Dickey Amendment, 4 the funding restriction takes the form

^{1.} See RAND CORP., Improving Gun Policy Science, https://www.rand.org/research/gun-policy/essays/improving-gun-policy-science.html.

^{2.} See Kristin A. Goss, Disarmed 87–89 (2006) (chronicling the CDC's gradual entrance into the treatment of gun violence as a public health or epidemiological problem, and the N.R.A.'s stunningly successful maneuvers to defund, delegitimize, and deprive federal agencies of the money or statutory authority to conduct investigations into firearm prevalence or gun violence); DAVID HEMENWAY, PRIVATE GUNS PUBLIC HEALTH xiv—xvi (2d ed. 2017); IGOR VOLSKY, GUNS DOWN 116–18 (2019) (describing the funding restrictions and arguing for the need for more research grants) Arthur L. Kellermann & Frederick P. Rivara, Silencing the Science on Gun Research, 309 JAMA 549 (2013).

^{3.} See Donald L. Flexner, Why the Civilian Purchase, Use, and Sale of Assault Weapons and Semiautomatic Rifles and Pistols, Along With Large Capacity Magazines, Should Be Banned, 20 N.Y.U. J. Legis. & Pub. Poly 593, 606 n. 76 (2017) ("One reason for the lack of research on the AWB is that the U.S. Centers for Disease Control and Prevention (CDC) which, among other things, researches how violence affects public health, is legally prohibited from studying the role firearms play in American deaths. After the CDC began studying gun violence in the early 1990s, the NRA successfully lobbied for the Dickey Amendment . . "); Andrew J. McClurg, In Search of the Golden Mean in the Gun Debate, 58 How. L.J. 779, 786 (2015) ("The National Rifle Association (NRA) and other gun-rights advocates lobbied Congress to disband the CDC's National Center for Injury Prevention, the center that funded the research.").

^{4.} Dep't of Health and Human Servs. Appropriations Act of 1997, Pub. L. No. 104-208, 242–44, 110 Stat. 3009 (1996).

of an uncodified, perennial budget rider.⁵ The grantmaking agencies interpret the prohibition verbiage more broadly than most courts would,⁶ so that even after an Executive Order from President Obama encouraging research about "causes of gun violence," and revised verbiage in the Amendment stating the same, the grantmaking agencies remain reticent,⁷ funding only a handful of research projects at major universities, compared to hundreds of grants for trendier topics.⁸ Prominent statisticians and other analysts have recently decried the unreliability and instability of the data provided by the CDC about firearm incidents⁹—but

^{5.} Former Congressman Jay Dickey, the amendment's namesake, now regrets placing restrictions on gun violence research, writing in an op-ed that "scientific research helped reduce the U.S. motor vehicle death rate and save hundreds of thousands of lives - all without getting rid of cars." Jay Dickey & Mark Rosenburg, *Time for Collaboration on Gun Studies*, WASH. POST (Jan. 24, 2016), archive.commercialappeal.com/opinion/analysis/jay-dickey-and-mark-rosenberg-time-for-collaboration-on-gun-studies-27fc4279-5045-04ca-e053-0100007f-366283301.html (calling for significant increases in funding for research on means of preventing gun violence).

^{6.} See Allen Rostrond, A New State Ice Age for Gun Policy, 10 HARV. L. & POLY REV. 327, 359 (2016) ("Although the amendment merely prohibited studies that advocate or promote gun control and therefore did not necessarily block all funding of research on gun violence, the amendment and related threats to slash CDC's budget were a 'shot fired across the bow' that intimidated researchers and deterred CDC from supporting any work that might be perceived as antigun.").

^{7.} See Marian E. Betz, et al., Frozen Funding on Firearm Research: Doing Nothing Is No Longer an Acceptable Solution, 17 West. J. Emerg. Med 91 (2016).

^{8.} See Sandro Galea, et al., Priorities in Recovering From a Lost Generation of Firearms Research, 108 Am. J. Pub. Health 858 (2018), https://ajph. aphapublications.org/doi/pdf/10.2105/AJPH.2018.304436; Jonathan M. Metzl, Repeal the Dickey Amendment to Address Polarization Surrounding Firearms in the United States, 108 Am. J. Pub. Health 864 (2018), https://ajph. aphapublications.org/doi/pdf/10.2105/AJPH.2018.304461; Allen Rostron, The Dickey Amendment on Federal Funding for Research on Gun Violence: A Legal Dissection, 108 Am. J. Pub. Health 865 (2018), https://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2018.304450.

^{9.} See Hemenway, supra note 2, at xiv (describing the National Violent Death Reporting System (NVDRS) and the limitations due to its being unavailable in many states); see also Sean Campbell & Daniel Nass, 11 Senators Want To Know Why The CDC's Gun Injury Estimates Are Unreliable, FiveThirtyEight (Mar. 29, 2019, 4:00 PM), https://fivethirtyeight.com/features/

remember, the CDC continues to work with funding restraints on this subject. Due to similar statutory constraints, ATF data about firearms used in crimes are unavailable to researchers as well.¹⁰

Historically, law professors have left most of the empirical research about the effects of laws and policies to their counterparts in the social sciences: sociologists, decision theorists, forensic psychologists, economists. statisticians, and political science professors. Of course, there are exceptions and a modest trend toward empirical legal scholarship, but many of these projects either rely upon useful research from these other disciplines or have a coauthor from those disciplines. In the area of firearm regulations, such research is missing. Unlike law professors, research faculty in these other disciplines depend heavily on grants to fund their research projects—it is an entrenched part of the business model for these departments in the universities, as well as for think tanks and similar opportunities for academicians in non-law fields.

A categorical funding ban effectively shifts research to other topics, even for graduate students making their initial selection of a dissertation topic, and subsequent path dependence reinforces the funding disincentives. Compared to other policy issues of our time, these leave a substantial gap in research and available data. "Thus, much knowledge about firearms is lacking—there are few longitudinal data sets that have asked questions about firearms to help determine the risks and benefits of a gun in the home, or gun

¹¹⁻senators-want-to-know-why-the-cdcs-gun-injury-estimates-are-unreliable; Sean Campbell & Daniel Nass, *The CDC's Gun Injury Data Is Becoming Even Less Reliable*, FIVETHIRTYEIGHT (Mar. 11, 2019), https://fivethirtyeight.com/features/this-years-cdc-gun-injury-data-is-even-less-reliable-than-last-years; Sean Campbell, Daniel Nass & Mai Nguyen, *The CDC Is Publishing Unreliable Data On Gun Injuries; People Are Using It Anyway*, FIVETHIRTYEIGHT (Oct. 4, 2018, 5:58 AM), https://fivethirtyeight.com/features/the-cdc-is-publishing-unreliable-data-on-gun-injuries-people-are-using-it-anyway.

^{10.} See HEMENWAY, supra note 2, at xv.

carrying, over time."11 The RAND Corporation in 2018 conducted a thorough review of the academic literature addressing the effects of gun prevalence and regulation (from child-safety locks to waiting periods, and from background checks to taxation of firearms or ammunition)12—and concluded that there remained insufficient support for or against every gun policy except one. 13 RAND places the blame for this dearth of empirical research mostly on the Dickey Amendment (I will return below to what RAND and others are trying to do about this). 14 Legislators, regulators, and other policymakers operate under a veil of mandated ignorance about which policies are effective, and which are counterproductive. The National Academy of Sciences reached a similar conclusion in its overview of the extant empirical research in 2013: "Additionally, the lack of comprehensive datasets and the wide variety of sources and the fact that the data lead to contradictory conclusions call into question the reliability and validity of gun-violence data."15

^{11.} Id.

^{12.} See RAND CORP., More Research Could Help Prevent Gun Violence in America (July 10, 2018), https://www.rand.org/blog/rand-review/2018/07/more-research-could-help-prevent-gun-violence-in-america.html.

^{13.} See id.

^{14.} See id. In the mid-1990s, Congress zeroed out the budget for gun violence prevention at the Centers for Disease Control and Prevention (CDC) after some of its studies linked home gun ownership with higher rates of firearm deaths. Congress also prohibited the use of federal research funding to promote gun control. The CDC has since interpreted that rule, advocated by the National Rifle Association (NRA) and known as the Dickey Amendment, as an outright ban on most gun research. That has left mostly private foundations and universities to search for evidence about what works and what doesn't to prevent gun violence. Without government support, they also work without much government data. Researchers wanting to follow trends in gun ownership rates, for example, have had to try to estimate those numbers from hunting permits, firearm suicide rates, even subscriptions to Guns & Ammo magazine.

^{15.} THE INSTITUTE OF MEDICINE AND THE NATIONAL RESEARCH COUNCIL, PRIORITIES FOR RESEARCH TO REDUCE THE THREAT OF FIREARM-RELATED VIOLENCE 9 (Alan I. Leshner et al. eds. 2013). The report continues: "The predominant use

It gets worse. In many fields, the private corporate sector contributes to the advancement of knowledge through its own research and development, or through partnering with university researchers, such as the partnerships in the hard between university laboratories pharmaceutical, agribusiness, and oil companies. In terms of research about injuries and fatalities, the insurance industry conducts extensive actuarial and statistical research, both internally and externally, so that they can price their policies based on accurate assessments of risk—the likelihood and seriousness of foreseeable incidents and mishaps. For example, every year the nine largest providers of legal malpractice insurance collectively hire Ames & Gough, a risk consulting firm, to study the trends in legal malpractice payouts (many of which occur extrajudicially and would otherwise be undiscoverable). They provide a detailed report to the industry's leaders about the types of attorney mistakes or misconduct that generate the most claims, and the largest claims, as well as other trends in the size of payouts, the most hazardous areas of practice, precautionary suggestions, and so forth. 17 Such research is informative and useful, not only for insurers and their policyholders (the law firms), but also for the academy, for state bar ethics committees, and for the judiciary. The Ames & Gough studies also challenge some of the American Bar Association's own research about these same questions, which draws from entirely different data sources. 18

of research study designs that have limited ability to study causality, like case-control and ecological studies that aggregate data from sources and levels, have compounded the challenge faced by researchers and policy makers alike." *Id.* at 10. *See also id.* at 55 (describing how the lack of federal research funding has delayed the development of various gun safety features, such as "smart guns.").

^{16.} See Ames & Gough, LPLI 2018 Claims Survey: Legal Malpractice Claims Increase in Severity and Scope as Firms Adapt to Market Realities.

¹⁷ *Id*.

^{18.} See American Bar Association, Profile of Legal Malpractice Claims: 2012-2015 (2016).

No such studies about insurance claims or payouts are available regarding firearm injuries. Federal statutes currently provide immunity from liability for gun manufacturers¹⁹ in most cases. This statutory immunity preempts state tort law. Thus, insurers have little incentive to expend resources investigating the causes or trends in firearm injuries, as do firearm manufacturers. Private-sector funding is missing in this area, especially compared to other products and services that are susceptible to liability claims.

On the government side, there is little or no internal research by federal agencies themselves—even by the agencies that normally study and regulate health and safety.²⁰ Firearms and ammunition are not subject to the same safety testing or risk assessment that the Consumer Products Safety Commission conducts (and publishes) for virtually every other consumer item,²¹ or that the FDA conducts for pharmaceuticals and medical devices, or that the EPA would demand for pesticides and fungicides, or the manufacturing specifications the NHTSA requires for automobiles. No other product on the market causes as many deaths of both consumers and innocent bystanders while having no federal regulations requiring safety features, manufacturing specifications.²² warning labels. or

^{19.} See Protection of Lawful Commerce in Arms Act, Pub. L. No. 109-92, 119 Stat. 2095 (2005) (codified as amended at 15 U.S.C. §§ 7901–7903 (2012). See Soto v. Bushmaster Firearms Int'l, 202 A.3d 262 (Conn. 2019) for an important recent court decision regarding this statute. See also VOLSKY, supra note 2, at 90–91 (describing history and consequences of PLCAA).

^{20.} See Olivia Li, Cars, Toys, and Aspirin Have to Meet Mandatory Safety Standards. Guns Don't. Here's Why, The Trace (Jan. 19, 2016), https://www.thetrace.org/2016/01/gun-safety-standards/.

^{21.} See Philip J. Cook & Kristin A. Goss, The Gun Debate: What Everyone Needs to Know 123–24 (2014) (describing statutory exclusions for guns from consumer product safety regulations).

^{22.} See Volksy, supra note 2, at 94–96. Volsky explains the increasing problem with this information deficit: "The truth is, such oversight is more important now than ever before. Firearm manufacturers, in an effort to improve market share, are producing new products and militarized firearm accessories

Statutorily, the Consumer Product Safety Commission cannot conduct *any* research about guns, for example, whether a certain model is prone to accidental discharge.²³ N.R.A.-backed legislators ensured that the agency entrusted with reviewing accidental injuries and fatalities from consumer products could not evaluate the safety of any firearms or ammunition.²⁴

The legal academy is ideally situated to make valuable contributions to the public discourse about firearms. Professors at American law schools have an atypical degree of freedom to research and write about whatever we want—we normally do not have to apply for grants or special funding for our research. Most law schools provide summer writing stipends to their faculty (with complete freedom to pick any law-related topic of research), as well as research sabbaticals, reduced teaching loads, and federally-funded research assistants (work study recipients do not, as far as I know, have to report or disclose what subjects they researched for their respective professors).

We could, and should, help fill the gap in the research about gun violence, gun prevalence, and effective regulatory responses. We are fully funded researchers who can select our own research agendas. There is an urgent need for rigorous empirical research in this area, which a growing number of law professors know how to do. There is also an

that may actually be making guns more dangerous. These changes are designed to excite an already saturated consumer base as gun ownership rates are shrinking and the gun supply is increasingly concentrated in the hands of fewer people." *Id.* at 95.

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^{23.} See Consumer Product Safety Commission Improvements Act of 1976, Pub. L. 94-284, § 3(e), 90 Stat. 504 (1976) provided that: "The Consumer Product Safety Commission shall make no ruling or order that restricts the manufacture or sale of firearms, firearms ammunition, or components of firearms ammunition, including black powder or gunpowder for firearms." See also COOK & GOSS, supra note 21, at 123–24; VOLSKY, supra note 2, at 94–96.

^{24.} See Goss, supra note 2, at 78–79 (describing the legislative maneuvering in the 1970s to ensure that there would be no federal safety specifications or regulations for firearms or ammunition); VOLKSY, supra note 2, at 93–96.

urgent need for scholarship that utilizes more of the traditional toolbox of law professors—precisely defining crucial terms, delineating necessary exceptions to otherwise general rules, drafting model legislation, and drawing on the wealth of analogous research we already have on effective licensing and permitting policies, excise taxes, industrial reporting requirements, consumer protection, and so on.

Given the situation with funding prohibitions on other disciplines, those of us in the legal academy have a civic duty to make guns a higher priority in our research agendas. A few professors have recently made significant contributions on this topic, such as John Donahue,²⁵ Fredrick Vars,²⁶ Joseph Blocher,²⁷ and Darrell Miller.²⁸ Nevertheless, there is much more to do, and many more who could make valuable contributions to the scholarship.

Apart from our own scholarly endeavors, many of us advise law review editors about potential symposium topics; we give students in our seminar courses suggestions for their paper topics; and we mentor junior faculty in their early-career research. Those of us who supervise the student-

^{25.} See generally John J. Donohue, Abhay Aneja, & Kyle D. Weber, Right-to-Carry Laws and Violent Crime: A Comprehensive Assessment Using Panel Data and a State-Level Synthetic Control Analysis, 16 J. EMPIR. LEG. STUD. 198 (2019).

^{26.} Angela Selvaggio & Fredrick E. Vars, "Bind Me More Tightly Still": Voluntary Restraint Against Gun Suicide, 53 HARV. J. ON LEGIS. 671 (2016); see generally Fredrick E. Vars, Not Young Guns Anymore: Dementia and the Second Amendment, 25 ELDER L.J. 51 (2017); Fredrick E. Vars, Self-Defense Against Gun Suicide, 56 B.C. L. REV. 1465 (2015).

^{27.} See Joseph Blocher & Darrell A. H. Miller, The Positive Second Amendment: Rights, Regulation, and the Future of Heller (2018); Joseph Blocher, Firearm Localism, 123 Yale L.J. 82 (2013); Joseph Blocher & Darrell A. H. Miller, Lethality, Public Carry, and Adequate Alternatives, 53 Harv. J. Legis. 279 (2016); Joseph Blocher & Darrell A. H. Miller, What is Gun Control? Direct Burdens, Incidental Burdens, and the Boundaries of the Second Amendment, 83 U. Chi. L. Rev. 295 (2016); Eric Ruben & Joseph Blocher, From Theory to Doctrine: An Empirical Analysis of the Right to Keep and Bear Arms After Heller, 67 Duke L.J. 1433 (2018).

^{28.} See Darrell A. H. Miller, Text, History, and Tradition: What the Seventh Amendment Can Teach Us About the Second, 122 Yale L.J. 852 (2013).

edited journals at our law schools should encourage them to accept or solicit more (serious) articles in this area. When our counterparts in the social sciences do in fact publish scholarship in their peer-review journals, their publications are not available to the public free of charge—the peer-review journals usually make online readers purchase the article for an unreasonable fee. In the legal academy, many of us post our manuscripts on the Social Science Research Network (freely available to the public), in addition to publishing them in law reviews. We have more freedom to make our research available to the public than those in other disciplines, and the public needs better information about guns and gun policy. Many law professors have widely read blogs; almost none of them blog about this.

In the following section, Part II, I lay out some areas that would be particularly well-suited for research and commentary by law professors. Of course, there are many angles from which we could, and hopefully will, approach the complex problem of pervasive gun violence, which includes suicides. I suggest three areas that should have low entry barriers for those in the legal academy.

First, taxation of firearms and ammunition is a surprisingly neglected subject in the legal literature, and there is little understanding of the current excise tax regime inside or outside of the legal academy. Yet there are many law professors who have expertise in excise taxes, sales taxes, use taxes, and special corporate tax penalties, and could easily apply that expertise to the firearm and ammunition industry. Tax professors are also familiar with some of the thornier issues of tax policy—the effects of excise or sales taxes on secondary markets (legal or illegal), elasticity of consumer demand, Pigouvian tax theory, Tiboutian theory of competitive tax regimes, tax compliance and enforcement, and the legislative process for modifying an existing tax regime, which is distinct from other legislative enactments.

The other two suggested starting points for legal academia are difficult definitional or conceptual issues: legitimate "defensive gun use," 29 which goes to the heart of the tradeoffs with gun prevalence, and state preemption laws,³⁰ which prohibit municipalities from having local ordinances about firearm sales, storage, or use. 31 The RAND researchers have singled out this former point as a consistent problem with sorting the existing data³²—statistics about incidents where guns "saved lives" or stopped a criminal unfortunately include criminals themselves using guns defensively against rival criminals, incidents where gun owners misperceive an imaginary threat and immediately resort to lethal force, and in gun owners who merely imagine that the guns in their possession probably deterred would-be criminals from ever attempting a crime in the first place. 33 It is important to develop a workable, legally precise definition of the operative terms before researchers can accurately evaluate the incidence or importance of defensive gun use. In other words, scholars familiar with the law of self-defense or defense of others, which includes numerous exceptions and limitations, could put that expertise to effective use in helping create a consensus about how to categorize incidents as one where a firearm saved the day.³⁴ Firearms present a host of fascinating, and poorly understood, legal issues besides the constitutional questions (mostly centered around

^{29.} RAND CORP., THE SCIENCE OF GUN POLICY: A CRITICAL SYNTHESIS OF RESEARCH EVIDENCE ON THE EFFECTS OF GUN POLICIES IN THE UNITED STATES 273-87 (2018); see generally BLOCHER & MILLER, supra note 27, at 152-54; Cook & Goss, supra note 21, at 17-19.

^{30.} See Goss, supra note 2, at 162–65 (describing the preemption movement as an N.R.A. strategy).

^{31.} See Blocher & Miller, supra note 27, at 189-90.

^{32.} See RAND, supra note 29, at 274-80.

^{33.} See Cook & Goss, supra note 21, at 19–20 (discussing the problems with survey data in this area, due to respondents' skewed perceptions).

^{34.} See id. at 19 ("More fundamentally, what constitutes a legitimate DGU may be a matter of definition.").

the Second Amendment and the judicial gloss it received in *Heller*).

Part III serves to familiarize academic readers with some encouraging new initiatives that bear on scholarly productivity, 35 such as the new National Collaborative on Gun Violence Research, which parallels and echoes the points I set forth in this piece, and the newly-established Center for Firearms Law at Duke Law School. The former commenced in 2018 with a generous grant by the Laura and John Arnold Foundation, and is a clearinghouse for new research on gun violence.³⁶ While the Collaborative is administered under the auspices and oversight of the RAND Corporation, the Arnold Foundation has pledged to provide generous funding to support the facilitation of conducting high-quality gun violence research.³⁷ I have three main reasons for introducing readers to this specific project. First, the website is a great launching pad for researchers new to this area.³⁸ It provides a balanced survey of the existing literature on various subtopics in the field and identifies many key areas for future research. In addition, the website can familiarize legal scholars with the terminology and nomenclatures essential to firearm research, and quickly get readers up to speed on the "knowns and unknowns" of gun policy. Second, some legal scholars would be good candidates for the Collective's proposed projects—I believe that if more law professors were familiar with the type of scholars and

^{35.} For a recent overview of private funding to fill in some of the gap created by the federal statutory restrictions, see Margot Sanger-Katz, *Gun Research is Suddenly Hot*, N.Y. TIMES (Apr. 17, 2019), https://www.nytimes.com/2019/04/17/upshot/gun-research-is-suddenly-hot.html.

^{36.} See Andrew R. Morral, Press Release, Gun Violence Research Collaborative to Release First Request for Research Proposals in January, Names Advisory Committee (Nov. 15, 2018), https://www.rand.org/news/press/ 2018/11/15.html.

^{37.} *Id*.

^{38.} See generally NATIONAL COLLABORATIVE ON GUN VIOLENCE RESEARCH, https://www.ncgvr.org (last visited Oct. 19, 2019).

researchers the Collective is seeking right now, they might be interested in applying. Third, the Collective's focus on empirical research will often be complementary to, rather than duplicative of, the work that law professors do, but this type of interrelationship is useful and important. Additionally, the Duke Center for Firearms Law has amassed an extremely helpful repository of historical gun laws that is searchable by state³⁹—a terrific resource for scholars writing in this area. Part III also includes a brief response to assertions by John Lott, a well-known advocate for increasing gun prevalence, that the curtailment of federal research funds is a "myth."

My brief Conclusion urges the legal academy to seek to remedy the underlying cause of the problem that has prompted this Essay—that is, we need to repeal (or more properly, remove) the Dickey Amendment from future budget bills. In the meantime, I urge both authors and law review editors alike to make special efforts to disseminate the research in this area without cost to the public, following the example of some of the most prestigious law review journals by providing digital archives on the journal's website. 40 In some cases, this may affect decisions about where or how to publish one's final work, or at least could be an added provision to the publication agreements we have with law reviews. This part of my proposal also encourages more law professors who have high-readership blogs to direct readers' attention to high-quality emerging scholarship about gun policy. Finally, I would encourage more law professors to participate in legislative drafting and lobbying projects—a crucial last step that the RAND-affiliated

^{39.} REPOSITORY OF HISTORICAL GUN LAWS, https://law.duke.edu/gunlaws/.

^{40.} See, e.g., STANFORD LAW REVIEW ONLINE, https://www.stanfordlawreview.org/online-archive/ (last visited Oct. 19, 2019); UNIVERSITY OF PENNSYLVANIA LAW REVIEW PRINT EDITION, https://www.pennlawreview.com/print/ (last visited Oct. 19, 2019); YALE LAW JOURNAL FORUM, https://www.yalelawjournal.org/forum (last visited Oct. 19, 2019).

researchers are unlikely to do.

A final note before proceeding to the next section: I will not take space here to recount the sickening series of mass shootings in recent years, or the general prevalence of gun homicides and suicides every year, as my readers must already be aware of this and other articles have covered these grounds in detail.⁴¹ Nor will I spend any time decrying the National Rifle Association, or trying to convince readers of the organization's wealth and political influence, which seems excessively obvious. My goal is to wake up the legal academy to the special role that law professors can, and must, have in elevating the public discourse about guns despite the current stalemate.

II. THREE UNDERSTUDIED SUBJECTS

This section sets forth three areas that would be particularly well-suited for research and commentary by law professors, though this is only a start—the RAND website has a much longer list of topics that desperately need more scholarly research. I selected these three because they are areas that should have low entry barriers for those in the legal academy—they draw on the legal academician's current knowledge base—and because they present issues that might prove more difficult or unfamiliar to researchers in other social science disciplines.

A. Taxation

Taxation of firearms or ammunition comes up in proposals (academic and non-academic) for controlling gun violence, but there is little or no discussion in the legal academic literature about the current tax regime that is already in place, how well it is working, or whether

^{41.} This is also not another essay about assault rifles; personally, I believe handguns are a much bigger problem in our society, and that handguns are no more useful, necessary, or justifiable than rifles.

incremental modifications to the current tax framework would make a difference. Moreover, taxation has enjoyed an upswing in popularity in the last few years as a regulatory experiment for reducing gun violence, with states and municipalities taking initiative.⁴² Legal challenges are underway and are already reaching the appellate courts—unfortunately, without a sturdy base of academic theorization of the issues involved.

Unsurprisingly, the firearms industry "opposes any legislation that would raise taxes on the sale of firearms and ammunition." The industry has three main arguments for their position: 1) given that bearing arms is a constitutional right, taxing the activity constitutes an unconstitutional poll tax; 2) criminals would not pay the taxes anyway, so the burden would fall entirely on law-abiding gun purchasers and would not reduce criminal gun use; and 3) the tax puts the jurisdiction at a competitive disadvantage, as purchasers will buy from other nontax jurisdictions, hurting local gun retailers and reducing tax revenue for the jurisdiction from their business tax. The constitutional argument (that gun taxes are a poll tax) merits further academic inquiry, but facially, it appears the *Heller* rubric permits at least the existing taxes on guns and ammunition. The local business

^{42.} Rachel Bade, New Gun Control Strategy: Tax 'Em, POLITICO (Apr. 9, 2013), https://www.politico.com/story/2013/04/guns-bullets-taxes-gun-control-tool-089782; Keith Wagstaff, Are High Taxes an Effective Form of Gun Control?, The Week (Apr. 9, 2013), https://theweek.com/articles/465774/are-high-taxes-firearms-effective-form-gun-control.

^{43.} Unintended Consequences of Firearm and Ammunition Taxes, NATIONAL SHOOTING SPORTS FOUNDATION, https://www3.nssf.org/share/factsheets/PDF/FirearmsTaxes.pdf (last visited Oct. 19, 2019). The NSSF is the trade association of the gun industry.

^{44.} See id.

^{45.} Hannah E. Shearer & Allison S. Anderman, Analyzing Gun-Violence-Prevention Taxes Under Emerging Firearm Fee Jurisprudence, 43 S. ILL. U. L.J. 157, 171–73 (2018) (discussing the court opinions to date upholding the constitutionality of gun taxes); see Blocher & Miller, supra note 27, at 335 ("If liability for negligence with a weapon, taxes on ammunition, or storage

burden is dependent, of course, on how localized the hypothetical tax would be. This could merely be an argument for federal versus state taxes, and state/regional taxes versus municipal. The second point brings up the complex issue of the price relationship between legal markets and black markets, discussed in the following paragraphs.

The federal tax regime for firearms is longstanding, unchanging, and outdated. Firearm manufacturers pay a ten percent tax, called the Firearms and Ammunition Excise Tax (FAET), on every handgun produced, and eleven percent on ammunition and other firearms, such as hunting rifles. 46 A separate statute, the National Firearms Act, 47 places a \$200 manufacturer tax on each machine gun or short-barrel shotgun produced or imported, a figure unchanged since its enactment in 1934.48 The manufacturers and importers pay these taxes, so presumably they factor into the retail price that consumers pay for a gun purchase. The Treasury Department's Alcohol and Tobacco Tax and Trade Bureau (TTB) has administered FAET, the tax on most guns and ammunition, since the Homeland Security reforms of 2002– 2003.49 The revenue collected goes to the Fish and Wildlife Commission, which holds it in a trust account administered on behalf of the states to support hunting and conservation

requirements for weapons are historically indicated, then they cannot be 'infringements,' because there is no corresponding right.").

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^{46. 26} U.S.C. § 4181 (2012) (also known as the Pittman-Robertson Act of 1919); see also FAET REFERENCE GUIDE FIREARMS AND AMMUNITION EXCISE TAX, https://www.ttb.gov/firearms/reference_guide.shtml (last visited Oct. 19, 2019) (publication of the Alcohol and Tobacco Tax and Trade Bureau of the Department of the Treasury) [hereinafter "FAET Reference Guide"].

^{47. 26} U.S.C. § 5811 (2012).

^{48.} See id. The Supreme Court rejected constitutional challenges to the National Firearms Act in *United States v. Miller*, 307 U.S. 174 (1939) and Sonzinsky v. United States, 300 U.S. 506 (1937). For a post-Heller decision upholding the NFA, see *United States v. Cox*, 906 F.3d 1170, 1178–88 (2018).

^{49.} See FAET Reference Guide, supra note 46, at Section I.A.

activities.⁵⁰ The FAET generated over \$761 million in revenue in 2017.⁵¹ The NFA taxes on machine guns, silencers, and so forth, generates less than one-tenth of that amount, and revenues go to the general treasury fund.⁵² These constitute the entirety of the federal taxation regime for firearms and ammunition, besides the \$90 annual licensing fee paid by authorized gun dealers.⁵³ A bill currently moving through Congress, the Gun Violence and Safe Communities Act, would raise the FAET rates to 20 percent on guns and 50 percent on ammunition.⁵⁴

In recent years, two municipalities have imposed local taxes imposing a \$25 tax on every firearm: Cook County, IL⁵⁵ and Seattle, WA.⁵⁶ As of 2016, Seattle also has a tax (up to five cents per round) on ammunition.⁵⁷ Both of these local taxes were primarily for generating revenue;⁵⁸ Seattle's tax has already survived a court challenge.⁵⁹ Pennsylvania adds a \$3 surcharge on guns subject to the state sales tax,⁶⁰ and

^{50.} Id.

^{51.} R. ELIOT CRAFTON, JANE G. GRAVELLE & WILLIAM J. KROUSE, CONG. RESEARCH SERV., GUNS, EXCISE TAXES, WILDLIFE RESTORATION, AND THE NATIONAL FIREARMS ACT 1 (2018).

^{52.} *Id.* at 7.

^{53.} See id. at 7–8 (discussing the Gun Control Act of 1968, especially 18 U.S.C. §§ 921 et seq).

^{54.} H.R. 5103, 115th Cong. § 2(a) (2018) (sponsored by Rep. Danny Davis (D-IL)).

^{55.} COOK COUNTY FIREARM AND FIREARM AMMUNITION TAX, https://www.cook countyil.gov/service/firearm-and-firearm-ammunition-tax (last visited Oct. 19, 2019).

^{56.} RAND, supra note 29, at 241 (discussing firearm and ammunition taxes).

^{57.} Id. at 241.

^{58.} See id.; see also Robert McClelland, New Gun and Ammo Taxes Sound Like Promising Ways To Reduce Gun Violence. But There Are Problems, TAXVOX (May 24, 2018), https://www.taxpolicycenter.org/taxvox/new-gun-and-ammotaxes-sound-promising-ways-reduce-gun-violence-there-are-problems.

^{59.} Watson v. Seattle, 401 P.3d 1, 14 (Wash. 2017).

^{60. 18} PA. CONS. STAT. § 6111.2 (2019).

Tennessee has a ten-cent excise tax on shotgun shells.⁶¹ A federal judge struck down a statute in the Northern Mariana Islands that imposed a \$1,000 gun tax in 2016.⁶² Local tax experiments are rare because most states now have statutes that preempt such initiatives by municipalities.⁶³ There is zero scholarship to date on Tieboutian competition with local excise taxes of firearms.

It is unknown how much taxes reduce gun violence or inhibit gun purchases, but this is an important question to answer. AsRAND researchers put it2018. "[u]nderstanding the potential consequences of higher taxes on guns and ammunition is important both for policy considerations moving forward and for assessing laws that increase the effective price of legal gun purchases, such as permit-to-purchase law."64 This is mostly a question of elasticity or price sensitivity among purchasers—a subject heavily studied in other areas of taxation, but not with guns. The RAND report explains the frustrating lack of data and

^{61.} Tenn. Code Ann. § 70-1-401 (2019).

^{62.} Murphy v. Guerrero, No. 1:14-CV-00026, 2016 WL 5508998 (D. N. Mar. I. Sept. 28. 2016) (striking down most of C.N.M.I. Public Law 19-42).

^{63.} See Richard Briffault, The Challenge of the New Preemption, 70 STAN. L. REV. 1995, 1997–99 (2018); see also Blocher, Firearm Localism, supra note 27, at 133. For some older empirical research on gun sale interactions across different locales, see Anthony A. Braga, Garen J. Wintemute, Glenn L. Pierce, Philip J. Cook, & Greg Ridgeway, Interpreting the Empirical Evidence on Illegal Gun Market Dynamics, 89 J. URB. HEALTH 779 (2012) (finding that "criminals rely upon a diverse set of illegal diversion pathways to acquire guns, gun traffickers usually divert small numbers of guns, newer guns are diverted through close-toretail diversions from legal firearms commerce, and that a diverse set of gun trafficking indicators are needed to identify and shut down gun trafficking pathways."); Leo H. Kahane, Understanding the Interstate Export of Crime Guns: A Gravity Model Approach, 31 Contemp. Econ. Pol'y 618 (2012); Daniel W. Webster, Jon S. Vernick, & Maria T. Bulzacchelli, Effects of State-Level Firearm Seller Accountability Policies on Firearm Trafficking, 86 J. URB. HEALTH 525 (2009); see also Philip J. Cook, Jens Ludwig, Sudhir A. Venkatesh & Anthony A. Braga, Underground Gun Markets, 117 Econ. J. F588 (2007); Philip J. Cook, Stephanie Molliconi & Thomas B. Cole, Regulating Gun Markets, 86 J. CRIM. L. & Criminology 59, 88-90 (1995).

^{64.} RAND, supra note 29, at 241.

research:

Several factors complicate evaluation of the price sensitivity of demand for guns or ammunition. First, because few policy changes have substantially influenced the price of firearms or ammunition, research has faced insufficient variation to empirically estimate the price responsiveness of various participants in gun markets. Second, in the absence of exogenous price shocks, researchers cannot disentangle changes in consumer demand that are driven by changes in price from changes in price that are driven by changes in consumer demand. And third, the market for firearms and ammunition is highly differentiated, and there are no publicly available gun or ammunition price data over a sufficient period to support policy analysis. A few sources provided information on national average prices of guns and ammunition, but these averages obscured notable price variation across jurisdictions and offered only a rough approximation of the retail prices facing consumers. Thus, these data have generally been used to evaluate how demand shocks influence prices and not to estimate how responsive consumers are to changes in prices. 65

In addition, there is uncertainty about the effects that taxation have on both legal secondary markets (private sales between acquaintances) and black markets. In theory, price increases in a primary legal market (for any item) should affect both secondary markets and black markets—driving up prices there as well—but we need more research to quantify this. For example, news reports suggest that new firearm sales plummeted in Seattle after the impositions of its \$25 tax,66 which almost certainly contributed to the disappointing revenue compared to earlier projections, but there is a correlation-causation problem. It is unclear whether gun ownership declined, or if purchasers shifted to private individual sales, or shifted out of town.67 RAND's

^{65.} *Id.* at 242.

^{66.} Dan Springer, Seattle Gun Tax Failure? Firearm Sales Plummet, Violence Spikes After Law Passes, Fox News (June 15, 2017) https://www.foxnews.com/politics/seattle-gun-tax-failure-firearm-sales-plummet-violence-spikes-after-law-passes.

^{67.} Joseph R. Buoscio Jr., Violence Taxes: New Way to Recoup and Prevent the Costs of Gun Violence? Or New Method to Destroy Business and Competitiveness?, 15 DEPAUL BUS. & COM. L.J. 81 (2016) (arguing that local taxes merely drive

report states that a few empirical studies suggest that hunters are relatively insensitive to increases in license fees,⁶⁸ only one of the three articles they cite appears to be an empirical study,⁶⁹ and finds inelasticity only for American hunters wealthy enough to travel abroad for hunting trips⁷⁰—the other two are purely theoretical models.⁷¹ In contrast, the Seattle experiment suggests that many other purchasers are sensitive to gun price increases. As the RAND report concludes, "[o]verall, we currently have little empirical evidence to indicate how taxation would influence firearm-related outcomes, such as violent crime or suicides. Nor is there evidence establishing how taxing firearms or ammunition would affect the gun industry, defensive gun use, or recreational gun use."⁷²

As of the date of this writing, I could find only three published law review articles focusing on this topic,⁷³ none of

purchasers to other locales or to Internet sellers).

^{68.} RAND, *supra* note 29, at 243.

^{69.} Lili Sun, G. Cornelis Van Kooten, & Graham M. Voss, *Demand for Wildlife Hunting in British Columbia*, 53 CAN. J. AGRIC. ECON. 25 (2005) (empirical study suggesting that hunting licenses charged by foreign jurisdictions on American hunters visiting there are insensitive to price but vary instead on U.S. income fluctuations).

^{70.} See id.

^{71.} Neelam Poudyal, Seong Hoon Cho & J. M. Bowker, Demand for Resident Hunting in the Southeastern United States, 13 Hum. DIMENSIONS WILDLIFE 158 (2008) (positing, through modeling rather than empirical study, that hunters have a margin of inelasticity to license fee increases); Mario F. Teisl, Kevin J. Boyle & Richard E. Record Jr., License-Sales Revenues: Understanding Angler and Hunter Reactions to Changes in License Prices, 4 Hum. DIMENSIONS WILDLIFE 1, 1–2 (1999) (suggesting that across-the-board increases in hunting license fees is a less strategic way to generate state revenue than fees tailored to the individual hunter's price sensitivity).

^{72.} RAND, supra note 29, at 243.

^{73.} Buoscio, supra note 67, at 83; Shearer & Anderman, supra note 45, at 157 (concluding that most proposed gun-violence-prevention taxes are constitutional); see generally Asha Rangappa, The Cost of Freedom: Using the Tax Power to Limit Personal Arsenals, 32 Yale L. & Poly Rev. Inter Alia 17 (Sept. 23, 2013, 2:15 PM), https://ylpr.yale.edu/inter_alia/cost-freedom-using-tax-power-limit-personal-aresenals; Allison Speaker, Excise Taxes on a Fundamental

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which are empirical or even theoretically rigorous (they are advocacy or "idea" pieces); an additional forthcoming article proposes a firearm tax to fund a victim's compensation fund. 74 One published article devotes a section to ridiculing Pigouvian taxes on firearms. 75 The dearth of high-quality research or academic commentary is unfortunate, given the number of law professors who have specialized knowledge in excise taxes, sales taxes, use taxes, and special corporate tax penalties—all of which could be transferrable, to some extent, to firearm sales and manufacturing.

Tax salience is a subject that has far-reaching implications for gun policy, and a rich academic literature has developed in the last decade on salience in other areas of taxation. As noted above, the historic pattern for firearm

Right: Do Excise Taxes on Firearms Survive in a Post-Heller World?, 26 GEO. MASON U. CIV. RTS. L.J. 317 (2016). Additionally, from outside the law review sphere, one non-empirical economics article attempts to model some of the effects, but reaches extremely tentative conclusions. Isaac Ehrlich & Tetsuya Saito, Taxing Guns vs. Taxing Crime: An Application of the "Market for Offenses Model", 32 J. Pol'y Modeling 670, 671, 687-89 (2010).

- 74. See also Samuel D. Brunson, Paying for Gun Violence, 104 Minn. L. Rev. (forthcoming), https://ssrn.com/abstract=3256473.
- 75. Victor Fleischer, Curb Your Enthusiasm for Pigovian Taxes, 68 VAND. L. Rev. 1673, 1677–78 (2015).
- 76. On salience and taxation, see John Brooks, Brian Galle & Brendan Maher, Cross-Subsidies: Government's Hidden Pocketbook, 106 Geo. L.J. 1229, 1266–68 (2018); Raj Chetty, Adam Looney, & Kory Kroft, Salience and Taxation: Theory and Evidence, 99 Am. Econ. Rev. 1145, 1145-46 (2009) (arguing that tax salience impacts elasticity of demand); Amy Finkelstein, E-ZTax: Tax Salience and Tax Rates, 124 Q.J. Econ. 969 (2009) (presenting evidence that the salience of a tax increases the elasticity of demand among commuters on a toll road); Brian Galle, Carrots, Sticks, and Salience, 67 TAX L. REV. 53, 54 (2013); David Gamage, On the Future of Tax Salience Scholarship: Operative Mechanisms and Limiting Factors, 41 Fla. St. U. L. Rev. 173, 175-76 (2013); David Gamage & Darien Shanske, Three Essays on Tax Salience: Market Salience and Political Salience, 65 TAX L. REV. 19, 20 (2011); Jacob Goldin, Note, Sales Tax Not Included: Designing Commodity Taxes for Inattentive Consumers, 122 YALE L.J. 258 (2012) (arguing that salience is essential for modifying consumer behavior); Andrew T. Hayahsi, The Legal Salience of Taxation, 81 U. CHI. L. REV. 1443 (2014) (investigating salience effects for homeowner property taxes); Hayes R. Holderness, The Unexpected Role of Tax Salience in State Competition for

taxation in the United States has been a manufacturer's excise, the FAET, which presumably impacts retail prices for purchasers, but is the least salient form of tax. This undersalience may explain in political terms why the tax has remained so stable (unchanged for several decades), despite the partisan divide on firearm policy, and why the tax has had no obvious effect on consumer behavior. In contrast, the retail excise taxes on firearms and ammunition in Chicago and Seattle are hyper-salient, at least politically, and may trigger not only price sensitivity in consumers, but also organized boycotts among the community of would-be purchasers. It would be useful and informative to our public discourse to have empirical studies about the marginal effects of manufacturer excise tax increases. At what threshold would incremental increases in FAET rates impact consumer decisions? What effect do manufacturer excise taxes, at the margins, have on the manufacturers' decisions about productivity and supply, their capacity to fund lobbyists, or shareholder decisions about divestment? Would more pervasive retail excise taxes on firearms do more to reduce gun prevalence and gun violence than manufacturer taxes, because they are more salient to purchasers, or would they be less effective, due to their political salience? Regarding retail excise taxes, is there a threshold percentage (identified from studying excise taxes on other products) that triggers observable price sensitivity or elasticity, or a knee of the curve that triggers a significant market constriction?

The question of salience for retail-versus-manufacturer excise taxes overlaps with questions about Tiebout-model competition between jurisdictions.⁷⁷ For retail excise taxes

Businesses, 84 U. Chi. L. Rev. 1091 (2017) (applying salience to Tieboutian competition); Rachelle Holmes Perkins, Salience and Sin: Designing Taxes in the Sin Era, 2014 BYU L. Rev. 143, 144 (2014); Peter C. Ordeshook, Property Tax Consciousness, 34 Pub. Choice 285 (1979) (finding no salience effect for property mortgage payments including property taxes); Deborah H. Schenk, Exploiting the Salience Bias in Designing Taxes, 28 YALE J. ON REG. 253 (2011).

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^{77.} For discussion of tax salience in the Tiebout context, see Reuven S. Avi-

on guns and ammunition, at the state or local level, would the Tiebout competition model predict a race to the bottom, in which jurisdictions are afraid to adopt taxes they otherwise would due to the loss in business? Or would the model suggest a race to the top, where jurisdictions compete for policies that lower gun violence? I cannot find a single law review article addressing this question as a general proposition, but a Tieboutian race-to-the-bottom scenario would be a powerful argument for federal retail taxation. Scholars conversant in Tieboutian analysis could also help inform us about whether state preemption statutes, which bar municipalities from adopting local taxes or restrictions pertaining to firearms, arise from state-level concerns about a race to the bottom or a race to the top. Some have suggested that it is neither—that the preemption laws instead arise from the inherent political tension between the rural districts and the urban centers in many states, and that the urban-versus-rural conflict is behind the political gridlock on gun policy in general.

Another question that merits more commentary from tax law professors is the Pigouvian nature of gun taxes, both the extant federal taxes and potential state or local taxes—that is, whether this is a "sin tax," designed to discourage activities that impose externalities on society. The NFA tax on machine guns and silencers (sometimes known as the "transfer tax") was indisputably Pigouvian, designed to make the weapons completely unaffordable at the time. On the other hand, the FAET (10% on handguns, 11% on rifles and ammo) is less clear, because the statute earmarks the revenue from the tax for the promotion of wildlife

Yonah, Globalization, Tax Competition, and the Fiscal Crisis of the Welfare State, 113 Harv. L. Rev. 1573, 1626–28 (2000); Robert H. Sitkoff & Max M. Schanzenbach, Jurisdictional Competition for Trust Funds: An Empirical Analysis of Perpetuities and Taxes, 115 Yale L.J. 356, 416–18 (2005).

^{78.} For example, David Hemenway has suggested that "government authorities could tax the sales of the current lethal handguns or subsidize production of the less lethal weapons." HEMENWAY, *supra* note 2, at 140.

conservation and sports hunting. It is unclear whether its original purpose was primarily to raise revenue for good uses, or to discourage sales of dangerous weapons, or both. Seattle claimed that its tax was primarily for raising revenue, but the revenue disappointed, as the tax drove down the sales volume. Pigouvian taxes often run into this problem—advocates of a sin tax tout the revenue that it will generate for the jurisdiction, but the tax disincentivizes the activity enough to suppress the tax revenues below expected levels. Pigouvian taxes also involve enforcement and monitoring costs that policymakers may not appreciate ex ante. From a legal standpoint, the more explicitly a legislature frames a gun tax as a "sin tax," and the more the tax falls on individuals rather than manufacturing firms, the more likely it seems that a Second Amendment challenge to the law would find traction, though most of the Second Amendment challenges to gun laws after *Heller* have proved unsuccessful.

There is lively debate in the top law reviews lately about the merits and drawbacks of Pigouvian taxes,⁷⁹ their effectiveness at changing consumer behavior (bounded by inelasticity of demand), implementation costs versus revenues, over- and under-inclusiveness, the sticky question of government paternalism, and so forth—but so far there has been no empirical research about Pigouvian gun taxes, unfortunately. One forthcoming article by Samuel Brunson advocates for a gun ownership tax to raise revenue for

^{79.} See Fleischer, supra note 75 (against Pigouvian taxes); Jonathan S. Masur & Eric A. Posner, Toward a Pigouvian State, 164 U. Pa. L. Rev. 93 (2015) (enthusiastically advocating for more Pigouvian taxes); see also Giuseppe Dari-Mattiacci & Gerrit De Geest, Carrots, Sticks, and the Multiplication Effect, 26 J.L. Econ. & Org. 365 (2009); Brian Galle, Tax, Command... Or Nudge?: Evaluating the New Regulation, 92 Tex. L. Rev. 837 (2014); Brian Galle, The Tragedy of the Carrots: Economics and Politics in the Choice of Price Instruments, 64 Stan. L. Rev. 797 (2012); Aaron M. Levine & Joshua C. Macey, Dodd-Frank Is a Pigouvian Regulation, 127 Yale L.J. 1336 (2018); Nadav Shoked, Cities Taxing New Sins: The Judicial Embrace of Local Excise Taxation, 79 Ohio St. L.J. 801 (2018).

compensating victims but disclaims "true" Pigouvian policy of deterring gun purchases. 80 Nevertheless, there remains the unanswered problem of the tax being self-defeating as a revenue source. From the standpoint of disincentivizing socially costly behavior, however, some "sin taxes" have been successful. "Abundant evidence shows the effectiveness of one specific policy, alcohol taxation, which reduces the overall population level of alcohol consumption and alcoholrelated problems."81 Even consumers that we think of as impulsive—youth, alcoholics, and even heavy drinkers demonstrate price sensitivity, and consume less when alcohol taxes are higher.82

Black markets are a problem for Pigouvian taxes (consumers can avoid the tax via illegal providers), 83 and are a special problem for gun taxes, because guns are a durable good that black market vendors can repurchase and resell many times (obviously this is less true of ammunition), a frequently made point in debates about gun control. The durable nature of guns also means that legal secondary markets (private exchanges and barter) can undermine the success of a Pigouvian gun tax—but the legal secondary market can also undermine the black market at the same time, which makes the question more complex. The secondary market problems (both legal and illegal) with Pigouvian taxes are not necessarily insurmountable or absolute. Depending on the circumstances, effective law enforcement can hamper illegal markets, 84 as can voluntary

^{80.} See generally Brunson, supra note 74.

^{81.} HEMENWAY, supra note 2, at 195.

^{82.} See id.

^{83.} See generally Understanding the U.S. Illicit Tobacco Market: CHARACTERISTICS, POLICY CONTEXT, AND LESSONS FROM INTERNATIONAL EXPERIENCES (Peter Reuter & Malay Majmundar eds., 2015).

^{84.} See id. at 139-60 (describing and evaluating enforcement interventions in illegal tobacco markets).

compliance by the citizenry.⁸⁵ Effective marketing campaigns by manufacturers and retailers undermine legal secondary markets, winning over customers to new product sales instead of the used/pre-owned private exchanges.86 Currently, many consumers still buy new firearms (a few million per year), even when used models are widely available at discount prices. Speculators—those who buy up an item before an excise tax or ban goes into effect, and who then hoard it to achieve monopoly rents later—can have an enormous impact on the supply and prices in secondary markets, both illegal and legal, and in theory could collapse a fragile black market. The complex effects of taxes on the relationship between primary and secondary markets is a topic that tax experts could readily address—but they have not yet done so. Black markets for guns may also have a selfdefeating feature of making the guns a consumable good rather than a durable good, if criminals do not want to purchase a gun already linked to other crimes.

Tobacco black markets can provide instructive examples, even though cigarettes are consumables, because the black markets exist primarily, if not entirely, to avoid cigarette taxes.⁸⁷ According to a comprehensive study by the National Academy of Sciences, within the United States, the illegal tobacco market consists of bootlegging cigarettes from low-tax states to high-tax states,⁸⁸ and this could be an issue with

^{85.} See id. at 130-35 (describing the effectiveness of public education campaigns in reducing black markets for tobacco).

^{86.} See id. at 174–88 (proposing a similar approach to address black markets in tobacco).

^{87.} *Id.* at 1 ("In comparison with other consumer products, cigarettes are currently subject to high taxes in the United States and in most other countries. The high rates of taxation and the large tax differentials between jurisdictions increase incentives for tax evasion and tax avoidance and contribute to existing illicit tobacco markets.").

^{88.} *See id.* at 2–3. Interestingly, the size of the illegal tobacco market is difficult to determine, as with firearms, due to similar data deficits and rival methodologies for calculating. *See id.* at 4–5.

state or local firearms taxes as well. Internationally, there is also a problem with illegal/unregistered production, counterfeiting of expensive foreign brands, and large-scale smuggling of imports⁸⁹—issues that are less likely to affect the American domestic gun market, given that Heller eliminated the possibility of an outright gun ban. One of the most effective policy interventions to combat domestic illegal tobacco markets is to regulate and monitor (control) the supply chain—manufacturers, distributors, and retailers. 90 This requires cooperation and coordination between various levels of government and various agencies within each level, which historically has proved difficult with tobacco, 91 but with firearms would require significant changes in current laws that prohibit such coordination and information between federal agencies and state-federal counterparts. Digital stamps, and tracking/tracing is very effective when implemented consistently.92 harmonization, of course, eliminates the primary motivation for the illegal tobacco market, 93 but in the United States, this requires a complete federalization of the taxes for that market, which presents both constitutional and political hurdles with both tobacco and firearms. Public education campaigns have also proved effective in the United States at reducing tobacco use generally, but the campaigns have not focused on discouraging illegal markets. 94 Other countries have run education campaigns to discourage the public from buying illegal cigarettes, and the effectiveness of these campaigns requires further study. 95 Enforcement of the laws

^{89.} See id. at 3-5.

^{90.} See id. at 111-26.

^{91.} See id.

^{92.} See id.

^{93.} See id. at 127–30.

^{94.} See id. at 130.

^{95.} See id. at 131-36.

is crucial—the National Academy of Sciences (NAS) concludes that low enforcement of anti-bootlegging laws in the United States has enabled a flourishing illegal market;⁹⁶ cigarette enforcement is a low priority for state and federal law enforcement agencies.

The lessons for firearm tax proposals seem clear: federal action may be necessary to avoid an interstate bootlegging industry. In addition, new tax initiatives, apart from raising the current manufacturer's taxes, would also require a strong political commitment to have greater oversight of the supply chain, and more consistent enforcement for violations. These problems seem endemic to Pigouvian taxes, but the NAS has not taken the position that we should abandon such tax efforts. Pigouvian taxes on guns have promise, even if there are significant challenges for implementation.

Victor Fleischer's article about Pigouvian taxes devotes a few pages to gun taxes, which he portrays unfavorably.⁹⁷ His argument rests on the wide variation he sees in the marginal social cost of different gun owners—a hypothetical good citizen (whom he describes as a not-so-hypothetical law professor and Second Amendment scholar named Eugene) and a hypothetical cocaine dealer named John, with the gun tax affecting everyone equally.⁹⁸ Fleischer argues that the former type of gun owner poses no social costs with his gun ownership (in fact, he asserts that there are positive externalities), while the latter poses high social costs (violence and so forth), but he is both less common and less responsive to the proposed tax.⁹⁹ This is the familiar argument that gun regulations merely take guns away from the virtuous, law-abiding citizens, and leave them in the

^{96.} See id. at 140-58.

^{97.} See Fleischer, supra note 75, at 1677–79.

^{98.} Id.

^{99.} Id.

hands of the vicious, lawless criminals.¹⁰⁰ Assuming the "good" potential gun owners are the majority—a moral majority—and the criminals a smaller minority, the social costs of the policy (to the moral majority) far outweigh the benefits, that is, deterring criminals.¹⁰¹

There are several problems with this line of argument. The first is the commonplace but entirely false dichotomy between the "good" people in our society and the "criminals." Our hypothetical law-abiding, law-expounding professor named Eugene may seem perfectly congenial and harmless at the moment, but no one is permanently immune from moral lapses, or from developing a substance abuse problem (highly correlated with gun suicides and homicides), or experiencing a series of financial setbacks that lead to desperation, or even somewhat unreasonable, mistaken acts of self-defense. This risk, even if less than probable, still constitutes a social cost of "good" citizens owning guns—more of those "good citizens" resort to violent or illegal activity than we like to admit to ourselves. And more of those "criminals" are the troubled teenage children or siblings of law-abiding "good" citizens than we like to admit—instead, the gun discourse in our culture persistently invokes "criminals" as "other." In other words, I worry that there are no friendly civilians, at least in terms of potentials. Moreover, an estimated half million guns per year disappear from theft and enter the illegal gun market, and this is also a social cost of the moral, law-abiding citizen politely exercising his Second Amendment rights. There exists an elaborate distribution infrastructure for lawful network of licensed purchases—a wide manufacturers' regional distribution centers, gun shows, and online orders of replacement parts, plus the surrounding advertising and marketing campaigns to let consumers know

^{100.} See id.

^{101.} See id.

about the availability and pricing of products. This market infrastructure, for all its merits, simultaneously and inevitably facilitates the availability of guns to the black market, through straw purchasers, backdoor illegal sales from authorized dealers, and so forth. There is also a moral hazard problem—a person who buys a gun for self-defense then feels safer, even empowered, and is therefore more likely to take risks (say, visit high-crime neighborhoods he would have avoided if unarmed), or respond more aggressively to threats. Our public discourse often blames the "mentally ill" for the high-profile incidents of gun violence, with the purported solution being that we should focus on keeping guns away from "crazy people." But I worry that owning or carrying a gun makes even the best of us slightly less rational, a little more brash or overconfident or "crazy" than we otherwise would be. The moral hazard involved in arming oneself is a social cost that offsets (to an unknown extent) the social benefits of being able to prevent a crime.

I have the opposite set of concerns about our imaginary, demonic "criminals" who magically have an endless supply of cheap, black market guns regardless of the restrictions or levies placed on the primary gun market. First, I do not believe that most criminals who obtain a gun illegally have set out to murder people—I think many want one merely as a precaution, in case they need to defend themselves unexpectedly, but then things go wrong. Thus, it is not clear how many of the current pool of illegal gun purchasers are so determined to obtain a gun that they are indifferent to changes in the supply or price; many may forego the firearm, and use a less lethal weapon (a knife, etc.) if the price or transaction costs for obtaining an illegal gun rose significantly. We do not have empirical evidence proving that criminal demand for guns is inelastic. Moreover, criminal defendants are disproportionately poor, and the regressive effects of price increases on the poor (the marginal impact) should make criminals *more* sensitive to prices than the rest of the population, not less. The regressive nature of Pigouvian taxes is a common criticism, but in the case of guns and criminals, the regressive aspect of it might be desirable, given the correlation between violent crime and poverty. On the other hand, to the extent that the demand for firearms or ammunition is inelastic—not price sensitive—then a tax on these items can be an effective revenue source for the public fisc, unlike many other items subject to Pigouvian taxes.

Early in his hypothetical, Fleischer asserts that hypothetical Eugene's gun ownership "arguably creates positive social externalities for his neighbors."103 How so? Do Eugene's neighbors want him to be a neighborhood vigilante, brandishing his weapons at anyone he perceives to be committing a crime against his neighbor's property? If Eugene's neighbors have an acrimonious relationship with him—say, over the neighbor's dog that barks too much, or Eugene's loud music, or their opposing party yard signs during election season—would they view Eugene's household arsenal as a benefit to them? If Fleischer's stereotypical portrayal of the criminal is accurate—that is, a violent man determined to obtain firearms, and willing to pay any price then neighbors may see Eugene's gun collection as an attractive nuisance, a treasure trove for any burglar patient enough to strike when Eugene is not home. Rather than scaring criminals away from the neighborhood, a stockpile of weapons seems just as likely to draw them in.

Returning to the main point of this section: taxation of firearms and ammunition is a subject that deserves far more academic attention than it has received, especially from those with expertise in tax law and policy. Our public

^{102.} In fact, given the demographics of gun ownership, a firearm or ammunition tax might actually be a luxury tax, rather than a sin tax, and have redistributive effects.

^{103.} Fleischer, supra note 75, at 1677.

discourse would benefit from a better understanding of both the current tax regime with its effects, and well theorized proposals for increases, shifting the point of taxation, and so forth.

B. Defensive Gun Use

Self-defense touches every part of the gun policy debate—it is a primary motivation for handgun ownership, 104 the core of the NRA's arguments, and has become the postmodern reading of the Second Amendment. 105 It is perhaps the largest empirical hole in public discourse on guns 106—nobody truly knows how often gun owners use their weapons to stop a crime or defend themselves, 107 and therefore we have many baseless assumptions and speculation about how effective guns are

104. Kate Masters, Fear of Other People Is Now the Primary Motivation for American Gun Ownership, a Landmark Survey Finds, The Trace (Sept. 19, 2016), https://www.thetrace.org/2016/09/harvard-gun-ownership-study-self-defense/.

105. See, e.g., Teixeira v. Cnty. of Alameda, 873 F.3d 670, 677 (9th Cir. 2017), cert. den. 138 S. Ct. 1988 (2018) ("After Heller, this court and other federal courts of appeals have held that the Second Amendment protects ancillary rights necessary to the realization of the core right to possess a firearm for self-defense."); Binderup v. Att'y General, 836 F.3d 336, 363 (3d Cir. 2016) (noting self-defense is "the right at the 'core' of the Second Amendment," citing District of Columbia v. Heller, 554 U.S. 570, 629–30 (2008)); Ezell v. Cty. of Chicago, 651 F.3d 684, 708 (7th Cir. 2011) (deciding based on "the core right to possess firearms for self-defense"); Bridgeville Rifle & Pistol Club, Ltd. v. Small, 176 A.3d 632, 646 (Del. 2017) ("Heller made clear that the Second Amendment protects an inherent right of self-defense."); People v. Wilder, 861 N.W.2d 645, 649 (Mich. Ct. App. 2014) ("The Second Amendment . . . guarantee[s] an individual 'a right to keep and bear arms for self-defense."); see also BLOCHER & MILLER, supra note 27, at 72–84 (discussing the constitutionalization of self-defense through Heller and subsequent judicial opinions).

106. See RAND, supra note 29, at 8–9; David Hemenway, Survey Research and Self-Defense Gun Use: An Explanation of Extreme Overestimates, 87 J. CRIM. L. & CRIMINOLOGY 1430, 1431 (1997); see also David Hemenway & Deborah Azrael, The Relative Frequency of Offensive and Defensive Gun Uses: Results from a National Survey, 15 VIOLENCE & VICTIMS 257, 269 (2000).

107. See RAND, supra note 29, at 8–9; Hemenway, supra note 106, at 1431.

for self-defense compared to other measures, or whether the social welfare gains from defensive use outweigh, or even offset, the social costs of gun prevalence. The more-guns-less-crime trope implies that gun ownership itself—in the aggregate—prevents crimes, crowding out analysis of actual instances of gun use. 109

RAND acknowledged has this in emphatic, disheartening terms—all the information circulating about salutary gun usage is incorrect, or at best unreliable. 110 Earlier estimates came from methodologically flawed surveys of crime victims (representing a narrow selection of crimes), or gun owners themselves, relying on respondents' own opinions about how often their guns have prevented a crime. 111 In other words, the gun owner's opinion about whether a crime would have otherwise occurred, whether their display (or even mere possession?) of a gun thwarted a crime, and so on. The surveys do not include responses (obviously) from those who used a gun defensively but died during the incident. 112 RAND researchers identify two yetunanswered questions: the true number of defensive gun use incidents per year (we still lack a good method to count such incidents), and whether defensive gun use is effective compared to other responses or defensive measures against

^{108.} See RAND, supra note 29, at 8–9. See also Firmin DeBarander, Do Guns Make Us Free? 75–88 (2015) (discussing in detail the historical ascent and consequences of stand-your-ground-laws).

^{109.} See Ian Ayres & John J. Donohue III, The Latest Misfires in Support of the "More Guns, Less Crime" Hypothesis, 55 Stan. L. Rev. 1371, 1372 (2003). See generally Ian Ayres & John J. Donohue III, Shooting Down the "More Guns, Less Crime" Hypothesis, 55 Stan. L. Rev. 1193 (2003).

^{110.} See RAND, supra note 29, at 275–80 (describing the widely ranging estimates and the methodologies used in each published study, most or all of which depend on self-reporting in surveys).

^{111.} See id. For an excellent overview of the leading work in this area, and the failings of each, see HEMENWAY, supra note 2, at 66–69.

^{112.} RAND, supra note 29, at 275–80.

crime. 113 After surveying all extant studies, they conclude that there is no conclusive evidence on the latter question. 114 Finally, the RAND researchers note some other issues that skew results in the studies: whether the would-be criminal also had a firearm (RAND suggests many of the "effective" defensive gun use scenarios involved an unarmed criminal and gun-wielding potential victim), and whether defensive gun use occurs only in the subset of circumstances where the gun owner has a chance to draw or display the weapon, which may correlate to other advantageous factors (e.g., advance warning of the crime, an assailant distracted by bystanders, police backup available, and so on). 115 Relatedly, a certain percentage of defensive gun use incidents involve an unarmed victim wrestling the firearm from a would-be assailant, and turning it on the perpetrator; 116 for purposes of researching the social benefits of gun ownership, it would seem that such incidents should count separately from those where a gun owner uses their own weapon.

The incomplete data about defensive gun use currently leaves open the possibility that it is incredibly rare. For example, significant empirical survey evidence that self-defense with weapons other than firearms occurs far more often than defensive gun use; baseball bats have more reported uses in successful self-defense than guns. In addition, as John Donohue et al. recently observed:

^{113.} See id. at 273.

^{114.} See id. at 284-85.

^{115.} See id. at 283–84; see also State v. Scott, 819 S.E.2d 116 (S.C. 2018) (stating that a reasonable mistake can justify lethal force for self-defense); COOK & GOSS, supra note 21, at 17–20.

^{116.} See, e.g., Chloe Alexander, Tow truck driver wrestles gun from robbery suspect, shoots him several times, KHOU-11 (May 26, 2019), https://www.khou.com/article/news/crime/tow-truck-driver-wrestles-gun-from-robbery-suspect-shoots-him-several-times/285-6eadfd85-7a0f-4e90-87e1-2d6ef363691b?fbclid=Iw AR2Bu6TdN147l4Mrg4wpuITuWhjfcA115T1Fuzz5aoHwQyVQ9V_uyIYUSPw.

^{117.} HEMENWAY, supra note 2, at 77.

In any event, the use of a gun by a concealed carry permit holder to thwart a crime is a statistically rare phenomenon. Even with the enormous stock of guns in the United States, the vast majority of the time that someone is threatened with violent crime no gun will be wielded defensively. A five-year study of such violent victimizations in the United States found that victims reported failing to defend or to threaten the criminal with a gun 99.2 percent of the time—this in a country with 300 million guns in civilian hands [(citation omitted)]. Adding 16 million permit holders who often dwell in low-crime areas may not yield many opportunities for effective defensive use for the roughly 1 percent of Americans who experience a violent crime in a given year, especially since criminals can attack in ways that preempt defensive measures. 118

Some claims of defensive gun use are, in fact, illegal. 119 Some involve mutual combat (e.g., an argument between relatives or neighbors escalates to a violent encounter), 120 or

118. Donohue et al., supra note 25, at 202.

119. See, e.g., People v. Williams, 87 N.E.3d 353, 360 (Ill. App. Ct. 2017) (concluding that a mistaken belief of being in danger negated a self-defense claim); State v. Guillory, 229 So. 3d 949, 964 (La. Ct. App. 2017) ("A person who is the aggressor or who brings on a difficulty cannot claim the right of self-defense unless he withdraws from the conflict in good faith and in such a manner that his adversary knows or should know that he desires to withdraw and discontinue the conflict."); State v. Fitts, 803 S.E.2d 654, 654 (N.C. Ct. App. 2017) ("Defendant did not intend to kill victim when he discharged firearm into victim's vehicle, and thus defendant was not entitled to jury instruction on perfect self-defense."); State v. Chandler, 99 N.E.3d 1255, 1259 (Ohio Ct. App. 2017) (affirming that the defendant could not assert a Castle Doctrine self-defense claim in felonious assault prosecution with regard to a shooting at a common area of an apartment complex).

120. See, e.g., Goodson v. State, 824 S.E.2d 371, 372 (Ga. 2019) (concluding that the defendant's claim of self-defense was unavailing when he shot victim (an argumentative neighbor) as he turned to flee, and continued shooting after the victim was on the ground and no longer posed any threat); Mack v. State, 428 P.3d 326, 328 (Okla. Crim. App. 2018) (concluding that although the defendant claimed that when an argument started with the victim, he mistakenly thought the victim was armed, and "[a]n aggressor, or a person who voluntarily enters a situation armed, cannot claim self-defense."); Braughton v. State, 569 S.W.3d 592, 604 (Tex. Crim. App. 2018) (concluding that the defendant who shot the unarmed attacker who was arguing with and hitting his father in front of their house had an ineffective claim of self-defense or defense of others); Farrow v. State, 437 P.3d 809, 818 (Wyo. 2019) ("[T]wo individuals who mutually agree to fight are both considered aggressors, making a self-defense theory unavailable to either of them."). For a concise academic discussion of the escalation problem, see

defensive gun use by someone who cannot legally possess or use a firearm (e.g., convicted felons and others under statutory prohibitions). 121 Similarly, imagine an individual whose family member alleges some mistreatment or threats from a bully (or romantic rival, or violent ex-boyfriend, or loan shark), and who accosts the bully later, warning him at gunpoint to "leave my family/daughter/girlfriend alone." 122 This would be a crime in every state, but many gun owners may consider this a legitimate instance of their gun preventing a crime. 123 In a study in 2000, researchers at the Harvard Injury Control Research Center summaries of defensive gun use incidents and sent them to state iudges California. Pennsylvania, Massachusetts—who deemed about half of the incidents as illegal or contrary public policy, even when they assumed all the individuals legally possessed their firearms in the first place.¹²⁴ As one Miami police chief observed, "citizens feel threatened all the time, whether it's from the approach of an aggressive panhandler or a squeegee pest or even just walking down a poorly lighted street at night. In tightly

HEMENWAY, supra note 2, at 71.

^{121.} See, e.g., Stanfield v. State, 269 So.3d 1188, 1190 (Miss. 2019) (concluding that the defendant was a convicted felon, who wrestled to take away an attacker's gun, causied it to fire and kill the assailant, but "self-defense is not a viable defense to the crime of possession of a firearm by a convicted felon."); State v. Perrier, 536 S.W.3d 388, 402 (Tenn. 2017) (holding that the felon-in-possession of firearm was "engaged in unlawful activity" and could not claim valid self-defense in shooting); see also DEBARANDER, supra note 108, at 85.

^{122.} See, e.g., People v. Bennett, 96 N.E.3d 74, 83 (Ill. App. Ct. 2017) (concluding that the defendant no longer faced danger of imminent harm when he shot and killed victim, which negated the defendant's self-defense claim); see also DEBARANDER, supra note 108, at 81.

^{123.} See Donohue et al., supra note 25, at 201–06 (recounting tragic incidents, starting with the notorious case of Bernard Goetz and Gerald Ung).

^{124.} See Hemenway, supra note 2, at 72–73. The Challenges of Defining and Measuring Defensive Gun Use, RAND CORP. (Mar. 2, 2018), https://www.rand.org/research/gun-policy/analysis/supplementary/defensive-gun-use.html (citing David Hemenway et al., Gun Use in the United States: Results from Two National Surveys, 6 Inj. Prevention 263, 263–67 (2000).

congested urban areas, public encounters can be threatening." 125

One promising newer nonprofit project for data collection about defensive gun use is the Gun Violence Archive ("GVA"),¹²⁶ "an online archive of gun violence incidents collected from over 6,500 law enforcement, media, government and commercial sources daily in an effort to provide near-real time data about the results of gun violence."¹²⁷ Most of the items reported come from news reports (links provided), which presents both advantages and disadvantages for researchers; note that the GVA reports only shootings, not incidents where a potential victim brandished a firearm to ward off a would-be attacker, thief, or intruder. The GVA tallies for reported incidents of defensive shootings are 1,887 for 2018; 2,106 for 2017; and 2,001 for 2016.¹²⁸

Empirical researchers in other fields need law professors to help define the boundaries before they can plan their research. Legality or criminality is the first question that we in the legal academy must answer for our counterparts in other fields (public health, sociology, criminal, political science, and risk assessment/insurance actuarial science)—that is, what types of defensive gun use are legal, as opposed to criminal. These researchers need the answer framed to

^{125.} DEBARANDER, supra note 108, at 81.

^{126.} See Gun Violence Archive, www.gunviolencearchive.org (last visited Oct. 19, 2019). This page devoted to day-by-day defensive gun use incidents is available at: https://www.gunviolencearchive.org/reports/defensive-use, and is kept up-to-date. GVA has no affiliation with other entities or advocacy groups.

^{127.} See About, Gun Violence Archive, https://www.gunviolencearchive.org/about.

^{128.} See Past Summary Ledgers, Gun VIOLENCE ARCHIVE, https://www.gunviolencearchive.org/past-tolls (last visited Oct. 19, 2019).

^{129.} See COOK & GOSS, supra note 21, at 19 (explaining the need for definitions before conducting an empirical investigation of defensive gun use).

^{130.} But see McGriff v. State, 160 So. 3d 167, 168 (Fl. Dist. Ct. App. 2015) (concluding that the defendant had no duty to retreat before using deadly force

help suggest an empirical study design. Law review articles often focus on policy suggestions—what we think the law should be, what we think courts, legislators, or government officials should do about something. The immediate need in the area of firearm research, however, is clearer explanation of the binary variables that researchers should use in designing their studies—descriptively, what factors make use of lethal force, or even brandishing a weapon, always illegal, or *definitely* legal, even if these per se categories are the exception, not the norm. 131 We need to explain, with a view to research design, the problem with mistakes of fact in self-defense claims, or the duty to use non-lethal force first before escalating.¹³² On the more normative side, law professors should weigh in on the question of whether we should count a case as legitimate self-defense if the individual is a felon, 133 or if the type of weapon itself is illegal¹³⁴ (say, a machine gun, a handgun with a silencer,

in self-defense, even if he was engaged in unlawful activity).

^{131.} See, e.g., Savage v. State, 166 A.3d 183, 198 (Md. 2017) (concluding that expert testimony that defendant would be more likely to perceive himself to be facing imminent threat under conditions of chaos and stress, and thus have greater difficulty controlling his reactions, was inadmissible under Frye, and therefore could not support self-defense claim).

^{132.} See Cook & Goss, supra note 21, at 19-20.

^{133.} Compare State v. Perrier, 536 S.W.3d 388, 392–93 (Tenn. 2017) (concluding that a felon-in-possession of firearm was therefore "engaged in unlawful activity" and could not claim valid self-defense in shooting), with Wallace v. State, 216 So. 3d 464, 474 (Ala. 2015) (concluding that a felon in possession could raise self-defense, but could not use "stand-your-ground" statute), Miles v. State, 162 So. 3d 169, 171–72 (Fl. Dist. Ct. App. 2015) (finding that the defendant was not precluded from relying on "Stand Your Ground law" to claim that he had shot victim in self-defense, and thus was immune from prosecution, even though he was carrying a concealed weapon and was a convicted felon in possession of a firearm at the time of the shooting), and People v. Dupree, 771 N.W.2d 470, 478–80 (Mich. Ct. App. 2009) (finding that a felon-in-possession still has right to raise self-defense in response to murder charge).

^{134.} See, e.g., United States v. O'Brien, 560 U.S. 218, 234 (2010) (concluding that under a statute prohibiting the use or carrying of a firearm in relation to a crime of violence or drug trafficking crime, the fact that the firearm was a machinegun was an element of the offense to be proved to the jury beyond a

etc.).

A second immediate task for legal commentators is to explain or translate some of our legal terms of art into factors or variables for research design. For example, there is a confusing series of Supreme Court cases interpreting the terms "use" 135 and "carry" 136 in firearm-related statutes; awareness of the issues with terminology would help researchers in the social sciences avoid using the same words differently in designing their studies, either in formulating survey questions or in explaining their findings. Similarly, through grading of offenses and sentencing factors, criminal law imputes significance to the fact that a perpetrator

reasonable doubt, rather than a sentencing factor); Castillo v. United States, 530 U.S. 120, 121 (2000) (concluding that a statute prohibiting the use or carrying of a "firearm" in relation to a crime of violence, which increased the penalty when weapon used or carried was a "machinegun," used the word "machinegun" and similar words to state an element of a separate, aggravated crime).

135. See, e.g., Watson v. United States, 552 U.S. 74, 76 (2007) (trading drugs for a gun does not "use" a firearm during and in relation to drug trafficking crimes, within meaning of statute); Bousley v. United States, 523 U.S. 614, 616 (1998) (concluding that the petitioner may not challenge whether his plea was intelligent, but may appeal on grounds of actual innocence, over confusion regarding legal definition of "use" of firearm); Bailey v. United States, 516 U.S. 137, 143 (1995) (concluding that "use" includes brandishing, displaying, bartering, striking with, and firing or attempting to fire a firearm, or even referring to a firearm in one's possession, but does not include the nearby concealment of a gun to be at the ready for an imminent confrontation); Smith v. United States, 508 U.S. 223, 225 (1993) (trading a gun for illegal drugs constitutes "use" of firearm during and in relation to drug trafficking crime within meaning of statute, triggering enhanced penalties for that offense).

136. See, e.g., Muscarello v. United States, 524 U.S. 125, 126–27 (1998) (finding that the phrase "carries a firearm" is not limited to carrying of firearms on person, but also applies to person who knowingly possesses and conveys firearms in a vehicle, which person accompanies). See also Rosemond v. United States, 572 U.S. 65, 67 (2014) (holding that to aid and abet offense of using firearm during federal drug-trafficking offense, defendant must know beforehand that one of his confederates will carry a gun); Alleyne v. United States, 570 U.S. 99, 103 (2013) (finding as to whether defendant had brandished, as opposed to merely carrying, firearm in connection with crime of violence, because it would elevate mandatory minimum term for firearms offense from five to seven years, was element of separate, aggravated offense that had to found by jury).

discharged a firearm,¹³⁷ rather than merely brandishing it, and imputes significance to brandishing it versus keeping it holstered or hidden.¹³⁸ These are after-the-fact evaluative questions in the legal system, but they are antecedent questions for research design.

C. State Preemption

At the time of this writing, forty-three states have statutes that preempt most local efforts to regulate firearm sales, usage, storage, or ownership. 139 These laws are part of a larger state preemption regime affecting environmental regulations, land use controls, Pigouvian taxes or bans on sweetened soft drinks, fiscal authority or public employee pensions, public bathroom regulations, broadband services, and so on—state laws prevent cities or counties from adopting their own restrictions or rules about an activity. 140

137. See, e.g., Dean v. United States, 556 U.S. 568, 571–72 (2009) (holding that a 10–year mandatory minimum applies if a gun is discharged in the course of a violent or drug trafficking crime, whether on purpose or by accident). See also Dean v. United States, 137 S.Ct. 1170, 1178 (2017) (permitting the use of minimum statutory sentences for gun use in commission of drug offense); United States v. Gonzales, 520 U.S. 1, 2–3 (1997) (holding that a statutory five-year sentence for using or carrying a firearm in relation to drug trafficking may not run concurrently to other state sentences).

138. Legality can also turn on the question of what constitutes "during" the commission of a predicate crime. *See, e.g.*, United States v. Ressam, 553 U.S. 272, 274–75 (2008) (holding that defendant was carrying explosives contemporaneous with the commission of underlying felony of making a false statement to a United States customs official, so it was "during" the commission of the crime).

139. See Volsky, supra note 2, at 62; Preemption of Local Laws, Giffords Laws Center to Prevent Gun Violence, https://lawcenter.giffords.org/gun-laws/policy-areas/other-laws-policies/preemption-of-local-laws/ (last visited Oct. 19, 2019); Preemption: State by State, Giffords Law Center to Prevent Gun Violence, https://lawcenter.giffords.org/gun-laws/state-law/50-state-summaries/preemption-state-by-state (last visited Oct. 19, 2019). Note that Kristin Goss stated that forty-five states had partial or full preemption in early 2005. See Goss, supra note 2, at 164. For further discussion, see Cook & Goss, supra note 21, at 108–09.

140. See Richard Briffault, The Challenge of the New Preemption, 70 STAN. L. REV. 1995 (2018); Nestor M. Davidson, The Dilemma of Localism in an Era of

A substantial academic literature has accumulated on the topic of state preemption of local rule, ¹⁴¹ and a few authors have addressed it in the context of firearm regulations. ¹⁴²

State preemption laws are often a manifestation of the tensions between rural and urban voters in many states, which in recent decades have aligned themselves with partisan positions on a variety of policy matters. ¹⁴³ In the context of firearm policy, the urban-rural divide is crucial ¹⁴⁴—handgun violence is mostly an urban problem, and city governments seek to reduce gun violence and gun prevalence, while gun sports (especially hunting), which often involve rifles rather than handguns, are primarily rural or suburban phenomena ¹⁴⁵—but so is the belief that handguns are important for self-defense. ¹⁴⁶ The voting power

Polarization, 128 Yale L.J. 954 (2019); Bradley Pough, Understanding the Rise of Super Preemption in State Legislatures, 34 J.L. & Pol. 67 (2018); Erin Adele Scharff, Hyper Preemption: A Reordering of the State-Local Relationship?, 106 Geo. L.J. 1469 (2018) [hereinafter Hyper Preemption]; Erin Scharff, Preemption and Fiscal Authority, 45 Fordham Urb. L.J. 1270 (2018); Kenneth A. Stahl, Preemption, Federalism, and Local Democracy, 44 Fordham Urb. L.J. 133 (2017); Lauren E. Phillips, Note, Impeding Innovation: State Preemption of Progressive Local Regulations, 117 Colum. L. Rev. 2225 (2017).

- 141. For an overview, see generally Richard C. Schragger, *The Attack on American Cities*, 96 Tex. L. Rev. 1163 (2018).
- 142. See generally Blocher, supra note 27; Michael P. O'Shea, Why Firearm Federalism Beats Firearm Localism, 123 Yale L.J. Online 359 (2014); John Hill, Note, North To The Future Of The Right To Bear Arms: Analyzing The Alaska Firearm Localism To Alaska, 33 Alaska L. Rev. 125 (2016). See also Blocher & Miller, The Positive Second Amendment, supra note 27, at 189–90.
- 143. See Molly Cohen, A Practical Playbook to Beat State Preemption, CITYLAB (July 19, 2017), https://www.citylab.com/equity/2017/07/a-lawyers-playbook-to-fight-state-preemption/533862/.
- 144. See Blocher, supra note 27, at 94–104 (discussing the rural-urban divide regarding preemption and differing gun cultures).
- 145. See id.; See also Scharff, Hyper Preemption, supra note 140, at 1491–92.
- 146. See Matt Valentine, Disarmed: How Cities Are Losing the Power to Regulate Guns, The Atlantic (Mar. 6, 2014), https://www.theatlantic.com/politics/archive/2014/03/disarmed-how-cities-are-losing-the-power-to-regulate-guns/284220/ ("Such laws reflect a divide not only between those who favor expanded gun rights and those who oppose them, but also a geographical divide

of these respective constituencies in the state legislature can lead to preemption laws about firearms. The main advocacy groups on each side of firearm regulation see preemption as a focal issue in their efforts—the NRA-ILA,¹⁴⁷ National Shooting Sports Foundation,¹⁴⁸ the Second Amendment Foundation,¹⁴⁹ Gun Owners of America,¹⁵⁰ and the Firearms Policy Foundation¹⁵¹ on one side, and Everytown,¹⁵² the Giffords Law Center,¹⁵³ and the Brady Law Center¹⁵⁴ on the other.

between policymakers. Metropolitan communities (where most gun crimes occur) tend to have a different perspective about gun rights and gun violence than their more rural surrounds.").

- 147. See Goss, supra note 2, at 162–65; Firearm Preemption Laws, NRA-ILA, https://www.nraila.org/get-the-facts/preemption-laws/ (last visited Oct. 19, 2019).
- 148. See, e.g., Press Release, Bill Brassard, NSSF, NSSF Tells Seattle Mayor to Veto Gun and Ammunition Tax or Face Lawsuit (Aug. 21, 2015), https://www.nssf.org/nssf-tells-seattle-mayor-to-veto-gun-and-ammunition-tax-or-face-lawsuit/; Alert, NSSF, Anti-Gun Bill Hearing Scheduled in Nevada: NSSF Needs Your Help in Opposing AB 291 (Mar. 28, 2019), http://www2.nssf.org/l/127421/2019-03-28/3qzl5f.
- 149. Press Release, Second Amendment Foundation, SAF, Florida Carry Sue Tallahassee For Preemption Law Violation, https://www.saf.org/saf-florida-carry-sue-tallahassee-for-preemption-law-violation/ (last visited Oct. 19, 2019); Press Release, Second Amendment Foundation, SAF, NRA Sue City Of Edmonds Over Wash. State Preemption Violation, https://www.saf.org/saf-nra-sue-city-of-edmonds-over-wash-state-preemption-violation/ (last visited Oct. 19, 2019).
- 150. See, e.g., State Alert, Val Finnell, Hold Cities and Municipalities Financially Responsible for Breaking the Law (May 1, 2019), https://gunowners.org/paalert5119/.
- 151. See, e.g., Press Release, Firearms Policy Coalition, Liberty Park Press: Seattle Mayor Signs Gun Control Ordinance Despite State Preemption, (Jul. 26, 2018), https://www.firearmspolicy.org/liberty_park_press_seattle_mayor_signs_gun_control_ordinance_despite_state_preemption.
- 152. See State Firearm Preemption Laws, EVERYTOWN FOR GUN SAFETY (Feb. 18, 2018), https://everytownresearch.org/fact-sheet-preemption-laws/.
- 153. See Preemption of Local Laws, GIFFORDS LAW CENTER TO PREVENT GUN VIOLENCE, https://lawcenter.giffords.org/gun-laws/policy-areas/other-laws-policies/preemption-of-local-laws (last visited Oct. 19, 2019).
- 154. See, e.g., Supplemental Brief On Appeal for Brady Center to Prevent Gun Violence as Amicus Curiae, Michigan Gun Owners, Inc. v. Ann Arbor Public Schools, 918 N.W.2d 756 (Mich. 2018) (No. 155196).

Rationales for state preemption are usually formalist or functionalist.¹⁵⁵ Formalists point to the doctrinal point that municipalities are technically organs or subdivisions of the state, with no inherent powers or legal independence under many state constitutions.¹⁵⁶ Functionalists, on the other hand, typically emphasize the need for uniformity so that citizens do not inadvertently violate local laws while traveling about the state, to prevent unfairness in the form of disparate punishments in different cities, or to prevent one side (urban or rural) from imposing externalities on the other.¹⁵⁷ Arguments for localism run along similar formal and functional lines: self-rule as an ideal (the "laboratories of democracy" in microcosm¹⁵⁸)¹⁵⁹ or self-rule for pragmatic

155. See Valentine, supra note 146.

156. See, e.g., Hyper Preemption, supra note 140, at 1475–76 ("Under the modern view, local governments are creatures of state law, and the U.S. Constitution provides few, if any, substantive protections for local policymaking. For the most part, local government authority is limited to those powers enumerated in the states' constitution and laws, and this authority is quite limited.").

157. See id. at 1493 ("In the absence of state-level control, state policymakers may be concerned about the externalities that local policies impose on those outside the local jurisdiction.").

The NRA frames its support of preemption as an effort to simplify "a complex patchwork of restrictions that change from one local jurisdiction to the next." There are just too many different ordinances, they say, which could be confusing or inconvenient to gun owners.

"I can travel 30 minutes from my home and travel through four jurisdictions," explained Kansas State Rifle Association President Patricia Stoneking, who testified in support of a new preemption bill that would eliminate what little local authority remained after Kansas passed a preemption law in 2007. "How am I to know what the law of all those jurisdictions say? What their individual ordinances are? Uniformity in all firearms laws is the most prudent action to take."

Valentine, supra note 146.

158. See Hyper Preemption, supra note 140, at 1492 ("[A]llowing space for local government policymaking is another way our federalist system encourages innovation.").

159. See id. ("[L]ocal control may improve substantive policymaking by allowing local ordinances to reflect local needs.").

reasons, such as efficiency (tailoring), 160 skin-in-the-game effects, 161 information costs and asymmetries, 162 and political accountability. 163

Some of the state preemption laws, at least related to firearms (but some are more general) carry a threat¹⁶⁴—local officials can face fines or even imprisonment for ignoring the state preemption laws and proceeding with local rules and

160. See Hyper Preemption, supra note 140, at 1491 ("First, allowing localities to pursue their own policy goals allows local residents to maximize their policy preferences.").

We have over 900 municipalities in Ohio, and often conditions and circumstances differ from one to another, so there's a rationale for local governments to craft their own legislation. So that's an argument for providing some flexibility to the local governments with regards to gun laws

161. See also Valentine, supra note 146 (quoting Former Ohio Governor Bob Taft):

California and Chula Vista assert an interest that only those with "skin in the game," i.e. electors, who will be affected by the measure, should initiate the referendum process. The California state and local governments want only civic-minded locals, who presumably would have knowledge of local affairs and would themselves be affected by the referendum, to participate in the initiative process.

See, e.g., Chula Vista Citizens for Jobs & Fair Competition v. Norris, 755 F.3d 671, 695 (9th Cir. 2014); Westover v. Idaho Ctys. Risk Mgmt. Program, 430 P.3d 1284, 1289 (Idaho 2018) (plaintiff arguing it was "the legislature's intent to bring some modicum of reasonableness to local government by requiring the government actors to have skin in the game.").

162. See Hyper Preemption, supra note 140, at 1493 ("Further, local policymaking may be better in situations where locals and local officials have ground-level expertise in both the scope of the problem and in developing solutions.").

163. *See id.* at 1492 ("For example, unlike state legislatures, which are almost all bicameral, local government experimentation can be put in place with the vote of the city council.").

164. See id. at 1495–1504 (describing punitive preemption statutes); State Firearm Preemption Laws, EVERYTOWN FOR GUN SAFETY (Feb. 18, 2018), available at https://everytownresearch.org/fact-sheet-preemption-laws/ ("The most sweeping firearm preemption laws contain onerous, punitive provisions designed to intimidate city officials from even attempting to address gun violence.").

enforcement.¹⁶⁵ The legality and prudence of such provisions are ripe questions for academic critique.¹⁶⁶

III. THE STATE OF COORDINATED RESEARCH INITIATIVES

A. Private Foundations and State Governments Begin to Step In

Even though the Dickie Amendment has stifled rigorous academic research about gun violence for the last two decades, we are beginning to see signs of researchers working around the problem. Private funding from philanthropic foundations is filling part of the gap, and at least one state (Cal.) has decided to use state funding for gun violence research. This section briefly describes the emerging research centers to make law professors aware of these resources (ongoing and recently-published empirical studies)—but also in hopes that readers in the legal academy

165. See, e.g., ARIZ. REV. STAT. § 13-3108(I) (West 2017) (imposing personal liability on local officials for fines up to \$50,000 for intentional violations of preemption law); FLA. STAT. § 790.331(3) (West 2001) (subjecting local officials to personal liability and removal from office for violating the state's preemption law); KY. REV. STAT. ANN. § 65.870(6) (West 2012) (amending Kentucky firearms preemption statute that now criminalizes violations of the preemption law); MISS. CODE. ANN. § 45-9-53(5)(c) (West 2015) (imposing fines on local officials who attempt to violate preemption statute, plus attorney's fees); see also Sarah Holder, The Escalating City-State Battle Over Guns, CITYLAB (Apr. 18, 2018), https://www.citylab.com/equity/2018/04/who-has-the-right-to-govern-your-guns/558119/ (describing similar punitive measure bill pending in the South Caroline legislature, and putting it in the context of the nationwide trend).

166. See, e.g., Fla. Carry, Inc. v. Thrasher, 248 So. 3d 253 (Fla. Dist. Ct. App. 2018) ("[I]ssue of whether university was liable for encroachment on preemption of firearms and ammunition regulation was not moot."); Fla. Carry, Inc. v. City of Tallahassee, 212 So. 3d 452 (Fla. Dist. Ct. App. 2017) (holding that "provision of preemption statute addressing standing to sue for violations of the statute did not itself prohibit any activity;" and that "city ordinances were not promulgated within meaning of the preemption statute when they were republished."); see also Jennifer Mascia, In Much of the Country, Cities Can't Enact Their Own Gun Laws, The Trace (Dec. 8, 2018), https://www.thetrace.org/2018/12/preemption-nra-local-gun-laws/ (describing the current preemption laws, enforcement mechanisms, and potential legal challenges).

167. See HEMENWAY, supra note 2, at xxiv.

will see how they themselves could fit in with some of these endeavors.

It appears that the only law school with a research center devoted to firearm law and policy is the new (launched in August 2018) Center for Firearms Law at Duke Law School, 168 directed by Joseph Blocher, Darrell Miller, and Jacob Charles. The Center focuses on "the development and dissemination of reliable and balanced scholarship on issues surrounding firearms, gun rights and regulation, and the Second Amendment." 169 To this end, the Center has an online Repository of Historical Gun Laws, which is very useful for researchers, and helpful links to important recent scholarship in the area. 170 This is a relatively new development—the center opened only recently.

With major funding from the Laura and John Arnold Foundation, RAND Corporation is leading the National Collaborative on Gun Violence Research (NCGVR),¹⁷¹ and it has conducted its first RFP for research grants in early 2019.¹⁷² The RAND website has comprehensive, non-partisan (even-handed) meta surveys of all existing empirical research on various issues related to gun violence.¹⁷³ It is an ideal starting place for prospective researchers in the legal academy. The RAND-NCGVR project is in its second year.

^{168.} See Duke Center for Firearms Law, DUKE UNIVERSITY SCHOOL OF LAW, https://law.duke.edu/firearms/ (last visited Oct. 19, 2019).

^{169.} See Second Amendment scholars Blocher and Miller co-direct new Duke Center for Firearms Law, Duke University School of Law (Feb. 12, 2019), https://law.duke.edu/news/second-amendment-scholars-blocher-and-miller-co-direct-new-duke-center-firearms-law/.

^{170.} See id.

^{171.} See Funders, National Collaborative on Gun Violence Research.

^{172.} See Request for Proposals, NATIONAL COLLABORATIVE ON GUN VIOLENCE RESEARCH, https://www.ncgvr.org/rfp.html (last visited Oct. 19, 2019).

^{173.} See Gun Policy in America, RAND CORP., https://www.rand.org/research/gun-policy.html (last visited Oct. 19, 2019).

The Johns Hopkins Bloomberg School of Public Health has a Center for Gun Policy and Research.¹⁷⁴ The Center launched in 1995, and it has a public health emphasis. The Center publishes one major empirical study per year on average. The most recent is *Estimating the Effects of Law Enforcement and Public Health Interventions Intended to Reduce Gun Violence in Baltimore* (2018).

As mentioned above, California in 2016 became the first state to provide state funding for gun violence research, the University of California Firearm Violence Research Center. The UC Davis Violence Prevention Research Program is hosting the Center, 175 which emphasizes applied, actionable research and focuses on aspects of firearm violence that create the largest burden for the population at large, as well as those with particularly disproportionate effects on population subsets. 176 Initial projects are an epidemiological study of gun violence in California, a new empirical study of the effectiveness of rigorous background check programs that include violent misdemeanor convictions, a new survey of gun ownership in California, and risk factors for recurrent gunshot injuries.¹⁷⁷ The study published in 2018 is *Firearm* mortality in California, 2000-2015: the epidemiologic importance of within-state variation. 178

The Harvard School of Public Health (T.H. Chan) has a subdivision called the Harvard Injury Control Research

^{174.} See Johns Hopkins Center for Gun Policy and Research, JOHNS HOPKINS BLOOMBERG SCHOOL OF LAW, https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-gun-policy-and-research/index.html (last visited Oct. 19, 2019).

^{175.} See Violence Research Program, UC DAVIS HEALTH, https://health.ucdavis.edu/vprp/ (last visited Oct. 19, 2019).

^{176.} Id.

^{177.} UCFC Research Projects, UC DAVIS HEALTH, https://health.ucdavis.edu/vprp/UCFC/index.html (last visited Oct. 19, 2019).

^{178.} Veronica A. Pear et al., Firearm mortality in California, 2000-2015: The epidemiologic importance of within-state variation, 28 Annals of Epidemiology 309 (2018).

Center, which studies, among other things, firearm injuries from an epidemiological perspective.¹⁷⁹ The research publications are excellent, but the most recent is from 2013, unfortunately, and most of the research is more than ten years old.

Of course, there are also advocacy groups that publish helpful reports. On the pro-gun side, the NRA-ILA reports on recent lawsuits, legislative initiatives, Congressional hearings, and so on, directed for gun owners and enthusiasts (NRA members and supporters). 180 The National Shooting Sports Foundation (NSSF), which is the firearm industry's trade association, has an online portal of "Fact Sheets and Backgrounders,"181 an impressively comprehensive collection of reports and position papers on legislative initiatives, lawsuits, and other policy developments. It represents the industry perspective, so there is no attempt to hide its bias, but the tone and emphasis is more industrycentered than the NRA's gun-owner-centered approach. Legal researchers would find many of these reports and position papers informative, at least, and professionalsounding. Interestingly, the NSSF (speaking for the industry) strongly supports legal prohibitions of straw purchases, and has its own public-information campaign to discourage straw purchases on behalf of those ineligible to own firearms. 182

^{179.} Harvard Injury Control Research Center, *Mission*, HARVARD T.H CHAN SCH. OF PUB. HEALTH, https://www.hsph.harvard.edu/hicrc/ (last visited Oct. 19, 2019).

^{180.} About the NRA Institute for Legislative Action, NAT'L RIFLE ASS'N – INST. FOR LEGISLATIVE ACTION, https://www.nraila.org (last visited Oct. 19, 2019).

^{181.} Fact Sheets and Backgrounders, NAT'L SHOOTING SPORTS FOUND., https://www.nssf.org/government-relations/factsheets/ (last visited Oct. 19, 2019).

^{182.} Larry Keane, Stopping Straw Purchases: Firearms, Industry, Law Enforcement Work to Make Our Communities Safer, NAT'L SHOOTING SPORTS FOUND. (Mar. 7, 2019), https://www.nssf.org/stopping-straw-purchases-firearms-industry-law-enforcement-work-make-communities-safer/.

On the other side, the Giffords Law Center (based at Rutgers), 183 the Brady Center to End Gun Violence, 184 and Everytown for Gun Safety¹⁸⁵ have reports, position papers, and fact sheets advocating for a variety of firearm regulations. which update readers about legislative initiatives and important lawsuits. The breadth of coverage is again impressive (matching the NSSF and NRA-ILA, but each site hits some unique issues). For example, the Giffords Center has a clear, comprehensive discussion of the state preemption problem, state-by-state. The Trace is an online magazine about firearm policy—on the gun-control side and publishes *Atlantic Monthly*-quality articles and studies (serious in-depth journalism, albeit advocacy-tilted) about gun policy initiatives, problems or breakdowns in the current legal framework, and so on. 186

Even so, we need more in-depth rigorous legal scholarship on areas besides straightforward Second Amendment questions. For example, there is a dearth of scholarly commentary on administrative law issues related to firearm regulation—*Chevron* deference to the ATF, the legality and legal effect of executive orders, the problem of unfunded mandates for state reporting to the NICS background check program, "red flag" or "extreme risk" laws (confiscation of firearms from those adjudicated in an ex parte proceeding to present a danger to themselves or others), the problems that HIPAA privacy mandates present for reporting patients to the NICS, judicial review of various agency actions related to firearms and ammunition, and so on. In the field of torts, there are the obvious topics (which

^{183.} GIFFORDS LAW CENTER TO PREVENT GUN VIOLENCE, https://lawcenter.giffords.org (last visited Oct. 19, 2019).

^{184.} Brady Center to End Gun Violence, https://www.bradyunited.org (last visited Oct. 19, 2019).

^{185.} EVERYTOWN FOR GUN SAFETY, https://everytown.org (last visited Oct. 19, 2019).

^{186.} The Trace, https://www.thetrace.org/ (last visited Oct. 19, 2019).

received academic attention when they were new, but not the federal ofstatutes immunizing manufacturers and gun owners from tort liability, with a landmark decision about the PLCAA from the Connecticut Supreme Court in March 2019. 187 There are environmental policy issues, meriting attention from legal scholars, regarding the severe lead contamination of the ground and air at shooting ranges, and the resulting lead poisoning of wildlife and of people who work at or who frequent the shooting ranges. In the criminal law field, there is now a split among the federal circuit courts about the Second Amendment implications of felon-in-possession prohibitions, 188 but not enough legal scholarship pushing for

^{187.} See Soto v. Bushmaster Firearms Int'l, 202 A.3d 262 (Conn. 2019).

^{188.} See Binderup v. Att'y Gen., 836 F.3d 336, 356-57 (3d Cir. 2016) (en banc), cert. denied, 137 S. Ct. 2323 (2017) (finding the statute violated the Second Amendment as applied). In contrast, the Fourth, Fifth, Seventh, Ninth, Tenth, Eleventh, and D.C. Circuits have also rejected as-applied challenges, where the defendant claimed his prior conviction was for a non-violent felony. See Medina v. Whitaker, 913 F.3d 152 (D.C. Cir. 2019)(upholding felon-in-possession ban as applied to nonviolent felon); Hatfield v. Barr, 925 F.3d 950 (7th Cir. 2019) (federal statute that criminalized being a convicted felon in possession of a firearm did not violate Second Amendment as applied to felon); Kanter v. Barr, 919 F.3d 437. 438 (7th Cir. 2019) (non-violent felon's unsuccessful challenge to felon dispossession statutes under the Second Amendment); Hamilton v. Pallozzi, 848 F.3d 614, 626c27 (4th Cir. 2017), cert. denied, __ U.S. __, 138 S.Ct. 500 (2017); United States v. Rozier, 598 F.3d 768, 770-71 (11th Cir. 2010); United States v. Scroggins, 599 F.3d 433, 451 (5th Cir. 2010); United States v. Vongxay, 594 F.3d 1111, 1115 (9th Cir. 2010); In re United States, 578 F.3d 1195, 1200 (10th Cir. 2009). On the other hand, every federal circuit court that has had occasion to consider a facial challenge to the federal felon-in-possession statute's constitutionality has upheld the law. See, e.g., United States v. Bogle, 717 F.3d 281 (2d Cir. 2013) (per curiam); United States v. Moore, 666 F.3d 313, 318 (4th Cir. 2012); United States v. Joos, 638 F.3d 581, 586 (8th Cir. 2011); United States v. Torres-Rosario, 658 F.3d 110, 113 (1st Cir. 2011); United States v. Rozier, 598 F.3d 768, 770-71 (11th Cir. 2010); United States v. Williams, 616 F.3d 685, 692 (7th Cir. 2010); United States v. Vongxay, 594 F.3d 1111, 1115 (9th Cir. 2010); United States v. McCane, 573 F.3d 1037, 1047 (10th Cir. 2009); United States v. Anderson, 559 F.3d 348, 352 (5th Cir. 2009); see also Eric Ruben and Joseph Blocher, From Theory to Doctrine: An Empirical Analysis of the Right to Keep and Bear Arms After Heller, 67 DUKE L. J. 1433, 1481 (2018) ("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

a new consensus, or giving courts guidance about which sister circuit's approach to adopt. In bankruptcy law, some of the major firearms manufacturers have filed for bankruptcy in recent years, and others are on the brink—these are complex bankruptcy issues that deserve more academic study from those with expertise in the field.

B. Anticipating Objections: John Lott

Recently, John Lott, a full-time advocate for firearm prevalence, posted an unpublished article on the Social Science Research Network website entitled Myth: Firearms Research Fell After the NRA Restrictions on Federal Funding. 189 In this manuscript, which dates from 2014, Lott claims to have counted the number of articles (and article pages) published every year pertaining to firearm research after the 1996 restrictions went into effect. 190 He claims that the number of articles remained the same, or increased, although he admits that federal funding dropped off¹⁹¹ (he also highlights the private sources of funding for such research that were just emerging at the time, which he claims make the research biased). 192 But his methodology is ridiculous—he merely did a PubMED search for all articles containing the word "firearm" or "gun" anywhere in the article, including the footnotes or bibliography. 193

It is easy to find numerous articles that mention guns or firearms are not projects about this subject, but merely mention it in passing as one of the chronic problems that

rejected 99 percent of time and enjoyed no success at the federal appellate level during our study period.").

^{189.} John R. Lott & John Whitley, *Myth: Firearms Research Fell after the NRA Restrictions on Federal Funding*, CRIME PREVENTION RESEARCH CTR. (Feb. 26, 2014), https://www.ssrn.com/abstract=3295796.

^{190.} Id.

^{191.} Id.

^{192.} Id.

^{193.} *Id*.

plague poor urban communities, and so forth. In other words, John Lott grossly overcounts the articles published in this period. It also appears Mr. Lott is counting his own prolific, repetitive publications in this count. His website claims that he has published over 100 articles in peer-review journals, many or most of which were during the same period; given that he is claiming there are sixty or more articles per year about guns, if ten of those are his, then that would mask a large drop-off in publications by university-affiliated researchers. This is not a matter of sophisticated statistical models—it is as simple as doing a search for the word "firearm" on Google Scholar and seeing the small percentage of results that are in fact articles about firearm prevalence or use. He also admits he included many articles about BB guns and air guns, which are not even covered under most state or federal gun laws. 194 Near the end of his article, he resorts to assertions like this one: "There is also the problem that Public Health research is very poorly done, using primitive statistics, and is filled with statistical and logical errors." 195 A footnote offers support for this sweeping claim entirely from John Lott's own writings.

In 2019, Mr. Lott began asserting in op-eds and interviews that "The federal government has generously funded firearms research, spending over \$43 million between 2015 and 2018." Mr. Lott does not provide any citations or sources for this figure. According to government websites like TAGGS (for NIH) and the National Institute of Justice/Office of Justice Programs, the sums are much smaller. The OJP lists just under \$9 million in grants for firearm or gun violence research during the period in

^{194.} See id.

^{195.} Id.

^{196.} John Lott, Gun Controls Backed by Dem Presidential Candidates Would Hurt Poor and Minorities, Fox News (May 15, 2019), https://www.foxnews.com/opinion/john-lott-gun-controls-backed-by-dem-presidential-candidates-would-hurt-poor-and-minorities.

question.¹⁹⁷ The NIH total is just under \$7 million¹⁹⁸, but most of this appears to be carryovers (annual installments) from previously awarded grants that run for three or four years, rather than being new awards.

As mentioned in the Introduction, in 2012, as President Obama finished his first term, Congress expanded the Dickey Amendment to apply to the National Institute of Health (NIH) as well as the CDC. The two agencies are different in size and political vulnerability—the NIH has a much larger budget and is not subject to line-item funding approval from Congress. 199 Also, "The CDC doesn't completely ignore the issue of gun violence. In 2002, it created the National Violent Death Reporting System (NVDRS), which covers all types of violent deaths, including homicides and suicides committed with firearms. However, the NVDRS collects data from only 32 states."200 After the Sandy Hook massacre, the NIH "in 2013 announced a funding opportunity for research examining violence, in particular firearm violence."201 The first two awards that specifically addressed firearms were for Garen Wintemute's research efforts at U.C. Davis,²⁰² and the one awarded to

^{197.} Past Funding Opportunities: Closed Solicitations – Fiscal Year 2019, U.S. DEP'T OF JUSTICE OFFICE OF JUSTICE PROGRAMS (last visited Oct. 19, 2019), https://ojp.gov/funding/Explore/PastFundingOpportunities.htm.

^{198.} Cunningham et al., NIH Funds a Research Consortium to Address Firearm Deaths Among U.S. Children and Teens, UNIV. OF MICH. INST. FOR HEALTHCARE POL'Y & INNOVATION (Apr. 18, 2018), https://ihpi.umich.edu/news/nih-funds-research-consortium-address-firearm-deaths-among-us-childrenteens; see Grants & Funding, U.S. Dep't of Health and Human Servs., NAT'L INST. OF HEALTH & HUMAN SERVS. (last visited Oct. 19, 2019), https://grants.nih.gov/funding/index.htm.

^{199.} Rita Rubin, *Tale of 2 Agencies: CDC Avoids Gun Violence Research But NIH Funds It*, 315 JAMA 1689, 1689–91 (2016) https://jamanetwork.com/journals/jama/fullarticle/2513131?appid=scweb&alert=article.

^{200.} Id. at 1690.

^{201.} Id. at 1691.

^{202.} Garen Wintemute, Alcohol, Drugs and Other Prior Crimes and Risk of Arrest in Handgun Purchasers, NIH RESEARCH PORTFOLIO ONLINE REPORTING

Rina Eiden, a substance abuse researcher at the University at Buffalo; Eiden received \$723 000 in fiscal year 2015 to study the precursors of gun violence.²⁰³ The NIH provided \$11.4 million to 14 research projects related to guns and gun violence between 2014 and 2017 as part of its Obama-era program for "Research on the Health Determinants and Consequences of Violence and its Prevention, Particularly Firearm Violence."204 Things changed after the 2016 election. Recently, "NIH officials have noted that firearms researchers can continue to apply for NIH funding to study gun violence through a general application channel used by thousands of NIH applicants,²⁰⁵ but these are a fraction of the pre-2017 levels. The NIH backed off from the research after President Trump took office in 2017.²⁰⁶ The N.R.A. pressured Congress and the agency to defund the research, charging that it was biased against guns.²⁰⁷ Members of Congress have demanded explanations from the NIH over discontinuing its program after Trump's election. 208 Some of the \$7 million in NIH grants mentioned above are partial carryovers from the Obama-era awards. Also, note that the National Institute of

 $[\]label{thm:cols} Tools \ (Apr.\ 30,\ 2017),\ https://projectreporter.nih.gov/project_info_description.cfm?aid=8919078&icde=27426956&ddparam=&ddvalue=&ddsub=&cr=9&csb=default&cs=ASC.$

^{203.} Rubin, *supra* note 194, at 1691.

^{204.} Meredith Wadman, NIH Directors Stand Firm on Not Renewing Focused Firearm Research Program, Sci. Magazine (Nov. 15, 2017), https://www.sciencemag.org/news/2017/11/nih-institute-directors-stand-firm-not-renewing-focused-firearm-research-program.

^{205.} Id.

^{206.} Meredith Wadman, *NIH quietly shelves gun research program*, Sci. Magazine (Sep. 13, 2017–12:13 PM), http://www.sciencemag.org/news/2017/09/nih-guietly-shelves-gun-research-program.

^{207.} See id.

^{208.} Letter from Frank Mallone, Jr., Ranking Member, and Bobby L. Rush, Ranking Member, Comm. on Energy & Commerce, to Frank Collins, Director, Nat'l Inst. of Health (Nov. 14, 2017), https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/HHS.NIH_.2017.10.30% 20Letter%20re%20firearm%20violence%20research.%20HE.pdf.

Justice (part of the OJP) makes almost \$3 million in grants during this period to the firearm industry's trade association, the National Sports Shooting Foundation, to help with things like "recruitment of more hunters," i.e., firearm purchasers.²⁰⁹ The firearms industry is subsidized by federal tax funds. Perhaps Mr. Lott is including that in his \$43 million.

The only way to derive a figure like Lott's \$43 million is to include grants from the OJP to state and local law enforcement agencies to help with reporting information to the NICS program, for officer training in shooting and gun safety, or for forensics labs to aid with ballistics research. He might also include the data-collection efforts (non-research) by the CDC and the Bureau of Justice Statistics.

In the Preface to the 2017 edition of his book *Private Guns*, *Public Health*, Harvard researcher David Hemenway describes his experience with the ongoing situation at the CDC:

Republican congressmen, at the behest of the gun lobby, have so intimidated the CDC that the director says almost nothing about gun violence, and the staff is afraid to say the words "guns" or "firearms" at national meetings. On phone calls, if I mention guns with CDC professionals, it is not uncommon for them to ask to call me back. They then go outside so they can talk privately from their personal cell phones. ²¹⁰

Hemenway also describes the current funding situation with the National Institute of Health—for the four decades from 1973 to 2012, the NIH awarded 486 research grants for the following four diseases: cholera, diphtheria, polio, and rabies—which have a combined total of two thousand reported cases each year. Yet there were four million injuries

^{209.} Project ChildSafe: A Firearms Safety Program of the Nat'l Shooting Sports Found. 2017 Annual Review, Project ChildSafe, Inc. (last visited Oct. 19, 2019), https://www.projectchildsafe.org/sites/default/files/Project%20ChildSafe%202017%20Annual%20Review.pdf.

^{210.} HEMENWAY, supra note 2, at xv.

from firearms during the same period, and the NIH funded just three research grants.²¹¹

CONCLUSION

In March 2019, Andrew Morrall, the RAND-based director of the National Collaborative on Gun Violence Research. testified before a House Appropriations Subcommittee on Labor, Health and Human Services, Education, and Related Agencies to make the case for federal funding of gun violence research.²¹² It was the first House Appropriations hearing dedicated to the funding issues since 1996.²¹³ The testimony focused on the current lack of scientific evidence to support policies about gun violence (on either side), and the potential for high quality research to inform policy development in this area. The federal government provides fifty times as much funding for research about other causes of deaths that kill similar numbers of people. 214 "Even basic questions like whether gun free zones deter or attract gun violence, or whether childaccess prevention laws prevent gun owners from defending themselves in emergencies have not been rigorously studied."215 One month later, the House Appropriations Committee approved \$50 million for the CDC to conduct scientific research to reduce injuries from gun violence. 216 Of

^{211.} See id. at xv-xvi.

^{212.} Reducing Disagreements on Gun Policy Through Scientific Research and an Improved Data Infrastructure: Hearing before the Subcomm. On Labor, Health & Human Servs., Educ., & Related Agencies, 116th Cong. 1 (2019) (statement of Andrew Morrall, Director, National Collaborative on Gun Violence Research).

^{213.} Collaborative Director Outlines Need for Gun Policy Research Before Congressional Subcommittee, NAT'L COLLABORATIVE ON GUN VIOLENCE RESEARCH, (Mar. 7, 2019) https://www.ncgvr.org/news/2019/andrew-morral-congressional-testimony.html.

^{214.} Id.

^{215.} Id.

^{216.} Press Release, Appropriations Committee Releases Fiscal Year 2020 Labor-HHS-Education Funding Bill (Apr. 29, 2019), https://appropriations.house

course, it remains doubtful that the Republican-controlled Senate would approve the allocation.²¹⁷

In the meantime, law professors can commence work and help fill in the gap. As we produce useful scholarship, authors and law review editors should make special efforts to disseminate the research in this area without cost to researchers in other fields and to the public, as the *Harvard Law Review* currently does with its recent archives on its website, or through online portals like the Social Science Research Network and Bepress. In other words, not behind a paywall.

Law professors at major universities may underestimate the problem and how it stymies both interdisciplinary research and data-driven policymaking.²¹⁸ Universities typically provide their law faculty with free, unlimited access to ScienceDirect, JStor, and Hein databases, a convenience that we take for granted.²¹⁹ Conversely, researchers in other

.gov/news/press-releases/appropriations-committee-releases-fiscal-year-2020-labor-hhs-education-funding; Rachel Roubein, *House Panel Allots \$50M To Study Gun Violence*, POLITICO (Apr. 29, 2019, 5:07 PM), https://www.politico.com/story/2019/04/29/house-gun-violence-study-1292456.

217. Jessie Hellmann, House Dems Propose \$50 Million To Study Gun Violence Prevention, The Hill (Apr. 29, 2019, 4:56 PM), https://thehill.com/policy/healthcare/441229-house-democrats-propose-25-million-for-cdc-to-study-gun-violence (It's unclear whether the Republican-controlled Senate would approve legislation that provides funding to study gun violence.).

218. See Joi Ito, The Quest to Topple Science-Stymying Academic Paywalls, WIRED (Jan. 4, 2019, 3:46 PM), https://www.wired.com/story/ideas-joi-ito-academic-paywalls; see also Jose Beduya, Documentarian: Take Down Paywalls with Open Access to Scholarship, The Cornell Chronicle (Dec. 4, 2018), http://news.cornell.edu/stories/2018/12/documentarian-take-down-paywalls-open-access-scholarship. See generally Paywall: The Business of Scholarship (Utopian Turtletop Productions 2018) ("[P]rovides focus on the need for open access to research and science, questions the rationale behind the \$25.2 billion a year that flows into for-profit academic publishers, examines the 35–40% profit margin associated with the top academic publisher Elsevier and looks at how that profit margin is often greater than some of the most profitable tech companies like Apple, Facebook and Google.").

219. Perhaps validating my point that the legal academy is unaware of the paywall problem that besets our counterparts in other disciplines, I could not find

fields (sociology, public health, and so on), advocacy groups, policymakers. influential bloggers. state-level journalists often do not have free access to Westlaw or Lexis databases for law review articles. As outlined above, empirical researchers in other fields who wish to study gun prevalence, predictors of gun violence, and so on need ex ante theorization from the legal academy to frame their studies appropriately; and they need easy access to our work. firearm policy Research-driven is an inherently interdisciplinary endeavor.

Public access to scholarship on firearm policy should be a factor in our decisions about where or how to publish final works, or at least could be an added provision to the publication agreements we have with law reviews. Similarly, law professors who have high-readership blogs should commit to directing readers' attention to high-quality emerging scholarship about gun policy.

There is an additional role for law faculty besides publication of traditional law review articles. We have opportunities to participate in amicus briefs when firearm-related legislative initiatives face court challenges. Even more importantly, or at least more urgently, law professors have opportunities to participate in legislative drafting projects, either on their own, at their state legislature, or through collectives like the American Law Institute, the Uniform Law Commission, and various thinktanks—a crucial last step that social science researchers are unlikely to do.

a single article in a traditional law review even mentioning the issue.