How Opinions On Abortion Have Evolved Among American Adults*

Analysis of US General Social Survey in 2006 and 2016

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abstract in progress :)

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*Code and data in this report are available at: https://github.com/shirleychen003/abortion.git.

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1 Introduction

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In [Data], the data collection methodology, the data cleaning processes, and key variables. In [Results], the relationship between demographic information of participants and their responses as well as the overall change in importance is analyzed with supportive figures. Finally, in [Discussion], the significance and possible causes of our findings are explored within the factors of socioeconomic status, sex and age.

2 Data

2.1 Source Data and Methodology

Based at the University of Chicago since 1972, the GSS is a project with the objective of monitoring and analyzing the intricacies of American society (NORC, n.d.a). The GSS Data Explorer makes it so that data retrieved from the project is a publicly available resource, accessible to various types of people, such as educators, policymakers, or researchers through the National Opinion Research Center (NORC). It has even been referenced in leading publications, such as the New York Times and the Associated Press. Due to the variety of subjects covered regarding American society, the GSS is one of the most frequently visited resources for information for social sciences.

Majority of the GSS data was collected through face-to-face interviews with the target population of adults (18+) residing in the United States. The standard national survey methods were practiced, such as hiring interviewers and training supervisors when needed. Interviewers were required to complete a practice interview supervised by evaluators at NORC (NORC, n.d.b).

Table 1: GSS Dataset

Variable	New Name	Description of Reasons for Abortion	Example Response
abany	any_reason	the woman wants an abortion for any reason	yes
abpoor	low_income	the family has a low income	no
abhlth	endangered_health	the woman's own health is endangered	yes
abrape	rape	she became pregnant as a result of rape	no

However, starting in 2002, computer-assisted personal interviewing (CAPI) methods were introduced (NORC, n.d.b). The use of manual edits and keypunching were eliminated, and training to learn how to use CAPI was included. The dataset used for this paper was retrieved from the GSS Data Explorer website (NORC, n.d.c). All the survey data used to measure the public opinion on different reasons for abortion were in the Core Module of GSS and tagged with Abortion and Split Ballots; the specific variable names extracted were abany, abpoor, abhlth, and abrape. For the years and demographic data, the specific variable names extracted were year (later filtered to just 2006 and 2016), age, relig, and sex.

2.1.1 Strengths and Limitations

2.1.2 Biases to Consider

2.2 Data Cleaning

The open source statistical programming language (R Core Team 2023) was used to clean and analyze the data, along with producing the graphs. The main packages that supported this process included (Wickham 2023), (Wickham et al. 2023), (Xie 2023), (Firke 2023), and (Spinu, Grolemund, and Wickham 2023).

The cleaning process involved filtering the specific data variables used for our analysis from the downloaded GSS dataset, and renaming any variables with meaningful names. For example, rather than "abany" being the column name for "The woman wants an abortion for any reason?" , we renamed it to 'any_reason', as shown in Table 1. Further, the numerical values representing the participants' responses for the abortion (eg. Yes - 1, No - 2) and religion (eg. Protestant - 1, Catholic - 2, etc.) were changed to the representative words. Table 1 shows the old and new variable names for the abortion questioins used in cleaning, the description of variables, and sample responses.

2.3 Data Terminology

The response choices for the questions regarding abortion and their respective code in brackets are as follows: Inapplicable (-100), No Answer (-99), Do Not Know/Cannot Choose (-98),

Table 2: Respondent Count of Participants in Age Groups in 2006 and 2016

Year	18-24	25-34	35-44	45-54	55-64	65+
2006	159	337	364	361	283	307
2016	104	304	291	293	323	377

Table 3: Respondent Gender Count and Percentage for 2006 and 2016

Year	Sex	Count	Percentage
2006	female	1024	56.54
2006	male	787	43.46
2016	female	941	55.61
2016	male	751	44.39

Skipped on Web (-97), Yes (1), and No (2). The response choices for the religion question and their respective code in brackets are as follows: No Answer (-99), Do Not Know/Cannot Choose (-98), Skipped on Web (-97), Protestant (1), Catholic (2), Jewish (3), None (4), Other (5), Buddhism (6), Hinduism (7), Other eastern religions (8), Muslim/Islam (9), Orthodox-Christian (10), Christian (11), Native American (12), and Inter-nondenominational (13). For our graphs, we did not include the Inapplicable, No Answer, and Do Not Know/Cannot choose responses to focus on the discernible participant responses.

2.4 Respondent Demographics

Table 2 displays the number of respondents among the different age groups for the 2006 and 2016 surveys. The classified age groups are '18-24', '25-34', '45-54', '55-64', and '65+'. The 18-24 age group had the least amount of participants each year, while the '35-44' age group had the highest proportion in 2006 and the '65+' age group had the highest proportion in 2016.

Table 3 shows the number and percentage of male and female respondents for 1989, 1998, 2006, and 2016. The percentages of female participants were consistently higher than the male participants, as the female participant percentages were always above 50% while the male participant percentages ranged from low to high 40s.

Table 5 displays the proportion of participants of each religion in the survey in 2006 and 2016. The religion with the highest proportion of responses for both years was "Protestant" with 52.46% in 2006 and 47.70% in 2016. The religion with the lowest proportion of responses for 2006 was "Other eastern religions" with a value of 0.11%, and there was an equal amount of respondents for "Other eastern religions" and "Inter-nondenominational" with a value of 0.24% in 2016.

Table 4: Total Respondent Mean, Median, Mode, Min, and Max Age by Year

Year	Mean	Median	Mode	Min	Max
2006	47	46	36	18	89
2016	50	50	52	18	89

Table 5: Respondent Religion Count and Percentage for 2006

Religion	2006 Count	2006 Percentages	2016 Count	2016 Percentages
Buddhism	17	0.94	12	0.71
Catholic	434	23.96	392	23.17
Christian	28	1.55	26	1.54
Hinduism	4	0.22	10	0.59
Inter-nondenominational	3	0.17	4	0.24
Jewish	28	1.55	31	1.83
Muslim/Islam	10	0.55	10	0.59
None	311	17.17	372	21.99
Orthodox-Christian	7	0.39	5	0.30
Other	17	0.94	16	0.95
Other eastern religions	2	0.11	4	0.24
Protestant	950	52.46	807	47.70

2.5 Responses

2.5.1 Rape

Figure 1 displays the proportion of Yes and No responses in 2006 and 2016 to the question "Should it be possible for a pregnant woman to obtain a legal abortion if she became pregnant as a result of rape?"

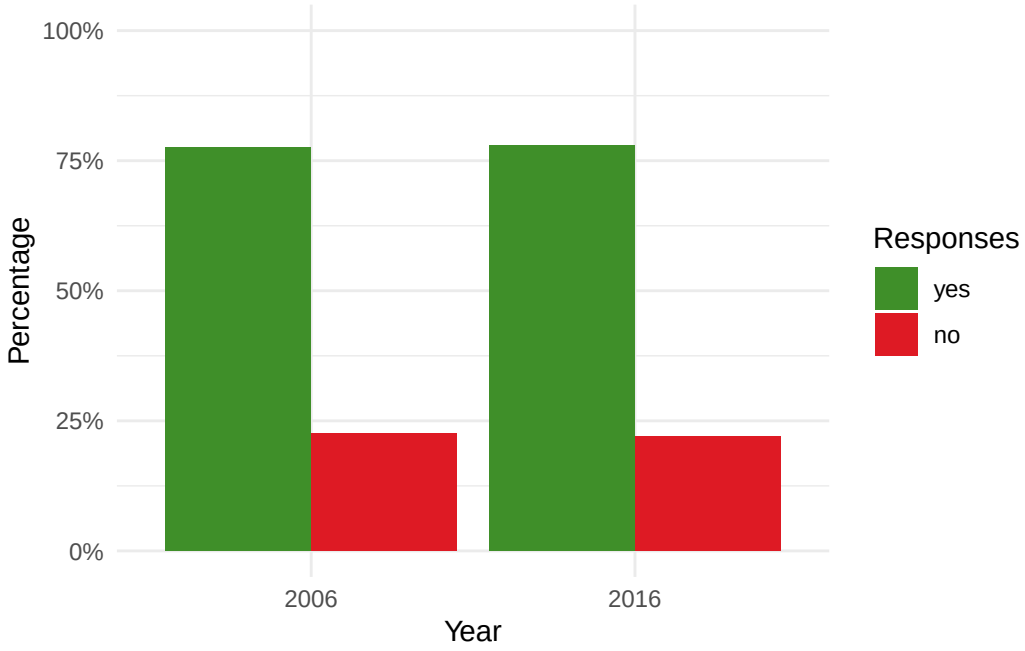

Figure 1: Proportion of Yes and No Responses in 2006 and 2016 to the question "Should it be possible for a pregnant woman to obtain a legal abortion if she became pregnant as a result of rape?"

2.5.2 Endangered Health

Figure 2 displays the proportion of Yes and No responses in 2006 and 2016 to the question "Should it be possible for a pregnant woman to obtain a legal abortion if the woman's own health is seriously endangered by the pregnancy?"

2.5.3 Low Income

Figure 3 displays the proportion of Yes and No responses in 2006 and 2016 to the question "Should it be possible for a pregnant woman to obtain a legal abortion if the family has a very

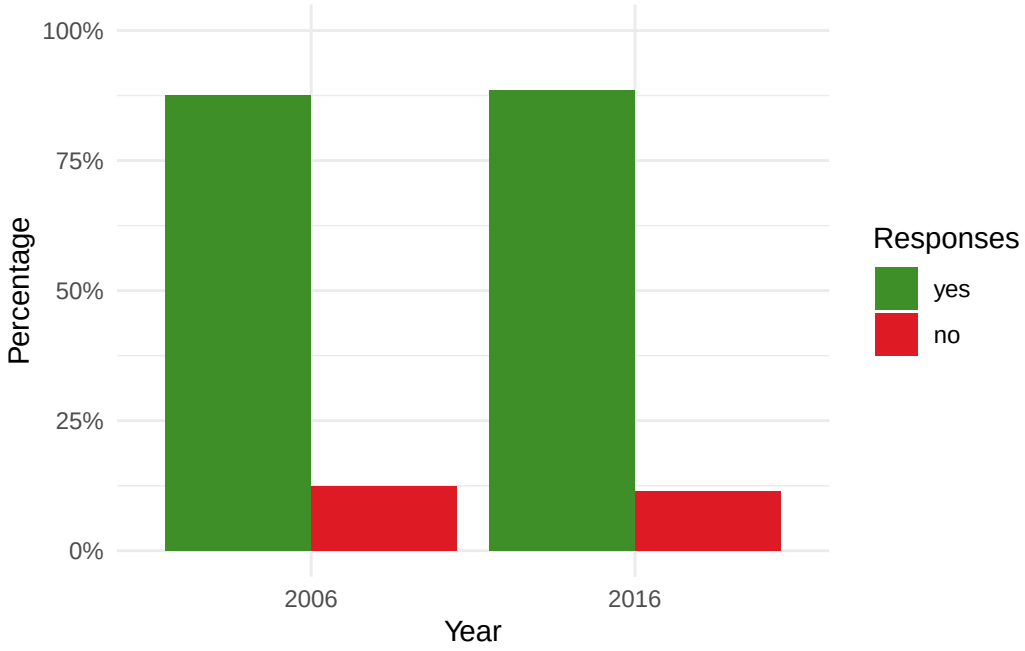

Figure 2: Proportion of Yes and No Responses in 2006 and 2016 to the question "Should it be possible for a pregnant woman to obtain a legal abortion if the woman's own health is seriously endangered by the pregnancy?"

low income and cannot afford any more children?"

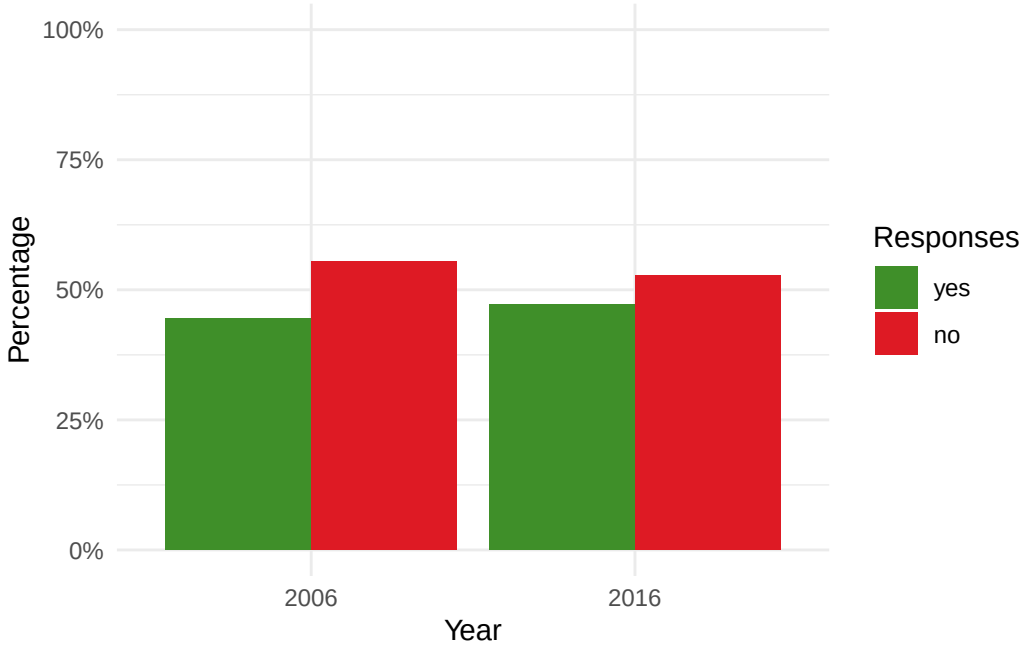

Figure 3: Proportion of Yes and No Responses in 2006 and 2016 to the question "Should it be possible for a pregnant woman to obtain a legal abortion if the family has a very low income and cannot afford any more children?"

2.5.4 Abortion for Any Reason

Figure 4 displays the proportion of Yes and No responses in 2006 and 2016 to the question "Should it be possible for a pregnant woman to obtain a legal abortion if the woman wants it for any reason?"

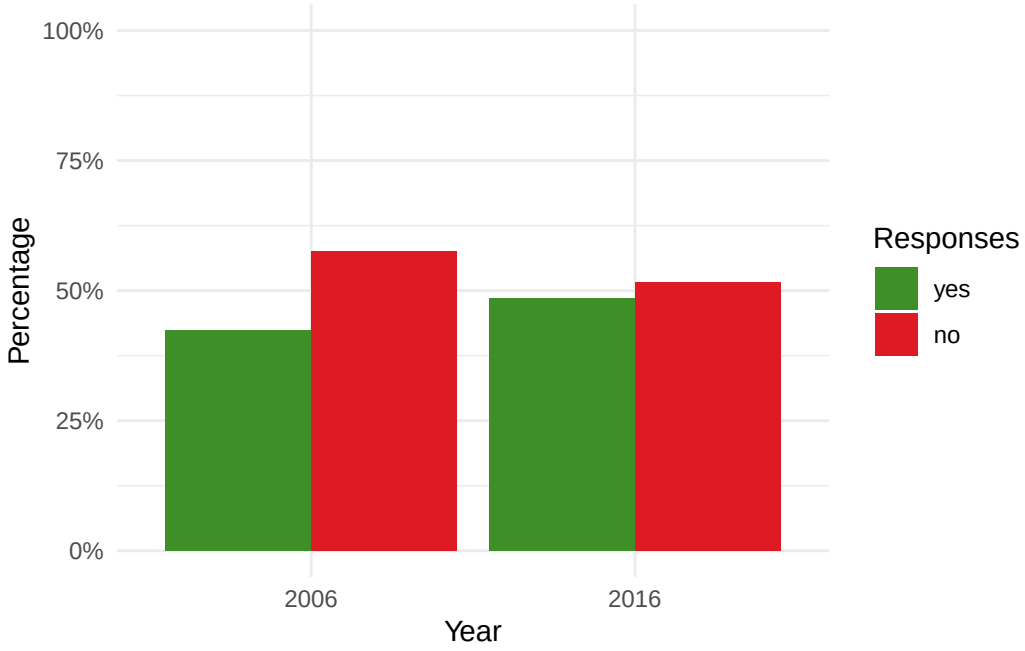

Figure 4: Proportion of Yes and No Responses in 2006 and 2016 to the question "Should it be possible for a pregnant woman to obtain a legal abortion if the woman wants it for any reason?"

Table 6: Rape Response Count and Proportions (%) 2006 by Sex

Response	Sex	Count	Percentage
yes	female	778	55.45
yes	male	625	44.55
no	female	246	60.29
no	male	162	39.71

Table 7: Rape Response Count and Proportions (%) 2016 by Sex

Response	Sex	Count	Percentage
yes	female	719	54.47
yes	male	601	45.53
no	female	222	59.68
no	male	150	40.32

3 Results

3.1 Overall Trends

3.1.1 Age

3.2

3.2.1 Sex

Table 6

Table 7

Table 8

Table 9

Table 8: Endangered Health Response Count and Proportions (%) 2006 by Sex

Response	Sex	Count	Percentage
yes	female	887	55.89
yes	male	700	44.11
no	female	137	61.16
no	male	87	38.84

Table 9: Endangered Health Response Count and Proportions (%) 2016 by Sex

Response	Sex	Count	Percentage
yes	female	828	55.31
yes	male	669	44.69
no	female	113	57.95
no	male	82	42.05

Table 10: Low Income Response Count and Proportions (%) 2006 by Sex

2006			
Response	Sex	Count	Percentage
yes	female	445	55.14
yes	male	362	44.86
no	female	579	57.67
no	male	425	42.33

Table 10

Table 11

Table 13

Table 14

Table 11: Low Income Response Count and Proportions (%) 2016 by Sex

2016			
Response	Sex	Count	Percentage
yes	female	433	54.19
yes	male	366	45.81
no	female	508	56.89
no	male	385	43.11

Table 12: Low Income Response Count and Proportions (%) by Sex

		2006		**2016**	
Response	Sex	Count	Percentage	Count	Percentage
yes	female	445	55.14	433	54.19
yes	male	362	44.86	366	45.81
no	female	579	57.67	508	56.89
no	male	425	42.33	385	43.11

Table 13: Any Reason Response Count and Proportions (%) 2006 by Sex

Response	Sex	Count	Percentage
yes	female	424	55.14
yes	male	345	44.86
no	female	600	57.58
no	male	442	42.42

Table 14: Any Reason Response Count and Proportions (%) 2016 by Sex

Response	Sex	Count	Percentage
yes	female	449	54.76
yes	male	371	45.24
no	female	492	56.42
no	male	380	43.58

3.3 Religious Views

4 Discussion

4.1 Generational Differences

4.2 Sex

4.3 Religious Views

4.4 Economic Status

4.5 Temporal Movements and Law Changes

- will talk about the different law changes and movements occurring before, during, and after the specific years

4.5.1 2006

4.5.2 2016

Appendix

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