

Online Appendix to:
**Why Are the Affluent Better Represented Around
the World?**

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A.1 Data sources and coding rules

Table A1: Data sources

Variable	Source
Δ EMD	Lupu and Warner (2020) variable <code>emd_diff</code> .
Foreign cap. depend.	World Bank (2019) , foreign direct investment, net inflows, balance of payments in current US dollars (variable <code>BX.KLT.DINV.CD.WD</code>). Gathered using the R package <code>WDI</code> and logged.
GDP (logged)	World Bank (2019) , GDP per capita in constant 2010 US dollars (variable <code>NY.GDP.PCAP.KD</code>). Gathered using the R package <code>WDI</code> and logged.
HDI	Quality of Government Standard Dataset, January 2019 version (Teorell et al. 2019). Variable <code>undp_hdi</code> , originally provided by the UNDP's Human Development Report.
Income inequality	World Bank (2019) , GINI index, World Bank estimate (variable <code>SI.POV.GINI</code>). Gathered using the R package <code>WDI</code> .
Trade openness	World Bank (2019) , trade as a percentage of gross domestic product (variable <code>NE.TRD.GNFS.ZS</code>). Gathered using the R package <code>WDI</code> .
Age of democracy	Boix et al. (2013) , data version 3.0, variable <code>democracy_duration</code> .
Disproportionality	Gandrud (2019) , variable <code>disproportionality</code> . Gathered using the R package <code>devtools</code> via http://bit.ly/Ss6zDO .
Party institutionalization	The Database of Political Institutions (Cruz et al. 2016), version DPI2015, variable <code>partyage</code> .
Clientelism	V-Dem, data version 7.1 (Coppedge et al. 2017). Variable <code>v2psprlnks</code> , inverted so that higher values indicate more clientelistic and less programmatic linkages.
Corruption	V-Dem, data version 7.1 (Coppedge et al. 2017). Variable <code>v2x_corr</code> .

Table A1: Data sources (continued)

Variable	Source
Government ideology	Chapel Hill Expert Survey, 1999-2014 Trend File, version 1.1 (Bakker et al. 2015). Variable <code>seat</code> divided by the sum of <code>seat</code> for a given country-year gave the legislative proportion for a given party, while <code>lrgen</code> gave the party's ideology. Parties in government were chosen using the <code>govt</code> variable, values "in government" or ".5" (in government for part of the year). We then imputed missing years for which CHES data were available. We then supplemented with Manifesto Project data, version 2018b (Volkens et al. 2018), using variable <code>ideology</code> and manually selecting parties in government using secondary sources. We then supplemented with data from Baker and Greene (2011) , updated through 2018 in the 8 January 2019 data version. Here again we used variable <code>ideology</code> and manually selected parties in government using secondary sources.
% female legislators	Scraped from the Inter-Parliamentary Union website, now available through Parline (Inter-Parliamentary Union 2019).
Civil society	V-Dem, data version 7.1 (Coppedge et al. 2017). Variable <code>v2x_cspart</code> .
Pol. donation restrictions	V-Dem, data version 7.1 (Coppedge et al. 2017). Variable <code>v2eldonate</code> .
Trade union density	Trade union density rate (percentage), downloaded from ILOSTAT (International Labour Organization 2019) on 27 April 2019.
Compulsory voting	V-Dem, data version 7.1 (Coppedge et al. 2017). Variable <code>v2elcomvot</code> , recoded into a binary variable by setting all values greater than 1 to 1, to reflect any legal requirement to vote.
Cross-cuttingness	Data from Selway (2011) , August 2013 version, variable <code>RaIC</code> .
Turnout	V-Dem, data version 7.1 (Coppedge et al. 2017). Variable <code>v2elvaptrn</code> , divided by 100 so as to indicate proportions.

A.2 Models used in the main analysis

The following list gives the name and description for each model studied in our machine learning task, as given in the R package `caret` (Kuhn 2008). We chose these models for their diversity of underlying approach.

1. `avNNet`: Model Averaged Neural Network
2. `bagEarthGCV`: Bagged MARS using gCV Pruning
3. `dnn`: Stacked AutoEncoder Deep Neural Network
4. `glm`: Generalized Linear Model
5. `glmboost`: Boosted Generalized Linear Model
6. `glmnet`: `glmnet`
7. `knn`: k-Nearest Neighbors
8. `mlp`: Multi-Layer Perceptron
9. `nnet`: Neural Network
10. `pcaNNet`: Neural Networks with Feature Extraction
11. `ppr`: Projection Pursuit Regression
12. `rf`: Random Forest
13. `rvmLinear`: Relevance Vector Machines with Linear Kernel
14. `xgbLinear`: eXtreme Gradient Boosting

A.3 Model performance

Table A2: Predictive performance

Model	RMSE	Model	RMSE
avNNet	0.98 (0.16)	mlp	1.03 (0.19)
bagEarthGCV	0.96 (0.18)	nnet	0.98 (0.17)
dnn	1.04 (0.19)	pcaNNet	0.99 (0.18)
glm	0.95 (0.17)	ppr	1.04 (0.15)
glmboost	0.96 (0.16)	rf	0.93 (0.21)
glmnet	0.95 (0.17)	rvmLinear	0.96 (0.17)
knn	0.95 (0.18)	xgbLinear	1.03 (0.22)

Values in parentheses indicate standard deviations. Note that RMSE is on the scale of the rescaled dependent variable, which ranges over $[-3, 5]$.

A.4 Additional partial dependence plots

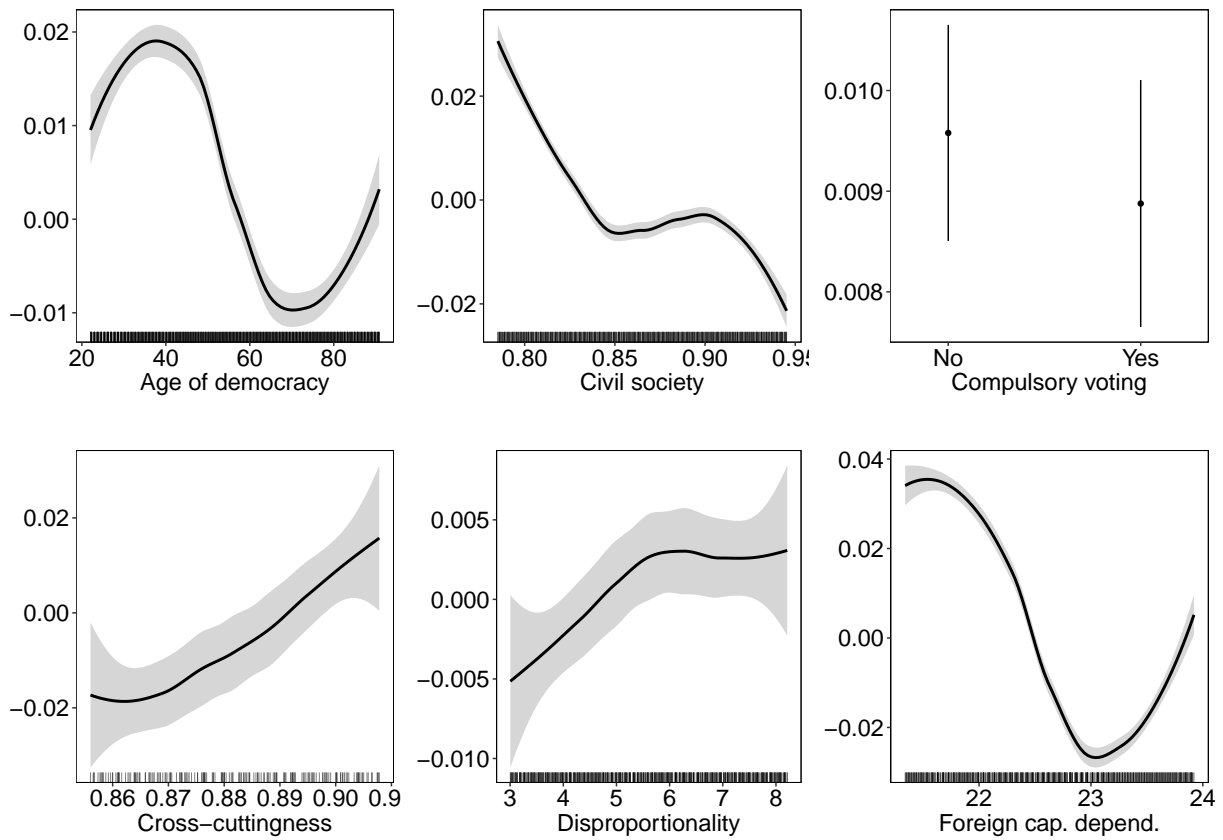


Figure A1: Partial dependence plots. Each panel provides the predicted change in unequal representation as a predictor is moved across its inter-quartile range. Lines represent loess fits, with 95% confidence intervals in gray, computed from random forest predictions across all imputation replicates. Rug plots are also provided along the x axis to indicate support in the underlying data for these predictions. Note the differing axes in each panel.

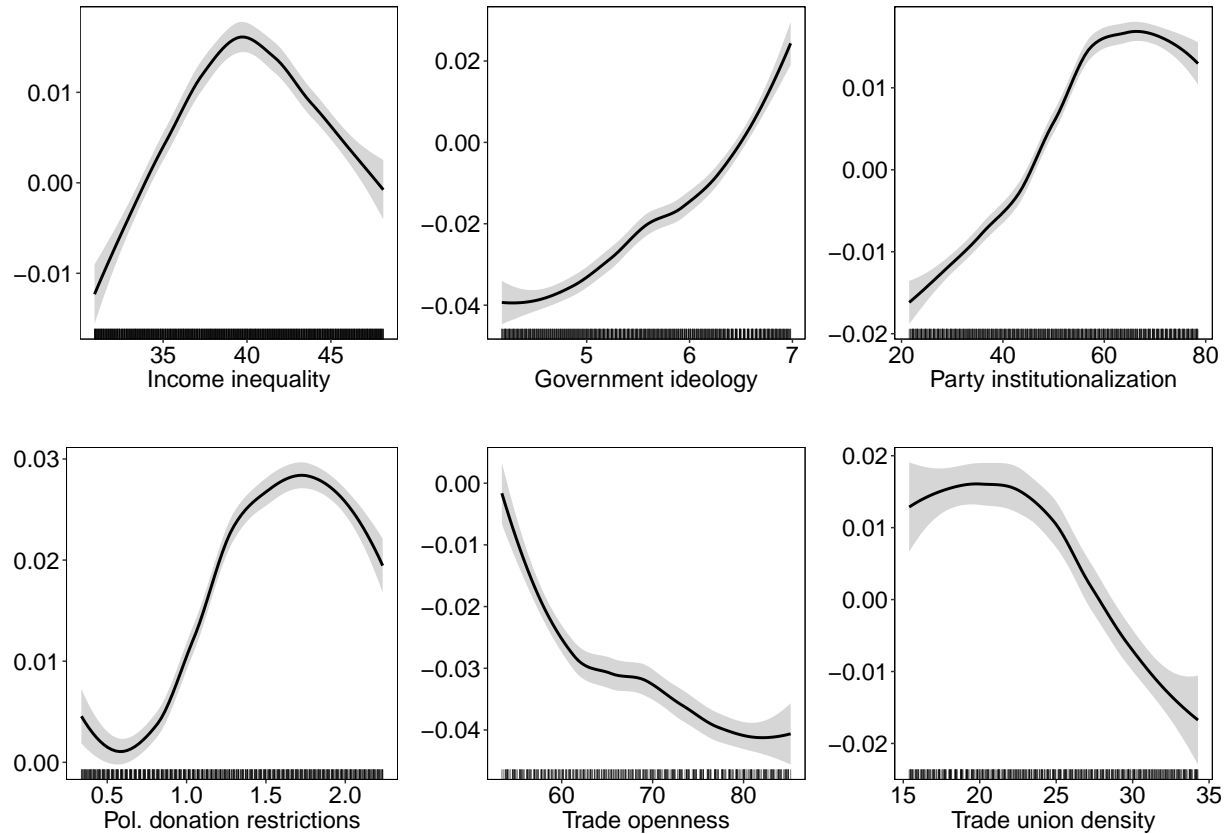


Figure A1 (continued): Partial dependence plots. Each panel provides the predicted change in unequal representation as a predictor is moved across its inter-quartile range. Lines represent loess fits, with 95% confidence intervals in gray, computed from random forest predictions across all imputation replicates. Rug plots are also provided along the x axis to indicate support in the underlying data for these predictions. Note the differing axes in each panel.

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