

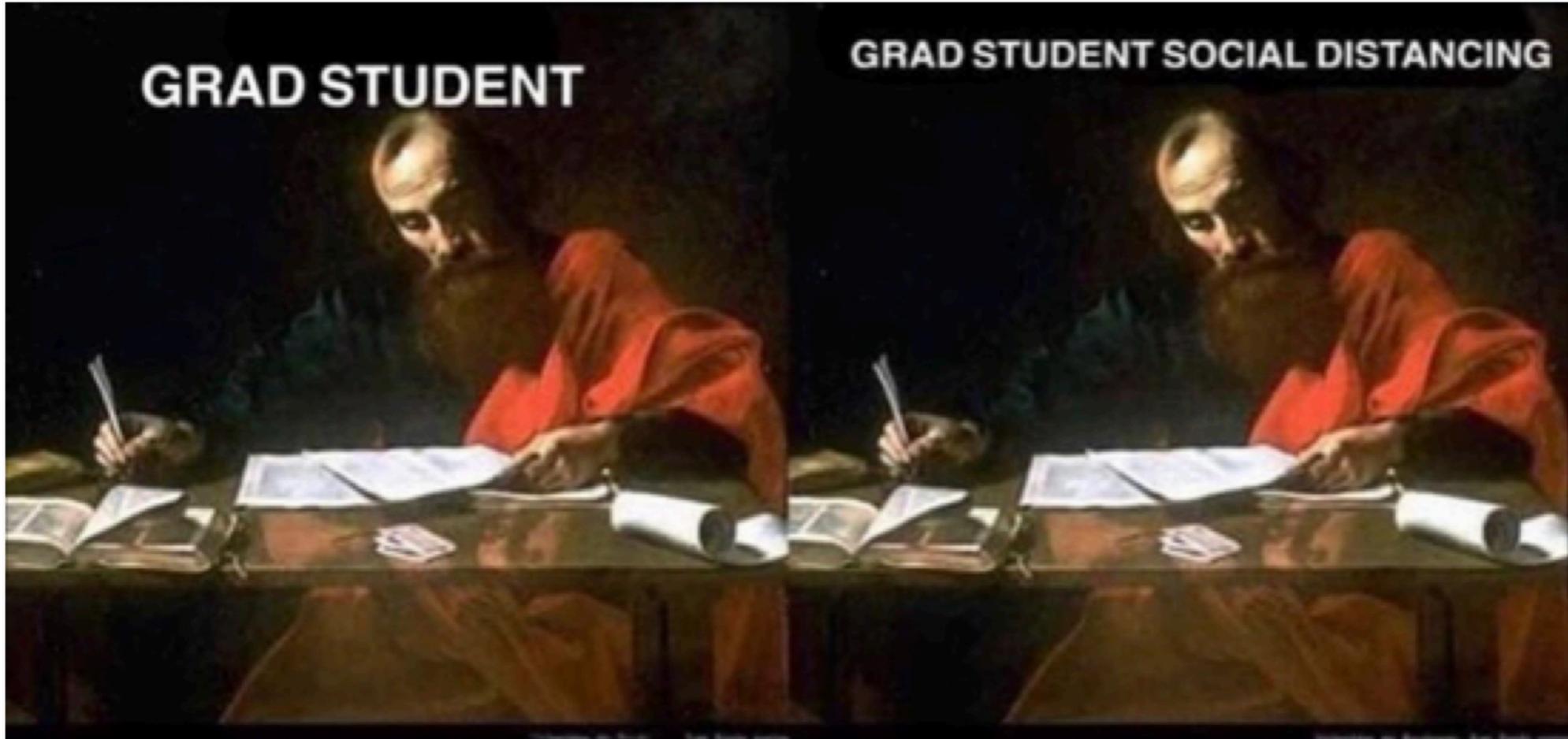
Three Papers on Economic Perceptions and Political Behavior

Jan Zilinsky

Papers

1. What Citizens Want from the Economy:
Determinants and Predictability of Economic Evaluations
Aggregate, country-level data, most countries in the world
2. Economic Fundamentals, Partisanship, and Outgroup Animus Explain Economic Evaluations
Micro-data, U.S. only
3. Programmatic Competition for the American Voter

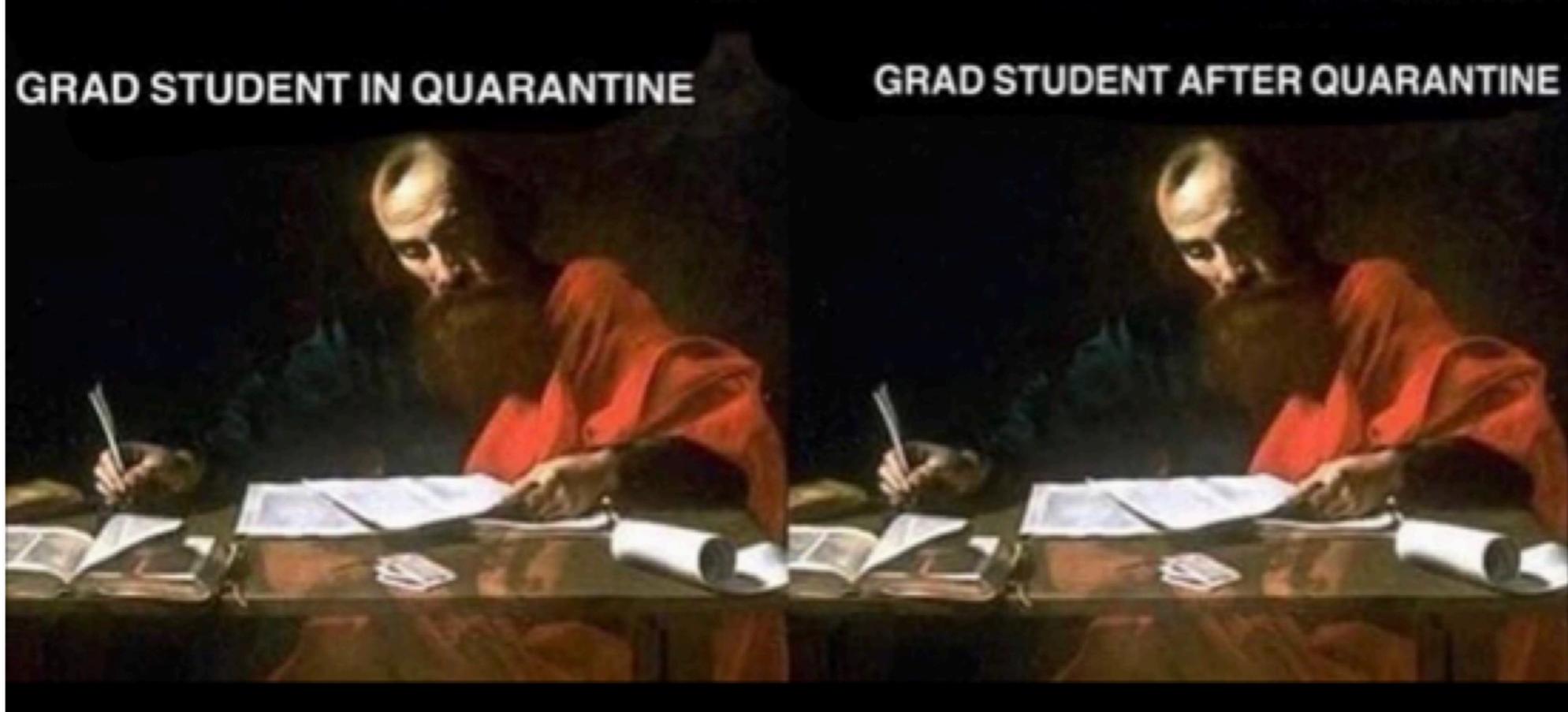
GRAD STUDENT



GRAD STUDENT SOCIAL DISTANCING

Violentie en Afzeggen - Van Gogh 1882

GRAD STUDENT IN QUARANTINE



GRAD STUDENT AFTER QUARANTINE

Paper 1

- **Motivation:** When Are Citizens Satisfied with the State of the Economy? Many (too many?) possibilities?
 - General problem/blessing in various settings: a large number of covariates, too few rows.
- **RQ:** How closely do aggregate perceptions of the economy reflect the true state of the economy, namely the statistical economy conveyed in standard economic indicators?
- **Conjecture:** because the economy is multi-faced, many aspects of the economy could influence evaluations
- Borrow approaches from machine learning to identify the attributes of the economy that drive subjective economic sentiment

Hypotheses in Paper 1

- **H1: Perceptive citizenry**

Citizens of a polity perceive the state of the economy accurately on average, using some combination of real economic data that they either observe directly or about which they learn indirectly.

- **H2: Polarization distorts beliefs**

The real economy matters less (for evaluations) in polarized countries: In countries with higher levels of affective polarization, the objective state of the economy translates into economic evaluations less reliably.

- **H3: Inequality distorts beliefs**

In countries where income inequality is high, economic evaluations will be more difficult to predict. Specifically, aggregate income growth will be less informative in unequal countries, because prosperity in those countries is more narrowly shared.

Why Machine Learning?

- Non-parametric statistics; search over a rich set of functional forms & variables
- Researcher will specify the set of potential covariates
- Letting the data speak (without ex-post data-mining)
- Cross-validation (prune the model if overfitting) and **model evaluation of out-of-sample data**

Data

Plausible feature space (P1)

- Paper 1: Gallup World poll (120+ countries).
Outcome: Aggregate econ. evaluations (2008–16).

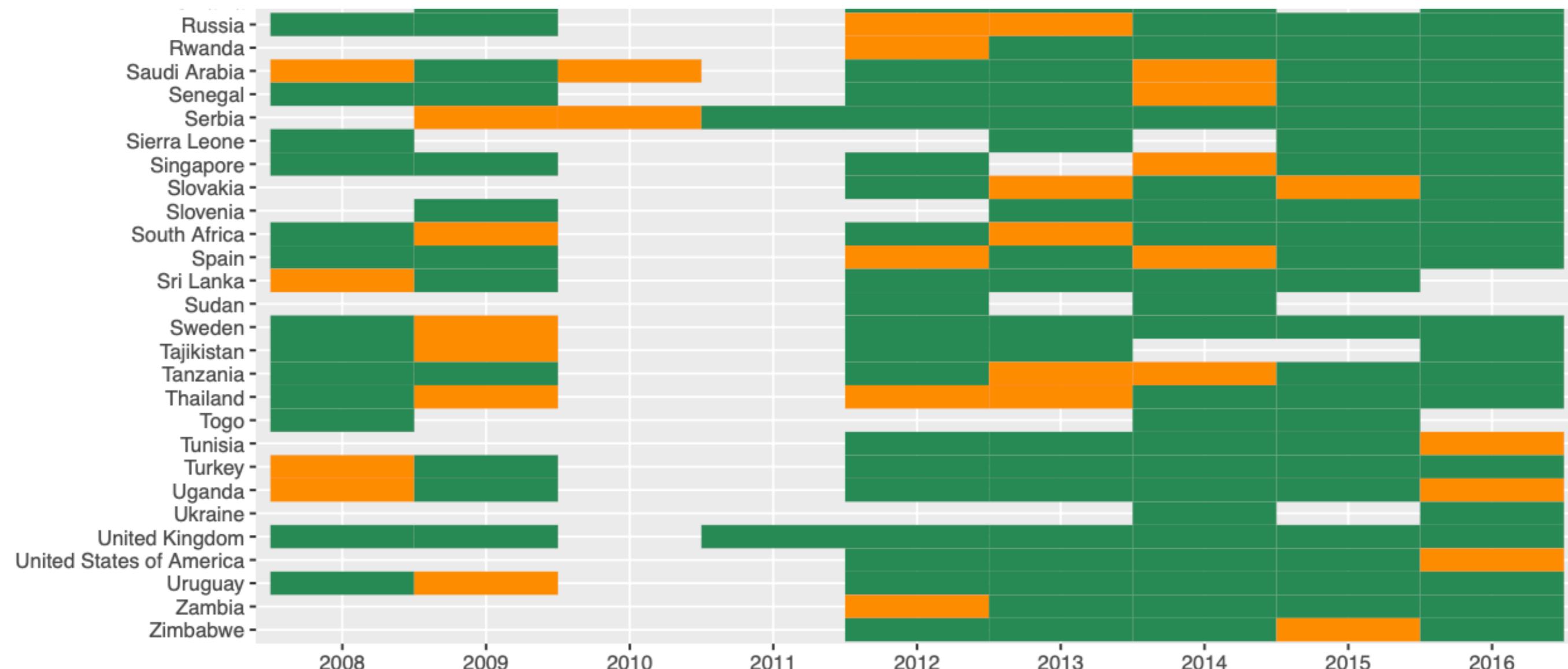
- Paper 2 polls:

Nationscape, ~280K respondents Years 2019–20

Gallup US daily polls.
N > 1.8 million respondents. Years 2008–17

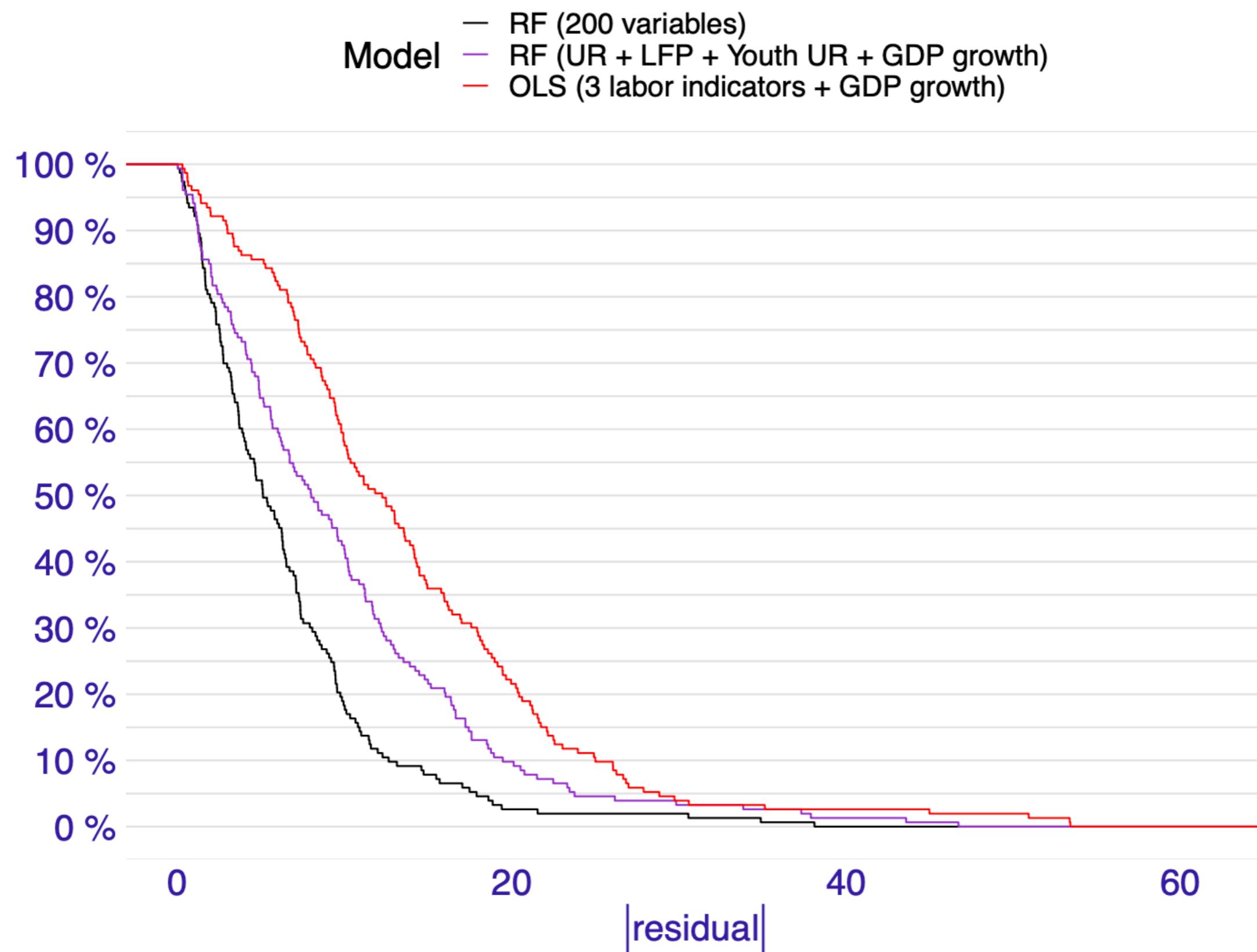
- GDP growth (annual %)
- Inflation
- Unemployment rate
- Government expenditures (% of GDP)
- General government final consumption expenditure (% of GDP)
- Exports of goods and services (% of GDP)
- Gross fixed capital formation (annual % growth)
- Trade (% of GDP)
- Manufacturing, value added (% of GDP)
- Industry (value added, or % annual growth)
- Industry (including construction), value added (annual % growth)
- **And 180+ other variables**

A subset of country-year observations and their assignment to the training (green) and test (orange) sets.

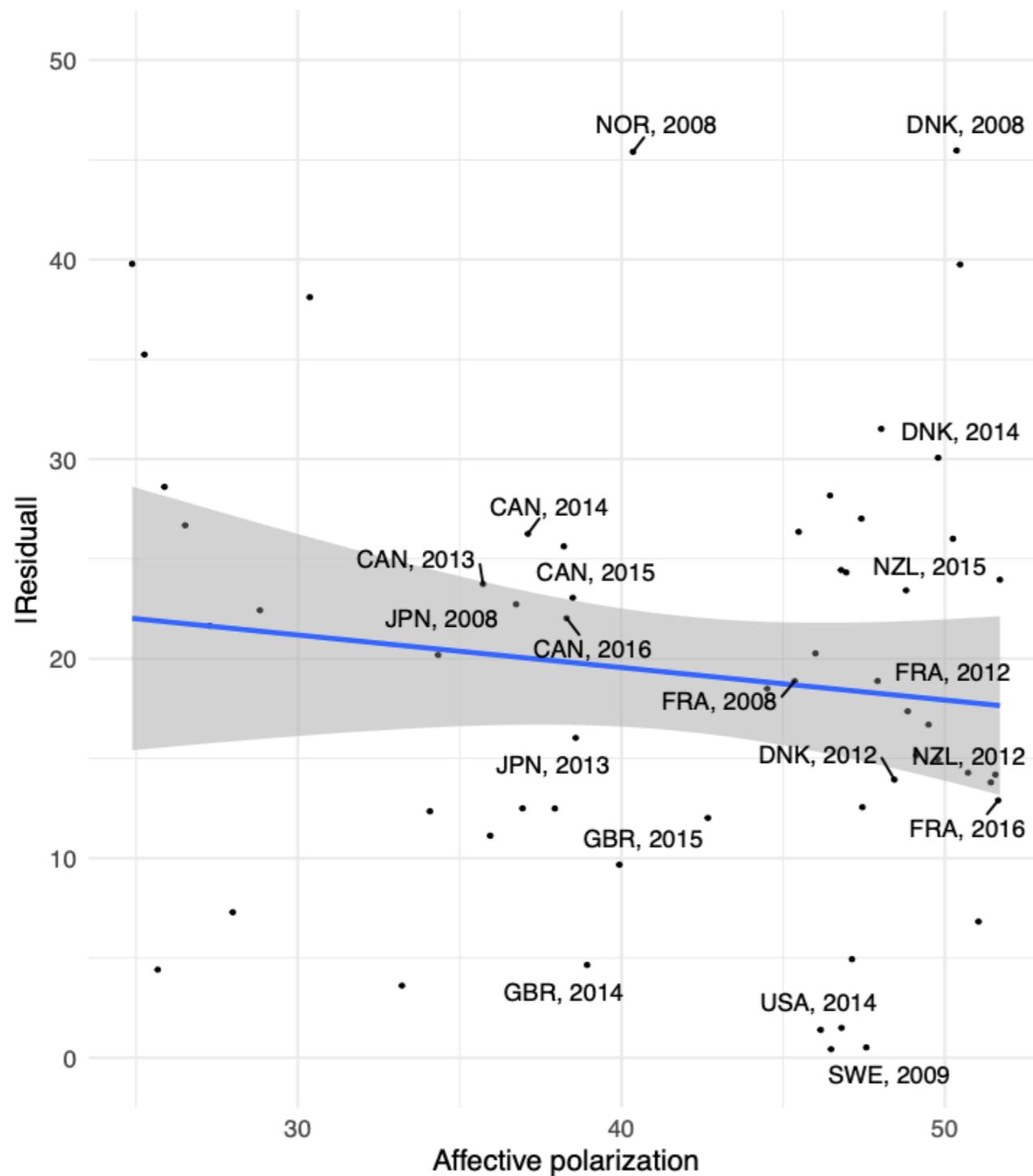


Model	Inputs	Median Abs. Error	RMSE
RF	GDP growth	12.39	19.98
RF	Unemployment rate	12.03	18.71
RF	UR + Labor Force Participation Rate	8.05	14.71
RF	UR + LFP + Youth unemployment rate	7.71	13.02
RF	3 labor indicators above and GDP growth	7.98	13.00
OLS	3 labor indicators above and GDP growth	12.24	16.81
OLS	Same 4 variables and all interactions	11.19	16.38
OLS	Same 4 variables; interactions and polynomials	10.79	15.09
RF	200 economic variables	5.10	8.94

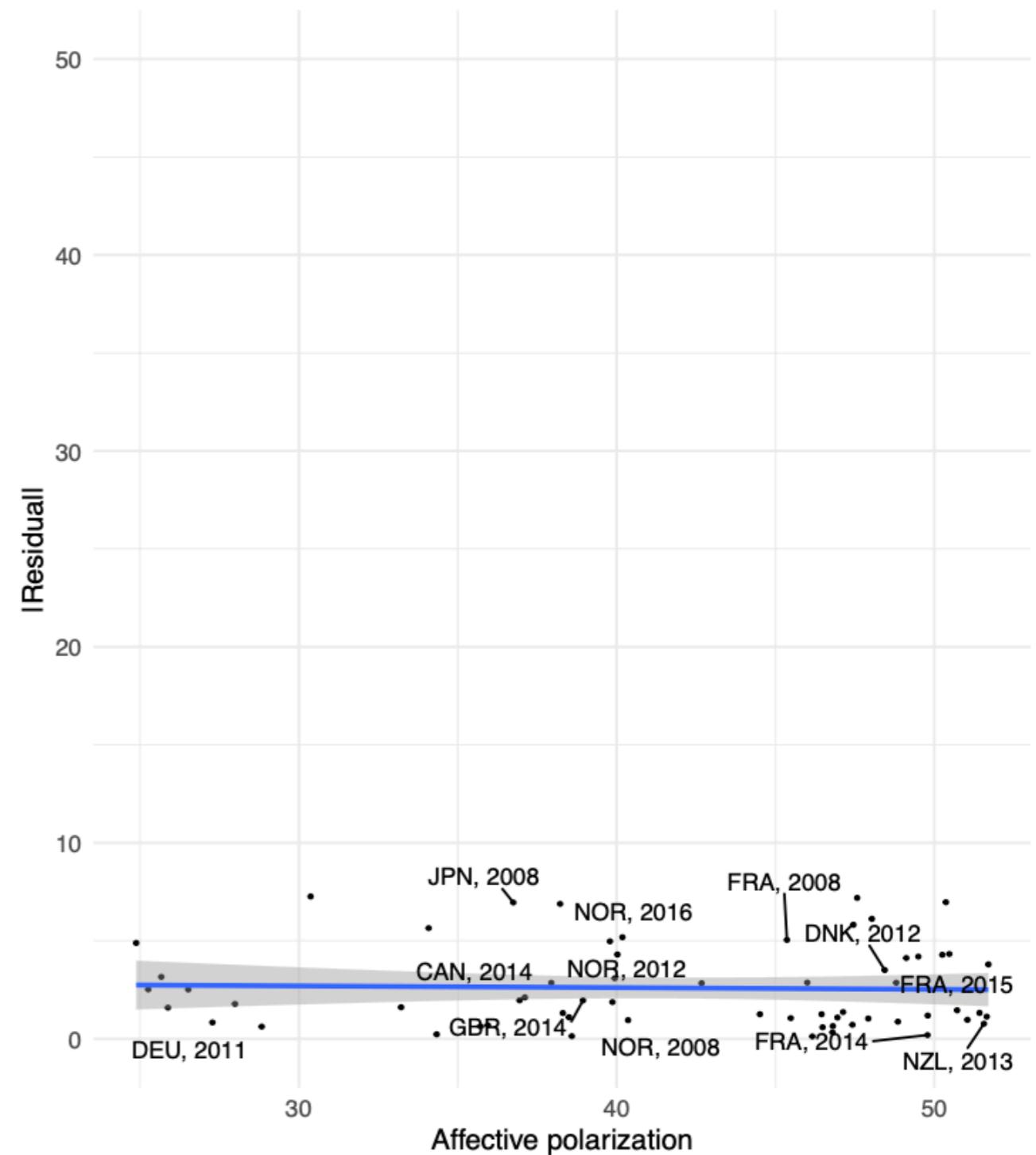
Reverse cumulative distribution of the abs. value of OOS prediction errors



4-variable OLS model



Random Forest (using all available variables)



Summary of Paper 1

- As predicted by the perceptive citizenry hypothesis, economic evaluations of survey respondents are anchored in reality
- Lack of support for H2 or H3

Paper 2: Economic Fundamentals, Partisanship, and Outgroup Animus Explain Economic Evaluations

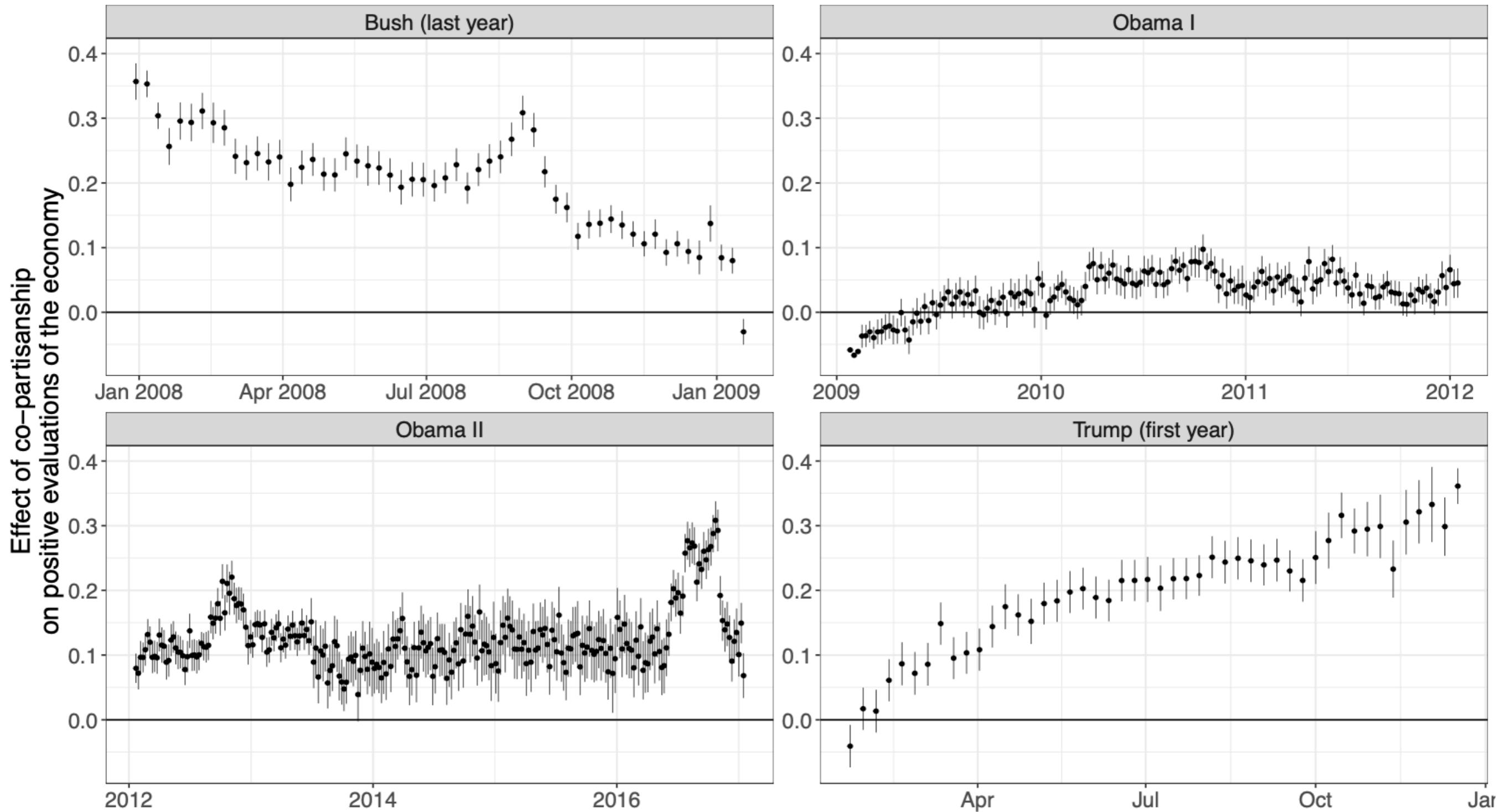
Well-documented fact: (co-)partisanship correlates with economic evaluations

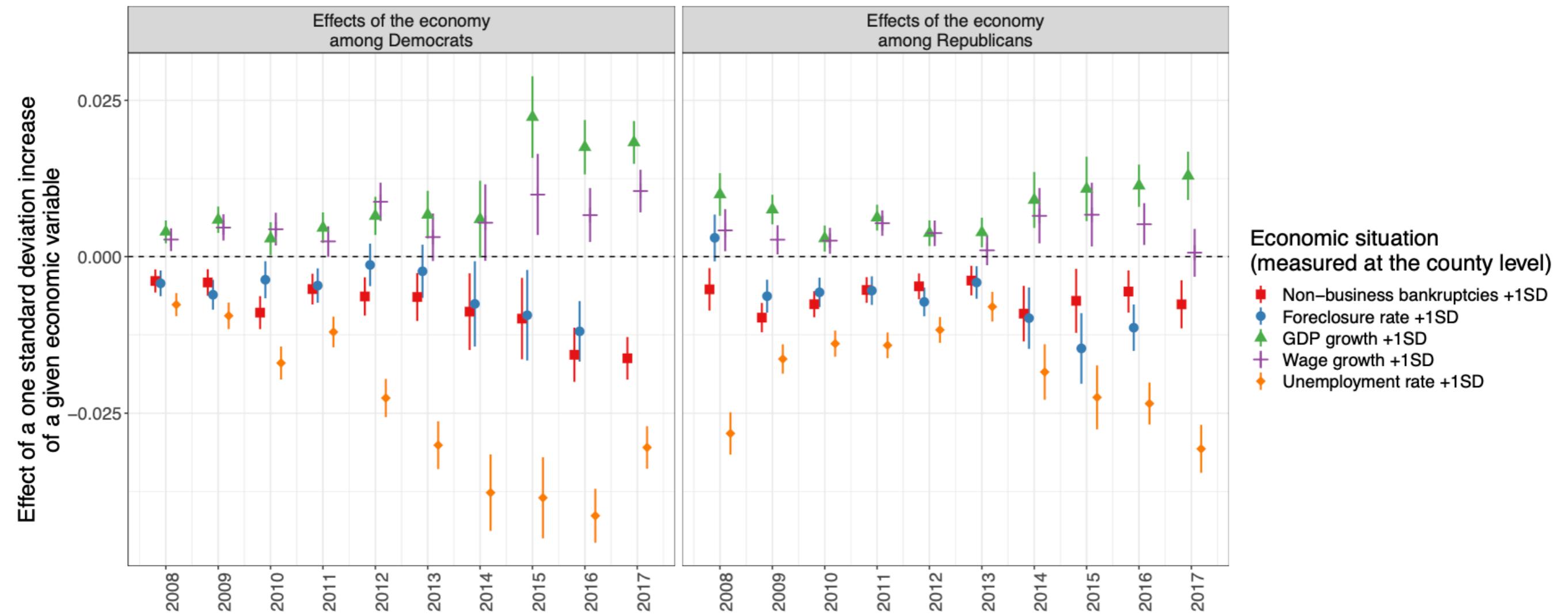
- H1: Both Democrats and Republicans pay attention to the state of the economy
- H2: Economic evaluations have an **affective component**

Survey	<i>Party ID available</i>	<i>High frequency</i>	<i>Detailed geolocation</i>
University of Michigan Survey of Consumers	x	✓	x
New York Fed Survey of Consumer Expectations	x	✓	Restriced
ANES	✓	x	Restriced
CCES	✓	x	✓
Nationscape (this paper)	✓	✓	Restricted
Gallup (this paper)	✓	✓	✓

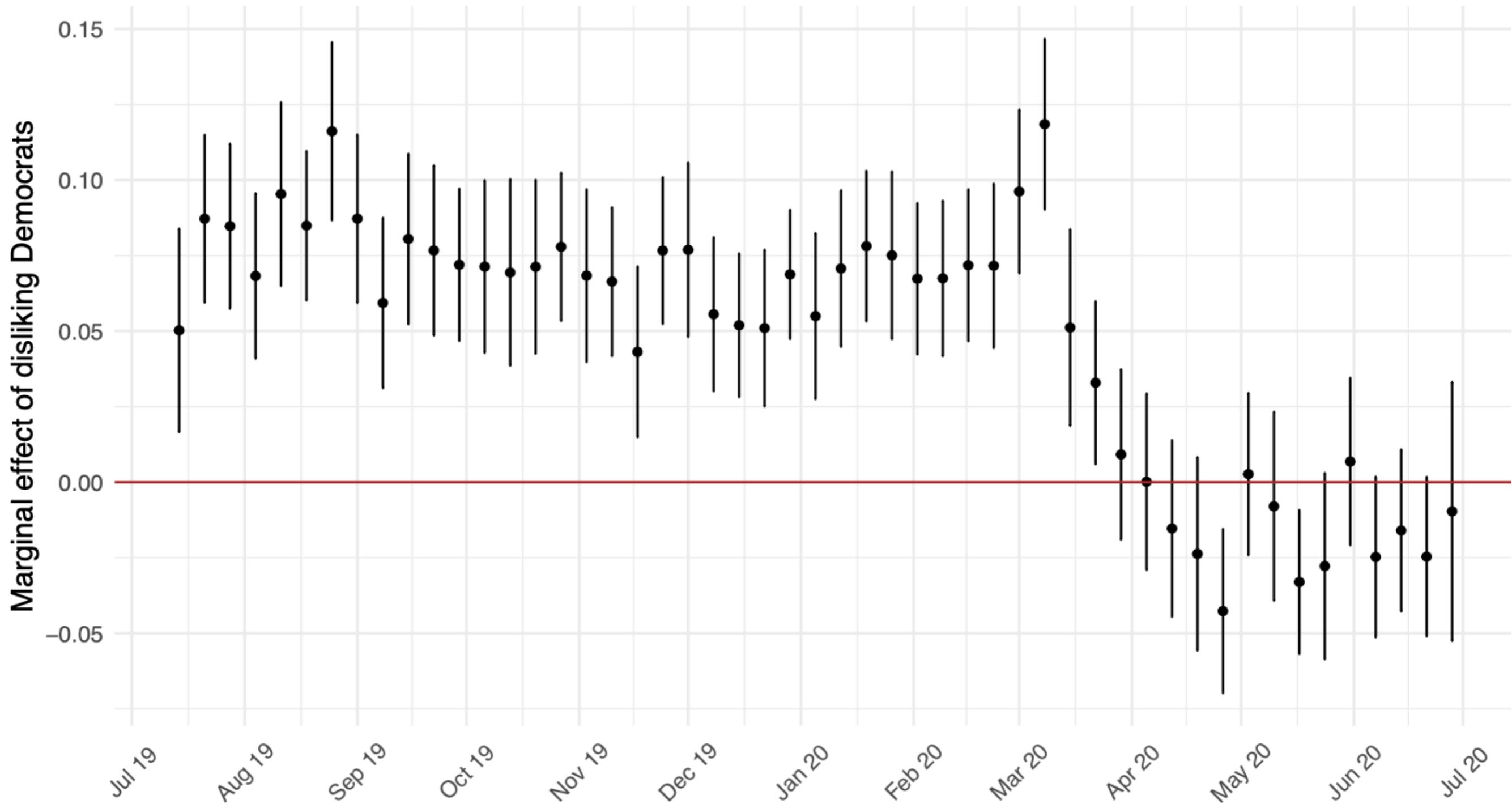
Partisan bias estimated from weekly regressions

Likelihood increase of reporting positive economic evaluations if respondents' party ID is aligned with the president





Negative partisanship linked to cheerleading before the recession



Summary of results

- Within-party comparisons suggest local economic conditions matter
- There is an **affective** channel
- Is partisan bias growing over time?
Perhaps, but not monotonically

Final Paper: Programmatic Competition & Identity Politics

Explanations of Donald Trump's victory in 2016

- **Narrative 1:** An identity-fueled campaign
 - “[W]hat stands out as crucial to his victory was the unusually large role of identity-inflected anxieties” (Sides et al. 2018)
 - Both Clinton and Trump campaigns primed racial gender attitudes (Schaffner, MacWilliams and Nteta, 2018)
- **Narrative 2:** Partisan tribalism
- But did operational ideology still play a role?

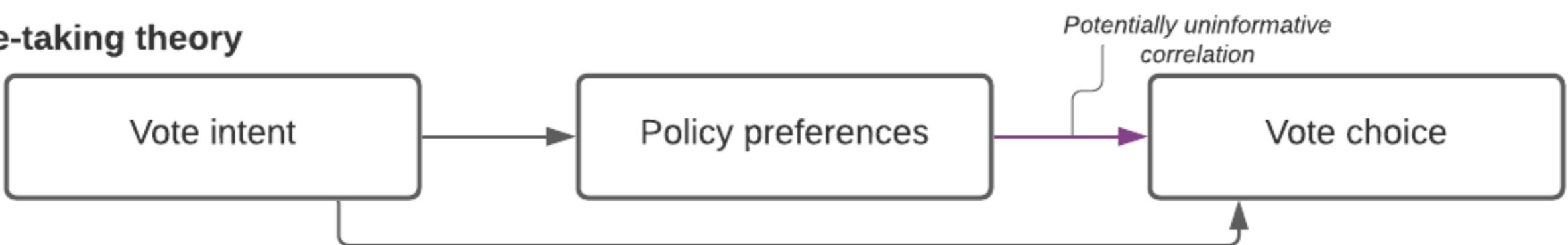
Observational equivalence problem

Relationships between ideology and vote choice imply distinct mechanisms

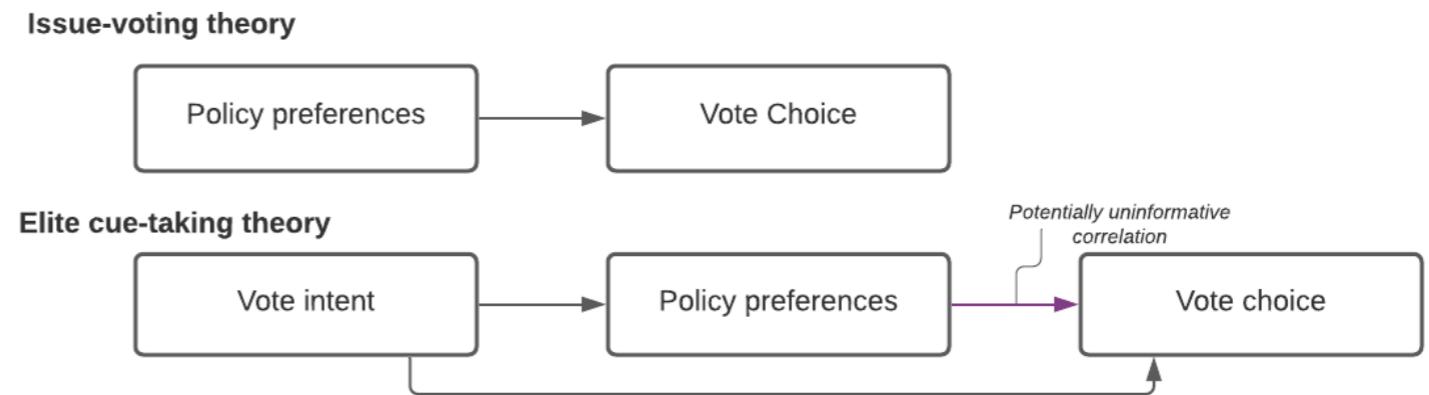
Issue-voting theory



Elite cue-taking theory

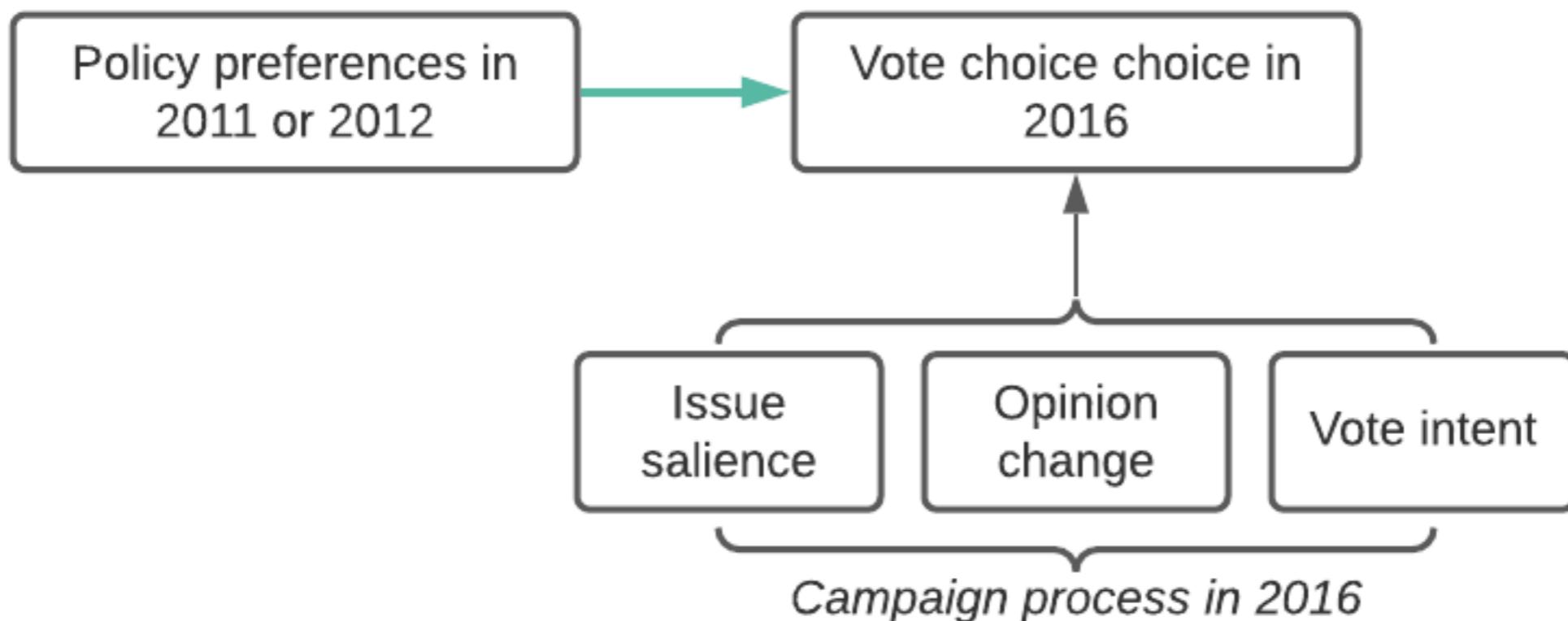


Contemporaneous relationships between ideology and vote choice do not have a clear theoretical meaning



Proposed solution

Pre-treatment attitudes



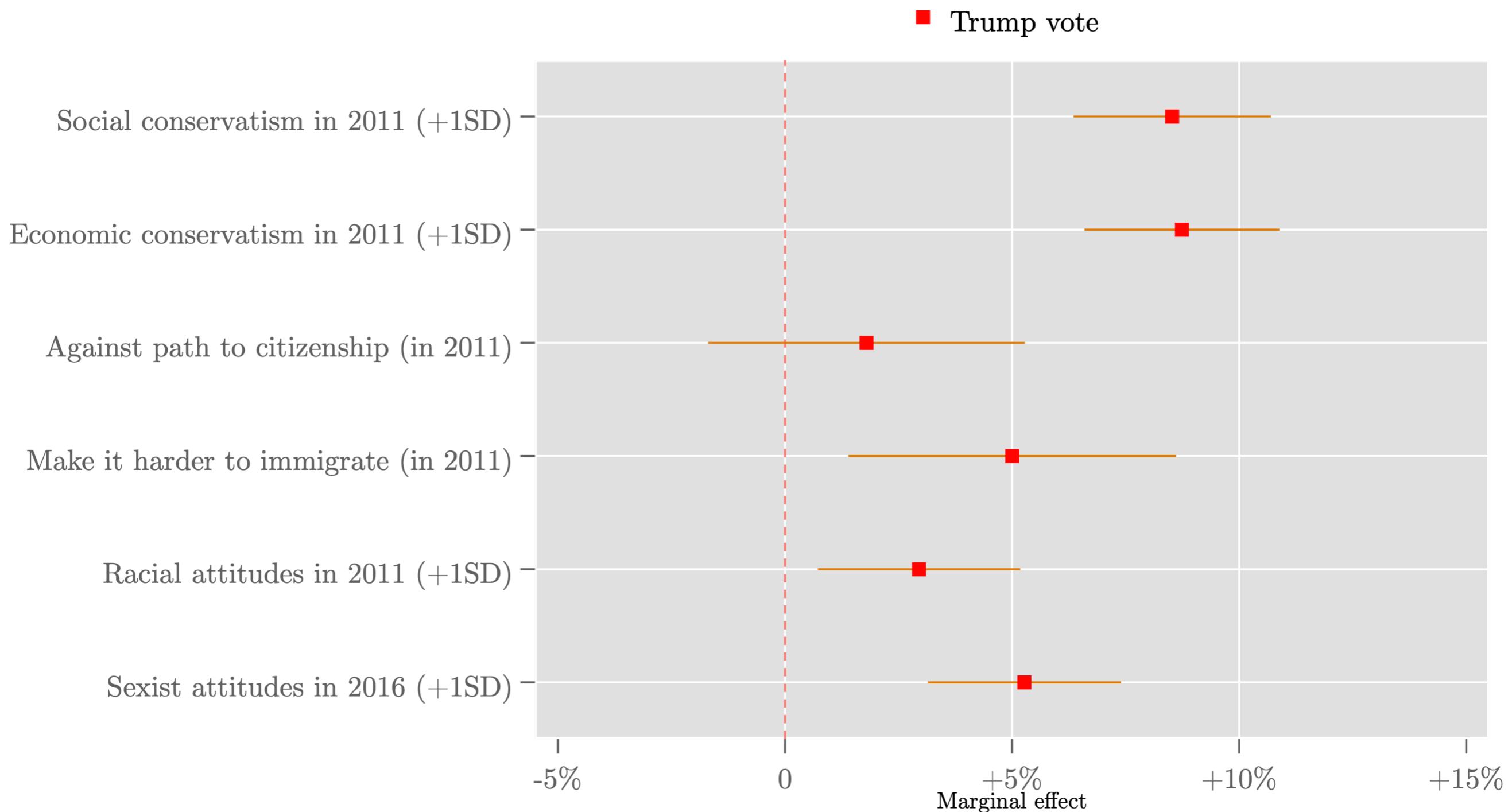
Hypotheses

1. Operational ideology, racial attitudes, and sexist attitudes all influenced vote choice.
2. Culture > Economics.
3. Stability: Ideological motivations of voters were similar across elections.

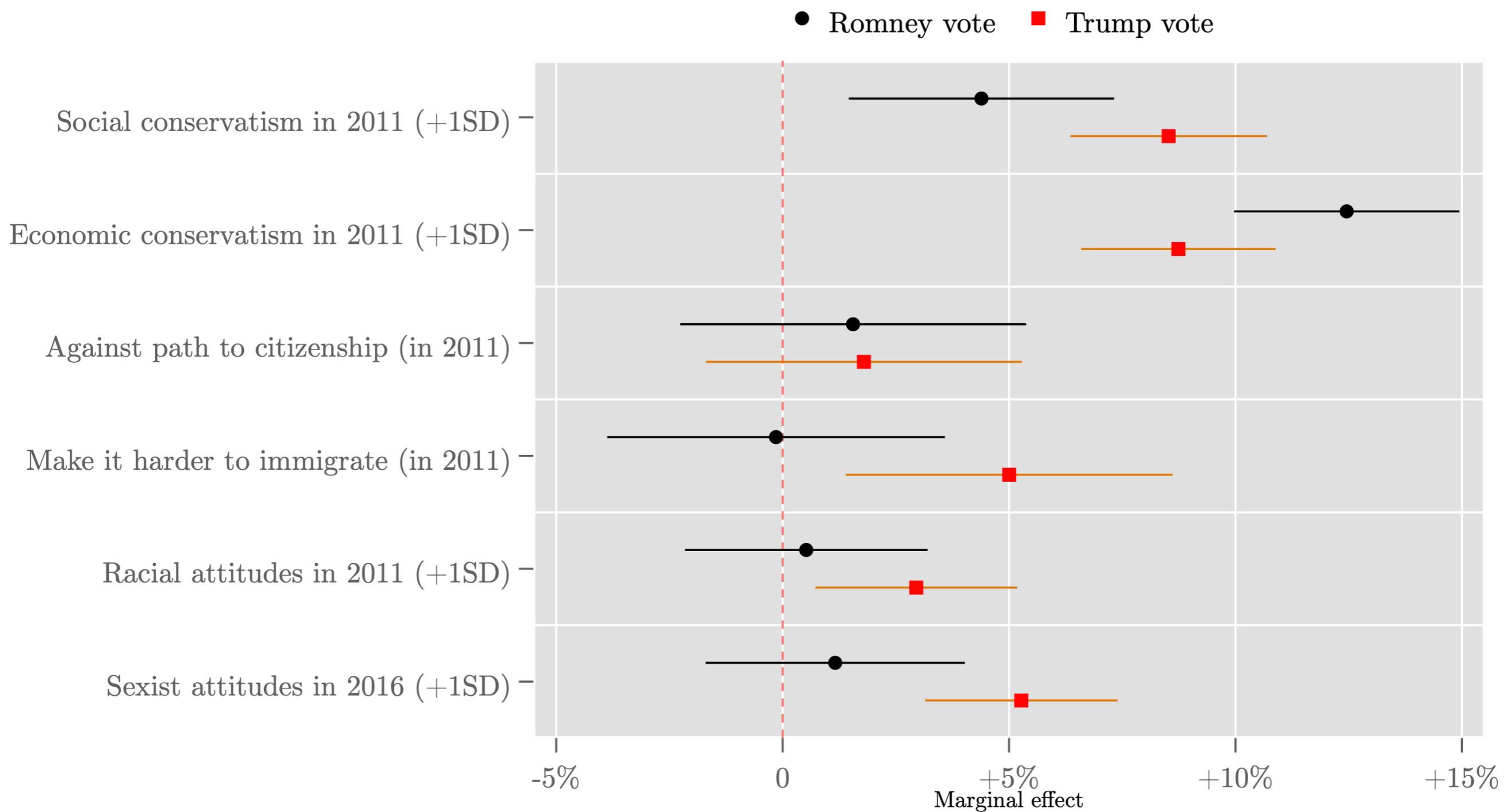
Data: A panel survey: VOTER Survey (2011-16 panel).

Research design: Use variables measured before the campaign to model vote choice.

Marginal effects of group attitudes and operational ideology
measured in 2011
on the probability for Donald Trump in 2016



Marginal effects of group attitudes and operational ideology
measured in 2011 on the probability
of voting for Mitt Romney or Donald Trump



Results

1. Lagged conservative policy views among voters predict the Trump vote in 2016.
2. Social issues as prognostic as economic issues.
3. Stability over time with respect to ideology but group attitudes became more important in 2016.
4. Elite-based opinion change theory is not sufficient for explaining voting decisions.

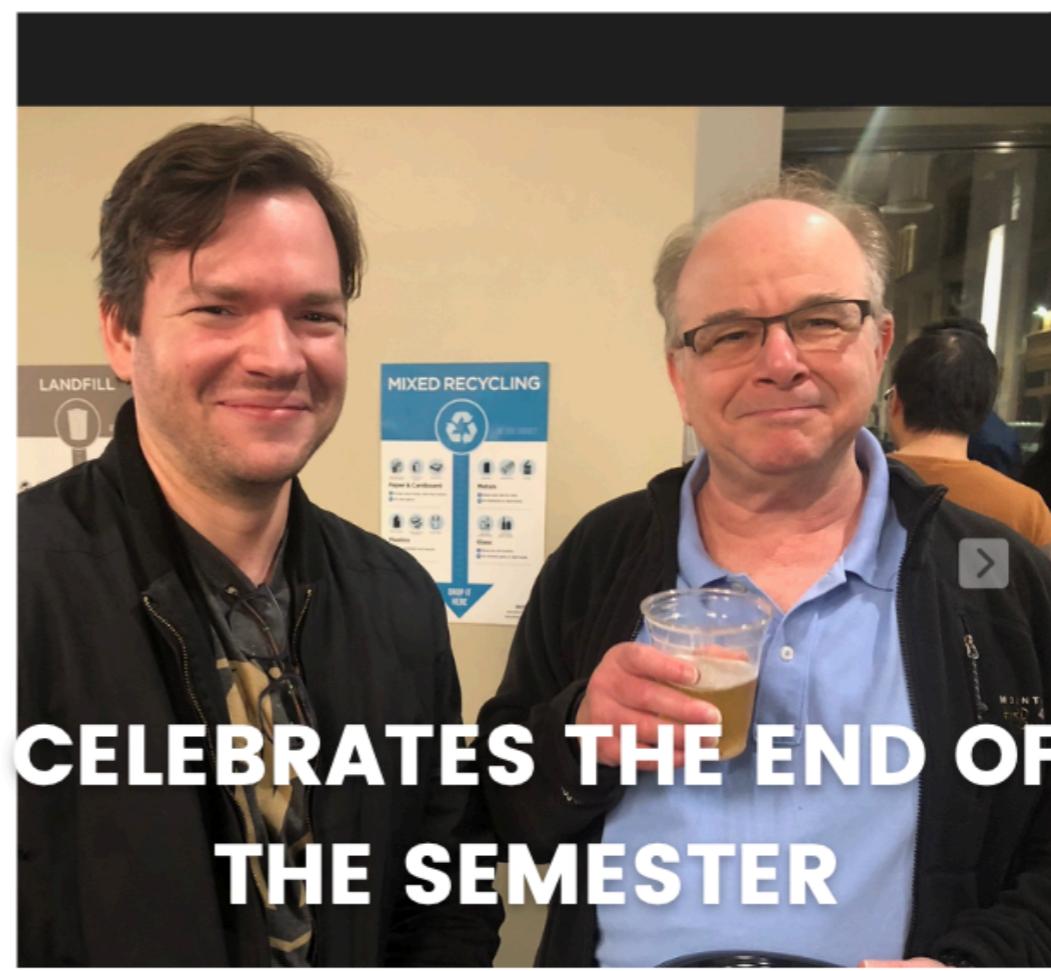
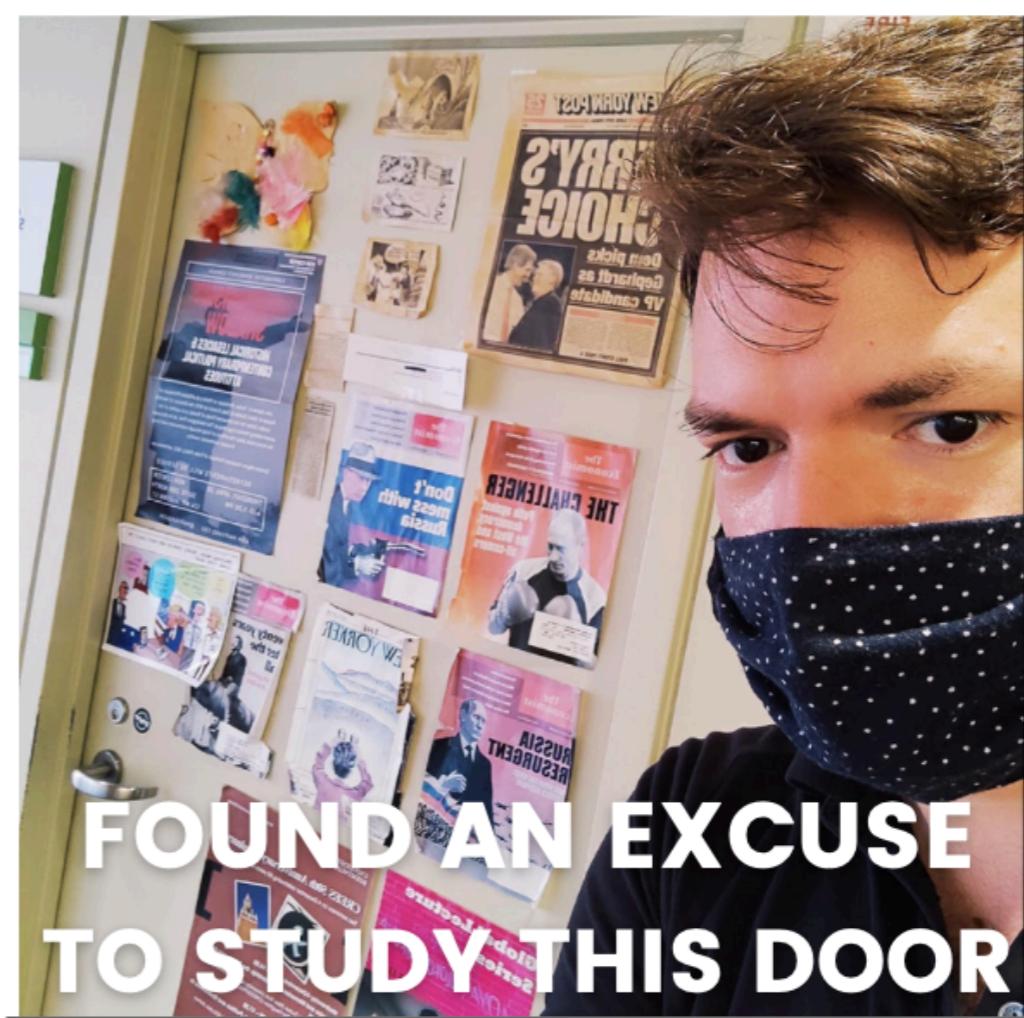
Conclusions

First 2 papers:

Objective economic indicators and citizens' subjective economic evaluations are linked; voters notice the reality around them

Third paper:

Evergreen policy issues continue to predict vote choice, suggesting that at least some voters are ideological.



Thank you

Next steps

Paper 1: Submit to a journal (PSRM?)

Paper 2: Submit to a journal

Paper 3: Either submit to Electoral Studies
as is, or add ANES 2016–20 data.

Supplementary Slide Deck

Two related tasks

- **Forecast:** How many people do we expect to be satisfied with state of the economy in country X, given certain macroeconomic conditions?
- **Parameter estimation:** Under what conditions are most people likely to be unhappy about the state of the economy?

Benefits of tree-based methods

- Identification of interactions
- Superior OOS predictions
- Uncover key predictors
- Theoretically interesting parameters

Note on forests/trees

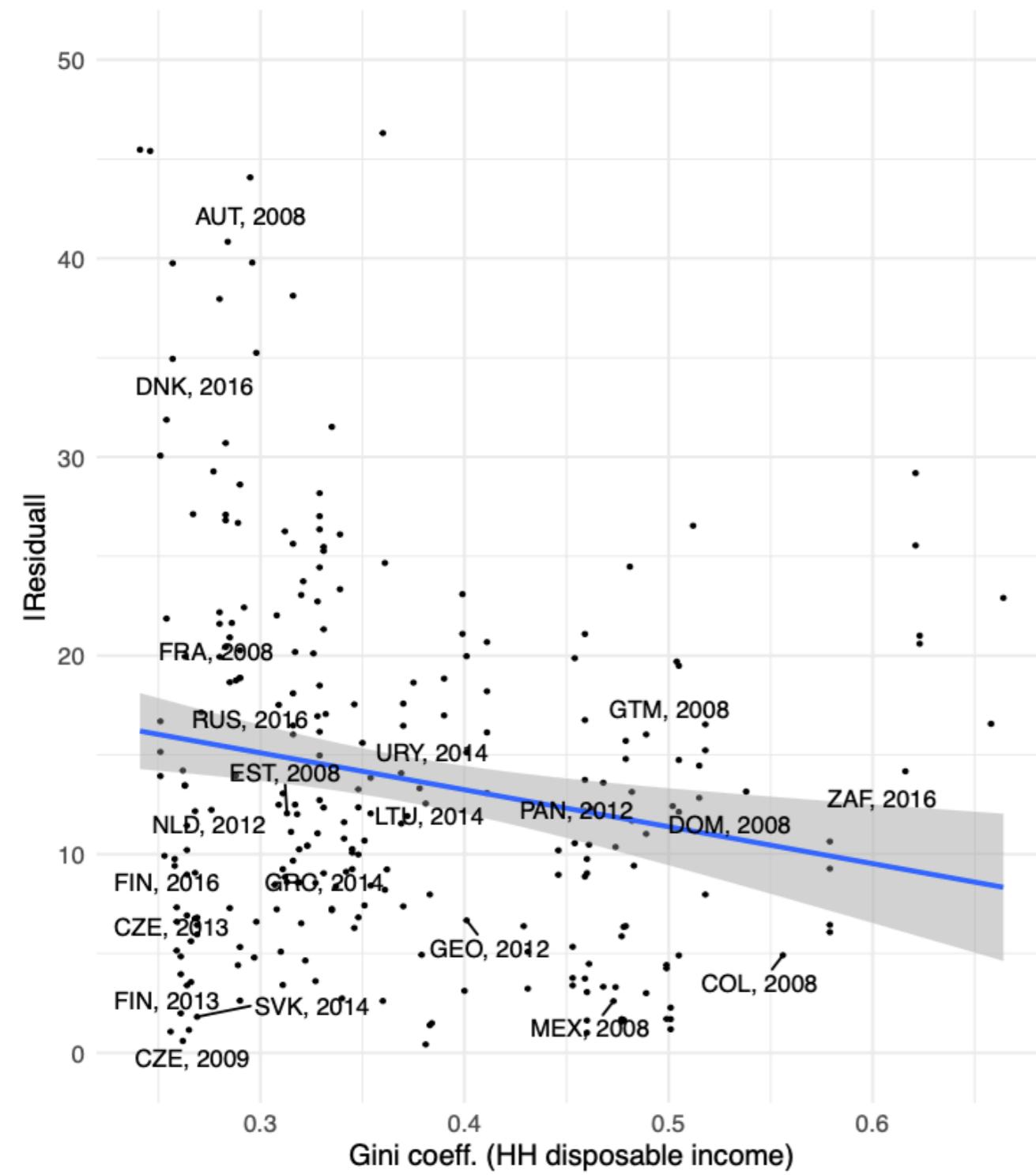
Regression trees

- Sequentially partition the covariate space
- Pick an optimal split of the data to minimize deviance (squared residuals)
- Check all variables but only pick the most diagnostic one at each step
- Typically keep going until a large tree is built, then prune

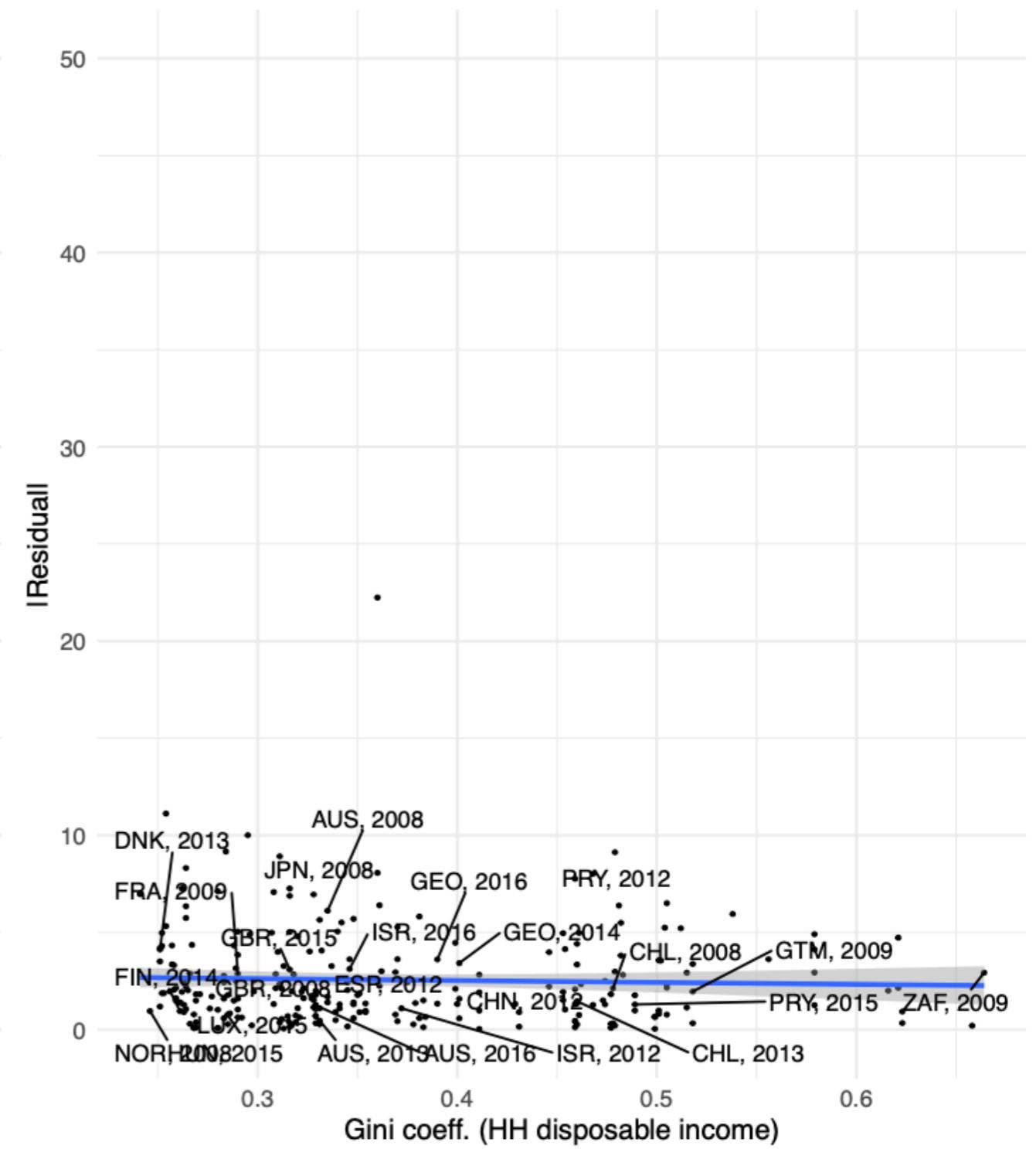
Random forest

- Randomize which variables are available for splitting at each step
- Grow 1000 trees. Let each tree make a prediction.

4-variable OLS model



Random Forest (using all available variables)

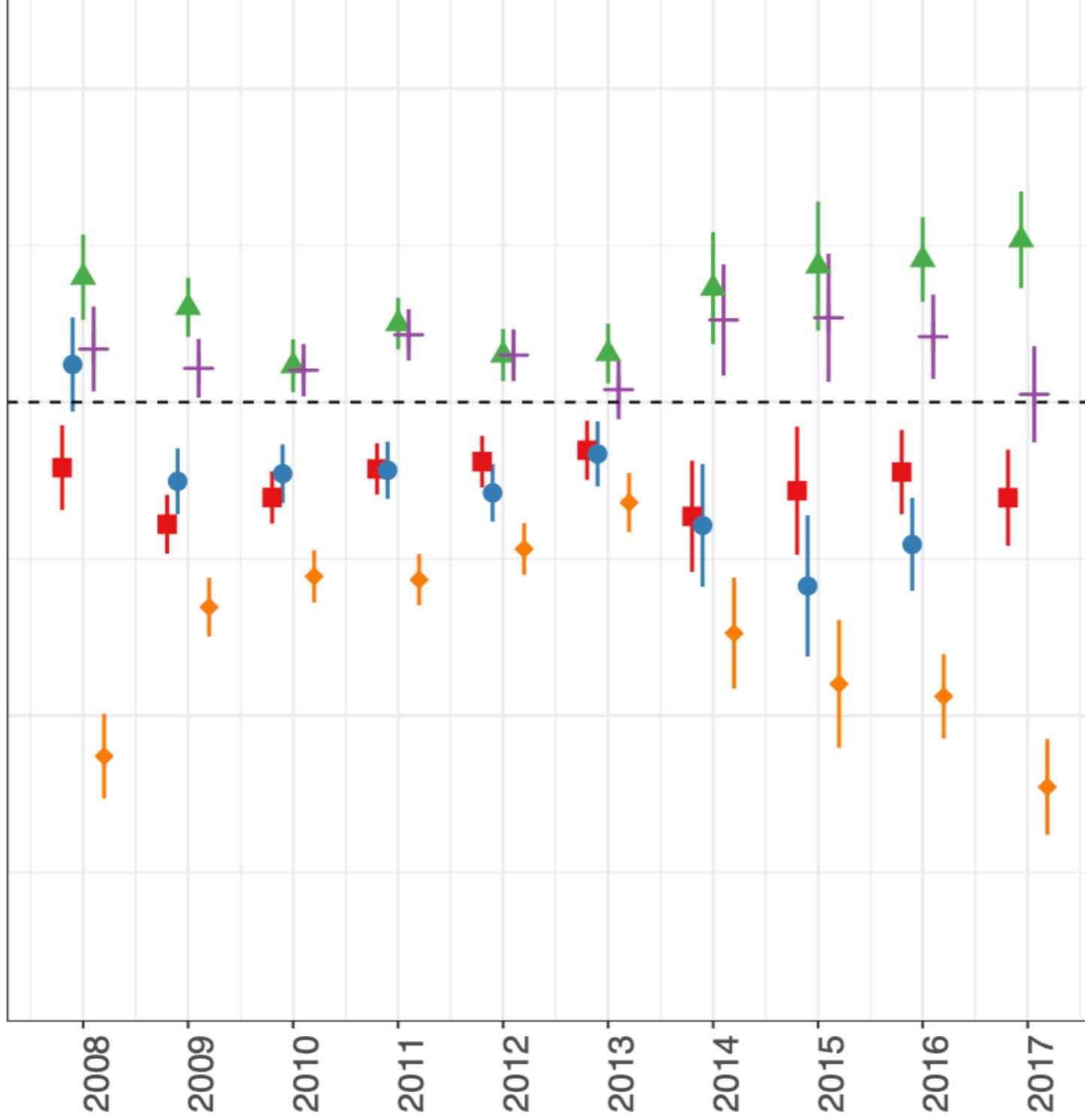


Outcome variable: Positive economic evaluations

	(1)	(2)	(3)	(4)	(5)	(6)
Unemployment rate (+1 SD)	-0.025*** (0.002)					-0.026*** (0.001)
GDP growth (+1 SD)		0.008*** (0.001)				0.003*** (0.001)
Bankruptcies (+1 SD)			-0.007*** (0.001)			0.001 (0.001)
Weekly wages growth (+1 SD)				0.005*** (0.001)		0.001* (0.001)
Foreclosure rate (+1 SD)					-0.006*** (0.001)	-0.001 (0.001)
Co-partisan with the president	0.114*** (0.001)	0.125*** (0.001)	0.113*** (0.001)	0.114*** (0.001)	0.105*** (0.001)	0.105*** (0.001)
N	1,832,079	1,876,128	1,830,812	1,829,329	1,360,786	1,337,964
R ²	0.058	0.080	0.056	0.056	0.037	0.039

The significance thresholds are set at * $p < .05$; ** $p < .01$; *** $p < .001$. Models include year fixed effects.
 Cell entries are marginal effects. Errors (shown in parentheses) are clustered at the county level.
 Data (dependent variable): Gallup US Daily polls (2008 to 2017).

Effects of the economy among Republicans



Economic situation
(measured at the county level)

- Non-business bankruptcies +1SD
- Foreclosure rate +1SD
- GDP growth +1SD
- Wage growth +1SD
- Unemployment rate +1SD