More Guns, Fewer Shootings?

Public Opinion on Mass Shooting Prevention In America

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Introduction

Multiple studies have demonstrated a significant climb in the number of mass shootings in the United States (Berkowitz, Lu, and Alcantara 2019; Cohen, Azrael, and Miller 2014; Krouse and Richardson 2015). Discussion in the public forum on how to address this trend have been ongoing for decades. At the national level, legislation to address mass shootings came in the form the assault weapons ban and national background checks were introduced in the 1990s, but little has transpired since—even after two members of Congress were injured by mass shooters (Gabrielle Giffords in 2011, and Steve Scalise in 2017). In 2004, the assault weapons ban expired under its sunshine provision.

The prevention of mass shootings is increasingly framed in the context of national security and human rights by both sides of the political spectrum. This was particularly the case in the aftermath of the Las Vegas concert shootings on October 1, 2017, and the Marjory Stoneman Douglas High School shootings in Parkland, Florida, on February 14, 2018. Several solutions were posed that had bipartisan support, such as strengthening restrictions on gun ownership for those who fail background checks on their past criminal convictions, mental health issues, and domestic violence. Also, the Trump Administration issued an Executive Order banning the use of bump stocks, a device that uses the recoil from a semiautomatic rifle to create successive discharges like that of a fully automatic weapon (Jarrett 2018). This ban was later upheld by the U.S. Supreme Court (Lipak 2019).

Other proposed policy solutions have been less supported across party lines, although still popular among certain groups. These solutions include banning gun ownership, banning military-style semi-automatic weapons for civilians, allowing all gun owners to carry a firearm openly, and making it easier to get concealed carry permits.

Perhaps the most widely-discussed policy proposal in the wake of the Parkland shootings was whether some public school teachers should have the opportunity to carry firearms on the job. This policy proposal fits with the larger philosophy that more access to firearms among the law-abiding public is the best solution to stop violent criminals. As long-time NRA leader Wayne LaPierre noted, "The only thing that stops a bad guy with a gun is a good guy with a gun" (Cervantes 2012). While the topic of armed school teachers had been broached to a lesser extent beforehand, the idea gained more traction in public discourse following the Parkland shootings in early 2018, especially as the President of the United States and Members of Congress weighed publicly weighed-in on the issue. To illustrate public interest in the issue of arming teachers, Figure 1 presents the results of a Google Trends analysis on the term "arming school teachers" from August 1, 2017 to August 1, 2018 and demonstrates how public interest in the issue grew following the Parkland shootings (for a discussion of Google Trends as an indicator of public interest, see Stephen-Davidowitz 2017).

[Insert Figure 1 about here]

There is a relative dearth of academic work on the public's perception of arming school teachers, as most existing studies look at opinion on gun control. The purpose of this study is to investigate public opinion on arming school teachers as a solution to curb mass shootings in America. Our main research question asks: What factors contribute to the belief that arming school teachers will cause a decrease in mass shootings? We also ask: What factors contribute to the overall belief that increasing access to guns among law-abiding citizens will decrease mass shootings in America? Using data survey data collected in June 2018, which was shortly following the mass shootings in Las Vegas and Parkland, we will investigate these questions in

effort to provide a clearer understanding of the belief that more firearms will ultimately reduce the threats of mass shootings.

Mass Shootings, Gun Control, and the American Public

Existing public opinion research has focused more on gun control preferences rather than mass shootings. When it comes to support for gun control policies, researchers have found that the presence of guns in the home and/or gun ownership have a significant negative effect (Celinska 2007; Kleck, Gertz, and Bratton 2009; Wopert and Gimpel 1998). Also, conservative political affiliation has been identified as significant predictors of lower levels of support for gun control (Cao, Cullen, and Link 1997; De Angelis, Benz, and Gillham 2017; DeFronzo 1979; Haider-Markel and Joslyn 2001; Hill et al. 1985; Holbert, Shah, and Kwak 2014; Marciniak and Loftin 1991; Pearson-Merkowitz and Dyck, 2017; Wozniak 2017). Additional factors such as race (Brennan, Lizotte, and McDowall 1993; Filindra and Kaplan 2017; Marciniak and Loftin 1991), gender (Carter, 1997; Smith 1999; Celinska 2007; Marciniak and Loftin 1991), age (Pederson et al. 2015) geographic location (Brennan, Lizotte, and McDowall 1993; Burger 2002; Kleck 1996), and religion (Shelby, Brody, and Wright 1994; Young 1989) have been found to have influences on mass opinion on gun control issues.

Recent studies on attitudes toward gun control are often contradictory. For example, Steven Miller (2019) argues that there is "no robust differences between rural and urban respondents in their opposition to gun control," and that "increasing Republican partisanship does not robustly reduce support for gun control" (273). Miller ultimately determines most Republicans support gun control despite high levels of polarization over the issue at the elite level. Pearson-Merkowitz and Dyck, on the other hand, conclude from their study that

"Democrats and Republicans have very different views about guns and, generally, these priorities are relatively unaffected by contextual experience" (2017, 443). The fear of gun violence has been linked to perspectives on gun control. But findings in this area have been contradictory as well. Some research has found fear of crime causes more support for gun control (Dowler 2002; Heath, Weeks, and Murphy 1997; Robbers 2005), while other studies demonstrate fear is related to less support (Holbert et al. 2004; Kleck 1996).

To date, there is little academic discussion on the public preferences on policy solutions to mass shootings. Studies have shown media coverage of mass shootings has been linked to changes in public opinion on gun control (Altheide 2009; Jashinsky, et al. 2017; Muschert 2009; Muschert and Carr 2006; Robbers 2005; Wozniak 2015) and mental health issues (McGinty, Webster, and Barry 2013: Metzl and MacLeish 2015; Wilson, Ballman, and Buczek 2016). Beyond media coverage, there is also research has also demonstrated a link between geographic proximity to mass shootings and support for stricter gun regulations (Newman and Hartman 2017), while other studies contend the link is conditional upon partisanship in that only Democrats are affected by proximity (Barney and Schaffner forthcoming). Rogowski and Tucker (2018), on the other hand, found no connection between the mass murder at Sandy Hook Elementary School in December 2012 and support for increased gun control, and argue that policy preferences are fairly entrench.

Other research has demonstrated that many gun restrictions policies promoted by advocacy groups are linked with false assumptions of the personal motivations of mass shooter, and public policy perspective are largely unmoved (Fox and DeLateur 2014). Barry et al. (2013) proposed 31 gun control policies to a survey of over 2700 respondents in the wake of the Sandy Hook Elementary School shooting and found majority support for all proposal except four. They

concluded that the difference in policy preferences between gun owners and non-gun owners were less than expected, and even self-identified members of the National Rifle Association supported many gun control measures.

More Guns, Less Shootings?

Public support for armed public school teachers is rarely discussed in academic work. There are, however, several studies that have examined the related topic of allowing students and teachers to carry concealed firearms on college campuses. Some research has produced evidence to suggest conceal-carry permits deter crime (Fennell 2009; Lott and Mustard 1997; Lott 1998; Plassmann and Whitley 2003; Wiseman 2012), but these findings have been heavily criticized (Ayres and Donohue 2003; Black and Nagin 1998; Durlauf, Navarro, and Rivers 2016). Most research demonstrates most students and instructors are largely against arming persons on campuses (Bennett, Kraft and Grubb 2012; Cavanaugh et al. 2012; Hemenway, Azrael, and Miller 2001; Jang, Dierenfeldt, and Lee, 2014; Schlidkraut, Carr, and Terranova 2018; Thompson et al. 2013).

At the state level, public policies have been moving toward more gun-free campuses (Bartula and Bowen 2015; Wiseman 2012). This movement appeared to accelerate after 32 students and faculty were murdered by a mass shooter on Virginia Tech's Campus in 2007 (Birnbaum 2013; Bennett, Kraft, and Grubb 2012; De Angelis, Benz, and Gillham 2017). Those who do support more relaxed conceal-carry regulations on college campuses are motivated by several factors, including gender (Jang, Dierenfeldt, and Lee 2014; Patten, Thomas, and Wanda 2013), party identification (Bouffard, Nobles, Wells, and Cavanaugh 2012; Thompson et al.

2013), and gun ownership (Jang, Dierenfeldt, and Lee 2014; Schlidkraut, Carr, and Terranova 2018).

Have more individuals have adopted "more guns, less mass shootings" perspective on mass shooting prevention in America? The discussion above does point toward this possibility. Overall, there is a trend at the state level toward fewer gun restrictions (Hamill et al. 2019; Siegel et al. 2017), and there appears to be a national shift in aggregate opinion toward supporting gun rights over gun control. Since the 1990s, the Pew Research Center has polled on this issue. Specifically, they ask, "What do you think is more important – to protect the right of Americans to own guns, OR to control gun ownership?" In the 1990s, those who felt gun control was more important than ownership outnumbered those who felt the opposite by a 2-1 margin. In recent years, however, the emphasis on protecting gun ownership has increased to the point where the divide is closer to 50-50 (Pew Research Center 2018). See Figure 2.

[Insert Figure 2 about here]

In the context of preventing mass shootings in K-12 schools, preliminary evidence suggests that the "more guns, less shootings" argument has gained traction. For example, in 2013 only 24% of the public reported that armed school teachers would make them more comfortable, whereas 51% said they would feel less comfortable (60 Minutes/Vanity Fair Poll, 2013). By 2018, however, 43% of Americans supported allowing teachers and school officials to carry guns in K-12 schools, and 47% thought allowing teachers to carry guns would be an effective solution to preventing school shootings (Pew Research Center 2018; 2018b). In February 2018, President Trump joined the NRA's proposal to arm some public school teachers, saying, "An attack has lasted, on average, about three minutes. It takes 5 to 8 minutes for responders, for police to come

in. If you had a teacher who is adept at firearms, they could very well end the attack very quickly" (Abramson 2018). He also weighed in on the debate in a social media post:

> Armed educators (and trusted people who work within a school) love our students and will protect them. Very smart people. Must be firearms adept & have annual training. Should get yearly bonus. Shootings will not happen again – a big & very inexpensive deterrent. Up to States.

Certainly, the President's position drew strong criticism from Democratic Members of Congress, interest groups, teachers, and much of the public (Abernathy 2018). However, as discussed above, the idea has enough public support that it cannot be dismissed as a fringe policy perspective. Our discussion below discusses how we examine the following research questions:

RQ1: What factors contribute to the overall belief that increasing access to guns among law-abiding citizens will decrease mass shootings in America?

RQ2: What factors contribute to the belief that arming school teachers will cause a decrease in mass shootings?

Data

Data were collected by East Carolina's Center for Survey Research as Part of the Annual Life, Liberty, and Happiness project (Francia et al. 2018). The sample consists of a mixed mode of responses from mail, telephone, and the internet. In total, the sample consisted of completed responses from 1,134 adults, 18 years of age or older, living in all 50 U.S. states and the District of Columbia. The mail surveys were delivered to 1,500 randomly selected addresses in the United States. One hundred and thirty-eight were filled out and returned at the time of this writing, producing a response rate of 10%. The mail surveys were collected between May 29 and June 20, 2018.

The telephone portion of the survey was conducted by interviewers under the direction of Qualtrics Experience Management. Random digit dialing was used to contact cell phones and landlines (70% cell phone, 30% landline). One hundred and sixty-seven respondents were interviewed on a cell phone, and 71 were interviewed by landline (total phone interviews = 238). The response rate was 5% for the cell phone sample and 9% for landlines. The phone interviews were conducted between May 31 and June 5, 2018. The online portion of the survey was conducted among a national sample of 758 adults age 18 or older, living in all 50 states. The online interviews were conducted between June 1 and June 18, 2018.

Dependent Variables

We examine six independent variables as part of our analysis: support for five gun-related policies aimed at reducing mass shootings and one count variable summing the number of pro-gun policies supported. Support for five gun-related polices is based on the following survey item, "There have been several suggested policies to address the issue of mass shootings in America. Please indicate how strongly you agree or disagree that the following policies would reduce mass shootings in the United States." We analyze support for five gun-related policies as solutions to reducing mass shootings: *ban all firearms, ban assault rifles, make it easier to buy firearms, carry all firearms openly,* and *arm teachers*. Each variable includes response options (1) strongly disagree (2) somewhat disagree (3) neither agree or disagree (4) somewhat agree (5) strongly agree.

To create our sixth outcome variable, *more guns scale,* we collapsed responses to *make it easier to buy firearms, carry all firearms openly,* and *arm teachers* into (1) strongly agree or somewhat agree (0) strongly disagree, somewhat disagree, neither agree nor disagree, and we

collapsed *ban all firearms* and *ban assault rifles* into (1) strongly disagree or somewhat disagree (0) strongly agree, somewhat agree, neither agree or disagree so that the direction of all variables used to create the count variable go in the same direction (support for increasing gun availability and visibility). Constructed as such, *more guns scale* (alpha = .659) provides one metric that indicates strength in the belief that more firearms reduce mass shootings.

Independent Variables

A series of sociodemographic, attitudinal, and behavioral variables that have been associated with attitudes on gun control in prior literature were examined to isolate factors related to support for gun-related policies to reduce mass shootings. *Age* is a continuous measure of respondent's age. *Male* is dummy variable comparing (1) males to (0) females, transgender people, or those of another gender identity. *White* is a dummy variable comparing (1) non-Hispanic whites to (0) non-whites and Latinx. *Political party identification* is dummied into three categories: Republican (referent), Democrat, and Independent. Republican and Democrat categories include independents who lean toward that party. *Conservative scale* is a seven-point scale ranging from (1) extremely liberal to (7) extremely conservative. *College degree* is a dummy variable measuring whether a person has (1) at least a four-year college degree or (0) no four-year college degree. *Income* is an ordinal scale of nine categories with increments of $20,000 ranging from (1) less than $20,000 to (9) $160,000 or more. *Rurality* relies on respondent zip code and the U.S. Department of Agriculture Economic Research Service Rural Classifications to create a dummy variable indicating whether a person lives in (1) a rural/non-metropolitan area of the U.S. or (0) a metropolitan area of the U.S. *Region* classifies respondents based on their self-reported state of residence into one of the four Census regions: South

(referent), Northeast, Midwest, West. Since regional perspectives on gun-related policies to reduce mass shootings may vary based on rurality (e.g., rural Southerners may differ from rural Northeasterners and non-rural Midwesterners may differ from non-rural Westerners), we interact rurality and region in all of our models. *Religiosity* is a six-point scale measuring how often a person attends religious services ranging from (1) never to (6) more than once a week. *Guns and freedom* is a five-point scale measuring how important the right to own guns is to the respondent's own sense of freedom (1) not at all important (2) slightly important (3) moderately important (4) very important (5) extremely important. *Gun in home* is a dummy variable measuring whether a person has (1) a firearm in or around his or her home or (0) does not have a firearm in or around his or her home.

Multiple imputation using chained equations (m=20) in Stata was used impute missing data on the independent variables. Although most variables had at least a few cases with missing information, only two variables had more than 4 percent missingness: rural (5.1%) and gun in home (5.1%). To ensure we are analyzing the same sample across different dependent variables, 35 cases were dropped from the analysis because they were missing data on at least one of the dependent variables. This resulted in a sample size of 1,117 respondents.

Approach to the Analysis

We begin our analysis by examining descriptive statistics of all independent and dependent variables in our models, and by examining overall support for each specific gun-related policy to reduce mass shootings. We then use ordinal logistic regression to examine factors associated with support for five gun-related policies to reduce mass shootings, with

special focus on support for arming teachers. Lastly, we use Poisson regression models to examine factors associated with a generalized belief that more firearms reduce mass shootings.

Results

Our sample is older, more female, less white, and less educated than the overall U.S. population. However, political party identification, rurality, and regional distribution in our sample aligns with that of the overall U.S. population (see Table 1).

[Insert Table 1 about here]

Examination of policies favoring gun control to reduce mass shootings shows that about 25% of the sample agree that banning all guns would reduce mass shootings and just over 60% agree that banning assault rifles would reduce mass shootings. Examination of policies favoring an increase in guns to reduce mass shootings shows that 30% of the sample agree that easier access to purchasing firearms would reduce mass shootings, 38% agree that the ability to carry all firearms openly would reduce mass shootings, and 40% agree that arming teachers would reduce mass shootings (see Figure 3).

[Insert Figure 3 about here]

These findings suggest that there is strong support for banning assault rifles for the purpose of reducing mass shootings, but there is also substantial support for increasing the availability and visibility of firearms. This is underscored by the fact that nearly half of the sample believes that putting guns in the hands of educators would reduce mass shootings in the U.S.

Support for Specific Gun-Related Policies to Reduce Mass Shootings

Table 2 displays the results of ordinal logistic regressions estimating factors associated with support for five gun-related policies to reduce mass shootings. Few clear patterns emerge across the various policies when examining sociodemographic factors. Age, gender, race, education, income, and religiosity are only sporadically related to support for the different gun-related policies to reduce mass shootings, net of all factors in the model.

Political perspectives are, to some extent, related to support for various gun-related policies in the manner expected. Specifically, Democrats and Independents are more likely to support banning all guns and less supportive of arming teachers, compared to Republicans. And Democrats are less likely to support the ability to openly carry all firearms compared to Republicans. Conservatives are less likely to support banning guns and assault rifles and are more supportive of arming teachers. But even political party identification and conservatism are only sporadically related to support for the various policies, as party is unrelated to support for banning assault rifles and ease of purchasing firearms and conservatism is unrelated to support for ease of purchasing firearms and the ability to carry all firearms openly.

Although few clear patterns are present in the data, two clear patterns do emerge. First, rurality and region appear to have no relationship with support for the various policies, controlling for all other factors. Second, associating guns with freedom is consistently related to support for pro-firearm policies to reduce mass shootings, controlling for all other factors in the models. Those who score higher on *guns and freedom* show less support for banning guns and assault rifles and more support for ease of firearm purchase, open carry of all firearms, and arming teachers. Interestingly, gun ownership is unrelated to support or lack of support for the different policies, save for the ability to openly carry all firearms.

[Table 2 about here]

Although we are interested in examining factors associated with multiple gun-related policies to reduce mass shootings, we are particularly interested in factors associated with support for arming teachers. Furthermore, since political party identification is consistently linked to gun-related attitudes both theoretically and empirically, we explore the possibility that different factors are associated with support for arming teachers to reduce mass shootings for Republicans, Democrats, and Independents (see Table 3). As the results from Table 2 show, only *political party* (Democrat = -.798. Independent = -.465), *conservatism* (.174), and *guns and freedom* (.569) are statistically related to the belief that arming teachers reduces mass shootings, net of all other factors in the model. However, do different factors matter more or less based on political party identification? The models displayed in Table 3 attempt to address this question. Results indicate that the only predictor of consequence, regardless of political party, is the belief that gun ownership and freedom are inextricable. The only exception is that college educated Democrats and rural Northeastern Democrats (compared to rural Southern Democrats) are less likely to support arming teachers.

[Insert Table 3 about here]

Generalized Belief that More Guns Reduce Mass Shootings

Table 4 presents results from our examination of factors related to the belief that more guns reduce mass shootings by analyzing the *more guns scale*, which ranges from 0 (no support for policies that would increase availability and visibility guns) to 5 (support for all policies that would increase availability and visibility guns). As with previous analyses, few clear patterns emerge, save two. Identifying as a Republican and associating guns with freedom are consistently related to increased support for the adoption of more pro-firearm policies to reduce

mass shootings. Moreover, the *guns and freedom* effect remains across all political party identifications. Age, gender, race, political perspectives, gun ownership, religiosity, and region/rurality appear to play a role depending on political party of choice, but none are as consistently robust as the guns and freedom effect.

[Insert Table 4 about here]

These results suggest that many factors are associated with the belief that more guns results in fewer mass shootings, but two factors above all predict support for more pro-firearm policies: political perspectives and belief that gun ownership and freedom are inextricable. Moreover, the findings presented here in Table 4 generally align with the previous findings presented in Tables 2 and 3.

Conclusion

If more law-abiding citizens have more access to firearms, will mass shootings decrease? Our study demonstrates that a significant number of Americans believe the answer to this question is yes. Our findings show that support for guns as a deterrent to mass shootings is grounded in a belief system that connects gun rights with personal freedom. This believe, which we refer to as the *guns and freedom* effect, outweighs other variables such as gender, race, religion, religiosity, gun ownership, and even party identification and political ideology.

The term *gun culture* is often used to describe portions of the American public. Gun culture is oriented around the use of guns for sports, hunting, personal protection, as well as the belief that guns were essential to the creation and ongoing survival of the United States (Spitzer 1995; Wolpert and Gimpel 1998). We suggest gun culture in America is not just about ownership and usage, but an underlying belief that true freedom cannot exist without the right to

own and carry firearms. In this culture, the right protected by the 2nd Amendment to the U.S. Constitution is as important as the other protections outlined in the Bill of Rights (if not more). Future research should investigate this belief, which appears to have been growing over the last few decades.

There is an ongoing debate in America about the delicate balance between freedom and security. These concepts are often presented as diametrically-opposed, in that expanding one will automatically reduce the other. In the mind of many Americans, however, this is not the case when it comes to firearms and mass shootings. Guns are considered an essential right that can also enhance security from those willing to inflict harm on this innocent. In this sense, we have divide growing in America between those who see guns as a cause of violence, and those who see guns as a cure.

References

60 Minutes, Vanity Fair. 60 Minutes/Vanity Fair Poll, Jan. 24-27, 2013. USCBS.201301BVF.Q45. CBS News. Cornell University, Ithaca, NY: Roper Center for Public Opinion Research, iPOLL [distributor].

Abernathy, Gary. 2018. Is Arming Teachers a Good Idea? Depends on Where you Live. *Washington Post*. 20 December. Available at https://www.washingtonpost.com/opinions/is-arming-teachers-a-good-idea-depends-on-where-you-live/2018/12/20/bfb3637e-047f-11e9-9122-82e98f91ee6f_story.html?utm_term=.ac7ffd924593

Abramson, Alana. 2018. President Trump Suggests Arming Teachers During Listening Session with School Shooting Survivors. *Time.com*. 21 February. Available at http://time.com/5169534/donald-trump-arm-teachers-listening-session-school-shooting/

Altheide, David L. 2009. The Columbine Shootings and the Discourse of Fear. *The American Behavioral Scientist* 52:1354-70.

Ayres, Ian, and John J. Donohue. 2003. The Latest Misfires in Support of the More Guns, Less Crime Hypothesis. *Stanford Law Review* 55:1371-98.

Barney, David J., and Brian F. Schaffner. Forthcoming. Reexamining the Effect of Mass Shootings on Public Support for Gun Control. *British Journal of Political Science*.

Barry, Colleen L., Emma E. McGinty, Jon S. Vernick, and Daniel W. Webster. 2013. *After Newtown – Public Opinion on Gun Policy and Mental Illness* 368(12):1077-81.

Bartula, Aaron, and Kendra Bowen. 2015. University and College Officials' Perceptions of Open Carry on College Campus. *Justice Policy Journal* 12:1-17

Bennett, Katherine, John Kraft, and Deborah Grubb. 2012. University Faculty Attitudes Toward Guns on Campus. *Journal of Criminal Justice Education* 23:336-55.

Berkowitz, Bonnie, Denise Lu, and Chris Alcantara. 2019. The Terrible Numbers that Grow with Each Mass Shooting. *The Washington Post*, 16 February. Available at https://www.washingtonpost.com/graphics/2018/national/mass-shootings-in-america/?utm_term=.c8db215c5308

Birnbaum, Robert. 2013. Ready, Fire, Aim. The College Campus Gun Fight. *Change: The Magazine of Higher Education Learning* 45:6-14.

Bouffard, Jeffrey A., Matt R. Nobles, William Wells, and Michael R. Cavanaugh. 2012. How Many More Guns? Estimating the Effect of Allowing Concealed Handguns on a College Campus. *Journal of Interpersonal Violence* 27:316-43.

Brennan, Pauline Glasdow, Alan J. Lizzotte, and David McDowall. 1993. Guns, Southerness, and Gun Control

Burger, James.B. 2002. *Can Gun Control Work?* Oxford: Oxford University Press.

Cao, Liqun, Francis T. Cullen, and Bruce G. Link. 1997. The Social Determinants of Gun Ownership: Self-Protection in an Urban Environment. *Criminology* 35:629-59.

Carter, Gregg L. *The Gun Control Movement*. New York: Twayne Publishers.

Cavanaugh, Michael R., Jeffrey A. Bouffard, William Wells, and Matt R. Nobles. 2012. Student Attitudes Toward Concealed Handguns on Campus at 2 Universities. *American Journal of Public Health* 102:2245-47.

Celinska, Katarzyna. 2007. Individualism and Collectivism in America: The Case of Gun Ownership and Attitudes toward Gun Control. *Sociological Perspectives* 50:229-47.

Cohen, Amy P., Deborah Azrael, and Matthew Miller. 2014. Rate of Mass Shootings has Tripled Since 2011, Harvard Research Shows. *Mother Jones*, 15 October. Available at https://www.motherjones.com/politics/2014/10/mass-shootings-increasing-harvard-research/

De Angelis, Joseph, Terressa A. Benz, and Pattrick Gillham. 2017. Collective Security, Fear of Crime, and Support for Concealed Firearms on a University Campus on the Western United States. *Criminal Justice Review* 42:77-94.

DeFronzo, James. 1979. Fear and Handgun Ownership. *Criminology* 17:331-39.

Dowler, Kenneth. 2002. Media Influence on Attitudes Toward Guns and Gun Control. *American Journal of Criminal Justice* 26:235-47.

Durlauf, Steven, Salvador Navorro, and David A. Rivers. 2016. Model Uncertainty and the Effect of Shall-Issue Right-to-Carry Laws on Crime. *European Economic Review* 81:32-67.

Fennell, Reginald. Concealed Carry Weapon Permits: A Second Amendment Right or a Recipe for Disaster on Our Nation's Campuses? *American Journal of College Health* 58:99-100.

Filindra, Alexandra, and Noah Kaplan. 2017. Testing Theories of Gun Policy Preferences Among Blacks, Latinos, and Whites in America. *Social Science Quarterly* 98:413-28.

Francia, Peter L., Mark Bowler, Bob Edwards, Melinda D. Kane, Joseph G. L. Lee, Jonathan S. Morris, and Ann Raftery. 2018. The Life, Liberty, and Happiness Project: The State of the Nation, 242 Years After Independence. Research report available at

https://surveyresearch.ecu.edu/wp-content/pv-uploads/sites/1566/2018/06/LLH_Report_7-2-2018v2.pdf

Fox, James Alan, and Monica J. DeLateur. 2014. Mass Shootings in America: Moving Beyond Newtown. *Homicide Studies* 8:125-45.

Haider-Markel, Donald P., and Mark R. Joslyn. 2001. Gun Policy, Opinion, Tragedy, and Blame Attribution: The Conditional Influence of Issue Frame. *Journal of Politics* 63:520-43.

Hamill, Mark E., Matthew C. Hernandez, Kent R. Bailey, Martin D. Zielinski, Miguel A. Matos, and Henry J. Schiller. 2019. State Level Firearm Concealed-Carry Legislation and Rates of Homicide and Other Violent Crime. *Journal of the American College of Surgeons* 228:1-8.

Heath, Linda, Kyle Weeks, and Marie Mackey Murphy. 1997. Gun Attitudes and Fear of Crime. *Journal of Offender Rehabilitation* 25:147-57.

Hemenway, D., D. Azrael, and M. Miller. 2001. National Attitudes Concerning Gun Carrying in the United States. *Injury Prevention* 7:282-85.

Hill, Gary D., Frank M Howell, and Ernest T. Driver. 1985. Gender, Fear, and Protective Handgun Ownership. *Criminology* 23:541-52.

Holbert, R. Lance, Dhavan V. Shah, and Nojin Kwak. 2004. Fear, Authority, and Justice: Crime-Related TV Viewing and Endorsements of Capital Punishment and Gun Ownership. *Journalism & Mass Communication Quarterly* 81:343-63.

Jang, Hyunsoek, Rick Dierenfeldt, and Chang-Hun Lee. 2014. Who Wants to Allow Concealed Weapons on the College Campus? *Security Journal* 27: 304-19.

Jarrett, Laura. 2018. Trump Administration Officially Bans Bump Stocks. *CNN.com*, 18 December. Available at https://www.cnn.com/2018/12/18/politics/bump-stocks-ban/index.html

Jashinsky, Jared M., Brianna Magnusson, Carl Hanson, and Michael Barnes. 2017. Media Agenda Setting Regarding Gun Violence Before and After a Mass Shooting. *Frontiers in Public Health* 4:1-6.

Kleck, G. 1996. Crime, Culture Conflict and the Sources of Support for Gun Control: A Multilevel Application of the General Social Surveys. *American Behavioral Scientist* 39:387-404.

Kleck, Gary, Marc Gertz, and Jason Bratton. 2009. Why do People Support Gun Control?: Alternative Explanations for Handgun Bans. *Journal of Criminal Justice* 37:496-504.

Krouse, Willaim J., and Daniels J. Richardson. 2015. *Mass Murder with Firearms: Incidents and Victims, 1999-2013,* R44126. Washington, DC: Congressional Research Service.

Liptak, Adam. 2019. Supreme Court Refuses to Block Ban on Bump Stocks. *The New York Times,* 18 March. Available at https://www.nytimes.com/2019/03/28/us/politics/supreme-court-bump-stocks.html

Lott, John R. 1998. The Concealed-Handgun Debate. *The Journal of Legal Studies* 27:221-43.

Lott, John R., and David B. Mustard. 1997. Crime, Deterrence, and the Right-to- Carry Concealed Handguns. *The Journal of Legal Studies* 26:1-68.

Marciniak, Liz M., and Colin Loftin. 1991. Measuring Protective Handgun Ownership. *Criminology* 29:531-40.

Marciniak, Liz Marie, and Colin Loftin .1991. Measuring protective handgun owner-ship. Criminology 29: 531-540.

McGinty, E. E., Webster, D. W., & Barry, C. L. (2013). Effects of news media messages about mass shootings on attitudes towards persons with serious mental illness and public support for gun control policies. American Journal of Psychiatry, 170, 494-501.

Metzl, Jonathan M., and Kenneth T. MacLeish. 2015. Mental Illness, Mass Shootings, and the Politics of American Firearms. *American Journal of Public Health* 105:240-49.

Muschert, Glenn W., and Dawn Carr. 2006. Media Salience and Frame Changing Across Events: Coverage of Nine School Shootings, 1997-2001. *Journalism and Mass Communication Quarterly* 83: 747-66.

Mushert, Glenn W. 2009. Frame-Changing in the Media Coverage of a School Shooting: The Rise of Columbine as a National Concern. *Social Science Journal* 46:164-70.

Newman, Benjamin J., and Todd K. Hartman. 2017. Mass Shootings and Public Support for Gun Control. *British Journal of Political Science* 1-27.

Patten, Ryan, Matthew O. Thomas, and James C. Wanda. 2013. Packing Heat: Attitudes Regarding Concealed Weapons on College Campuses. *American Journal of Criminal Justice* 38:551-69.

Pearson-Merkowitz, Shanna, and Joshua J. Dyck. 2017. Crime and Partisanship: How Party ID Muddles Reality, Perception, and Policy Attitudes on Crime and Guns. *Social Science Quarterly* 98:443-54.

Pederson, JoEllen, Thomas L. Hall, Bradley Foster, and Jessie E. Coates. 2015. Gun Owernship and Attitudes Toward Gun Control in Older Adults: Re-examing Self Interest Theory. *American Journal of Social Science Research* 1:273-81.

Pew Research Center. 2018. Gun Policy Remains Divisive, But Several Proposals Still Draw Bipartisan Support. 18 October. Available at https://www.people-press.org/2018/10/18/gun-policy-remains-divisive-but-several-proposals-still-draw-bipartisan-support/

Pew Research Center. 2018b. America's Complex Relationship with Guns. 22 June. Available at https://www.pewsocialtrends.org/2017/06/22/americas-complex-relationship-with-guns/

Plassmann, Florenz, and John W. Whitley. 2003. Confirming "More Guns, Less Crime". *Stanford Law Review* 55:1313-69.

Robbers, Monica L. P. 2005. The Media and Public Perceptions of Criminal Justice Policy Issues: An Analysis of *Bowling for Columbine* and Gun Control. *Journal of Criminal Justice and Popular Culture* 12:77-95.

Rogowski, Jon C., and Patrick D. Tucker. 2018. Critical Events and Attitude Change: Support for Gun Control After Mass Shootings. *Political Science Research and Methods* 1-9.

Schlidkraut, Jaclyn, Collin M. Carr, and Victoria Terranova. 2018. Armed and Academic: Perceptions of College Students on Concealed Carry on Campus Policies. *Journal of School Violence* 17:487-99.

Sheley, Joseph R, Charles J. Brody, and James D. Wright. 1994. Women and hand-guns: Evidence from national surveys, 1973-1991. *Social Science Research* 32: 219-235.

Siegel, Michael, Molly Phan, Ziming Xuan, Craig Ross, Sandro Galea, Bindu Kalesan, Eric Fleegler, and Kristin A. Goss. 2017. Firearm-Related Laws in All 50 US States, 1991-2016. *American Journal of Public Health* 107:1122-29.

Smith, Tom W. 1980. The 75% Solution: An Analysis of the Structure of Attitudes on Gun Control, 1959-1977. *Journal of Criminal Law and Criminology* 71:300-16.

Smith, Tom W. 1999. 1998 national gun policy survey of the national opinion research center: Research findings. Chicago: University of Chicago, National Opinion Research Center.

Spitzer, Robert J. 1995. *The Politics of Gun Control*. Chatham, NJ: Chatham House.

Stephens-Davidowitz, Seth. 2017. *Everybody Lies: Big Data, New Data, and What the Internet Can Tell Us About Who We Really Are*. New York: Harper Collins.

Thompson, Amy, James H. Price, Joseph A. Dake, Karen Teeple, Sara Bassler, Jagdish Khubchandani, Dianne Kerr, Jody Brookins Fisher, Megan Rickard, Lorette, Oden, Amos Aduroja, Adrian Lyde, Kathy Philips, Mathew Adeyanju, Brandon Eggleston, Shiaw-Fen Ferng-Kuo, Daniel Duquette, Karla Bartholomew, and Chris Stratton. 2013. Student

Perceptions and Practices Regarding Concealed Handguns on University Campuses. *Journal of American College Health* 61:243-53.

Wasniak, Kevin H. 2015. Public Opinion About Gun Control Post-Sandy Hook. *Criminal Justice Policy Review* 28:255-78.

Wilson, Laura C., Alesha D. Ballman, and Theresa J. Buczek. 2015. News Content About Mass Shootings and Attitudes Toward Mental Illness. *Journalism & Mass Communication Quarterly* 93:644-58.

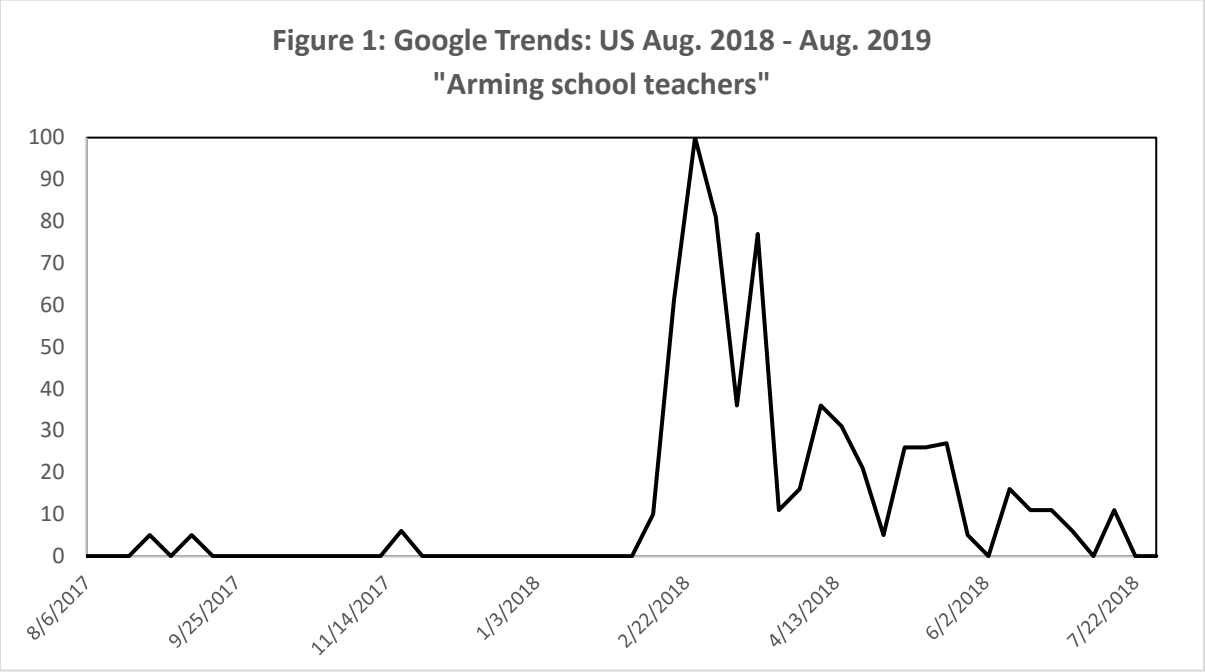
Wiseman, R. 2012. Campaign for the Right to Carry Concealed Guns on Campuses Gains Traction. *The Education Digest* 77:53-56.

Wolpert, Robin M., and James G. Gimpel. 1998. Self-Interest, Symbolic Politics, and Public Attitudes Toward Gun Control. *Political Behavior* 20:241-62.

Wozniak, Kevin H. 2017. Public Opinion About Gun Control Post-Sandy Hook. *Criminal Justice Policy Review*.

Young, Robert L. The Protestant Heritage and the Spirit of Gun Ownership. *Journal for the Scientific Study of Religion* 28:300-09.

Tables and Figures



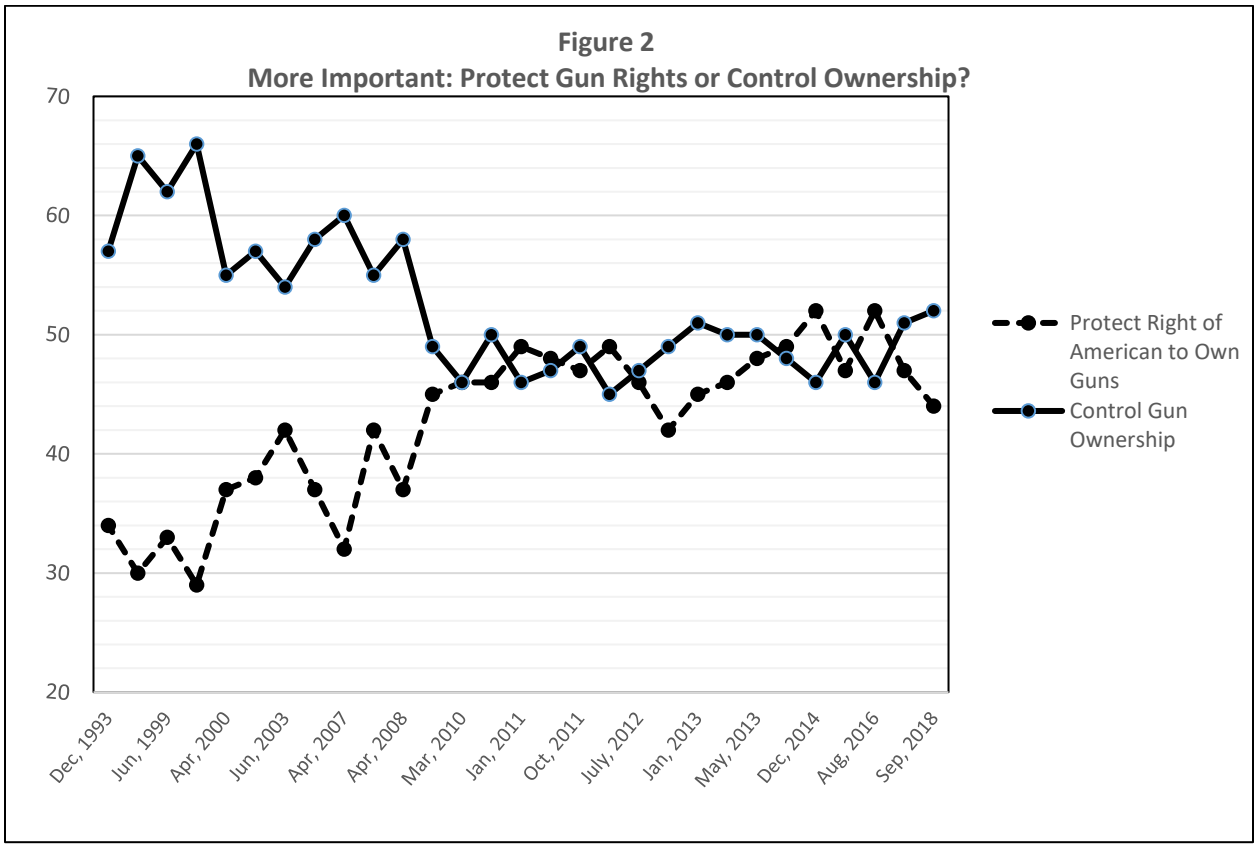


Figure 2
More Important: Protect Gun Rights or Control Ownership?
70
60
50
40
30
20
Dec, 1993
Jun, 1999
Apr, 2000
Jun, 2003
Apr, 2007
Apr, 2008
Mar, 2010
Jan, 2011
Oct, 2011
July, 2012
Jan, 2013
May, 2013
Dec, 2014
Aug, 2016
Sep, 2018
Protect Right of American to Own Guns
Control Gun Ownership

Table 1. Means and Standard Deviations

	Mean	SD	Minimum	Maximum
Dependent Variables				
Ban all firearms	2.248	1.481	1	5
Ban assault rifles	3.603	1.548	1	5
Make it easier to buy firearms	2.892	1.416	1	5
Carry all firearms openly	2.931	1.448	1	5
Arm teachers	2.900	1.524	1	5
More guns scale	2.009	1.547	0	5
Independent Variables				
Age	47.712	18.277	18	101
Male	.453	.498	0	1
White	.559	.496	0	1
Republican	.380	.485	0	1
Democrat	.440	.496	0	1
Independent	.178	.382	0	1
Conservative Scale	4.160	1.680	1	7
College degree	.258	.437	0	1
Income	3.227	2.106	1	9
Rural	.174	.380	0	1
South	.380	.485	0	1
Northeast	.174	.379	0	1
Midwest	.204	.403	0	1
West	.240	.427	0	1
Religiosity	2.945	1.781	1	6
Guns and freedom	3.486	1.464	1	5
Gun in home	.374	.484	0	1

N = 1,117

Figure 3. Percentage of Respondents Who Somewhat or Strongly Agree with Policies to Reduce Mass Shootings

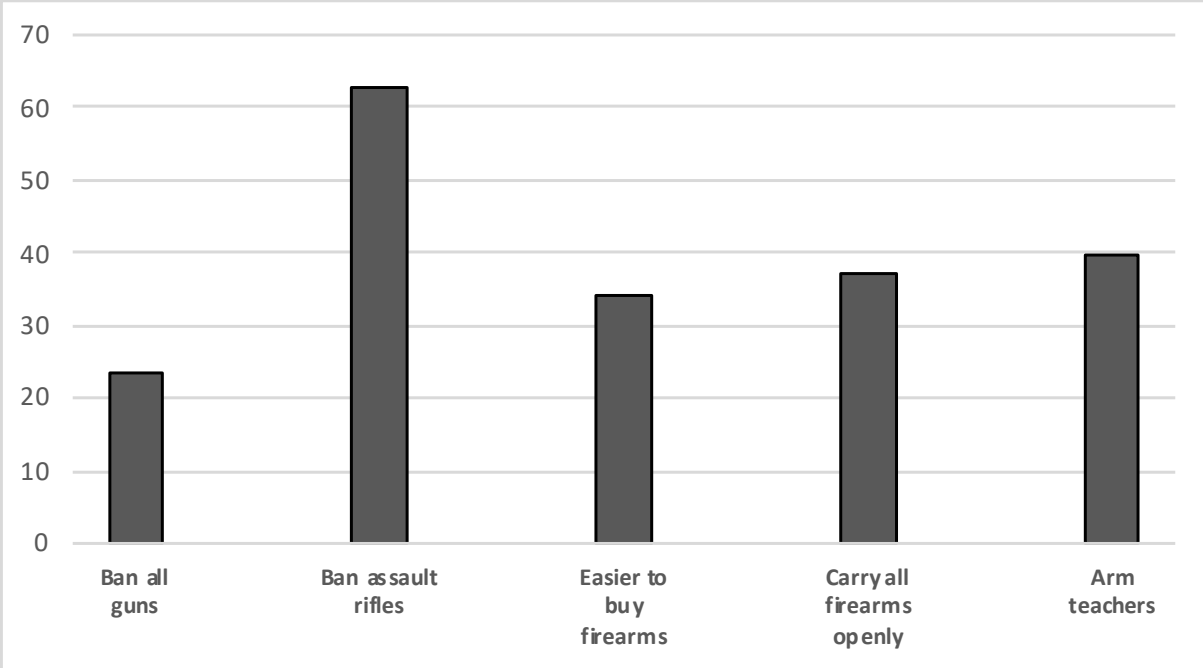


Table 2. Ordinal Logistic Regressions Estimating Factors Associated with Support for Five Firearm-Related Policies to Reduce Mass Shootings

	Ban All Firearms		Ban Assault Rifles		Make It Easier to Buy Firearms		Carry All Firearms Openly		Arm Teachers	
	Log Odds	*SE*	*Log Odds*	*SE*	*Log Odds*	*SE*	*Log Odds*	*SE*	*Log Odds*	*SE*
Age	-.023***	(.004)	.015**	(.005)	.003	(.004)	-.008*	(.004)	-.006	(.004)
Male	.166	(.143)	-.460***	(.133)	.455***	(.126)	.218	(.129)	.150	(.133)
White	-.727***	(.163)	-.223	(.159)	-.187	(.141)	.021	(.154)	-.060	(.156)
Political Party										
Democrat	.552*	(.215)	.350	(.179)	-.363	(.192)	-.550**	(.202)	-.798***	(.200)
Independent	.482*	(.227)	-.133	(.196)	-.146	(.201)	-.279	(.198)	-.465*	(.194)
Conservative scale	-.178**	(.061)	-.303***	(.057)	.068	(.058)	.102	(.059)	.174**	(.059)
College degree	-.152	(.170)	-.029	(.165)	-.082	(.146)	-.467**	(.154)	-.254	(.156)
Income	-.081*	(.039)	-.025	(.034)	-.041	(.032)	-.060	(.033)	-.030	(.035)
Rural	-.243	(.335)	.024	(.308)	.187	(.324)	-.303	(.294)	.414	(.280)
Region										
Northeast	.359	(.228)	.232	(.230)	-.154	(.214)	-.054	(.203)	.168	(.226)
Midwest	.251	(.221)	.129	(.221)	.018	(.201)	-.023	(.212)	.332	(.207)
West	.233	(.210)	.001	(.185)	-.043	(.177)	.105	(.187)	.153	(.191)
Religiosity	.193***	(.044)	.125**	(.041)	.004	(.038)	.008	(.039)	.018	(.040)
Guns and freedom	-.388***	(.062)	-.442***	(.064)	.434***	(.058)	.648***	(.062)	.569***	(.063)
Gun in home	-.297	(.169)	-.252	(.149)	.106	(.149)	.305*	(.144)	.012	(.157)
Region Interactions										
Rural_Northeast	.387	(.770)	-.051	(.593)	.700	(.620)	.854	(.479)	-.700	(.534)
Rural_Midwest	-.475	(.472)	-.129	(.459)	-.412	(.449)	.488	(.438)	-.581	(.414)
Rural_West	-.550	(.496)	-.740	(.431)	.332	(.478)	.620	(.467)	.080	(.452)
Cut 1	-3.006***	(.501)	-4.017***	(.461)	.365	(.413)	.466	(.456)	.907*	(.425)
Cut 2	-2.333***	(.494)	-3.392***	(.456)	1.312**	(.424)	1.521**	(.463)	1.716***	(.433)
Cut 3	-1.502**	(.485)	-2.676***	(.461)	2.452***	(.424)	2.638***	(.460)	2.634***	(.442)
Cut 4	-.692	(.478)	-1.737***	(.448)	3.417***	(.425)	3.718***	(.467)	3.700***	(.457)
Log pseudolikelihood	-1381.635		-1442.727		-1667.568		-1564.067		-1549.928	

*p<.05, **p<.01, ***p<.001. Sample size = 1,117 for all models. Party referent: Republican. Region referent: South.

Table 3. Ordinal Logistic Regression Models Estimating Factors Associated with Support for Arming Teachers to Reduce Mass Shootings

	Republicans		Democrats		Independents	
	Log Odds	*SE*	*Log Odds*	*SE*	*Log Odds*	*SE*
Age	-.002	(.007)	-.006	(.006)	-.013	(.011)
Male	.305	(.222)	.139	(.189)	.203	(.342)
White	.166	(.267)	.046	(.234)	-.327	(.359)
Conservative scale	.155	(.106)	.144	(.084)	.147	(.145)
College degree	.138	(.255)	-.543*	(.246)	-.429	(.449)
Income	-.045	(.053)	-.020	(.055)	-.059	(.081)
Rural	.244	(.408)	.334	(.430)	1.273	(.843)
Region						
Northeast	-.100	(.353)	.130	(.321)	.860	(.611)
Midwest	.102	(.389)	.288	(.294)	.743	(.494)
West	.266	(.318)	-.038	(.277)	.388	(.457)
Religiosity	-.032	(.061)	.024	(.066)	.066	(.093)
Guns and freedom	.771***	(.112)	.496***	(.097)	.494***	(.147)
Gun in home	.078	(.241)	-.355	(.252)	.449	(.431)
Rural_Northeast	1.077	(1.090)	-2.530*	(1.258)	-1.219	(1.019)
Rural_Midwest	-.069	(.627)	-1.060	(.719)	-1.318	(1.094)
Rural_West	.116	(.765)	-.012	(.675)	-.816	(1.270)
Cut 1	1.903**	(.620)	1.177*	(.504)	.940	(.973)
Cut 2	2.758***	(.640)	2.029***	(.527)	1.647	(.953)
Cut 3	3.700***	(.662)	2.850***	(.547)	2.821**	(.954)
Cut 4	4.776***	(.686)	3.917***	(.587)	4.040***	(1.009)
Log pseudolikelihood	-587.336		-644.690		-293.585	
N	425		493		199	

*p<.05, **p<.01, ***p<.001. Region referent: South.

Table 4. Poisson Regressions Estimating Factors Associated with Belief that More Guns Reduce Mass Shootings

	Full Sample		**Republicans**		**Democrats**		**Independents**	
	Coeff	*SE*	*Coeff*	*SE*	*Coeff*	*SE*	*Coeff*	*SE*
Age	.003*	(.001)	.004**	(.001)	.002	(.003)	-.001	(.003)
Male	.096*	(.039)	.100*	(.048)	.015	(.084)	.204*	(.103)
White	.062	(.049)	.044	(.062)	.161	(.104)	.033	(.107)
Political Party								
Democrat	-.241***	(.066)	--	--	--	--	--	--
Independent	-.137*	(.060)	--	--	--	--	--	--
Conservative scale	.068***	(.017)	.065**	(.020)	.044	(.034)	.122**	(.039)
College degree	.016	(.047)	.045	(.058)	.003	(.096)	-.075	(.146)
Income	-.007	(.010)	-.014	(.011)	-.020	(.022)	.035	(.028)
Rural	.041	(.069)	.059	(.088)	.083	(.155)	-.092	(.147)
Region								
Northeast	.006	(.074)	-.088	(.098)	-.021	(.137)	.272	(.139)
Midwest	-.060	(.068)	-.004	(.090)	-.133	(.130)	-.165	(.159)
West	-.020	(.060)	.066	(.071)	-.299*	(.135)	.049	(.147)
Religiosity	-.025*	(.012)	-.026	(.014)	-.023	(.027)	-.016	(.031)
Guns and freedom	.267***	(.022)	.260***	(.030)	.244***	(.039)	.337***	(.051)
Gun in home	.140***	(.041)	.098*	(.049)	.160	(.085)	.193	(.100)
Region Interactions								
Rural_Northeast	-.097	(.209)	.327	(.168)	-.785	(.787)	-.661*	(.287)
Rural_Midwest	.098	(.113)	.036	(.132)	-.247	(.270)	.450	(.249)
Rural_West	.076	(.109)	-.005	(.117)	.531	(.331)	-.212	(.320)
Intercept	-.721***	(.148)	-.703***	(.200)	-.642**	(.224)	-1.378***	(.320)
Log pseudolikelihood	-1702.770		-719.894		-663.272		-298.875	
N	1,117		425		493		199	

*p<.05, **p<.01, ***p<.001. Party referent: Republican. Region referent: South. Poisson regressions were used rather than negative binomial regressions since chi-square tests for overdispersion were statistically insignificant.