Analysis of Changes in Social Perceptions on Abortion*

Data from U.S. General Social Survey (1972 to 2022)

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We investigate changes in the social perception of abortion in the United States over the past five decades, utilizing data from the General Social Survey. We analyze 46,700 survey responses and find that opinions on abortion have slightly shifted over time. Support for abortion depends on aspects as the health of the woman, economic constraints, marital status, fetal health issues, and there was rape. A specific example from the results is that support for abortion for women who don't want children for any reason increased from 37.7% in 1977 to 58.9% in 2022. This study highlights the critical role of social perception in shaping abortion-related legislation, healthcare access, and the broader discourse on gender equality and women's autonomy.

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 $^{^*}$ Code and data are available at: https://github.com/QPP123/Investigating-Social-Perceptions-of-Women-s-Rights-and-Abortion-Over-Years-A-Research-with-Surveys

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1 Introduction

Abortion is an essential yet controversial topic that is worth studying as it relates to lives. We are motivated to write this topic because society's general perceptions of women's rights and abortion can significantly affect numerous women's fates – whether they could be financially self-sufficient or not, whether they get to choose to become a mother or not, whether they can live their life according to their free will or not. As half of the world's population is biologically female, and almost everyone has female family members and female friends, the topic is directly related to nearly everyone. This paper analyzes U.S. social perceptions of abortion from 1972 to 2022, using General Social Survey data. It examines public opinion on various scenarios where abortion might be sought, revealing slight changes towards acceptance in specific contexts, like health risks and rape. The study showcases nuanced views of abortion, indicating evolving social norms. Through detailed analysis, including statistical graphs and demographic insights, it contributes to discussions on women's rights and policy-making, highlighting the complex relationship between societal attitudes and abortion.

In the current academic world, the studies of social perception of abortion have not been conducted in a comparative and historical context. Therefore, we intend to investigate the gap between the lack of research on abortion in a historical context in a holistic approach by sourcing and analyzing the data from a relatively reliable website. We gained the data from GSS (General Social Survey), a sociological survey created by the National Opinion Research at the University of Chicago. This ensures the data source is relatively reliable, actively accurate, and up-to-date. We downloaded the survey data and made graphs and tables out of them, and then we used those to analyze the patterns.

The paper finds that social perceptions of abortion in the U.S. from 1972 to 2022 have shown slight but not significant changes, with a general trend towards acceptance in specific contexts such as health risks and rape. It reflects the complexity of societal attitudes and the impact of various factors on these opinions. The analysis suggests evolving social norms and points towards the need for further research on demographic specifics to understand these changes better. These findings are significant because the social perception of abortion significantly

impacts lawmaking, healthcare access, and individual experiences, as public opinion shapes abortion-related legislation, influences the availability of services, and affects the stigmatization or support individuals face. Moreover, these perceptions guide educational campaigns on reproductive health and underscore the connection between abortion views and broader issues of gender equality and women's autonomy. This complex interplay between social attitudes and practical outcomes highlights the importance of understanding and addressing public opinions on abortion. Seeing the historical trends through survey answers in the past five decades could tell us about social perceptions on abortion over the decades and thus lead us to understand social movements' development better.

Structured into six parts—abstract, introduction, data, results, discussion, and supplementary survey questions—this paper endeavors to provide a deep understanding of the evolution of abortion perceptions in the U.S., shedding light on the societal dynamics that influence these views and their implications for policy and individual experiences. In addition, this paper draws from related literature to dive deeper into the branches of this topic.

Estimand: This study estimates the nation's perception based on the valid survey responses of around 46700 cases. Although the total cases are around 72000, only 46700 instances are valid. Compared to the whole population of the United States, this quantity/parameter is not significant. However, it does represent a general sense of social perceptions. With this being said, we do want to recognize the limitation of this survey study: the demography of the respondents might be limited to certain regions/genders/age ranges/socioeconomic statuses, which could impact the inclusiveness and accuracy of the results.

2 Data

This paper uses data from the U.S. General Social Survey (GSS) conducted by NORC at the University of Chicago, where public opinion research on abortion in various contexts provides a window into societal values and moral standards. The GSS data offer a rich source of information that captures different perspectives on the different situations in which abortion might be considered. For this analysis, we focus on a set of survey questions probing respondents' views on whether abortion should be legal under various circumstances.

The data in this post was compiled using the open source statistical programming language R (R Core Team 2023), liberary knitr{Xie (2014)},tidyverse(Wickham et al. 2019), readr[Wickham, Hester, and Bryan (2022)},here[Müller (2020)},ggplot2(Wickham 2016) and dplyr(Wickham et al. 2022)to clean up.

2.1 Source data

The primary data comes from the GSS cumulative data file (1972-2022), a cross-sectional data set combining all surveys over these 50 years. We use the variable "id" in the data set to

Table 1: Overview of abortion reasons

Table 2: serious defect

Yes	No	NA	SUM				
37199	9509	25682	72390				
Table 4: health endangered							
Yes	No	NA	SUM				
42101	4832	25457	72390				
Table 6: result of rape							
Yes	No	NA	SUM				
37939	8552	25899	72390				
Table 8: for any reason							
Yes	No	NA	SUM				
16652	22606	33132	72390				

Table 3: wants no more children

Yes	No	NA	SUM				
21187	25431	25772	72390				
Table 5: cant afford more							
Yes	No	NA	SUM				
22295	24279	25816	72390				
Table 7: not married							
Yes	No	NA	SUM				
20915	25663	25812	72390				

rank respondents. One variable is "year". The purpose of this variable is to collect the year in which the survey was conducted. Another variable is the respondents' answers, meaning that when they see the question, they will answer "YES," "NO," or any other answer. From this rich data set, we extracted seven key variables gauging attitudes toward abortion access:

abdefect: Abortion if there is a strong chance of serious defect in the baby abnomore: Abortion if married and doesn't want more children abhlth: Abortion if a woman's health is seriously endangered abpoor: Abortion if low income and can't afford more children abrape: Abortion if pregnancy is the result of rape absingle: Abortion if not married and doesn't want to marry a man abany: Abortion for any reason For each question, respondents could answer "Yes," "No," or "Don't know." "Don't know" responses were treated as missing data to facilitate analysis.

In Table 1, When summarizing the General Social Survey data on attitudes toward abortion, it's noticeable that there's a significant number of respondents who chose "NA" – those who didn't provide a definitive yes or no. However, this doesn't necessarily skew the overall findings. Many individuals may not have a black-and-white stance on such a nuanced issue, so their uncertainty is understandable. We analyze the results and concentrate on the definitive responses for more precise insights. The data demonstrates a higher level of agreement with abortion in cases of severe health concerns or pregnancies resulting from rape. The yes-to-no ratio is substantially higher in these scenarios, indicating more substantial support. In contrast, questions about financial constraints or personal choice without further context show a more divided opinion.

The roughly even split of yes and no responses here suggests that opinions vary widely and are likely influenced by individual circumstances and beliefs. This pattern reflects the complexity of public opinion on abortion and underscores the need to consider the context when discussing such a sensitive topic.

2.2 Data Limitations

2.2.1 Gap in 1986 data

We're missing the data from the 1986 General Social Survey (GSS), and it's a big deal because it leaves a hole in the data set. The GSS usually gives us a year-by-year look at what people think and feel, so when a year is missing, it messes up the flow and makes it challenging to compare how things change over time. With the 1986 data, it's easier to spot the small changes in what people thought back in the mid-80s. Also, we might be overlooking some significant events or changes in people's opinions from that year, which could help us understand better how things have evolved since then.

2.2.2 "NA" responses

Dealing with a lot of "don't know" answers in the General Social Survey (GSS) is a pain because it leaves us hanging without clear "yes" or "no" replies, especially when looking at views on abortion. These "NA" or "don't know" choices pop up if people dodge the question or don't have a strong opinion, which punches holes in our data. It's easier to analyze things properly when we need picture chunks. If we see a bunch of these "don't know" answers in certain areas or times, it might mean folks are confused, not well-informed, or don't want to say what they think about abortion. This makes it easier to figure out what the majority believes. These "don't know" replies can shrink the amount of data we have to work with since they're often tossed out like they're not even there, messing with the study's accuracy and how well its findings apply to everyone. So, when we talk about the GSS and abortion opinions, we've got to consider how these "NA" responses limit what we can learn from the data. We need the data from the 1986 General Social Survey (GSS), and it's a big deal because it leaves a hole in the data set. The GSS usually gives us a year-by-year look at what people think and feel, so when a year is missing, it messes up the flow and makes it challenging to compare how things change over time. With the 1986 data, it's easier to spot the small changes in what people thought back in the mid-80s. Also, we might be overlooking some significant events or changes in people's opinions from that year, which could help us understand better how things have evolved since then.

2.3 Data Cleaning

The data was cleaned and analyzed using the open-source statistical programming language R (R Core Team 2023). It uses functionalists from readxl, dplyr, ggplot2, here, and readr. The cleaning process focuses on transforming the data from the third column onward. It uses the mutate and across functions in dplyr to standardize the responses by converting any values that are not "yes" or "no" to NA (missing values), ensuring that the data set contains only clear binary responses for analysis. This step is critical to maintaining the consistency and reliability of the data set, as it filters out ambiguous or invalid entries. Finally, the cleaned data is saved as a CSV file in the specified "analysis_data" directory. This allows access to the cleaned data set for further analysis or reporting. Using write.csv with line name = FALSE ensures the output file is neat.

3 Results

Figure 1:

We can see from Figure 1 that although there were some fluctuations over the five decades, overall, the people who support abortion to women who carry fetuses that have a strong chance of serious defect vastly outnumber people who are against abortion. Critical points in Figure 1 are:

- -The 'Yes' responses (green line) are consistently higher than the 'No' responses (red line) from 1970 to slightly past 2020, indicating a prevailing agreement with the option of abortion under these circumstances.
- -There's a noticeable spike in 'Yes' responses around 2000, followed by a sharp decline and another rise. These fluctuations could be due to various factors, including shifts in public awareness, policy changes, or external events influencing public opinion.
- -The 'No' responses show a slight increase over time but remain relatively low compared to the 'Yes' responses, suggesting that opposition to abortion in the case of potential severe defects is less common.

For this research, these trends could highlight that there is generally strong support for the availability of abortion when there's a risk of serious defects in the baby. Still, it's important to consider the context behind the response fluctuations for a comprehensive analysis. ("Strong Chance of Serious Defect" 2023)

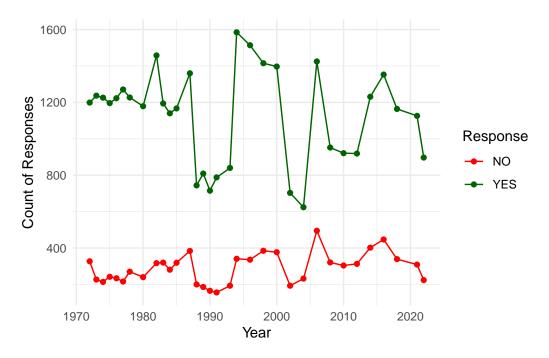


Figure 1: a strong chance of serious defect in the baby

Figure 2:

From Figure 2, we can see even more significant fluctuations over the five decades in terms of people's opinions on whether or not married women should be able to receive abortions if they don't want any more children. From 1972 to around 2016, there were always more people who were against married women receiving abortions for the reason that the women didn'tdon't want any more children. However, from 2016 onwards, people who support married women to obtain abortions if they don't want any more children began to outnumber people who were against it. We can tell that the social perception changed significantly on this one.

Observations from Figure 2:

- The 'Yes' responses (green) and 'No' (red) have been quite volatile. There are times when 'Yes' is higher and others when 'No' dominates, suggesting fluctuating opinions on this issue.
- Around 2000 and just after 2010, there were sharp spikes in both 'Yes' and 'No' responses, which could be tied to specific events or changes in societal attitudes at those times.
- Despite the fluctuations, 'Yes' responses tend to be higher on average in the later years, especially past 2010, hinting at a possible trend towards greater acceptance of abortion under these circumstances.

In this research, these trends point to evolving social norms around family planning and autonomy within marriage, with a more recent tilt towards supporting a married woman's choice not to have more children. The variability could also reflect the impact of policy changes or public debates at different times. ("Married-Wants No More Children" 2023)

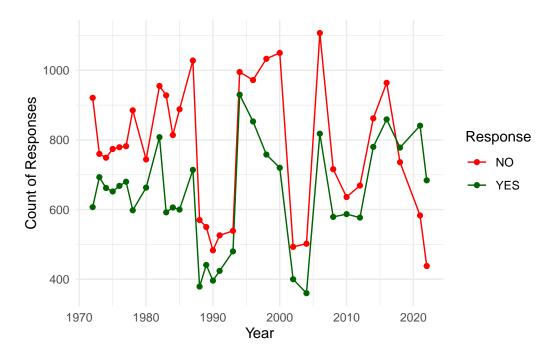


Figure 2: she is married and does not want any more children

Figure 3:

Compared to the previous graphs, Figure 3 has relatively lower fluctuations. It is obvious that over the last five decades, there have always been ways more people support women to receive abortion if their health is endangered by pregnancy. Although some people were against it, the number stayed consistently low. Although the number of people who support it fluctuated for a little bit around 1990 and 2005, overall, the social perception is supportive of women who receive abortions because their health is endangered by pregnancy.

Here's what the data in Figure 3 indicates:

- -The 'Yes' responses (green) are substantially higher than the 'No' responses (red) throughout the entire period from the 1970s to 2020. This indicates strong and consistent support for a woman's right to an abortion when her health is at risk.
- -The 'Yes' line fluctuates with peaks and valleys over the years, but the overall support remains high.

-The 'No' responses are relatively flat and low in comparison, suggesting that there is minimal opposition to abortion under these circumstances and that this view has not changed dramatically over time.

In the context of this research, this graph could suggest that there is a consensus supporting the necessity of abortion when it comes to health concerns, and this has been a relatively stable opinion over the last five decades. ("Woman's Health Seriously Endangered" 2024)

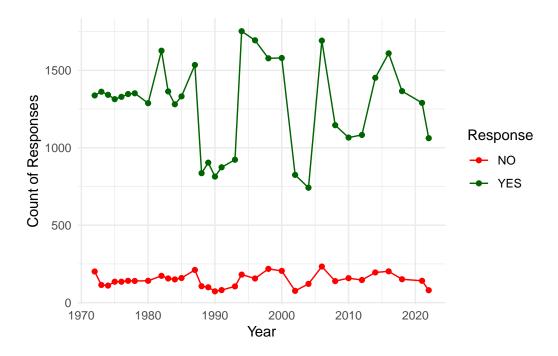


Figure 3: womans own health is seriously endangered by the pregnancy

Figure 4:

Figure 4 is interesting. The numbers fluctuate a lot, no matter if it's people who supported abortion if the women cannot afford to have more children or people who were against it. Although there were a few years in the early 1970s when people who supported abortion outnumbered people who were against it, in all the other years before, around 2017, there were slightly more people against abortion if the women cannot afford to have more children. This changed after around 2017 when more people started to support abortion if women could not afford to have more children. Key observations in ?@fig-can not-afford-more are:

- -'Yes' responses (green) generally exceed 'No' responses (red), indicating more support for allowing abortions under these financial circumstances.
- -The data is quite volatile, with many peaks and troughs, suggesting that public opinion on this issue has varied significantly.

-Around the late 1990s and again in the late 2000s, there were moments where 'No' responses surpassed 'Yes' responses, which could indicate particular events or changes in societal attitudes that influenced public opinion during those times. ("Low Income—Can't Afford More Children" 2023)

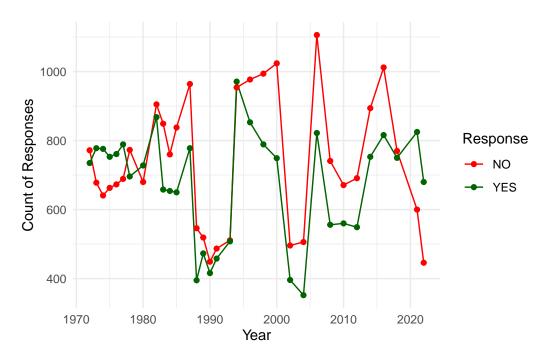


Figure 4: family has a very low income and cannot afford any more children

Figure 5:

Figure 5 is a lot clearer. In the five decades, there were always a lot more people who supported abortion if a woman is pregnant as a result of rape. Although there are some fluctuations here, overall, the people who supported it always vastly outnumbered those who were against it. Observations in Figure 5 include:

- -'Yes' responses (green) are significantly higher than 'No' responses (red) throughout the entire period, indicating strong support for allowing abortion under these circumstances.
- -There are notable fluctuations in the 'Yes' responses, with peaks and valleys, but the overall trend remains much higher than the 'No' responses.
- -The 'No' responses are relatively consistent over the years and remain low, suggesting that opposition to abortion in this context is consistently minimal.

From this data, one could infer that there is a stable and overwhelming support for a woman's right to choose abortion in the case of rape, which has been maintained over the past five

decades. This could be a critical point in your research, reflecting a societal consensus on the right to abortion in such traumatic circumstances. ("Pregnant as Result of Rape" 2023)

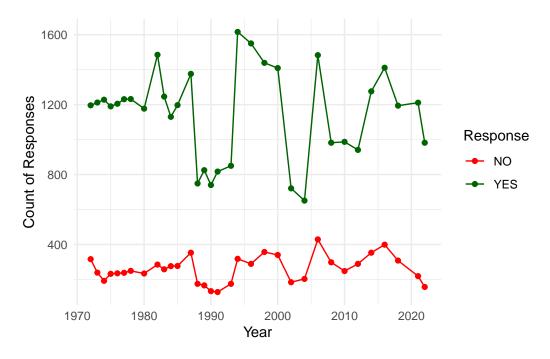


Figure 5: she became pregnant as a result of rape

Figure 6: In Figure 6, there are also a lot of fluctuations. We can see that all years before, around 2017, people who were against women receiving abortions because they didn'tdon't want to marry men almost always outnumbered people who supported abortion for the same reason. However, after around 2017, more people supported it than people who were against it. This suggests that social perceptions have significantly changed to a more feminist perspective since around 2017. Observations in Figure 6 include:

-Unlike the previous graph, here, the 'Yes' (green) and 'No' (red) responses show a more competitive trend, with 'No' responses occasionally matching or exceeding 'Yes' at several points. -The 'Yes' responses show high volatility but maintain an edge over 'No' reactions for most of the period. -The late 1990s through the 2000s show particularly sharp fluctuations, with 'No' responses peaking above 'Yes' responses more frequently compared to other decades.

This data suggests that public opinion on abortion in the case of women who do not want to marry a man has shifted from a more conservative perspective, where more people were against it, to a more inclusive perspective, where more people supported it. This suggests that society is more and more likely to support women's choices of their body and marriage status. This also implies that feminism has changed society in recent years. ("Not Married" 2023)

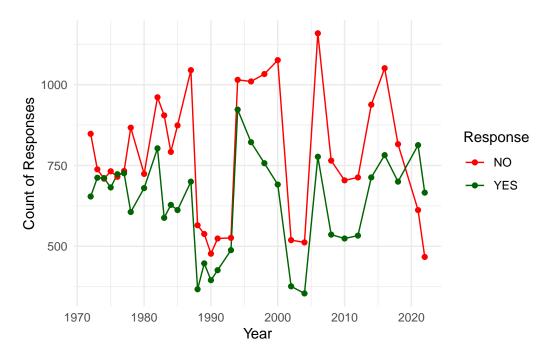


Figure 6: she is not married and does not want to marry the man

Figure 7:

According to Figure 7, the fluctuations and the trends are the same as the previous one: before, around 2017, there were more people against abortion for any reason than people who supported it. However, after around 2017, more people supported women to receive abortion for any reason. This also suggests that society is becoming more inclusive of women's decisions on their bodies and that society has genuinely adopted feminism in recent years. Notable points in Figure 7:

-There's been a close contention between 'Yes' (green) and 'No' (red) responses throughout the years, reflecting a more divided public opinion on the broader issue of abortion on demand. The 'No' responses have peaks that often surpass the 'Yes' responses, particularly in the mid-1980s to the mid-1990s and again in the early 2000s. Both responses exhibit significant volatility, which could indicate shifting social, political, and legal landscapes influencing public opinion on the issue.

This graph suggests that when considering abortion without condition, public opinion has been more polarized, with shifts possibly aligned with broader debates and changes in societal attitudes towards abortion. ("Abortion If Woman Wants for Any Reason" 2023)

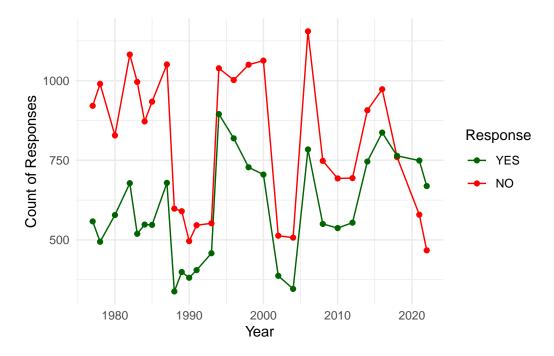


Figure 7: abortion if woman wants for any reason

The seven graphs show public opinion over time on various circumstances under which abortion might be sought. A comprehensive summary of insights from the data are:

- Fetal health issues: As Figure 1. shows, there is strong support for abortion in cases of a strong chance of a severe defect in the baby, but with some fluctuations that might be tied to external factors or events.
- Health of the woman: As Figure 1 and Figure 3 show, there is consistent and strong support for abortion when the woman's health is seriously endangered. This opinion seems to have held relatively steady over the decades.
- Economic reasons: As Figure 4 shows, opinions on abortion due to financial reasons, such as the family being of low income and unable to afford more children, show more fluctuation and suggest that this reason for abortion is more contentious and less consistently supported than health-related reasons.
- Marital status: As Figure 2 and Figure 6 show, there appears to be more support for abortion rights for unmarried women compared to married women who do not want more children. However, both show some level of volatility in responses over the years.
- Pregnancy resulting from rape: As Figure 5 shows, support for abortion is very high when pregnancy is the result of rape, with minimal opposition across the decades.

• General abortion access: When considering abortion for any reason the woman wants, the data shows a divided opinion with significant contention and volatility over the years.

From these graphs, we can find that public opinion on abortion is generally more supportive when the reasons are related to the health of the woman or the fetus or in cases of rape. When the reasons for seeking an abortion are not tied to such specific conditions, like economic reasons or general access to abortion for any reason, public opinion seems to be more divided and subject to change over time.

4 Discussion

This paper examines the social perception of under what circumstances women should be free to receive an abortion. The underlying theme is the autonomy of women to their bodies, a fundamental aspect of reproductive rights and gender equality. Our analysis underscores the importance of recognizing and respecting women's agency in making decisions about their bodies and reproductive health. By exploring public attitudes towards abortion across various contexts, we aim to highlight the significance of ensuring that women have the right to make informed choices about their pregnancies without coercion or stigma. This theme resonates with broader discussions on bodily autonomy, individual freedoms, and social justice, emphasizing the need for policies and societal attitudes that uphold and protect women's rights to control their reproductive destinies. (Kaczor 2022)

Not only did we learn more about the social perception of abortion over five decades in the United States, but we also identified nuanced shifts in public opinion regarding the circumstances under which abortion is considered acceptable. By analyzing data from the General Social Survey spanning from 1972 to 2022, we delved into various scenarios where abortion might be sought, including health risks, economic constraints, marital status, fetal health issues, pregnancy resulting from rape, and general abortion access. We studied trends, fluctuations, and prevailing attitudes across different periods by examining seven line graphs depicting these scenarios. Our findings underscore the complex nature of societal norms, individual beliefs, and external factors influencing public opinion on abortion. Moreover, this research contributes to ongoing discussions on women's rights, reproductive autonomy, and policy-making by shedding light on the evolving social perceptions surrounding abortion in the United States. Additionally, this study highlights the importance of considering historical context and demographic specifics when interpreting public opinion data, providing valuable insights for policymakers, advocates, and researchers alike. Ultimately, this paper contributes to a deeper understanding of the complex dynamics shaping societal attitudes toward abortion and their implications for broader social and policy considerations.

Overall, the social perception of women receiving abortions because of a strong chance of severe defects in the baby does not change significantly over the decades; However, holistically, in recent ten years, more and more people have supported married women who don't want

any more children to receive abortion (Figure 2); more and more people support women to be accessible to receive abortion if the family is not financially capable of affording any more children (Figure 4); more and more people support abortion if the women get pregnant as a result of rape; more and more people support abortion if women want for any reason. All of these show that the US society is progressing towards a more inclusive and liberal environment for women.

4.1 Strengths:

We found out a lot about what people in the U.S. think about abortion over the last fifty years. One of the big takeaways is that people's views on abortion haven't changed much when it comes to severe health defects in a baby. But in the last decade, we've seen more support for abortion in cases like when a married woman doesn't want more children when families can't afford more kids when pregnancy is due to rape, or even if a woman wants an abortion for any reason. This shows that America is slowly becoming more open and supportive of woman's rights to choose abortion.

4.2 Weaknesses:

The weaknesses inherent in data collection and survey methodologies can significantly impact the reliability of research findings. One key concern is the need for more clarity regarding how data was collected, which can raise questions about the validity of the collected information. Moreover, surveys targeted at specific demographic groups, such as those based on age, gender, or religious affiliation, may inadvertently introduce bias by excluding other relevant perspectives. Additionally, when surveys are overly general and fail to account for diverse demographic factors like age, race, gender, religion, or geographical location, the resulting analyses may oversimplify complex issues, missing out on essential nuances in individual perceptions and experiences. This oversight can compromise the academic rigour of the research and limit its relevance in real-world applications. Therefore, it's crucial for researchers to carefully assess survey design and execution, considering factors like sampling methods, audience specificity, and question formulation, to mitigate biases and improve the quality of collected data.

Considering abortion is a relatively personal topic, the respondents' perceptions and attitudes might be significantly varied by their experiences and social environments. However, those critical factors cannot be reached just by looking at the numbers in the data and the surveys. Jagannathan (2001) Finding the correlations between the surveyed respondents and the whole nation's perception can also be challenging. Quantitative research and qualitative research cannot replace each other. Due to the current data limitation, we can only analyze what is currently available from the GSS website.

4.3 Further Discussion

The phenomena this research reveals are complex due to many factors, including politics, religion, socio-cultural progressions, and economic changes. Niţă and Ilie Goga (2020) According to related scholarly literature, the article "Introduction: The Politics of Abortion 50 Years after Roe" by Katrina Kimport and Rebecca Kreitzer reveals several critical insights about the intricate relationship between abortion and politics in the United States. (Kimport and Kreitzer 2023) The article touches on the topic of abortion and social perception, particularly highlighting how abortion has been both marginalized and siloed in social science research despite its significance in politics and its common occurrence as a pregnancy outcome. This marginalization reflects broader social perceptions and the contentious nature of abortion as a public issue. The authors discuss the "abortion research paradox," where, despite the political and social importance of abortion, it remains underrepresented in top disciplinary journals, suggesting a disconnect between its real-world significance and its academic treatment.

To delve deeper into how different races, ethnicities, and cultures view abortion, we accessed the scholarly article from Front Public Health named 'The role of community and culture in abortion perceptions, decisions, and experiences among Asian Americans'. This study explores the influence of culture and community on Asian Americans' experiences with medication abortion in the U.S. It suggests that religious stigma and lack of openness about sexual and reproductive health, among other factors, contribute to the complexities Asian Americans face regarding abortion. It emphasizes the need for culturally sensitive and inclusive abortion care to address these challenges. It also advocates the need for more inclusive abortion care services that consider the diverse backgrounds and experiences within the Asian American community. (Chandrasekaran et al. 2023)

To understand how different religions view abortion, the Pew Research Center's study on views about abortion reveals varying opinions across different religious groups. Buddhists and Jews show high support for legal abortion in most/all cases, while Evangelical Protestants and Jehovah's Witnesses exhibit strong opposition. Catholics and Mainline Protestants are more divided. The study highlights the complex relationship between religious beliefs and abortion attitudes, underscoring significant differences even within broader religious traditions. ("Views about Abortion" 2024) Detailed Statistics are provided in the article.

What is also worth mentioning is the legal progression of abortion in the United States. Roe v. Wade was a landmark in 1973 in which the Supreme Court decision recognized the constitutional right to abortion. This decision required laws against abortion to be balanced against the woman's right to privacy, significantly changing abortion laws across the United States and sparking ongoing debates and legislative actions around abortion rights. However, the government policy called the Global Gag Rule in 1984 came out to essentially go against abortion. It prohibited foreign NGOs receiving U.S. federal funding from providing, advocating for, or referring patients to abortion services, even with non-U.S. funds. It has been rescinded and reinstated several times depending on the administration in power, reflecting changing

U.S. political attitudes towards abortion. This policy significantly impacts global health organizations' ability to offer comprehensive reproductive health services. In 1992, Planned Parenthood v. Casey appeared to become a significant U.S. Supreme Court case that reaffirmed the constitutional right to abortion established in Roe v. Wade (1973). However, it also allowed states more leeway to impose restrictions on abortion, introducing the "undue burden" standard. This standard prohibits regulations that place a substantial obstacle in the path of a woman seeking an abortion before fetal viability. Finally, in June 2022, Roe v. Wade was overturned by the U.S. Supreme Court on June 24, 2022, removing the federal constitutional right to an abortion that had been in place for nearly 50 years. All of these historical events represent the complex history of abortion rights in the United States. We can see that in the 50 years (1972-2022), the historical trend of abortion at a legal level in the U.S. was not progressing in a single direction. It was established, restricted, prohibited, liberated, and overturned. (Diamant and Mohamed 2024) This reflects its complicated relationship to U.S. politics – the legislative decisions heavily depend on the views of the politicians at the time. This also contributes to our understanding of why the social perceptions varied through different times in the data. (Fund, n.d.)

4.4 How can we proceed in the future

To improve future research on societal attitudes toward abortion, it's essential to include detailed demographic data in surveys, capturing factors like age, race, gender, religion, and geography. This approach allows for a more layered analysis of how various elements, such as politics, culture, and personal beliefs, influence opinions on abortion. Additionally, examining longitudinal trends can reveal the effects of societal, policy, and cultural shifts on public opinion over time.

Qualitative methods, such as interviews, focus groups, and quantitative analysis, provide a more comprehensive view of the issue. These methods help to uncover the nuanced experiences and viewpoints of those directly impacted by abortion-related policies and debates. By integrating both quantitative and qualitative data, researchers can gain a deeper understanding of the intricate factors shaping societal perceptions of abortion.

This research strategy is crucial for developing a well-rounded understanding of the topic, which, in turn, can support informed discussions an

4.5 Discussion of the questionnaire

The good part is that each question is particular and on-point: they are clearly yes or no questions but leave the respondents the option of 'don't know' or 'not applicable,' which is professionally designed.

The bad part of the questionnaire is that the questions did not cover all the scenarios: for example, whether or not to receive an abortion could be considered very differently if the

pregnancy is over 10 or 12 weeks. The survey questions should add questions regarding this, such as 'Do you support abortion if the pregnancy is over ten weeks (which could be medically risky)?' or something like that.

A Appendix

A.1 Survey

Introduction to the survey: Women's rights is an essential topic in nowadays society. Within this topic, abortion is a controversial topic. The General Social Survey collects information on people's opinions and perceptions on those topics. In order to deepen our understandings and analysis of the topics, we designed this survey to collect people's opinions and perceptions of women's rights and abortion. We conduct the research studies with good faiths.

Thank you for all the respondents for completing this survey! We appreciate your time and effort. Your response will help us gain a deeper understanding of people's perceptions on women's rights and abortion.

Supplementary Survey Questions:

- 1. What is your age? (select the range that applies) a. 18-30 b. 31-50 c. above 50
- 2. Are you religious? a. Yes b. No
- 3. What is your opinion on abortion? a. Support it her body her choice b. neutral it depends c. against it
- 4.Do you believe that your view of abortion is influenced by your religious faith? a. Yes b. No
- 5.Do you believe that your view of abortion is influenced by your political faith? a. Yes b. No
- 6.If you answer 'support it' to the above question, do you believe that women are free to receive abortion even if it's after 10-12 weeks (which could be medically risky)? a. Yes b. Not sure c. No
- 7. Have you or someone you know had experienced abortion? a. Yes, myself b. yes, someone I know c. No, I don't know anyone who had experienced abortion
- 8.Do you believe that victims of rape should be free to receive abortion? a. Yes b. No
- 9.Do you believe that married women should also be free to receive abortion? a. Yes b. No
- 10.Do you believe that women should be able to receive abortion for any reasons a. Yes b. No
- 11.In your opinion, should abortion always be legal? a. Yes b. No

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