Investigating The Fleishman Effect: Subjective Evaluations of Financial Satisfaction in the US General Social Survey*

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Using data from the US General Social Survey, we explore how people understand their financial situations in comparison to others, according to different demographic factors, against the backdrop of an increasing wealth gap between high and low earning individuals. The paper discusses the sociological dynamics and cognitive biases that affect these subjective evaluations, and highlights the importance of considering these factors in understanding financial satisfaction and well-being.

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1 Introduction

Financial decisions are among the most complex and consequential decisions we make in our lives. Recent survey shows that the majority of Americans are feeling anxious about their financial situation, and perceive their lives being controlled by their finances (One 2020). Financial satisfaction and well-being assessments are subjective self-evaluations that can be influenced by a wide variety of different factors. However, the COVID-19 pandemic and the ensuing inflation rate increases have shown that economic pressures affect different demographics disproportionately (Canada 2021). While the pandemic was a shared global experience, individual experiences of its implications were not.

Consumer Financial Protection Bureau's report on Financial Well-Being in America (Bureau 2020) outlined the slight increase in the average score for financial well-being in 2020 as compared to 20217. It also highlighted the long-standing differences in financial well-being among different groups, such as age, gender and ethnicity. To further understand factors influencing individual's financial well-being, we used data from the US General Social Survey (GSS) from NORC (NORC 2021c) at the University of Chicago to deconstruct financial well-being into four different perceptions: overall financial satisfaction, perceived change in financial situation, perceived family income compared to other American families, and self identified social class.

These perceptions are then analyzed to understand their correlations demographic factors (e.g. gender, age, level of education), as well as how these perceptions change over time.

Overall, our analysis demonstrated the trend of wealth gap widening over time, as the rich are getting richer, and the poor are getting poorer. Also, different generations have different evaluations of their financial situations, with Millennials and Generation Z evaluating themselves as lower in financial well-being compared to preceding generations. When faceting by social class, the data provides evidence that individuals understandings of their financial well-being and satisfaction are influenced by their reference groups. A significant number of respondents who self-reported as upper class still expressed financial dissatisfaction, described their financial situation as being "below average". In our discussion, we explore the different ways in which sociological dynamics and cognitive biases can affect how someone might understand their own financial situation, along with other factors specific to the survey's limitations that shape this statistic.

In the remainder of the paper, we first discuss the data sources, limitations and cleaning procedures in the Data section. The following section, Results, present trends and correlations discovered in analysis, slicing across 2021 survey data as well as investigating results over the years. The Discussion section shares additional insights into our data findings such as the wealth gap and Fleishman Effect, as well as outlining future research directions. Finally, we wrap up with the Conclusion section summarizing the main discoveries from this paper.

2 Data

Data used in this paper are retrieved from the US General Social Survey (GSS) from NORC at the University of Chicago (NORC 2021c). We retrieved demographic data as well as survey questions related to financial wellness from 1972 to 2021.

2.1 Source Data

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

Table 1: Demographic data retrieved from USS

Variable	New Name	Description	Example
age	age	Respondent's age	56
cohort	cohort	Birth cohort of respondent	1965
sexbirth1	gender	sex recorded at birth	Female
marital	marital	Respondent's martial status	Divorced
degree	degree	Respondent's degree	Bachelors
income16	income	family income recorded in 2016	$50,000 TO $59,999

For survey questions related to financial well-being, we retrieved the following data as described in Table 2.

Table 2: Financial survey data retrieved from USS

Variable	New Name	Description	Example
satfin	financial_satisfaction	Respondent's satisfaction with their current financial situation	Pretty Well Satisfied
finalter	financial_change	Changes in respondent's financial situation	Stayed the same
finrela	financial_compare	Comparing respondent's family income with American families in general	Above Average
class	social_class	self identified social class the respondent belong in	Middle Class
class1	social_class1	self identified social class the respondent belong in (more granular than social_class)	Upper Middle Class

2.2 Data Limitations

Since 1972, the GSS has been tracking trends in public opinion through in-person interviews. Due to the COVID-19 pandemic, the GSS had to change their data collection from in-person to address-based sampling and a push-to-web methodology, meaning that most of the interview was conducted with an online self-administered questionnaire. When using this primarily mail-based communication, the 2021 GSS asks for "the person with the most recent birthday, rather than a random person in the household" to respond to the survey. This change in methodology resulted in several limitations, which are discussed in detail below.

2.2.1 Gap in 2020 data

First, data from the year 2020 is not recorded, which is inconsistent with the yearly GSS track record. Because the GSS data collection spans 2020 and 2021, the reference year for the 2021 GSS for questions where, for instance, respondents are asked for their income "last year", is 2019. Second, in the 2021 GSS, people below the age of 30, people without high school degrees, and Black respondents completed less surveys, proportionally, than their 2018 counterparts.

2.2.2 "Don't know" responses

Shifting from in-person interviewing to online data collection required the GSS to find a new approach to appropriately recording responses when respondents expressed uncertainty, indecision, or a refusal to answer. Interviewers in previous rounds of the GSS had specific training in how to record "Don't Know" responses, which occurred when respondents either refused to answer a question or did not know the answer to a question. The 2021 GSS had no interviewers in the web mode to appropriately record these responses. In order to mitigate this change in mode, no item on the 2021 GSS shows "No Answer", unless the module sponsor requested that it be included. The exception to this was factual questions about occupation, income, or family background, since respondents could genuinely not know the answer, rather than being indecisive on the answer. Instead of "No Answer" or "Don't know", users could skip the question. "Skipped on web" indicates that users read the questions but skipped it.

2.2.3 Survey Experimentation

The added element of having a user interface allowed for experiments in survey recording that, according to the GSS' initial review of the data, made a difference in the results. For instance, the 2021 GSS displayed questions that shared a theme in a grid together, so that respondents could answer three or four thematically linked questions at the same time. The GSS tested abortion items and suicide items in both the traditional and grid format, which items asked in a grid marked with a -G suffix. The 2021 GSS also conducted an experiment with volunteered responses. In the past, respondents frequently volunteered information (for instance, "just right" rather than "too harsh" or "not harsh enough"), which interviewers had training for recording appropriately (NORC (2021b)). In the online format, the GSS included a volunteered response on the screen in some cases, where the variable is marked with a -V suffix, and removed the option entirely for other respondents, marking the variable with an -NV suffix.

2.2.4 Impact on our study

Any changes in opinions observed in 2021 relative to historical trends may be impacted by the changes in methodology. While the incomes reported are from 2019, the emotions recorded (i.e. financial satisfaction, comparing financial situation with others), are from 2021, after a year when many people lost their jobs, moved cities, or had other changes in household arrangements and income. While this has less of an impact on long-term visualizations of reported satisfaction over time, analyses of reported satisfaction based on income levels using 2021 data will be influenced by this gap.

Table 3: Summary statistics for the number of observations across the 33 surveys from 1972 to 2021

mean	max	min	sd
2086	4510	1372	789

Table 4: Number of respondents by gender for 2021 survey

Gender	Number of Responses	Percentage
Male	1730	42.9%
Female	2198	54.5%
NA	104	2.6%

2.3 Data Cleaning

Data was cleaned and analyzed using the open source statistically programming language R (R Core Team 2022), using functionalities from `tidyverse` (Wickham et al. 2019), `ggplot2` (Wickham 2016), `dplyr` (Wickham et al. 2022), `readr` (Wickham, Hester, and Bryan 2022), `tibble` (Müller and Wickham 2022), `haven` (Wickham, Miller, and Smith 2022), `here` (Müller 2020), `formattable` (Ren and Russell 2021), `kableExtra` (Zhu 2021) and `knitr` (Xie 2014).

After downloading and filtering for the selected data variables from GSS[1], we performed data cleaning on each one of the columns based on value definitions as defined in GSS codebook (NORC 2021a), as well as renaming each column with meaningful names. For example, the column `sexbirth1` has been renamed to `gender`, with the value 1 updated to "Male", and the value 2 updated to "Female" based on mapping in the codebook.

Overall, there are 68,846 observations collected across 33 surveys administered over the years. On average there are 2086 observations per survey, with the largest number of observations in the 2006 survey with 4510 responses, and smallest number of observations in 1990 survey with 1372 responses. The standard deviation for the number of observations per survey is 789 (see Table 3).
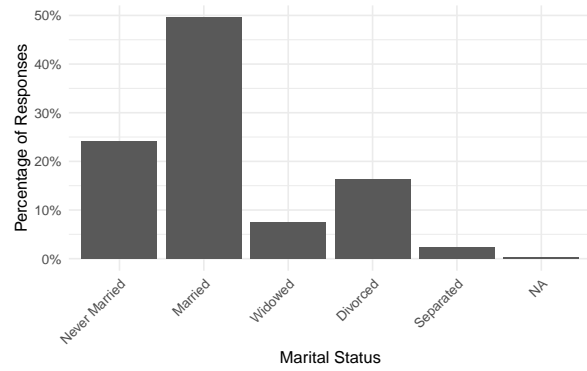
3 Results

3.1 Respondent Demographics in 2021 Survey

In 2021, there are 4032 responses recorded for the US General Social Survey. Out of these responses, 1730 (42.9%) of the respondents identified as male at birth, 2198 (54.5%) identified
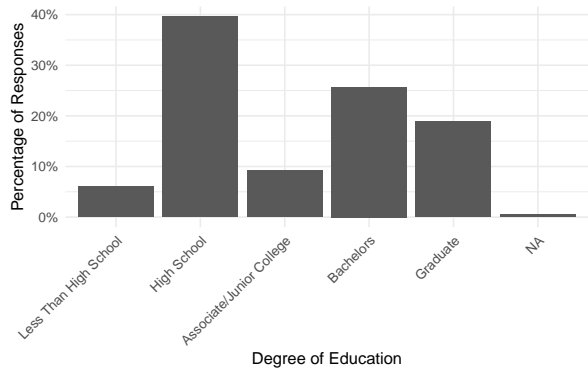
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[1]https://gss.norc.org/documents/stata/GSS_stata.zip
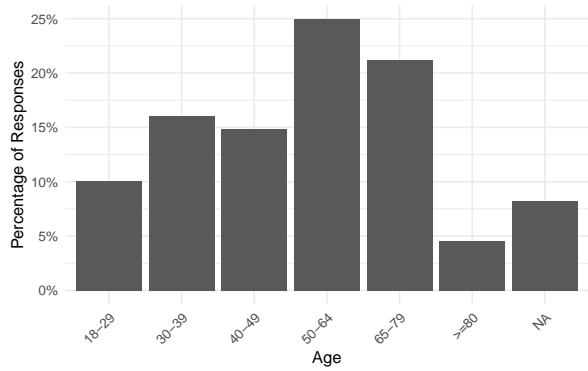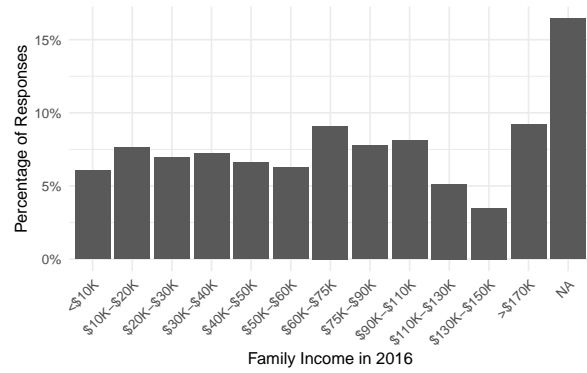
(a) Age

(b) Marital Status

(c) Level of Education

(d) Family Income

Figure 1: Distribution of Respondents' Demographics

as female at birth, with 104 (2.6%) of them did not identify their **gender** in the survey (Table 4). Other than gender, we also looked at four different dimensions of respondents' demographics: age, marital status, degree of education and family income.

The average **age** of respondents who responded in 2021 is 52 years old. Looking at the age distribution in Figure 1a, we see a spread of values across the different categories, with noticeably smaller number of respondents less than 29 years old, as well as those who are over 80 years old. It would be interesting to compare this to the US demographic data to determine if the 2021 USS survey respondents are representative of the general population. There are 8.2% of data records that are NA for age responses. Based on GSS codebook, 5.6% respondents chose "Not Applicable" when asked about their age, while 2.7% of the participants did not provide any answers.

Most (99.8%) of the respondent provided an answer to their **marital status** (Figure 1b). About half (49.6%) of the respondents are married as of the time of completing the survey, followed by 24.1% who were never married. The rest of the respondents selected either divorced (16.2%), widowed (7.5%), or separated (2.4%) as their marital status.

Respondents' **level of education** was also well answered by respondents (Figure 1c), with only 23 NA responses (0.6%). A significant portion of the respondents reported high school as their highest level of education (39.6%), followed by those who have a junior college or bachelors degree (34.9% combined). There are 18.8% of the respondents with a graduate degree, and 6.1% of them reported having less than high school education.

Looking at the respondents' **family income** as of 2016 (Figure 1d), there is a significant number of NA values, accounting for 12.9% of the data. Based on GSS codebook, 8.3% respondents chose "Don't Know" for their income, 2.0% refused to answer the question, and 2.7% skipped the question all together. For those that answered the question, there is a spread across the income bands, with half of the respondents reporting family income less than $75,000. The last income band ">$170K" groups all respondents making over $170,000 into one bucket. It reduces the insights we can extrapolate from this data, for example, the maximum differences between family incomes of participants.

3.2 Attitudes Towards Financial Wellness

As estimands to assess societal attitudes towards financial well-being in United States, we looked at the results of following survey questions:

- **Financial Satisfaction** - "We are interested in how people are getting along financially these days. So far as you and your family are concerned, would you say that you are pretty well satisfied with your present financial situation, more or less satisfied, or not satisfied at all?"

- **Comparing to Others** - "Compared with American families in general, would you say your family income is far below average, below average, average, above average, or far above average?"
- **Change in Financial Situation** - "During the last few years, has your financial situation been getting better, worse, or has it stayed the same?"
- **Self-Identified Social Class** - "Most people see themselves as belonging to a particular class. Please tell me which social class you would say you belong to?"
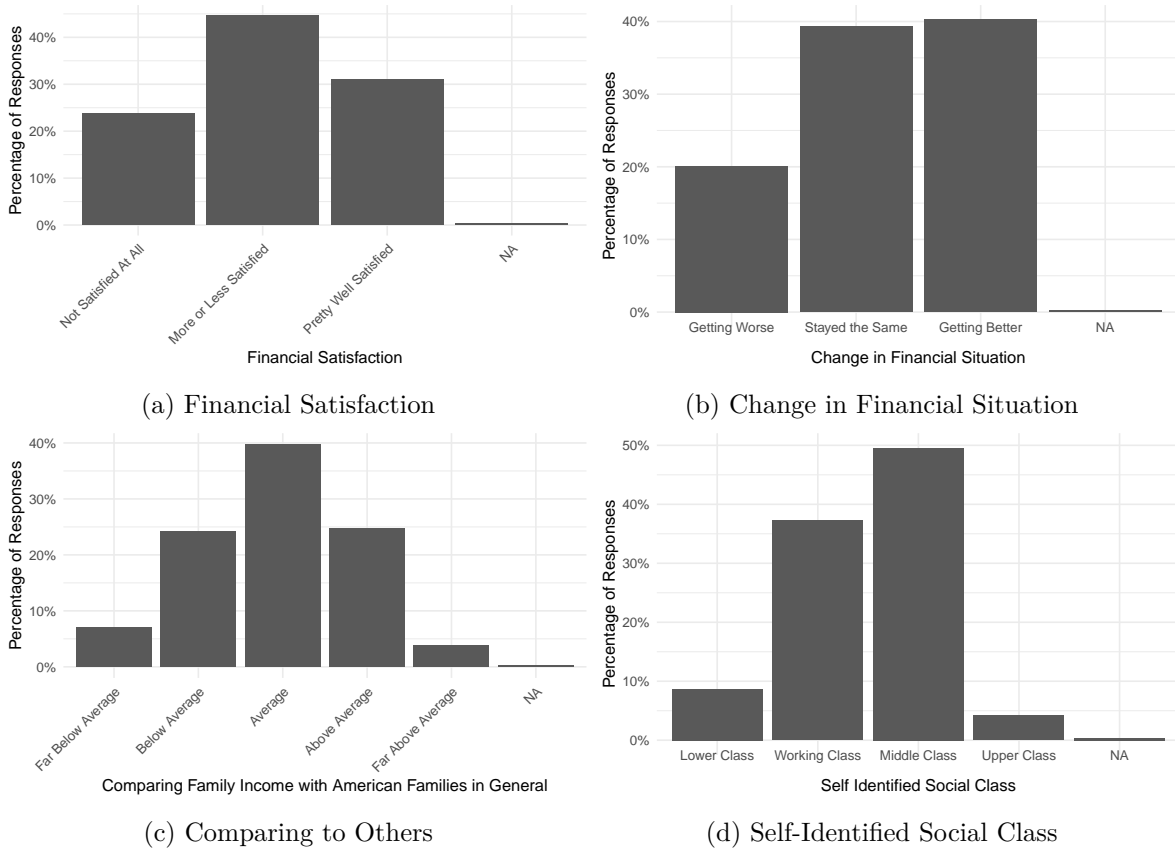

(a) Financial Satisfaction

(b) Change in Financial Situation

(c) Comparing to Others

(d) Self-Identified Social Class

Figure 2: Distribution of respondents' attitudes towards their financial wellness

Based on Figure 2a, most respondents selected "stayed the same" or "getting better" for their satisfaction with the current financial situation, with only 23.9% reporting "not satisfied at all". Similarly for changes in financial situation, most respondents reported that they are staying the same or getting better in their financial situation, with only 20.1% feeling they are getting worse financially (Figure 2b).

To analyze how respondents compare themselves to others, we look at Figure 2c to see how they ranked themselves against American families in general. This graph shows that most individuals feel like they are on par with others (39.5%), with small number of respondents

feeling above average (24.8%) and below average (24.3%). However, 7.1% of respondents felt that they are far below average compared to other families in general, and 3.8% felt they are far above average.

Looking at how respondents self identified their social classes (Figure 2d), we noticed an interesting pattern that there are similar percentages for respondents who rated themselves as far below average (7.1%) and those who classified themselves as lower class (8.7%). Also, the percentages are similar for respondents who rated themselves as far above average (3.8%) and those who classified themselves as upper class (4.2%). Most respondents identified themselves ass middle class (49.6%) or working class (37.2%).

Digging further into the relationship between self identified social class and how respondents compare their financial situation with others, we visualized their correlation using Figure 3. There is a clear trend shown in this heat map: as individuals rank themselves higher in social class, they also perceive their financial situation to be better than the general public.

Figure 3: Correlation between social class and comparing financial situation with others

3.3 Slicing Financial Attitudes by Demographic Factors

Now that we have a general understanding of the respondent demographics and their attitudes towards financial well-being, let's take a look at the intersections between their attitudes and demographic factors.

3.3.1 Gender

Compare across different genders (defined as sex at birth), we noticed in Figure 4a that there are more female respondents who are not satisfied with their financial situations (26.3%) as compared to male respondents (20.5%). Also, there are more female respondent reporting that their financial situation is getting worse (22.7%) compared to male respondents (16.7%) (Figure 4b). When comparing their financial situations to others, a higher proportion of male respondents (30.2%) rated themselves as above average as compared to female respondents (21.3%) (Figure 4c). These results triangulated together indicate that women in our society may be more disadvantaged in their financial well-being as compared to men.
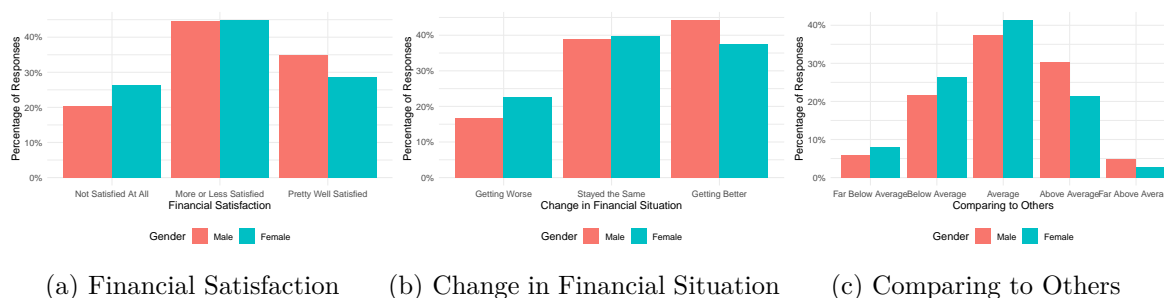

(a) Financial Satisfaction   (b) Change in Financial Situation   (c) Comparing to Others

Figure 4: Intersection of financial attitudes with gender

3.3.2 Age

Are we achieving better financial well-being as we get older? We found evidence to support this in the 2021 GSS data, as Figure 5a demonstrates that the percentage of respondents who selected "pretty well satisfied" over time increases as age increases. However, it is interesting to note that the percentage of responses with "not satisfied at all" within an age band increases in the early adulthood, then decreases starting with the 40-49 age band.

Looking at how respondents assessed changes in their financial situation, we see in Figure 5b the concerning trend over the age groups that the percentage of those selecting "getting worse" as an answer stays roughly constant at around 20%, showing no reductions over the age bands. On the other hand, the responses for "getting better" starts off high at around 50% at younger ages, then drops off starting with the 40-49 age band. Staring with the 50-64 age band, most users rate their financial situation to be "staying the same".

3.3.3 Level of Education

The 2021 GSS data shows that having a higher level of education is correlated with higher financial satisfaction. In Figure 6a, there is a trend of decreasing percentages of answers for "not satisfied at all" as level of education increases, as well as an increasing percentages

(a) Financial Satisfaction
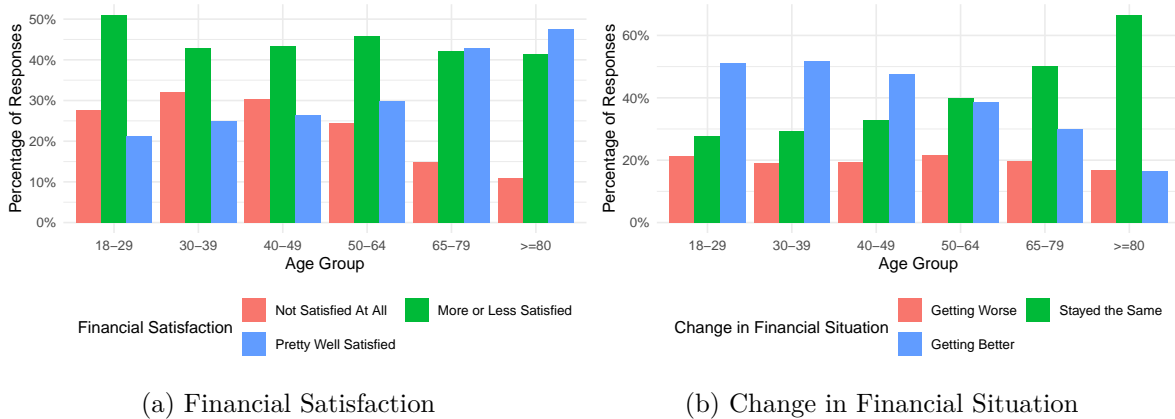
(b) Change in Financial Situation

Figure 5: Intersection of financial attitudes with age

of responses for "pretty well satisfied" as the level of education increases. This finding is supported by the survey results for respondents' perceptions on the changes in their financial situation (Figure 6b). As the level of education increases, there is a noticeable increase in the percentages of answers for "getting better" in their financial situation. Stay in school kids, it will help you financially in the long run.
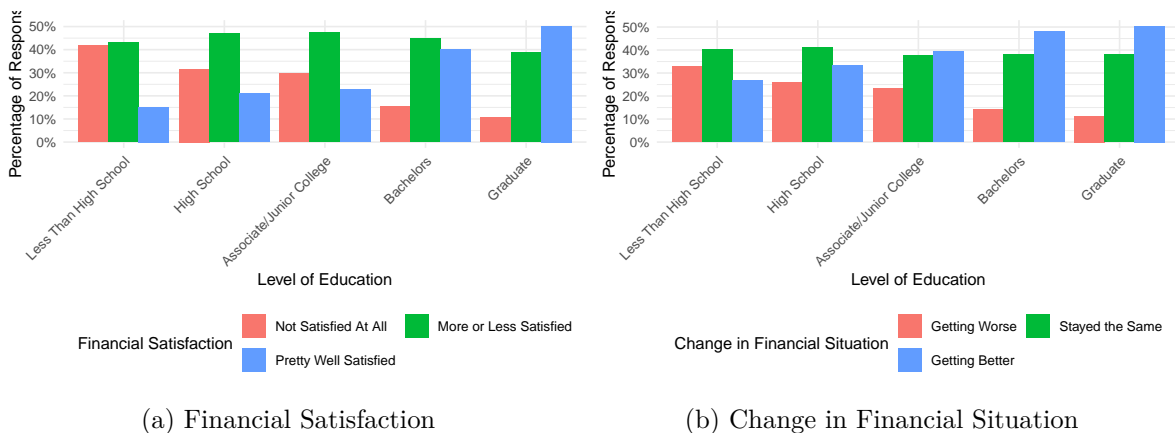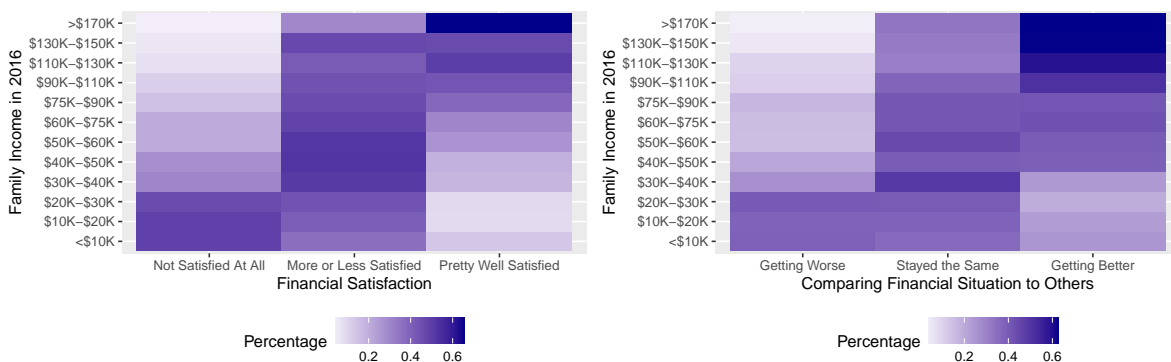

(a) Financial Satisfaction

(b) Change in Financial Situation

Figure 6: Intersection of financial attitudes with level of education

3.3.4 Family Income

Overall, we would expect attitudes towards financial well-being is highly correlated with respondents' financial income. This is supported in the our data, as Figure 7a shows that there is a high percentage of respondents with family income less than $30K reporting not being satisfied with their current financial situation. On the other side, the majority of respondents

making $170K and above are pretty well satisfied with their current situation. There is also the general trend that as the family income increases, respondents perceived themselves as doing better financial as compared to others. Looking at the changes in financial situation, the data shows that those making less than $30K are getting worse or staying the same, while the majority of respondents making more than $110K are getting better in their financial situations (Figure 7b).

(a) Financial Satisfaction

(b) Change in Financial Situation

Figure 7: Intersection of financial attitudes with family income (2016)
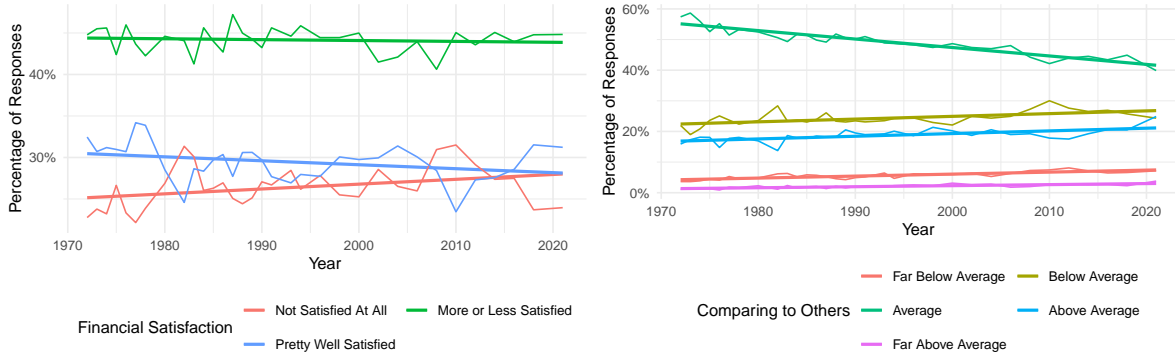
3.4 Attitude Towards Financial Wellness Over Time

After investigating different demographic factors that are correlated to respondents' attitudes towards financial well-being, let's analyze how these attitudes change over time.

3.4.1 Financial Satisfaction & Comparison with Others

In Figure 8a, we visualize the responses for financial satisfaction between 1972 to 2021. Based on this graph, we noticed that the percentage of respondents feeling "more or less satisfied" with their financial situations stays flat over time at around 44%. There is a downward trend for the percentage of responses for "pretty well satisfied", as well as an upward trend for the percentage of responses for "not satisfied at all".

Looking at how respondents feel about their financial situation as compared to the general public in Figure 8b, there is a noticeable decline in the percentage of responses for "average", from 57% in 1972 to 40% in 2021. The percentage of the other responses all have a similarly slightly positive upward trend. This graph provides evidence that financial satisfaction has become more divided in the general population between higher and lower earners.

(a) Financial Satisfaction (b) Comparing Financial Situation to Others

Figure 8: Attitude towards financial wellness over the years

3.4.2 Cohort

Next we looked at how each generation cohort is doing over time. We defined the generations based on the commonly accepted guidelines (Robinson, n.d.). The trends for each generation cohort are discussed below (Figure 9).

- **The Greatest Generation (Greatest)**, defined as those born between 1910 and 1924, are between the ages 48 and 64 when the survey started to collect data in 1972. They are generally getting more satisfied with their financial situation over time, as shown by the increasing "pretty well satisfied" and decreasing "not satisfied at all" response percentages.

- **The Silent Generation (Silent)**, defined as those born between 1925 and 1945, are between the ages 27 and 47 when the survey started to collect data in 1972. They were more dissatisfied with their financial situation at the beginning, but have experienced an increase in their financial satisfaction over time, with close to 50% responded with "pretty well satisfied" as of 2021.

- **Baby Boomer Generation (Boomer),** defined as those born between 1946 and 1964, with some of them as young adults when the survey started to collect data in 1972. They were dissatisfied with their financial situation at the beginning, with more than 30% responding that they are "not satisfied at all". We have seen improvements over time, with increasing percentages of "pretty well satisfied" responses and decreasing percentages of "not satisfied at all" responses.

- **Generation X (Gen X)**, defined as those born between 1965 and 1979, show up for the first time in survey data in 1983 when the eldest in this generation turned 18. This group has a high percentage of respondents dissatisfied with their financial situation (~30%),

while about 25% of them are pretty well satisfied. Their attitudes towards financial satisfaction stayed at around the same level throughout the years.

- **Millennials,** defined as those born between 1980 and 1994, show up for the first time in survey data around year 2000. This group started with a higher satisfaction with their financial situation (~30%), but it decreases over the years with only ~20% responding with "pretty well satisfied" in 2021.

- **Generation Z (Gen Z)**, defined as those born between 1995 and 2012, show up for the first time in survey data in year 2013 when the eldest in this generation turned 18. This group starts with the highest satisfaction with their financial situation (~45%), but then it drastically declines to only ~20% responding with "pretty well satisfied" in 2021. This correlates with the COVID-19 pandemic.
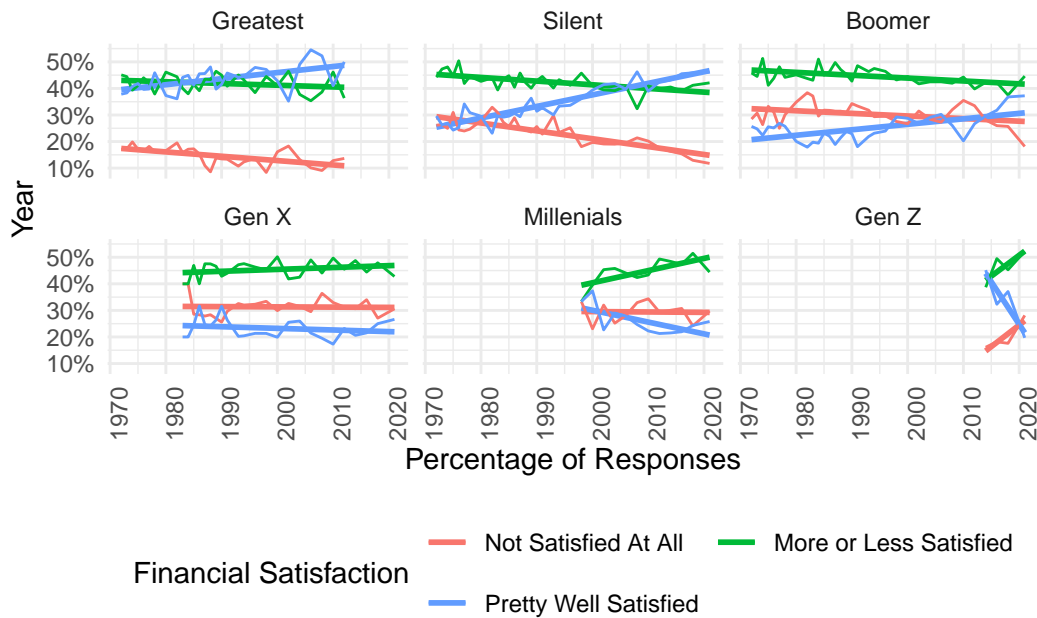

Figure 9: Financial satisfaction results over the years for each generation

3.4.3 Age

In addition to investigating generation cohorts over time, we also want to understand how respondents in the same age groups are perceiving their financial situation over time. Looking at Figure 10, we see a discouraging picture where "not satisfied at all" with their financial situations is trending upwards for almost all age groups, while being "pretty well satisfied" is

trending downwards. Out of the bands, 50-64 age group had the highest percentage increase for "not satisfied at all", and most amount of percentage decrease for "pretty well satisfied".
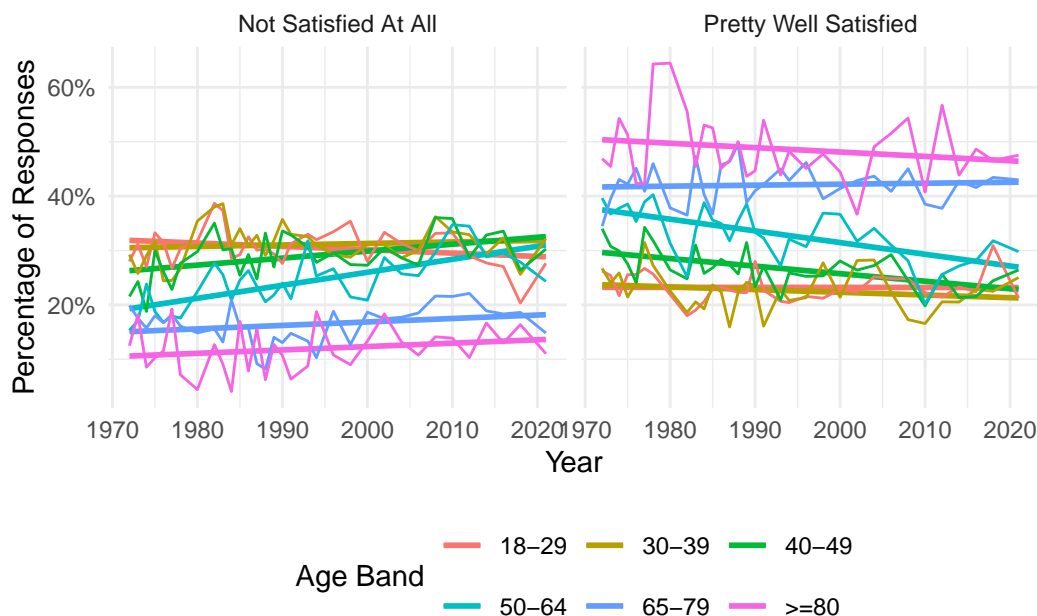

Figure 10: Financial satisfaction results over the years for each age band

3.5 Social Class

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This section discusses the survey results related to social class and how it correlates with other variables. There are two survey questions related to how respondents selected the social class they belonged to: one used a classification of 4 classes (`lower class`, `working class`, `middle class`, and `upper class`), and a second survey question using an expanded classification of 6 classes, with the addition of `lower middle class` and `upper middle class`.

First, we are interested in the correlation between family income and social class. Looking at the 4 band classification of social class, we see in Figure 11a that less than 10% of respondents classified themselves as **lower class**. Digging deeper into the family income of this segment in Figure 12, the majority of respondents (~90%) in this class are making less than $40K annually. There are 37% of respondents who classified themselves as **working class**. There is a wide range of their family income, with the majority (~71%) clustered between $10K to $75K. Almost half of the respondent have classified themselves as **middle class**, with family income clustered between $60K to $170K (~57%). It is interesting to note that those making

16

over $170K have the highest percentage (15%) compared across income bands for those who ranked themselves in this class. Lastly, out of the 4% of the respondents who responded that they belong to the **upper class**, most of them have family income over $170K (67%). An interesting observation in this social class is that more than 10% of respondents making less than $40K a year also put themselves as upper class. While this could be due to respondents misinterpreting the question, it also could be that respondents earning less than $40k also have assets like trust funds, inheritances, property, or allowances that would place them in the "upper class".

The 6 band social class survey expands the middle class into three categories: lower middle class, middle class, and upper middle class. Comparing the distribution between the two social class variables (Figure 11), there are some movements across the bands; for example, there are less respondents who rated themselves as lower class and upper class. Looking at the income levels associated with **upper class** in this 6-band classification (Figure 12b), there are some interesting observations: while most individuals in this social class responded with making over $170K annually, 20% of them reported family income less than $10K. Again, this could be due to respondents misinterpreting the question, or respondents who can rely on financial assets other than income, such as trust funds.

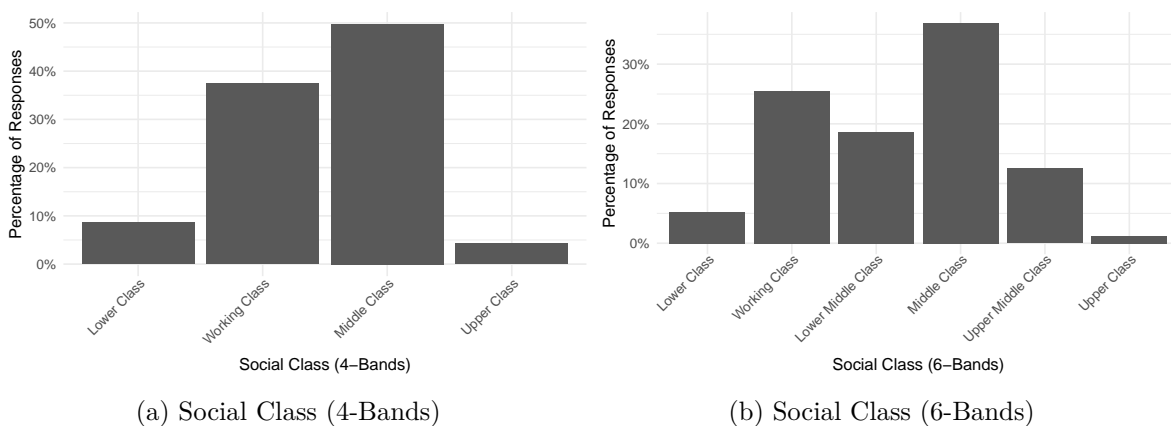(a) Social Class (4-Bands) (b) Social Class (6-Bands)

Figure 11: Distribution of survey results for social class

Analyzing the correlation between social class and financial satisfaction, we saw the expected trend in Figure 13a that as individuals move up to a higher social class, they report higher financial satisfaction with their current situation. However, when we look at the detailed social class breakdown in Figure 13b, we noticed a trend reversal for **upper class**, where close to 20% of the respondents reported not satisfied at all with their financial situation, which is much higher compared to upper middle class with only less than 2% dissatisfaction. In Figure 14, only 60% of upper-class respondents see themselves as far above average compared to the general population. We will hypothesize potential explanations for this observation in the the discussion section below.

As for the percentages of respondents in different social class over the years in Figure 15, we

(a) Social Class (4-Bands)
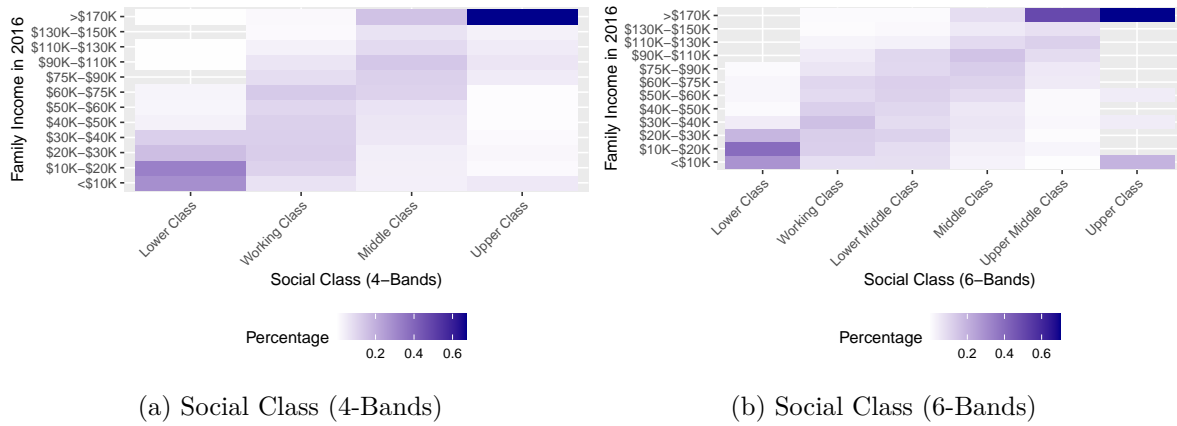
(b) Social Class (6-Bands)

Figure 12: How respondents in each family income range responded for social class

(a) Social Class (4-Bands)
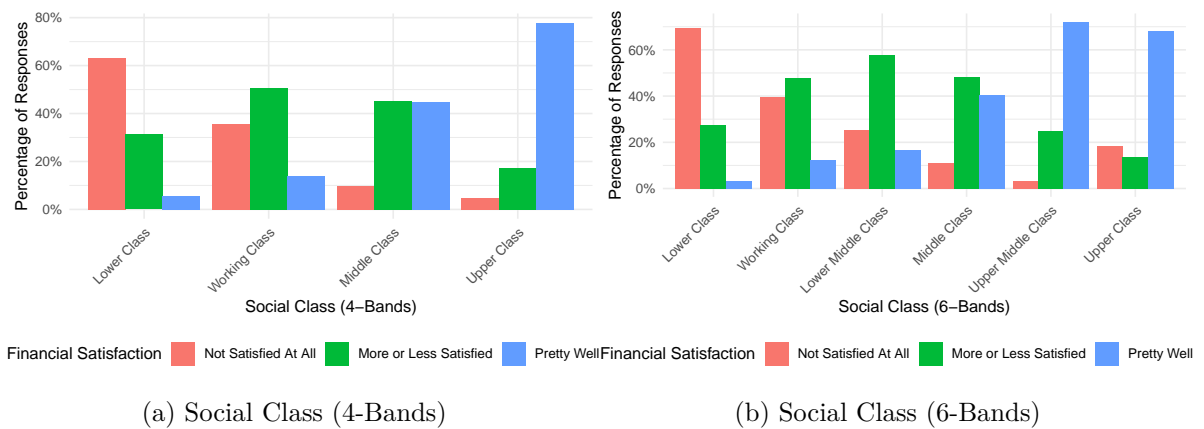
(b) Social Class (6-Bands)

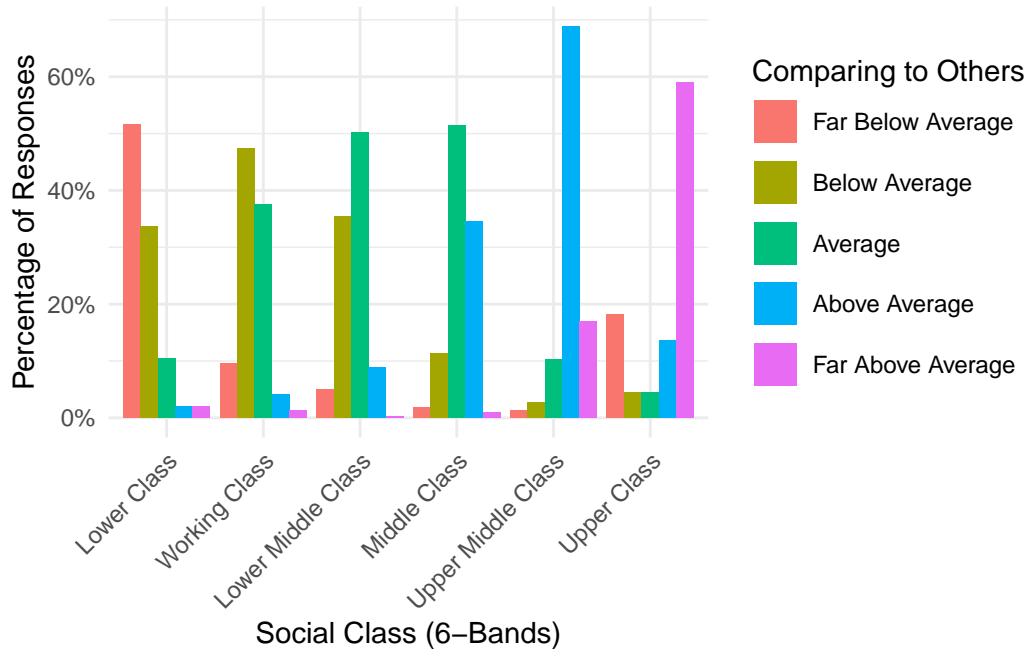Figure 13: Financial satisfaction responses for each social class

Figure 14: Financial comparison responses for each social class (6-bands)

discovered a declining trend for working class and middle class, while the percentage of those who reported as lower class has been increasing over time. Upper class percentage stays mainly constant from 1972 to 2021 at around 3-4%.

4 Discussion

Our results point to three trends: first, our visualizations illustrate a growing wealth gap over time. Second, the data suggests that financial well-being and satisfaction is influenced by demographic factors. And third, evidence to support the Fleishman effect -- the idea that upper classes have a distorted sense of their financial well-being, since they compare themselves to the upper class, rather than comparing themselves to the general population.

4.1 Growing Wealth Gap Impacts Demographic Groups Differently

Our analysis shows that the gap between high-earning and low-earning individuals in the US has been increasing since 1970, when the GSS was first recorded. Even though GDP is rising, we don't observe a significant improvement in financial satisfaction over time. In fact, twice as many respondents identify as "lower class" in 2021 than in 1970.
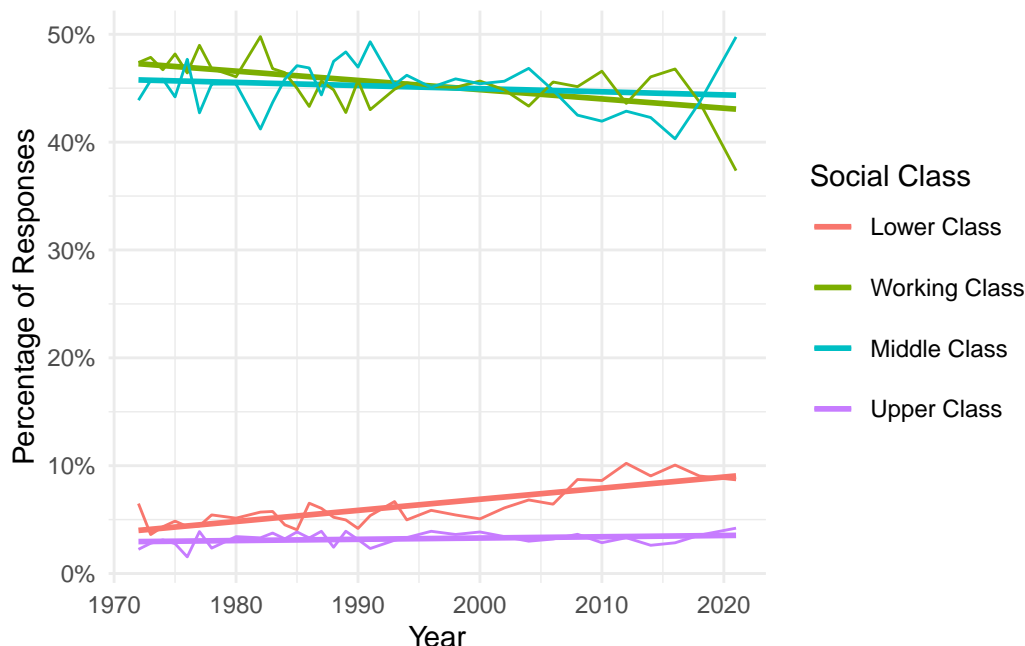
Figure 15: Percentage of respondents in each social class (4-bands) over time

Respondents' gender (defined in the GSS as sex at birth) and level of education have a significant influence on financial satisfaction. Men tend to see their financial satisfaction as improving, and report greater levels of satisfaction than women (Figure 4). Respondents with Bachelors or Graduate degrees are more satisfied, and describe their financial situations as getting better over time (Figure 6) . This suggests that the increased financial dissatisfaction reported over time in Figure 8a is more likely to be felt by non-male individuals with less formal education.

In addition to gender and education, generational cohorts are impacted differently by the growing wealth gap. In Figure 9, the Greatest, Silent, and Boomer generations all see an increase in individuals reporting "Pretty Well Satisfied" over the course of their lives. In Gen X, this "Pretty Well Satisfied" line flattens, and Millennials and Gen Z see a significant decrease in high satisfaction (of course, Gen Z's visualization is correlated with a global pandemic).

While satisfaction can often be correlated with income – for instance, in Figure 7 those who are making lower income are less satisfied– it shouldn't be confused with income. The way somebody feels about the financial situation might not reflect the reality of their financial situation as held against some other objective measure. In Figure 8, we see that reported financial situations are either getting better or getting worse over time, but that dissatisfaction overall is rising (with nearly 20% of upper-class respondents reporting dissatisfaction in Figure 13). Although the levels of respondents identifying as upper and middle classes has remained relatively stable over time (Figure 15), there is a general decline is people reporting

being "Pretty Well Satisfied", and an increase in individuals reporting "Not Satisfied At All" (Figure 8). Who is feeling this dissatisfaction? Why?

4.2 Reference Groups and The "Fleishman Effect"

During World War II, sociologist Samuel Stouffer led the American Soldier study, which aimed to examine the attitudes and motivations of American soldiers during war time (Ugarte 2018). The study collected data using both surveys and interviews from over 500,00 soldiers, and covered topics such as combat experiences, political beliefs, and racial attitudes. One important insight from this study is the contribution it made to our understanding of reference groups. The American Soldier study found that soldiers tend to identify more strongly with fellow soldiers than civilians. This identification was found to be a significant factor in shaping soldiers' attitudes in relation to morale and motivation.

In 1957, the sociologist Robert Merton expanded on this idea of reference groups to further develop the concept of relative deprivation (Group, n.d.), which refers to feelings of discontent that arise when individuals perceive a discrepancy between their own status, and the status of others in their social comparison group. Merton argues that social mobility leads to an increase in relative deprivation, since individuals who achieve higher incomes and status become more aware of the gap between their status, and those who are more affluent in their reference group.

Our data on financial satisfaction based on income supports this hypothesis (Figure 14). When faceted by class instead, the question becomes more interesting. When asked to compare themselves to the general population, nearly 20% of self-identified upper-classes see themselves as "below average". While this may be due to problems with the survey recording, or respondents misunderstanding the question, the fact that only 60% of upper class individuals see themselves as being far above average suggests some sort of distortion of self-perception once that level of wealth is achieved.

Is the upper class simply delusional? Could survey respondents have misinterpreted what "upper class" means? Or, are there more factors at play when people consider their own financial situations -- for instance, the child of millionaires who themselves make $40k a year might see themselves as culturally and socially upper class, yet below average in terms of financial comparison.

In her 2019 memoir We Need To Talk About Money (Uwagba 2019), Otegha Uwagba writes about coming of age as a Black, Oxford-educated millennial woman from a low-income family, and how her perception of her own financial well-being was distorted by the way her upper class colleagues were able to afford luxuries like property ownership while signalling, by complaining about mortgages and budgeting, that they were in the same cohort of struggling millennials. After learning that a friend had concealed that she, in fact, didn't have a mortgage, and that her parents had given her enough money to buy her apartment outright, Uwagba writes

about the cultural shame that politically liberal high-earners (or inheritors) can experience as anti-capitalist sentiments have entered the mainstream conversations:

"But that's the thing about shame – it's an emotion that arises from our most base human instincts: the fear of being judged negatively by others; our desire to 'fit in'; the discomfort of feeling exposed; and those emotional responses transcend income levels. For wealthy people who also happen to be politically liberal – and so value the notion of social equity – being rich, and the advantages that wealth presents can be a source of moral discomfort, particularly when said wealth is inherited."

Concealing wealth out of shame, to Uwagba, is "actively unhelpful" for others in the same reference group, and exacerbates the frustration of realizing that achieving personal finance goals may even more out of reach than initially believed. In Figure 8, we see that, beginning with Gen X, Gen Xers, Millennials, and Gen Z are experiencing more financial dissatisfaction over time compared to other generations (although, Gen Z's self-reporting does correlate with a pandemic). This complicates this idea of reference group comparisons -- while intra-group comparisons are full of cognitive biases and emotions such as shame that distort people's understandings of their own and their colleagues financial well-being, younger generations can no longer use their own age and educational achievements as a reference group. Millennials aren't experiencing the same financial satisfaction that Baby Boomers did when they were the same age.

Meanwhile, the lure of upward mobility is addictive, as even the upper class reports financial dissatisfaction. An article by The Cut titled "The Fleishman Effect" (Moscatello 2023) explores how upper-class, New York women are responding to the HBO show *Fleishman Is In Trouble*, which is about the stress that high-earning women feel when trying to achieve satisfaction in a city that houses one of the wealthiest reference groups in the world, where "the go-to bat mitzvah gift of the moment is a Cartier bracelet, for which moms are expected to pitch in for a group present". When held against some objective measure of financial well-being, being part of a group that gifts a child with designer jewelry suggests an income and lifestyle that would suggest financial satisfaction. "The Fleishman Effect" occurs when these higher group standards push satisfaction out of reach.

4.3 Future Research Directions

4.3.0.1 Supplementary Survey

Financial satisfaction is dependent on an individual's context, and much more subjective than a fixed measure like individual or household income. We hypothesize that this context may be determined not only by their current reference group, but also by their relationship to wealth, and how this relationship evolved over the course of their life. The study would be strengthened with data that could provide a fuller profile of respondent's reference groups, and other factors that influence their motivations and attitudes towards personal finance and upward mobility.

The way that individuals narrativize their success in comparison to their upbringing may influence the way that they interpret their financial standing. In our supplemental survey in Appendix X, we suggest the questions "Have you moved up a full socio-economic class compared to your upbringing? (Y/N/Don't Know", "Do you have at least one parent who moved up a full socio-economic class?" (Y/N/Don't Know), and "Is your current career in the same field as your parents?" (Y/N/Don't Know) to better understand respondent's family histories. Asking "Are your friends in the same socio-economic class, higher, or lower? (Higher/About the same/Lower)" would also provide more granular detail into how someone perceives their financial status in comparison to the people closest to them. The Social Capital Atlas (Raj Chetty and Opportunity Insights Team 2022) conducted a survey pursuing a similar estimand using Facebook data to explore "economic connectedness" in friend groups, which refers to the percentage of friends a respondent has who earn higher or lower incomes than them.

Figure 6 shows that respondents with post-secondary education experience better changes in financial situation, with 50% of respondents with graduate degrees reporting that their financial situation is "getting better". Obtaining more details on these reference groups by their area of study, and whether or not they regret their major, could provide more information on how the different returns-on-investment on different degrees change over time, as shown by The Washington Post's reporting on the Federal Reserve Survey of Household Economics and Decision Making (Dam 2022).

We propose adding the questions "If you went to college or university, what was your major?" "Do you regret your major? (Y/N/Don't know)" to the survey. Adding this question to our study would provide more detailed insight on reference groups, since we could see how people who enrolled in each major compare themselves to others, and, with more information on family history, we could also gather insight on which fields individuals from different social classes pursue in higher education. We could also see how people across different income ranges and classes experience regret about their decisions.

Geography can have a major influence on personal finance and reference groups. A respondent making $75,000 a year living in Hattiesburg, Mississippi might feel more financially satisfied than a respondent with the same income living in San Francisco, California. However, this could sacrifice anonymity. This question would still have to be broad enough to provide information on their location (i.e. by city), rather than something that could de-anonymize respondents when triangulated with other data (i.e. postal code).

Please see Appendix to view the full supplementary survey that we have put together.

4.3.0.2 Incorporate Additional Data Sources

Additional data sources can be used to explore additional trends in attitudes towards financial wellness. First, we can connecting our results with US census data to check for representativeness in respondents answers, and to understand any discrepancies in self-reported data. This

would also help us understand how the new methodology implemented by the GSS in 2021 may have influenced self-reported results. Also, bringing in other macroeconomic indicators, such as inflation and capital market trends, can provide an extra dimension to understanding how wealth has evolved and been impacted over time.

5 Conclusion

In conclusion, financial satisfaction and well-being are subjective and influenced by various factors. This paper used data from the US General Social Survey to examine how people perceive their financial situations in comparison to others, particularly in light of the increasing wealth gap between high and low earning individuals.

The results support the hypothesis that the rich are getting richer, the poor are getting poorer, and that younger generations are financially worse off than preceding cohorts. The data also suggests that people's reference groups influence their understanding of their financial well-being and satisfaction. Overall, this paper highlights the complexity of financial satisfaction and well-being, and the importance of considering sociological dynamics and cognitive biases in understanding these subjective evaluations.

Appendix

Here is a link to our supplemental survey:

https://docs.google.com/forms/d/e/1FAIpQLSdqe87Bet1PyaCezPxN_t7A1smQCpSap6EYjG2LrTN0K_CX9A/viewform

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