Voter Satisfaction in the EU and its Effects on Voter Turnout

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Visualizing and Understanding Social Data

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1. Abstract

This paper aims to answer questions regarding EU residents' personal lives and opinions and whether they influence turnout. More specifically, the goal is to find any relationship between a person's satisfaction with how democracy works in the EU and their decision to vote in the EU parliamentary election or not. The hypothesis is that as voters place less trust in the democratic system they will trend towards lower voting turnouts. It is reasonable to suspect that a voter who doesn't trust an institution to carry out the will of their base will be less likely to contribute to the selection of representatives, feeling that their vote does not affect their personal life. The data comes from a 2024 EU GESIS survey conducted after the 2024 parliamentary election. I analyze voter turnout averages over multiple explanatory and control groups to observe any relationship and use a regression model to determine statistical significance. I find that satisfaction with democracy has a statistically significant and positive relationship with turnout, suggesting that satisfaction has a correlational effect on turnout, with evidence leading me to the conclusion that the effect is causal. This confirms my hypothesis and reinforces the idea that satisfied voters are more interested in elections than dissatisfied ones.

2. Introduction

This research holds importance because it is vital to understand what brings voters to the ballot box. External literature supports the claim that voter turnout is a good litmus test for the health of a democracy. Therefore, by studying if trust in institutions positively affects voter turnout, one can determine the degree that institutional trust is important in creating a healthy democracy. Specifically, I ask the question: does increased trust in how democracy works in the EU affect someone's decision to vote? The data used to explore this question is taken from a

2024 EU GESIS survey following the 2024 European parliamentary election. It prompts participants about their region of residence, gender, employment status, country of residence, age, self-perceived living standard, social class, trust in EU democracy, opinion of their country's EU membership, and whether they voted or not. I examined turnout by level of satisfaction with democracy and by country, introducing third variables to turnout and satisfaction level to examine any confounding variables that might exist, and used a regression model to create a coefficient plot with confidence intervals that examines the correlation between multiple variables and turnout. I found that as satisfaction with democracy increases, so does voter turnout. This relationship persists even when controlling for third variables. The next section lays out the theoretical framework for my research, followed by a more thorough presentation of the data and visualizations used to explore the hypothesis.

The hypothesis being explored is that EU parliamentary election turnout will increase as level of satisfaction with democracy in the EU increases. Logically, it would make sense that as someone feels closer and more connected with the democratic process, they will trend towards participating in the election of democratic officials more. As someone becomes less satisfied, they will be less trustworthy in the institution, leading to a decision not to participate in its selection of representatives. We must assume that external variables that might confound the potential relationship are all held constant, meaning that variables that are historically accepted to influence turnout such as social and economic status must be controlled for as to not skew the data.

Existing research supports relationships between some of my observed variables and voter turnout. It has been observed that class and subjective status both have statistically significant effects on decision to vote in democracies, which are both control variables I will be examining

as possible confounders in my research (Melli, 2025). I examine the data with this research in mind, making sure to account for any confounding effect these variables might have. The literature also supports that trust and satisfaction have clear and positive linear relationships with turnout (Gronlund and Setala, 2007). Other research poses that turnouts in countries with compulsory voting are less affected by trust, which is a relationship I observed myself among my own data (Carreras and Irepoglu, 2013). Some research also serves to challenge my hypothesis; Kostelka and Blais pose that participation in the voting process increases voter satisfaction, win or lose (Kostelka and Blais 2018). This research is worth keeping in mind while exploring my data and attempting to answer my research question. Finally, Xezonakis and Ezrow observed in their research that lower turnouts signal satisfaction with democracy, and dissatisfied voters go to the polls to express this dissatisfaction, challenging widespread findings that turnout is an indicator of satisfaction (Xezonakis and Ezrow, 2014).

If my hypothesis proves to be correct upon observation of the data, a linear and positive relationship between satisfaction with democracy and voter turnout should be observable and obvious. This relationship should be present even when third variables are introduced to be tested as confounders.

3. Data and Methods

3.1 Data Description

This data was pulled from a 2024 GESIS survey across the EU, conducted after the 2024 parliamentary elections. It focuses on individuals as the unit of observation but can be stratified into country-level data as each respondent provided their country of residence. It surveyed over 28,000 different EU residents. Variables such as type of employment and gender have been

recoded into binary variables for ease of manipulation (i.e. unemployed = 1, female = 1). When examining self-described economic standing, only the two extremes ("Rich Family" and "Poor Family") for clarity and simplicity.

3.2 Variables and Measurement

Below is a table naming and describing each variable used in the research.

Variable Name	Description	Variable Type	Encoding Method / Levels
country_code_alpha2	country of residency	character	using standard EU country codes
female	whether the respondent is female or not	binary	1 = female
age	respondent's age	integer	age as integer
residence	region the respondent lives in	character	"rural", "town", and "city"
satisfaction_democracy_eu*	respondent's level of satisfaction with democracy in the EU	character	"Not At All Satisfied", "Not Very Satisfied", "Fairly Satisfied", "Very Satisfied"
voted_ep**	whether the respondent voted or not	binary	1 = voted
eu_membership_opinion	respondent's view of their country's EU membership	character	"Good Thing", "Bad Thing", "Neither"
unemployed	whether the respondent is unemployed or not	binary	1 = unemployed
living_standard	respondent's self-described living standard	integer level	1 = "Poor Family" ascending to 7 = "Rich Family"
social_class	respondent's self-described social class	integer level	1 = "Working class" ascending to 5 = "Upper Class", 6 = other

*Key explanatory variable, **Outcome Variable

3.3 Methods of Analysis

I manipulated and explored the data in multiple ways when exploring this research question. First and foremost, I took the turnout mean across different satisfaction groups to observe the baseline question if turnout increased with satisfaction. I also took the turnout average over other groups while exploring control variables and any confounding effects. I compared turnout means by satisfaction across multiple different third variables to explore the possibility of confounding by different controls. I also used a regression model to explore the statistical significance of both my explanatory and control variables. I created a coefficient plot using the regression model results as well as confidence intervals to easily visualize statistically significant effects and possible turnout predictors. Finally, I grouped turnout by country of residence to explore any country-level effects (i.e. compulsory voting).

4. Data Visualizations and Results

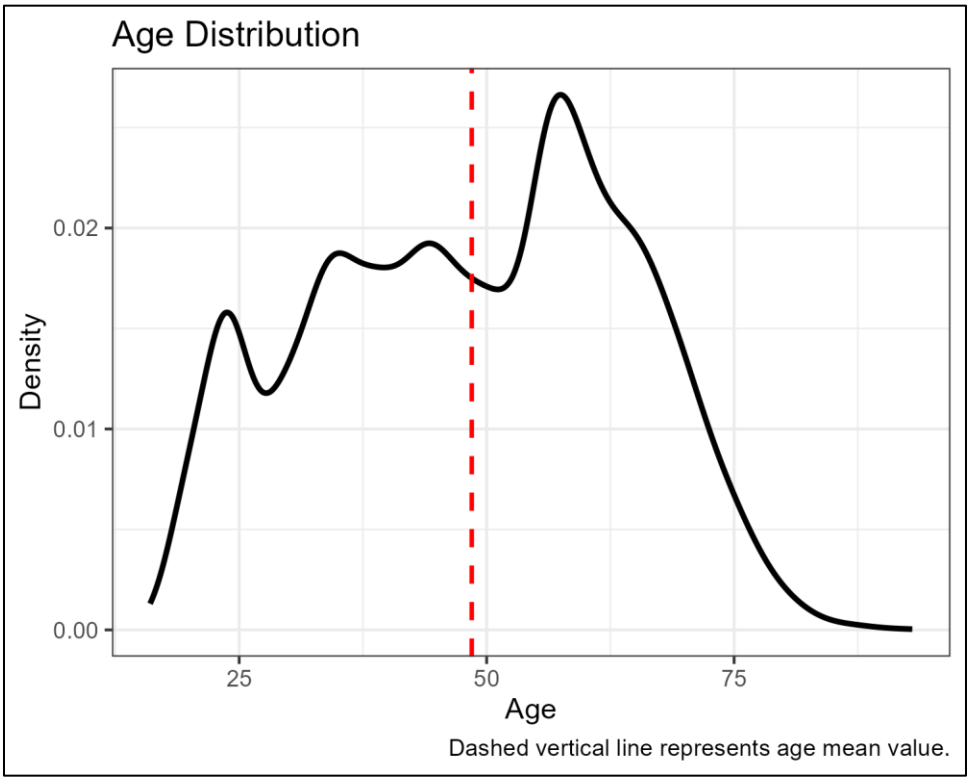

Figure 1

Figure 1 represents the age distribution of the dataset. The average age in the sample is about 50. This figure helps contextualize the common respondent. The most common age group is between 50 and 65. The following visualization will examine age further as well as its relationship with our explanatory variable.

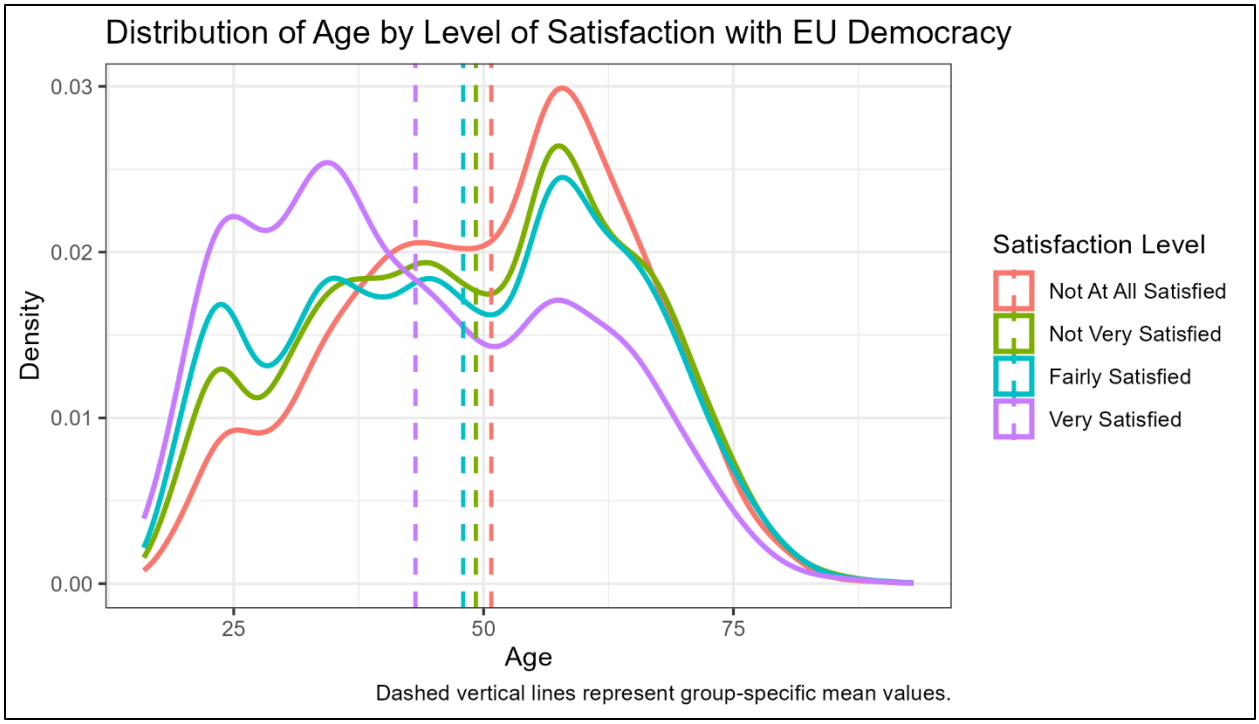

Figure 2.

Figure 2 builds upon Figure 1; I separated the density plot by levels of satisfaction. Here, a relationship between age and satisfaction level begins to emerge: Respondents who were very satisfied with how democracy works in the EU were on average younger than those less satisfied with democracy. The relationship continues through all satisfaction levels, with each level corresponding to a slightly higher average age as satisfaction decreases. This relationship could point to age being a confounding factor of satisfaction; I will continue to explore age and other possible confounding factors throughout the remainder of the report.

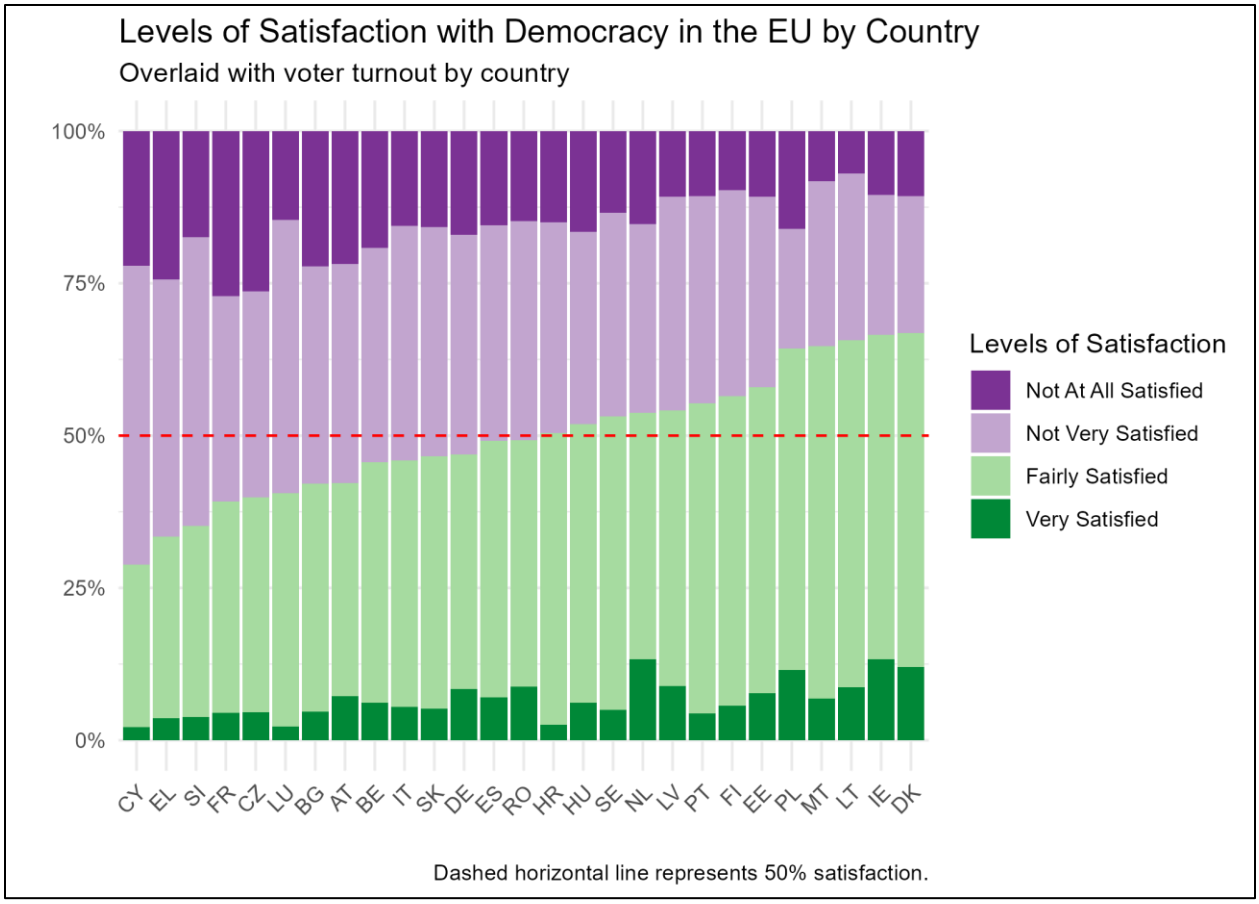

Figure 3.

Figure 3 shows the distribution of total satisfied responses vs. unsatisfied responses. There is clear and wide variation across countries; in the next figure, I will further examine the explanatory variable across countries and discuss important trends that can be found in the country-level analysis that would confound a country-level analysis.

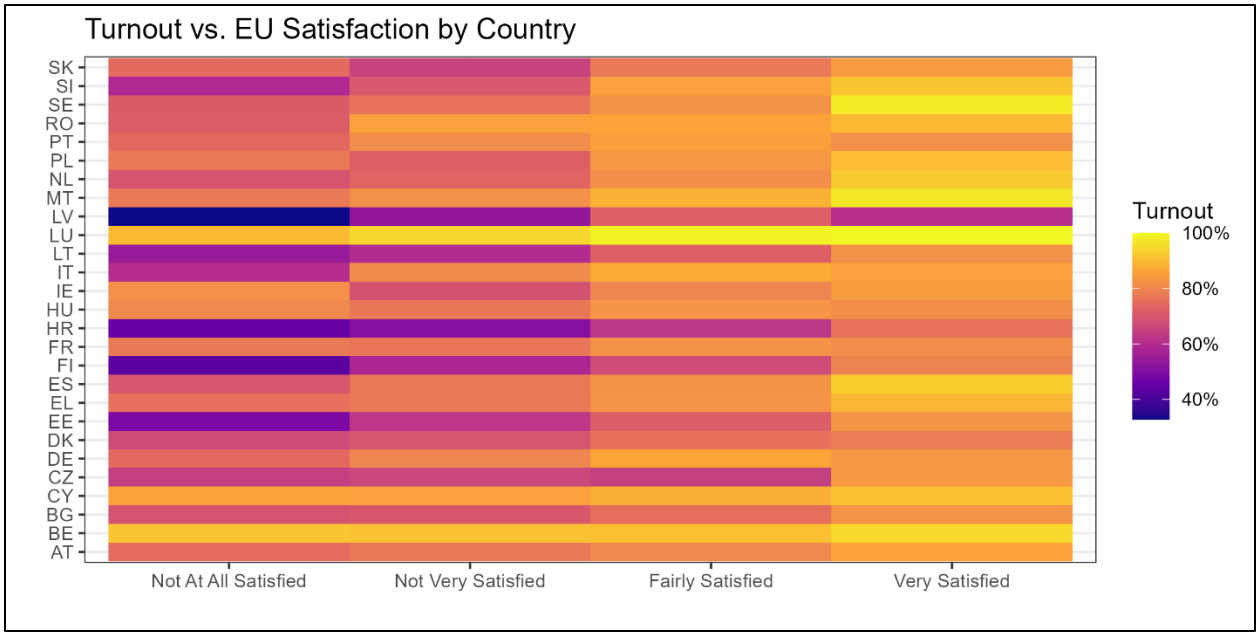

Figure 4.

Through my research, I concluded that country-level analysis of voter satisfaction against turnout proves to hold too many confounders to effectively use it as the main unit of analysis. When using the data to construct a heatmap of the relationship by country, a general pattern begins to emerge; a gradient that represents a growing level of turnout can be observed across the levels of satisfaction. Other trends of note appear as well. For example, Belgium and Luxembourg, which are two countries in which voting is compulsory, the band that runs across all satisfaction levels is on average a much lighter and yellower color than other countries. We can conclude that countries with compulsory voting unsurprisingly have more consistent and higher turnouts among all satisfaction levels. Another trend can be seen in Latvia, which has historically had a lower turnout rate than its fellow members: Upon observation, the Latvia's band of color is a much darker color, corresponding to lower turnouts. The remaining visualizations will be use individuals as the unit of analysis.

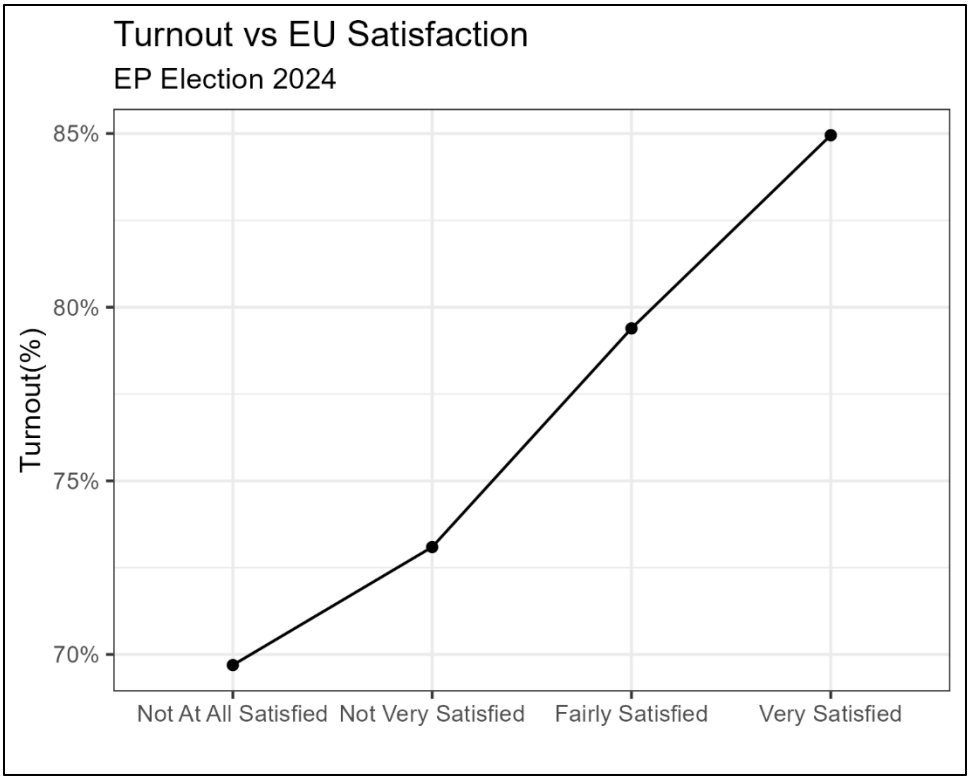

Figure 5.

Figure 5 represents the most basic visualization of the relationship between satisfaction and turnout, a line plot with satisfaction categories on the x and the mean turnout of each group on the y. A clear positive relationship can be observed between respondent satisfaction and each group's corresponding turnout percentages. The plot suggests that more satisfied respondents are more inclined to cast a vote and vice versa. While this plot suggests a relationship, I will introduce third variables and examine a multivariate regression model to see if the hypothesis holds up under scrutiny.

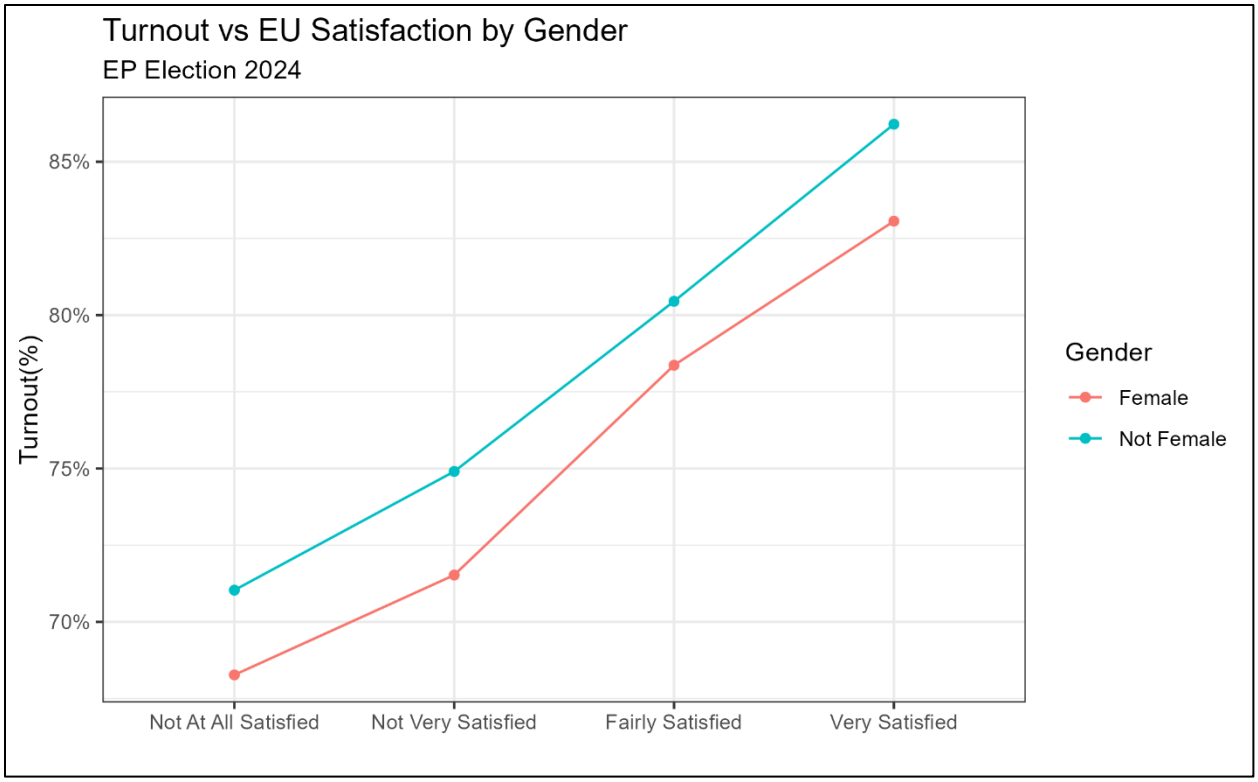

Figure 6.

This line plot takes gender into account. A similar relationship still exists in which satisfaction level has a positive relationship with turnout. The figure illustrates that this relationship can be observed in each group when holding a third variable, in this case female, constant. The following figures will follow the same trend of introducing a third variable into our main exploratory visualization. I will provide a brief description of each as well as any possible points of interest, but the same generalizations about holding a third variable constant will be implied.

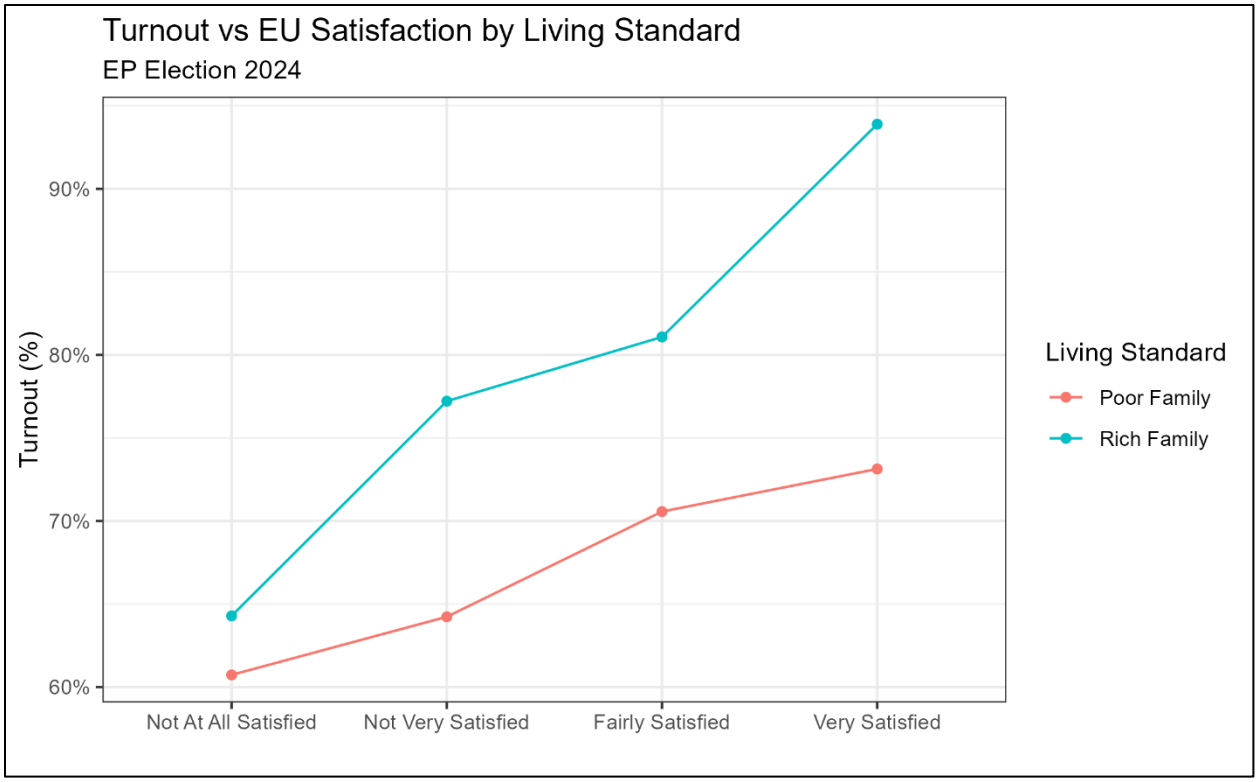

Figure 7.

Figure 7 introduces only the two extremes of the living_standard responses, “Poor Family” and “Rich Family”. A positive relationship still appears in both, but the slope for respondents who selected “Rich Family” is much sharper than that of “Poor Family”. This might suggest that a respondent with a worse living standard is less motivated to vote by their satisfaction of how democracy works, especially at the highest level, where a notably large difference between turnout among the two groups can be observed.

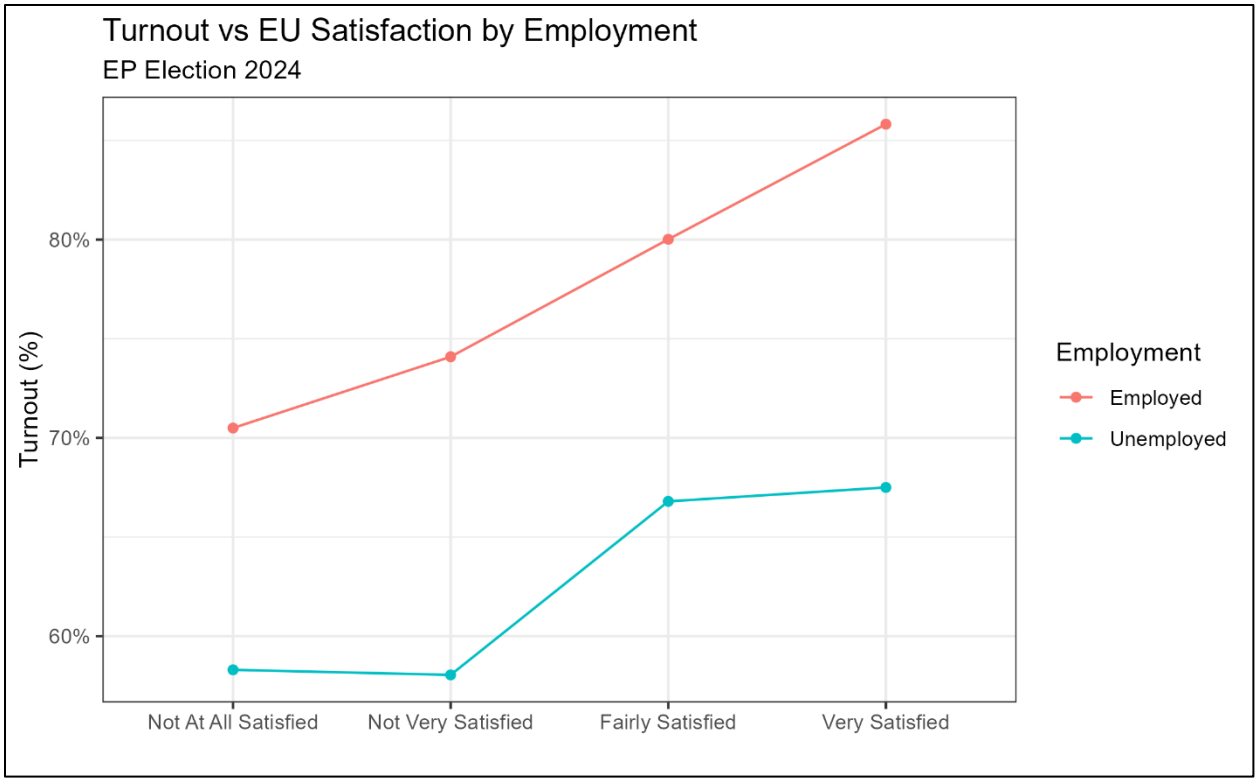

Figure 8.

Figure 8 is the third graph with a third variable introduced to our main relationship, illustrating any effect unemployment might have on turnout. On top of a lower average turnout among all unemployed respondents, I felt it was worth including to point out that the slope between the “Not At All Satisfied” and “Not Very Satisfied” categories among unemployed respondents is actually negative; This could suggest that satisfaction with democracy is not as much of a motivator to vote for unemployed people, especially when their satisfaction level is low. The slope between “Fairly Satisfied” and “Very Satisfied” is also extremely small, lending further credence to this conclusion.

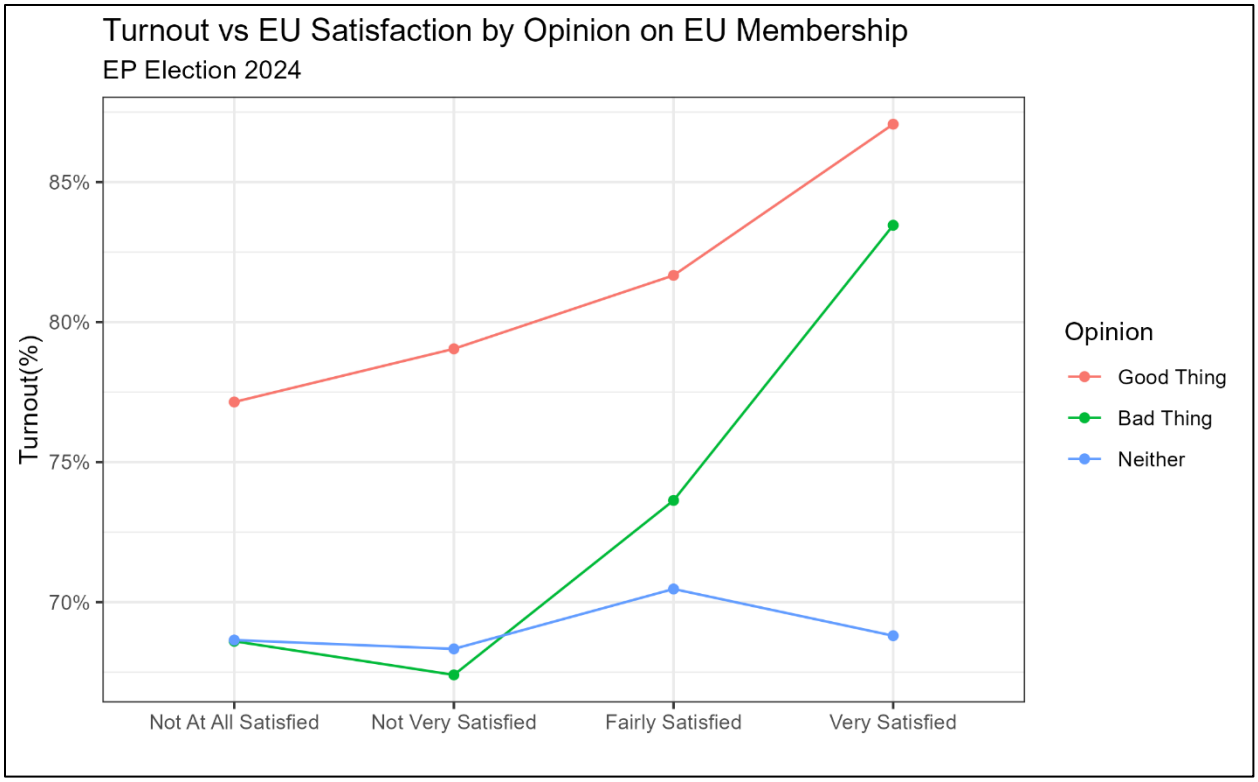

Figure 9.

Figure 9 is the final line plot in this series of third-variable line plots. The third variable in this case was the respondent's opinion on their country of residence's EU membership. I want to point out two interesting observations: First, the difference in turnout between the "Good Thing" and "Bad Thing" groups is much higher at the lower satisfaction levels and falls below a 5% difference among the "Very Satisfied" group; this suggests that those who both disagree with their membership and are dissatisfied with democracy in the EU are not interested in voting, falling below the mean turnout for the whole dataset. Second, the group of respondents who replied "Neither" has no discernable turnout trend when split by satisfaction categories; this makes sense theoretically because those who responded "Neither" might be disinterested in the institution altogether, so their level of satisfaction does not affect their propensity to vote at all.

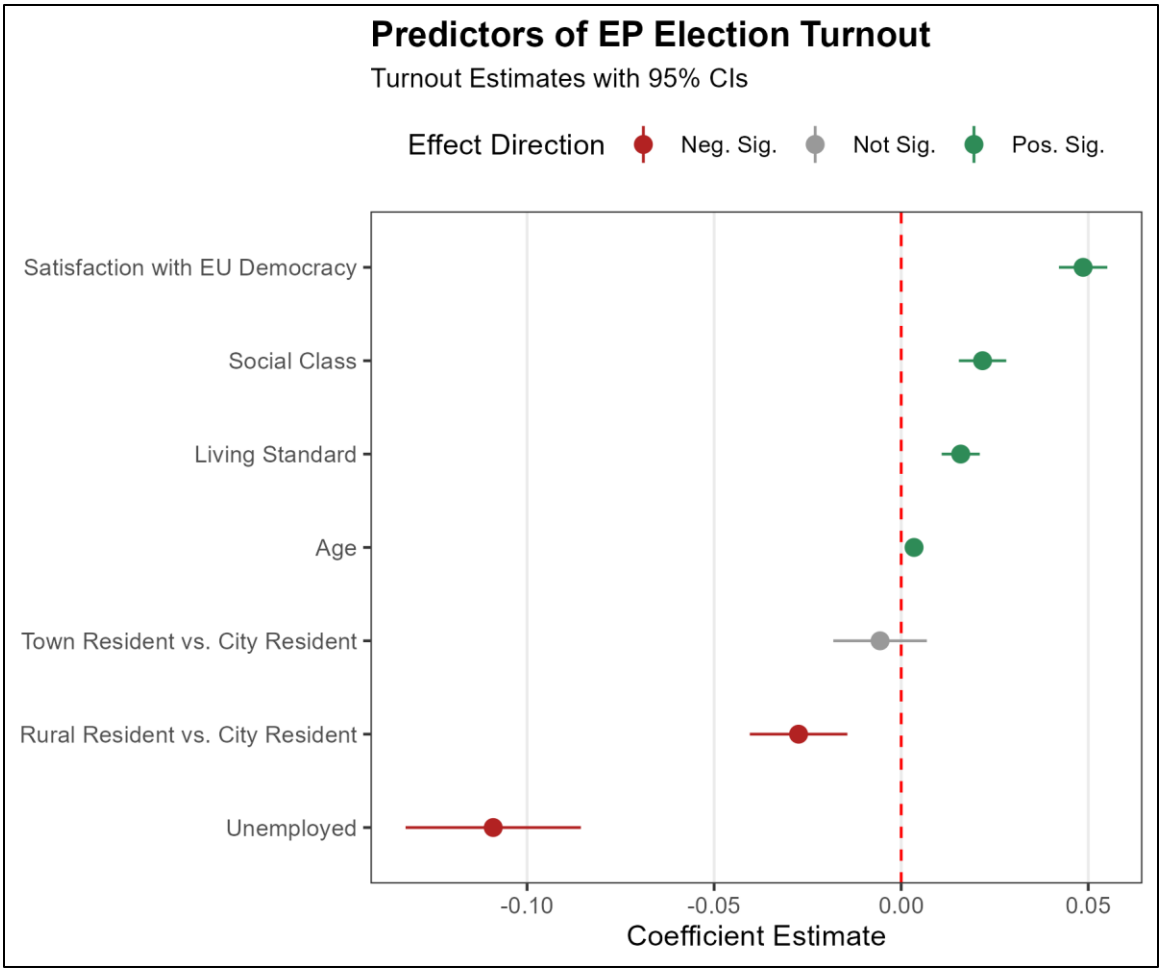

Figure 10.

Finally, I used a multivariate linear regression model with confidence intervals to create a coefficient plot that lays out the coefficient value for each group. Our explanatory variable, satisfaction_democracy_eu, shows a clear and statistically significant positive relationship with turnout, with a one-unit increase in satisfaction being associated with an almost 5% higher probability of voting. This positive relationship can also be observed among social class and economic status, and age at lower degrees. Unemployment and Rural residency (as compared to respondents who lived in a city) both show negative relationships with turnout, with unemployment being the most significant effector on turnout in the whole plot. The only non-

statistically significant predictor was those who lived in a town. Another point of interest is that age has a slightly positive relationship with turnout, even though Figure 2 suggests a negative relationship between age and satisfaction. This can be attributed to other external confounders that come with age such as personal responsibility and feelings of belonging within their community.

5. Discussion and Conclusion

In summary, the data did show a statistically significant positive relationship between satisfaction with how democracy works in the EU and likelihood of voting. This confirms my hypothesis, suggesting that citizens who are more pleased with how the democratic system they live under works are more motivated to vote. Citizens who are not as satisfied might be less motivated to change it or, more likely, less trusting that their vote will create any change. Other statistically significant relationships can be observed among variables like unemployment, which has a high negative effect on turnout, and social and economic status, which both are associated with increased turnout the higher the status. It should be noted that this research only focused on the EU and the relationship could be supported or challenged by other democracies, opening an avenue for further discussion on predictors of voter turnout.

References

Popa, S. A., Hobolt, S. B., Van der Brug, W., Katsanidou, A., Gattermann, K., Sorace, M., Toygür, I., & De Vreese, C. (2024). European Parliament Election Study 2024, Voter Study *(ZA8868; Version 1.0.0) [Data set]. GESIS, Cologne. https://doi.org/10.4232/1.14409*

Ezrow, L., & Xezonakis, G. (2014). Satisfaction with democracy and voter turnout: A temporal perspective: A temporal perspective. *Party Politics*, *22*(1), 3-14. https://doi.org/10.1177/1354068814549335 (Original work published 2016)

Melli, G. (2025). Class, subjective status, and turnout in Europe. *Research in Social Stratification and Mobility, 97*(101039). https://doi.org/10.1016/j.rssm.2025

Carreras, M., & Yasemin, I. (2013). Trust in elections, vote buying, and turnout in Latin America. *Electoral Studies, 32*, 609-619. https://escholarship.org/uc/item/1xr1j5mg

Kostelka, F., & Blais, A. (2018). The Chicken and Egg Question: Satisfaction with Democracy and Voter Turnout. *PS: Political Science & Politics*, *51*(2), 370–376. https://doi.org/10.1017/S1049096517002050

Grönlund, Kimmo & Setälä, Maija. (2007). Political Trust, Satisfaction and Voter Turnout. *Comparative European Politics*(5), 400-422. https://doi.org/10.1057/palgrave.cep.6110113