Navigating Factors Affecting Job Satisfaction Among Working Americans*

Analysis using US General Social Survey (1989 to 2016)

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

1 Introduction

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2 Data

Based at the University of Chicago since 1972, the General Social Survey (GSS) is a project with the objective of monitoring and analyzing the intricacies of American society (1). 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).

The dataset used for this paper was retrieved from The General Social Survey (GSS) Data Explorer website (citation). We retrieved survey data relating to work and job in the years of 1989, 1998, 2006, and 2016.

2.1 Source Data and Methodology

Majority of the GSS data was collected through face-to-face interviews with the target population of adults (18+) residing in the United States, but starting in 2002, Computer-assisted personal interviewing methods were introduced (3).

All the survey data used was in relation to job and work in the Work Orientation Module; the specific variable names extracted from the dataset being intjob, hlpoths, and hlpsoc.

2.2 Data Cleaning

The open source statistical programming language `R` was used to clean and analyze the data, along with producing the graphs. The main packages that supported this process included `tidyverse`, `ggplot2`, `knitr`, `kableExtra`, here...

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 "intjob" being the column name for "importance of interesting work in a job" , we renamed it to interesting_work, as shown in Table #. Further, the numerical values representing the participants' responses (1-5) were changed to the representative words/phrases (not important, very important, etc.). Table 1 shows the old and new variable names used in cleaning, the description of variables, and sample responses.

Table 1: GSS Dataset

Variable	New.Name	Description	Example.Response
intjob	interesting_work	Importance of interesting work in a job	Very Important
hlpoths	helping_others	Importance of helping others in a job	Neither
hlpsoc	social_usefulness	Importance of social usefulness in a job	Not Important

2.3 Data Terminology

The response choices for each question and their respective code in brackets are as follows: Inapplicable (-100), No Answer (-99), Do Not Know/Cannot Choose (-98), Very Important (1), Important (2), Neither (3), Not important (4), and Not Important At All (5). 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 shows the number and percentage of male and female respondents for 1989, 1998, 2006, and 2016. Table 4 shows the mean, median, mode, min, and max of respondent age for all four years of data collection.

Table 2: Respondent Gender Demographics by Year

Year S	ex	Count	Percentage
1989	female	786	56.51
1989	male	605	43.49
1998	female	678	58.80
1998	male	475	41.20
2006	female	807	53.48
2006	male	702	46.52
2016	female	766	52.22
2016	male	701	47.78

Table 3: Respondent Age Groups by Year

Year	18-24	25-34	35-44	45-54	55-64	65+	N/A
1989	150	322	293	215	153	256	2
1998	108	254	298	187	125	180	1
2006	110	269	329	335	227	230	9

Year	18-24	25-34	35-44	45-54	55-64	65+	N/A
2016	112	238	275	265	267	303	7

Table 4: Respondent Age Demographics by Year

Year	Mean	Median	Mode	Min	Max
1989	45	42	28	18	89
1998	45	42	33	18	89
2006	47	46	47	18	89
2016	49	49	58	18	89

2.5 Graphs of Responses

Figure 1, Figure 2, and Figure 3, shows the responses to the prompt "On the following list there are various aspects of jobs. Please circle one number to show how important you personally consider it is in a job" where each graph represents one of the aspects. Respondents answered on a 1 to 5 Likert scale where 1 represents "very important" and 5 represents "not important at all".

2.5.1 Helps Others

In Figure 1, the proportion of respondents to the prompt "A job that allows someone to help other people?" is displayed. From the first year of data collection in 1989 to 2006, "Important" was the most selected response. In 2016, "Very Important" surpassed "Important" by 1%. In general, you can see an increase in "Very Important" respondents across the years while there is little change in the proportion of "Not Important" and "Not Important At All" responses. Further, there is a general decrease in "Neither" responses from 1989 - 2006 which is interrupted when there is a slight increase in 2016.

2.5.2 Interesting Work

Figure 2 shows the proportion of responses for the prompt "An interesting job?". In 1989, "Important" responses was most chosen at around 50%. The following survey, in 1998, showed an increase in "Very Important" responses, where it had a similar proportion to "Important" responses 1989 and "Important" decreased to a proportion similar to "Very Important".

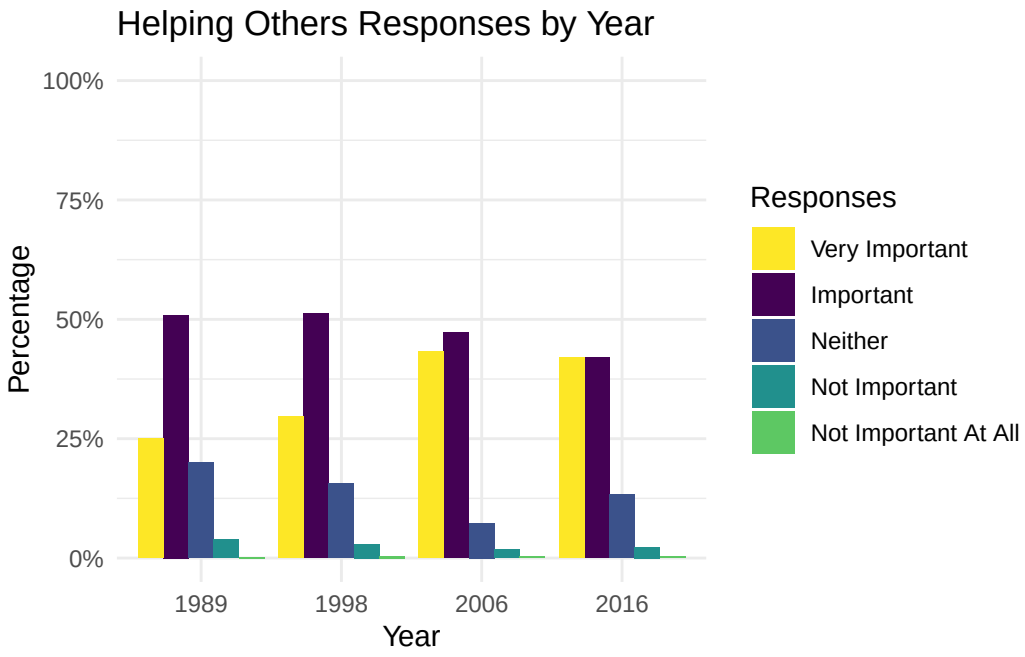

Figure 1: Q1 - "A job that allows someone to help other people?"

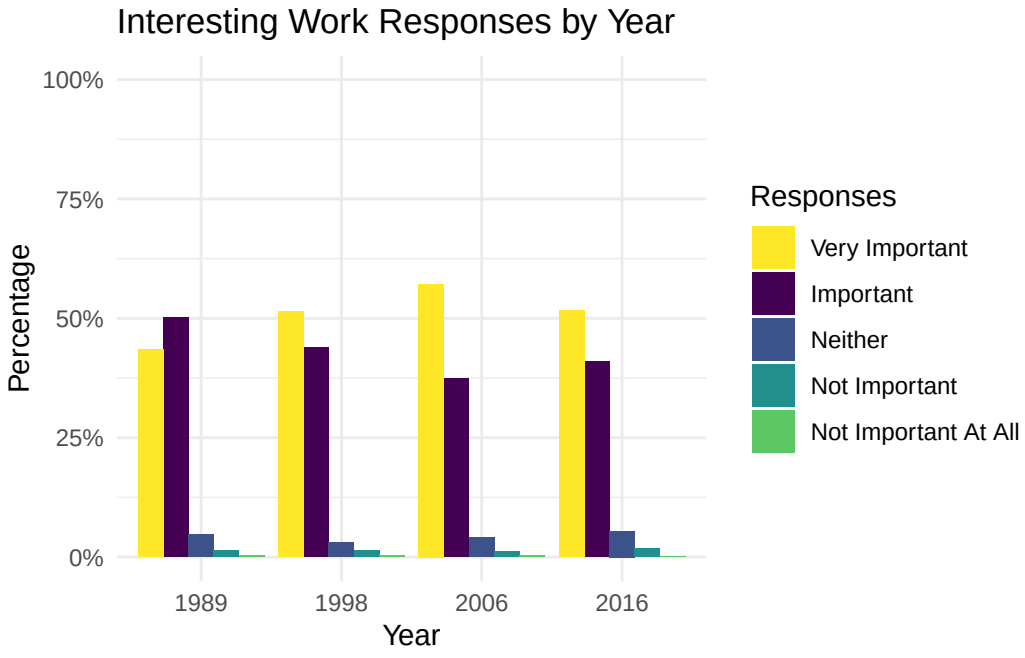

Figure 2: Q2 - "An interesting job?"

2.5.3 Social Usefulness

Figure 3 displays the proportion of responses for the prompt "A job that is useful to society?". There is a large increase in the proportion of "Very Important" responses from 1989 to 2016. In contrast, there is a gradual decline for both "Important" and "Neither". There is little change in "Not Important" and "Not Important At All". Compared to the other figures, this graph has the most varying change in the "neutral" response.

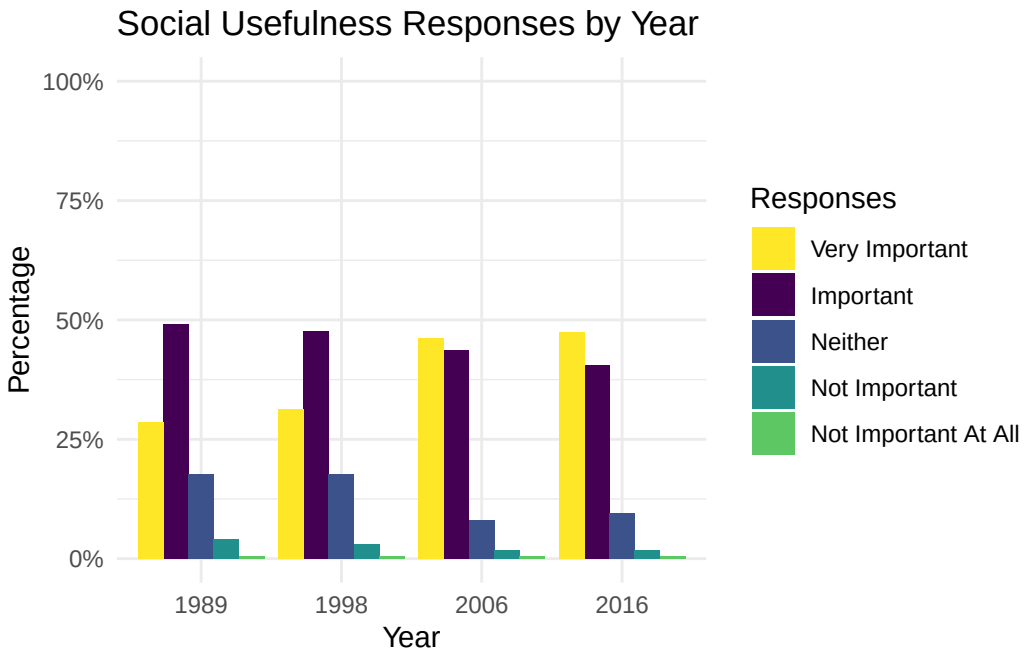

Figure 3: Q3 - "A job that is useful to society?"

3 Results

3.1 Responses and demographics

Table 5 summarizes the average of responses per year for each variable.

Table 5: Average of Responses by Year

Year	Helping Others	Interesting Work	Social Usefulness
1989	2.034	1.649	1.986
1998	1.932	1.550	1.939

Year	Helping Others	Interesting Work	Social Usefulness
2006	1.687	1.501	1.669
2016	1.767	1.577	1.675

Table 6

Table 6: Helping Others Response Proportions 1989

Response	Sex	Count	Percentage
very important	female	210	60.34
very important	male	138	39.66
important	female	417	58.90
important	male	291	41.10
neither	female	133	47.84
neither	male	145	52.16
not important	female	24	44.44
not important	male	30	55.56
not important at all	female	2	66.67
not important at all	male	1	33.33

Table 7

Table 7: Helping Others Response Proportions 2016

Response	Sex	Count	Percentage
very important	female	350	56.73
very important	male	267	43.27
important	female	324	52.51
important	male	293	47.49
neither	female	80	41.03
neither	male	115	58.97
not important	female	11	32.35
not important	male	23	67.65
not important at all	female	1	25.00
not important at all	male	3	75.00

Table 8

Table 8: Interesting Work Response Proportions 1989

Response	Sex	Count	Percentage
very important	female	341	56.46
very important	male	263	43.54
important	female	401	57.37
important	male	298	42.63
neither	female	34	52.31
neither	male	31	47.69
not important	female	7	38.89
not important	male	11	61.11
not important at all	female	3	60.00
not important at all	male	2	40.00

Table 9

Table 9: Interesting Work Response Proportions 2016

Response	Sex	Count	Percentage
very important	female	391	51.65
very important	male	366	48.35
important	female	319	52.99
important	male	283	47.01
neither	female	42	52.50
neither	male	38	47.50
not important	female	13	48.15
not important	male	14	51.85
not important at all	female	1	100.00

Table 10

Table 10: Social Usefulness Response Proportions 1989

Response	Sex	Count	Percentage
very important	female	223	56.03
very important	male	175	43.97
important	female	399	58.33
important	male	285	41.67
neither	female	134	54.69
neither	male	111	45.31

Response	Sex	Count	Percentage
not important	female	25	43.10
not important	male	33	56.90
not important at all	female	5	83.33
not important at all	male	1	16.67

Table 11

Table 11: Social Usefulness Response Proportions 2016

Response	Sex	Count	Percentage
very important	female	379	54.38
very important	male	318	45.62
important	female	314	52.86
important	male	280	47.14
neither	female	58	41.13
neither	male	83	58.87
not important	female	11	42.31
not important	male	15	57.69
not important at all	female	4	44.44
not important at all	male	5	55.56

3.2 Change in importance over time

Figure 4 demonstrates the changing proportion of responses to how important is it for a job to help others.

4 Discussion

In progress...

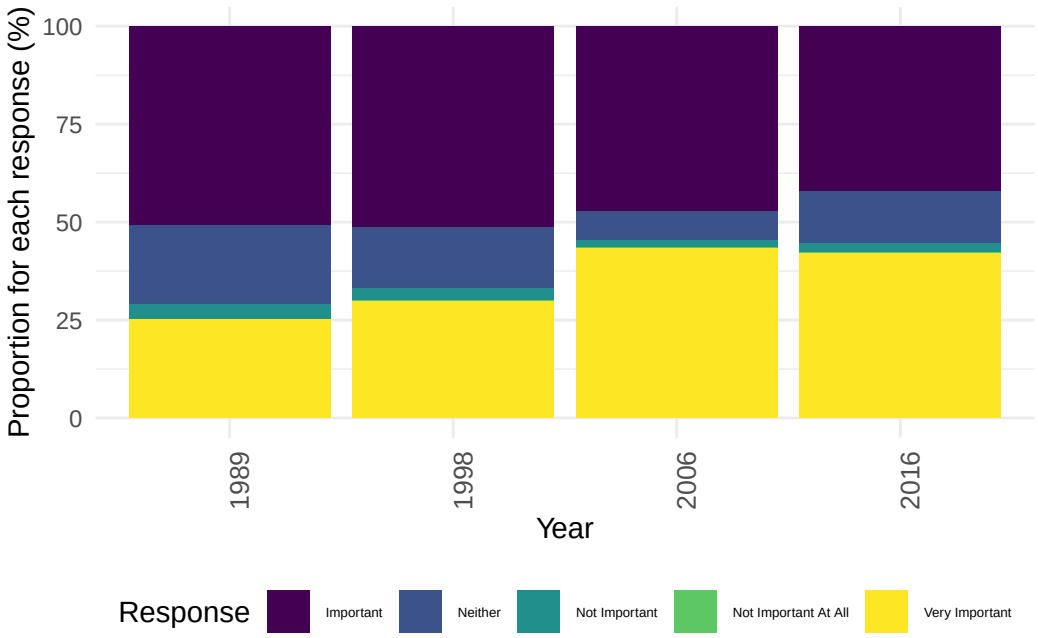

Figure 4: Proportion of Responses to Importance of Job that Helps Other

4.1 Gender

4.2 Age

4.3 Culture

4.4 Technology

5 Sources