

US Public Opinion on Carrying Firearms in Public Places


Julia A. Wolfson, PhD, MPP, Stephen P. Teret, JD, MPH, Deborah Azrael, PhD, and Matthew Miller, MD, ScD, MPH

Objectives. To estimate US public opinion, overall and by gun ownership status, about the public places where legal gun owners should be allowed to carry firearms.

Methods. We fielded an online survey among 3949 adults, including an oversample of gun owners and veterans, in April 2015. We used cross-tabulations with survey weights to generate nationally representative estimates.

Results. Fewer than 1 in 3 US adults supported gun carrying in any of the specified venues. Support for carrying in public was consistently higher among gun owners than among non-gun owners. Overall, support for carrying in public was lowest for schools (19%; 95% confidence interval [CI] = 16.7, 21.1), bars (18%; 95% CI = 15.9, 20.6), and sports stadiums (17%; 95% CI = 15.0, 19.5).

Conclusions. Most Americans, including most gun owners, support restricting public places legal gun owners can carry firearms. These views contrast sharply with the current trend in state legislatures of expanding where, how, and by whom guns can be carried in public. Recent state laws and proposed federal legislation that would force states to honor out-of-state concealed carry permits are out of step with American public opinion. (*Am J Public Health.* 2017;107:929–937. doi:10.2105/AJPH.2017.303712)

 See also Galea and Vaughan, p. 841.

Recent high-profile mass shootings in schools, movie theaters, nightclubs, government buildings, and on college campuses as well as high rates of urban gun violence^{1–3} have focused national attention on the threat of gun violence in public places and the need to address the high toll^{4,5} of gun violence in the United States. In addition, urban gun violence, distressingly common in many US cities, is frequently covered in the news media. In the United States, guns are a perennial leading cause of death and injury. In 2015 there were 36 252 gun-related deaths,⁴ and homicides and suicides involving guns were among the leading causes of death in most age groups.⁶ Though efforts to strengthen federal gun laws have, recently, failed in Congress, some states have succeeded in passing new laws that strengthen background checks and limit the sale of firearms to prohibited persons.⁷ However, in a concurrent trend, many states have also expanded laws allowing members of the public to carry guns in public places.⁷ As a result, in most states, people

may legally carry guns in public places openly or, with a permit, concealed on their person.

Federal law does not regulate gun carrying, but does prohibit bringing guns (carried or otherwise) on some federal property (e.g., courts, post offices, correctional facilities).⁷ In addition, most states place some restrictions on where (i.e., what locations) and how (loaded or unloaded) guns may be carried.^{7,8} However, several states have recently expanded the public places in which it is legal to carry a gun, including bars and college campuses.⁹ State laws regarding carrying guns in public have shifted in 2 main ways: (1) states

have moved toward “shall issue” permitting laws, which mandate that a person who meets minimum criteria must be issued a concealed carry permit, and away from “may issue” standards, which allow local law enforcement to exercise discretion over who is granted a permit, and (2) states have expanded the types of public places where carrying guns (either concealed or openly) is permitted (or not explicitly prohibited). A handful of states (including Kansas, Maine, Alaska, Arizona, Vermont, and Wyoming) have passed (and others have introduced) so-called “constitutional carry” laws, which allow firearms to be carried without any permit or training required.¹⁰ Only 3 states (California, Florida, and Illinois) and the District of Columbia prohibit openly carrying firearms in all public places.⁷

One rationale for such laws is that more people carrying guns in public spaces will increase public safety and deter crime, though evidence to support this claim is weak.^{11–16} Surveys from the 1990s suggest that the general public has not historically viewed gun carrying in public as making them safer^{17–19}; did not think regular citizens should be able to bring guns into restaurants, colleges, sports stadiums, bars, hospitals, and government buildings¹⁷; and have favored placing restrictions on gun carrying and gun ownership.²⁰ More recent survey data, however, suggest that approximately half of Americans (56% or 49% depending on the survey) view concealed carrying of firearms as making the United States safer (assuming those carrying have passed a criminal background check and

ABOUT THE AUTHORS

Julia A. Wolfson is with the Department of Health Management and Policy, University of Michigan School of Public Health, Ann Arbor. Stephen P. Teret is with the Department of Health Policy and Management, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD. Matthew Miller and Deborah Azrael are with the Harvard Injury Control Research Center, Harvard T. H. Chan School of Public Health, Boston, MA. Matthew Miller is also with Bowdoin School of Health Sciences, Northeastern University, Boston.

Correspondence should be sent to Julia A. Wolfson, Department of Health Management and Policy, University of Michigan School of Public Health, Washington Heights Ave, Ann Arbor, MI 48109 (e-mail: jwolfson@umich.edu). Reprints can be ordered at <http://www.ajph.org> by clicking the “Reprints” link.

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taken a training course).¹⁰ A majority of college students, on the other hand, do not view guns on campus as a benefit to their safety.^{21–23}

Despite significant changes in gun-carrying policy, little is known about contemporary public views about the specific places where, if gun carrying is allowed, it should be permissible. State laws often specify the public places where guns are (or are not) allowed to be carried, yet contemporary public opinion about carrying guns in specific locations is unknown. Furthermore, recent mass shootings in public places may have shifted the public's perceptions of risk in some types of places over others, which may, in turn, influence opinion about the risks or benefits of having more people legally carrying guns in those places. The current survey fills this research gap by assessing public opinion in 2015 about where carrying firearms should be permitted. To do so, we fielded an online survey among a nationally representative sample of US adults to examine views about specific public places where guns should be allowed to be legally carried.

METHODS

We designed a Web-based survey to measure, among other items, gun ownership, experiences with guns, and public opinion about guns, described in detail elsewhere.²⁴ We fielded the survey in April 2015, using the survey research firm GfK. The sample for this study was drawn from GfK's KnowledgePanel, an online panel of approximately 50 000 US adults.²⁵ Panel members are recruited through equal probability, address-based sampling from a sampling frame covering 97% of US households (including households with unlisted telephone numbers or without landlines).²⁵ This panel has been used extensively for survey research to generate nationally representative estimates of attitudes and behaviors for numerous public health topics.^{26–31} Panel members who are selected for inclusion in a study are contacted with an invitation to participate. Selection is at random, either overall or within subpopulations of interest. Study-specific survey weights are then used to provide nationally representative (based on comparisons to the Current Population Survey) respondent samples.²⁵ Samples drawn from the

KnowledgePanel have been shown to be demographically similar to samples generated via random-digit dialing.³² Participation in all surveys is voluntary, and no significant difference has been found between frequent and less-frequent survey respondents.³³

The survey used for the current study oversampled veterans and adults living in homes with guns to explore questions related to gun-ownership patterns and practices among veterans. The motivation for the veteran-related questions was to learn more about the object used in 70% of all veteran suicides (these results will be reported elsewhere). Respondents to the survey were first asked about their military service history. Next, respondents were presented with a preamble that stated:

The next questions are about working firearms. Throughout this survey we use the word **gun** to refer to any firearm, including pistols, revolvers, shotguns, and rifles, but not including air guns, bb guns, starter pistols, or paintball guns. By “working guns,” we mean guns that are in working order—that is capable of being fired.

Immediately following this preamble, respondents were asked, “Do you or does anyone else you live with currently own any type of gun?” Those who responded affirmatively were asked a second question: “Do you personally own a gun?” Questions pertaining to household firearms (number, type, etc.) were asked only of those respondents who reported that they personally owned a gun. All other questions on the survey were asked of the entire sample, including opinion questions. We invited 7319 English-speaking KnowledgePanel members to participate in our survey and 3997 responded. The survey completion rate³⁴ of 55% is comparable to that of other surveys administered by GfK. We excluded 48 respondents who were active duty military and therefore did not meet inclusion criteria, resulting in a final sample size of 3949.

Measures

Gun ownership status. Respondents indicated whether they owned a gun, whether they did not personally own a gun but lived in a household in which someone else owned a gun, or whether no one in their household owned a gun. Respondents were then placed

into 3 mutually exclusive categories: (1) gun owner living in a gun household, (2) non-gun owner living in a gun household, or (3) non-gun owner in a nongun household.

Gun carrying. We asked the full sample about their opinion on public places they believe people should, or should not, be allowed to carry guns. Specifically, we asked, “Many people are authorized to carry firearms, either openly or concealed on their person. Other than police officers, do you think that people who are authorized to carry firearms in your community should be allowed to bring their guns into. . .?”:

1. restaurants,
2. schools,
3. college campuses,
4. bars,
5. government buildings,
6. sports stadiums,
7. retail stores,
8. service settings (hair salons, barbershops, etc.),
9. places of worship (churches, synagogues, mosques, etc.).

Respondents viewed locations in randomized order, and response categories were “yes,” “no,” or “no opinion/don't know.”

We created binary measures of whether respondents thought that people should be able to carry guns in all or none of these locations. We also created a categorical variable indicating whether respondents thought people should be able to carry guns in all, some (≥ 1 but < 9 locations), or none of the locations asked about. For this categorical variable, we coded 47 respondents who did not answer at least 1 of the questions about places where people should be allowed to carry guns as missing.

State gun laws. We classified each state into 1 of 4 mutually exclusive categories: (1) “may issue,” (2) limited discretion “shall issue,” (3) no discretion “shall issue,” and (4) no carry concealed weapons in public permit required, based on the Law Center to Prevent Gun Violence's classification of concealed weapons permitting laws.⁷ We compared the Law Center to Prevent Gun Violence's classification of state laws with the National Rifle Association's classification of right-to-carry laws⁸ and found they were highly consistent ($\alpha = 0.83$).

Demographic measures. Demographic measures included veteran status, whether the respondent holds a permit to carry concealed weapons in public, gender, age (18–29, 30–44, 45–59, or ≥ 60 years), race/ethnicity (non-Hispanic White, non-Hispanic Black, Hispanic, or other), whether the household has children younger than 18 years, education (< high school, high-school degree, some college, or ≥ bachelor’s degree), household income (< \$30 000, \$30 000–\$74 999, \$75 000–\$124 999, or ≥ \$125 000), political ideology (liberal, moderate, or conservative), and the 9 US census regions of residence (New England, Mid-Atlantic, East-North Central, West-North Central, South Atlantic, East-South Central, West-South Central, Mountain, and Pacific).

Analysis

We conducted all analyses with Stata version 13 (StataCorp LP, College Station, TX). We weighted all analyses by using survey weights provided by GfK to produce nationally representative estimates. First we described the unadjusted, full distribution of responses to the set of questions about where people should be permitted to carry guns. Next, we examined responses to these questions stratified by gun ownership status. We then used cross-tabulations and the SUBPOP command to describe differences based on region of residence, state gun laws, and characteristics of respondents who thought people should be able to carry guns in all, some, or none of the locations asked about, stratified by gun ownership status.

We also conducted supplemental multivariate logistic regression analyses examining the association between gun ownership status and views that guns should be allowed to be carried in all, some, or none of the locations asked about adjusted for gender, age, education, political ideology, and state gun laws. We assessed significance at $P < .05$.

RESULTS

The number of respondents in the study sample and their weighted distribution are presented in Table 1. Figure 1 indicates that a majority of Americans thought people should not be able to carry guns in each of the

TABLE 1—Characteristics of the Study Sample: US 2015 National Firearms Survey

Characteristic	No.	Weighted % (95% CI)
Total	3949	100
Gun ownership status		
Gun owner	2072	22.3 (20.7, 24.0)
Non-gun owner, guns in household	861	12.1 (11.1, 13.4)
Non-gun owner, nongun household	1016	65.5 (63.2, 67.8)
Holds CCW permit	617	7.1 (6.4, 7.9)
Veteran	1044	9.7 (8.9, 10.6)
Political ideology		
Liberal	627	20.6 (18.1, 23.4)
Moderate	1699	47.2 (44.1, 50.4)
Conservative	1553	32.1 (29.4, 35.1)
Gender		
Male	2294	48.3 (48.5, 54.8)
Female	1655	51.7 (48.5, 54.8)
Age, y		
18–29	363	19.1 (16.5, 22.0)
30–44	688	23.5 (20.8, 26.4)
45–59	1180	28.2 (25.5, 31.0)
≥ 60	1718	29.2 (26.7, 31.9)
Race/ethnicity		
Non-Hispanic White	3296	70.5 (67.2, 73.5)
Non-Hispanic Black	218	10.9 (8.9, 13.4)
Hispanic	231	11.7 (9.6, 14.2)
Other	204	6.9 (5.3, 9.0)
Children aged < 18 years in the household	394	29.8 (26.9, 32.9)
Education		
< high school	241	10.5 (8.5, 13.0)
High school	1106	29.5 (26.7, 32.4)
Some college	1224	28.6 (25.9, 31.5)
≥ bachelor’s degree	1378	31.4 (28.6, 34.3)
Household income, \$		
< 30 000	629	21.9 (19.2, 24.9)
30 000–74 999	1530	35.2 (32.2, 38.2)
75 000–124 999	1175	28.4 (25.7, 31.2)
≥ 125 000	615	14.6 (12.5, 16.8)
Region of residence		
New England	143	4.5 (3.3, 6.1)
Mid-Atlantic	430	13.8 (11.6, 16.3)
East-North Central	665	14.8 (12.7, 17.1)
West-North Central	383	7.6 (6.2, 9.2)
South Atlantic	784	19.5 (17.2, 22.1)
East-South Central	257	5.8 (4.5, 7.4)
West-South Central	443	11.5 (9.7, 13.7)
Mountain	321	7.2 (5.9, 8.9)
Pacific	523	15.2 (12.9, 17.7)

Continued

TABLE 1—Continued

Characteristic	No.	Weighted % (95% CI)
State CCW gun laws^a		
May issue	707	24.8 (22.0, 27.9)
Limited shall issue	1312	31.1 (28.3, 34.0)
Shall issue	1691	38.9 (36.0, 42.0)
No permit needed	239	5.1 (4.0, 6.6)
State gun ownership^b		
Low	842	28.4 (25.5, 31.5)
Average	2863	65.5 (62.4, 68.6)
High	244	6.1 (4.8, 7.8)

Note. CCW = concealed carry weapon; CI = confidence interval. Survey weights are based on the Current Population Survey and are provided by GfK.

^aState gun law classification based on the Law Center to Prevent Gun Violence characterization of state concealed carry laws and validated against gun law classifications by the National Rifle Association.^{7,8}

^bState-level household gun ownership was based on 2002–2004 Behavioral Risk Factor Surveillance System estimates.³⁵ State-level estimates were averaged and standardized. States with household gun ownership within 1 standard deviation of the mean were characterized as “average”; states with gun ownership ≥ 1 standard deviation below the mean were characterized as “low”; and states with gun ownership ≥ 1 standard deviation above the mean were characterized as “high.”

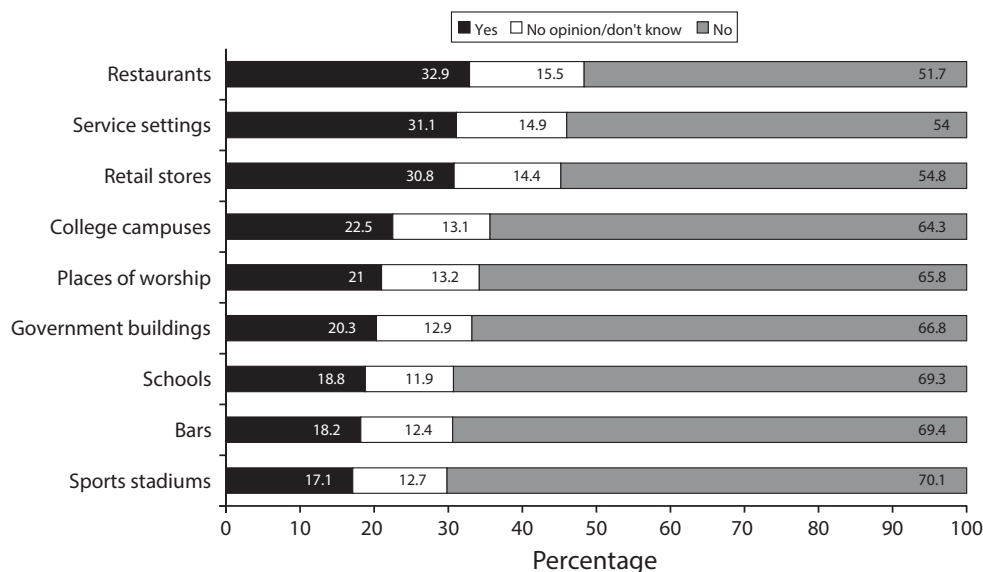
public places about which they were queried. Restaurants (33%; 95% confidence interval [CI] = 30.2, 35.7), service settings (31%; 95% CI = 28.5, 33.8), and retail stores (31%; 95% CI = 28.2, 33.5) were the only locations in which more than 30% of Americans thought people should be allowed to carry guns. Approximately 1 in 5 Americans thought that

guns should be allowed to be carried on college campuses (23%; 95% CI = 20.2, 25.0) and places of worship (21%; 95% CI = 18.8, 23.4). The lowest level of agreement for allowing guns to be carried in public was for schools (19%; 95% CI = 16.7, 21.1), bars (18%; 95% CI = 15.9, 20.6) and sports stadiums (17%; 95% CI = 15.0, 19.5).

American public opinion on places where guns should be allowed to be carried, stratified by gun ownership status, is shown in Figure 2. Among gun owners, support was greatest for allowing guns to be carried in restaurants (59%; 95% CI = 56.9, 61.9), intermediate for carrying on college campuses (38%; 95% CI = 35.8, 40.7), and lowest for carrying in bars (26%; 95% CI = 23.4, 27.8) and sports stadiums (27%; 95% CI = 25.2, 29.8).

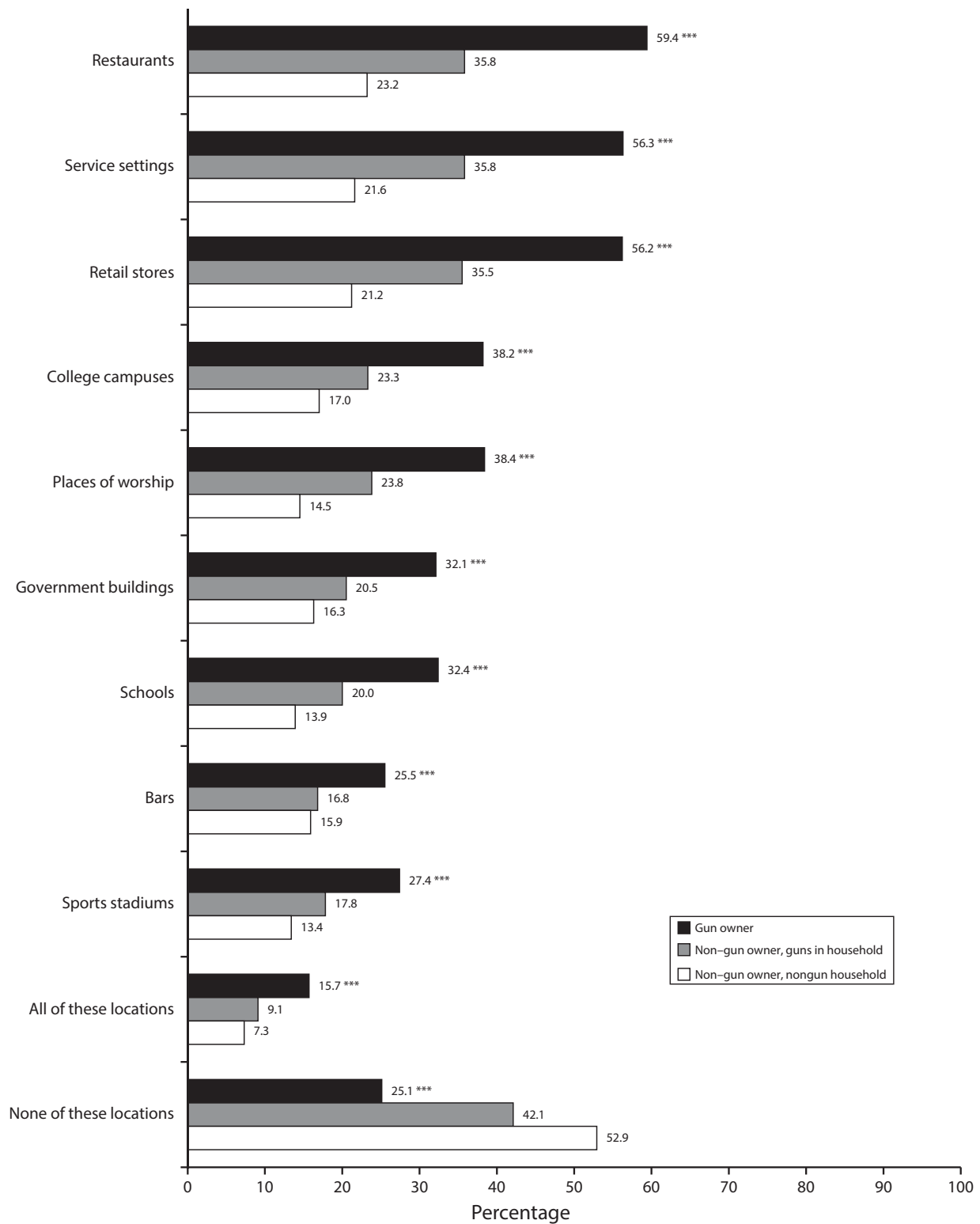
In all instances, compared with gun owners, fewer non-gun owners (regardless of whether they lived in households with or without guns) supported allowing people authorized to carry firearms to bring guns into public places. Support for carrying guns in each place was higher among non-gun owners living in households with guns than among non-gun owners in nongun households.

Regardless of gun ownership status, very few Americans supported allowing people to carry guns in all public places (16% [95% CI = 13.9, 17.6] of gun owners; 9% [95% CI = 6.4, 12.7] of non-gun owners in households with guns; and 7% [95% CI = 5.2, 10.2] of non-gun owners in nongun households). Approximately half (53%; 95% CI = 48.3, 57.6) of non-gun owners in households without guns felt that guns should not be allowed to be carried in any public



Note. Question text: “Other than police officers, do you think that people who are authorized to carry firearms in your community should be allowed to bring their guns to [the above listed locations].” Analysis based on weighted cross-tabulations using GfK-provided survey weights to produce nationally representative estimates. The sample size was n = 3949.

FIGURE 1—Public Opinion on Where People Authorized to Carry Firearms Should Be Allowed to Bring Guns: US 2015 National Firearms Survey



Note. Question text: "Other than police officers, do you think that people who are authorized to carry firearms in your community should be allowed to bring their guns to [the above listed locations]." Results based on weighted cross-tabulations incorporating GfK-provided survey weights. Significance was assessed with χ^2 statistics. The sample size was $n = 3949$. * $P < .05$; ** $P < .01$; *** $P < .001$.

FIGURE 2—Public Agreement on Where People Authorized to Carry Firearms Should Be Allowed to Bring Guns by Gun Ownership Status: US 2015 National Firearms Survey

places, an opinion expressed by 2 out of 5 non-gun owners in households with guns (42%; 95% CI = 37.6, 46.6) and 1 in 4 gun owners (25%; 95% CI = 23.0, 27.3).

Table 2 shows the characteristics of gun owners and non-gun owners in households with and without guns stratified by their opinions on whether guns should be allowed to be carried in some, all, or no public places. Male gun owners were more likely to support allowing guns to be carried in all locations, compared with female gun owners ($P = .03$). Regardless of gun ownership status, self-identification as a political “liberal” was associated with less support for carrying guns in some or all public places, whereas the inverse was true for identification as a political “conservative” ($P < .001$).

Opinions among gun owners and non-gun owners in gun households about whether people should be allowed to carry guns in none, some, or all locations did not differ on the basis of US Census region or the strength or type of gun laws in their states. Among non-gun owners in nongun households, opinions also did not vary across US Census regions, but respondents were more likely to oppose guns being carried in any of the public places we asked about if they lived in states with “may issue” versus “shall issue” laws (63% [95% CI = 54.3, 71.3] vs 44% [95% CI = 36.6, 51.7]). Results based on multivariate regression analyses, which were highly consistent with the descriptive results, are available in Table A (available as a supplement to the online version of this article at <http://www.ajph.org>).

DISCUSSION

In this large, nationally representative survey, we examined Americans’ opinions on public places where people authorized to carry firearms should be allowed to bring guns. We find that a majority of Americans do not support allowing members of the public, even those legally authorized to carry firearms, to bring their guns into public places. Although liberals and non-gun owners were more likely to support limiting the public places legal gun owners can bring guns, 4 out of 5 (78%) conservative gun owners also supported placing some restrictions on the public places guns can be carried. Two thirds

TABLE 2—Characteristics Based on Opinion Regarding Where Guns Should Be Allowed to Be Carried and Gun Ownership Status: US 2015 National Firearms Survey

Characteristic	No Locations	Some Locations	All Locations	P
Gun owners				
No. (%)	543 (25.1)	1193 (59.2)	314 (15.7)	< .001
Political ideology, % (95% CI)				< .001
Liberal	42.7 (36.1, 49.6)	51.6 (44.7, 58.5)	5.7 (3.2, 10.0)	
Moderate	29.0 (25.6, 32.7)	59.4 (55.5, 63.2)	11.6 (9.3, 14.4)	
Conservative	16.0 (13.4, 19.1)	62.1 (58.4, 65.8)	21.8 (18.8, 25.1)	
Gender, % (95% CI)				.03
Male	24.0 (21.7, 26.6)	58.8 (55.9, 61.6)	17.2 (15.0, 19.5)	
Female	27.8 (23.6, 32.5)	60.3 (55.4, 65.1)	11.8 (9.0, 15.4)	
Age, y, mean ±SD	57.6 ±0.8	51.2 ±0.6	46.7 ±1.0	
Education, % (95% CI)				.12
< high school	34.3 (25.1, 45.0)	55.5 (44.8, 65.7)	10.2 (5.2, 18.9)	
High school	24.7 (20.7, 29.1)	60.1 (55.3, 64.8)	15.2 (12.0, 19.0)	
Some college	22.4 (19.0, 26.1)	62.3 (58.1, 66.4)	15.3 (12.4, 18.7)	
≥ bachelor’s degree	26.9 (23.3, 30.8)	55.4 (51.1, 59.6)	17.7 (14.6, 21.4)	
Region of residence, % (95% CI)				.26
New England	13.4 (7.0, 24.3)	68.5 (54.3, 80.0)	18.0 (9.2, 32.3)	
Mid-Atlantic	23.7 (17.7, 31.0)	59.4 (51.4, 66.8)	17.0 (11.8, 23.8)	
East-North Central	24.4 (19.7, 29.8)	57.5 (51.3, 63.4)	17.6 (12.1, 25.0)	
West-North Central	26.7 (20.6, 33.9)	55.6 (47.6, 63.4)	17.6 (12.1, 25.0)	
South Atlantic	30.0 (25.0, 35.4)	57.2 (51.6, 62.7)	12.8 (9.5, 17.1)	
East-South Central	23.1 (16.7, 31.0)	61.8 (53.1, 69.9)	15.1 (10.0, 22.1)	
West-South Central	21.8 (16.4, 28.3)	65.8 (58.4, 72.5)	12.4 (8.2, 18.4)	
Mountain	21.5 (15.3, 29.3)	53.9 (55.2, 71.7)	14.6 (9.4, 22.0)	
Pacific	28.4 (22.1, 35.5)	52.4 (45.2, 59.6)	19.2 (14.2, 25.4)	
State CCW gun laws, ^a % (95% CI)				.28
May issue	29.0 (23.3, 35.5)	57.1 (50.5, 63.4)	13.9 (10.1, 18.8)	
Limited shall issue	24.4 (21.0, 28.1)	57.5 (53.2, 61.7)	18.1 (15.0, 21.8)	
Shall Issue	23.9 (20.9, 27.2)	61.2 (57.4, 64.8)	14.9 (12.4, 17.9)	
No permit needed	29.0 (20.6, 39.2)	60.0 (49.8, 69.3)	11.0 (6.4, 18.4)	
Non-gun owners, gun household				
No. (%)	387 (42.1)	402 (48.9)	62 (9.1)	
Political ideology, % (95% CI)				< .001
Liberal	57.8 (46.4, 68.5)	34.0 (24.3, 45.1)	8.2 (3.1, 20.4)	
Moderate	46.1 (39.5, 53.0)	49.4 (42.6, 56.2)	4.5 (2.3, 8.5)	
Conservative	27.8 (21.8, 34.6)	57.9 (50.2, 65.2)	14.4 (9.4, 21.4)	
Gender, % (95% CI)				.27
Male	41.1 (29.1, 54.2)	54.5 (41.6, 66.7)	4.5 (1.8, 10.6)	
Female	42.2 (37.5, 47.1)	47.8 (42.9, 52.8)	9.9 (6.9, 14.1)	
Age, y, mean ±SD	48.1 ±1.4	44.6 ±1.3	42.2 ±3.2	
Education, % (95% CI)				.47
< high school	52.3 (34.0, 70.1)	46.7 (29.1, 65.2)	1.0 (0.1, 6.7)	
High school	39.6 (31.7, 48.2)	48.9 (40.3, 57.7)	11.4 (6.6, 19.1)	
Some college	43.5 (36.0, 51.2)	47.3 (39.6, 6.6)	9.3 (4.8, 17.7)	
≥ bachelor’s degree	39.3 (32.4, 46.7)	51.4 (43.7, 59.1)	9.3 (5.1, 16.3)	

Continued

TABLE 2—Continued

Characteristic	No Locations	Some Locations	All Locations	<i>p</i>
Region of residence, % (95% CI)				.22
New England	55.3 (34.3, 74.5)	41.2 (22.9, 62.3)	3.5 (0.8, 14.0)	
Mid-Atlantic	41.5 (29.5, 54.6)	51.4 (38.2, 64.4)	7.1 (2.0, 22.6)	
East-North Central	41.7 (31.3, 52.8)	47.4 (36.6, 58.4)	10.9 (4.6, 23.8)	
West-North Central	47.3 (35.3, 59.5)	49.6 (37.4, 61.9)	3.1 (1.3, 7.1)	
South Atlantic	44.3 (34.3, 54.8)	42.3 (32.3, 52.9)	13.4 (7.4, 23.2)	
East-South Central	40.7 (26.0, 57.4)	43.3 (28.2, 59.6)	16.0 (6.2, 35.5)	
West-South Central	26.7 (15.1, 42.5)	58.6 (42.1, 73.4)	14.7 (5.5, 33.8)	
Mountain	49.8 (35.3, 64.3)	44.4 (30.5, 59.2)	2.7 (1.0, 7.5)	
Pacific	41.3 (29.7, 54.0)	55.9 (43.3, 67.8)	2.7 (1.0, 7.5)	
State CCW gun laws, ^a % (95% CI)				.97
May issue	45.4 (34.4, 56.9)	46.4 (35.1, 58.1)	8.2 (3.1, 19.9)	
Limited shall issue	41.2 (34.0, 48.9)	48.3 (40.7, 56.0)	10.5 (6.3, 16.9)	
Shall issue	41.6 (34.9, 48.7)	50.3 (43.2, 57.3)	8.1 (4.5, 16.9)	
No permit needed	39.3 (25.3, 55.2)	50.7 (34.6, 66.7)	10.0 (3.5, 25.6)	
Non-gun owners, nongun household				
No. (%)	524 (52.9)	403 (39.7)	74 (7.3)	
Political ideology, % (95% CI)				<.001
Liberal	70.2 (60.4, 78.3)	26.8 (19.0, 36.3)	3.1 (1.0, 9.4)	
Moderate	54.9 (48.1, 61.6)	40.0 (33.5, 46.8)	5.1 (2.8, 9.2)	
Conservative	36.8 (28.7, 45.7)	48.0 (39.1, 57.0)	15.2 (9.8, 22.8)	
Gender, % (95% CI)				.89
Male	52.7 (46.1, 59.3)	39.3 (33.0, 46.0)	7.9 (5.0, 12.4)	
Female	53.1 (46.5, 59.6)	40.1 (33.9, 46.7)	6.8 (4.1, 11.0)	
Age, y, mean ±SD	51.4 ±1.1	44.1 ±1.3	46.0 ±3.1	
Education, % (95% CI)				.03
< high school	52.5 (38.1, 66.5)	47.1 (33.2, 61.6)	0.3 (0.1, 1.2)	
High school	46.4 (37.9, 55.2)	44.6 (36.1, 53.4)	9.0 (5.0, 15.6)	
Some college	50.0 (40.8, 59.2)	39.4 (30.8, 48.7)	10.7 (6.0, 18.3)	
≥ bachelor's degree	61.2 (53.4, 68.4)	33.1 (26.2, 40.8)	5.7 (3.2, 10.2)	
Region of residence, % (95% CI)				.47
New England	58.8 (39.0, 76.2)	31.8 (16.4, 52.6)	9.3 (2.8, 27.0)	
Mid-Atlantic	65.6 (52.8, 76.4)	29.9 (19.7, 42.6)	4.5 (1.4, 13.6)	
East-North Central	44.8 (33.6, 56.4)	51.1 (39.5, 62.5)	4.2 (1.9, 8.9)	
West-North Central	48.8 (32.7, 65.1)	40.8 (25.4, 58.2)	10.5 (3.8, 26.0)	
South Atlantic	57.2 (46.4, 67.3)	34.2 (25.0, 44.8)	8.6 (3.9, 17.9)	
East-South Central	40.5 (21.9, 62.2)	51.1 (30.2, 71.6)	8.5 (1.7, 32.6)	
West-South Central	50.9 (36.9, 64.8)	37.0 (24.6, 51.3)	7.9 (2.1, 25.9)	
Mountain	41.2 (25.9, 58.4)	50.9 (34.4, 67.2)	7.9 (2.1, 25.9)	
Pacific	53.7 (41.8, 65.2)	41.0 (29.9, 53.1)	5.3 (2.0, 13.4)	
State CCW gun laws, ^a % (95% CI)				.09
May issue	63.2 (54.3, 71.3)	30.3 (22.8, 39.0)	6.5 (3.3, 12.4)	
Limited shall issue	54.0 (45.4, 62.3)	38.5 (30.5, 47.2)	7.5 (4.1, 13.5)	
Shall issue	44.0 (36.6, 51.7)	48.2 (40.6, 55.9)	7.8 (4.5, 13.2)	
No permit needed	52.7 (33.4, 71.2)	40.3 (23.0, 60.5)	7.0 (1.4, 27.8)	

Note. CCW = concealed carry weapon; CI = confidence interval. Forty-seven people did not respond to at least 1 of the questions about where guns should be carried. Analysis based on weighted cross-tabulations incorporating GfK-provided survey weights. Significance was assessed by using χ^2 statistics. The sample size was $n = 3902$.

^aState gun law classification based on the Law Center to Prevent Gun Violence characterization of state concealed carry laws and validated against gun law classifications by the National Rifle Association.^{7,8}

of American adults do not support allowing guns to be carried on college campuses, or in places of worship, government buildings, schools, bars, or sports stadiums. Less than 40% of gun owners support carrying guns on college campuses, places of worship, and government buildings. Regardless of gun ownership status, public support for allowing guns to be carried in schools, bars, and sports stadiums is particularly low.

Our results are consistent with recent findings indicating that the views of non-gun owners living in households with guns are more aligned with those of non-gun owners living in nongun households than with the views of gun owners.²⁷ Our finding of low support for allowing guns to be carried in public places is also consistent with findings from the 1990s and early 2000s that Americans do not favor allowing civilians to carry guns in public.¹⁷ The fact that a minority of Americans support allowing guns on college campuses and in schools also accords with previous findings^{21–23,36} and contrasts with current legislative efforts to allow gun carrying in these areas.^{9,37}

The American public, including gun owners, overwhelmingly prefers to prohibit gun carrying in places where alcohol is served and tensions can sometimes run high, such as bars and sports stadiums. Alcohol consumption is a risk factor for gun violence,^{38,39} and allowing firearms to be carried, either openly or concealed, in these settings could increase the risk of unintentional shootings or the likelihood that confrontations would escalate and result in firearm injuries or deaths. These risks have been identified as one potential problem with expanding the presence of guns on college campuses where evidence suggests that college students who own guns are more likely to engage in risky behavior such as binge drinking.⁴⁰

Approximately 12% to 15% of Americans responded that they had “no opinion” about (or “don’t know”) whether guns should be allowed to be carried in each of the locations we asked about. Although we do not know more about their opinion related to gun carrying, we do know that, as a group, these Americans reported being politically moderate (not shown). Moreover, even if all of those who reported that they “don’t know” or have “no opinion” were to change their views to “yes,” carrying should be allowed,

a majority of Americans would still oppose allowing guns to be carried in each of the locations included in this survey. This is particularly relevant in light of current federal proposals to impose “reciprocity” of concealed carry permits across state lines.⁴¹

A public health approach to reducing deaths and injuries from gun violence includes changing social norms around guns and implementing policies and systems that reduce the likelihood that firearm injuries can occur.^{42,43} Increasing the locations where guns are legally allowed to be carried, particularly in schools, college campuses, and in locations where alcohol is served and conflicts prone to arise (e.g., sports stadiums), likely increases the risk of firearm injuries.⁴⁴ Despite the highly politicized nature of guns in the United States,⁴⁵ our results indicate strong support among American adults and gun owners, and across political affiliations and regions of the country for limiting gun carrying in most public spaces. Our results also suggest that recent poll estimates indicating growing support for carrying concealed weapons¹⁰ may mask differences in opinion by gun ownership status and with respect to the places where guns should be carried.

Limitations

Our study should be considered in light of some limitations. First, Web-based surveys, particularly those that do not sample from pre-existing panels (“opt-in” surveys), have been criticized for incomplete coverage and selection.⁴⁶ However, GfK’s sampling methodology (including use of its nationally representative KnowledgePanel) and the fact that they provide Internet access to those who do not have it substantially mitigates this concern.⁴⁷

Second, selection bias could be a concern as respondents could choose to participate in the survey and their views may differ from KnowledgePanel members who chose not to participate. The fact that our gun ownership estimates align closely with estimates from the General Social Survey for the same time period provides reassurance with respect to both of these potential limitations.

Third, all data were self-reported and are therefore subject to self-report bias, recall bias, or social desirability bias. The fact that the

survey was conducted online and all responses were anonymous may reduce any such bias.⁴⁸

Fourth, to generate representative estimates at the national and US Census Region level, we used survey weights to account for our sampling strategy, but were unable to explore public views at smaller levels of geographic aggregation. Confidence intervals around our estimates reflect the underlying number of respondents.

Finally, response categories for our measures of public views about where people should be allowed to carry firearms were “yes,” “no,” or “no opinion/don’t know” and, therefore, did not allow us to examine the strength of public opinion either for or against and could have masked additional variation in public views.

Conclusions

At least two thirds of Americans feel that guns should not be allowed to be carried on college campuses, in places of worship, government buildings, schools, bars, or sports stadiums. These views contrast sharply with the current trend in state legislatures of expanding where, how, and by whom guns can be carried in public. In particular, our findings suggest that recent laws passed in Texas, Utah, and elsewhere allowing guns to be carried on college campuses and proposed federal legislation that would require states to honor out-of-state concealed carry permits are out of step with American public opinion. *AJPH*

CONTRIBUTORS

M. Miller and D. Azrael conceptualized the survey. J. A. Wolfson analyzed the data and wrote the first draft of the article. All of the authors contributed to the interpretation of the findings, revised the article, and approved the final article as submitted.

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HUMAN PARTICIPANT PROTECTION

This study was approved by the Northeastern University institutional review board.

REFERENCES

1. Singh GK, Azuine RE, Siahpush M, Kogan MD. All-cause and cause-specific mortality among US youth: socioeconomic and rural–urban disparities and international patterns. *J Urban Health*. 2013;90(3):388–405.
2. Centers for Disease Control and Prevention. Firearm homicides and suicides in major metropolitan

areas—United States, 2006–2007 and 2009–2010. *MMWR Morb Mortal Wkly Rep*. 2013;62(30):597–602.

3. Centers for Disease Control and Prevention, National Center for Health Statistics. Compressed Mortality File 1999–2015, Series 20, No. 2U, 2016, CDC WONDER Online Database. 2015. Available at: <http://wonder.cdc.gov/cmfi-icd10.html>. Accessed January 20, 2017.

4. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-Based Injury Statistics Query and Reporting System (WISQARS). Available at: <http://www.cdc.gov/injury/wisqars/index.html>. Accessed October 26, 2015.

5. Richardson EG, Hemenway D. Homicide, suicide, and unintentional firearm fatality: comparing the United States with other high-income countries, 2003. *J Trauma*. 2011;70(1):238–243.

6. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Ten leading causes of death and injury. 2016. Available at: <https://www.cdc.gov/injury/wisqars/leadingcauses.html>. Accessed January 25, 2017.

7. Law Center to Prevent Gun Violence. Gun law database. 2016. Available at: <http://smartgunlaws.org/search-gun-law-by-gun-policy>. Accessed October 19, 2016.

8. National Rifle Association, Institute for Legislative Action. State gun laws. 2016. Available at: <http://smartgunlaws.org/gun-laws/policy-areas/firearms-in-public-places/concealed-weapons-permitting>. Accessed November 20, 2016.

9. National Conference of State Legislatures. Guns on campus: overview. 2016. Available at: <http://www.ncsl.org/research/education/guns-on-campus-overview.aspx>. Accessed October 19, 2016.

10. Ingraham C. Most Americans are wrong about whether concealed carry makes us safer. October 23, 2015. Available at: <https://www.washingtonpost.com/news/wonk/wp/2015/10/23/most-americans-are-wrong-about-whether-concealed-carry-makes-us-safer>. Accessed November 9, 2016.

11. Branas CC, Richmond TS, Culhane DP, Ten Have TR, Wiebe DJ. Investigating the link between gun possession and gun assault. *Am J Public Health*. 2009;99(11):2034–2040.

12. Donohue J. *More Guns, Less Crime Fails Again: The Latest Evidence From 1977–2006*. New Haven, CT: Yale Law School; 2009.

13. Hemenway D, Hicks JG. “May issue” gun carrying laws and police discretion: some evidence from Massachusetts. *J Public Health Policy*. 2015;36(3):324–334.

14. Romero M, Wintemute G, Wright M, Parham C. Shall-issue policy and criminal activity among applicants for permits to carry concealed firearms. *Inj Prev*. 2003;9(4):367–369.

15. Phillips CD, Nwaiwu O, McMaughan Moudouni DK, Edwards R, Lin SH. When concealed handgun licensees break bad: criminal convictions of concealed handgun licensees in Texas, 2001–2009. *Am J Public Health*. 2013;103(1):86–91.

16. Wellford CF, Pepper JV, Petrie CV. *Firearms and Violence: A Critical Review*. Washington, DC: National Academies Press; 2004.

17. Hemenway D, Azrael D, Miller M. National attitudes concerning gun carrying in the United States. *Inj Prev*. 2001;7(4):282–285.

18. Smith TW. Public opinion about gun policies. *Future Child*. 2002;12(2):154–163.

19. Miller M, Azrael D, Hemenway D. Community firearms, community fear. *Epidemiology*. 2000;11(6):709–714.
20. Teret SP, Webster DW, Vernick JS, et al. Support for two policies to regulate firearms—results of two national surveys. *N Engl J Med*. 1998;339(12):813–818.
21. Cavanaugh MR, Bouffard JA, Wells W, Nobles MR. Student attitudes toward concealed handguns on campus at 2 universities. *Am J Public Health*. 2012;102(12):2245–2247.
22. Thompson A, Price JH, Dake JA, et al. Student perceptions and practices regarding carrying concealed handguns on university campuses. *J Am Coll Health*. 2013;61(5):243–253.
23. Miller M, Hemenway D, Wechsler H. Guns at college. *J Am Coll Health*. 1999;48(1):7–12.
24. Miller M, Hepburn L, Azrael D. Firearm acquisition without background checks: results of a national survey. *Ann Intern Med*. 2017;166(4):233–239.
25. GfK. KnowledgePanel Design Summary. 2013. Available at: [http://www.knowledgenetworks.com/knpanel/docs/KnowledgePanel\(R\)-Design-Summary-Description.pdf](http://www.knowledgenetworks.com/knpanel/docs/KnowledgePanel(R)-Design-Summary-Description.pdf). Accessed January 15, 2017.
26. Baker L, Wagner TH, Singer S, Bundorf MK. Use of the Internet and e-mail for health care information: results from a national survey. *JAMA*. 2003;289(18):2400–2406.
27. Barry CL, McGinty EE, Vernick JS, Webster DW. After Newtown—public opinion on gun policy and mental illness. *N Engl J Med*. 2013;368(12):1077–1081.
28. Gollust SE, Niederdeppe J, Barry CL. Framing the consequences of childhood obesity to increase public support for obesity prevention policy. *Am J Public Health*. 2013;103(11):e96–e102.
29. Grande D, Mitra N, Shah A, Wan F, Asch DA. Public preferences about secondary uses of electronic health information. *JAMA Intern Med*. 2013;173(19):1798–1806.
30. Rothman EF, Edwards EM, Heeren T, Hingson RW. Adverse childhood experiences predict earlier age of drinking onset: results from a representative US sample of current or former drinkers. *Pediatrics*. 2008;122(2):e298–e304.
31. Bachhuber MA, McGinty EE, Kennedy-Hendricks A, Niederdeppe J, Barry CL. Messaging to increase public support for naloxone distribution policies in the United States: results from a randomized survey experiment. *PLoS One*. 2015;10(7):e0130050.
32. Yeager DS, Krosnick JA, Chang L, et al. Comparing the accuracy of RDD telephone surveys and Internet surveys conducted with probability and non-probability samples. *Public Opin Q*. 2011;75(4):709–747.
33. Dennis JM. Are Internet panels creating professional respondents? *Marketing Res*. 2001;13(2):34–38.
34. Callegaro M, DiSogra C. Computing response metrics for online panels. *Public Opin Q*. 2008;72(5):1008–1032.
35. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. Available at: <http://www.cdc.gov/brfss>. Accessed November 22, 2016.
36. Thompson A, Price JH, Dake J, Teeple K. Faculty perceptions and practices regarding carrying concealed handguns on university campuses. *J Community Health*. 2013;38(2):366–373.
37. Law Center to Prevent Gun Violence. Gun law trendwatch mid-year review 8.1.16. 2016. Available at: <http://smartgunlaws.org/wp-content/uploads/2016/08/Trendwatch-Mid-Year-2016-FINAL.pdf>. Accessed October 19, 2016.
38. Branas CC, Han S, Wiebe DJ. Alcohol use and firearm violence. *Epidemiol Rev*. 2016;38(1):32–45.
39. Wintemute GJ. Alcohol misuse, firearm violence perpetration, and public policy in the United States. *Prev Med*. 2015;79:15–21.
40. Miller M, Hemenway D, Wechsler H. Guns and gun threats at college. *J Am Coll Health*. 2002;51(2):57–65.
41. Friedman D. New bill would force states to allow visiting gun owners to pack heat without a permit. January 6, 2017. Available at: <https://www.thetrace.org/2017/01/new-bill-congress-states-concealed-constitutional-carry-reciprocity>. Accessed January 16, 2017.
42. Hemenway D. Preventing gun violence by changing social norms. *JAMA Intern Med*. 2013;173(13):1167–1168.
43. Hemenway D, Miller M. Public health approach to the prevention of gun violence. *N Engl J Med*. 2013;368(21):2033–2035.
44. Vernick JS. Carrying guns in public: legal and public health implications. *J Law Med Ethics*. 2013;41(suppl 1):84–87.
45. Horwitz J, Anderson C. Taking gun rights seriously: the insurrectionist idea and its consequences. *Albany Government Law Rev*. 2008;1:496.
46. Couper M. Review: Web surveys: a review of issues and approaches. *Public Opin Q*. 2000;64(4):464–494.
47. Chang L, Krosnick JA. National surveys via RDD telephone interviewing versus the Internet comparing sample representativeness and response quality. *Public Opin Q*. 2009;73(4):641–678.
48. Kreuter F, Presser S, Tourangeau R. Social desirability bias in CATI, IVR, and Web surveys the effects of mode and question sensitivity. *Public Opin Q*. 2008;72(5):847–865.

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