ML and Voter Turnout

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The authors made the following contributions. Sean H. Merritt: Conceptualization, Writing - Original Draft Preparation, Writing - Review & Editing; Carlos Algara: Writing - Review & Editing.

Abstract

One or two sentences providing a **basic introduction** to the field, comprehensible to a scientist in any discipline.

Two to three sentences of **more detailed background**, comprehensible to scientists in related disciplines.

One sentence clearly stating the **general problem** being addressed by this particular study.

One sentence summarizing the main result (with the words "**here we show**" or their equivalent).

Two or three sentences explaining what the **main result** reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge.

One or two sentences to put the results into a more **general context**.

Two or three sentences to provide a **broader perspective**, readily comprehensible to a scientist in any discipline.

Keywords: keywords

Word count: X

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Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.

Participants

Material

Procedure+

Data analysis

We used R [Version 4.0.4; R Core Team (2021)] and the R-package *papaja* [Version 0.1.0.9997; Aust and Barth (2020)] for all our analyses.

Results

```
## [11:10:49] WARNING: ..\src\learner.cc:1095: Starting in XGBoost 1.3.0, the default ev
## XGBClassifier(base_score=0.5, booster='gbtree', colsample_bylevel=1,
##               colsample_bynode=1, colsample_bytree=0.8, gamma=0, gpu_id=-1,
##               importance_type='gain', interaction_constraints='',
##               learning_rate=0.01, max_delta_step=0, max_depth=6,
##               min_child_weight=4, missing=nan, monotone_constraints='()',
##               n_estimators=2000, n_jobs=4, nthread=4, num_parallel_tree=1,
##               random_state=27, reg_alpha=0.1, reg_lambda=1, scale_pos_weight=1,
##               seed=27, subsample=0.9, tree_method='exact',
##               validate_parameters=1, verbosity=None)
##
```

```
## C:\Users\seanm\AppData\Local\R-MINI~1\envs\R-RETI~1\lib\site-packages\xgboost\sklearn
##   warnings.warn(label_encoder_deprecation_msg, UserWarning)

## C:\Users\seanm\AppData\Local\R-MINI~1\envs\R-RETI~1\lib\site-packages\xgboost\data.py
##   "memory consumption")
```

Discussion

References

Aust, F., & Barth, M. (2020). *papaja: Create APA manuscripts with R Markdown.* Retrieved from https://github.com/crsh/papaja

R Core Team. (2021). *R: A language and environment for statistical computing.* Vienna, Austria: R Foundation for Statistical Computing. Retrieved from https://www.R-project.org/

Table 1

Yearly Accuracy

Year	Accuracy	AUC
2006	0.5663643	0.5788361
2008	0.7031381	0.6345702
2010	0.7096642	0.7178568
2012	0.7100576	0.6836987
2014	0.6752250	0.7374063
2016	0.6535725	0.6890358
2018	0.6848255	0.7273221