Evolving Dynamics: The U.S. Labor Force from 1972 to 2022*

The Enduring Challenges for Women in the Workplace

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As the U.S. labor force has evolved over the last fifty years, women have made significant strides but still face many obstacles on their path to equality in the workplace. This paper investigates the evolving dynamics of the U.S. labor force from 1972 to 2022, with a particular focus on women's experiences in the workplace, utilizing data from the U.S. General Social Survey (GSS). Our analysis reveals significant changes in workforce participation and the professional landscape for women over five decades, marked by increased participation rates and educational attainment. However, it also uncovers the persistent challenges women face, such as underrepresentation in leadership, and the work-family balance juggle. These findings underscore the importance of an intersectional approach in understanding and addressing the challenges women encounter in the labor market. The paper highlights the strides made towards gender equality in the workplace over the years, yet points to the deep-rooted barriers that remain, offering insights into the diversity of women's experiences within the workforce.

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*Code and data are available at: https://github.com/fanger2791/fanger2791-Enduring-Challenges-for-Women-in-the-Workplace.

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1 Introduction

Over the past fifty years, the U.S. labor force has undergone significant transformations, reflecting broader socio-economic shifts, technological advancements, and changing demographic patterns. These changes have had profound implications for employment practices, workplace cultures, and the economic opportunities available to different segments of the population. However, despite these overall shifts, women in the workforce have continued to face enduring challenges, including gender pay gaps, underrepresentation in leadership positions, and the persistent juggling act of work-family balance. This paper examines the evolving dynamics of the U.S. labor force from 1972 to 2022, focusing on how these broader changes have intersected with the experiences of women in the workplace.

As we focus on the exploration of labor force trends with an examination of the specific, ongoing challenges that women encounter in the workplace, we will touch on how our investigation seeks to bridge the gap on general labor trends and women's workplace challenges by employing data from the U.S. General Social Survey (GSS). This allows us to dissect how five decades of labor market evolution have sculpted the professional landscape for women. We aim to uncover the intricate ways in which shifts in the labor force have impacted women's experiences in the workforce.

The U.S. General Social Survey (GSS) has been a pivotal source of data, employing a sampling approach to ensure representative insights into the American public's attitudes, behaviors, and attributes since 1972. This methodology involves selecting participants to mirror the U.S. population's demographic makeup, including variations by region, age, gender, and socio-economic status. Notably, the GSS adapted its data collection methods in response to the COVID-19

pandemic, transitioning to online and phone surveys to maintain participant safety and response rates. These adjustments, while necessary, introduced potential implications for trend analysis, including variations in response rates and the potential for digital access disparities. Despite these challenges, our analysis of the GSS data reveals striking findings. For instance, from 1972 to 2022, women's participation in the workforce increased significantly. Initially, the workforce was predominantly male, with 570 men working full time compared to 191 women in 1972 but by 2022, the number of women working full-time had increased to 728 from 191 in 1972, showing substantial progress towards gender equality in the workplace. However, the persistence of work-family balance challenges is evident, underscoring the ongoing struggle to integrate professional and personal responsibilities. This paper will reveal that despite an increase in participation rates and educational attainment among women, numerous deep-rooted barriers persist. Crucially, this paper highlights the diversity of women's experiences in the labor market, underscoring the importance of an intersectional approach to understanding workplace challenges.

The paper is organized as follows: Section two Section 2 details the methodology and source data, including the use of GSS data. Section three Section 3 provides an analysis of labor force trends over the past fifty years, with an emphasis on changes in employment patterns, workforce participation, and educational attainment among women. Section four Section 4 delves into the specific challenges women face in the workplace, utilizing quantitative data from the GSS and discusses the broader implications of these findings, offering targeted recommendations for policy and practice to address gender disparities.

2 Data

Data used in this paper are retrieved from the U.S. General Social Survey (GSS). The General Social Survey (GSS) is an ongoing interview survey of U.S. households conducted by the National Opinion Research Center. It has provided a wealth of data on contemporary American society for approximately 35 years by measuring social change and trends and constants in the adult population's attitudes, behaviors, and attributes. It includes a questionnaire such as demographics, attitudes, and ideas towards certain beliefs, and even extends economic ideologies such as spending priorities. The goal is to have high-quality data available to social scientists and researchers. Over the years, the GSS has worked continuously to make the survey better. One major improvement worthy of mentioning is the addition of a Spanish version, since there is a big demographic of the U.S. that speaks Spanish, this would provide a significant increase in the coverage of U.S. household responses.

2.1 Source Data

For Demographic data, we obtained the following data, shown in Table 1. The "Wrkstat" variable captures the labor force status of the respondents, detailing whether individuals are

Table 1: Demographic Data from U.S GSS

Variable	Description	ExampleResponse
Sex	Respondent's Gender	Female
Wrkstat	Labor force status	Working Full Time
Educ	Highest year of school completed	Bachelor's

Table 2: Women in the workforce survey data

Variable	Description	ExampleResponse
Fejobaff	For or against preferential hiring of women	Strongly Favor
Fehire	Should hire and promote women	Disagree
Fefam	Is it better for man to work, and a woman to tend home	Agree
Discaffw	A woman won't get a job or promotion	Somewhat likely

employed full time, employed part time, or unemployed. This variable is crucial for understanding the employment landscape and analyzing trends related to workforce participation and unemployment rates. The "Sex" variable is essential for examining gender disparities across different spheres, including the workplace and education. The "Educ" variable records the highest year of school completed by respondents, serving as a key indicator of educational attainment.

For Workforce Survey data, we obtained the following data, shown in Table 2. These questions, such as those on preferential hiring and promotion of women (Fejobaff), the necessity of hiring and promoting women (Fehire), traditional family roles (Fefam), and perceptions of workplace discrimination against women (Discaffw), collectively paint a detailed picture of societal views on gender equity and affirmative action. Together, these variables from the GSS provide invaluable insights into the complex dynamics of gender equality and discrimination in the American workplace.

2.2 Respondent Labour Status

Figure 1 shows the number of men and women working full-time from 1972 to 2022, revealing significant trends in labor force participation by gender over five decades. Initially, the workforce was predominantly male, with 570 men working full time compared to 191 women in 1972. Over the years, a steady increase in the number of women working full-time is observed, narrowing the gender gap in full-time employment. By 2022, the number of women working full-time had increased to 728 from 191 in 1972, showing substantial progress towards gender equality in the workplace. The most remarkable year-over-year growth was seen between 1993 and 1994, and again significantly in 2006, reflecting possibly societal, policy, and economic changes that encouraged or necessitated increased female workforce participation.

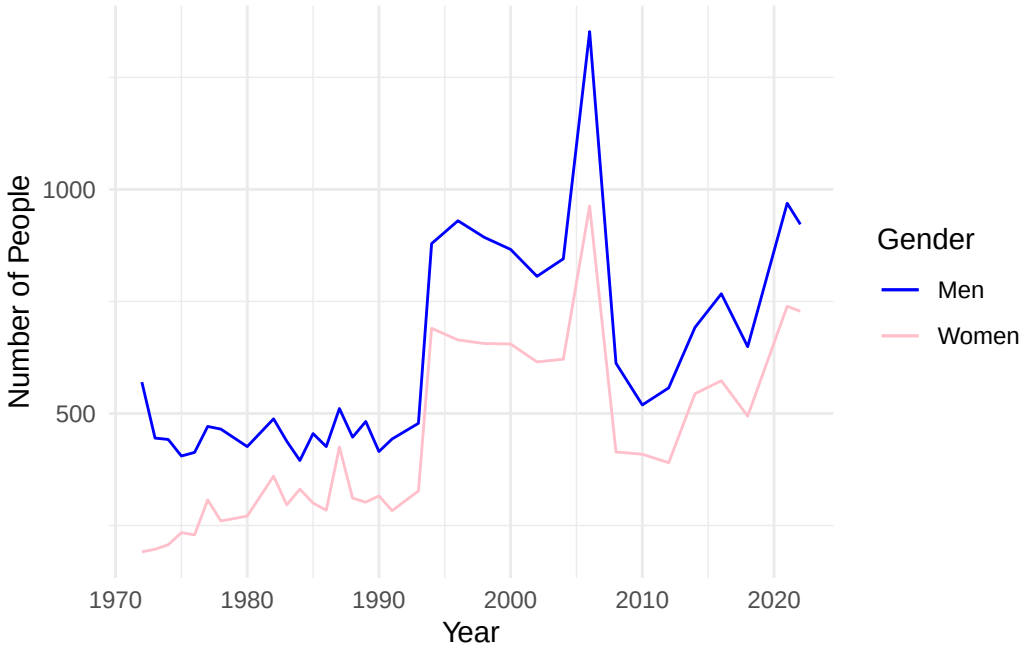

Figure 1: Full Time Work Status by Gender Over Time

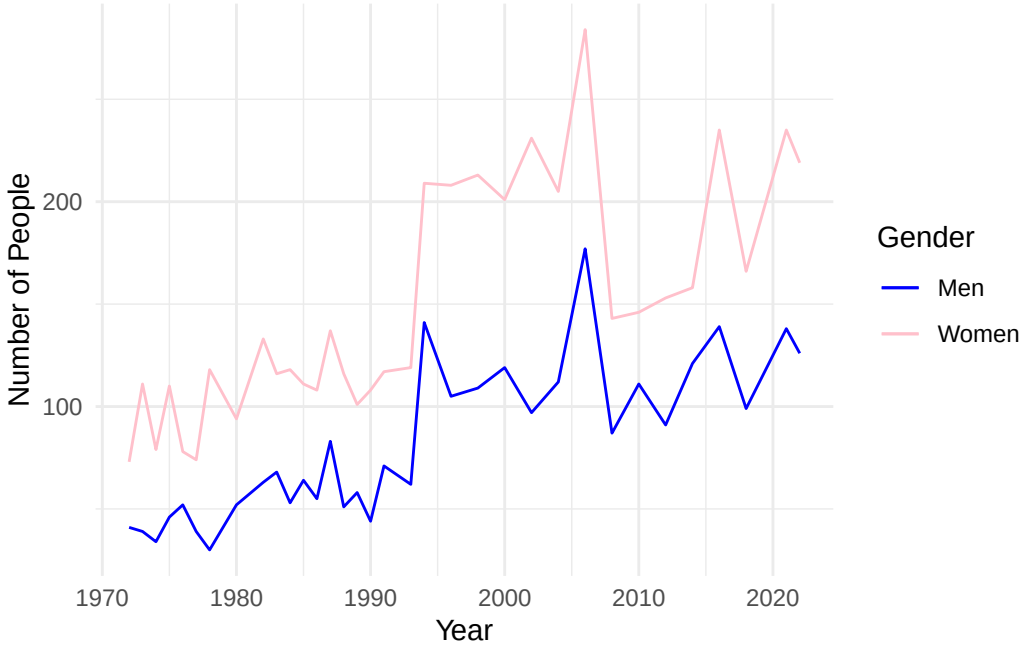

Figure 2: Part Time Work Status by Gender Over Time

Figure 2 highlights the number of men and women engaged in part-time work from 1972 to 2022, showcasing evolving trends in part-time employment, with a noticeable gender dimension. In 1972, part-time work was more common among women (73) than men (41), a trend that persisted and widened over the decades. The gap between male and female part-time workers expanded, with women consistently outnumbering men in part-time positions. Notably, the data illustrates a significant jump in both men and women working part-time in 1994, suggesting a shift in employment patterns or economic conditions that increased part-time work availability or necessity. By 2022, the number of women working part-time reached 219, compared to 126 men, reflecting ongoing gender disparities in part-time employment.

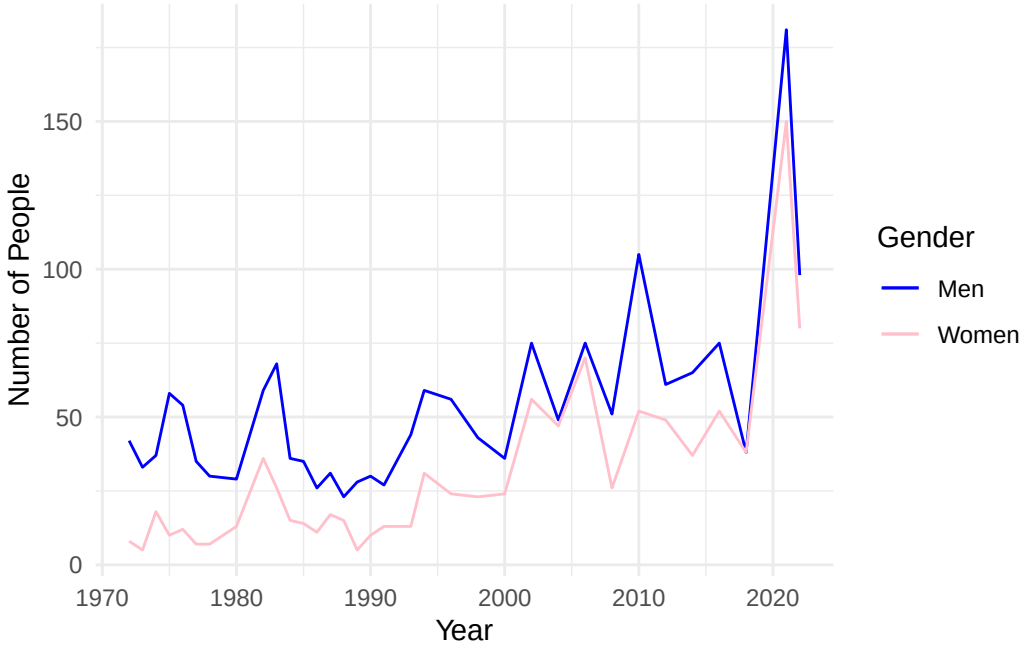

Figure 3: Unemployed Work Status by Gender Over Time

Figure 3 captures the number of unemployed men and women from 1972 to 2022, providing insightful trends into the dynamics of unemployment across genders over five decades. In 1972, the dataset begins with 42 unemployed men compared to 8 unemployed women, indicating a higher male unemployment in absolute numbers. Over the years, both genders experienced fluctuations in unemployment, with notable increases during economic downturns. A significant spike in unemployment for both genders is observed in 2021, with 181 men and 150 women reported as unemployed, possibly reflecting the economic impacts of global events or shifts in the labor market. While the gap between unemployed men and women has varied, the year 2021 shows a notably smaller difference, suggesting a convergence in unemployment rates between genders.

2.3 Survey Methodology

The survey methodology of the U.S. General Social Survey (GSS) employs a rigorous and systematic approach to collecting data that accurately reflects the attitudes, behaviors, and demographics of the United States population. Central to its methodology is the use of a stratified sampling technique, which ensures that various segments of the population are represented proportionately. This involves dividing the population into strata—such as geographic regions, age groups, gender, and racial or ethnic categories—and then randomly selecting participants from each stratum to achieve a sample that mirrors the broader population's characteristics. To maintain the integrity and reliability of the data, the GSS also adheres to strict protocols for questionnaire design, testing, and administration, incorporating both established and new questions to capture evolving social trends and issues. Interviews are conducted face-to-face or via telephone by trained interviewers, ensuring that responses are collected in a consistent and unbiased manner. Over the years, the GSS has adapted its methodologies to address challenges such as declining response rates and the advent of new technologies, including moving towards mixed-mode data collection strategies that may incorporate online surveys. The data collection process is underpinned by a commitment to ethical standards, protecting the privacy and confidentiality of respondents. The meticulous survey methodology of the GSS ensures the production of high-quality, reliable data, making it an invaluable resource for researchers, policymakers, and social scientists seeking to understand the complex fabric of American society.

2.4 Data Limitations

The COVID-19 pandemic posed unprecedented challenges to data collection efforts, including those of the General Social Survey (GSS), necessitating significant adjustments in methodology that may impact the reliability and comparability of the data collected during this period. In response to social distancing guidelines, the GSS likely had to transition from traditional in-person interviews to remote data collection methods, such as online surveys or telephone interviews. While essential for public health, these shifts could introduce biases, particularly affecting response rates and the representativeness of certain demographic groups less comfortable or accessible via these technologies. The pandemic's uneven impact across various regions, economic statuses, and racial demographics further complicates sampling efforts, potentially skewing the sample composition.

Moreover, the general upheaval caused by the pandemic—characterized by heightened levels of stress, health concerns, and economic instability—may have influenced individuals' willingness or capacity to participate in surveys, potentially leading to lower response rates and affecting the quality of responses. This variability complicates the task of comparing data collected during the pandemic with previous years, as the unique circumstances could significantly impact respondents' perceptions and experiences. Additionally, the GSS might not have been fully equipped to measure new phenomena introduced by the pandemic, such as the surge in

remote work, limiting its ability to capture the full scope of COVID-19's impact on the labor force and, more specifically, on women's experiences within it.

2.5 Data Cleaning

R (R Core Team 2023) was the language and environment used for this paper as well as throughout the data cleaning process, with different packages such as tidyverse (Wickham et al. 2019), ggplot2 (Wickham 2016), dplyr (Wickham et al. 2023), tidyr (Wickham et al. 2024), knitr (Xie 2023) packages.

From searching and filtering through different variables within the GSS, we were able to tabulate different datasets. Through this tabulation process, we were able to examine which years had data and years that did not, which allowed us to remove the empty years from the dataset.

3 Results

3.1 Biases against hiring women

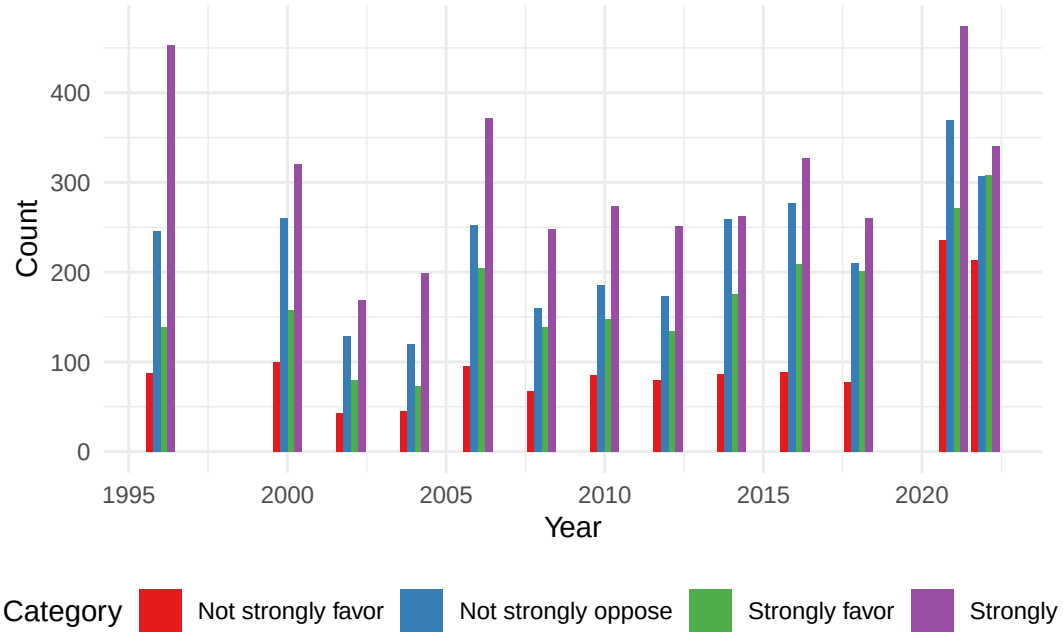

Figure 4: Opinions on Preferential Hiring Over Time

Figure 4 captures public opinion on hiring preferences across four categories: "Strongly favor," "Not strongly favor," "Not strongly oppose," and "Strongly oppose" from 1996 to 2006. The data reveals a fluctuating yet insightful perspective on preferences towards hiring practices over the years. In 1996, 139 individuals strongly favored certain hiring preferences, while a significant 453 strongly opposed them, indicating a polarized view on the matter. Over the following years, the number of people strongly favoring hiring preferences sees variation, peaking in 2006 with 204 individuals. Conversely, the "Strongly oppose" category also witnesses fluctuations, decreasing to 320 in 2000, then varying in subsequent years, and peaking again at 372 in 2006.

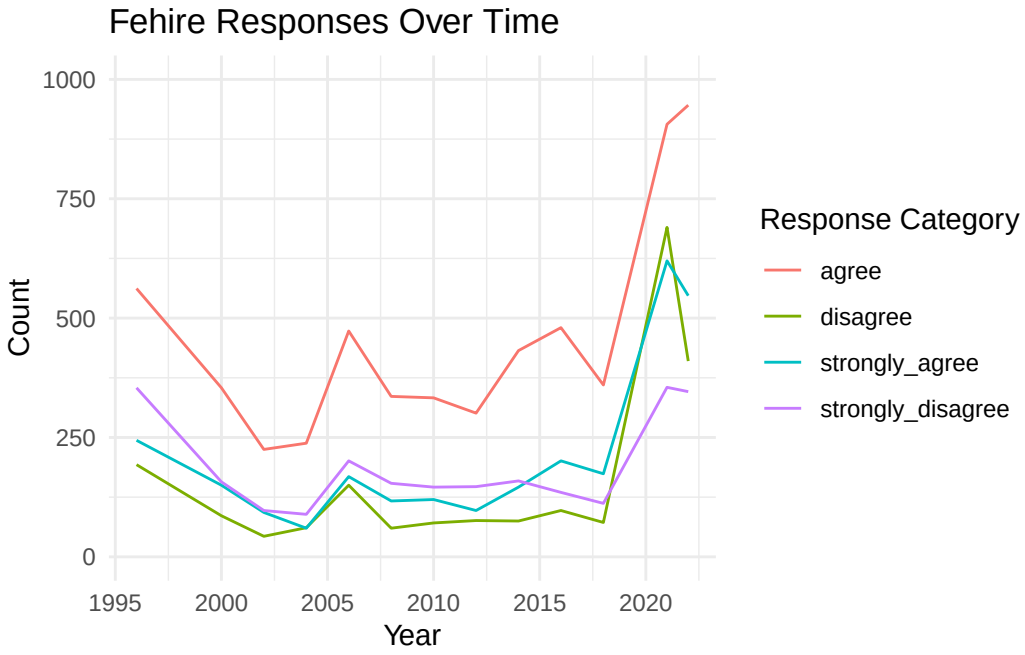

Figure 5: Attitudes Towards Hiring and Promoting Women

3.2 Attitudes Towards Hiring and Promoting Women

Figure 5 describes the GSS data on attitudes towards hiring and promoting women ("FEHIRE") from 1996 to 2022, showing a progressive shift towards more positive attitudes. The proportion of respondents strongly agreeing with the need to hire and promote women has seen a significant increase, particularly noticeable in the year 2021, where 620 respondents strongly agreed, compared to 244 in 1996. This trend suggests a growing consensus on the importance of gender equality in the workplace over the analyzed period. Despite this positive shift, there remains a consistent portion of respondents who disagree to varying degrees, highlighting that there is still work to be done to achieve universal acceptance of this principle.

Figure 6: Views on Gender Roles in Work and Family Life

3.3 Views on Gender Roles in Work and Family Life

Figure 6 describes the survey responses to "FEFAM," concerning the belief that it's better for men to work and women to tend to the home, showing significant changes from 1977 to 2022. Early in the survey period, a substantial number of respondents agreed with traditional gender roles. Over time, there's been a notable shift towards disagreement with this view, especially strong in the 2021 data, where 1,146 strongly disagreed. This evolution reflects broader societal changes towards gender roles within family and work life, emphasizing a move towards more egalitarian views.

3.4 Perceptions of Discrimination Against Women in Job Promotions

Figure 7 describes data on perceptions of discrimination against women in job promotions ("DISCAFFW") from 1996 to 2022, also indicating evolving public opinion. While the early years showed a more divided view on the likelihood of a woman not getting a job or promotion due to discrimination, there is a noticeable decline in the percentage of respondents who find it "very likely" or "somewhat likely." However, the absence of data in 2021 for this variable suggests a gap in understanding public opinion for that year. The overall trend suggests an increasing awareness and potentially decreasing concern over direct discrimination as a barrier to women's career advancement, though substantial concern remains.

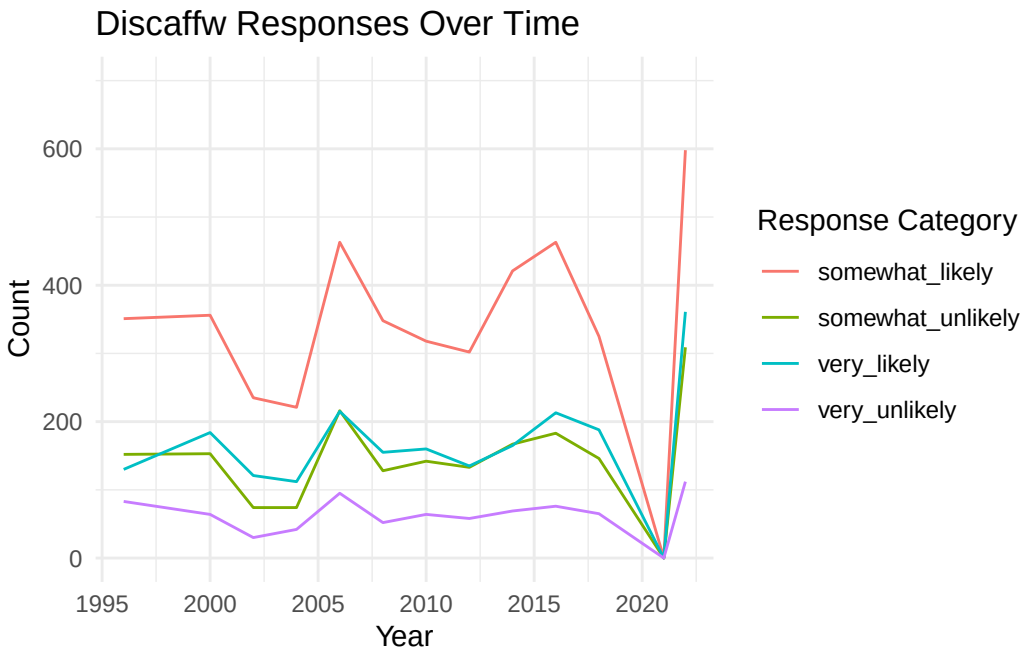

Figure 7: Perceptions of Discrimination Against Women in Job Promotions

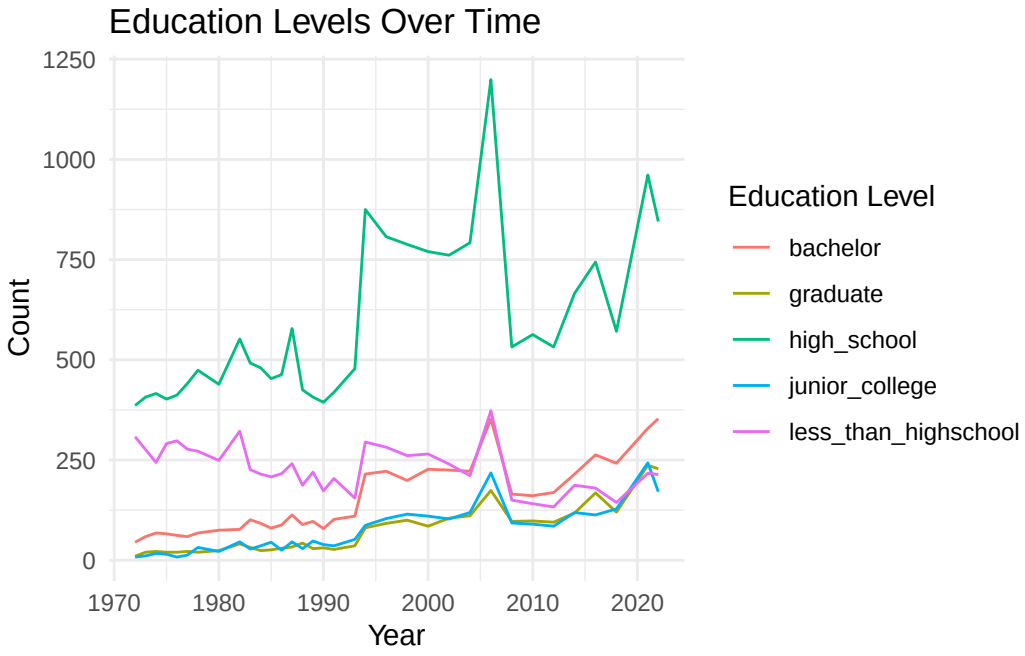

Figure 8: Educational Attainment by Gender

3.5 Educational Attainment by Gender

Figure 8 shows the GSS data on educational attainment, segmented by gender from 1972 to 2022, revealing trends in the pursuit and achievement of higher education. Both males and females have shown increased attainment of bachelor's and graduate degrees over time. Notably, the gap in educational attainment between males and females has narrowed, with women showing significant gains in both bachelor's and graduate degrees, especially highlighted in the 2021 data. This trend underscores the increasing value placed on education for all individuals, regardless of gender, and reflects the broader societal shifts towards gender equality in education.

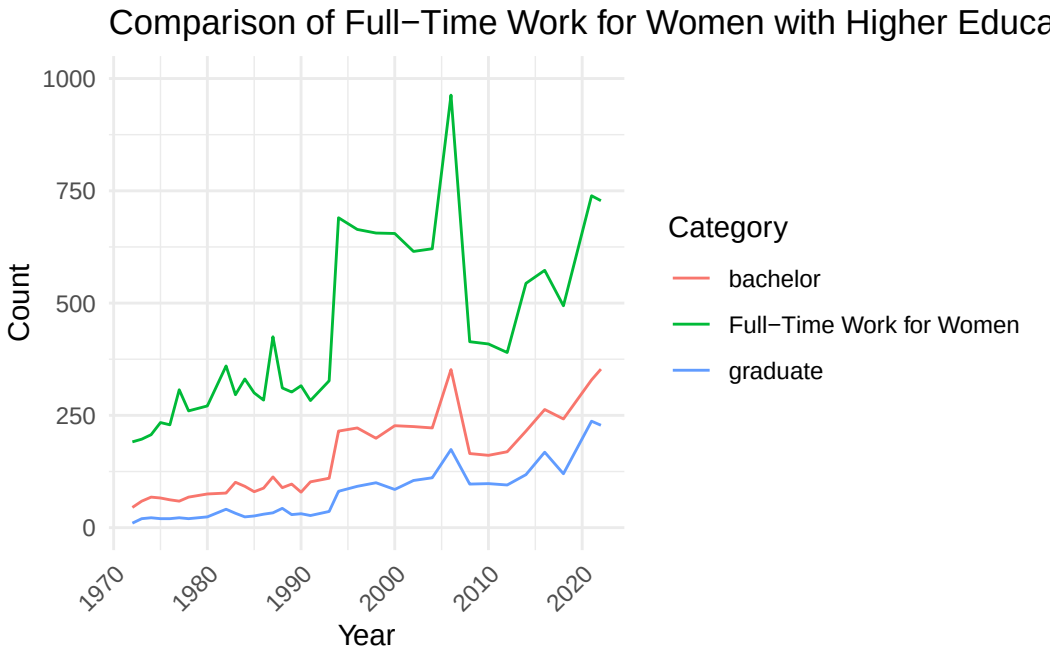

Figure 9: Trends in Full-Time Work and Educational Attainment for Women

3.6 Educational Attainment and Full-Time Work

Figure 9 reveals a significant upward trend in the number of women engaged in full-time employment over the years. Starting from 191 women in 1972, the numbers generally increased, peaking at 963 women in full-time work in 2006, before experiencing fluctuations and settling at 728 in 2022. This progression underscores the growing integration of women into the workforce and the breaking down of traditional gender roles that confined women to domestic responsibilities. The notable peak in 2006 could be indicative of economic, social, and legislative changes that encouraged or necessitated higher female participation in the workforce.

Parallel to the rise in full-time employment, Figure 9 also highlights significant strides in women's educational attainment. The data tracks the number of women who have achieved bachelor's and graduate degrees from 1972 through 2022. In 1972, 45 women held bachelor's degrees and 10 held graduate degrees. By 2022, these numbers had surged to 353 for bachelor's degrees and 228 for graduate degrees, reflecting a substantial increase in higher education attainment among women.

This trend not only demonstrates the shifting societal expectations and the dismantling of barriers to women's education but also aligns with the increased demand for higher education in a knowledge-driven economy. The remarkable increase in graduate degrees highlights the progress toward gender parity in advanced education levels, potentially contributing to narrowing the gender gap in professional and academic fields.

4 Discussion

4.1 Strengths of US GSS

Interviews have been conducted with a total of 51,020 respondents. The 1972-74 surveys used modified probability designs and the remaining surveys were completed using a full-probability sample design, producing a high-quality, representative sample of the adult population of the U.S. The GSS has a response rate of over 70 percent above that of other major social science surveys and 40-45 percentage points higher than the industry average.

4.2 Potential Ethical and Bias Issues with Survey Methodology

In the Fehelp variable, the question is framed as "It is more important for a wife to help her husband's career than to have one herself" and then participants are asked to respond from Strongly agree, agree, disagree, to disagree strongly. The main issue with these types of questions is the wording and the answer scales. This wordy question, could lose the reader or create misunderstanding. In a lengthy survey, it is very important to keep questions concise and straightforward. The question could be rephrased as: "Whose career is more important in a relationship?" and then the scale of wife and husband on a scale. This way it would not prompt the participant to think in any direction before actually answering the question thus reducing biases that might have occurred otherwise. Another thing worthy to mention is the percentage of participants in the actual population. Simply looking at the number of total respondents may seem very impressive, however when compared on a large scale, it is less than 0.0001% of the population. Since the percentage is so low, it is very difficult to make generalizations about the actual population like this.

4.3 Potential improvements

A potential improvement that could be implemented to improve the issues mentioned above is to update the questionnaires every year. Have a psychologist screen and update the questionnaires yearly to ensure that questions are worded properly and do not initiate any thoughts from the readers. Another thing to ensure is that the language used is up to date. In addition to removing biased wording, it is also important to ensure that the words are recent enough and are not words we no longer use. Since this survey has been ongoing for a long time, such measures should maintain the quality of the survey. Lastly, the increased coverage of participants would also be very beneficial. A method could be to survey states by state ensuring that they meet a certain percentage of the population before moving on to the next state. However, this would be a very time-consuming and tedious process, not every survey has the funding and time for such an approach. These implementations would improve the quality of the survey allowing for more accurate presentations of the population.

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