An Empirical Assessment of Homicide and Suicide Outcomes with Red Flag Laws

Rachel Delafave

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This Article empirically illustrates that red flag laws—laws which permit removal of firearms from a person who presents a risk to themselves or others—contribute to a statistically significant decrease in suicide rates, but do not influence homicide rates. I exploit state-level variation across time in the existence of red flag laws between 1990 and 2018 and find that the existence of a risk-based law reduces firearm-related suicides by 6.4% and overall suicides by 3.7%, with no substitution to non-firearm suicides. Red flag laws are not associated with a statistically significant change in homicides rates. Policymakers should consider red flag laws an effective tool to prevent firearm-related suicide, one of the most prevalent preventable causes of death in the United States. In light of this evidence, red flag laws should be more politically successful in the current partisan environment than other forms of gun control legislation because of their targeted nature and potential to balance the interests of gun owners against the negative externalities of gun violence.

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INTRODUCTION

Over the past several years, mass shootings have become an almost daily occurrence in the United States.[1] Their frequency has animated the long-standing, highly polarized debate about the optimal level of gun control legislation in the United States.[2] Despite their increasing prominence, however, mass shootings are far from the greatest contributors to the social cost of gun violence. That distinction belongs to firearm suicide, followed by firearm homicide. On average, from 1990 to 2018, firearm-related suicides killed about 19,000 people per year, and firearm-related homicides killed an additional 13,200.[3] To put this in

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1. The Gun Violence Archive defines a mass shooting as a shooting in which four or more people, excluding the shooter, are shot or killed. *Methodology*, GUN VIOLENCE ARCHIVE, https://www.gunviolencearchive.org/methodology (last visited Feb. 21, 2021). By this measure, an average of 378 people died in 334 mass shootings per year from 2013 through 2019 (inclusive), or 1.0 people in 0.92 shootings per day. *See, e.g.*, *Mass Shootings*, GUN VIOLENCE ARCHIVE, https://www.gunviolencearchive.org/mass-shooting (last visited Feb. 21, 2020) (tracking unique mass shooting events through 2021 and providing the raw data with which to calculate the averages) (data and calculations on file with author). To access the data by year, see *Past Summary Ledgers*, GUN VIOLENCE ARCHIVE, https://www.gunviolencearchive.org/past-tolls (last visited Feb. 21, 2021) and click on "Mass Shootings" for each year listed. For the 2013 figures, please see *Mass Shootings in 2013*, GUN VIOLENCE ARCHIVE, https://www.gunviolencearchive.org/reports/mass-shootings/2013 (last visited Feb. 21, 2021).

2. One study has estimated that it would take approximately 125 people dying in individual gun homicide incidents to have the same impact on gun bills introduced as each person who dies in a mass shooting. Michael Luca, Deepak Malhotra & Christopher Poliquin, *The Impact of Mass Shootings on Gun Policy*, 181 J. PUB. ECON. 1, 6 (2019). *See id*. at 10 ("Mass shootings account for a small fraction of gun deaths in the United States but have a significant impact on gun policy. More gun laws are proposed in the year following a mass shooting. Furthermore, mass shootings seem to have much larger effects on policy, per fatality, than do ordinary gun homicides."). However, the policy responses differ based on political party. Republican-controlled legislatures are more likely to loosen gun laws in the year after a mass shooting, while Democrat-controlled legislatures tend toward stricter laws, however this is statistically insignificant. *Id*.; *see also* Hasin Yousaf, *Sticking to One's Guns: Mass Shootings and the Political Economy of Gun Control in the U.S.* 4 (Dep't of Econ., Universidad Carlos III de Madrid, 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3360831 [https://perma.cc/TNR5-F325] (finding that after a mass shooting, Republican voters prefer less gun control while Democrat voters prefer more gun control).

3. I calculated these averages using data from the Centers for Disease Control and Prevention Underlying Cause of Death records. To calculate the average firearm-related suicides and homicides per year go to, *Compressed Mortality File 1979–1998 on CDC WONDER Online Database*, NAT'L CTR. FOR HEALTH STAT., CTRS. FOR DISEASE CONTROL & PREVENTION, https://wonder.cdc.gov/controller/datarequest/D16 [https://perma.cc/3NFF-5EMQ] (last visited Mar. 15, 2020) [hereinafter *CDC WONDER 1979–1998*] (Change years from "all" to 1990–98; change cause of death to "Injury Intent and Mechanism" and select "Suicide" and "Homicide" for "Injury Intent" and "Firearm" for "Injury Mechanism & All Other Leading Causes"; press send to get 164,944 suicide deaths and 141,870 homicide deaths during this date range.) and *Underlying Cause of Death 1999-2019 on CDC WONDER Online Database*, NAT'L CTR. FOR HEALTH STAT., CTRS. FOR DISEASE CONTROL & PREVENTION, https://wonder.cdc.gov/controller/datarequest/D76 [https://perma.cc/W9K7-67WV] (last visited Mar. 15, 2020) [hereinafter *CDC WONDER 1999–2019*] (Change years to 1999–2018; change cause of death to "Injury Intent and Mechanism" and

perspective, this death toll is the equivalent of over eleven September 11, 2001 attacks every year.[4] From 2006 to 2018, firearm-related suicide rates increased by more than twenty-five percent.[5] Reducing this common source of violent, firearm-related deaths is an important public policy goal and an important task for researchers. As of the writing of this Article, suicide prevention is as pressing now as ever because physical distancing—the primary public health intervention to limit the spread of COVID-19—also has the potential to worsen social isolation, a known suicide risk factor.[6] Evaluating the best ways to reduce firearm access among high-risk persons is therefore critical.[7]

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select "Suicide" and "Homicide" for "Injury Intent" and "Firearm" for "Injury Mechanism & All Other Leading Causes"; press send to get 384,865 suicide deaths and 241,675 homicide deaths during this date range.), then add the number of deaths together (164,944 + 384,865 for suicides; 141,870 + 241,675 for homicides) and divide this by the number of years (29) to get the average by year (approximately 19,000 suicides; 13,200 homicides). By contrast, only about 378 people per year are killed in mass shootings. See *supra* note 1 (calculating this figure based off figures provided by the GUN VIOLENCE ARCHIVE).

4. In total, 2,977 people died in the 9/11 attacks, excluding the 19 hijackers. *September 11, Attacks*, HISTORY (Aug. 25, 2018), https://www.history.com/topics/21st-century/9-11-attacks [https://perma.cc/7Y4S-FWU7]; *Final Report of the National Commission on Terrorist Attacks Upon the United States*, NAT'L COMM'N ON TERRORIST ATTACKS UPON THE U.S. (Aug. 21, 2004), https://govinfo.library.unt.edu/911/report/911Report_Exec.htm [https://perma.cc/U2Z7-8RMR].

5. Rebekah Mannix, Lois Lee & Eric Fleegler, *Coronavirus Disease 2019 (COVID-19) and Firearms in the United States: Will an Epidemic of Suicide Follow?*, ANNALS INTERNAL MED. (Aug. 4, 2020), https://www.acpjournals.org/doi/10.7326/M20-1678 [https://perma.cc/MQ47-DV2P]; *CDC Wonder 1979-1998*, *supra* note 3.

6. *See, e.g.*, Mannix et al., *supra* note 5 (discussing the possibility that COVID-19 may exacerbate the firearm-related suicide crisis); Ann John et al., *Trends in Suicide During the COVID-19 Pandemic*, BRIT. MED. J. (Nov. 12, 2020), https://www.bmj.com/content/371/bmj.m4352 [https://perma.cc/G5XG-2HCV] (reviewing preliminary data on suicide during the pandemic); Sharath Chandra Guntuku et al., *Tracking Mental Health and Symptom Mentions on Twitter During COVID-19*, 1 J. GEN. INTERNAL MED. 1, 1 (2020) (comparing mental health estimates from Twitter across all states and finding that they were significantly lower in 2020 as compared to 2019). Unemployment and other financial stressors are other suicide risk factors that may be exacerbated by the pandemic. David Gunnell et al., *Suicide Risk and Prevention During the COVID-19 Pandemic*, 7 LANCET PSYCHIATRY 468, 469 (2020). There is also some evidence that suicide deaths increased during past public health emergencies. *See* Ira M. Wasserman, *The Impact of Epidemic, War, Prohibition and Media on Suicide: United States, 1910-1920*, 22 SUICIDE & LIFE-THREATENING BEHAV. 240, 251 (1992) (finding that suicides in the Unites States increased during the 1918–19 influenza pandemic); Y.T. Cheung, P.H. Chau, & Paul S.F. Yip, *A Revisit on Older Adults Suicides and Severe Acute Respiratory Syndrome (SARS) Epidemic in Hong Kong*, 23 INT'L J. GERIATRIC PSYCHIATRY 1231, 1237 (2008) (finding an increase in suicides among older people in Hong Kong during the 2003 severe acute respiratory syndrome epidemic and concluding that maintaining the mental wellbeing of the public is critical during public health crises).

7. The eventual effects, if any, of social disruption on mental health may occur with a delay. For example, after the nuclear meltdown at the Fukushima Daiichi power plant in Japan, the government evacuated hundreds of thousands of people, many of whom had to stay away from the area for months or years. Suicide rates initially decreased but increased about two years after the disaster. Masatsugu Orui et al., *Suicide Rates in Evacuation Areas After the Fukushima Daiichi Nuclear Disaster: A 5-year Follow-up Study in Fukushima Prefecture*, 39 CRISIS 353, 360 (2018)

Red flag laws are one potential tool to curb gun violence. Red flag laws are risk-based firearm seizure laws that permit police or family members to petition a state court to order the temporary removal of firearms from a person who may present a danger to themselves[8] or others.[9] Although a large body of research examines the impact of gun control policies on gun-related violence,[10] red flag laws have received much less attention from researchers, despite their potential to deter gun-related violence at minimal cost to responsible gun owners. Red flag laws differ from prohibited purchaser laws that prevent specific groups of individuals from owning, purchasing, or possessing firearms because they can be applied to any at-risk individual.[11] They also differ from laws requiring removal of firearms from prohibited possessors because a court can order firearm removal from anyone if it determines that they are at high risk for violence, regardless of whether they have committed a crime, been diagnosed with a mental illness, or have otherwise been disqualified from

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(concluding that when providing post-disaster mental health services, suicide rates can eventually increase even if they initially decrease). These results are consistent with other studies considering changes in suicide rates after a disaster. *See, e.g.*, Evelyn J. Bromet & Johan M. Havenaar, *Psychological and Perceived Health Effects of the Chernobyl Disaster: A 20-year Review*, 93 HEALTH PHYSICS 516, 519 (2007) (long-term excess suicide deaths among Chernobyl nuclear disaster clean-up workers); Hitoshi Ohto et al., *Suicide Rates in the Aftermath of the 2011 Earthquake in Japan*, 385 LANCET 1727, 1727 (2015) (finding that suicide mortality decreased during the first two years after the disaster but subsequently rose, and hypothesizing that "when the evacuations . . . peaked, there was . . . a collective feeling of concern and altruism . . . . However, once the new reality caused by the triple disaster set in, increased demoralization and anxiety, combined with restricted employment and movement of young families to urban areas, triggered a rise in suicide . . . .").

8. This Article will use singular *they* throughout.

9. *See Extreme Risk Protection Orders*, GIFFORDS L. CENT., https://lawcenter.giffords.org/gun-laws/policy-areas/who-can-have-a-gun/extreme-risk-protection-orders/ [https://perma.cc/NXY9-WKCL] (Feb. 22, 2021) (explaining that extreme risk laws create a process by which family members or law enforcement can report an individual's red flag behaviors and restrict that individual's access to firearms through judicial order).

10. *See infra* Section II.A (exploring the documented link between guns and violence).

11. *See* 18 U.S.C. § 922(d)(4) (stating that, under federal law, formal and involuntary commitment to a mental institution, being found not guilty by reason of insanity, or some other formal adjudicative proceeding regarding their mental illness is necessary to prevent a person suffering from mental illness from purchasing or possessing a firearm); s*ee also* 27 C.F.R. § 478.11 (2021) (defining "adjudicated as a mental defective" and "committed to a mental institution");18 U.S.C. § 922(d)(9) (stating that a person who has committed a violent act toward others is only prohibited from possessing firearms under federal law if they are subject to a domestic violence restraining order, have been convicted of a felony, or have been convicted of a domestic violence misdemeanor). Most states have laws mirroring the federal prohibitions on gun possession by seriously mentally ill individuals, and every jurisdiction now has domestic violence laws. *See e.g.*, Michelle R. Waul, *Civil Protection Orders: An Opportunity for Intervention with Domestic Violence Victims*, 6 GEO. PUB. POL'Y REV. 51, 52, 59 (2000). However, these laws do not provide a process to disarm high-risk individuals who have not been adjudicated mentally ill, nor do domestic violence orders protect individuals other than the victim, such as people outside the family, or a suicidal individual. *Id.*

possessing a firearm.[12] By providing a legal framework for identifying and disarming high-risk individuals, red flag laws may decrease the overall rates of firearm-related fatalities, including homicides, suicides, and mass shootings.

Nineteen states and the District of Columbia currently have red flag laws.[13] In light of their increasing popularity, and in order to inform policymakers considering future laws and expansions of existing laws, it is important to empirically evaluate their effectiveness. I exploit variation in the existence and timing of enactment of red flag laws across states to examine their effect on homicide and suicide rates.[14] Because fatality data are available through 2018, I constrain my analysis to the red flag laws of five states: Connecticut, Indiana, California, Washington, and Oregon.[15] With a difference-in-differences approach, I find that red flag laws reduce firearm-related suicides by about 6.4%, with no statistically significant substitution to non-firearm suicides.[16] Red flag laws have no statistically significant effect on overall or firearm-related homicides.[17]

My data and approach offer advantages over previous work in this area.[18] My difference-in-differences approach levies variation within

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12. *The Effects of Extreme Risk Protection Orders*, RAND (Apr. 22, 2020), https://www.rand.org/research/gun-policy/analysis/extreme-risk-protection-orders.html [https://perma.cc/6YTH-4QTP].

13. CAL. PENAL CODE § 18150 (West 2020); COLO. REV. STAT. § 13-14.5-103 (2019); CONN. GEN. STAT. § 29-38c (2020); DEL. CODE ANN. tit. 10, §§ 7701, 7704 (2020); FLA. STAT. § 790.401(3)(a) (2020); HAW. REV. STAT. ANN. § 134-65 (2020); 430 ILL. COMP. STAT. 67/35, 67/40 (2019); IND. CODE § 35-47-14-2 (2020); MD. CODE ANN., PUB. SAFETY § 5-602 (West 2020); MASS. GEN. LAWS ch. 140, § 131R (2020); NEV. REV. STAT. § 33.590 (2020); N.J. STAT. ANN. §§ 2C:58-21, 23 (West 2019); N.M STAT. ANN. § 40-17-1–13 (2020); N.Y. C.P.L.R. §§ 6340, 6341 (MCKINNEY 2021); OR. REV. STAT. § 166.527 (2020); 8 R.I. GEN. LAWS § 8-8.3-4 (2020); VT. STAT. ANN. tit. 13, § 4053 (2019); VA. CODE ANN. § 19.2-152.14 (2020); WASH. REV. CODE §§ 7.94.020(2), 7.94.030(1) (2020); D.C. CODE § 7-2510.01–7-2510.13 (2020).

14. Cause of death data are from *CDC Wonder 1979-1998*, *supra* note 3 (providing access to public health data, statistical research, policy concerns, etc.).

15. CONN. GEN. STAT. § 29-38c (2020); IND. CODE §§ 35-47-14-1, 35-47-14-2 (West 2020); CAL. PENAL CODE §§ 18100–18165 (West 2020); WASH. REV. CODE §§ 7.94.010–7.94.050 (2020); OR. REV. STAT. §§ 166.525–166.537 (2020). The details of these states' statutes are summarized in Appendix Table A.1.

16. *See infra* Section IV.C (explaining data reports concerning firearm-related suicides pre- and post-red flag law enactment).

17. *See infra* Section IV.C (explaining data concerning firearm-related homicides pre- and post-red flag law enactment).

18. For previous work in the field of red flag laws and suicide outcomes, see Jeffrey W. Swanson et al., *Implementation and Effectiveness of Connecticut's Risk-Based Gun Removal Law: Does It Prevent Suicides?*, 80 L. & CONTEMP. PROBS. 179 (2017) [hereinafter Swanson Connecticut] (empirically analyzing the results of red flag laws in Connecticut); Jeffrey W. Swanson et al., *Criminal Justice and Suicide Outcomes with Indiana's Risk-Based Gun Seizure Law*, 47 J. AM. ACAD. PSYCHIATRY L. 188 (2019) [hereinafter Swanson Indiana] (discussing statistical effects of the red flag law in Indiana).

states across time and is more resilient against threats to identification.[19] Additionally, to my knowledge, I am the first to examine the impact of red flag laws on homicides, which could inform the motivation for passing these laws. Finally, I am also the first to examine the differential impact of these laws on different race and gender groups. With respect to policy implications, red flag laws represent a narrowly targeted but effective policy that balances the rights of gun owners and the externalities associated with widespread firearm availability.

This Article proceeds in five parts. Part I gives an overview of existing red flag laws and state-level variation. Part II provides background on suicide and homicide prevention, with a focus on the relationship between firearms and violence and the ways in which red flag laws affect this interplay. Part III evaluates the existing literature on the effects of red flag laws on suicide. Part IV walks through the methodology and results of my difference-in-differences framework. Then, in Part V, I consider the implications of my findings.

I. OVERVIEW OF STATE LAWS AND VARIATION

Nineteen states and the District of Columbia currently have red flag laws.[20] The orders issued under these laws are variously called extreme risk protection orders,[21] gun violence restraining orders,[22] risk warrants,[23] and proceedings for the seizure and retention of a firearm.[24] Before 2018, only five states—Connecticut (1999), Indiana (2005), California (2014), Washington (2015), and Oregon (2017)—had passed these laws.[25] In each of the first three states, the laws were passed in

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19. *See* Aaron J. Kivisto & Peter Lee Phalen, *Effects of Risk-Based Firearm Seizure Laws in Connecticut and Indiana on Suicide Rates, 1981–2015*, 69 PSYCHIATRIC SERVS. 855 (2018) (looking at the effects of red flag laws in Connecticut and Indiana until 2015). In addition to Connecticut and Indiana, my study includes California, Washington, and Oregon, which is made possible by three additional years of mortality data.

20. *See* sources cited *supra* note 13.

21. OR. REV. STAT. §§ 166.525–166.537 (2020); WASH. REV. CODE §§ 7.94.010–7.94.050 (2020); MD. CODE ANN., PUB. SAFETY §§ 5-601–5-610 (West 2020); VT. STAT. ANN. tit. 13, §§ 4051–4061 (2019); COLO. REV. STAT. §§ 13-14.5-103–13-14.5-114 (2019). New Mexico calls the orders associated with its law Extreme Risk Firearm Protection Orders. N.M. STAT. ANN. §§ 40-17-1–40-17-13 (2020). Florida calls them Risk Protection Orders. FLA. STAT. § 790.401 (2020).

22. CAL. PENAL CODE §§ 18100–18165 (West 2020).

23. CONN. GEN. STAT. § 29-38c (2020); *see also Connecticut Risk Warrants: A Guide to the Process*, JOHNS HOPKINS BLOOMBERG SCH. PUB. HEALTH, https://americanhealth.jhu.edu/sites/default/files/website-media/high-impact/ERPO/state-resources/ERPO_Connecticut_Risk-Warrant_Process-Table.pdf [https://perma.cc/9GKF-VA3V] (last visited Mar. 26, 2021).

24. IND. CODE §§ 35-47-14-1, 35-47-14-2 (2020).

25. CONN. GEN. STAT. § 29-38c (2020); IND. CODE §§ 35-47-14-1, 35-47-14-2 (2020); CAL. PENAL CODE §§ 18100–18165 (West 2020); WASH. REV. CODE §§ 7.94.010–7.94.050 (2020); OR. REV. STAT. §§ 166.525–166.537 (2020).

response to highly publicized homicides: the 1998 Connecticut Lottery mass shooting, the 2004 murder of an Indiana police officer by a mentally ill man, and the 2014 killings of students near the University of California, Santa Barbara.[26] In 2018, following the Stoneman Douglas High School shooting in Parkland, Florida, the number of states with red flag laws more than doubled to include Florida, Vermont, Maryland, Rhode Island, New Jersey, Delaware, Massachusetts, Illinois, and the District of Columbia.[27] In 2019 and 2020, New York, Colorado, Nevada, Hawaii, New Mexico, and Virginia also passed these laws.[28] Eleven other states are currently considering such legislation.[29]

The laws vary in their details, but the general scheme is that a person with reason to believe that a gun owner presents a danger to themselves or others may petition a state court to order the temporary removal of firearms.[30] The order also prevents the individual subject to it from purchasing or possessing firearms.[31] A court decides whether to issue the order based on statements or actions by the gun owner in question. Evidence might include threats of violence by the respondent toward themselves or others, a violation of a domestic violence restraining order,

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26. *See* Timothy Williams, *What Are 'Red Flag' Gun Laws, and How Do They Work?*, N.Y. TIMES (Aug. 6, 2019), https://www.nytimes.com/2019/08/06/us/red-flag-laws.html [https://perma.cc/U79V-BJGZ] (explaining that the Connecticut legislature passed the first red flag law in 1999 after a state lottery worker killed four employees and himself). In 2014, the California legislature passed a red flag law after a gunman killed six people near U.C. Santa Barbara. *Id*. *See also* Ind. State Police Legal Off., *Jake Laird Law: Indiana's "Red Flag" Statute*, IN.GOV, https://www.in.gov/isp/files/Jake%20Laird%20Law%20(Final%20Revision)%20July%202020%20-%20Barbie.pdf [https://perma.cc/E8ZM-7NYZ] (May 2019) (detailing the red flag law passed by the Indiana legislature in 2005 after an officer was killed by a man who was not prevented from retrieving his firearms shortly after being released from emergency detention at a hospital).

27. FLA. STAT. § 790.401 (2020); VT. STAT. ANN. tit. 13, §§ 4051–4061 (2019); MD. CODE ANN., PUB. SAFETY §§ 5-601–5-610 (West 2020); 8 R.I. GEN. LAWS §§ 8-8.3-1–8-8.3.14 (2020); N.J. STAT. ANN. §§ 2C:58-20–2C:58-32 (West 2019); DEL. CODE ANN. tit. 10, §§ 7701, 7704 (2020); MASS. GEN. LAWS ch. 140, § 131R (2020); 430 ILL. COMP. STAT. 67/ (2019); D.C. CODE §§ 7-2510.04–7-2510.13 (2020).

28. COLO. REV. STAT. §§ 13-14.5-103–13-14.5-1114 (2019); HAW. REV. STAT. ANN. §§ 134-65 (2020); NEV. REV. STAT. § 33.590 (2020); N.M. STAT. ANN. §§ 40-17-1–40-17-13 (2020); N.Y. C.P.L.R. §§ 6340–6347 (MCKINNEY 2021); VA. CODE ANN. § 19.2-152.14 (2020).

29. As of Jan. 14, 2021, there were active red flag bills in ten state legislatures: Alaska, Minnesota, Wisconsin, Michigan, Iowa, Pennsylvania, Nebraska, Kentucky, Tennessee, and North Carolina. Sean Campbell et al., *Red Flag Laws: Where the Bills Stand in Each State*, TRACE, https://www.thetrace.org/2018/03/red-flag-laws-pending-bills-tracker-nra/ [https://perma.cc/4NVD-SH3B] (Jan. 14, 2021).

30. *See* Reena Kapoor et al., *APA Resource Document on Risk-Based Gun Removal Laws*, 37 DEV. MENTAL HEALTH L. 6, 8 (2018) (outlining the typical framework for risk-based gun removal); RAND, *supra* note 12 (providing another outline of risk-based gun removal).

31. RAND, *supra* note 12 (explaining that a court may temporarily restrict an individual's access to firearms if it determines that they are at high risk for firearm violence).

or recent acquisition of a significant number of firearms.[32] If implemented, the order lasts about six to twelve months, but the person subject to the order is usually given the opportunity to request a hearing to terminate the order.[33] Refusal to comply with the order is punishable as a criminal offense.[34] After a set time, the guns are returned to the person from whom they were seized unless another court hearing extends the period of confiscation.[35]

There is state variation along several dimensions. Seven states allow only law enforcement to petition for removal orders, but twelve states and the District of Columbia allow other individuals, including family and household members, to petition.[36] All states offer both ex parte orders, allowing eligible individuals to petition for orders in emergency cases without waiting to provide notice of a hearing to the respondent, and final orders after a notice and a hearing.[37] Most final orders last one

32. *See, e.g.*, CAL. PENAL CODE § 18155(b)(1) (West 2020). Additionally, petitioners must also usually include information they have about firearms the respondent possesses. *See*, *e.g.*, CAL. PENAL CODE § 18107 (West 2020); DEL. CODE ANN. tit. 10, §§ 7703(a), 7704(a) (2020); D.C. CODE § 7-2510.02 (2020); FLA. STAT. § 790.401(2)(e) (2020); HAW. REV. STAT. § 134-63(b) (2020); 430 ILL. COMP. STAT 67/35(a), 67/40(a) (2020); MD. CODE ANN., PUB. SAFETY §§ 5-602(a), 5-603(a) (West 2021); MASS. GEN. LAWS ch. 140, § 131R(b) (2020); N.J. STAT. ANN. § 2C:58-23(b) (West 2020); N.M STAT. ANN. §§ 40-17-5, 6 (2020); 8 R.I. GEN. LAWS § 8-8.3-3(f) (2020); VT. STAT. ANN. tit. 13, § 4053(c)(3)(B) (2020); WASH. REV. CODE § 7.94.030(4) (2020).

33. *See* Kapoor et al., *supra* note 30, at 8 (outlining the basics of the gun removal process); RAND, *supra* note 12 (providing resources regarding risk protection orders).

34. *Gun Safety: Laws, Licenses and Background Checks*, PROMISE THE CHILD. (Oct. 14, 2019), https://www.promisethechildren.org/news/gun-safety-laws-licenses-and-background-checks/ [https://perma.cc/F9DQ-JG9D].

35. *See* Kapoor et al., *supra* note 30, at 8 (explaining that individuals can petition to have their firearms returned, and if risk-based criteria are not met, then the court orders the return of the firearms); RAND, *supra* note 12 (describing the process by which a risk protection order is maintained).

36. States that allow individuals outside of law enforcement to petition for removal orders include California, Colorado, Delaware, Hawaii, Illinois, Maryland, Massachusetts, Nevada, New Jersey, New York, Oregon, Washington, and the District of Columbia. CAL. PENAL CODE § 18150 (West 2020); COLO. REV. STAT. § 13-14.5-104 (2020); DEL. CODE ANN. tit. 10, § 7701, 7704 (2020) (family and household members can petition for non-emergency orders); HAW. REV. STAT. § 134-61 (2020); 430 ILL. COMP. STAT. 67/35, 67/40 (2020); MD. CODE ANN., PUB. SAFETY § 5-601(e)(2) (West 2021); MASS. GEN. LAWS ch. 140, §§ 121, 131R (2020); NEV. REV. STAT. § 33.560 (2020); N.J. STAT. ANN. § 2C:58-21 (West 2020); N.Y. C.P.L.R. §§ 6340, 6341 (McKINNEY 2021); OR. REV. STAT. § 166.527 (2020); WASH. REV. CODE § 7.94.030(1) (2020). Maryland has gone the farthest, allowing medical and mental health professionals, spouses and cohabitants, other family members, co-parents, current dating partners, and current or former legal guardians to file petitions. MD. CODE ANN., PUB. SAFETY § 5-601(e)(2) (West 2021).

37. Ex parte firearm removal orders are permitted in California, Colorado, Delaware, Florida, Hawaii, Illinois, Maryland, Massachusetts, New Jersey, New York, Oregon, Rhode Island, Vermont, Washington, and the District of Columbia. CAL. PENAL CODE § 18150(b) (West 2020); COLO. REV. STAT. § 13-14.5-103 (2020); DEL. CODE ANN. tit. 10, § 7703 (2020); FLA. STAT. § 790.401(4)(a) (2020); HAW. REV. STAT. § 134-64 (2020); 430 ILL. COMP. STAT. 67/35 (2020); MD. CODE ANN., PUB. SAFETY, § 5-603 (West 2021); MASS. GEN. LAWS ch. 140, §§ 121, 131R,

year.[38] Ex parte orders last for shorter periods, and there is greater variability in their length, ranging from one to two days in Maryland to up to twenty-one days in California and Oregon.[39] There is also variation in the standards of proof required for ex parte[40] and final orders.[41] To

131S, 131T (2020); N.J. STAT. ANN. § 2C:58-23 (West 2020); N.Y. C.P.L.R. §§ 6340–42 (MCKINNEY 2021); OR. REV. STAT. ANN. § 166.527 (2020); R.I. GEN. LAWS § 8-8.3-4 (2020); VT. STAT. ANN. tit. 13, § 4054(a)(1) (2019); WASH. REV. CODE § 7.94.050 (2020); D.C. CODE § 7-2510.04 (2020). Some states allow ex parte removal only when the petitioner is law enforcement (Delaware, Florida, Rhode Island, and Vermont). DEL. CODE ANN. tit. 10, § 7703 (2020); FLA. STAT. § 790.401(4)(a) (2020); R.I. GEN. LAWS § 8-8.3-4 (2020); VT. STAT. ANN. tit. 13, § 4054(a)(1) (2019). Other states allow ex parte petitions by a larger group of petitioners, including Hawaii, Illinois, Maryland, Massachusetts, New Jersey, New York, Oregon, and Washington. HAW. REV. STAT. ANN. §§ 134-61, 64 (2020); 430 ILL. COMP. STAT. 67/5, 67/35 (2020); MD. CODE ANN., PUB. SAFETY §§ 5-601(e)(2), 5-602, 5-603 (West 2021); MASS. GEN. LAWS ch. 140, §§ 121, 131R, 131S, 131T (2020); N.J. STAT. ANN. § 2C:58-21 (West 2020); N.Y. C.P.L.R. §§ 6340–6342 (MCKINNEY 2021); OR. REV. STAT. ANN. §§ 166.525, 166.527 (2020); WASH. REV. CODE § 7.94.050 (2020).

38.   Exceptions are Illinois (six months), Vermont (six months), Virginia (six months) and New Jersey (indefinitely until respondent demonstrates by preponderance of the evidence that they are no longer a danger). 430 ILL. COMP. STAT. 67/35 (2020); VT. STAT. ANN. tit. 13, § 4053 (2019); VA. CODE ANN. § 19.2-152.14 (2020), N.J. STAT. ANN. § 2C:58-25 (West 2020). California's final orders last from one to five years depending on the court. CAL. PENAL CODE § 18175(d) (West 2020).

39.   *See* MD. CODE ANN., PUB. SAFETY § 5-603 (West 2021) (providing that the hearing must be on the first or second day on which a district court judge is sitting); OR. REV. STAT. ANN. § 166.527(9) (2020) (giving the respondent thirty days to request a hearing, and then the hearing must occur within 21 days of the request); CAL. PENAL CODE § 18155(c) (West 2021) (stating that the order lasts twenty-one days).

40.   Thirteen jurisdictions require probable, reasonable, or good cause to obtain an ex parte order: California, Florida, Hawaii, Illinois, Maryland, Massachusetts, New Jersey, Nevada, New York, Rhode Island, Virginia, Washington, and the District of Columbia. CAL. PENAL CODE § 18150 (West 2021) (allowing only law enforcement to petition for ex parte orders); FLA. STAT. § 790.401(3)(a) (2020); HAW. REV. STAT. ANN. § 134-64(f) (2020); 430 ILL. COMP. STAT. 67/35, 67/40 (2020); MD. CODE ANN., PUB. SAFETY § 5-601(e)(2) (West 2021); MASS. GEN. LAWS ch. 140 § 131R (2020); N.J. STAT. ANN. § 2C:58-23 (West 2020); NEV. REV. STAT. §§ 33.560–33.590 (2020); N.Y. C.P.L.R. §§ 6340–6341 (MCKINNEY 2021); R.I. GEN. LAWS § 8-8.3-4 (2020); VA. CODE ANN. § 19.2-152.14 (2020); WASH. REV. CODE §§ 7.94.030(1), 7.94.020(2) (2020); D.C. CODE § 7-2510.04 (2020). California requires a substantial likelihood of harm when the petitioner is family or law enforcement. CAL. PENAL CODE § 18150(b) (West 2021). Four states, Colorado, Delaware, Nevada, and Vermont require a preponderance of the evidence. COLO. REV. STAT. § 13-14.5-103 (2020); DEL. CODE ANN. tit. 10, § 7703(d) (2020); NEV. REV. STAT. §§ 33.560–33.590 (2020); VT. STAT. ANN. tit. 13, § 4054(b)(1) (2019). Oregon requires clear and convincing evidence. OR. REV. STAT. ANN. § 166.527(6) (2020). However, Oregon's orders become final automatically if unchallenged by the respondent, and this higher standard of proof is commensurate with other states' requirements for final orders. *Id.*

41.   Six jurisdictions require a preponderance of the evidence for final orders: District of Columbia, Hawaii, Massachusetts, New Jersey, New Mexico, and Washington. D.C. CODE § 7-2510.04 (2020); HAW. REV. STAT. ANN. § 134-65(c) (2020); MASS. GEN. LAWS ch. 140 § 131S(c) (2020); N.J. STAT. ANN. § 2C:58-24(b) (West 2020); 2020 N.M. Laws ch. 5, § 8; WASH. REV. CODE § 7.94.030(1) (2020). Twelve states require clear and convincing evidence for final orders: California, Colorado, Delaware, Florida, Illinois, Maryland, Nevada, New York, Oregon, Rhode Island, Vermont, and Virginia. CAL. PENAL CODE § 18150 (2020); COLO. REV. STAT. § 13-14.5-

obtain an ex parte order, the alleged danger must be imminent in all states except for Massachusetts, New York, and the District of Columbia.[42] To renew a final order, the petitioner generally must meet the same burden of proof using the same categories of evidence they used to obtain the initial final order. Individuals subject to an order may usually also request one hearing during the effective period of the order, at which they bear the burden of proving, by the same standard used to obtain the order, that they no longer pose a risk of harm.[43] To date, no court has invalidated a red flag law on constitutional or other grounds.[44]

Despite variation in the details of red flag laws, each state's law is designed to respond to acute periods of elevated risk of violence by identifying and disarming high-risk individuals.[45] The next part will examine red flag laws' potential to accomplish these goals, beginning with background on suicide and homicide prevention and subsequently analyzing how red flag laws affect this interplay.

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103 (2020); DEL. CODE ANN. tit. 10, §§ 7701, 7704 (2020); FLA. STAT. § 790.401(3)(a) (2020); 430 ILL. COMP. STAT. 67/35, 67/40 (2020); MD. CODE ANN., PUB. SAFETY § 5-601(e)(2) (West 2021); 2019 Nev. Stat. 4172; N.Y. C.P.L.R. §§ 6340, 6341 (MCKINNEY 2021); OR. REV. STAT. ANN. § 166.527(6)(a) (2020); R.I. GEN. LAWS § 8-8.3-4 (2020); VT. STAT. ANN. tit. 13, § 4053 (2019); VA. CODE ANN. § 19.2-152.14 (2020).

42. *See* MASS. GEN. LAWS ch. 140 § 131T (2020) (allowing the courts to issue an ex parte order where reasonable cause exists to believe respondents pose a risk to themselves or others by possessing firearms); N.Y. C.P.L.R. § 6342 (MCKINNEY 2021); D.C. CODE § 7-2510.04 (2020) (permitting issuance of ex parte orders where probable exists to believe respondents pose a significant danger of injuring themselves or others by possessing firearms).

43. Swanson Connecticut, *supra* note 18, at 193 (explaining that in Connecticut, most individuals subject to an order failed to appear in court and lost their legal gun access by default).

44. Courts in Connecticut, Indiana, and Florida that have heard challenges to red flag laws have held that the laws do not violate the due process rights of respondents and/or are constitutional under the Second Amendment. *See* Hope v. Connecticut, 133 A.3d 519, 524–25 (Conn. App. Ct. 2016) (finding Connecticut's red flag law does not implicate and thus does not violate the second amendment); *see also* Redington v. Indiana, 992 N.E.2d 823, 837 (Ind. Ct. App. 2013), *transf. denied*, 997 N.E.2d 356 (Ind. 2013) (rejecting challenges based on the Second Amendment, the Indiana right to bear arms, the Takings Clause of the U.S. Constitution, and vagueness); *see also* Davis v. Gilchrist Cty. Sheriff's Office, 280 So. 3d 524 (Fla. Dist. Ct. App. 2019).

45. Jon S. Vernick et al., *Background Checks for All Gun Buyers and Gun Violence Restraining Orders: State Efforts to Keep Guns from High-Risk Persons*, 45 J. L., MED., & ETHICS 98, 100–01 (2017) (arguing that their targeted nature could make risk-based seizure laws an effective violence prevention strategy).
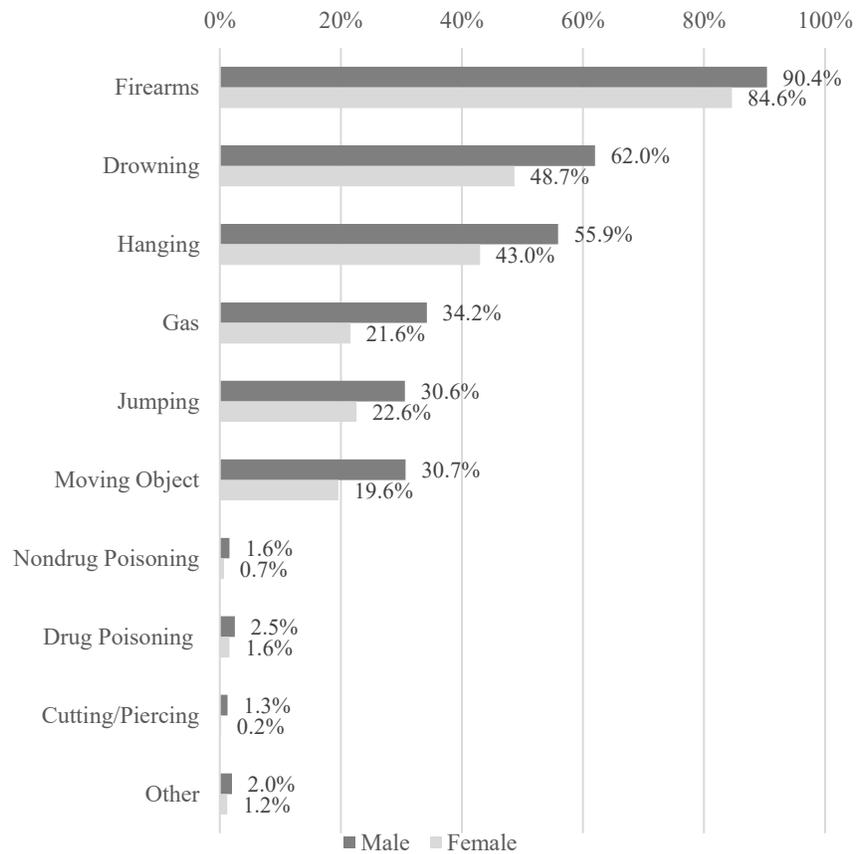
II. Suicide and Homicide Prevention

A. The Relationship Between Guns and Violence

Most people who attempt suicide do not die.[46] Figure 1 below illustrates the male and female case fatality rates of several common methods of suicide attempt—most methods are less than fifty percent successful. The major preventable exception is firearm-related suicide, whose fatality rate is more than forty times that of drug poisoning, the most common method of suicide attempt.[47] As a result, firearms are responsible for about fifty percent of suicides in the United States. Because firearms are such an effective means of suicide, preventing firearm suicide attempts may be one of the most effective ways to prevent suicide deaths overall.

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46.   The case fatality rate considering every method of suicide is about 8.5% (14.7% for males vs. 3.3% for females). Andrew Conner et al., *Suicide Case-Fatality Rates in the United States, 2007 to 2014*, 171 ANNALS INTERNAL MED. 885, 889 (2019). About ninety percent of people who survive near-lethal suicide attempts eventually die from something other than suicide. *See* David Owens et al., *Fatal and Non-Fatal Repetition of Self-Harm*, 181 BRIT. J. PSYCHIATRY 193, 195–96 (2002) (systematically reviewing published observational and experimental studies following up on non-fatal suicide attempts); Bo Runeson et al., *Suicide Risk After Nonfatal Self-Harm: A National Cohort Study, 2000–2008*, 76 J. CLINICAL PSYCHIATRY 240, 243–45 (2015) (following Swedish individuals admitted to hospital after deliberate self-harm for three to nine years); Richard H. Seiden, *Where Are They Now? A Follow-Up Study of Suicide Attempters from the Golden Gate Bridge*, 8 SUICIDE & LIFE-THREATENING BEHAV., 203, 214 (1978) (providing evidence that an anti-suicide barrier on the Golden Gate Bridge would save lives, rather than simply diverting would-be bridge jumpers to some other method of suicide); Dag Tidemalm et al., *Risk of Suicide After Suicide Attempt According to Coexisting Psychiatric Disorder: Swedish Cohort Study with Long Term Follow-up*, 337 BRIT. MED. J. 1328, 1328 (2008) (finding that the absolute risk of completed suicide in suicide attempters followed for five to thirty-seven years was seven to thirteen percent). Additionally, approximately seventy-five percent of suicide attempters do not go on to make another attempt. *See* Owens et al., *supra* at 195–96 (measuring fatal and non-fatal repetition of self-harm); *see also* Seiden, *supra* at 214 (following up on suicide attempts from the Golden Gate Bridge).

47.   Overall, drug poisoning accounts for 59.4% of suicidal acts, but only 13.5% of deaths. Conner et al., *supra* note 46, at 888–92 (qualifying suicide attempts and death by type). It has a case fatality rate of 1.9%. *Id*. Firearms account for only 4.8% of suicidal acts, but 50.6% of suicide deaths. *Id.* They have a case fatality rate of 89.6%. *Id*. Multi-state data from the 1990s shows very similar trends. Rebecca Spicer & Ted R. Miller, *Suicide Acts in 8 States: Incidence and Case Fatality Rates by Demographics and Method*, 90 AM. J. PUB. HEALTH 1885, 1888 (2000). During that period, drug poisoning had a case fatality rate of 1.5% and firearms had a case fatality rate of 82.5%. *Id*.

Figure 1: Case Fatality Rate (%) by Suicide Method[48]

Method	0%	20%	40%	60%	80%	100%

Firearms — Male 90.4%, Female 84.6%
Drowning — Male 62.0%, Female 48.7%
Hanging — Male 55.9%, Female 43.0%
Gas — Male 34.2%, Female 21.6%
Jumping — Male 30.6%, Female 22.6%
Moving Object — Male 30.7%, Female 19.6%
Nondrug Poisoning — Male 1.6%, Female 0.7%
Drug Poisoning — Male 2.5%, Female 1.6%
Cutting/Piercing — Male 1.3%, Female 0.2%
Other — Male 2.0%, Female 1.2%

■ Male   ■ Female

Restricting access to a chosen means of suicide can effectively discourage some would-be suicide attempts entirely without diverting them to other means of suicide.[49] The literature on interventions at "suicide hotspots"—locations such as bridges, tall buildings, and railway tracks, where a disproportionate number of suicides occur—provides strong evidence that means restriction, such as the installation of physical barriers, is an effective way to avert suicide without substitution to other

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48. Figure created using Table 4 in Conner et al., *supra* note 46, at 892 (categorizing suicide mortality rates by method, as well as by sex, age group, religion, urbanization, and year).

49. Brian W. Bauer & Daniel W. Capron, *How Behavioral Economics and Nudges Could Help Diminish Irrationality in Suicide-Related Decisions*, 15 PERSP. PSYCH. SCI. 44, 45 (2020) ("If the thesis were true that most people who want to kill themselves will . . ., it is more likely that we would see higher rates of means substitution and a decrease in survivor rates. Instead, these studies suggest that people retrospectively find greater utility in continuing to live their life after a suicidal crisis has ended compared with the prospect of ending their life.").

methods.[50] Restricting access to carbon monoxide and toxic substances has also effectively reduced suicides.[51]

There is also extensive literature focusing specifically on access to firearms and suicide. The overall findings indicate that reducing access to firearms is associated with lower firearm suicide rates, sometimes with substitution to other methods of suicide.[52] Lower gun ownership rates and firearm purchase delays lead to lower suicide rates, despite some

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50. Georgina R. Cox et al., *Interventions to Reduce Suicides at Suicide Hotspots: A Systematic Review*, 13 BMC PUB. HEALTH 1, 10 (2013) (providing evidence that rates of suicide decrease overall where intervention make impulsive suicide more difficult); *See* Annette L. Beautrais, *Effectiveness of Barriers at Suicide Jumping Sites: A Case Study*, 35 AUSTL. & N.Z. J. PSYCHIATRY 557, 559 (2001) (finding that removing a bridge safety barrier resulted in a substantial increase in both the number and rate of suicides by jumping from that bridge, while suicides by jumping at other sites in the city continued to decline). Although many papers find a positive correlation between suicide rates and access to a suicide method, the research relies primarily on cross-sectional data, limiting the strength of the conclusions. *E.g.*, *The Relationship Between Firearm Availability and Suicide*, GUN POL'Y IN AM., https://www.rand.org/research/gun-policy/analysis/essays/firearm-availability-suicide.html [https://perma.cc/V7GC-QZKC] (March 2, 2018).

51. *See* Norman Kreitman, *The Coal Gas Story: United Kingdom Suicide Rates, 1960-71*, 30 BRIT. J. PREVENTATIVE & SOC. MED. 86, 87–88 (1976) (concluding that replacing coal with oil-based and natural gas heating and thereby decreasing access to carbon monoxide in the general public led to a decrease in carbon monoxide suicide); Keith Hawton et al., *Effects of Legislation Restricting Pack Sizes of Paracetamol and Salicylate on Self Poisoning in the United Kingdom: Before and After Study*, 322 BRIT. MED. J. 1203, 1209 (2001) (finding that deaths from paracetamol and salicylate poisoning decreased significantly in the year following a change in legislation limiting the size of packs of the medications sold over-the-counter); Stephen Wilkinson et al., *Admissions to Hospital for Deliberate Self-Harm in England 1995–2000: An Analysis of Hospital Episode Statistics*, 24 J. PUB. HEALTH MED. 179, 183 (2002) (finding that paracetamol package size regulations and increased prescription of anti-depressants resulted in fewer intentional drug overdoses); s*ee also* Marc S. Daigle, *Suicide Prevention Through Means Restriction: Assessing the Risk of Substitution: A Critical Review and Synthesis*, 37 ACCIDENT ANALYSIS & PREVENTION 625, 629–30 (2005) (reviewing studies examining restricted access to domestic toxic gas, firearms, toxic substances, and bridges and concluding that means restriction can avert suicide without substitution to other methods).

52. *See, e.g.*, Matthew Lang, *Firearm Background Checks and Suicide*, 123 ECON. J. 1085, 1087 (2013) (using firearm background checks as a proxy for changes in firearm ownership rates to establish a positive causal relationship between suicides and firearm ownership); Michael D. Anestis & Joye C. Anestis, *Suicide Rates and State Laws Regulating Access and Exposure to Handguns*, 105 AM. J. PUB. HEALTH 2049, 2056 (2015) (finding that waiting periods, universal background checks, gun laws, and open carrying regulations were all associated with lower firearm suicide rates and that each policy except for waiting periods was associated with lower overall suicide rates); A. L. Beautrais et al., *Firearms Legislation and Reductions in Firearm-Related Suicide Deaths in New Zealand*, 40 AUS. & N.Z. J. PSYCHIATRY 253, 258–59 (2006) (finding that the effects of the 1992 New Zealand Amendment to the Arms Act, which restricted access to firearms, were consistent with a reduction in firearm-related suicide, particularly in impulsive suicide attempts by young men); *but see* Mark Duggan et al., *The Short-Term and Localized Effect of Gun Shows: Evidence from California and Texas*, 93 REV. ECON. & STAT. 786, 786 (2011) (finding no evidence that gun shows led to increases in either gun homicides or suicides in the short run in the geographic area surrounding the shows).

method substitution.[53] Military policies requiring soldiers to leave their firearms on base when they take weekend leave and gun buybacks may also reduce firearm-related and overall suicide.[54]

The evidence on the relationship between access to firearms and homicide is more mixed. There is economic theory consistent with either a positive or negative relationship; the existence of gun-wielding law-abiding citizens might deter would-be criminals, or the greater availability of firearms might increase the fatality rate of criminal activity.[55] There is empirical evidence for either theory. Many studies have found that fewer firearms are associated with lower rates of firearm-related homicide.[56] Other studies have found that handgun ownership has

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53. *See* Justin T. Briggs & Alexander Tabarrok, *Firearms and Suicides in US States*, 37 INT'L REV. L. & ECON. 180, 187 (2014) (finding that if all states reduced gun ownership by ten percentage points, we would expect five to nine percent fewer suicides); *see also* Griffin Edwards et al., *Looking Down the Barrel of a Loaded Gun: The Effect of Mandatory Handgun Purchase Delays on Homicide and Suicide*, 128 ECON. J. 3117, 3118 (2017) (using a difference-in-differences approach to exploit within-state variation across time in both the existence and length of explicit wait periods and delays created by licensing requirements, and finding that any firearm purchase delay led to a two to five percent decrease in firearm-related suicides, with no effect on non-firearm-related suicides); *but see* Jens Ludwig & Philip J. Cook, *Homicide and Suicide Rates Associated with Implementation of the Brady Handgun Violence Prevention Act*, 284 J. AM. MED. ASS'N 585, 588 (2000) (finding that the Brady Handgun Violence Prevention Act was associated with lower firearm suicide rates in people older than fifty-five but not for any other group).

54. In the Israeli Defense Force, requiring soldiers to leave their firearms on base when they took weekend leave was associated with a forty percent suicide rate decrease mostly attributable to a reduction in weekend firearm suicides. Gad Lubin et al., *Decrease in Suicide Rates After a Change of Policy Reducing Access to Firearms in Adolescents: A Naturalistic Epidemiological Study*, 40 SUICIDE & LIFE-THREATENING BEHAV. 421, 422 (2010). Because the Israeli Defense Force is a mandatory population-based army drafting all eighteen-to-twenty-one-year-old youth, although this study had no control group, the study might be externally valid to other groups of youth. *Id.* at 423. For gun buyback, see, e.g., Andrew Leigh & Christine Neill, *Do Gun Buybacks Save Lives? Evidence from Panel Data*, 12 AM. L. & ECON. REV. 509, 511 (2010) (finding that the 1997 Australian gun buyback, which reduced Australia's firearm stock by about one-fifth, led to an almost eighty percent decrease in firearm suicide rates, with no substitution to non-firearm death rates). *See also* Beautrais et al., *supra* note 52, at 258–59 (finding that the effects of the 1992 New Zealand Amendment to the Arms Act, which restricted access to firearms, were consistent with a reduction in firearm-related suicide, particularly in impulsive suicide attempts by young men).

55. Mark Duggan, *More Guns, More Crime*, 109 J. POL. ECON. 1086, 1086–87, 1112 (2001) (discussing both theories and providing empirical support for the theory that increased gun ownership leads to substantial increases in the overall homicide rate); *see also* Ian Ayres & John J. Donohue, *Shooting Down the "More Guns, Less Crime" Hypothesis*, 55 STAN. L. REV. 1193, 1203 (2003) (discussing both theories).

56. *See, e.g.*, Duggan, *supra* note 55, at 1088 (showing that changes in homicide and gun ownership are positively causally related and refuting the potential explanation that individuals purchase guns in response to expected future increases in crime); Philip J. Cook & Jens Ludwig, *The Social Costs of Gun Ownership*, 90 J. PUB. ECON. 379, 380 (2006) (using the percentage of suicides committed with a gun as a proxy for gun prevalence to show that gun prevalence is possibly causally related with gun homicide rates); Ayres & Donohue, *supra* note 55, at 1202 (refuting the evidence in Lott & Mustard, *infra* note 58, and finding that right-to-carry laws are associated with more crime); Jens Ludwig, *Concealed-Gun-Carrying Laws and Violent Crime: Evidence from*

no effect on crime,[57] and there is yet another large literature finding that right-to-carry laws, which increase firearm access, are associated with lower homicide rates.[58]

B. Red Flag Laws and Gun Violence

Although the potential impact of red flag laws depends on how the policies are used in practice, it is possible to predict the theoretical direction of the relationship.[59] If courts can correctly identify individuals who pose a high risk of violence by simply observing their behavior rather than relying on specific criminal or mental health histories, then red flag laws could decrease suicides and homicides in addition to those prevented by existing interventions.[60]

State Panel Data, 18 INT'L REV. L. & ECON. 239, 239 (1998) (exploiting minimum age requirements for concealed-carry permits to show that right-to-carry laws have increased adult homicide rates).

57. *See, e.g.*, Carlisle E. Moody & Thomas B. Marvell, *Guns and Crime*, 71 S. ECON. J. 720, 720 (2005) (using the General Social Survey to proxy gun ownership and finding that handguns have a negligible effect on crime); Duggan et al., *supra* note 52, at 786 (finding no evidence that gun shows lead to increases in either gun homicides or suicides in the short run in the geographic area surrounding the shows).

58. *See, e.g.*, John Lott Jr. & David Mustard, *Crime, Deterrence, and Right-to-Carry Concealed Handguns*, 26 J. LEGAL STUD. 1, 48 (1997) (using cross-sectional time-series data to show that allowing concealed weapon carry deters violent crimes without increasing accidental deaths); Florenz Plassmann & John Whitley, *Confirming "More Guns, Less Crime,"* 55 STAN. L. REV. 1313, 1313 (2003) (analyzing county-level data and finding lower homicide rates each year a right-to-carry law was in effect from 1997 to 2000); William Bartley & Mark A. Cohen, *The Effect of Concealed Weapons Laws: An Extreme Bound Analysis*, 36 ECON. INQUIRY 258, 258 (1998) (examining the results from Lott & Mustard, *supra*, and finding that they too are robust to be dismissed as unfounded); Eric Helland & Alexander Tabarrok, *Using Placebo Tests to Test "More Guns, Less Crime"*, 4 ADVANCES ECON. ANALYSIS & POL'Y 1, 3–4 (2004) (finding that the effects of right-to-carry laws on crime are less well-estimated than Lott & Mustard, *supra*, and Lott, *infra*, suggest, but that their theory is supported); Charles Manski & John Pepper, *How Do Right-to-Carry Laws Affect Crime Rates? Coping with Ambiguity Using Bounded-Variation Assumptions*, 100 REV. ECON. & STAT. 232, 232 (2018) (finding that the effect of right-to-carry laws vary greatly depending on variables including location and type of crime); *see generally* JOHN LOTT, MORE GUNS, LESS CRIME: UNDERSTANDING CRIME AND GUN CONTROL LAWS (3d ed. 2000) (expanding on the argument in Lott & Mustard, *supra*).

59. There is no systematic information collected about the number of gun removal orders served nationwide, but there is some state data. In California in 2016, eighty-six orders were served, in Washington in 2018, forty-eight orders were served. Between 2006 and 2013 in Indiana, fifty-eight orders were served per year, and between 1999 and 2013 in Connecticut, fifty-one orders were served per year. RAND, *supra* note 12. George Parker, *Circumstances and Outcomes of a Firearm Seizure Law: Marion County, Indiana, 2006-2013*, 33 BEHAV. SCI. LAW 308, 313 (2015) [hereinafter Parker Indiana]; Swanson Connecticut, *supra* note 18, at 189. By contrast, in the first six months of Maryland's ERPO law that went into effect in October 2018, the state granted 258 orders. Alex Yablon, *Use of Red Flag Laws Varies Widely Among Local Police*, TRACE (Apr. 23, 2019), https://www.thetrace.org/2019/04/use-of-red-flag-laws-varies-widely-among-local-police/ [https://perma.cc/XC6M-RT2Y].

60. *See, e.g.*, Vernick et al., *supra* note 45, at 100–01 (arguing that their targeted nature could

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Although high-profile homicides precipitated the passage of red flag laws in several states, available data suggest that petitions for removal orders most commonly cite concerns about self-harm or suicide as the reason for removal.[61] Therefore, the impact of red flag laws might be concentrated in suicide rates rather than rates of mass shootings or homicides.

Up to eighty percent of people considering suicide give some sign of their intentions.[62] By allowing those most likely to notice signs of suicidal ideation to intervene using the legal system, red flag laws could reduce suicide rates by directly interrupting suicidal plans.[63] As discussed above, restricting access to suicide means can permanently prevent suicide attempts and deaths.[64] Reducing access to firearms as a means of suicide, as red flag laws do, may be particularly effective because of firearms' outsized case fatality rate.[65]

Red flag laws are usually enacted in response to high-profile mass shootings, not overall spikes in firearm homicides.[66] Nevertheless, by

make risk-based seizure laws effective); Swanson Indiana, *supra* note 18, at 195 (finding that in both Connecticut and Indiana, the most common use of gun-removal laws was in cases where concerned family members noticed signs of suicide risk).

61. *See, e.g.*, George Parker, *Application of a Firearm Seizure Law Aimed at Dangerous Persons: Outcomes from the First Two Years*, 61 PSYCHIATRIC SERVS. 478, 478 (2010) [hereinafter Parker, *First Two Years*] ("Firearm seizure by police was rarely a result of psychosis; instead, risk of suicide was the leading reason."); Parker Indiana, *supra* note 59, at 308 (finding that in Indiana, removals were prompted by threatened or attempted suicide 68% of the time; violence 21%; and psychosis 16%); Swanson Connecticut, *supra* note 18, at 192 (finding that about 61% of gun removal requests in Connecticut cited concern about self-harm, 32% cited risk of harm to others, and 9% cited both categories); Garen Wintemute, *Extreme Risk Protection Orders Intended to Prevent Mass Shootings: A Case Series*, ANNALS INTERNAL MED. 655, 657(2019) (finding that only 13% of removals in California involved an individual deemed at risk of perpetrating a mass shooting).

62. *Extreme Risk Protection Orders*, *supra* note 9 (citing *Suicide*, MENTAL HEALTH AM. (last visited Feb. 10, 2020), https://www.mhanational.org/conditions/suicide [https://perma.cc/GT6G-WQFB]).

63. *See* Parker Indiana, *supra* note 59, at 308 ("Overall, the Indiana law removed weapons from a small number of people, most of whom did not seek return of their weapons. The firearm seizure law thus functioned as a months-long cooling-off period for those who did seek the return of their guns."); *see also* Swanson Indiana, *supra* note 18, at 195 (finding that in both Connecticut and Indiana, the most common use of gun-removal laws was in cases where concerned family members noticed signs of suicide risk).

64. *See supra* Section II.A.

65. *See supra* Figure 1.

66. *See supra* INTRODUCTION. About 75% of homicides in the United States use firearms. *Assault or Homicide*, CTRS. FOR DISEASE CONTROL & PREVENTION https://www.cdc.gov/nchs/fastats/homicide.htm [https://perma.cc/YRR2-ZNTS] (last visited Mar. 2, 2021) (providing that in 2018, 14,414 of the 19,141 homicides in the United States were firearm homicides). These overall statistics are at a level of aggregation that is unaffected by excluding deaths from mass shootings from this overall homicide risk. Only about 378 people per year are killed in mass shootings. *See supra* note 1 (averaging the number of individuals killed in mass

removing firearms from at-risk individuals, red flag laws have the potential to reduce firearm homicides in all settings, whether in the home or in public. There are reasons to believe that red flag laws might be less effective in reducing homicides than suicides, however. As noted above, most removal petitions cite risk to self rather than risk to others as the reason for removal.[67] Additionally, red flag laws are modeled after domestic violence firearm-removal laws, which exist at the federal level and in many states.[68] Red flag laws might be redundant in the domestic violence context because there is already a route for people in these situations to petition for firearm removal. The incremental effect of red flag laws on domestic homicides, a large contributor to total homicide deaths, might therefore be small.[69] Additionally, a majority of criminals report obtaining firearms through nontraditional channels such as theft, family members or friends, or private sales on the secondary market, and criminals may be more likely to have access to alternate means of accessing weapons even were they subject to a red flag protection order.[70]

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shootings from 2013 through 2019 based off figures from the Gun Violence Archive) (figures on file with author).

67. *See supra* note 61 (providing multiple sets of data that show red flag laws are used predominately in response to suicide risk).

68. Waul, *supra* note 11, at 52, 59.

69. *See, e.g.*, Emiko Petrosky et al., *Racial and Ethnic Differences in Homicides of Adult Women and the Role of Intimate Partner Violence—United States, 2003–2014*, 66 MORBIDITY & MORTALITY WKLY. REP. 741, 741 (2017), https://www.cdc.gov/mmwr/volumes/66/wr/pdfs/mm6628a1.pdf [https://perma.cc/RJR9-5J5U] (almost half of female homicides are committed by the victim's current or former male partner); Parker Indiana, *supra* note 59, at 308 (Red flag firearm seizures in Indiana occurred as a result of domestic disputes in 28% of cases, possibly substituting for what would otherwise have been domestic violence-related firearm removal).

70. *See, e.g.*, Philip J. Cook et al., *Gun Control After* Heller: *Threats and Sideshows from a Social Welfare Perspective*, 56 UCLA L. REV. 1041, 1047 (2009) ("[T]he 30 to 40 percent of all gun transfers that do not involve licensed dealers . . . accounts for most guns used in crime . . . ."); JAMES D. WRIGHT & PETER H. ROSSI, ARMED AND CONSIDERED DANGEROUS: A SURVEY OF FELONS AND THEIR FIREARMS 16 (expanded ed. 1994) (explaining that forty percent of handguns are obtained from friends and forty-three percent are purchased for cash); Philip J. Cook & Anthony A. Braga, *Comprehensive Firearms Tracing: Strategic and Investigative Uses of New Data on Firearms Markets*, 43 ARIZ. L. REV. 277, 291 (2001) ("Over 500,000 guns are stolen each year from private homes and vehicles, a number which is apparently sufficient to satisfy the 'needs' of robbers and drug dealers."); Leila Nadya Sadat & Madaline M. George, *Gun Violence and Human Rights*, 60 WASH. U. J. L. & POL'Y 1, 24 (2019) ("The median age of school shooters is sixteen (too young to buy a firearm in any state) and the federal government has reported that in most school shootings, the gun used was taken from the shooter's home or that of a relative."). A 2000 Bureau of Alcohol, Tobacco, Firearms and Explosives inspection revealed that nearly half of all firearms dealers could not account for all of their guns, more than half were out of record-keeping compliance, and they had made nearly 700 sales to potential traffickers. James V. Grimaldi & Sari Horwitz, *Industry Pressure Hides Gun Traces, Protects Dealers from Public Scrutiny*, WASH. POST (Oct. 24, 2010, 6:00 AM), https://www.washingtonpost.com/wp-dyn/content/article/2010/10/23/AR2010102302996_2.html?sid=ST2010102304311 [https://perma.cc/4AUC-RZ5N].

It is possible that red flag laws could still affect homicides indirectly by affecting the prevalence of guns in a state—either by changing the violent crime rate or changing the fatality rate of criminal activity. However, because of the targeted, risk-based nature of the laws, it seems unlikely that enough of the critical mass of firearms in a given population would change to affect homicide through these channels.[71]

Red flag laws' targeted nature gives them some advantages over other gun control policies such as purchase restrictions, delays, and other removal laws. Unlike purchaser restrictions that prevent specific groups of individuals—such as those with a criminal record, history of domestic abuse, or dishonorable military discharge—from owning, purchasing, and possessing firearms, red flag laws affect at-risk individuals who already own firearms, not only those who would need to purchase a gun in order to carry out their plan.[72] Red flag laws also differ from prohibited possessors laws, because they can affect anyone at high risk for firearm violence, regardless of whether they have committed a crime, been diagnosed with a significant mental illness, or have otherwise been disqualified from possessing firearms.[73]

However, one disadvantage of red flag laws is that they may not be uniformly applied across a state population. Two people may present the same warning signs but only one may have their firearms removed because of a more attentive bystander.[74] Purchase delays and restrictions, in theory, impose a barrier on everyone attempting to purchase a gun. However, in practice, purchase restrictions and background checks are not conducted perfectly uniformly and may miss at-risk individuals, despite imposing costs on everyone who attempts to purchase a firearm.[75]

The huge number of existing firearms owned in the United States further limits the effectiveness of policies that rely solely on stopping potentially risky purchasers from buying new guns. Guns are durable goods that can work for many years with minimal maintenance and be passed down through generations.[76] By some estimates, there are more

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71. RAND, *supra* note 12 ("[A]lthough removal of firearms could have spillover effects . . . these second-order effects are likely to be small.").

72. *Id.*

73. *Id.*

74. Swanson Indiana, *supra* note 18, at 195 (finding that in both Connecticut and Indiana, the most common use of gun-removal laws was in cases where concerned family members noticed signs of suicide risk).

75. Edwards et al., *supra* note 53, at 3118 (explaining how many states have passed firearms legislation that impose waiting periods in addition to the federal Brady Act).

76. Cook & Braga, *supra* note 70, at 291 ("Since guns are highly durable commodities, used guns appear to be a close substitute for new ones.").

guns than people in the United States.[77] The magnitude of the existing gun stock makes policies which allow removal of firearms from high-risk individuals uniquely promising.

III. EXISTING LITERATURE

Three previous studies in the psychology literature have analyzed the effects of red flag laws on suicide in Connecticut and Indiana. In two papers, Jeffrey Swanson and coauthors analyzed individual-level data on firearm removal cases matched to death records in Connecticut and Indiana and concluded that the gun removal laws prevented approximately seventy-two firearm suicides in Connecticut and thirty-nine firearm suicides in Indiana.[78] In these non-population-level results, the authors also identified fifteen non-firearm and seven non-firearm suicides in the death records of persons subjected to firearm removal in Connecticut and Indiana respectively.[79] In percentage terms, Swanson's Connecticut study found a 6% decrease in firearm-related suicide, which translated to a 2% decrease in overall suicide, and the Indiana study found more moderate 0.57% and 0.27% decreases, respectively.[80] Although the detail of these studies is impressive, their focus on individual-level data precludes causal inference and external validity.[81]

The study most similar to mine is Kivisto and Phalen's population-level analysis of the effect of red flag laws' on suicides in Connecticut and Indiana.[82] Using synthetic controls, Kivisto and Phalen find that red flag laws contributed to a 7.5% decrease in firearm-related suicides and

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77. *See* Christopher Ingraham, *There Are Now More Guns Than People in the United States According to a New Study of Global Firearm Ownership*, WASH. POST. (June 19, 2018, 9:31 AM), https://www.washingtonpost.com/news/wonk/wp/2018/06/19/there-are-more-guns-than-people-in-the-united-states-according-to-a-new-study-of-global-firearm-ownership/ [https://perma.cc/U2R7-HAMZ] (combining data from the Small Arms Survey and U.S. estimates of population to estimate that there are 120.5 guns for every 100 residents).

78. Swanson Connecticut, *supra* note 18, at 202–04 (estimating that in Connecticut, approximately twenty gun seizures were needed for every averted suicide); Swanson Indiana, *supra* note 18, at 193 (estimating that in Indiana, approximately ten gun removal cases were needed to avert each prevented suicide).

79. Swanson Connecticut, *supra* note 18, at 199 (finding of the twenty-one suicides among people subject to gun seizures during the study period, six used guns while fifteen used other means); Swanson Indiana, *supra* note 18, at 192 (finding of the fourteen suicides among people subject to gun removals during the study period, seven used guns while seven used other means).

80. These percentages are calculated using the estimates in the Swanson papers and the average expected suicides in Connecticut and Indiana respectively, using data from the CDC. *See* Swanson Connecticut, *supra* note 18, at 203 (estimating that Connecticut's red flag law prevented seventy-two suicides over the study period); Swanson Indiana, *supra* note 18, at 193 (estimating that Indiana's red flag law prevented thirty-nine suicides over the study period); *CDC Wonder 1999–2019*, *supra* note 3 (providing data on the overall suicide rates of Connecticut and Indiana).

81. This is because there is no causal research design strategy; the research design instead involves describing observed results in specific locations.

82. Kivisto & Phalen, *supra* note 19, at 855.

a 5% decrease in overall suicides in Indiana.[83] In Connecticut, Kivisto and Phalen found a 1.6% decrease in firearm-related suicide in the first years of enactment, which became a 13.7% decrease following increased enforcement efforts in the post-Virginia Tech (2007) period.[84] However, Connecticut's reduction in firearm suicides was offset by increased non-firearm suicides, resulting in an overall slight increase in suicides.[85]

My study offers advantages over previous empirical examinations of red flag laws in the psychology literature. First, two previous studies examine the effect of red flag laws on suicides only within single states.[86] My difference-in-differences approach levies variation within states across time and is more resilient against threats to identification. Second, I build upon work by Kivisto and Phalen.[87] My study includes more states and a broader time period due to the increased availability of mortality data, providing a more robust picture of red flag laws nationwide.[88] It uses standard difference-in-differences rather than synthetic controls as its main empirical method. Additionally, to my knowledge, I am the first to examine the impact of red flag laws on homicides, which could inform the motivation for passing these laws. Finally, I am also the first to examine the differential impact of these laws on race and gender groups.

IV. THE EFFECT OF RED FLAG LAWS ON HOMICIDES AND SUICIDES

A. Trends in Raw Data

The main dependent variables in my study are suicide and homicide rates, in log form, by state and year. I will also examine suicide and homicide rates separately for men, women, white, and nonwhite people.[89]

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83. *Id.* at 859, 861 (finding that Indiana gun seizures prevented 383 firearm suicides but contributed to forty-four non-firearm suicides, resulting in an overall suicide decrease over the study period).

84. The authors argue that the Virginia Tech mass shooting affected Connecticut's but not Indiana's red flag enforcement because of the "eight-year lag after the enactment of Connecticut's firearm seizure legislation during which time very few guns were seized, but seizure rates increased fivefold following the mass shooting at Virginia Tech on April 16, 2007. By contrast, Indiana's enactment in 2005 corresponded almost immediately with meaningful levels of enforcement." *Id.* at 855.

85. The authors estimate that the Connecticut enforcement bump prevented 128 firearm-related suicides but contributed to 140 non-firearm suicides from 2007 to 2015, offsetting the firearm-related decrease. *Id.* at 861.

86. Swanson Connecticut, *supra* note 18, at 202–04; Swanson Indiana, *supra* note 18, at 193.

87. Kivisto & Phalen, *supra* note 19, at 861.

88. I include Connecticut, Indiana, California, Washington, and Oregon's suicide and homicide rates from 1981 to 2018, resulting in fifteen additional state-years.

89. White/nonwhite is the most finely separated race categorization the data will allow because of privacy constraints. The Centers for Disease Control and Prevention suppresses all state-level data representing zero to nine deaths to protect privacy. Therefore, in state-years where, for

The mortality data come from the CDC WONDER database, a compilation of the National Center for Health Statistics' cause of death files.[90] CDC WONDER provides death counts by state, year, cause, age, sex, and many other breakdowns. I use firearm and non-firearm homicides and suicides in each state between 1980 and 2018 for this study.

Table 1 shows summary statistics of the variables included in my model. The independent variable of interest, red flag laws, is a dummy variable coded 0 prior to the enactment of the law and 1 if the law went into effect at any point during the year. The second and third columns of Table 1 show the summary statistics of state-years separated according to whether there was a red flag law in effect. The fourth column of Table 1 shows the outcome of a two-sided t-test on each red flag/no red flag pair, indicating whether there is a statistically significant difference between the means of the two groups. All rates are per 100,000 except for the unemployment rate, which is per 100.

Table 1: Summary Statistics

	Full Sample	Red Flag Law	No Red Flag Law	t-test
Suicide rate	13.51	11.77	13.57	***
Female	5.38	5.09	5.39	
Male	21.87	18.68	21.97	***
White	14.68	12.94	14.73	***
Nonwhite	11.18	6.87	11.31	***
Firearm-related suicide rate	7.63	5.09	7.71	***
Female	1.94	1.15	1.97	***
Male	13.49	9.15	13.62	***
White	8.50	5.66	8.59	***
Nonwhite	4.83	2.48	4.90	***

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example, ten white, seven Black, and six Asian people committed suicide, the data are missing for both Black and Asian suicides. However, the data for the overall suicide count and for the white suicide count are non-missing, so I am able to calculate the total nonwhite suicide count (23-10=13). *Underlying Cause of Death 1999–2018 on CDC WONDER Online Database Dataset Documentation*, CTRS. DISEASE CONTROL & PREVENTION, NAT'L CTR. FOR HEALTH STATISTICS, https://wonder.cdc.gov/wonder/help/ucd.html#   (last   visited   March   15,   2020), [https://perma.cc/8P9A-VG2N]

90.   *CDC WONDER 1979–1998, supra* note 3; CDC *WONDER 1999-2019, supra* note 3.

Non-firearm-related suicide rate	5.88	6.68	5.86	***
Female	3.44	3.93	3.42	**
Male	8.40	9.53	8.37	***
White	6.26	7.28	6.23	***
Nonwhite	6.41	4.40	6.47	*
Homicide rate	6.73	4.31	6.81	**
Female	2.96	1.90	3.01	***
Male	10.75	6.80	10.88	**
White	3.79	2.73	3.82	***
Nonwhite	19.68	16.36	19.79	*
Firearm-related homicide rate	4.58	2.95	4.64	**
Female	1.53	0.91	1.55	***
Male	8.14	5.06	8.24	**
White	2.31	1.56	2.34	***
Nonwhite	14.16	13.38	14.18	
Non-firearm-related homicide rate	2.15	1.36	2.18	***
Female	1.50	0.99	1.52	***
Male	2.93	1.74	2.98	***
White	1.52	1.17	1.53	***
Nonwhite	5.51	2.98	5.59	***
Red flag law	0.029	1	0	***
Unintentional poisoning death rate	8.30	13.34	8.15	***
Unintentional firearm death rate	0.26	0.09	0.26	**
Fraction white	0.82	0.83	0.82	
Fraction black	0.11	0.091	0.11	
Fraction another race	0.07	0.075	0.07	
Fraction male age 45-64	0.11	0.13	0.11	***
Unemployment rate	5.54	5.73	5.54	
Real per capita income ($)	44369.67	58602.43	43941.10	***
Urbanization fraction	0.71	0.88	0.70	***
Fraction married	0.42	0.41	0.42	
	N = 1471	N = 43	N = 1428	

Note: Rates are per 100,000, except for the unemployment rate, which is per 100.

　***p < 0.01, **p < 0.05, *p < 0.1

The overall suicide rate and the suicide rate for each group except for women is significantly lower in state-years with a red flag law than when there is no red flag law. On average, the suicide rate is approximately 13% lower in state-years with a red flag law in place.[91] Similarly, the firearm-suicide rate is highly significantly lower for every group. The overall firearm-suicide rate is about 34% lower on average when a red flag law is in effect.[92] The non-firearm related suicide rate is actually higher in state-years with red flag laws for every group except nonwhite, but the magnitude of the difference is smaller.[93] Homicide rates—total, firearm, and non-firearm—are all lower in state-years with red flag laws. These differences are all statistically significant except for firearm-related nonwhite homicide. While there are certainly more factors causing these differences than the red flag laws alone, these raw numbers motivate further investigation and support the idea that red flag laws may deter firearm suicide, possibly with some substitution to non-firearm suicide.

One methodological problem in the study of the relationship between firearms and suicides and homicides is that it is difficult to accurately measure the stock and change in the stock of firearms in the United States. There is no mandatory registry of new gun purchases,[94] and guns are a durable good that can work for many years with minimal maintenance.[95] Previous research on guns and crime, including homicide, has used the percentage of suicides committed with a firearm as a proxy for gun stock.[96] Because suicide is one of the outcome measures of interest here,

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91.   13.6 per 100,000 versus 11.8 per 100,000.

92.   7.7 per 100,000 versus 5.1 per 100,000.

93.   The difference is about 0.82 per 100,000.

94.   The National Tracing Registry, which systematically tracks the movement of firearms recovered by law enforcement from their first sale by the manufacturer or importer through the distribution chain to the first retail purchaser, exists, but the Tiahrt Amendment prevents the National Tracing Center of the Bureau of Alcohol, Tobacco, Firearms, and Explosives from releasing information from the firearms trace database to anyone other than a law enforcement agency or prosecutor in connection with a criminal investigation. *National Tracing Center*, BUREAU OF ALCOHOL, TOBACCO, FIREARMS, & EXPLOSIVES, https://www.atf.gov/firearms/national-tracing-center [https://perma.cc/M5HJ-BAAW] (June 15, 2020) ("The Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) National Tracing Center (NTC) is the United States' only crime gun tracing facility."). *See* Consolidated Appropriations Act, 2010, Pub. L. No. 111-117, 123 Stat. 3034, 3128-29 (2009) (preventing gun trace data from being used in academic research of gun use in crime as well as use of any data released in civil lawsuits against gun sellers or manufacturers); Grimaldi & Horwitz, *supra* note 70.

95.   Cook & Braga, *supra* note 70, at 291 ("Since guns are highly durable commodities, used guns appear to be a close substitute for new ones.").

96.   *See* Cook & Ludwig, *supra* note 56, at 380 (using the percentage of suicides committed with a gun as a proxy for gun prevalence to show that gun prevalence is possibility causally related with gun homicide rates). *See also* Gary Kleck, *Measures of Gun Ownership Levels for Macro-Level Crime and Violence Research*, 41 J. RES. CRIME & DELINQUENCY 3, 13 (2004) (finding that the

this approach is not a viable option for this study.[97] Other studies have used the results of surveys, number of gun magazine subscriptions, number of background checks performed, and number of local gun shows in a time period to proxy for gun ownership.[98] My study will use the unintentional firearm death rate to proxy for firearm availability.[99] Other studies have found this measure to be correlated with background check and suicide measure.[100] And, as an additional check, I am able to control for the firearm suicide ratio in my homicide regressions and find virtually no difference in estimates when controlling for unintentional firearm death rate and firearm-related suicide death rate. Unintentional firearm death measurement may be affected by local coroners' standards for what is an accidental death rather than a suicide or homicide.[101] However, as long as these judgment calls are not systematically related to red flag law enactment, state and year fixed effects should resolve concerns with this issue.[102] As an extra check that unintentional firearm deaths are a valid proxy for firearm stock and are not themselves directly affected by red flag laws, I ran regressions replacing homicides and suicides with unintentional firearm deaths as the outcome variable. I did not find any

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percentages of suicides committed with guns is the best measure of gun ownership for cross-sectional researched, but not for panel research); *see also* Deborah Azrael et al., *State and Local Prevalence of Firearms Ownership Measurement, Structure, and Trends*, 20 J. QUANTITATIVE CRIMINOLOGY 43, 49 (2004) (finding that percentage of suicides committed with a gun is highly correlated with survey-based estimates of gun ownership).

97.   *See* Edwards et al., *supra* note 53, at 3120 ("[W]e are unable to use the firearm suicide ratio since suicides is an outcome of interest."); *see also* Lang, *supra* note 52, at 1087 (using firearm background checks as a proxy for changes in firearm ownership rates to establish a positive causal relationship between suicides and firearm ownership).

98.   *See, e.g.*, Briggs & Tabarrok, *supra* note 53, at 182 (using a composite measure of the percentage of suicides committed with a gun, background check rates, and rates of accidental death by gun, and showing that this correlates strongly with gun ownership estimates from the Behavioral Risk Fact Surveillance Survey (BRFSS)); *see also* Lang, *supra* note 52, at 1087 (using firearm background checks as a proxy for changes in firearm ownership rates); *see also* Duggan et al., *supra* note 52, at 787–89 (examining the effect of local gun shows on homicide and suicide); *see also* Duggan, *supra* note 55, at 1087 (arguing that subscriptions to a gun-related magazine are an accurate way to measure gun ownership in an area).

99.   *See CDC WONDER 1979–1998*, *supra* note 3; *CDC WONDER 1999-2019*, *supra* note 3 (providing unintentional firearm death rate by state by year). *See also* Edwards et al., *supra* note 53, at 3120 (demonstrating that this measure has become another popular proxy for firearm stock in the gun violence literature).

100.   *See* Edwards et al., *supra* note 53, at 3120 (using unintentional firearm death rates to proxy for firearm availability and finding that accidental firearm death rates are correlated with firearm background check data in a similar manner as firearm suicide rates).

101.   Cook et al., *supra* note 70, at 1048.

102.   *See* Edwards et al., *supra* note 53, at 3126 (arguing that because the enactments of laws restricting and delaying gun purchases were independent of local coroners' standards, variation in the standards should not affect unintentional firearm death as a good proxy for gunstock).

statistically significant results, which should lend confidence to the idea that this is a reasonable control variable.[103]

I also control for other factors that may affect suicides and homicides. These include state demographic and economic data from the Bureau of Economic Analysis and the Current Population Survey: per capita income, unemployment rate, and the percentages of the white, black, other race, metropolitan, and married population.[104] I control for the percentage of the population that is male between the ages of forty-five and sixty-four because this is the group that accounts for the highest number of suicides.[105] I also include the unintentional poisoning death rate by state and year as a proxy for alcoholism and prescription drug use or abuse.[106]

B. Empirical Methodology: Difference-in-Differences

I use a quasi-natural experiment design and examine the difference-in-differences in homicide and suicide rates between states with and without red flag laws across time. Social scientists have long used difference-in-differences analysis to approximate conditions similar to a laboratory setting when running a traditional laboratory experiment is infeasible.[107]

Difference-in-differences first calculates the differences in suicide and homicide rates in a treatment group before and after a policy goes into effect, then compares that difference to a baseline difference in a control group. We first find the difference in suicide rate in each state with a red flag law before and after a red flag law was passed and take the average across the states with red flag laws. We then do the same for states in

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103.   These results are available in Appendix Table A.2.

104.   Sarah Flood et al., *Integrated Public Use Microdata Series, Current Population Survey: Version 6.0*, MINNEAPOLIS, MN: INTEGRATED PUB. USE MICRODATA SERIES (IPUMS) (2018), https://doi.org/10.18128/D030.V6.0 [https://perma.cc/K5LF-2HF8] (last visited Feb. 21, 2020) (IPUMS provides public access to cleaned and searchable Current Population Survey data, among many other datasets); *Annual Unemployment Rates by State, 1980–2018*, IOWA CMTY. INDICATORS PROGRAM: IOWA STATE UNIV., https://www.icip.iastate.edu/tables/employment/unemployment-states (last visited Feb. 21, 2020) (data from Local Area Unemployment Statistics, U.S. Bureau of Labor Statistics).

105.   *See Suicide by Age, United States 2009-2018*, SUICIDE PREVENTION RES. CTR., https://www.sprc.org/scope/age [https://perma.cc/2MVZ-HTF2] (last visited July 20, 2020) (illustrating that males between the ages of forty-five and sixty-four account for the highest number of suicides).

106.   *See CDC WONDER 1979–1998*, *supra* note 3; *CDC WONDER 1999-2019*, *supra* note 3 (providing unintentional poisoning death data).

107.   *See* Michael Lechner, *The Estimation of Causal Effects by Difference-in-Difference Methods*, 4 ECONOMETRICS 167 (2010) (providing a review of the literature on the use of difference-in-differences in empirical studies); *see also* Elizabeth A. Stuart et al., *Using Propensity Scores in Difference-in-Differences Models to Estimate the Effects of a Policy Change*, 4 HEALTH SERVS. & OUTCOMES RSCH. METHODOLOGY 166, 166 (2014) ("Difference-in-difference (DD) methods are a common strategy for evaluating the effects of policies or programs that are instituted at a particular point in time, such as the implementation of a new law.").

which no red flag law was passed, subtracting before and after a red flag law might have been passed. We then subtract, or difference, the differences in these two groups from each other. This gives us the difference-in-differences, which is a measure of the causal effect of red flag laws on suicide (or homicide) rates. For the mathematically minded, essentially what difference-in-differences does is calculate:

$$\beta = \left(Suicide_{post-rfl}^{states\ with\ rfl} - Suicide_{pre-rfl}^{states\ with\ rfl}\right) - \\ \left(Suicide_{post-rfl}^{states\ without\ rfl} - Suicide_{pre-\mathrm{rfl}}^{states\ without\ rfl}\right)$$

Equation 1

Red flag laws were enacted in response to high-profile mass shootings, not to increases in firearm suicides or non-mass homicides, allowing me to treat the enactment of these laws as exogenous to my outcome variables, suicide and homicide rate. Exogeneity means that we can establish a one-way causal relationship between red flag laws and suicide or homicide rates, without worrying that any statistical relationship we find might actually be the result of policymakers passing red flag laws in response to increased suicide or homicide rates.[108] Instead, we can interpret the results of the difference-in-differences analysis below as solely the causal effect of red flag laws on suicide or homicide rates. Exogeneity is a standard assumption in regression analysis.

I employ a multiple-regression technique common for studies that employ a difference-in-differences framework.[109] Not only do regressions allow me to estimate standard errors, but they also allow me to include other measurable factors that may be influencing suicide and homicide rates like income, unemployment, gender, and race.[110]

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108. *See, e.g.*, JEFFREY M. WOOLDRIDGE, INTRODUCTORY ECONOMETRICS 561 (4th ed. 2009).

109. *See, e.g.*, David Card & Alan Krueger, *Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania*, 84 AM. ECON. REV. 772, 772 (1994) (using difference-in-differences to measure the effect of the minimum wage on employment); *see also* Edwards et al., *supra* note 53, at 3120 (using a difference-in-differences approach to exploit within-state variation across time in both the existence and length of explicit firearm purchase wait periods and delays created by licensing requirements); *see also* Alberto Abadie, *Semiparametric Difference-in-Differences Estimators*, 72 REV. ECON. STUD. 1, 1 (2005) ("The difference-in-differences (DID) estimator is one of the most popular tools for applied research in economics to evaluate the effects of public interventions and other treatments of interest on some relevant outcome variables.").

110. *See* Abadie, *supra* note 109, at 1 ("A good way to do econometrics is to look for good natural experiments *and* use statistical methods that can tidy up the confounding factors that nature has not controlled for us.").

Formally, I estimate:

$$\ln(s_{it}) = \alpha + \beta R_{it} + \theta X_{it} + \gamma_t + \tau_i + \varepsilon_{it}$$

Equation 2

where $\ln(s_{it})$ is the natural log of the homicide or suicide rate in state i at time t, R_{it} is a dummy variable (coded as either 0 or 1) for the presence of a red flag law, X_{it} is a vector of demographic and economic controls, γ_t are year fixed effects, τ_i are state fixed effects, and ε_{it} is the error term.[111] This model allows for a more accurate measurement of the relationship between red flag laws and suicide or homicide while controlling for alternative explanatory variables.

C. The Effects of Red Flag Laws on Homicides and Suicides

The main results are reported below. Table 2 presents the results from the difference-in-differences modeling for homicide rates, and Table 3 presents the results for suicide rates. The first panel of each table shows the results for total homicides or suicides, the second panel shows the results for firearm homicides or suicides, and the third panel shows the results for non-firearm homicides or suicides. Each column in Tables 2 and 3 represents a unique regression, estimating first the outcomes for the entire population, then separately the outcomes for the male, female, white, and nonwhite population.[112] In this sort of model, a positive number indicates an increase in the rate of homicides or suicides and a negative number indicates a decrease in the rate of homicides or suicides. Three stars next to a number indicates that the result is significant at the 1% level, two stars indicates that it is significant at the 5% level, and one star indicates that it is significant at the 10% level.[113]

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111. I chose a log-linear model because I believe the impact of the policy will be proportional to the base rate of homicide or suicide in each state-year. That is, it is likely that the policy has a larger effect in an area or time when the rate of suicides or homicides is high, rather than a constant marginal effect in all areas and time periods, like using rate dependent variables would assume.

112. The regression sample sizes differ because of suppression constraints on the data. The Centers for Disease Control and Prevention suppresses all state-level data representing zero to nine deaths to protect privacy. Therefore, in state-years where, for example, six men and seven women committed suicide, the data are missing for both male and female suicides. However, the data are non-missing for the overall regression. There are more missing values for the homicide than for the suicide data. Suicide results run on the homicide sample are available in Appendix A. The results are qualitatively the same.

113. A result is statistically significant if the observed result would be unlikely if the null hypothesis were true. A result being significant at, for example, the 1% significance level (i.e., at the 99% confidence level), means that if the null hypothesis (i.e., there is no difference in suicide rates between state-years with a red flag law and state-years without a red flag law) were true, we

Table 2: Red Flag Laws on Homicides

	(1)	(2)	(3)	(4)	(5)
	All	Men	Women	White	Nonwhite
Total homicides					
Red flag law	−0.018	−0.022	−0.0004	0.043	−0.079
Standard error	(0.066)	(0.072)	(0.052)	(0.068)	(0.070)
R-squared	0.899	0.898	0.814	0.878	0.621
Observations	1,353	1,345	1,345	1,328	1,328
Firearm homicides					
Red flag law	−0.077	−0.069	−0.081	−0.002	−0.135
Standard error	(0.092)	(0.097)	(0.069)	(0.101)	(0.098)
R-squared	0.896	0.893	0.700	0.896	0.655
Observations	1,353	1,290	1,290	1,259	1,259
Non-firearm homicides					
Red flag law	0.083**	0.100**	0.058	0.109**	-0.006
Standard error	(0.039)	(0.049)	(0.048)	(0.043)	(0.069)
R-squared	0.788	0.806	0.631	0.728	0.500
Observations	1,353	1,290	1,290	1,259	1,259

Notes. Each column represents a unique regression. Each observation is at the state-year level. The dependent variable is the natural log of the various homicides rates, and the standard errors are clustered at the state level. All specifications include state and year fixed effects. The controls included in the columns are percent white, percent black, percent male, unintentional poisoning death rate, unintentional firearm death rate, percent age 45–64, percent male age 45–64, urbanization percent, unemployment rate, real per capita income, and percent married. Robust standard errors are in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1

would expect to see the observed result (for example, a 3.7% decrease in suicides) only 1% of the time. Statistical significance can never tell us for certain that there is no difference between two data sets, but it can tell us how likely we would be to see the result we see if the data sets were the same.

Table 3: Red Flag Laws on Suicides

	(1) All	(2) Men	(3) Women	(4) White	(5) Nonwhite
Total suicides					
Red flag law	−0.037***	−0.025**	−0.072***	−0.038***	−0.136**
Standard error	(0.012)	(0.010)	(0.025)	(0.013)	(0.055)
R-squared	0.951	0.948	0.874	0.945	0.435
Observations	1,471	1,471	1,471	1,468	1,468
Firearm suicides					
Red flag law	−0.064***	−0.050**	−0.175***	−0.070***	−0.087
Standard error	(0.021)	(0.019)	(0.050)	(0.020)	(0.082)
R-squared	0.973	0.970	0.834	0.972	0.441
Observations	1,471	1,469	1,469	1,450	1,450
Non-firearm suicides					
Red flag law	0.004	0.019	−0.028	0.005	−0.104
Standard error	(0.014)	(0.013)	(0.026)	(0.018)	(0.063)
R-squared	0.911	0.890	0.836	0.893	0.466
Observations	1,471	1,469	1,469	1,450	1,450

Notes. Each column represents a unique regression. Each observation is at the state-year level. The dependent variable is the natural log of the various suicide rates, and the standard errors are clustered at the state level. All specifications include state and year fixed effects. The controls included in the columns are percent white, percent black, percent male, unintentional poisoning death rate, unintentional firearm death rate, percent age 45–64, percent male age 45–64, urbanization percent, unemployment rate, real per capita income, and percent married. Robust standard errors are in parentheses.

***$p < 0.01$, **$p < 0.05$, *$p < 0.1$

As is evident in Table 2, there appears to be no consistent statistically significant relationship between red flag laws and total or firearm homicides. This is true both overall and for each demographic group. This result may be surprising to policy makers who enacted the laws in response to high profile mass shootings, but it is not surprising given the actual distribution of firearm deaths in the United States. Mass shootings are rare; according to the Gun Violence Archive, about 378 people died in U.S. mass shootings per year from 2013 through 2019, or about 0.12

people per 100,000.[114] Deaths from mass shootings comprise a tiny fraction of the approximately 4.6 per 100,000 people killed every year in firearm homicides.[115] However, relatively speaking, firearm homicide deaths overall are also rare. As shown in the Table 1 summary statistics above, almost twice as many people are killed by firearm-related suicide as by firearm-related homicide every year. It therefore seems logical that red flag law enforcement efforts would be more concentrated on and more successful at reducing firearm-related suicides than homicides. Based on the limited information available about the practical implementation and enforcement of red flag laws, it seems that these laws are used most often to remove guns from individuals with apparent suicidal, rather than homicidal, tendencies.[116] Additionally, while red flag laws can be used to remove a person's guns and prevent them from buying new guns, most criminal offenders report obtaining firearms through secondary or illegal markets.[117] This evidence suggests that even if red flag laws are sometimes used to interrupt homicidal plans, they may not have as much bite in secondary or illegal markets, which may explain why there is no statistical difference in homicides or firearm homicides associated with the implementation of a red flag law.

   In contrast to the results in Table 2, Table 3 shows that red flag laws do have a consistently negative and statistically significant effect on firearm-related suicides. Specifically, I find that a red flag law decreases firearm-related suicides by about 6.4% overall, with the biggest drop, 17.5%, for women. This gender difference could be because women have the lowest base rates of firearm-suicide of any group analyzed, so preventing even one suicide leads to a correspondingly larger percentage change. One concern with policies that aim to prevent one method of

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   114. *See* sources cited *supra* note 1; *see also Total Population*, U.S. CENSUS BUREAU, https://data.census.gov/cedsci/table?q=deaths&t=Populations%20and%20People&tid=ACSDT1Y 2019.B01003&hidePreview=false (last visited Mar. 15, 2021) (averaging the total U.S. population from 2013 through 2019 by using the dropdown menu at the top of the page).

   115. *See supra* Table 1 (comparing homicide and suicide rates with and without red flag laws).

   116. Parker, *First Two Years*, *supra* note 61, at 478 ("Firearm seizure by police was rarely a result of psychosis; instead, risk of suicide was the leading reason."); Parker, *Indiana*, *supra* note 59, at 308 (finding that in Indiana, removals were prompted by threatened or attempted suicide 68% of the time, violence 21%, and psychosis 16%); Swanson Connecticut, *supra* note 18, at 192 (finding that about 61% of gun removal requests in Connecticut cited concern about self-harm, 32% cited risk of harm to others, and 9% cited both categories); Wintemute, *supra* note 61 (finding that only 13% of removals in California involved an individual deemed at risk of perpetrating a mass shooting).

   117. Edwards et al., *supra* note 53, at 3133 (describing the impact of handgun purchase delay policies on homicide and suicide outcomes); *see also* Cook et al., *supra* note 70, at 1047 ("[T]he 30 to 40 percent of all gun transfers that do not involve licensed dealers . . . accounts for most guns used in crime."); WRIGHT & ROSSI, *supra* note 70, at 4 ("[F]elons rarely obtain their guns from legitimate retail outlets . . . ."); Cook & Braga, *supra* note 70, at 291–92 (discussing how stolen guns form the source for a "vast" secondary market).

suicide is substitution to other methods. That is, discouraging firearm suicides may actually just encourage suicides by other means. To explore this possibility, the bottom rows of Table 3 examine the effects of red flag laws on non-firearm-related suicides. I find no evidence of a statistically significant relationship between red flag laws and non-firearm-related suicides. The effect on suicides overall is therefore a statistically significant 3.7% decrease for all groups, consistent with studies mentioned previously that find that the decision to attempt suicide can be, for many potential victims, discouraged by small interruptions including means restriction.[118]

V. Implications for Firearm Policy

In this paper, I use variation in the timing of red flag laws and their plausible exogeneity to homicide and suicide rates to estimate the effects of red flag laws on firearm-related homicides and suicides. I find little to no evidence of a relationship between red flag laws and homicides. This result may be due to the avenues through which potential criminals obtain firearms and the fact that homicides, despite their higher media visibility, are actually much rarer than suicides. I do find, however, that red flag laws reduce firearm-related suicides and suicides overall by about 6.4% and 3.7%, respectively, with the drop in firearm suicide by group ranging from 17.5% (women) to 5% (men). These results are both statistically and substantively significant. They suggest that if all forty-five states without a red flag law during this period were to adopt one, almost 1,300 lives per year could be saved.[119] About 38% of states currently have a red flag law, and my results suggest that this increase in the adoption of red flag laws is a lifesaving trend. My results add to a growing literature examining the relationship between firearms and suicide and are congruent with the findings of previous seminal studies as well as with previous red flag law studies.[120] My results are most similar to Kivisto and Phalen's results for Indiana and are higher than their Connecticut results and the results in both Swanson papers.[121] It is possible that the larger effects I find in my

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118. *See supra* Section II.A (explaining that restricted access to means of suicide can effectively prevent suicides without diverting them to another method of suicide).

119. This is based on a back-of-the-envelope calculation of 3.7% fewer suicides from the 1990 to 2018 average of 33,648 suicides per year, excluding states in the years they had red flag laws.

120. *See, e.g.*, Swanson Connecticut, *supra* note 18 (exploring whether red flag laws in Connecticut prevent suicide); Swanson Indiana, *supra* note 18 (measuring suicide outcomes since Indiana passed a gun seizure law); Kivisto & Phalen, *supra* note 19 (comparing the changes in both Connecticut and Indiana suicide rates between 1981 and 2015).

121. *See* Swanson Connecticut, *supra* note 18, at 203 (finding that Connecticut red flag laws decreased firearm-related suicide by 6% and overall suicide by 2%); Swanson Indiana, *supra* note 18, at 193 (finding that Indiana red flag laws decreased firearm-related suicide by 0.57% and overall

study may be partially due to the fact that I include Washington, Oregon, and California in my analysis; the red flag laws in these three states are more expansive in who they allow to petition for a removal order than those laws in either Indiana or Connecticut, the two states studied by the previous authors. The states that have passed red flag laws since 2018 also vary in the expansiveness of their laws.[122] It is possible, and would be consistent with economic theory,[123] that as states expand the group of people allowed to petition for an order, leveraging an expanded information set, the accuracy and effectiveness of these laws increase.[124] In addition, laws that allow ex parte orders may be more effective in time-sensitive cases because the person subject to the order is likely to be separated from their firearms more quickly.[125] Red flag laws may also

suicide by 0.27%); Kivisto & Phalen, *supra* note 19, at 861 (finding that red flag laws contributed to a 7.5% decrease in firearm suicides and a 3% decrease in overall suicides in Indiana, while Connecticut laws resulted in a 1.6–13.7% decrease in firearm suicides which was completely offset by an increase in non-firearm suicides, resulting in an overall slight increase in suicides); *see also supra* note 80 and accompanying text.

122.   *See supra* Part I (discussing state variation in red flag laws).

123.   *See, e.g.*, HAL R. VARIAN, INTERMEDIATE MICROECONOMICS 718–19 (Jack Repcheck ed., 8th ed. 2010) (explaining how asymmetric information between buyers and sellers can cause significant problems in a market).

124.   Twelve states, California, Colorado, Delaware, Hawaii, Illinois, Maryland, Massachusetts, Nevada, New Jersey, New York, Oregon, Washington, and the District of Columbia, allow people other than law enforcement to file a gun removal petition. *See* CAL. PENAL CODE § 18150 (2020); COLO. REV. STAT. § 13-14.5-104 (2020); DEL. CODE ANN. tit. 10, § 7701, 7704 (2020) (family and household members can petition for non-emergency orders); HAW. REV. STAT. ANN. § 134-61 (2020); 430 ILL. COMP. STAT. 67/35, 67/40 (2019); MD. CODE ANN., PUB. SAFETY § 5-601(E)(2) (West 2021); MASS. GEN. LAWS ch. 140, §§ 121, 131R (2020); 2019 NV A.B. 291; N.J. STAT. ANN. § 2C:58-21 (West 2020); N.Y. C.P.L.R. §§ 6340, 6341 (MCKINNEY 2021); OR. REV. STAT. ANN. § 166.527 (2020); WASH. REV. CODE § 7.94.030(1) (2020). Maryland has gone the farthest, allowing medical and mental health professionals, spouses and cohabitants, other family members, co-parents, current dating partners, and current or former legal guardians to file petitions. *See* MD. CODE ANN., PUB. SAFETY § 5-601(E)(2) (West 2021).

125.   Fourteen states, California, Colorado, Delaware, Florida, Hawaii, Illinois, Maryland, Massachusetts, New Jersey, New York, Oregon, Rhode Island, Vermont, Washington, and the District of Columbia allow removal of firearms from people subject to ex parte removal orders. CAL. PEN. CODE § 18150(b) (2020); COLO. REV. STAT. § 13-14.5-103 (2020); DEL. CODE ANN. tit. 10, § 7703 (2020); FLA. STAT. § 790.401(4)(a) (2020); HAW. REV. STAT. ANN. § 134-64 (2020); 430 ILL. COMP. STAT. 67/35 (2019); MD. CODE ANN., PUB. SAFETY, § 5-603 (West 2021); MASS. GEN. LAWS ch. 140, §§ 121, 131R, 131S, 131T (2020); N.J. STAT. ANN. §§ 2C:58-21, 23 (West 2020); N.Y. C.P.L.R. §§ 6340-6342 (MCKINNEY 2021); OR. REV. STAT. ANN. §§ 166.525, 166.527 (2020); R.I. GEN. LAWS § 8-8.3-4 (2020); VT. STAT. ANN. tit. 13, § 4054(a)(1) (2019); WASH. REV. CODE § 7.94.050 (2020); D.C. CODE § 7-2510.04 (2020). Some states allow ex parte removal only when the petitioner is law enforcement (Delaware, Florida, Rhode Island, and Vermont) while others allow ex parte petitions by a larger group of petitioners (Hawaii, Illinois, Maryland, Massachusetts, New Jersey, New York, Oregon, and Washington). *See* DEL. CODE ANN. tit. 10, § 7703 (2020); FLA. STAT. § 790.401(4)(a) (2020); R.I. GEN. LAWS § 8-8.3-1 (2020); VT. STAT. ANN. tit. 13, § 4054(a)(1) (2019) (allowing ex parte law enforcement only); HAW. REV. STAT. ANN. §§ 134-61, 134-64 (2020); 430 ILL. COMP. STAT. 67/5, 67/35 (2019); MD. CODE ANN., PUB. SAFETY §§ 5-601(E)(2), 5-602, 5-603 (West 2021); MASS. GEN. LAWS ch. 140, §§ 121, 131R,

decrease overall suicidality if they increase the probability that the person subject to them receives mental health treatment, and states should consider this connection to increase effectiveness as well.[126] As states gain more experience with these laws and mortality data become available for years later than 2018, this may be an important area of future research.

American politics faces historically high levels of polarization, affecting nearly every institution of government.[127] A key element of depolarizing the normative debate about gun control and gun violence is establishing a foundation of facts about gun control policies and gun violence. From an economic perspective, firearms impart utility to gun owners through recreational use and as a method of self-defense. However, the availability of firearms also creates a negative externality for society by increasing the probability that a firearm will be misused for violence.[128] Policies that aim to strike a balance between the costs associated with restricting gun ownership and the negative externalities associated with the improper use of firearms are likely welfare-enhancing and are the most likely gun laws to be legislatively successful.[129] I find

131S, 131T (2020); N.J. STAT. ANN. § 2C:58-21 (West 2020); N.Y. C.P.L.R. §§ 6340-6342 (MCKINNEY 2021); OR. REV. STAT. ANN. §§ 166.525, 166.527 (2020); WASH. REV. CODE § 7.94.050 (2020) (permitting expanded ex parte).

126. Swanson Indiana, *supra* note 18, at 198 (finding that exposure to a red flag order also increased the probability that a would-be suicide attempter received mental health treatment in the year after the law was enacted).

127. The large literature on legislative polarization includes RED AND BLUE NATION? CHARACTERISTICS AND CAUSES OF AMERICA'S POLARIZED POLITICS: VOLUME ONE (Pietro S. Nivola & David W. Brady eds., 2006); RED AND BLUE NATION? CHARACTERISTICS AND CAUSES OF AMERICA'S POLARIZED POLITICS: VOLUME TWO (Pietro S. Nivola & David W. Brady eds., 2008); SEAN M. THERIAULT, PARTY POLARIZATION IN CONGRESS (2008); Gary C. Jacobson, *Partisan Polarization in American Politics: A Background Paper*, 43 PRESIDENTIAL STUD. Q. 688 (2013); BARBARA SINCLAIR, PARTY WARS: POLARIZATION AND THE POLITICS OF NATIONAL POLICY MAKING (2006); POLITICAL POLARIZATION IN AMERICAN POLITICS (Daniel J. Hopkins & John Sides eds., 2015); SOLUTIONS TO POLITICAL POLARIZATION IN AMERICA (Nathaniel Persily ed., 2015); GOVERNING IN A POLARIZED AGE: ELECTIONS, PARTIES, AND POLITICAL REPRESENTATION IN AMERICA (Alan S. Gerber & Eric Schickler eds., 2017); SAM ROSENFELD, THE POLARIZERS: POSTWAR ARCHITECTS OF OUR PARTISAN ERA (2018). Polarization is highly asymmetric, however, with Republicans having moved considerably further to the right than Democrats have to the left. *See, e.g.*, Jacob S. Hacker & Paul Pierson, *Confronting Asymmetric Polarization*, *in* SOLUTIONS TO POLITICAL POLARIZATION IN AMERICA (Nathaniel Persily ed., 2015); *but see* Bree Lang & Matthew Lang, *Pandemics, Protests, and Firearms* 15–18 (U.C. Riverside, Dep't of Econ., Working Paper No. 202008), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3593956 [https://perma.cc/7GWY-MWHD] (documenting that the large increase in firearm sales associated with the COVID-19 pandemic in Republican states is statistically indistinguishable from the increase in Democrat states, indicating that the divide between political parties may not be as wide as previously thought).

128. *See supra* Section II.A (discussing the connection between guns and violence).

129. Kelly Roskam & Vicka Chaplin, *The Gun Violence Restraining Order: An Opportunity for Common Ground in the Gun Violence Debates*, 36 DEV. MENTAL HEALTH L. 1 (2017)

that red flag laws can help mitigate some of the negative externalities of gun ownership, specifically suicide. Red flag laws are targeted policies which use individualized information to remove guns from the most at-risk individuals.[130] Their targeted nature might minimize the costs of gun control policies on responsible gun owners, while discouraging firearm suicide without encouraging suicide by other means. Taken together, my study and previous studies on this topic give strong support to the idea that red flag laws are a successful means to prevent suicide and its attendant costs on family, friends, community, and society at large.[131]

CONCLUSION

This Article exploits state-level variation across time in the existence of red flag laws—gun control laws that permit police or family members to petition a state court to order the temporary removal of firearms from a person who may present a danger to others or themselves—to examine their effect on homicides and suicides. The existence of a red flag law reduces firearm-related suicides by 6.4% and overall suicides by 3.7%, with no substitution to non-firearm suicides. Red flag laws are not associated with statistically significant changes in homicides rates. Policymakers should consider red flag laws an effective method to prevent firearm-related suicide, one of the most deadly and prevalent potential causes of death in the United States. In light of this evidence, red flag laws should be more politically palatable than other forms of gun legislation because of their targeted nature and potential to balance the interests of gun owners against the negative externalities of gun violence.[132]

(discussing how gun violence restraining orders address the intersection of gun violence, public health, and mental health).

130.   Vernick et al., *supra* note 45, at 100–01 (arguing that their targeted nature could make risk-based seizure laws effective).

131.   *See supra* note 120 (listing relevant articles by Swanson, and Kivisto & Phalen on the effects of red flag laws in Connecticut and Indiana).

132.   Roskam & Chaplin, *supra* note 129 (describing how red flag laws are often passed in the legislature in response to an avoidable public tragedy).

APPENDIX
List A.1: Summary of pre-2018 Red Flag Laws[133]

Connecticut, CONN. GEN. STAT. § 29-38c (enacted 1999)
Who can petition? One state's attorney or any two police officers
Maximum duration of order?
  Ex parte: 14 days
  Final: Up to one year
Requisite standard of proof?
  Ex parte: Probable cause that (1) respondent poses an imminent risk, (2) respondent owns firearms, and (3) firearms are in a specified location
  Final: Clear and convincing evidence that respondent poses a risk
Relinquishment process? Law enforcement searches areas named in the warrant for firearms and ammunition and seizes them.
Early termination of order? No
Renewal? No

Indiana, IND. CODE ANN. § 35-47-14-1, et seq. (enacted 2005)
Who can petition? Law enforcement
Maximum duration of order?
  Emergency firearm removal: 14 days from submission of statement
  Ex parte: 14 days
  Final: Lasts until terminated by petition and a hearing, no earlier than 180 days after hearing for final order
Requisite standard of proof?
  Emergency/Ex parte: Probable cause that respondent is dangerous
  Final: Clear and convincing evidence that respondent is dangerous
Relinquishment process? Law enforcement searches areas named in the warrant for firearms and ammunition and seizes them.
Early termination of order? Respondent may petition once every 180 days. If it has been less than one year since the order was originally issued, respondent bears the burden of proving by preponderance of the evidence that they are not dangerous. If it has been longer than one year since the original order, the burden of proof falls to the state, which must prove by clear and convincing evidence that the respondent is still dangerous.
Renewal? No

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133. *ERPO Procedures by State*. GIFFORDS L. CENT., https://lawcenter.giffords.org/wp-content/uploads/2020/02/ERPO_Table_2-26-20.pdf (last updated Feb. 26, 2020).

California, CAL. PENAL CODE § 18100, et seq. (enacted 2014)
Who can petition? Family, household members, employers, certain coworkers and school staff, and law enforcement
Maximum duration of order?
   Temporary: Up to 21 days
   Ex parte: Up to 21 days
   Final: One to five years
Requisite standard of proof?
   Temporary: Reasonable cause to believe respondent poses immediate and present danger.
   Ex Parte: Substantial likelihood that respondent poses significant danger in near future
   Final: Clear and convincing evidence that respondent poses significant danger
Relinquishment process? Firearms, ammunition, and magazines must either be relinquished (1) immediately upon request of a law enforcement officer, or (2) to law enforcement or transferred to a federally licensed dealer within 24 hours. Respondent must file proof of relinquishment with the court within 48 hours of being served.
Early termination of order? Respondent may petition once per year for early termination. If no longer clear and convincing evidence to believe that respondent meets the standard of dangerousness, the court shall terminate the order.
Renewal? Final order can be renewed at any time within three months before termination of initial order. Same standard as final order.

Washington, WASH. REV. CODE ANN. § 7.94.010, et seq. (enacted 2016)
Who can petition? Family, household members, and law enforcement
Maximum duration of order?
Ex parte: Up to 14 days
Final: Up to one year
Requisite standard of proof?
Ex Parte: Reasonable cause to believe respondent poses significant danger of injury in near future
Final: Preponderance of the evidence that respondent poses significant danger
Relinquishment process? Immediate surrender of firearms and concealed pistol license to law enforcement. If order is not served by law enforcement, surrender to law enforcement within 48 hours.
Early termination of order? Respondent may petition once during order's

duration for early termination. Respondent bears burden of proving by preponderance of the evidence that they no longer pose significant risk of danger.

Renewal? Final order can be renewed before termination of initial order. Must be requested within 105 days before expiration, same burden of proof as yearlong order.

Oregon, OR. REV. STAT. ANN. § 166.525, et seq. (enacted 2017)

Who can petition? Family, household members, and law enforcement

Maximum duration of order?

Ex parte: If respondent requests hearing, must be held within 21 days.

Final: Up to one year

Requisite standard of proof?

Ex Parte: Clear and convincing evidence that respondent presents risk in the near future

Final: Automatic if respondent does not request hearing after ex parte. Same standard as ex parte

Relinquishment process? Surrender all "deadly weapons" to law enforcement, gun dealer, or third party legally allowed to possess firearms.

Early termination of order? Respondent may petition once during order's duration for early termination. Respondent bears burden of proving by clear and convincing evidence that they no longer present risk.

Renewal? Final order can be renewed before termination of initial order. Same standard and duration as final order.

Table A.2: Red Flag Laws on Unintentional Firearm Homicides

	(1) All
Unintentional firearm deaths	
Red flag law	−0.021
	(0.040)
R-squared	0.705
Observations	1,471

Notes. Each observation is at the state-year level. The dependent variable is the natural log of the various suicide rates, and the standard errors are clustered at the state level. All specifications include state and year fixed effects. The controls included in the model are percent white, percent black, percent male, unintentional poisoning death rate, unintentional firearm death rate, percent age 45–64, percent male age 45–64, urbanization percent, unemployment rate, real per capita income, and percent married. Robust standard errors are in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1

**Table A.3: Red Flag Laws on Suicides Using Homicide Sample
from Table 2.**

	(1)	(2)	(3)	(4)	(5)
	All	Men	Women	White	Nonwhite
Total suicides					
Red flag law	−0.032***	−0.020**	−0.065**	−0.033**	−0.116**
Standard error	(0.012)	(0.009)	(0.025)	(0.013)	(0.046)
R-squared	0.953	0.952	0.881	0.949	0.496
Observations	1,353	1,353	1,353	1,350	1,350
Firearm suicides					
Red flag law	−0.057***	−0.043**	−0.156***	−0.061***	−0.078
Standard error	(0.019)	(0.017)	(0.043)	(0.017)	(0.083)
R-squared	0.975	0.972	0.859	0.974	0.487
Observations	1,344	1,342	1,342	1,324	1,324
Non-firearm suicides					
Red flag law	0.008	0.022*	−0.021	0.009	−0.071
Standard error	(0.015)	(0.013)	(0.027)	(0.019)	(0.052)
R-squared	0.914	0.895	0.842	0.896	0.507
Observations	1,344	1,342	1,342	1,324	1,324

Notes. Each column represents a unique regression. Each observation is at the state-year level. The dependent variable is the is the natural log of the various suicide rates and the standard errors are clustered at the state level. All specifications include state and year fixed effects. The controls included in the columns are percent white, percent black, percent male, unintentional poisoning death rate, unintentional firearm death rate, percent age 45–64, percent male age 45–64, urbanization fraction, unemployment rate, real per capita income, and percent married. Robust standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1