Do Americans Support or Oppose Gun Permits*

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This study explores public sentiment in the United States towards mandatory gun permits using data from the General Social Survey (GSS) conducted by the National Opinion Research Center (NORC) at the University of Chicago. The analysis focuses on how various demographics, including political affiliation, race, gender, and education level, influence opinions on gun control. The findings reveal a decrease in overall support for mandatory gun permits since 2002, with potential explanations including the 9/11 attacks and a growing cultural divide.

1 Introduction

This study explores public opinion in the United States regarding mandatory gun permits using data retrieved from the General Social Survey (GSS) conducted by the National Opinion Research Center (NORC) at the University of Chicago. The GSS is a reliable and nationally representative survey that collects data on various social and attitudinal topics, including gun control.

This analysis focuses on how sentiment towards mandatory gun permits has changed over time, with a particular emphasis on the period since 2002. We will examine how demographics such as political affiliation, race, gender, and education level influence these opinions.

2 Data

2.1 Dataset Context

The General Social Survey (GSS) is a cross-sectional survey aiming to capture insights from a representative sample of adults aged 18 or older residing in noninstitutional housing across the United States. The data used in this study was retrieved from the US General Social

^{*}Code and data are available at: https://github.com/sprintrace/gunpermits

Survey conducted by the National Opinion Research Center (NORC) at the University of Chicago. The GSS is a nationally representative survey that collects data on various social, demographic, and attitudinal topics. Data collected spans from 1970 to 2022.

2.1.1 Why use this instead of similar datasets?

This data set was used due to the reliability and high standards for quality and excellence set by the National Opinion Research Survey (NORC). Furthermore, using a General Social Survey eliminates an element of bias by having participants asked a wide range of questions reflecting various categories that are relevant. Additionally the GSS has adapted questions from earlier surveys, thereby allowing researchers to conduct comparisons for up to 80 years, meaning that there can be relevant data to inform American citizens' opinions with a high degree of accuracy regardless of if the year surveyed is 1970 or 2022.

2.2 Sampling Strategy

2.2.1 Recruitment and invitation

In the past, methods like quota sampling and age-based selection were used. Now, they use a system where adults in a household are chosen based on their order in the household, not their age. This new way of choosing people might affect the results because some age groups might be less comfortable with technology.

As of 2022 respondents were invited to participate through mailing materials containing a web link to the survey or through in-person interviews, with a phone option also available. The survey employed a combination of face-to-face interviews (53.7%) and web-based surveys (38.0%), supplemented by phone (3.0%) and multimode (5.3%) options. To incentivize participation, both non-contingent prepaid incentives and contingent post-paid incentives were offered.

In 2022 the final sample comprised 3,544 complete responses from 15,012 sample lines. An additional 601 completes were obtained from an oversample of Black, Hispanic, and Asian respondents from the NORC AmeriSpeak® Panel. The American Association for Public Opinion Research (AAPOR) RR3 response rate was 50.5%. Fielding took place between May 4, 2022, and December 20, 2022, with the majority of locations concluding fieldwork on December 12, 2022, and one location extending until January 8, 2023.

Administration of the survey involved a combination of mail push to web and in-person interviewing as primary modes, supplemented by phone interviews. Respondents were selected within households using the Kish method without age ordering. The survey was conducted in both English and Spanish languages to accommodate diverse respondents.

2.3 Survey design

The GSS contains a standard core of demographic, behavioural, and attitudinal questions, plus topics of special interest. Among the topics covered are civil liberties, crime and violence, intergroup tolerance, morality, national spending priorities, psychological well-being, social mobility, and stress and traumatic events(CITE).

The GSS is structured with five ways to answer a question, with a sixth way to do so with the "Do not Know/Cannot Choose" option being replaced with the "Skipped on Web" option for online survey responses. The exact wording may change depending on the year, but the general intention behind the choices remains consistent, as respondents are given the choice to reply with "Inapplicable", "No answer", "Do not Know", "Skipped on Web", "In Favour", or "Oppose".

Sampling was conducted using a full-probability approach, drawing samples from a modified United States Postal Service (USPS) metropolitan statistical area (MSA)/county frame area. This approach has been consistent since 2004, ensuring continuity and facilitating the examination of historical trends.

2.3.1 Changes in Data Collection Methodology

The way the GSS collected data changed significantly in 2021 and 2022. Previously, the GSS relied solely on in-person interviews. Now the GSS uses a mixed-mode approach, utilising face-to-face interviews, web-based surveys, and phone surveys. In 2022 a methodological experiment was conducted. This experiment was aimed at bridging data from 2018 and 2021 and to assess how the different data collection methods might influence the results. Half of the participants completed the survey in person, while the other half did so over the phone or using the internet.

Changes were also made in how participants are selected for the survey. In the past, methods like quota sampling and age-based selection were used. Currently, the GSS employs a system where adults within a household are chosen based on their order in the household, rather than their age. This new approach might introduce bias on account of targeting individuals who are potentially less computer literate.

2.3.2 Covid-19's impact on data collection in 2020 and 2021

Data for both 2020 and 2021 are combined into one data set as a response to limitations of accessing people during the 2019-2022 Covid-19 pandemic. This combining of 2020 and 2021 data is inconsistent with the surveying practices of NORC and the GSS, and as such must be noted as a potential source of inaccurate data. Additionally, of note is the change in how respondents interact with the survey online compared to in person. Prior to 2020 when respondents were not certain about a question, or refused to answer the question, the surveyor

would save their response as "Don't Know", "No Answer", "Do not Know" or "Cannot Choose". With the online survey users answered questions without interacting with a surveyor, and the response was changed to "Skipped on Web" to accommodate the change in format. These changes are unlikely to significantly impact the survey.

2.4 Measurement

Measurement of data was done by downloading data in excel files from the GSS website using the following link: https://gssdataexplorer.norc.org/trends?category=Civil%20Liberties&measure=gunlaw. After downloading the relevant excel files, data cleaning was conducted, shaving off a lot of unneeded rows using the slice function in the R programming language. Following this step, the tables were modified into a vertical format using a pivot longer approach and converted to CSV format for easy modification of the new variables. The data being looked at and graphed spans from 1972 to 2022.

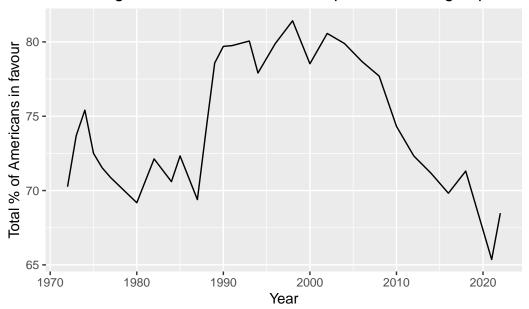
2.5 Selected Variables

I obtained data regarding the overall sentiment towards gun permits in the nation of the United States of America. Additionally, I obtained data for Americans in favour of gun permits on the basis of highest education, political affiliation, race, and gender. By choosing these categories, I intend to explore how different groups feel towards mandatory police backed gun permits. By looking at such a diverse set of variables, the aim is to explore if there are any direct patterns or consistent observations based on the different groups. Omitted variables from the original dataset include Subjective class identification, Condition of health, Hispanic specified, Marital status, and Citizenship status. These variables were omitted on account of them not having any immediately identifiable patterns.

3 Results

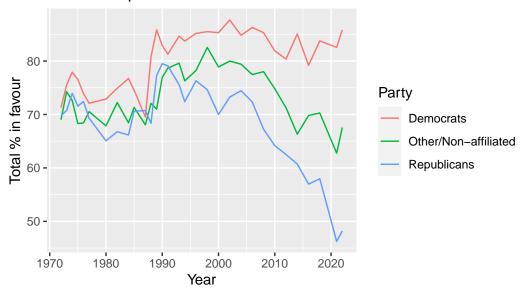
When looking at a general overview regarding sentiment towards mandatory gun permits for firearm owners in the United States, it's clear that in more recent years there has been less support for citizens having permits. Support for mandatory gun permits increased under the Reagan Republican administration. Support for mandatory gun permits started to decrease around the time of 2001/02. From 2002 onward sentiment toward mandatory gun permits has steadily decreased regardless of which party controlled the White House. Even during the Democratic party's Obama administration support for mandatory gun permits decreased.

Percentage of Americans in favour of police backed gun permits



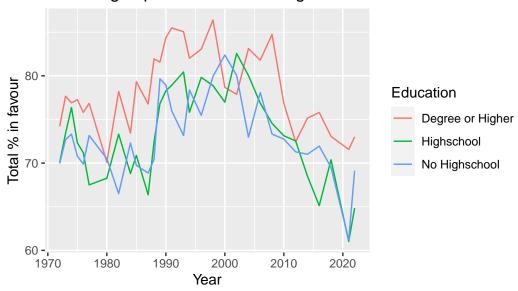
Looking at how sentiments differ between Republicans and Democrats is also noteworthy. The second term of the George W. Bush Administration in 2004 Is notable as the starting point for when sentiments towards mandatory gun permit ownership became more polarizing. While the views of voting Democrats remain pretty consistent, the views of Republicans start to differ going forward into the following administrations from where they were under the previous Clinton administration. Before the George W Bush administration, sentiments differed, but were similar between both Republican- and Democrat-voting Americans.

Americans in favour of police backed gun permits based on political affiliation



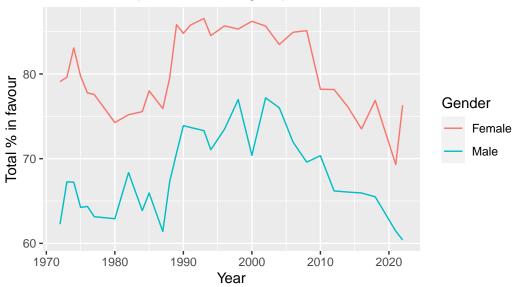
Additionally worth note is how sentiments towards gun permits change depending on Americans' level of Education. Those with a college degree or higher overall have greater support towards gun owners having a permit, followed by Americans without high school diplomas. The lowest support for gun owners requiring permits comes from Americans that have a high school diploma and no college degree.

Percentage of Americans in favour of police backed gun permits based on higest level of education



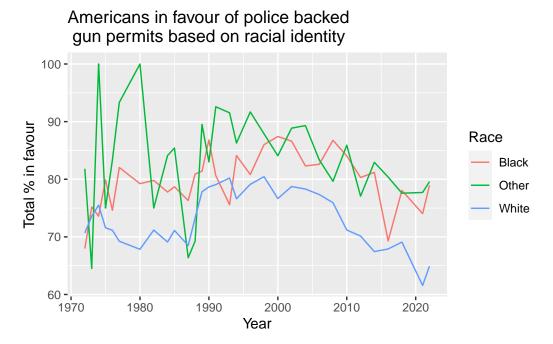
We can also observe a large difference between male and female opinions on gun permits, where there is a consistent 15-20% difference towards mandatory enforcement of gun permits.

Percentage of American Women vs Men in favour of police backed gun permits



Race also appears to interact with gun ownership sentiments. Almost consistently, white

people are less in favour of police backed mandatory gun permits. However, the omission of other racial groups in favour of one group called "other" makes it difficult to get a sense for the true opinions of America based on race. By combining many groups into one, we can observe a very volatile line on the graph that jumps between extremes multiple times before 1989. This data collection choice makes interpretation and comprehension difficult.



4 Discussion

4.1 First discussion point

When looking at the graphs one very interesting thing that is immediately evident is the fact that The total sentiment towards mandatory gun permits has steadily been decreasing year after year since 2002. One notable event that happened at this time was 9/11, and the war on terror that closely followed. One consideration for the desire to have less gun control in the form of permits being mandatory could potentially be the feeling of insecurity following the global tragedy. Following the attack on the World Trade Centre, there was a great mistrust towards Arabs or anyone looking like an Arab.

This change could be a reason for the sudden and continued desire for guns to be easier to acquire, with citizens feeling they must be able to protect themselves since the government was unable to prevent the 9/11 tragedy.

Furthermore, the increased desire to make guns more accessible could be because the citizens distrust the government. The original purpose of the second amendment is often debated to mean that American citizens have the right to bear arms in order to form militias to fight against the government itself. Additionally after 9/11 many people empowered by the newfound access to the internet began to subscribe to various conspiracy theories surrounding the government's involvement in the 9/11 tragedy.

4.2 Second discussion point

Furthermore, the reason that the favour for mandatory gun permits continued to decline even after the George W. Bush presidency could be due to the fact that the Obama administration inherited the military conflicts and sentiments towards the middle east that were started under the Bush presidency. This is evident when examining the sentiments towards mandating gun permits based on political affiliations. Where there's a consistent difference between Republicans and Democrats regarding mandatory gun permits in 2012 there is a clear difference in the pattern shifting, while Democrats' approval towards gun permits stay largely the same, between 81-85%, Republicans continue to further oppose gun permits with the 15% difference from 2000-2006 that was consistent in the past continuing to grow with the difference being 18% between 2008-2010; this is followed by a 22% difference in 2016 when Donald Trump became president, and a 37% difference with Republicans being less in favour of mandatory gun permits in 2021. These findings show a cultural divide between Republican and Democrat Americans.

4.3 Third discussion point

One reason that could explain why those with higher education are more likely to approve of mandatory gun permits Is the fact that they are more likely to have wealth and or status. Those with wealth or status tend to either have security, are well liked so there isn't much incentive to harm them, or are liked and treated fairly by the police.

4.4 Fourth discussion point

One could speculate that men being less opposed to gun permits could be a result of how culture codes firearms as a man's activity. This is true as action movies seem to be marketed to boys and men over women and girls.

4.5 Fifth discussion point

Black people and other people of colour being more likely to support gun permits is likely a result of people of colour experiencing more violent gun crimes on white people. Furthermore, the culture between white Americans and non white Americans is very different, with many white Americans viewing gun ownership as a hobby.

4.6 Weaknesses and next steps

This study examines public opinion on mandatory gun permits in the United States. While the analysis explores various demographic groups, a limitation exists in how racial categories are combined. Grouping all ethnicities except Black and Latin Americans (Latin Americans were not examined in this paper, but the data was avalible on the website) into "Other" hinders a more precise understanding of viewpoints among specific races.

Additionally, the study identifies potential explanations for trends observed in the data, such as historical events and government distrust. However, it cannot definitively establish cause-and-effect relationships. For example, the decline in support for permits coinciding with 9/11 does not necessarily prove that 9/11 directly caused the decline.

The study utilizes data collected at specific points in time, offering a cross-sectional view of public opinion. This limits the ability to track how individual views change over time in response to various events.

To strengthen the research, future studies could disaggregate the "Other" racial category if the data allows. This would provide a more nuanced picture of ethnic group viewpoints. Additionally, conducting a longitudinal study that tracks the same group over time would offer a deeper understanding of how individual attitudes evolve. Supplementing quantitative data with qualitative research methods, such as in-depth interviews, could reveal the reasoning behind people's opinions on gun permits.

Furthermore, future research could explore the potential influence of media coverage on public opinion towards gun control. Finally, including a geographic dimension could reveal variations in sentiment towards gun permits across different regions of the United States. By addressing these limitations and incorporating these next steps, future research can be strengthened and provide a more comprehensive understanding of public opinion on gun permits in the US.

A Appendix

Suplemental survey:

https://docs.google.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqUt17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqut17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqut17prCm287W3FgkCC8GdMWMrgYlAw6CTWbCxOgogle.com/forms/d/e/1FAIpQLSewSdOqut17prCm287W3FgkC8AIpQLSewSd

B References

(R Core Team 2021)

(Alexander 2023)

Alexander, Rohan. 2023. Telling Stories with Data. Chapman; Hall/CRC. https://tellingstorieswithdata.com.

R Core Team. 2021. R: A Language and Environment for Statistical Computing. Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.