

# Description of Data

## **Motivating Thought:**

It was not until after having a conversation with my friend's brother that I finally understood the absurdity of taxation policies in the US, specifically, in California. It turns out that having a career in tech in San Francisco can be both highly rewarding but costly at the same time – a 50% income tax. I was beyond shocked when I heard about this story, 50%? What are people even being left with after having a large sum of their income being taxed like that? This brings me to my exploration with the GSS EDA lab, where I chose to focus on data variables that reflect people's opinions on income tax, taxation in general, as well as how it relates to their respective occupation, pay, satisfaction with work, etc.

## **Variable choices and reasons:**

The variables I chose to extract are, aside from the default variables such as year, ID, and ballot sheets: Income Group, Income Tax Opinion, Low Tax Or Govt Spend, Job Satisfaction, Hourly + Weekly, Monthly, Yearly Pre-Income-Tax Wage, Occupation, Stock Options, Performance Based Pay Eligibility, and Respondent Income.

The most important variables here are of course Income Tax Opinion and Low Tax Or Govt Spend (Two categorical variables). The latter variable essentially asks respondents whether they prefer governments to reduce taxes or to spend more taxes on social programs (Which implies taxes are not reduced, if not increased, but the allocation is more purposeful and meaningful). Meanwhile the Income Tax Opinion essentially captures whether people think that income taxes are too high, about right, or too low (With the exception of if respondent doesn't qualify for having their income taxed). These two categorical variables are crucial to understand what the general sentiment on income tax is in the United States.

I'll be incorporating these variables in combination with other variables that essentially build up the respondent's profile. Such as their occupation, income level/group, and other variables that describe their financial and social status. This way I hope to discover what opinions people have on income taxes or taxes in general, as well as how financial and career factors sway their opinions, and finally compare how these opinions are different from each other based on the social and financial status of the respondents.

Something I am disappointed with the GSS data set is that there are no variables that record geographic data. Which means I cannot investigate how tax opinions vary by state (or location in general), which is actually quite devastating to my goal here since I'm trying to sense whether other people in the US hold the same 'grudge' against income tax policies as I do.

# Findings and Insights

## **How monthly median pay affects opinion on Income Tax:**

With a simple boxplot observing how monthly wage levels are within each category of income tax opinion, I've discovered that the group with the highest median monthly wage actually thinks that income taxes are 'Too low', this group also has the highest standard deviations from a very low wage level to a very high wage level. Meanwhile the group that considers income taxes to be too high are the ones with the second to most median wage level. This group also has a few outliers with the highest monthly wage level at around 6,500 to 10,000. Not to mention the group that considers income tax to be 'about right' with the lowest median wage. My conclusion is that those who consider income taxes to be 'too high' are ones who are usually 'richer' in comparison to the rest. Despite their median income not being the highest of all three groups, there are a few outliers that suggests 'insanely' rich people are being taxed more proportionally, hence does not appreciate the 'penalty' on their income. Whereas the poorer group of respondents, the reason that they chose 'about right' could be their lower income being proportionally taxed less or is benefited by tax discounts due to their lower income/social status. Therefore, they're more likely to consider the income tax to be 'okay' compared to the richer folks. Whether people might consider taxes to be 'too low' is still a question lingering in my head. These could be people who are wealthy enough to live and comfortable live, meanwhile having a philanthropic heart to think that governments should tax them more to allocate it to social programs or welfares. As suggested by the boxplot, their median income level is indeed the highest among all three.

## **How people feel about tax policies:**

This is the part where I utilized a scatter plot to visualize trends in people's opinion of tax policies by occupation and income. I encoded the bubbles' size to represent income tax opinion (Too high, about right, or too low), and I used color to distinguish whether people think governments should "spend more on social programs or reduce taxes". By filtering different occupation sectors/types by keywords, I was able to deduce trends of opinions for different sectors of professions.

## **How STEM professionals feel about tax policies:**

Turns out, the majority of STEM people think that taxes are too high and believes that governments should reduce taxes instead of allocating the excessively collected tax money to social programs. This reflects the same reaction that I got from the person working as a MLE at San Francisco who is being taxed almost 50% of his income. Higher level engineers, which undoubtedly has a higher pay, are more prone to thinking that taxes should be reduced. This is also reflected on the scatter plot where bubbles in the range of higher respondent income are

all **orange**, which is the color encoding for ‘prefer to reduce taxes’. Meanwhile the lower side of the income level does contain a few **blue** bubbles, reflecting a tendency to have taxes allocated more to social programs, rather than feeling ‘impacted’ by high taxation.

#### **How do educational professionals feel about tax policies:**

The majority of educational professionals (including teachers, school administrators) believe that taxes are high, but they also overwhelmingly believe that instead of reducing taxes, it should be reallocated more to social programs. I think this also fits the impression we have for those in the educational sector, people choose to become teachers to serve communities and help cultivate generations of students. I feel like the empathetic and self-giving nature of this profession speaks to the result of this survey, where **blue** bubbles overwhelmingly dominate the scatterplot, and only a few **orange** bubbles exists among educators who are very well paid.

#### **How do blue collared professionals feel about tax policies:**

Blue collar professionals are usually referring to workers who, stereotypically, are hired for their physical labor and work lower-end\repetitive jobs and do not enjoy the privilege of working in office. The visualization shows that blue collared professionals show a stronger opinion in thinking that income taxes are too high. With only 0.96% of people thinking that taxes are too low, compared to the previous two professions with around 2-3% of people who consider taxes too low. Nevertheless, most blue collared professionals still believe that taxes should reallocate to social programs rather than being reduced. My deductions are this category of professionals, due to their lower paid nature, often rely on affordable social programs (like healthcare, unemployment benefits, or other benefits) to have a more comfortable life, and that reducing their income taxes may not improve living quality by a large volume compared to some of the higher paid professionals (i.e. STEM people).

#### **How Law Enforcement professionals feel about tax policies:**

The majority of law enforcement professionals (including police, military police, enforcement/compliance officers of all levels) believe that taxes are too high but also believe taxes should be reallocated to social programs instead of being reduced. I wonder whether this could also be due to the ‘public servitude’ nature of this profession that influences their opinion on taxation policies.

#### **How all professionals feel about tax policies in general:**

In general, majority of working class people thinks that income taxes are too high, and they’d rather have more taxes reallocated to social programs rather than being reduced.