

Title*

Subtitle

Mingjia Chen Catherine Punnoose Tianen (Evan) Hao

March 11, 2024

First sentence, second sentence, third sentence.

Table of contents

1	Introduction	2
2	Data	2
2.1	Source Data	2
2.2	Data Cleaning	2
2.3	Data Limitations	3
2.4	Survey Methodology	3
2.4.1	1998 Survey Methodology	3
2.4.2	2008 Survey Methodology	4
2.4.3	Gap in 2020 Data	5
2.4.4	Non-responses	5
3	Results	5
3.1	Working Hour Comparison Between Financial Events	5
3.2	Nonreponse Rate	6
4	Discussion	9
4.1	Labour Market Response Across Economic Crises	9
4.2	Demographic Disparities in Labour Market Participation	9
4.2.1	Younger Workers and Educational Attainment	9
4.2.2	Women in the Labour Market	9
4.3	Political Affiliation and Labour Market Perceptions	9
4.4	Ethical Considerations and Bias	9

*Code and data are available at: https://github.com/ShadyEvan4830/Labour_Market_Resilience.git

4.5	Limitations	9
4.6	Future Research	9
4.7	Journal Study: Directions on Non-response Rates	9
5	Conclusion	9
	Appendix	9
	References	10

1 Introduction

2 Data

2.1 Source Data

For the analysis, we retrieved the following data as described in Table 1.

Table 1: Demographic data retrieved from GSS

Variable	New Name	Description	Example
response	work hours	Respondent’s response	23
year	year	The year of the survey recorded	2007

2.2 Data Cleaning

The data was downloaded and filtered for the selected variables from the selected data variables from GSS¹. The data cleaning was performed based on value definitions as defined in the GSS codebook (NORC 2021). One of the variable names **response** is renamed to be more informative Table 1.

The data was thus been cleaned by using the open source statistically programming language R (R Core Team 2024), with libraries **tidyverse** (Wickham et al. 2019), **ggplot2** (Wickham 2016), **dplyr** (Wickham et al. 2022), **readr** (Wickham, Hester, and Bryan 2022), **tibble** (Muller and Wickham 2022), **here** (**here?**), **kableExtra** (Zhu 2021), **janitor** (Firke 2023), and **knitr** (Xie 2014).

¹https://gss.norc.org/documents/stata/GSS_stata.zip

Table 2: Overview of the Categorized Data

Work Hours/Years	1998	2008	2021	Total
No Response	973	777	1901	30172
0-20	91	55	112	2092
21-40	335	247	342	7931
41-60	536	345	522	11024
61-80	107	77	79	2097
80+	21	14	20	526
Total	2834	2022	4034	72446

2.3 Data Limitations

2.4 Survey Methodology

2.4.1 1998 Survey Methodology

1998 Survey Results

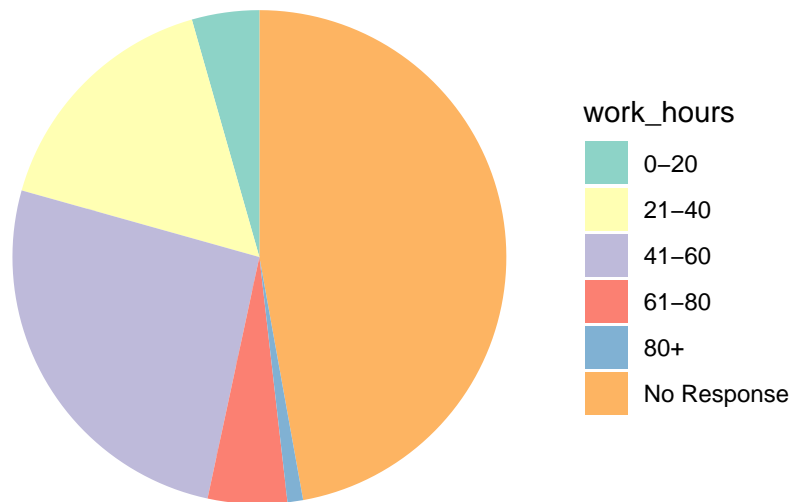


Figure 1

2.4.2 2008 Survey Methodology

2008 Survey Results

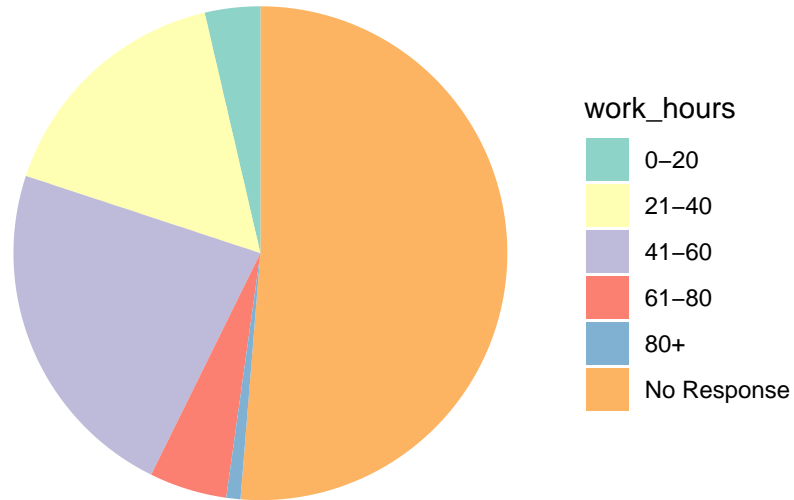


Figure 2

2.4.3 Gap in 2020 Data

2021 Survey Results

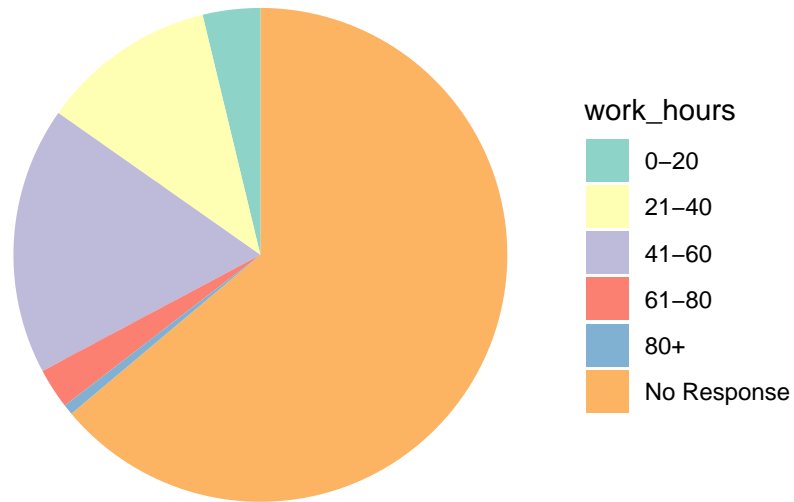


Figure 3

2.4.4 Non-responses

3 Results

3.1 Working Hour Comparison Between Financial Events

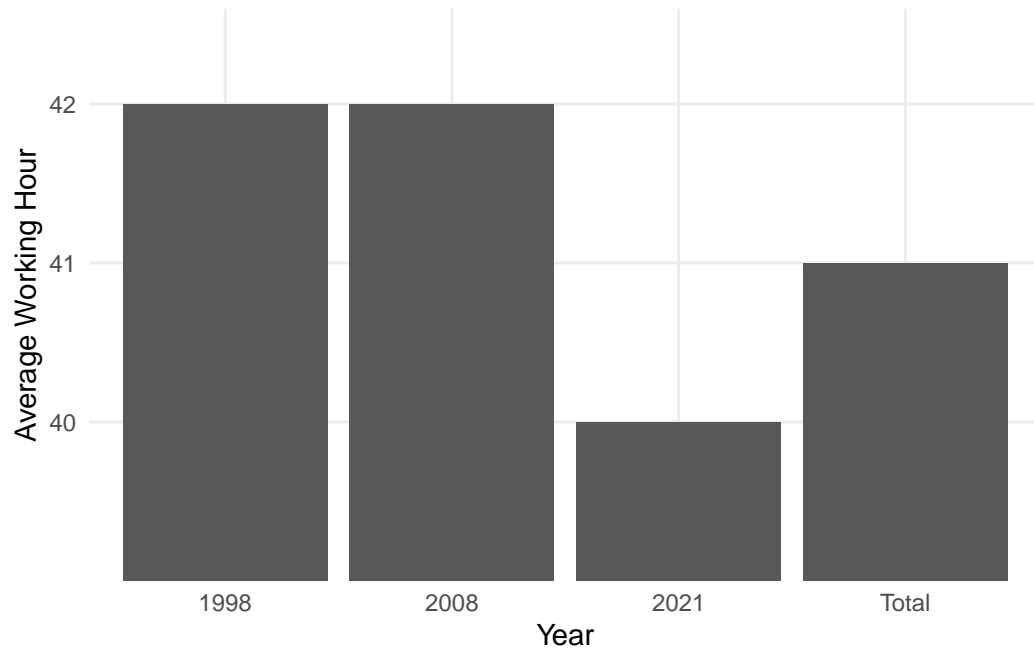


Figure 4: Average Working Hours Comparison between Financial Events

3.2 Nonresponse Rate

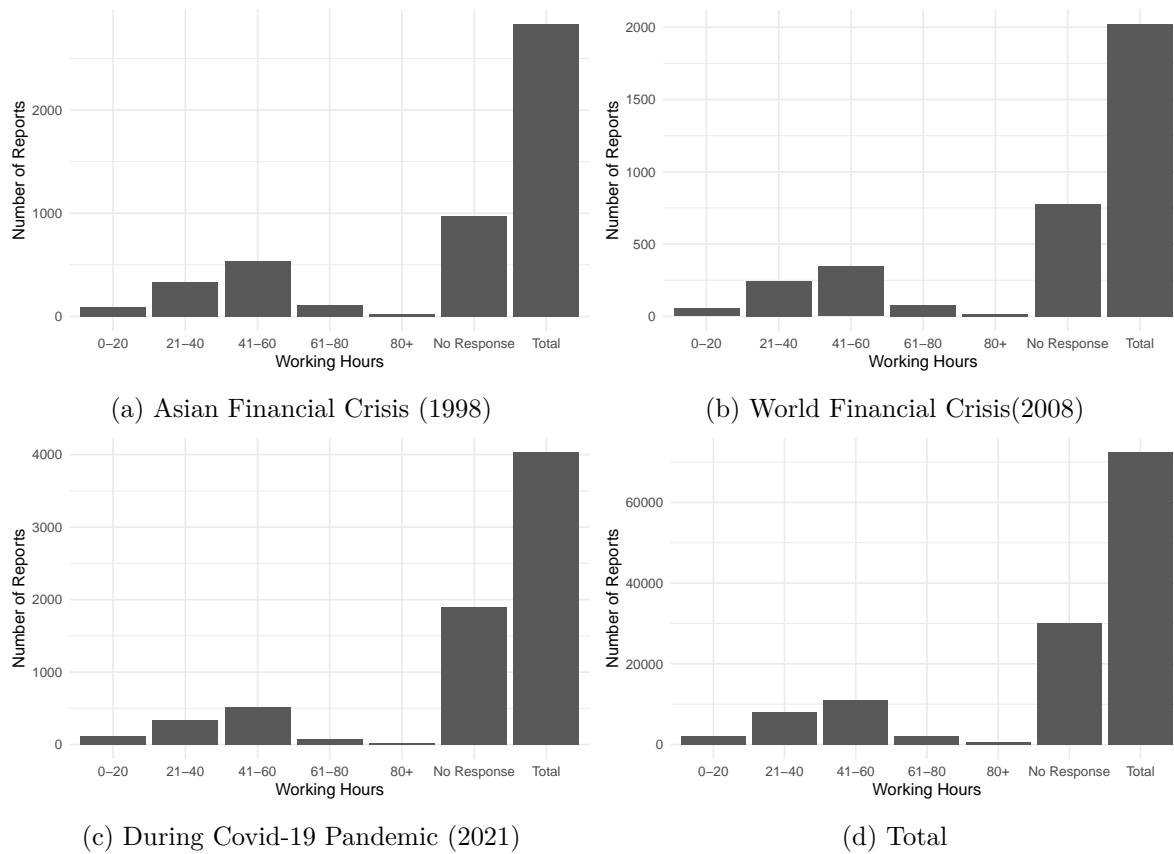


Figure 5: Categorical Working Hour Comparson between the Years

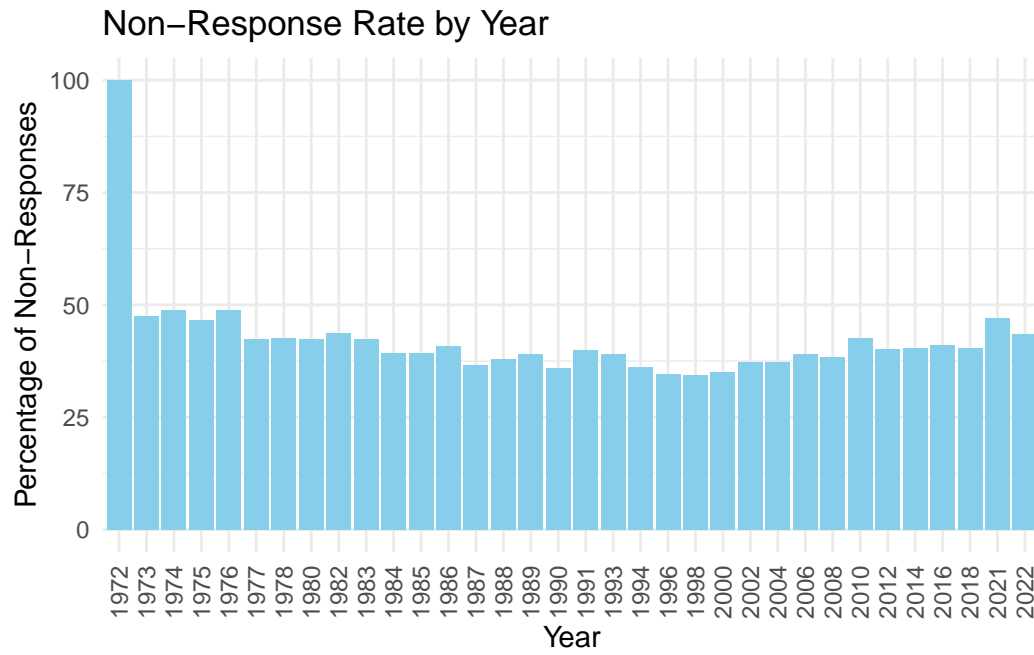


Figure 6: Average Working Hours Comparison between Financial Events

4 Discussion

4.1 Labour Market Response Across Economic Crises

4.2 Demographic Disparities in Labour Market Participation

4.2.1 Younger Workers and Educational Attainment

4.2.2 Women in the Labour Market

4.3 Political Affiliation and Labour Market Perceptions

4.4 Ethical Considerations and Bias

4.5 Limitations

4.6 Future Research

4.7 Journal Study: Directions on Non-response Rates

5 Conclusion

Appendix

References

- Firke, Sam. 2023. *Janitor: Simple Tools for Examining and Cleaning Dirty Data*. <https://CRAN.R-project.org/package=janitor>.
- Muller, Kirill, and Hadley Wickham. 2022. *Tibble: Simple Data Frames*. <https://CRAN.R-project.org/package=tibble>.
- NORC. 2021. *22 GSS Cros-Section Codebook*. <https://gss.norc.ox.ac.uk/Documents/codebook/GSS%202021%20Codebook.pdf>.
- R Core Team. 2024. *R: A Language and Environment for Statistical Computing*. Toronto, Canada: R Foundation for Statistical Computing. <https://www.R-project.org/>.
- Wickham, Hadley. 2016. *Ggplot2: Elegant Graphics for Data Analysis*. Springer-Verlag New York. <https://ggplot2.tidyverse.org>.
- Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Golemund, et al. 2019. "Welcome to the tidyverse." *Journal of Open Source Software* 4 (43): 1686. <https://doi.org/10.21105/joss.01686>.
- Wickham, Hadley, Romain François, Lionel Henry, and Kirill Muller. 2022. *Dplyr: A Grammar of Data Manipulation*. <https://CRAN.R-project.org/package=dplyr>.
- Wickham, Hadley, Jim Hester, and Jennifer Bryan. 2022. *Readr: Read Rectangular Text Data*. <https://CRAN.R-project.org/package=readr>.
- Xie, Yihui. 2014. "Knitr: A Comprehensive Tool for Reproducible Research in R." In *Implementing Reproducible Computational Research*, edited by Victoria Stodden, Friedrich Leisch, and Roger D. Peng. Chapman; Hall/CRC.
- Zhu, Hao. 2021. *kableExtra: Construct Complex Table with 'Kable' and Pipe Syntax*. <https://CRAN.R-project.org/package=kableExtra>.