Undergraduate Student Knowledge and Opinion About Campus Carrying and Other Firearms Laws

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Abstract

House Bill 937, passed in North Carolina in 2013, modified the provisions associated with concealed carry permissions on college campuses so that concealed carry permit holders could lawfully possess firearms on campus if they were kept in a locked compartment in their vehicles. The present study sought to explore the knowledge and perceptions of firearm law among a sample of undergraduate college students at one public university in North Carolina in the semester following the change in carrying provisions. The findings showed that students were not knowledgeable about gun laws and tended to be relatively supportive of gun rights, although differences existed among students who owned a firearm. This study expands our understanding of the relationship between gun ownership and perceptions of firearm laws, as well as the link between these two areas and knowledge of gun laws, among college students.

Keywords

College students, firearms, guns, campus, gun rights, gun control

Introduction

During the 2013 North Carolina legislative session, the passage of House Bill (HB) 937, "An Act to Amend State Firearm Laws," effectively modified the provisions associated with concealed carry permissions on college campuses. Before HB 937, firearms were prohibited on campus, excluding

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domiciles inhabited by faculty and staff. Since the passage of HB 937, however, concealed carry permit holders are allowed to possess firearms on campus provided they are kept in locked compartments in their vehicles (NC H937 Ch. SL 2013-369).

North Carolina is not alone in the effort to modify state law to allow concealed carry permit holders to carry firearms on campus. High-profile campus shootings, such as the one in 2007 that killed 33 people and injured 23 at Virginia Tech, the one in 2008 that killed 5 and injured 21 at Northern Illinois University, and the one in 2015 that killed 10 and injured 9 at Umpqua Community College, have compelled legislators to reconsider firearm provisions in their respective state statutes. Between the 2013 and 2014 legislative sessions, 33 states introduced bills allowing concealed carry on college campuses in some capacity (National Conference of State Legislatures, 2016). Eight states (Colorado, Idaho, Kansas, Mississippi, Oregon, Texas, Utah, and Wisconsin) now permit the carrying of concealed firearms on campus by permit holders. Some states, such as North Carolina, require permit holders to keep their firearms in their vehicles, whereas others allow concealed carry throughout a campus except in buildings that specifically prohibit firearms.

Given these recent legislative changes, the issue of firearms on college campuses is a topic that is currently garnering attention and generating controversy in the United States. Some research has found that Americans actually feel less safe as more people in their communities begin to carry guns (Hemenway, Azrael, and Miller, 2001). However, in a recent Gallup poll, 56% of respondents felt that the country would be safer if more Americans carried concealed weapons (Newport, 2015).¹ Further, 66% of those 18 to 29 years of age and 74% of gun owners felt the country would be safer if more citizens carried concealed weapons. However, most Americans do not believe that guns should be allowed in certain areas, including college campuses (Hemenway et al., 2001). The current research expands on these prior studies.

The present study especially sought to explore the knowledge and perceptions of firearm law among a sample of undergraduate students at one public university in North Carolina. Relatively little research has examined the attitudes of college students toward firearms and firearms policy, and even less has examined the level of firearms policy knowledge among students (particularly those who own a firearm). Of particular interest for the current study was ascertaining whether knowledge of firearms is related to attitudes regarding gun control (restricting gun ownership and carrying) and gun rights (expanding gun ownership and carrying). Further, because attitudes toward gun control are related to firearms ownership (Wright and Marston, 1975), this research also investigated whether, among college students, owning a firearm influences knowledge of and attitudes toward firearms. Finally, this study undertook to compare criminal justice and non-criminal justice majors to determine if there are any meaningful differences between those interested in careers in the criminal justice system and those pursuing other professions. Existing research on college student knowledge of and attitudes toward firearms laws is very limited. Given the changing landscape of college campus carrying and other firearm-related policies, this study is a timely contribution to the literature. The following research questions are addressed:

1. What are the general levels of firearms knowledge among undergraduate students?
2. Do students who possess a firearm have more knowledge of state gun laws?

¹ The entire question was as follows: "Suppose more Americans were allowed to carry concealed weapons if they passed a criminal background check and training course. If more Americans carried concealed weapons, would the United States be safer or less safe?"

3. What is undergraduate student opinion of gun rights and gun control policy?
4. How is knowledge of gun laws associated with perceptions of gun control laws?
5. Do students who possess a firearm hold more favorable views of gun rights?
6. Do the knowledge and perceptions of criminal justice majors differ from those of non-criminal justice majors?

Evolution of Campus Carry Laws

The shooting at Virginia Tech in 2007, and a subsequent shooting at Northern Illinois University in 2008, created the impetus for states to re-examine the debate over concealed weapons on campus (Bennett, Kraft, and Deborah, 2012; Patten, Thomas, and Wada, 2013). In most cases, such legislation seeks to give people the right to carry handguns on college campuses (Bennett et al., 2012). The basic rationales behind such changes in legislation are that college and university campuses are “soft targets” and an armed campus body serves as a deterrent – those seeking to commit acts of violence will find armed campuses less attractive (Patten et al., 2013) – and that legally armed citizens will be able to act appropriately during a shooting and reduce the level of harm (Bouffard, Nobles, Wells, and Cavanaugh, 2011). However, the deterrent effect of allowing gun carrying on campus is difficult to ascertain. Bouffard, Nobles, and Wells (2012) noted that if concealed weapons were allowed on campus and in classrooms, the actual number in any given classroom would be hard if not impossible to determine, and it would be difficult to predict the effect of a concealed weapon policy. The few studies conducted on perceptions of concealed carry and campus safety seem to refute the notion that most people would feel safer if there were more legally armed individuals on campus (Arrigo and Acheson, 2016). A study of faculty at three universities found that 94% did not support carrying concealed weapons on campus, and 97% would not carry a weapon if it were allowed (Thompson, Price, Dake, and Teeple, 2013). Further, a study of campus police chiefs found that 86% did not believe that the presence of firearms on campus would prevent homicide (Thompson, Price, Mrdjenovich, and Khubchandani, 2009).

The 10 public universities in Utah were the first to allow guns on campus; in fact, Utah state law prohibits legislation seeking to ban guns on campus (Stripling, 2009). Following high-profile campus shootings, 17 states in 2008 attempted to enact legislation patterned after that of Utah (Bennett et al., 2012; McLelland and Frenkil, 2009), and as previously stated, 33 states as of 2014 had introduced bills that would allow concealed carry on college campuses. Currently, 18 states² ban carrying a concealed weapon on a college campus (although some states, like North Carolina, allow students to bring firearms to campus but require permit holders to keep firearms in their vehicles), and 24 states³ leave the decision to ban or allow concealed carry weapons on campus to each college or university individually (National Conference of State Legislatures, 2016). As previously mentioned, eight states currently permit the carrying of concealed firearms throughout a campus by lawful permit holders.

² California, Florida, Georgia, Illinois, Louisiana, Massachusetts, Michigan, Missouri, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, South Carolina, and Wyoming.

³ Alabama, Alaska, Arizona, Arkansas, Connecticut, Delaware, Hawaii, Indiana, Iowa, Kentucky, Maine, Maryland, Minnesota, Montana, New Hampshire, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Tennessee, Vermont, Virginia, Washington, and West Virginia. (Arkansas and Tennessee allow certain faculty members to carry weapons on campus, but these laws do not extend to students or the general public.)

Correlates of Gun Ownership and Carrying

Currently, roughly 20% of American adults report owning a firearm (Smith and Son, 2015). Weapons ownership is disparate by region and has consistently been found to be concentrated in the South (Wright and Marston, 1975; Reed, 1972; Dixon and Lizotte, 1987; Brennan, Lizotte, and McDowall, 1993; Smith and Son, 2015). One study of regional ownership found that 60% of households in the South have guns, compared with one-third of households in the Northeast (Toch and Lizotte, 1992). Disparate levels of gun ownership are particularly pronounced when it comes to shotguns (Erskine, 1972; Newton and Zimring, 1969; Tonso, 1982).

Brennan et al. (1993) detailed the cultural and structural factors that are proposed to account for higher rates of gun ownership in the South. Cultural factors include the following: the symbolic importance of guns (particularly shotguns) in Southern culture (Tonso, 1982); the existence of a sporting subculture that encourages the use of guns for sport (e.g., hunting, gun collecting, sport shooting), particularly in the rural South (Reed, 1972; O'Connor and Lizotte, 1978); and the existence of a subculture of violence that stems from the Southern defeat in the Civil War (Dixon and Lizotte, 1987) and results in an "honor culture" in which threats and insults are met with aggression (Greenberg, 1997; Wyatt-Brown, 1996). Structural factors include demographic and economic conditions and are not the result of any socialization effect (Brennan et al., 1993).

Gun ownership is commonly reported in rural areas (Smith and Son, 2015), which is consistent with a sporting subculture. Support for a sporting subculture among legal gun owners was found in some early research (Lizotte and Bordua, 1980; Lizotte, Bordua, and White, 1981) and could be responsible for the disproportionate levels of gun ownership in the South compared with other regions (Brennan et al., 1993). More recent research determined that hunting status and gender have the greatest influence on gun ownership (Celinska, 2007). In particular, men were five times more likely than women to report gun ownership, and individuals who engaged in recreational hunting were more likely to own a gun (Celinska, 2007).

Similar support, however, has not been found for the Southern subculture of violence premise (Loftin and Hill, 1974; Doerner, 1978; Dixon and Lizotte, 1987; Copes, Kovandzic, Miller, and Williamson, 2014). Felson and Pare (2010) considered the effect of an honor culture in explaining regional carrying patterns, and they determined that although White Southerners were more likely to carry guns for protection than White Northerners, this difference was due to a broader gun culture, not an honor culture. Bankston, Thompson, Jenkins, and Forsyth (1990) also found that although those residing in a typical Southern cultural context were more likely to carry a gun for protection, carrying behavior was not related to a fear of crime. This finding lends support to a broader Southern gun culture as opposed to a Southern subculture of violence.

Relatively little research has examined gun ownership and carrying among college students. Weapon carrying in general is more prevalent among male students, with one study noting that 11% of male students and 4% of female students reported having carried a weapon on campus (Presley, Meilman, and Cashin, 1997). Nationwide, about 4% of college students had a working firearm at college. Of these, approximately half (47%) indicated that the reason they had a gun was for protection (Miller, Hemenway, and Wechsler, 2002). Students who have guns at school are more likely to live in regions in which handguns are more prevalent (Meilman, Leichter, and Presley, 1998; Miller et al., 2002) and are more likely to be male, to be White, to live off campus,

and to live with a significant other (Miller et al., 2002). Students who own and/or carry a firearm are also more likely to engage in risky behavior, such as binge drinking and using illicit drugs (Meilman et al., 1998), driving while under the influence (Meilman et al., 1998; Miller et al., 2002), and having unprotected sex while under the influence (Miller et al., 2002). They are also more likely to be victims and perpetrators of physical and sexual violence at college (Meilman et al., 1998).

One study that examined the likelihood of carrying among college students found that students who were concerned about campus violence, and were less confident in campus police, were more likely to want to obtain a license and carry a handgun on campus. The same was true of White students, those who were criminal justice majors, and those who had previously been victimized (Bouffard et al., 2012). In a study comparing criminal justice majors with non-criminal justice majors, more criminal justice majors reported owning a gun (Payne and Riedel, 2002).

Other research has also demonstrated links among gun ownership, the threat of gun violence, and region. Miller et al. (2002) found that 76% of all firearm threats at college occurred in regions where the household handgun ownership rates were more than 20%. Students who attended college in a region where firearm ownership rates were high were significantly more likely than their counterparts in regions where firearm ownership rates were lower to report being a victim of a firearm threat (Miller et al., 2002).

Levels of gun ownership vary by region, and the reasons why people carry guns also vary by region. Some research has demonstrated evidence of a gun culture among Southern and Western Whites, and unsurprisingly, compared with White Northerners, White Southerners are more likely to carry guns for protection; these regional effects exist even when differences in threat are accounted for, supporting the idea of a gun culture among White Southerners (Felson and Pare, 2010). However, according to the PEW Research Center (2013), the primary reason for owning a firearm nationwide has shifted. In 1999, hunting was the most frequently reported reason for owning a firearm, whereas in 2013, nearly 50% of respondents cited protection as their primary reason for owning a firearm.

Perceptions of Guns and Gun Laws

Gun control has been a source of debate since the 1960s, and public opinion on firearms regulation tends to be fairly stable (Smith, 2002). Individuals who own guns tend to be less supportive of gun control (True and Utter, 2002; Celinska, 2007), and according to one study, gun ownership is the strongest predictor of attitudes against gun control (Kleck, 1996). Political views, gender, and geographical location are also linked to support for gun control measures. Those who are conservative (Smith, 1980; Kleck, 1996; Celinska, 2007), male, and from rural areas (Smith, 1980; Kleck, 1996; Brennan et al., 1993) are more likely to oppose gun regulations, whereas those who identify with liberal political views, women, and urban residents are more likely to support gun control policies (Smith, 1980; Kleck, 1996; Patten et al., 2013).

However, relative support for or opposition to gun control depends on the policy. One study determined that most of the public is in favor of safety standards for new handguns, including childproofing, configuring devices that can be fired only by an authorized person, and implementing magazine safety features (devices that cannot be fired after the magazine or clip is removed and that are equipped with loaded chamber indicators) (Teret, Webster, and Vernick,

1999). This support held even among a subgroup of respondents who were gun owners. There also tends to be strong support, including among gun owners, for policies that prohibit people convicted of certain crimes from purchasing a firearm, and for policies that restrict illegal sales (e.g., tamper-resistant serial numbers and limits on the number of handguns that can be purchased in a month) (Teret et al., 1999).

The general public also tends to support mandatory registration of handguns (Teret et al., 1999), although one study found that Southerners who own shotguns are the group most opposed to the registration of guns (Brennan et al., 1993). Southerners are also more likely to oppose permits (regardless of gun ownership) (Brennan et al., 1993). Relatively little research has been conducted pertaining to college student perceptions of gun control policies. A study that examined the attitudes of those in high school found that girls were significantly more likely to support restrictive gun policies, whereas those who lived in a home with a gun were less supportive of restrictive policies than those who lived in a home without a gun (Vittes, Sorenson, and Gilbert, 2003). However, most respondents believed that handguns should be licensed and registered, and that a criminal background check should be required for all persons buying a handgun (Vittes et al., 2003).

The few studies examining attitudes and perceptions on campus have found more support for gun control policies. One study that examined support for concealed carry on two campuses determined that most students, faculty, staff, and administrators opposed concealed carry. Further, respondents felt that such policies would decrease campus safety (Patten et al., 2013). A study of faculty at three universities determined that an overwhelming majority of respondents did not support carrying concealed weapons on campus (Thompson et al., 2013), and a study of student attitudes on campuses in two different states found much less support for carrying concealed weapons on campus than for carrying them off campus (Cavanaugh, Bouffard, Wells, & Nobles, 2012).

Bennett et al. (2012) surveyed faculty members at a Georgia university and found that most of them opposed concealed weapons on campus. However, support or opposition was influenced by gun ownership and political affiliation. In contrast, a more recent study that examined the opinions of 419 students at a university in the Midwest determined that 57% of respondents felt that professors should be allowed to carry registered handguns to the university (Lewis et al., 2016). Similarly, Verrecchia and Hendrix (2017), in their study of the opinions of undergraduates on two Eastern campuses, found that almost half of the respondents believed qualified faculty and students should be allowed to carry concealed weapons on campus. Like Bennett et al. (2012), Verrecchia and Hendrix (2017) found that gun ownership and political affiliation affected support for carrying. Specifically, White men who held conservative political views and who owned a gun were more likely to be in favor of student or faculty member carrying a concealed firearm on campus.

Research investigating differences among majors found that criminal justice majors were more opposed to gun control than non-criminal justice majors (Payne and Riedel, 2002). This same study also found that male students, those who were from rural areas, and those who reported owning a gun showed less support for gun control than those who did not own a gun. Given the paucity of research on perceptions and knowledge of gun laws on college campuses, especially given the increasing amount of legislation being introduced to support enhanced carrying among

students, the goal of the current study was to expand on such research by using a sample of students from a public university in North Carolina.

Methods

The Student Opinion of Crime Risk (SOCR) Survey was a voluntary online survey of 4,500 undergraduate students age 18 and older who were attending a large public university in North Carolina in the spring of 2014. The undergraduate population of the university during the survey time frame (N=19,637) was 59% female, 70% White, and 16% Black; 5% of those of any race identified as Hispanic. Roughly 30% of the undergraduate students lived in on-campus housing; the rest resided in university-owned or private off-campus housing. The university is located in a small city of fewer than 100,000 residents and is part of an urban area. The university has its own sworn police, and the Part I crime rate for the city in 2014 was 457.4 per 10,000 (FBI, 2015). Roughly 70% of the students were from North Carolina. Levels of gun ownership for the region are not available, but a 2002 national study based on the Behavioral Risk Factor Surveillance System (as far as we are aware, the most recent for which state-level data are reported) concluded that 41% of households in North Carolina possessed a firearm (Okoro et al., 2005).

The survey was developed specifically for the current research. The items pertaining to fear of crime were derived from the 2004 Community Survey Final Report prepared for the Hillsborough County (Florida) Sheriff's Office by the University of South Florida (Hart, 2005). The 2004 survey was developed for a purpose similar to that of the current study and consisted of items similar to those used in studies of fear of crime (Gabriel and Greve, 2003). The fact-based questions contained in the knowledge of firearms section were created from a summary of North Carolina firearm laws compiled by the North Carolina Department of Justice. The questions pertaining to perceptions of gun issues were derived from the Hamilton Youth and Guns Poll (Vittes et al., 2003) and the 1999 National Gun Policy Survey of the National Opinion Research Center (Smith, 2002). The questions contained in the section related to perceptions of guns on campus were original to the authors (refer to Appendix or Table 2). The survey, constructed and stored in Qualtrics, remained open for 6 weeks. Students who did not respond to the initial e-mail invitation were sent two additional follow-up reminders.

A random sample of 5,000 local (e.g., not distance education) undergraduate students was requested from the institutional planning office of the university. This initial sample included graduate students and students who commuted from outside the community within which the university is located. Because the survey pertained to perceptions of physical locations on campus and in the surrounding area, only students living on campus or within the larger community were included in the final random sample (N=4,500) of students invited to participate in the survey. Additionally, entry-level criminal justice students were over-represented to provide a comparison sample. Although little research has been conducted on potential differences between criminal justice majors and majors in other subjects, there is support for the hypothesis that criminal justice majors differ in their perceptions of gun control (Payne and Reidel, 2002). Further, research has shown that criminal justice majors are more likely to want to carry (Bouffard et al., 2012) or actually do carry (Payne and Riedel, 2002) a gun. Criminal justice students are more often exposed to crime and victimization topics than non-majors, and it was believed that the knowledge obtained throughout their degree program might cause them to have different experiences and

form different views pertaining to the subject matter of the survey. However, for comparison purposes, it was necessary to keep the amount of knowledge about criminal justice-specific topics constant. Thus, only entry-level majors were surveyed. The overall amount of knowledge of the majors and non-majors responding was balanced, to offset the possibility that the students who had chosen a criminal justice major might hold views different from those of students majoring in other subjects.

Response Rate

After those who did not fit the selection criteria had been filtered, a total of 4,500 e-mails were sent out when the survey launched. As previously noted, students who did not participate in the study following the initial invitation were sent two reminder e-mails asking them to participate. Although college students are more comfortable than other segments of the population with web-based surveys, online surveys typically have lower response rates than paper-based surveys. This is certainly a concern, and indeed, many students did not even open the e-mail pertaining to the survey. Data collection was certainly limited by university guidelines that preclude offering any sort of incentive to students to increase the number of responses. Of the 4,500 students to whom e-mails were sent, 485 completed some portion of the survey, a response rate of 11%. Because of missing data on several of the variables used in the analysis, the final sample included 401 students. Respondents who agreed to participate were generally in alignment with the undergraduate population of the university. The sample population was slightly more female (64% compared with 59%), less Black (10% compared with 16%), more White (77% compared with 70%), and slightly more Hispanic (6% compared with 5%) than the university population. Both a power analysis and a sample size analysis showed that this sample size was sufficient for statistical inference.

Measures

A series of measures were examined to address the research questions. First, respondents were given 12 statements about current gun laws in the state of North Carolina and asked to indicate whether they thought that each statement was true or false. They could also specify that they did not know the correct answer. An additive index of the number of correct responses was created to measure gun knowledge. For each question, a correct response received 1 point; incorrect or "I don't know" responses received no points. The highest score a respondent could achieve was 12, and the overall actual knowledge scores ranged from 0 to 11.

Second, respondents were asked whether they currently owned a firearm and, if so, the purpose for which they owned that firearm. Third, a series of questions were asked pertaining to perceptions of guns. Respondents were asked to rate these statements on a 5-point Likert scale ranging from strongly oppose to strongly agree. Initial exploratory factor analysis indicated that the gun perception questions loaded onto two separate factors, and principal components analysis was used to combine these eight items into two measures of overall perceptions of guns. Using an eigenvalue cutoff of 1, the first factor – gun control – was retained (eigenvalue=1.619, $\alpha=0.764$),

explaining 81% of the overall variance.⁴ This factor consisted of the two items that are theoretically consistent with gun control legislation (“high capacity magazines should be banned” and “ownership of assault-weapons should be restricted”).

The second perception factor represented overall support for gun rights. This measure combined the remaining six perception questions.⁵ Using an eigenvalue cutoff of 1, the second factor retained (eigenvalue=3.714, $\alpha=0.872$) explained 62% of the total variance. Respondents with higher values on this measure of overall perceptions of gun rights showed greater support for gun rights, whereas respondents with higher values on the perceptions of gun control measure showed more support for gun restrictions. Factor loadings and communalities are presented in the Appendix.

In addition to these primary measures of interest, several other respondent characteristics were examined to explore which elements affected perceptions of guns and gun control as well as knowledge of gun law. Research on gun control (Smith, 1980; Kleck, 1996) has shown that the demographic features (especially race and sex) of the respondent are important predictors of opinion. Thus, several demographic characteristics were examined, including sex (measured as male, with female as reference), race (White, with non-White as reference), marital status (single or other), and age (measured with 18-19 years as reference, 20-21, 22-23, and 24 or older). Non-White racial categories were collapsed because of small sample sizes. Two additional questions that might help explain individual perceptions of guns were included – whether the respondent had ever been the victim of a crime and whether the respondent was an active drug or alcohol user. Victims of crime, especially burglary, have been found to be more likely than non-victims to plan to purchase a gun (Kleck, Kovandzic, Saber, and Hauser, 2011). Respondents were asked whether they had been the victim of a property, violent, or sexual crime before or after coming to college. Although research on gun control has not examined victimization, victims are more likely to want to carry a gun (Bouffard et al., 2012). Likewise, given that victims experience many psychological consequences of their experience, it is possible that they will have strong opinions about gun control and gun rights policies. Research has also shown that drug use is a predictor of gun rights attitudes. To assess drug and excessive alcohol use, respondents were asked to indicate the number of times in the past 30 days they had used several types of drugs, including prescription drugs that were not prescribed for them, marijuana, recreational drugs, other drugs, and alcohol with the intention of getting drunk.⁶ Respondents who indicated using any of these drugs at least

⁴ Before exploratory factor analysis was conducted, tests were conducted to determine the factorability of the variables and reliability of the factors. Correlation coefficients were sufficiently large. Tests for multicollinearity indicated that this was not an issue. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was .500. Bartlett’s Test of Sphericity was significant, indicating a patterned relationship.

⁵ Before exploratory factor analysis was conducted, tests were conducted to determine the factorability of the variables and reliability of the factors. Correlation coefficients were all sufficiently large. Tests for multicollinearity indicated that this was not an issue. The KMO Measure of Sampling Adequacy and the Anti-image Correlation Matrix indicated that the data were suitable for exploratory factor analysis. The KMO Measure was .835. Bartlett’s Test of Sphericity was significant, indicating a patterned relationship.

⁶ The questions pertaining to alcohol use asked about the consumption of alcohol with the intention of getting drunk. Alcohol consumption was included in this measure for two reasons: Most of the students were under the legal drinking age of 21 years, and although some of the students were over the legal

once (whether alone or with others) were coded 1. Respondents who did not indicate using any of these drugs in the past 30 days were coded 0.

Finally, one additional area was examined that might affect a respondent's perception of guns: fear of crime. Research on perceptions of guns has shown that fear of crime increases positive perceptions of guns (Holbert, Shah, and Kwak, 2004). Consistent with similar items used in studies of fear of crime (Gabriel and Greve, 2003) and measures modified to fit a university setting in prior literature (Hart, 2005), respondents were asked to indicate on a scale ranging from "not at all fearful" to "very fearful" how fearful they would be in a series of situations, including during the day or at night, where they live, in a non-campus housing location, in the downtown area, or in other parts of the city. These questions resulted in a total of eight values. Using principal components analysis, all eight values loaded well on a single factor with an eigenvalue of 4.064 and a Cronbach's alpha of 0.859.⁷

Analysis

The characteristics of the sample and the items of interest to the current study were examined first. Univariate and bivariate analyses were conducted to examine the overall levels of gun knowledge, gun ownership, and perceptions of gun control and gun rights. Ordinary least squares regression models were used to address the questions pertaining to the relationships between the predictors and the respondents' perceptions of guns.

Results

Summary of Sample for Regression Analysis

For the regression analysis, the sample was limited to the 401 respondents who had completed the entire survey. A summary of the sample characteristics is presented in Table 1. On average, these 401 respondents answered 5 of the 12 questions about gun laws correctly, a rate consistent with that of the overall sample of 485 (before the elimination of missing data), for which the average was 4.5 of 12 questions answered correctly. Approximately 25% of the respondents indicated that they owned a firearm. The top reasons for owning a gun were protection/self-defense (39%) and hunting (35%). Students also indicated that they owned guns for target shooting or sport (18%), collecting (1%), or other reasons (7%). The slight majority of students who owned a gun for protection mirrored the nationwide shift from hunting to protection as the primary reason for ownership (PEW Research Center, 2013) and echoes previous research assessing reasons for gun ownership among college students (Miller et al., 2002).

drinking age, excessive alcohol consumption may be an indicator of risk-taking behavior consistent with the use of illicit drugs such as marijuana, cocaine, and heroin.

⁷ Before exploratory factor analysis was conducted, tests were conducted to determine the factorability of the variables and reliability of the factors. Correlation coefficients were all sufficiently large. Tests for multicollinearity indicated that this was not an issue. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and the Anti-image Correlation Matrix indicated that the data were suitable for exploratory factor analysis. The KMO Measure was .697. Bartlett's Test of Sphericity was significant, indicating a patterned relationship.

TABLE 1: Summary of Variables (N=401)

	Mean	St. Dev.	Percent
Dependent Measures			
Gun Rights	.009	.991	
Gun Control	.018	1.001	
Independent Measures of Interest			
Gun Knowledge	5.000	3.276	
Fear of Crime - Away From Home	.015	.991	
Gun Ownership			24.0
Crim. Just. Major			19.5
Crime Victim			35.0
Female			66.0
Marital Status			
Single			51.0
Dating			42.0
Married			6.0
Divorced/Widow(er)			.5
Race/Ethnicity			
White			79.0
Black			11.0
Native American			1.0
Pacific Islander			.2
Asian			2.0
Multiple Race			4.0
Other Race			3.0
Hispanic			5.0
Drug User			57.0
Age			
18-19			35.0
20-21			38.0
22-23			14.0
24 Plus			13.0

The sample was mostly female (66% female compared with 34% male). The racial makeup of the sample was nearly 80% White and was 11% Black, with the remainder comprising other racial minorities. The sample was also heavily non-Hispanic, with only 5% of respondents indicating

Hispanic heritage. In regard to age breakdown, the sample consisted primarily of students of typical college age (i.e., 18-22 years); roughly 13% of the sample were 24 years of age or older. Many of the respondents in the sample were either single (51%) or dating (42%), and many had never been the victim of a crime; only 35% of the sample indicated any form of victimization. Approximately 19% of the sample were criminal justice students. Finally, 57% of the sample self-identified as active drug users, indicating that they had used an illicit drug (including excessive alcohol) in the past 30 days.

Student Knowledge of North Carolina Gun Laws

Of particular interest was the assessment of student knowledge of North Carolina gun law, especially in light of the 2013 legislative changes that affected gun policies on university campuses. Students were asked a series of questions to determine their understanding of North Carolina gun law (as noted previously, the vast majority of respondents were from North Carolina). Table 2 summarizes the responses. Shaded boxes indicate the correct responses.

TABLE 2: Student Knowledge of North Carolina Gun Law

Question	TRUE %	FALSE %	I DON'T KNOW %
A valid North Carolina Concealed Handgun Permit may be used as an alternative to a NICS check for the purchase of firearms.	25.4	11.2	63.3
A pistol permit must be obtained by the receiver of a handgun when such a person inherits a pistol as a result of the death of another person.	25.2	15.7	58.6
North Carolina has a complete ban on assault rifles.	8.5	39.9	51.6
A new NC law enacted in 2013 allows concealed-carry permit holders to carry their weapons to class on a college campus.	10.5	43.6	45.9
It is unlawful for any person in North Carolina, except when on his or her own premises, to willfully and intentionally carry a concealed weapon, either on or about his or her person.	13.7	41.9	44.1
You are required to get a separate permit for each gun you own.	24.9	33.9	40.7
To purchase a firearm in North Carolina, an individual must undergo a psychiatric evaluation.	7.7	51.6	40.4
Firearms training is NOT required to obtain a concealed carry permit in North Carolina.	12.5	48.6	38.4
To obtain a handgun in North Carolina, an individual must obtain a pistol purchase permit from the Sheriff in the county in which they reside.	52.1	10.2	37.7
You are NOT permitted to openly carry a firearm anywhere in North Carolina.	21.0	44.4	34.7
To obtain a pistol purchase permit in North Carolina, an individual must undergo an extensive criminal background check.	56.9	11.7	31.4
One must obtain a concealed weapons permit to be authorized to carry a concealed weapon.	69.9	2.2	28.2

NOTE: Shaded cells indicate the correct answer.

As indicated in Table 2, many respondents did not know the answer to questions related to North Carolina gun law. For some questions, more than half of the respondents selected “I don’t know” as a response. The responses also indicate some confusion over existing gun law in North Carolina. For example, nearly 9% of respondents believed that North Carolina has a complete ban on assault rifles, and almost 13% believed that firearms training is not required before one can obtain a concealed carry permit. Additionally, 14% of the respondents believed it is unlawful to carry a concealed weapon in the state, and almost 11% believed that the 2013 changes in North Carolina gun laws mean that concealed carry permit holders may carry their weapons to class on a college campus.

An additive index based on the number of correct responses was created to determine overall level of knowledge about North Carolina gun law. Of the respondents, 19% either indicated “I don’t know” or answered incorrectly for all statements related to North Carolina gun law. Roughly 41% answered between 1 and 6 questions correctly, and the remaining 40% answered between 7 and 11 questions correctly. No respondent correctly answered all 12 questions.

Ascertaining the degree of knowledge about gun law in general may have been of limited value because many of the students responding to the survey did not own a firearm. However, determining the degree of knowledge among students who reported being gun owners was important. Nearly 65% of gun owners responded correctly to between 8 and 12 statements, and an additional 25% responded correctly to 6 or 7 statements. A t-test was used to determine whether the relationship between gun ownership and knowledge was significant, and the gun owners had significantly higher scores on the total gun knowledge variable ($t=-10.5$). To further examine the relationship between gun ownership and gun knowledge, a negative binomial regression model was used that included the gun control and gun rights outcomes as predictors, along with the controls. The results provided further support that gun owners have a greater knowledge of gun laws, and that those who are more supportive of gun rights are more knowledgeable.

Student Opinion of Gun Policy

As noted, respondents were asked a series of questions related to their opinions about gun ownership, including whether ownership should be restricted in certain ways. Students were also asked about current and potential gun policies related to ownership, including whether someone should undergo a background check before owning a gun, whether someone should undergo a psychiatric evaluation before owning a gun, and whether an interview with a loved one should be required before a person is allowed to own a gun. Finally, students were also asked if highly publicized cases influenced their perceptions of gun control laws.

About 82% of the students agreed or strongly agreed that Americans should have the right to own firearms, and 74% felt the same about citizens being able to use deadly force to defend their homes. There were 78% who indicated that they supported the recreational use of firearms, and 50% agreed or strongly agreed that citizens should be able to carry a firearm openly. Roughly 47% of the respondents favored restricting the ownership of assault weapons, and roughly 34% favored banning high-capacity magazines. About one-quarter of the respondents felt that students and faculty should be permitted to carry firearms on campus, and nearly 46% felt that students and

faculty should be permitted to conceal their firearms in their vehicles on campuses (this is what the new law allowed at the time of the survey). Results are presented in Table 3.

TABLE 3: Student Opinion of Gun Policy

Question	Strongly Favor %	Favor %	Neutral %	Oppose %	Strongly Oppose %
Americans should have the right to own a firearm.	51.5	30.0	14.0	2.9	1.6
I support the recreational use of firearms (e.g. hunting and target shooting).	48.9	29.5	13.3	4.3	4.1
U.S. citizens should have the right to defend their home or person with deadly force.	45.5	28.4	20.0	4.5	1.6
Americans should have the right to openly carry a firearm.	28.4	21.9	23.9	19.6	6.1
Ownership of assault weapons should be restricted.	18.5	28.0	23.5	15.1	14.9
Students and faculty should be permitted to conceal their firearms in their vehicles on college campuses.	21.7	24.7	21.5	17.6	14.5
High capacity magazines (i.e. those holding more than 10 rounds) should be banned.	14.2	20.1	29.8	17.4	18.5
Students and faculty should be permitted to carry their firearms on campus.	13.2	12.0	21.2	26.4	27.1
I am afraid of guns.	5.6	14.9	18.5	25.2	35.8

Respondents were also asked about the types of things that should be required before an individual can own a gun. More than 97% of students agreed that a background check should be required. However, this is not surprising because background checks are already required for handgun ownership. A substantial majority of respondents (88%) also believed that individuals should undergo a psychiatric evaluation before owning a gun. However, only 42% of respondents agreed that an interview with a loved one should be required as a condition of gun ownership.

Students were also asked whether highly publicized cases, such as Newtown, had influenced their perception of gun laws; nearly 60% stated that they had. Students who agreed that their perceptions had been influenced also had an opportunity to indicate how, and content analysis was used to assess how opinions had been influenced. A majority of the respondents stated that high-profile tragedies such as Newtown indicated a need for greater gun control. Statements revealed support for better control over who is allowed to own a gun, including the need for more comprehensive background checks and better ways to screen for mental illness. Students made statements such as “it should be much harder to obtain guns” and “stricter requirements are necessary before gun ownership.” Some students, however, stated that tragedies involving firearms convinced them of the need for expanded gun rights, noting, for example, that citizens

“should be allowed to take concealed weapons wherever they go to protect themselves and others.” Others stated the belief that shootings in predominantly gun-free zones (particularly schools) could be prevented if teachers and administrators were allowed to carry weapons in class.

Predictors of Perception of Guns and Gun Control

To examine further the relationships between respondent characteristics and perceptions of guns, two separate regression models were conducted for each of the two perception factors (gun rights and gun control) discussed earlier. Table 4 presents the results of these models.

The gun control model, in which gun control is the outcome, suggests that several characteristics may play a role in determining whether a person is for or against the control of guns, in particular large-capacity magazines and assault rifles. Higher values on the gun control measure indicate greater support for gun restrictions. As such, perceptions of gun rights were inversely related to perceptions of gun control. In other words, respondents who showed greater support for gun rights were less likely to support gun control ($b = -.43$). Hispanic respondents were less likely to support gun control ($b = -.43$). Likewise, gun owners were less likely to support gun control ($b = -.27$). Neither fear of crime nor victimization was significantly related to perceptions of gun control.

To investigate further the findings from the gun control model, additional analyses (not tabled) were conducted to determine whether the reason for gun ownership was significantly related to gun law knowledge and perceptions of guns. An analysis of variance (ANOVA) was used to determine the existence of a relationship, and the results indicated the absence of a significant relationship between the reason for gun ownership and knowledge or perception of gun control. However, this analysis also indicated a significant relationship between the reason for gun ownership and gun rights. A regression analysis was run to examine this relationship further, including the reasons for gun ownership as a predictor of perceptions of gun rights. The results of this analysis indicated that compared with those who owned a gun for protection, those who owned a gun as a collector's item were significantly more likely to favor gun rights.

The gun rights model in Table 4 presents the results of the regression predicting views of gun rights. In line with the previous model, respondents with more lenient viewpoints on gun control were significantly more likely to favor gun rights ($b = .33$). Respondents with greater gun knowledge ($b = .06$) and those who owned a gun ($b = .49$) were also more likely to favor gun rights, as were those who reported being active drug/alcohol users ($b = .19$). Finally, unlike in the gun control model, in which only one of the individual characteristics was significantly related to perceptions of gun control, both male respondents ($b = .25$) and White respondents ($b = .33$) were significantly more likely to favor gun rights, whereas single respondents ($b = -.18$) were significantly less likely to favor gun rights. As in the gun control model, all other measures in the gun rights model, including fear of crime and victimization, were not significantly associated with respondents' views.

TABLE 4: OLS Regression of Perceptions of Guns on Predictors (N=401)

	Gun Control			Gun Rights		
	b	SE	Odds Ratio	b	SE	Odds Ratio
Intercept	.28	.16		-.71	.13	
Gun Rights	-.43*	.07	.65			
Gun Control				.33*	.05	1.38
Gun Knowledge	-.02	.02		.06*	.01	1.06
Gun Ownership	-.27*	.13	.77	.49*	.11	1.64
Crim. Just. Major	-.20	.12		-.21*	.13	.81
Fear of Crime	-.05	.04		-.02	.04	
Crime Victim	-.00	.00		-.00	.00	
Male	-.09	.10		.25*	.08	1.29
Single	-.02	.09		-.18*	.08	.84
White	.09	.11		.33*	.10	1.39
Hispanic	-.43*	.20	.65	-.37	.20	
Drug User	.02	.09		.19*	.80	1.21
20-21	-.16	.10		.01	.10	
22-23	-.05	.13		-.02	.12	
24 Plus	-.09	.16		.03	.15	
F(14, 386)	14.37*			31.46*		
R ²	.32			.47		

* $p < .05$ **Criminal Justice Majors**

Criminal justice majors were oversampled for this project, to allow an assessment of whether the criminal justice majors were different in terms of their perceptions of gun control and gun rights. Criminal justice students differed from other students in characteristics that were shown to have a significant effect on perceptions of gun rights and gun control. For instance, criminal justice majors were more likely to be White in the sample ($\chi^2=11.43$, $df=1$, $p<.05$). Likewise, criminal justice majors were more likely than students with other majors to have consumed drugs or alcohol in the past 30 days ($\chi^2=16.27$, $df=1$, $p<.05$). However, further examination revealed that criminal justice students reported consuming more alcohol than their peers, whereas they

reported less drug use. Criminal justice majors, on the other hand, did not differ from their peers in gun ownership ($\chi^2=0.0003$, $df=1$) or gun knowledge ($\chi^2=8.497$, $df=11$). Within the regression models, being a criminal justice major was not significantly related to perceptions of gun control; however, the criminal justice major variable was significant and negative in the gun rights model ($b=-0.212$), indicating that students with other majors believe in gun rights more strongly than criminal justice students.

Supplemental Analyses Not in a Table

The initial analysis suggested that one of the strongest predictors of perception of gun control was perception of gun rights and that one of the strongest predictors of perception of gun rights was perception of gun control. To assess whether this analysis introduced bias in the results of the models, the regression analyses were conducted without the alternative dependent variable. Without the gun rights variable, the gun control model changed in one important way. In the original model, knowledge of gun laws did not quite reach significance. However, when the gun rights variable was not included as a predictor, knowledge of gun laws became significant and positive. This further suggests the existence of a relationship between knowledge of gun laws and perceptions of gun rights. Gun ownership was still significant and positive. The R^2 statistic was reduced to .21, and the F statistic, although still significant, was reduced to 7.31, suggesting that the variable perception of gun rights was an important predictor of perception of gun control.

Removing the gun control variable from the gun rights model did not change the results considerably. Gun knowledge and gun ownership remained significant and positive. Males and Whites were also more likely to support gun rights. The F statistic was reduced to 21.19 and remained significant. The R^2 statistic was reduced to .39. There was one noteworthy change. Specifically, when gun control was removed from the model, drug users were significantly more likely to support gun rights ($B=.20$; $SE=.09$; $t=2.22$). Finally, given the significant relationship found between gun ownership and gun knowledge, it is possible that the relationship between gun knowledge and the perceptions of gun control and gun rights depended on whether the respondent owned a gun. To examine this possibility, two analyses were conducted. First, the models were examined with and without the gun ownership measure. Second, the models were run with inclusion of an interaction term for the gun knowledge and gun owner measures. Neither analysis supported the conclusion that the relationship between knowledge and perceptions depended on gun ownership.

Discussion

Research on perceptions of guns has largely focused on samples of the general population, rather than samples of college students. However, the change in North Carolina gun laws that occurred in 2013 specifically allows secured weapons in vehicles on college campuses in the state. The goal of this research was to assess the perceptions and knowledge of guns by college students in the state in the wake of this legal change.

Overall, respondents were not very knowledgeable about North Carolina gun law, including the specific changes that occurred in 2013. Public universities in North Carolina, including the one used for the current study, provided students with a large amount of information regarding carrying law, particularly because it is legal to carry across the state, but not on college campuses.

A heavy information campaign at the university used for the study took place before the 2013 change regarding carrying on college campuses, and the results here indicate that students are not fully aware of gun law in the state. This finding has a couple of potential implications.

First, students on the study campus who are not fully cognizant of the law face potential legal ramifications in both the student conduct system and the broader criminal justice system. This is especially important given that gun owners, although significantly more knowledgeable than non-gun owners, did not display perfect knowledge of state gun law. Specifically, of those respondents who believed that the changes in the 2013 gun law meant concealed carry permit holders could carry their weapons on campus, 27% were gun owners. This suggests that more training of gun owners is necessary, particularly as the threshold for training in North Carolina is already quite low (successful completion of a firearms training course is required only when a permit to carry a concealed weapon is obtained). Second, these findings have implications for other states planning similar changes on college campuses because the concerted public information effort seems to have had little effect on student knowledge on the study campus. Students are often inundated with information, and it is important that campus administrators find effective means to communicate with students (particularly the segment – gun owners – most affected by changes to gun law on campus).

Overall, respondents were very supportive of the right to own a firearm. However, only about one-quarter of respondents felt that students and faculty should be permitted to carry firearms on campus. This is consistent with the results of previous research, which determined that college populations are typically not supportive of carrying on campus (Patten et al., 2013; Cavanaugh et al., 2012; Thompson et al., 2013; Thompson, et al., 2009). Oftentimes, such policy provisions are put in place without a consideration of the feedback of the populations affected. This point was made by Cavanaugh et al. (2012), who found that such policy changes may not increase students' feelings of safety on campus. In North Carolina, the police chiefs at all 16 campuses in the University of North Carolina system opposed the change in the law pertaining to college campuses, citing a fear of increased car break-ins and gun violence (The Associated Press, 2013). Other states enacting such provisions might consider the unique nature of a campus environment and seek the opinions of those most affected by policy changes (Arrigo and Acheson, 2016). Fewer than half of respondents favored restriction of ownership of assault weapons or banning high-capacity magazines. In one recent study of college students at a Midwestern university, 54% of respondents agreed that the purchase of military assault weapons should be banned (Lewis et al., 2016), so the student sample in this study was more conservative in terms of gun control views. Regional differences may account for this dissimilarity, and future research should seek to examine campus viewpoints across regions.

The findings from the regression analysis are consistent with findings from prior research. One of the stronger relationships in the regression model was that respondents who support gun rights are more lenient toward gun control, whereas respondents who are less supportive of gun rights are more tolerant of gun control. This is not surprising, given that the university used for the current study is in the South, a region that historically has had a strong gun sporting subculture and tends to have supportive attitudes regarding gun rights (Reed, 1972; O'Connor and Lizotte, 1978; Lizotte and Bordua, 1980; Lizotte et al., 1981; Brennan et al., 1993; Felson and Pare, 2010). Research on the attitudes and perceptions of undergraduate students regarding gun law is still

somewhat limited, and the findings are driven by region of the country and homogeneity of the student body (in the current case, largely in-state students). As noted previously, future research should compare attitudes and perceptions by examining a wider variety of student populations.

Considering criminal justice majors separately from students in other disciplines is important because it is necessary to determine if those seeking a career in the criminal justice system are different from other students (Bouffard et al., 2012). There are a number of reasons to think that they might be – certainly there is an inclination to think of criminal justice students as more conservative than other students (Payne and Riedel, 2002). The percentage of criminal justice students in our sample who were White was significantly higher than the percentage among their peers, a characteristic that has been associated with a higher level of gun ownership and greater support for gun rights (Bouffard et al., 2012). Criminal justice students in our sample, however, did not differ from their peers in terms of level of gun ownership or knowledge of gun laws. This finding differs from those of Payne and Riedel (2002) and Bouffard et al. (2012), who found that criminal justice students were more likely to own a gun and more likely to obtain a concealed carry license, respectively.

One surprising finding was that criminal justice majors were significantly less likely to support gun rights than non-criminal justice majors, but there was no significant difference in terms of perceptions of gun control. This runs counter to prior research. For example, Payne and Riedel (2002) found that criminal justice majors were more opposed than non-criminal justice majors to gun control. Bouffard et al. (2012) determined that criminal justice majors, particularly those interested in law enforcement careers, may go through a shift in attitudes during their time in college. Specifically, students may start with a “fighting-crime” orientation and transition to a “maintaining-order” outlook as they near graduation (Bouffard et al., 2012). This is certainly plausible, but what is interesting about the current finding regarding perceptions of gun rights is that entry-level criminal justice students (as opposed to all criminal justice students) were oversampled. Given the prior research (Payne and Riedel, 2002; Bouffard et al., 2012), it is expected that entry-level criminal justice students in this study would have had more conservative views of gun control, and more permissive views of gun rights, compared with non-criminal justice majors. The fact that this was not the case highlights the need for more research on the perceptions of criminal justice majors and college students more broadly – existing research is limited. Additionally, future research on criminal justice majors should consider change in views over the course of study for the degree. Payne and Riedel (2002) considered that those who plan to work in the criminal justice system may be in favor of gun control (and less permissive of gun rights) because fewer firearms in the hands of offenders would mean increased safety on the job. However, this has not been empirically tested, and it would be interesting to see if students planning to work in the criminal justice system hold those views at the start of the major (as they appeared to do in this study) and if (and how) they change over time.

It is important to note that the response rate and sample size for the analyses were major limitations. Although we made every effort to secure more responses, we were precluded from offering any incentive for participation. This likely hampered our data collection efforts significantly. Given that prior research (Celinski, 2007; Kleck, 1996; Miller et al., 2002) has shown that males, especially White males, are more likely to own firearms and support gun rights, it is possible that the undersampling of this population attenuated the effects seen in the analysis.

Future research conducted on this population (students of college age) should explore other forms of data collection and should also incorporate nominal incentives for participation.

In terms of overall level of gun knowledge, misunderstanding by gun owners regarding existing law may be explained by the type of firearm respondents owned (e.g., those who own a shotgun or rifle do not need a permit, nor are they likely to go through a concealed carry course). However, data on the type of firearm owned were not collected. This is a limitation that should be addressed in future research because reason for ownership is not a perfect proxy for type of ownership.

It was not possible to conduct a before-and-after examination of the changes in North Carolina to see if student opinion changed appreciably following the 2013 gun law change. As campus carrying policies continue to change, it would be informative to examine if student attitudes remain stable when statewide changes regarding carrying policies affect campus environments. Overall, the findings from this study are consistent with prior research on perceptions of firearms, especially perceptions on college campuses. However, this study expands our understanding of the relationship between gun ownership and perceptions of firearm laws, as well as the link between these two areas and knowledge of gun laws. Further research is needed to understand fully perceptions of guns and gun laws on college campuses.

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References

- Arrigo, B. A., & Acheson, A. (2016). Concealed carry bans and the American college campus: A law, social sciences, and policy perspective. *Contemporary Justice Review*, 19(1), 120–141.
- Bankston, W. B., Thompson, C. T., Jenkins, Q. A. L., & Forsyth, C. J. (1990). The influence of fear of crime, gender, and Southern culture on carrying firearms for protection. *The Sociological Quarterly*, 31(2), 287–305.
- Bennett, K., Kraft, J., & Deborah, G. (2012). University faculty attitudes towards guns on campus. *Journal of Criminal Justice Education*, 23(3), 336–355.
- Bouffard, J. A., Nobles, M. R., & Wells, W. (2012). Differences across majors in the desire to obtain a license to carry a concealed handgun on campus: Implications for criminal justice education. *Journal of Criminal Justice Education*, 23(3), 283–306.
- Bouffard, J. A., Nobles, M. R., Wells, W., & Cavanaugh, M. R. (2011). How many more guns? Estimating the effect of allowing licensed concealed handguns on a college campus. *Journal of Interpersonal Violence*, 27, 316–343.
- Brennan, P. G., Lizotte, A. J., & McDowall, D. (1993). Guns, Southernness, and gun control. *Journal of Quantitative Criminology*, 9(3), 289–307.

- Cavanaugh, M., Bouffard, J., Wells, W., & Nobles, M. R. (2012). Student attitudes toward concealed handguns on campus at 2 universities. *American Journal of Public Health, 102*(12), 2245–2247.
- Celinska, K. (2007). Individualism and collectivism in America: The case of gun ownership and attitudes towards gun control. *Sociological Perspectives, 15*(2), 229–247.
- Copes, H., Kovandzic, T. V., Miller, J. M., & Williamson, L. (2014). The lost cause? Examining the Southern culture of honor through defensive gun use. *Crime & Delinquency, 60*(3), 356–378.
- Dixon, J., & Lizotte, J. A., (1987). Gun ownership and the Southern subculture of violence. *American Journal of Sociology, 93*(20), 383–405.
- Doerner, W. G. (1978). The index of Southernness revisited: The influence of wherefrom upon Whodunit. *Criminology, 16*, 47–66.
- Erskine, H. (1972). The polls: Gun control. *The Public Opinion Quarterly, 36*(3), 455–469.
- Federal Bureau of Investigation (FBI). (2015). *Crime in the United States, 2014*. Washington, D.C.: U.S. Department of Justice—Federal Bureau of Investigation.
- Felson, B. R., & Pare, P. P. (2010). Gun control or honor cultures: Explaining regional and race differences in weapon carrying. *Social Forces, 88*(2), 1357–1378.
- Gabriel, U., & Greve, W. (2003). The psychology of fear of crime. *British Journal of Criminology, 43*, 600–614.
- Greenberg, K. S. (1997). *Honor and slavery*. Princeton, NJ: Princeton University Press.
- Hart, T. C. (2005). *2004 community survey: Final report*. Prepared for the Hillsborough County Sheriff's Office. Tampa, FL: Department of Criminology, University of South Florida.
- Hemenway, D., Azrael, D., & Miller, M. (2001). National attitudes concerning gun carrying in the United States. *Injury Prevention, 7*(4), 282–285.
- Holbert, R. L., Shah, D. V., & Kwak, N. (2004). Fear, authority, and justice: Crime-related TV viewing and endorsements of capital punishment and gun ownership. *Journalism & Mass Communication Quarterly, 81*, 343–363.
- 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, G., Kovandzic, T., Saber, M., & Hauser, W. (2011). The effect of perceived risk and victimization on plans to purchase a gun for self-protection. *Journal of Criminal Justice, 39*(4), 312–319.
- Lewis, R. K., LoCurto, J., Brown, K., Stowell, D., Maryman, J., Dean, A., ... Siwierka, J. (2016). College students' opinions on gun violence. *Journal of Community Health, 41*(3), 482–487.
- Lizotte, J. A., & Bordua, J. D. (1980). Firearms ownership for sport and protection: Two divergent models. *American Sociological Review, 45*(2), 229–244.
- Lizotte, A. J., Bordua, D. J., & White, C. S. (1981). Firearms ownership for sport and protection: Two not so divergent models. *American Sociological Review, 46*(4), 499–503.
- Loftin, C., & Hill, R. H. (1974). Regional subculture and homicide: An examination of the Gastil-Hackney thesis. *American Sociological Review, 39*, 714–724.
- McLelland, S. J., & Frenkil, S. D. (2009). Banning weapons on campuses: The battle is far from won. *Chronicle of Higher Education, 55*(23), 44. Retrieved from <http://www.chronicle.com/article/Banning-Weapons-on-Campuses-/21678>
- Meilman, P. W., Leichliter, J. S., & Presley, C. A. (1998). Analysis of weapon carrying among college students, by region and institution type. *Journal of American College Health, 46*(6), 291–299.

- Miller, M., Hemenway, D., & Wechsler, H. (2002). Guns and gun threats at college. *Journal of American College Health, 51*(2), 57–65.
- National Conference of State Legislatures. (May 5, 2017). *Guns on campus: Overview*. Retrieved from <http://www.ncsl.org/research/education/guns-on-campus-overview.aspx>
- Newport, F. (October 20, 2015). *Majority say more concealed weapons would make U.S. safe*. (Gallup poll). Retrieved from <http://www.gallup.com/poll/186263/majority-say-concealed-weapons-safer.aspx>
- Newton, G. D., & Zimring, F. E. (1969). *Firearms & violence in American life* (pp. 113–253). Washington, DC: National Commission on the Causes and Prevention of Violence.
- O'Connor, J. F., & Lizotte, A. (1978). The “Southern subculture of violence” thesis and patterns of gun ownership. *Social Problems, 25*(4), 420–429.
- Okoro, C. A., Nelson, D. E., Mercy, J. A., Balluz, L. S., Crosby, A. E., & Mokdad, A. H. (2005). Prevalence of household firearms and firearm-storage practices in the 50 states and the District of Columbia: Findings from the Behavioral Risk Factor Surveillance System. *Pediatrics, 116*(3), 370–376.
- Patten, R., Thomas, M. O., & Wada, J. C. (2013). Packing heat: Attitudes regarding concealed weapons on college campuses. *American Journal of Criminal Justice, 38*(4), 551–569.
- Payne, B. K., & Riedel Jr., R. (2002). Gun control attitudes and the criminal justice student: Do differences exist? *College Student Journal, 36*, 314.
- PEW Research Center. (March 12, 2013). *Perspectives of gun owners, non-owners. Why own a gun? Protection is now top reason*. Retrieved from <http://www.people-press.org/2013/03/12/section-3-gun-ownership-trends-and-demographics>
- Presley, C. A., Meilman, P. W., & Cashin, J. R. (1997). Weapon carrying and substance abuse among college students. *Journal of American College Health, 46*(1), 3–8.
- Reed, J. S. (1972). *The enduring South*. Lexington, MA: D. C. Heath.
- Smith, T. W. (1980). The 75% solution: An analysis of the structure of attitudes on gun control. *Criminology, 71*, 300–316.
- Smith, T. W. (2002). Public opinion about gun policies. *The Future of Children, 12*(2):154–163.
- Smith, T. W., & Son, J. (2015). *General social survey: Final report. Trends in gun ownership, 1972-2014*. Presented by NORC at the University of Chicago. Retrieved from http://www.norc.org/PDFs/GSS%20Reports/GSS_Trends%20in%20Gun%20Ownership_US_1972-2014.pdf
- Stripling, J. (April 17, 2009). *Gun fight*. Retrieved from <https://www.insidehighered.com/news/2009/04/17/gun-fight>
- Teret, S. P., Webster, D. W., & Vernick, J. S. (1999). Support for new policies to regulate firearms. *New England Journal of Medicine, 340*, 234–236.
- The Associated Press. (July 24, 2013). North Carolina lawmakers pass sweeping changes to gun laws. *Winston-Salem Journal*. Retrieved from http://www.journalnow.com/news/state_region/north-carolina-lawmakers-pass-sweeping-changes-to-gun-laws/article_b4f2cf28-f45f-11e2-9cb9-001a4bcf6878.html
- Thompson, A., Price, J. H., Dake, J., & Teeple, K. (2013). Faculty perceptions and practices regarding carrying concealed handguns on university campuses. *Journal of Community Health, 38*, 366–373.

- Thompson, A., Price, J. H., Mrdjenovich, A. J., & Khubchandani, J. (2009). Reducing firearm related violence on college campuses—Police chiefs' perceptions and practices. *Journal of American College Health, 58*, 247–254.
- Toch, H., & Lizotte, A. (1992). Research policy: The case of gun control. In P. Svedfeld & P. Tetlock (Eds.), *Psychology and social advocacy* (pp. 223–240). Washington, DC: Hemisphere.
- Tonso, W. R. (1982). *Gun and society: The social and existential roots of the American attachment to firearms*. Washington, DC: University Press of America.
- True, J. L., & Utter, G. H. (2002). Saying “yes,” “no,” and “load me up” to guns in America. *American Review of Public Administration, 32*(2), 216–241.
- Verrecchia, P. J., & Hendrix, N. (2017). College students' perceptions toward carrying concealed weapons on college campuses. *Journal of Criminal Justice Education, 29*(1), 1–17.
- Vittes, K. A., Sorenson, S. B., & Gilbert, D. (2003). High school students' attitudes about firearms policies. *Journal of Adolescent Health, 33*(6), 471–478.
- Wright, J. D., & Marston, L. L. (1975). The ownership of the means of destruction: Weapons in the United States. *Social Problems, 23*(1), 93–107.
- Wyatt-Brown, B. (1986). *Honor and violence in the Old South*. New York, NY: Oxford University Press.

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APPENDIX A: Factor Loadings and Communalities: Gun Control and Gun Rights

Question	Factors		Communality
	Gun Rights	Gun Control	
Americans should have the right to own a firearm.	.80		.65
Americans should have the right to openly carry a firearm.	.85		.71
High capacity magazines (i.e., those holding more than 10 rounds) should be banned. (reversed).		.90	.81
Ownership of assault-weapons should be restricted. (reversed).		.90	.81
I support the recreational use of firearms (e.g., hunting and target shooting).	.75		.56
Students and faculty should be permitted to conceal their firearms in their vehicles on college campuses.	.82		.67
Students and faculty should be permitted to carry their firearms on campus.	.77		.60
U.S. citizens should have the right to defend their home or person with deadly force.	.73		.53
Eigenvalue	3.71	1.62	
% of Variance	61.89	80.93	

Extraction Method: Principal Components Analysis

APPENDIX B: Factor Loadings and Communalities: Fear of Crime

Question	Gun Control	Communality
Daytime fear where you live.	.77	.40
Daytime fear on campus.	.76	.54
Daytime fear downtown.	.75	.60
Daytime fear other.	.73	.52
Nighttime fear where you live.	.72	.41
Nighttime fear on campus.	.68	.57
Nighttime fear downtown.	.64	.57
Nighttime fear other.	.63	.47
Eigenvalue	4.06	
% of Variance	50.80	

Extraction Method: Principal Components Analysis