Title:
Public Policy and Gun Violence in the United States

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Grand Challenge:
The development of effective government solutions for mitigating the epidemic of gun violence is one of the greatest challenges facing the United States today.

Abstract:
Each year, almost 100,000 people are killed or injured by firearms in the United States. Addressing this epidemic of gun violence is one of the greatest challenges we as a nation face. Unfortunately, we currently have a limited understanding of the ways in which public policy, our key vehicle for addressing social problems, can address that challenge. This project will provide part of the answer by meeting the following goals: creating a comprehensive catalogue of gun policy at the state-level; determining the causal impacts of gun policy on gun violence, through the mediating mechanism of the reduction of illegal gun trafficking; gathering public opinion data on gun policy at the state-level for all 50 states; determining the factors that contributed to the diffusion of existing gun policies; determining if information on effectiveness and the opinions of peers or constituents (potential political costs) regarding specific gun policies influences attitudes of policymakers and citizens regarding those policies; and determining if information on effectiveness and political cost/benefit of gun policies influences the introduction of bills designed to reduce illegal gun sales, as well as the votes of legislators on those bills. Because of its status as a premier public research university, its high national rankings in both public affairs and criminal justice, and the fact that it serves a state which has high levels of both gun violence and gun trafficking, Indiana University is perfectly situated, and has an obligation, to lend its voice to this important policy debate.
Public Policy and Gun Violence in the United States

Grand Challenge

In 2013, 11,208 people were fatally wounded by firearms in the United States and another 84,258 were injured (Centers for Disease Control 2015). In that same year, more Indiana citizens were killed by guns than by traffic accidents (VPC 2015). Addressing this epidemic of gun violence is one of the greatest challenges facing the United States. Unfortunately, we currently have a limited understanding of the ways in which public policy can address that challenge for two major reasons. First, we do not know if the modal type of gun policy in this country, designed to keep guns out of the hands of criminals, actually reduces gun violence and we do not know which interventions are most effective at doing so. Second, we do not know if gun policies, effective or not, can be framed in a way that will make them politically salable to a majority of citizens and policymakers. This project will answer these questions in order to understand if public policy can meaningfully reduce gun violence in this country and, perhaps, increase the likelihood that it can.

Goals

The overarching goal of this project is to determine if state and local gun policy targeted at disrupting illegal gun markets offer a viable means of reducing gun violence. Achieving that goal requires the accomplishment of 6 sub-objectives, including:

1) creating a comprehensive catalogue of gun policy at the state-level including dates of original adoption.
2) gathering data on attitudes toward gun policy that are representative at the state-level for all 50 states and representative at the state legislative district level for Indiana.
3) determining the causal impacts of gun policy on gun violence, through the mediating mechanism of the reduction of illegal gun trafficking.
4) determining the factors that contributed to the diffusion of existing gun policies.
5) determining if information on effectiveness and the opinions of peers or constituents (potential political costs) regarding specific gun policies influences attitudes of policymakers and citizens regarding those policies.
6) determining if information on effectiveness and political preferences regarding gun policies influences the introduction of bills on background checks and other measures designed to reduce illegal gun sales, as well as the votes of legislators on those bills.

Project Summary

On average, between 80 and 90 people are killed by guns every day in the United States. In a single 8 hour period in September of this year, 5 people were shot and 3 were killed in Indianapolis alone. Ideally, when faced with this type of acute social problem, we would take an evidence-based approach, identifying public policies that were most effective at addressing the
issue and then adopting and implementing those policies as widely as possible. This approach has not framed the debate over gun policy for two reasons. According to a National Academy of Sciences report, existing research and data on firearms and violent crime are too weak to allow firm conclusions about the effects of various measures to prevent and control gun violence (National Academies of Science 2005). The report confirmed that efforts to make data on gun policy difficult to acquire and use have impeded research on the effectiveness of such policies in reducing gun violence. Beyond the lack of conclusive research on effective policy, an evidence based approach has not had a significant influence on the debate over guns and violence because of the widely held assumption that ideology, rather than efficacy, completely drives policy decisions in this area.

Because the vast majority of gun homicides occur in the context of criminal activity, most gun policies adopted at the state and local levels are designed to reduce the diversion of guns to criminals. Not surprisingly, these have been the subject of considerable research and there is some evidence that such policies do, indeed disrupt illegal gun markets (see for example Centers for Disease Control 2015). We do not know with any certainty, however, if such disruptions actually reduce gun violence. Again, there has been plenty of research on the subject, but it has consistently employed research designs that prevent causal inference. Specifically, studies typically examine the relationship between violence and policy in a single year or in a limited time period in which policies did not meaningfully vary (see Webster and Wintemute 2015 for a review).

Regardless of the effectiveness of individual policies, public policy may not seem to offer a meaningful solution to the issue of gun violence because the political discourse around the topic is so ideologically polarized. In truth, however, we do not know why gun policy innovations have diffused in manner they have or the degree to adoption of these policies, particularly at the state level, is fully captured by a simple left vs. right story. A quick look at the national map suggests that these decisions are not as obviously ideological as national debates would lead you to believe. For example, conservative states such as Alabama, Georgia, and Florida have adopted laws allowing criminal penalties for selling guns without proper background checks. Tennessee, Mississippi, and South Carolina allow compliance inspections of gun dealers.

Surprisingly, these adoptions may even have been in line with constituent preferences. In nationally representative polls taken over the last several years, a large majority of Republicans has consistently supported expanded background checks for gun purchases (Pew Research Center 2013). In a 2015 survey, 2/3 of gun owners supported allowing cities to sue licensed gun dealers when the dealer's practices allow criminals to obtain guns. An even larger percentage supported a two year mandatory minimum sentence for persons convicted of knowingly selling a gun to someone who cannot legally have one (Barry et al. 2015).

These anecdotes suggest that an expanded approach to evidence based policymaking may offer a blueprint for a more rational approach to policymaking in this area. The concept of evidence
based policy begins with the assumption that policy makers are interested in effective laws and conscientiously incorporate scientific evidence and information about previous success in pursuit of that goal (see for example Gray 2002; Head 2015). It does not sufficiently incorporate the argument, prominent in political science, that politicians are primarily driven by the desire to win votes, rather than by policy considerations (Mayhew 1974). This oversight means that the concept of evidence based policy often seems to offer little insight into, or even to be laughably unsuited to, highly contentious policy debates (e.g. climate change).

A more widely applicable model of evidence based policymaking must begin with the assumption that policy choices are made based on evidence about demonstrated or predicted effectiveness AND evidence regarding the political costs and benefits of a particular policy. It would also recognize that polarizing issues must be broken into more specific, less contentiously framed, policy choices before they can be amenable to an evidence based approach.

The goal of this project is to develop and apply this expanded model of evidence based policymaking to the question of using public policy to reduce illegal gun trafficking and gun violence. Specifically, it is interested in understanding if the preferences of citizens and policy makers regarding gun policies are systematically related to evidence of 1) policy effectiveness and 2) political costs or benefits. Doing so will obviously require a multi-stage research design. The first stage would determine precisely when individual gun laws, such as expanded background checks and penalties for straw purchases were adopted by individual states, because a concise chronology of gun policy adoptions in U.S. states and localities does not currently exist. Creating one is possible through a review of sources such as ATF’s “State Laws and Published Ordinances, Firearms,” published over the last several decades, and careful cross-checking with existing state codes. Creating a chronicle of gun policy adoptions, which is already being undertaken by the research team, is extremely time consuming, but indispensable for subsequent stages of the design.

The second stage of the project will attempt to understand the consequences and causes of existing adoption patterns of gun policies. The first step is using the geographic and temporal variation in the adoption of these laws to estimate the causal effects of gun policy adoptions on measures of illegal gun trafficking and of gun violence. Existing studies have produced fairly consistent evidence about what works, but that evidence has been almost exclusively correlational because of the designs used by authors (though see Duggan 2001). Once causal effects are estimated, the second step in this stage is trying to understand the impact that effectiveness, ideology, and the interaction of these factors had on the diffusion of existing gun laws. This step will employ event-history or survival analysis which is the most effective way to model diffusion patterns at the macro-level, across all states over numerous years. It will also employ interviews with individual legislators in the states where relevant laws have passed and/or been rejected in order to provide a more nuanced micro-level view of the interaction of different types of evidence (policy and political) in these decisions.
The third stage will build a better understanding of public support for gun policies. There is evidence from national polls that a large majority of Americans, including Republicans and gun owners, support laws designed to reduce illegal gun sales. When making policy decisions, however, citizens and lawmakers are likely to give the most weight to what people in their part of the country think. In order to test if information about political support for policy among ideological peers and constituents influences individual attitudes, therefore, it will be necessary to have more precise measures of geographic support for gun policies. In order to create this we will conduct a random digit dial survey of gun policy attitudes using a sample of voting age Americans that is stratified so as to be representative of citizens in each state. For Indiana we will draw a sample that is representative at the state legislative district level; so that we can estimate attitudes for constituents in each district.

The fourth stage of the project will use evidence regarding effectiveness and attitudes to better understand decision-making processes surrounding gun policy. Specifically, we will employ a design that allows us to test if the preferences of both policy makers and citizens depend on the type of information they have regarding effectiveness and political appeal of those policies. The initial approach will be a simple post-test experimental design with 3 treatments (effectiveness information; political information; both types of information) and 1 control group (no information). For citizens we will use Amazon Mechanical Turk to generate samples that are as representative of the voting age population as possible and large enough to ensure statistical power across all treatment groups. To assess the relationship between policymaker attitudes and information we plan to use a survey experimental design, randomly embedding treatment vignettes in an instrument distributed to U.S. city managers. SPEA has a close relationship with the International City/County Managers Association and we have had preliminary discussions about gaining access to the membership for this project. For state-level lawmakers it is more challenging to use a survey experiment because surveys of this population have notoriously low response rates. As noted below, we will nonetheless use a survey-experimental design with this group, but will couple it with a recently developed approach which randomly embeds treatments into interview protocols (see Avellaneda 2013; forthcoming). We will conduct these interviews with legislators across the country, but will place a particular focus on Indiana, where we will attempt to interview every state legislator. In the Indiana case, we will be able to include information about the attitudes of constituents within each district in the protocols for legislators chosen to receive that treatment.

Final stage in the research design is a field experiment modeled on recent work which examines if information can change not only the attitudes, but also the behavior of state legislators (Nyhan and Reifler 2014). In this stage, we will send surveys to every state legislator in the United States with the different experimental treatments described above randomly embedded within them. As noted above, the response rates on legislator surveys are low enough that this cannot be the only way that we observe the impact of different types of gun policy information on attitudes, though we can obviously use the data from respondents to triangulate with what we observe in
interviews. What the responses will definitely tell us, however, is which legislators digested different types of gun policy information. We can then use that information to look for how legislators exposed to different types of information act on gun policy relative to each other and those that did not respond. Each year, hundreds of gun related bills are introduced in American state legislators, which will allow us observe how these different treatments affected bill introduction, sponsorship, and voting behavior, as well as public comments on relevant bills in the year following survey administration.

The key mechanisms of impact for the project will be focused on disseminating findings. The catalogue of gun policies and data on state level attitudes would be published as white papers and on-line resources that could be used by researchers around Indiana and the nation. Key research findings regarding effectiveness will be packaged and disseminated in a way that facilitates uptake by policymakers. We would organize panels or symposia at major meetings of state and local officials, including the International City and County Managers Association, the National Conference of State Legislators, the National Governor’s Association, and others. We would plan to host a meeting in Washington D.C. of national lawmakers interested in reducing gun violence in order to further disseminate the findings. Finally, if it is found that some policies targeted at illegal gun trafficking cause a reduction in gun violence and that these policies are more widely palatable to lawmakers when it can be shown that they are effective and have low political cost, then the enhanced evidence based policy model offered here could be further developed as a strategy for rationalizing the gun policy debate throughout the United States.

Resources

This project takes advantage of numerous existing resources on IU campuses. SPEA-Bloomington is among the top ranked public affairs schools in the nation because of the high quality policy research produced by its faculty. For a variety of reasons, that faculty has not produced a great deal of research related to gun policy, but fortunately it has a natural collaborator in Indianapolis, where SPEA-IUPUI has a highly ranked criminal justice program including numerous scholars who study gun violence.

IU also has significant non-faculty resources that will be indispensable to the success of this project. The large amount of data collection through surveys is greatly facilitated if a local organization can assist in instrument design, recruitment, dissemination, and data management. The nationally recognized Center for Survey Research meets this need and members of the team have an existing relationship with Ashley Bowers and her staff from previous collaborations. Work like this is also facilitated by the existence of academic centers that have strong connections to practitioners and policymakers, as well as staff resources to help with subsequent proposal submission, research product production, etc. The Indiana University Public Policy Institute (IUPPI), and particularly its robust directorate in public safety research and outreach, will be indispensable in providing those resources. IUPPI is affiliated with SPEA and all the members of the team have a strong and ongoing relationship with it.
The first major resource that IU is lacking if it wishes to truly engage and influence the national debate on gun policy and violence is faculty that approach these issues from a public health perspective. Much of the most current and interesting work in this area treats gun violence as a public health problem that can be treated with interventions from that discipline. Incorporating these approaches with the public policy focus of this project could give IU a unique and powerful voice. These faculty would be a natural fit, and could easily contribute, whether hired into SPEA, or the Public Health School, or the Medical School in either the Bloomington or IUPUI campuses. The second resource that would further IU’s influence in this debate would be the creation of a research center devoted to the issue of gun policy and violence. This type of center would quickly magnify IU’s voice by providing faculty and organizational nuclei for teams of researchers from around the country, as well as resources to facilitate the dissemination of research products, develop and produce proposals for subsequent funding, etc.

**Team**

The point of contact for the proposal is Sean Nicholson-Crotty in the School of Public and Environmental Affairs, Indiana University (seanicho@indiana.edu; 812-855-0563). The other team leaders include Jeremy Carter, Jeff Gruenewald, and Tomas Stucky who are all in the School of Public and Environmental Affairs at Indiana University Purdue University-Indianapolis.

Jeremy G. Carter is an Assistant Professor within the School of Public and Environmental Affairs (SPEA) at Indiana University Purdue University-Indianapolis. His research broadly focuses on policing, homeland security, technology, and policy implementation. Recently Dr. Carter has extended his policy focus to include the study of relationships between firearm violence and legal gun carrying. He has strong relationships with key law enforcement partners nationwide to include the Federal Bureau of Investigation, Department of Homeland Security, Bureau of Alcohol, Tobacco, and Firearms, and Drug Enforcement Administration. These relationships can be leveraged to gain access to research proposal partners, subject matter experts, and data. Dr. Carter has a track record of securing extramural funding as his research has been funded by the National Institute of Justice and the National Consortium for the Study of Terrorism and Responses to Terrorism. Moreover, Dr. Carter serves as the Chair of the National Institute of Justice, U.S. Department of Justice’s Scientific Standing Review Panel.

Jeff Gruenewald is an Assistant Professor in the School of Public and Environmental Affairs at Indiana University-Purdue University, Indianapolis. His research interests broadly include violence, terrorism and homeland security policy, and media coverage of crime and justice issues. In particular, he has studied how decisions regarding weapon use affect opportunities for lethal and non-lethal extremist violence at both individual and macro-levels. Since 2009, Dr. Gruenewald has been an investigator for the National Consortium for the Studies of Terrorism and Responses to Terrorism (START), a Department of Homeland Security Center of
Excellence. In addition to receiving support from START, he is a co-investigator for two multi-year projects which are currently funded by the National Institute of Justice.

Sean Nicholson-Crotty is an Associate Professor in the School of Public and Environmental Affairs at Indiana University. His research expertise is in intergovernmental relations and state-level public policy. His work in the latter focuses heavily on the ways in which state legislators and governors make decisions about the policies that their states ultimately adopt, including the role that effectiveness and ideological orientation play in those decisions. While his work has examined numerous policy areas, it has regularly focused on the causes and consequences of criminal justice policy including studies on criminal sentencing, law enforcement management, police violence, the school-to-prison-pipeline, prison privatization, and health care policies in state correctional systems, among others. In addition to these scholarly products, Dr. Nicholson-Crotty has worked with government and nonprofit organizations, including the Missouri Department of Corrections and the Missouri Division of Youth Services, evaluating the impact of criminal justice programs and policies.

Thomas D. Stucky is an Associate Professor of Criminal Justice and Director of Faculty Development and Online initiatives in the School of Public and Environmental Affairs at Indiana University Purdue University Indianapolis. He has recently engaged in several evaluations of criminal justice programs and policies in partnership with local and state agencies in Indiana, including the Comprehensive Anti-gang Initiative, which focused reducing gang violence in Indianapolis. He has also explored promising strategies for reducing gun violence and evaluated programming aimed at teen gun violence. He has also engaged in extensive macro-level policy research for more than a decade including exploration of the relationship between politics and crime/policing at the city-level, and state-level trends in imprisonment and correctional spending. He is also working to continue the development of our understanding of how social and physical structure affects crime, such as the relationship between land use, the physical environment and crime.

**Sustainability**

Frankly, sustaining a major project on gun policy and violence through external funding is somewhat more difficult than in some other research areas. This is primarily because through what has become known as the Dickey Amendment, Congress has restricted the conduct or support of gun violence research by the Centers for Disease Control since 1996.

Despite the CDC’s dearth of research funding, other major federal entities including the Department of Justice, the National Science Foundation, and the National Institutes of Justice have funded gun violence research or interventions in the recent past. The National Institutes of Health just closed a call for Research on the Health Determinants and Consequences of Firearm Violence. Members of our team have a strong history of securing federal funding, particularly the NIJ, and have built relationships that will increase our probability of doing so in the future. In
addition to government funders, major foundations including Joyce, Bohnett, and Robert Wood Johnson regularly fund gun violence research.

It is also important to note that opportunities for federal funding, and thus the sustainability of this project, will likely improve in the near future. President Obama has issued a Presidential Memorandum directing the Centers for Disease Control and other scientific agencies to conduct research into the causes of gun violence and called on Congress to dramatically increase funding in this area. Regardless of these prospects, however, IU now has an opportunity to use its Grand Challenges initiative to help solve a significant social problem that has been woefully neglected from a research perspective because of a lack of federal funding.

References


