Paper 2*

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1 Introduction

Household income is defined as the gross income earned by all members in a household above 15 years of age (SCOTT 2024). Over the years, it has been debated whether household incomes at all affect one's affiliation towards a political school of thought. It is a reasonable hypothesis to assume a sort of relationship between income and voting either Democrat or Republican, as both parties have different economic outlooks thereby affecting incomes differently. Maybe higher income inequality polarizes political leaning further. Therefore, it is in our best interests to study whether the poor vote to improve their quality of life.

In 'Income Inequality and Partisan Voting in the United States', Andrew Gelman, Lane Kenworthy and Yu-Sung Su (Gelman, Kenworthy, and Su 2010) make a case for higher earning Americans voting Republican, whereas Jeff Madrick (Madrick 2020) argues how working-class Americans voted against their interests in voting Republican. Conflicting theories have emerged, and we intend on tackling this issue at hand of whether different income brackets tend to vote differently.

The remainder of this paper is structured as follows. Section **??** will intorduce the data set and the variables it contains. Section **??** will display the findings of our data in relation to our paper. Section **??** focuses on the strength and weaknesses of our paper.

Our data has been obtained from 'The Welfare Effects of Social Media' (Allcott et al. 2020) . Our code is supported by the following packages (R Core Team 2022) (Wickham et al. 2019) (Müller 2020) (Xie 2023)

*Code and data are available at: LINK.https://github.com/Crooksyyy/The-Effects-of-Social-Media , Original data available https://www.openicpsr.org/openicpsr/project/112081/version/V1/view

2 Data

2.1 Data Introduction

The data for this paper was collected from the replication package of the paper 'The Welfare Effects of Social Media'(Allcott et al. 2020) The authors from that data had collected this data themselves using an online survey platform called Qulatrics, inquiring about personal information such as personal names, IP addresses, extent of by which the subjects follow politics, etc. Notably the dataset would contain a lot of confidential information, that if released in the replication package would cause ethical problems. As a result, the authors included the de-identified versions of their data collected, which was used in our analysis too.

2.2 Income Data

Our key variables of interest include household income. The survey participants were offered options in bins starting at 0 to 9,999 US dollar range, with every succeeding bin also being 9,999 USD wide. The bins went up to a ceiling of 50,000 USD per annum, then every next bin was 25,000 USD wide until a ceiling of 150,000 USD. In our analysis we combine the bins above 9,999 into – 20,000 to 49,999, 50,000 to 99,999 and the rest being 100,000 and up. The option of 'Prefer not to answer' was also available, and the entries with that response were dropped. The distribution of the data can be seen in Figure **??** .

2.3 Politics Data

Another variable of use is the extent to which the subjects follow Mr. Donald Trump, leader of the Republican Party. The possible responses were 'Not at all closely', 'Somewhat closely,' 'Rather closely' and 'Very Closely,' and the respondents could select one of these options which will become our measure of measuring subscription to Republican ideas. This data is represented using a pie chart in Figure **??**.

2.4 Ethnicity Data

Table 1: Percentage of each Ethnicity from Responses in a facebook ad

Ethnicity	Percentage of Responses
American Indian or Alaskan Native	0.7554138
Asian or Pacific Islander	13.5806614
Black or African American	6.0936713

Table 1: Percentage of each Ethnicity from Responses in a facebook ad

Ethnicity	Percentage of Responses
Hispanic	8.0577472
Other (please specify)	2.5851939
White / Caucasian	68.9273124

3 Results

This papers goal was to identify if lower income household voted against their own interest. To understand this relationship we used the variable for how closely a respondent follows Mr. Donald Trump as our measurement of subscription to Republican ideas. Using this measurement, we organized the proportion of individuals by income class to how closely they follow Mr. Donald Trump in Figure **??**. This graph shows that a proportional amount of each income class follows Mr. Donald Trump at similar levels across all income levels. Specifically, we mean the percentage of individuals follow Mr. Donald Trump at different levels is the same no matter the income class. This means we can not conclude that income class impacts how closely individuals follow Mr. Donald Trump, and therefor, cannot conclude that different income levels subscribe to republican ideas more than the other.

To further our analysis we computed the same graph however organized by race not income Figure **??**. This resulted in a similar result as race is proportional between all levels of following Mr. Donald Trump. Therefore, consistent across races at to following republican rhetoric. Again, this means the same percentage of people that follow Mr. Donald Trump at different levels is the same for each race. Obviously, this is more difficult to conclude for minorities as their representation within the data set is so small as stated in Section **??**

Overall, the results of this analysis were inconclusive to measure how income impacts individuals propensity to follow republican rhetoric. There are many reasons this could be true and as stated in the Section **??** there are multiple schools of thought previously studies on the topic.

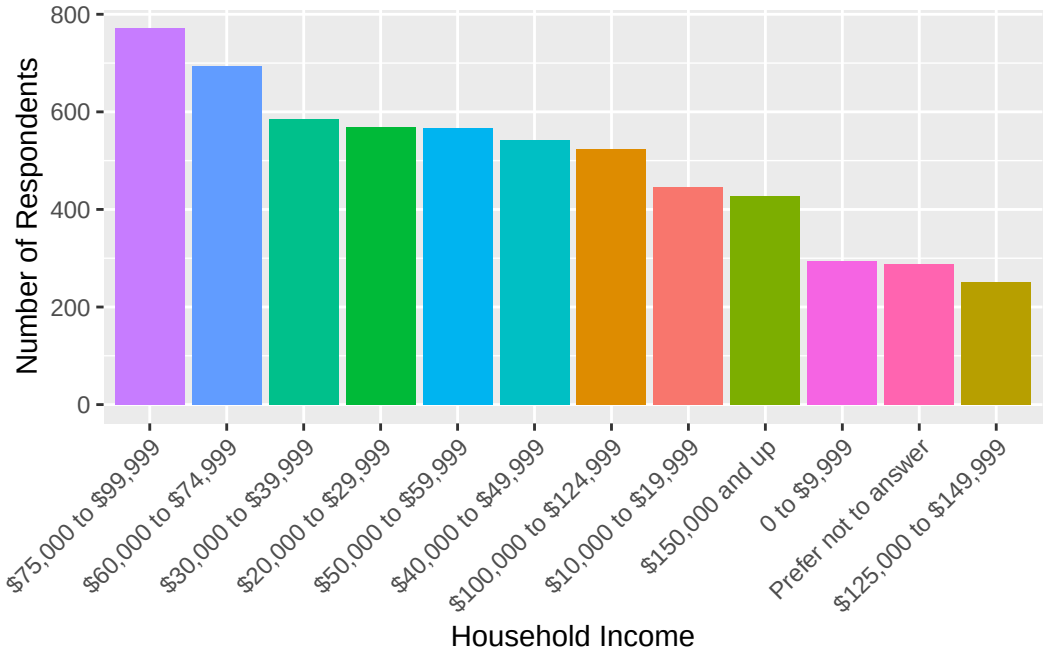

Figure 1: Distribution of Income from Responses in a facebook ad

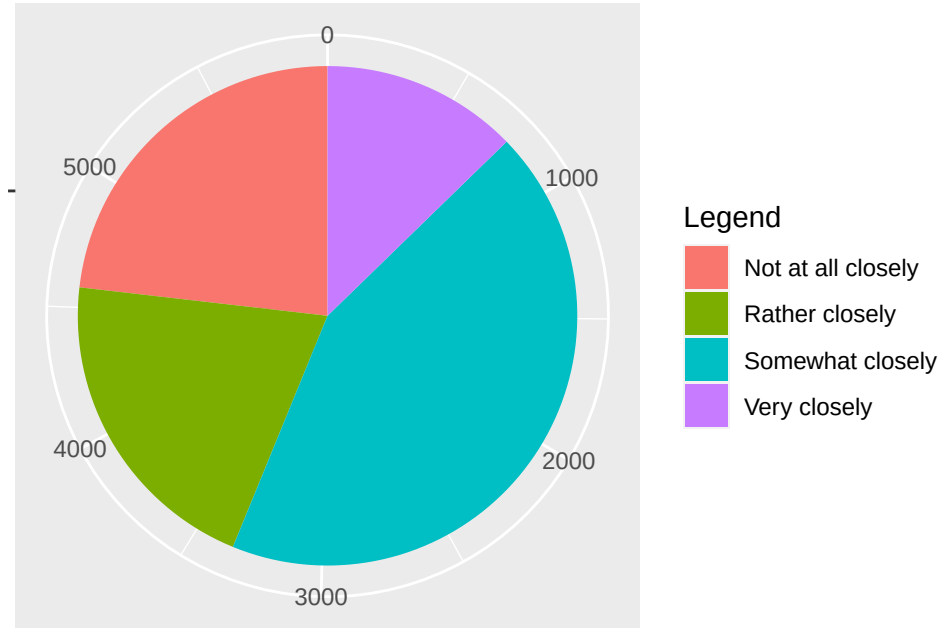

Figure 2: How Closely People Follow Mr.Donald Trump from Responses in a facebook ad

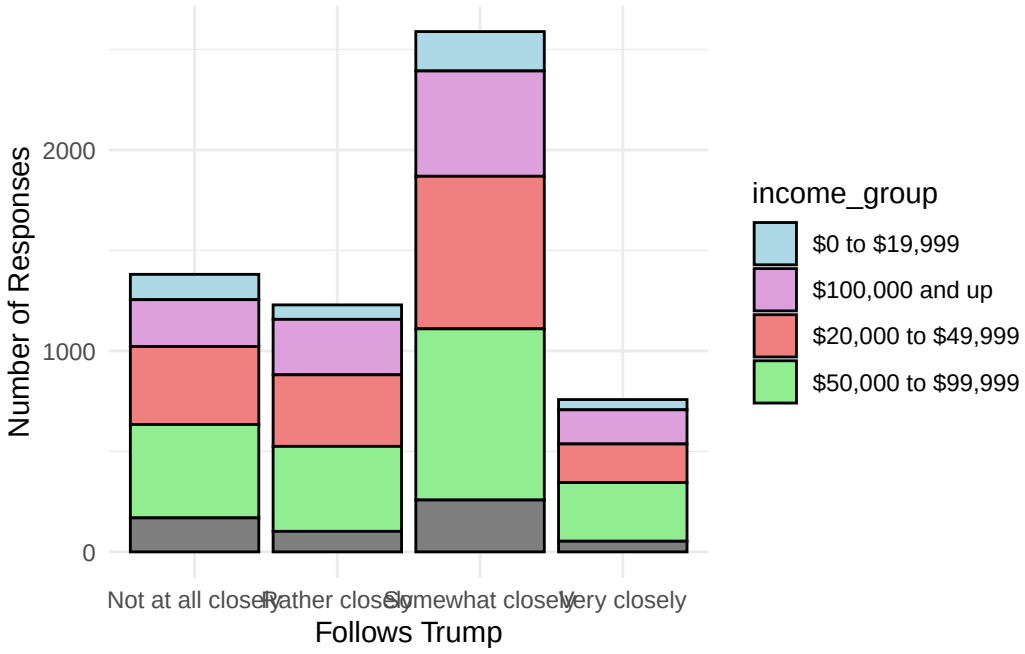

Figure 3: Number of Respondents who follow Donald Trump at different levels by Household Income

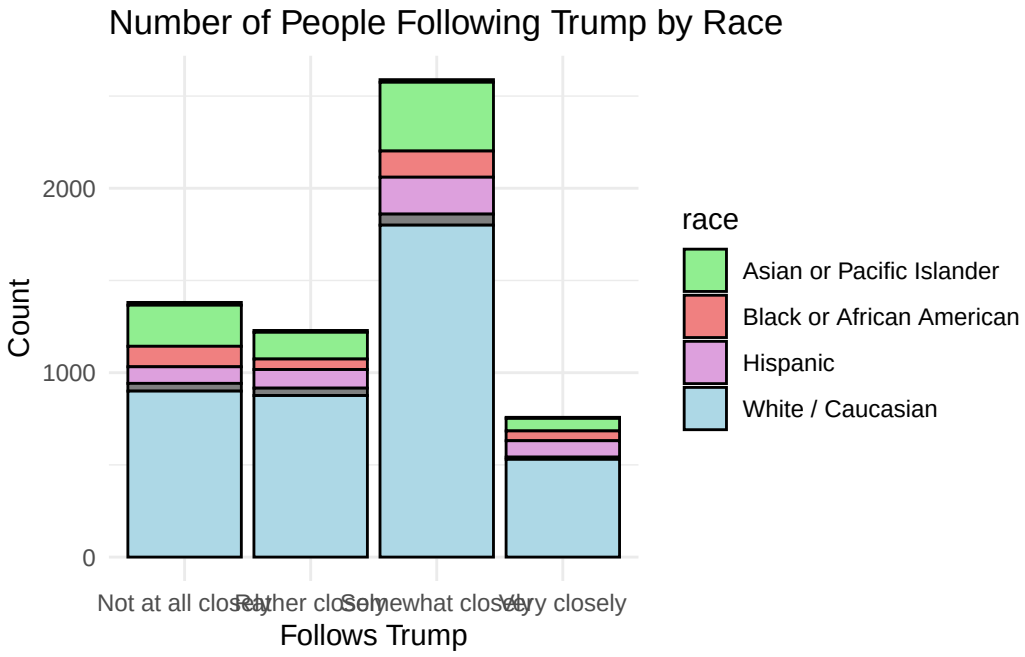

Figure 4: Number of Respondents who follow Donald Trump at different levels by Race

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