

ABSTRACT

A model was created to help predict Greens/EFA seat share in each country in the EU based on polls of values of people in these countries. This could help predict future elections or predict Greens/EFA seat share if new EU members are admitted

BACKGROUND

Research Question.

- What factors contribute to Greens/EFA parties gaining seats in European Parliamentary elections?

Importance.

- Green Parties are rapidly expanding throughout Europe as concerns over climate change grow. Understanding the values that these voters have can help predict future Green Party vote share before the elections happen.

Background.

- Previous Research suggests that Green support comes from younger, more educated people who have a higher social standing and live in less densely populated areas
 - More so than this, support comes from Postmaterialists, who in general support socially progressive policies beyond just environmental politics

Contribution/Hypotheses

- I expect that the model created will likely show that the values correlated with green party seats will be values generally held by younger Postmaterialist voters

DATA AND METHODS

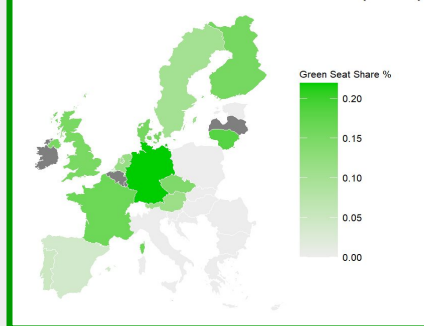
DATA

- The data describes the values of various individuals from various nations around the globe polled from 2017 to 2020
- 135000 rows, each representing the responses from an individual, and 231 columns, 191 of which were relevant questions asked
- Data was subsetting to just EU members (as of 2019), after which the average of each value was found for each country, in accordance with the weighting of each individual
- Variables for the number of Greens/EFA seats and total number of seats in the EU Parliament per country were added manually

APPROACH

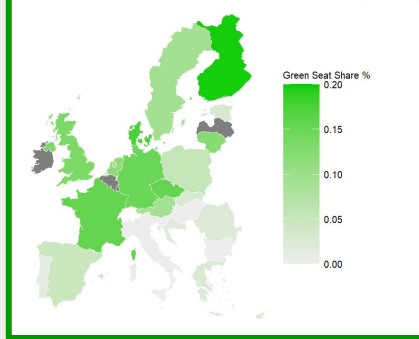
- A regression model was made using the stepwise regression method
- Percentage of seats held by the Greens/EFA in each country was the dependent variable
- Tested out making some variables log of themselves until obtaining max adjusted R-squared

Actual 2019 EU Parliament Election Green Results by Country



RESULTS

Predicted 2019 EU Parliament Election Green Results by Country



- The map above depicts the Green Seat Share % that was predicted by the model created
- Any countries with negative predictions were put at 0 for the purposes of the map, as to keep the colors relatively consistent

Regression Model Variables

- Negative Correlations:
 - Homosexuality is justified
 - Trust people of another nationality
 - Determination/perseverance is a top 5 most desirable quality for a child to have
 - When jobs are scarce, employers should give priority to your nationality over immigrants
- Positive Correlations:
 - A democratic political system is bad
 - Children should learn a feeling of responsibility (log of)
 - Confident in Parliament
 - Vote in local elections

Important Values

- P-value: **0.0002569**
- Adjusted R-squared: **0.7397**

CONCLUSIONS

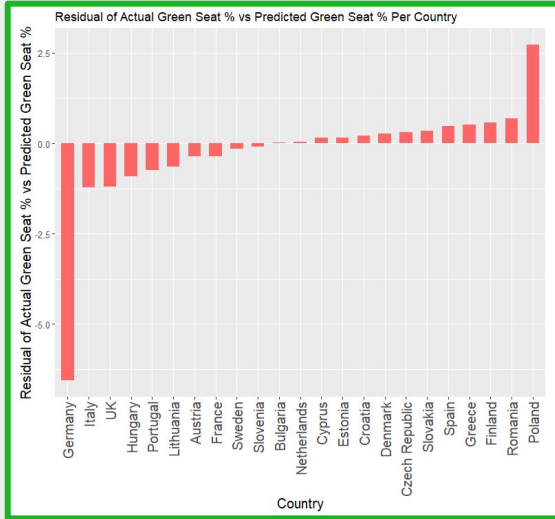
The model created was statistically significant and is relatively accurate in predicting the 2019 European Parliament elections.

Some of the variables in the model seem to fit the prior expectations, while others seem to contradict them. This most likely suggests green party votes being reactionary in some cases rather than emblematic of their country's average values.

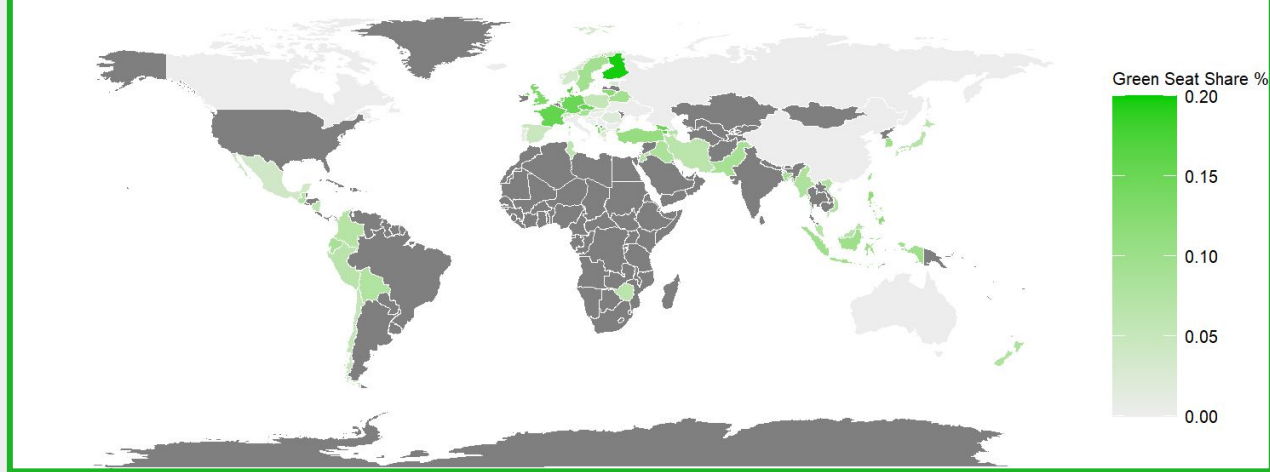
However, the model may very well be overfitted and may not work well when applied to another election. Perhaps the values used could be extrapolated back to the 2014 elections to see how good the results are in that case.

Additionally, a further study could make the differentiation between green parties and separatist parties, as both as apart of the Greens/EFA Party in the European Parliament

DIAGRAMS AND MAPS



Predicted 2019 EU Parliament Election Green Results by Country Globally



CITATIONS

- Whitley, Samantha & Nelsen, Brent & Guth, James. (2021). Explaining Green Party Support in the 2019 European Parliamentary Elections: Secularization and Social Cleavage.
- WVS database. World Values Survey. (n.d.). Retrieved December 16, 2021, from <https://www.worldvaluessurvey.org/WVSEVSjoint2017.jsp>
- [europarl]. (2019, July 4). Download datasheets: 2019 European Election Results: European parliament. 2019 European election results. Retrieved December 16, 2021, from <https://www.europarl.europa.eu/election-results-2019/en/tools/download-datasheets/>