

Supplementary Analysis

The Impact of Covid-19 on Trump’s Electoral Demise: The Role of Economic and Democratic Accountability

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1 Comparing sample characteristics with American National Election Study (ANES) data

To assess the quality and representativeness of our survey, we compare key demographic characteristics to the 2016 pre-election ANES face-to-face survey, which is based on a probability sample based on US eligible voters and includes 1,180 respondents.¹ Respondents were selected using a multi-stage stratified cluster sample. As we could not verify in our sample whether respondents had US citizenship and hence were eligible voters, we also restrict the ANES data to only those born in the US. Moreover, to calculate descriptive statistics for the ANES data, we use the population weight [V160101].

	Our sample	ANES 2016
Age (mean)	48.5	49.9
Female (%)	51.3	52.3
Education (%)		
Degree	35.6	50.8
High School	58.0	40.6
Less than HS	6.4	8.5
Domicile (%)		
Urban	25.1	15.3
Suburban	41.2	47.1
Rural or small town	33.7	37.5
Ethnicity (%)		
White	73.4	72.7
Black	12.4	9.9
Hispanic	9.2	11.3
Other	5.0	6.1

Note: The ANES uses slightly different definition for domicile than us. Therefore the two smallest units from our categorization were merged here.

¹ Data and further details can be accessed via: <https://electionstudies.org/data-center/2016-time-series-study/>.

2 Balance Test: Multi-nominal logistic regression of treatment allocation (reference category: control group)

	T1 Economy	T2 Gov. Management	T3 Chinese virus
Female	0.125 [0.191]	0.063 [0.189]	-0.066 [0.190]
Age	0.034 [0.480]	-0.069 [0.473]	-0.385 [0.478]
Education (ref: Degree)			
High School	0.136 [0.230]	0.284 [0.226]	-0.04 [0.224]
Less than HS	0.516 [0.399]	-0.456 [0.486]	-0.742 [0.486]
Ethnicity (ref: White)			
Black	0.221 [0.319]	-0.073 [0.324]	-0.122 [0.324]
Hispanic	-0.347 [0.327]	-0.500 [0.330]	-0.439 [0.320]
Other	-0.457 [0.455]	-0.154 [0.410]	-1.225** [0.545]
Domicile (ref: Rural)			
Sizable town	-0.501 [0.344]	-0.177 [0.336]	-0.299 [0.354]
Suburban	-0.241 [0.239]	-0.152 [0.243]	-0.008 [0.246]
Urban	-0.407 [0.277]	-0.124 [0.275]	0.059 [0.276]
Religion (ref: Rel. + attend)			
Religious + not attend	-0.239 [0.234]	-0.483** [0.232]	0.077 [0.231]
Not religious	-0.459* [0.241]	-0.589** [0.235]	-0.521** [0.245]
Income	0.021 [0.016]	0.024 [0.016]	0.021 [0.016]
Partisanship (ref: Democrat)			
Independent	0.05 [0.235]	0.03 [0.232]	0.083 [0.232]
Republican	-0.133 [0.230]	-0.21 [0.228]	-0.163 [0.228]
Constant	0.159 [0.449]	0.265 [0.442]	0.374 [0.446]
Observations	955	955	955

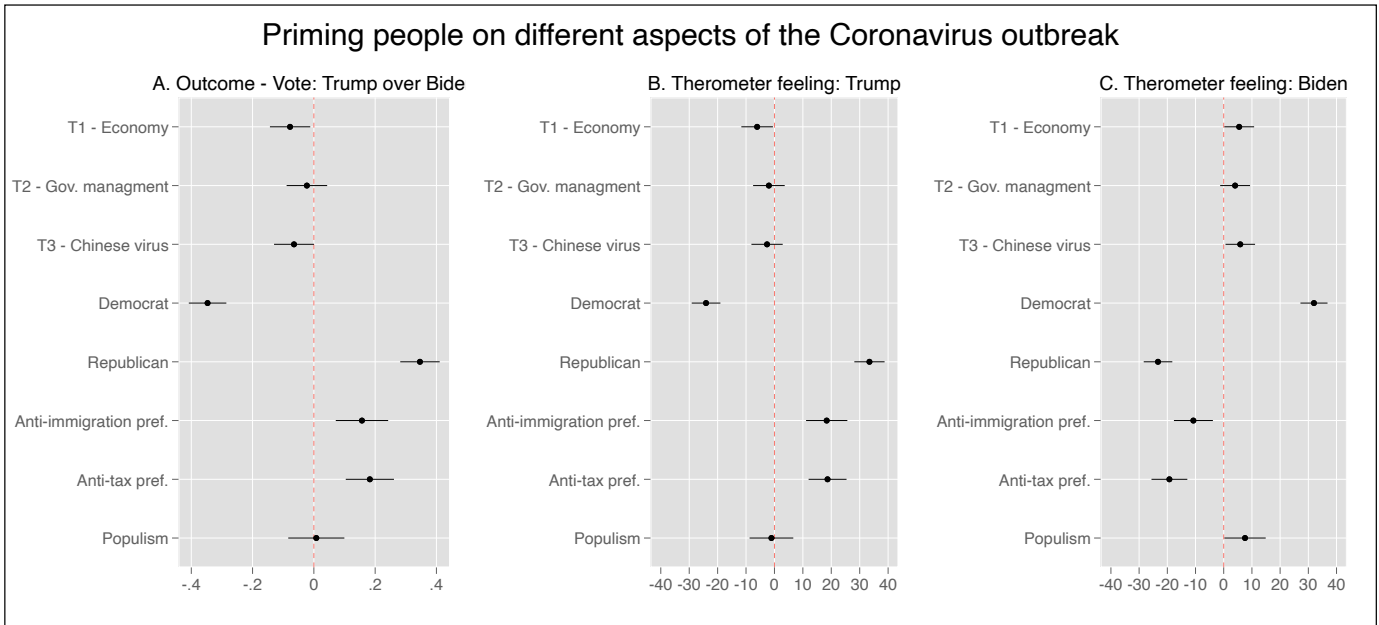
Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. *Source:* Deltapoll online survey. *Note:* The table reports logit coefficients and standard errors.

3 Coefficients of main models and robustness estimation strategy

Estimation Outcome	OLS			Logit		Robust S.E.
	M1 Vote: Trump vs Biden	M2 Thermometer feeling Trump	M3 Biden	M4 Vote Trump vs Biden	M5 Trump vs all	M6 Vote Trump vs Biden
Treatment (ref: Control)						
Economy	-0.087** [0.043]	-6.652* [3.541]	5.971* [3.376]	-0.405** [0.199]	-0.308* [0.187]	-0.087** [0.040]
Gov. Managment	-0.044 [0.043]	-3.082 [3.538]	5.236 [3.382]	-0.200 [0.197]	-0.15 [0.185]	-0.044 [0.041]
Chinese virus	-0.060 [0.043]	-2.871 [3.540]	6.235* [3.378]	-0.268 [0.197]	-0.233 [0.185]	-0.060 [0.051]
Female	-0.049 [0.031]	-5.242** [2.575]	0.994 [2.459]	-0.237* [0.143]	-0.279** [0.136]	-0.049* [0.027]
Age	0.015 [0.078]	-4.000 [6.430]	-2.918 [6.125]	0.058 [0.360]	0.328 [0.337]	0.015 [0.081]
Education (ref: Degree)						
High School	0.112*** [0.033]	10.060*** [2.754]	-9.506*** [2.623]	0.522*** [0.154]	0.393*** [0.146]	0.112*** [0.036]
Less than HS	0.179** [0.072]	20.902*** [5.738]	-10.599* [5.467]	0.854*** [0.329]	0.547* [0.297]	0.179** [0.087]
Ethnicity (ref: White)						
Black	-0.404*** [0.051]	-31.815*** [4.212]	32.369*** [4.001]	-2.085*** [0.294]	-1.932*** [0.286]	-0.404*** [0.051]
Hispanic	-0.243*** [0.056]	-16.546*** [4.605]	12.093*** [4.406]	-1.089*** [0.262]	-0.988*** [0.251]	-0.243*** [0.052]
Other	-0.151** [0.075]	-12.362** [6.084]	14.272** [5.849]	-0.648* [0.338]	-0.605* [0.321]	-0.151 [0.096]
Domicile (ref: Rural)						
Sizable town	-0.105* [0.058]	-6.753 [4.744]	8.429* [4.532]	-0.464* [0.269]	-0.522** [0.252]	-0.105 [0.065]
Suburban	-0.058 [0.040]	-3.128 [3.291]	2.627 [3.137]	-0.262 [0.181]	-0.282* [0.169]	-0.058 [0.037]
Urban	-0.088** [0.045]	-3.242 [3.698]	11.512*** [3.522]	-0.415** [0.206]	-0.340* [0.195]	-0.088** [0.037]
Religion (ref: Rel. + attend)						
Religious + not attend	-0.086** [0.038]	-10.665*** [3.125]	1.903 [2.978]	-0.411** [0.174]	-0.367** [0.163]	-0.086** [0.035]
Not religious	-0.237*** [0.039]	-25.540*** [3.211]	7.226** [3.061]	-1.102*** [0.186]	-1.075*** [0.174]	-0.237*** [0.040]
Constant	0.700*** [0.065]	65.204*** [5.311]	40.406*** [5.064]	0.914*** [0.297]	0.592** [0.277]	0.700*** [0.060]
Observations	966	1,068	1,066	966	1,088	966
(Pseudo) R ²	0.122	0.113	0.130	0.092	0.103	0.130

Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. *Source:* Deltapoll online survey. *Note:* The table reports OLS (M1.2-M3.2) and logit (M4+M5) coefficients and standard errors. M6 uses clustered standard errors by state of the respondent. The results are based on linear regressions predicting the three outcome variables: A) Vote intention for Trump (1) over Biden (0); B) Thermostatic feelings towards Trump (0-100); C) Thermostatic feelings towards Biden (0-100). Age is coded as 0 to 1.

4 Additional results: Controlling for political preferences (immigration and spending for unemployment) and populism

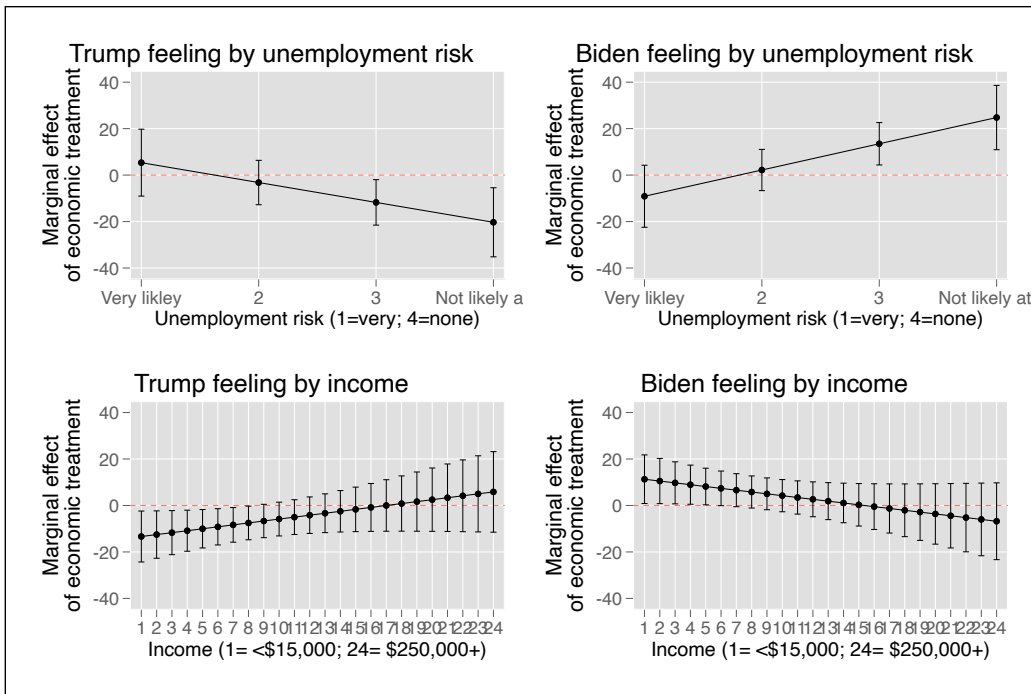


Note: The results are based on linear regressions predicting the three outcome variables: A) Vote intention for Trump (1) over Biden (0); B) Thermostatic feelings towards Trump (0-100); C) Thermostatic feelings towards Biden (0-100). The coefficients capture the impact of the three treatments in comparison to the control group. Reference category for partisanship: Independents. Preference variables are standardized to range from 0 to 1. The models further control for age, gender, education, domicile, ethnicity, religion, which are not reported here.

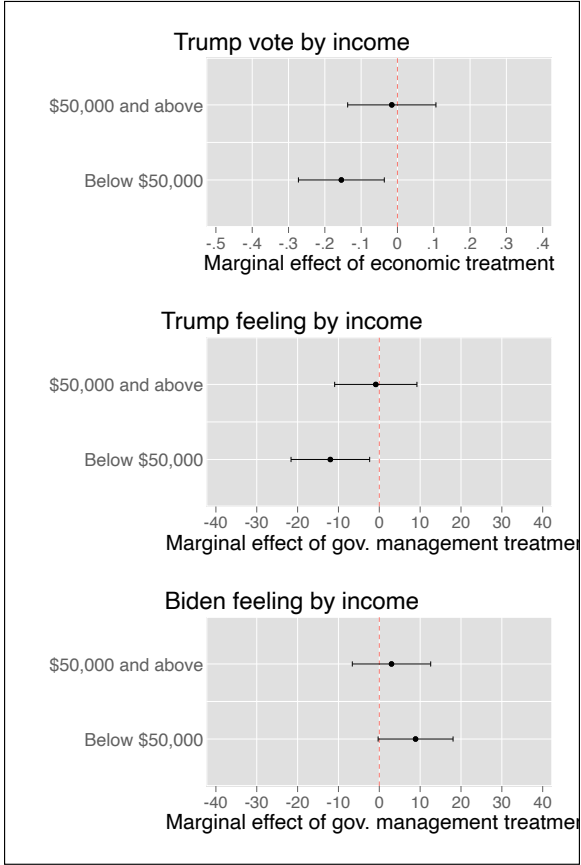
5 Additional results: Marginal effects on feelings towards Trump and Biden

All graphs presented here plot the marginal effects of the treatments conditional on various factors that were introduced in the paper. All models control for: age, gender, education, domicile, ethnicity and religiosity.

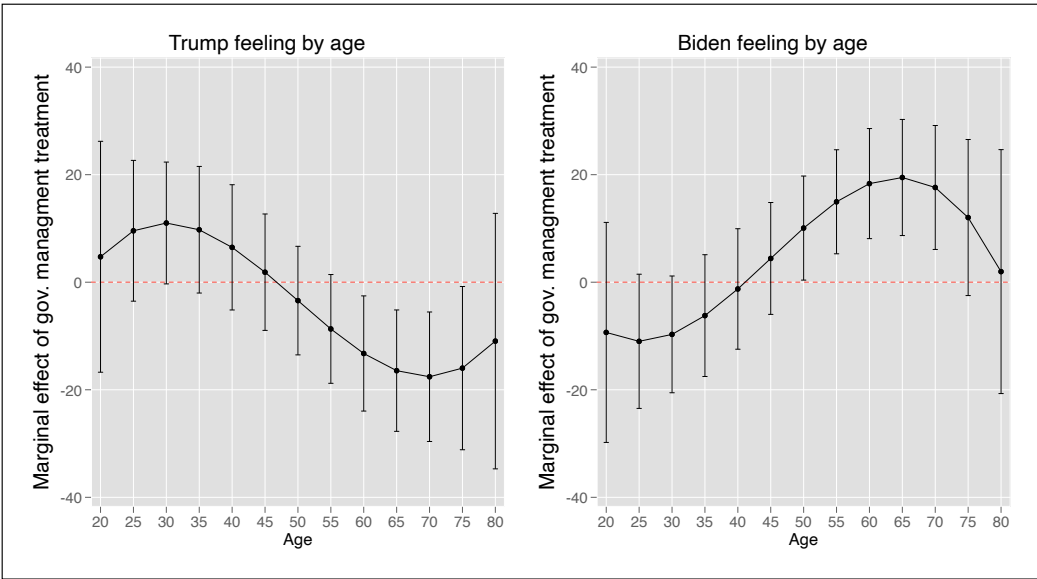
5.1 The conditional effects of the economy treatment on thermometer feelings by subjective unempl. risk and income



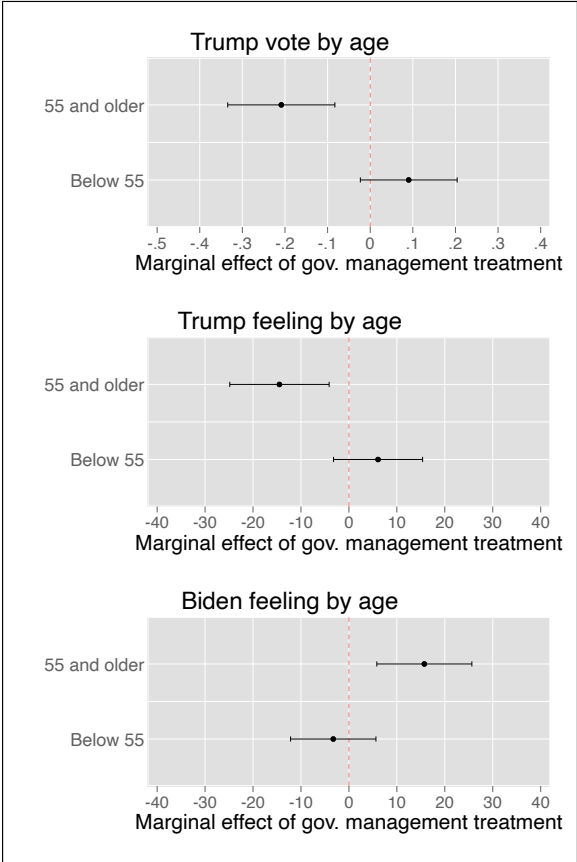
5.1.1 The conditional effects of the economy treatment by income (binary - median split)



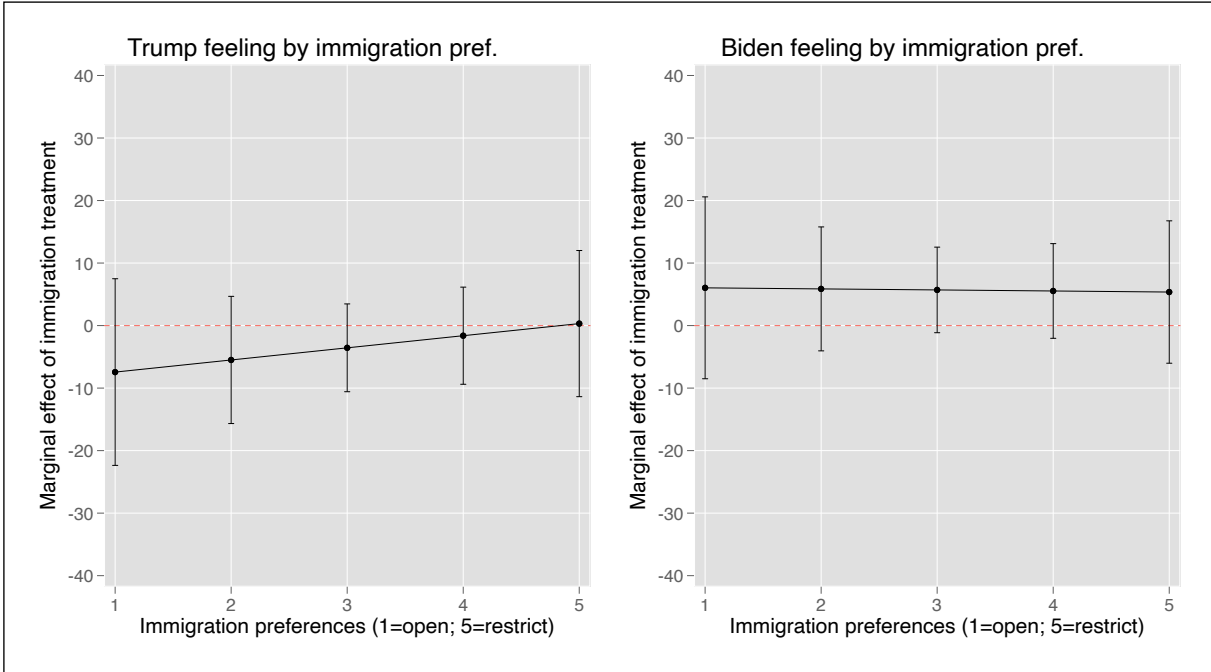
5.2 The conditional effects of the government management treatment on thermometer feelings by age



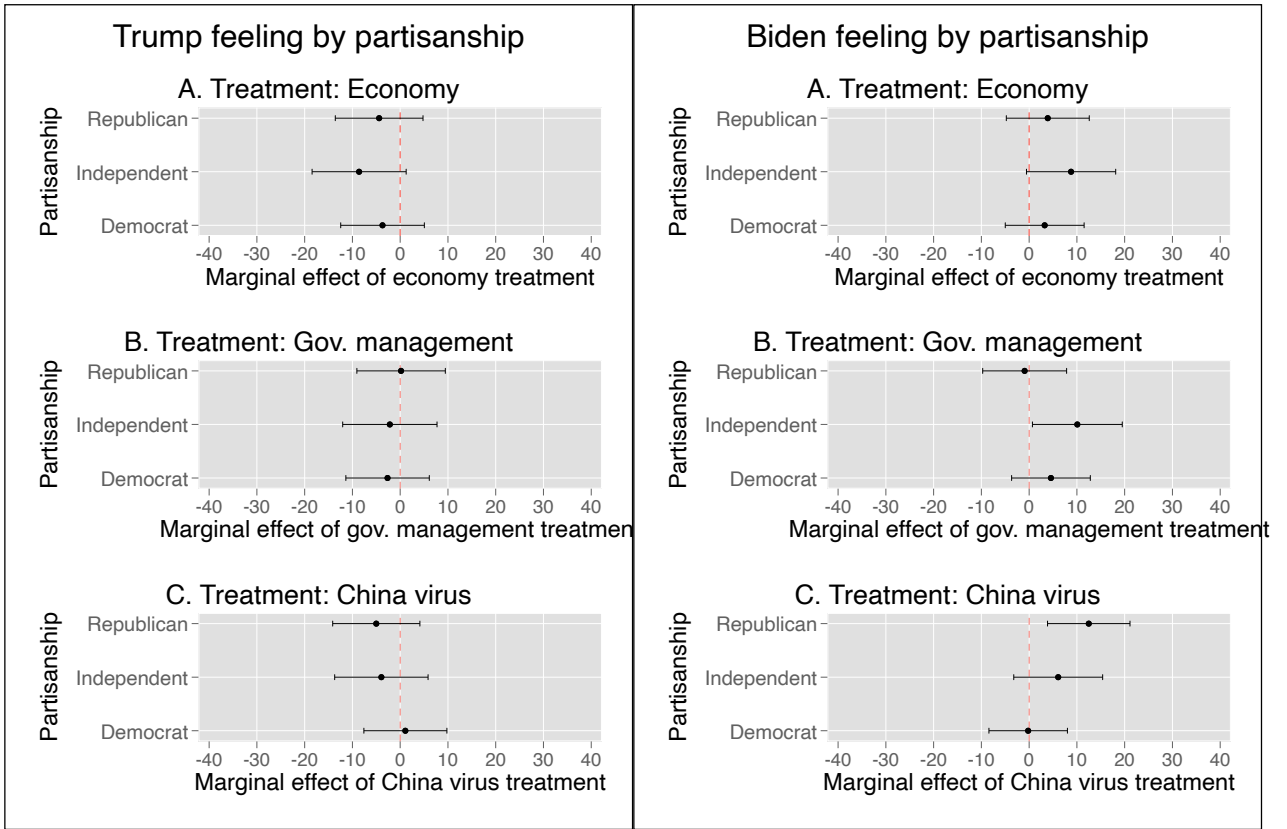
5.2.1 The conditional effects of the economy treatment by age (binary - below/above 55)



5.3 The conditional effects of the immigration treatment on thermometer feelings



5.4 The conditional effects of partisanship across all treatments on thermometer feelings



6 Additional results - Mediation analysis

6.1 Effects of economic treatment on populism and tax-spending preferences

	Populism	Tax-spending preferences
Economic treatment	-0.004 (0.097)	0.064 (0.293)
Intercept	4.123*** (0.218)	7.393*** (0.659)
Pre-treatment controls	yes	yes

Significance levels: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.1$. *Source:* Deltapoll online survey. *Note:* The table reports OLS estimates (and standard errors) of the economic treatment (vs. the control group) predicting populism and tax-spending preferences. Pre-treatment controls: gender, age, education and domicile, ethnicity and religiosity.

6.2 Effects of populism on voting behavior outcomes

	Trump vote	Trump feeling	Biden feeling
Populism	-0.017 (0.021)	-2.035 (1.859)	4.284** (1.753)
Economic treatment	-0.069 (0.044)	-6.885* (3.908)	5.848 (3.686)
Intercept	0.448*** (0.132)	54.096*** (11.664)	42.334*** (10.999)
Pre-treatment controls	yes	yes	yes

Significance levels: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.1$. *Source:* Deltapoll online survey. *Note:* The table reports OLS estimates (and standard errors) of populism predicting vote intentions and thermometer feelings. Pre-treatment controls: gender, age, education and domicile, ethnicity and religiosity.

6.3 Effects of tax-spending preferences on voting behavior outcomes

	Trump vote	Trump feeling	Biden feeling
Tax-spending preferences	0.046*** (0.007)	4.247*** (0.585)	-4.461*** (0.547)
Economic treatment	-0.072* (0.042)	-7.147* (3.71)	6.116* (3.471)
Intercept	0.0326 (0.107)	14.305 (9.398)	92.978*** (8.793)
Pre-treatment controls	yes	yes	yes

Significance levels: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.1$. *Source:* Deltapoll online survey. *Note:* The table reports OLS estimates (and standard errors) of populism predicting vote intentions and thermometer feelings. Pre-treatment controls: gender, age, education and domicile, ethnicity and religiosity.

6.4 Economic effects mediated by tax and spending preferences (high income respondents only)

	Trump vote	Trump feeling	Biden feeling
Average Causal Mediation Effect	0.0226	1.91	-2.076
Average Direct Effect	-0.0025	-3.59	4.447
Total Effect	0.0201	-1.68	2.37
N	230	230	230

Significance levels: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.1$. *Source:* Deltapoll online survey. *Note:* The table reports causal mediation effects using the ‘mediation’ package in R (Imai et al. 2011). Significance tests obtained via nonparametric bootstrapping after 1,000 simulations.

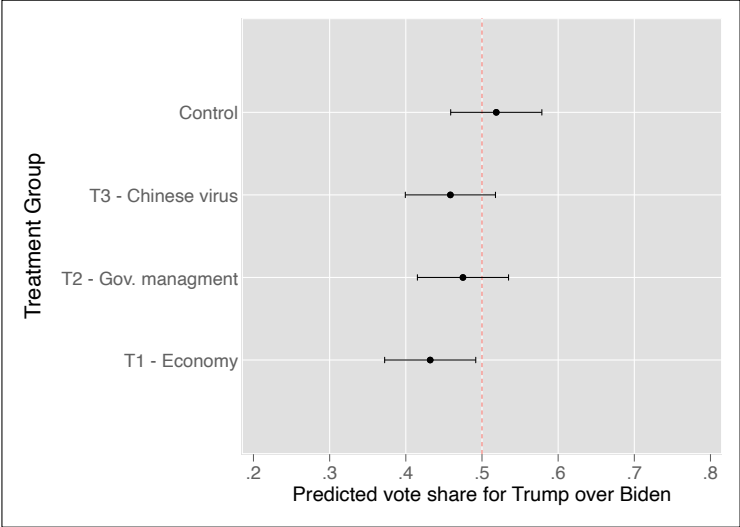
6.5 Direct effects of populism and tax-spending preferences on outcomes

<i>Outcome</i>	Vote:	Thermometer feeling		Vote:	Thermometer feeling	
	Trump vs Biden	Trump	Biden	Trump vs Biden	Trump	Biden
Populism	-0.027 [0.061]	-3.174 [4.975]	10.056** [4.746]			
Tax-Spending pref.				0.523*** [0.047]	45.567*** [3.869]	-42.193*** [3.678]
Pre-treatment controls	yes	yes	yes	yes	yes	yes
Constant	0.669*** [0.078]	64.425*** [6.319]	37.587*** [6.008]	0.253*** [0.066]	28.560*** [5.467]	77.698*** [5.186]
Observations	948	1,045	1,043	895	986	986
R-squared	0.126	0.118	0.111	0.23	0.225	0.212

Significance levels: *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.1$. *Source:* Deltapoll online survey. *Note:* The table reports OLS estimates (and standard errors) of populism predicting vote intentions and thermometer feelings. Pre-treatment controls: gender, age, education and domicile, ethnicity and religiosity.

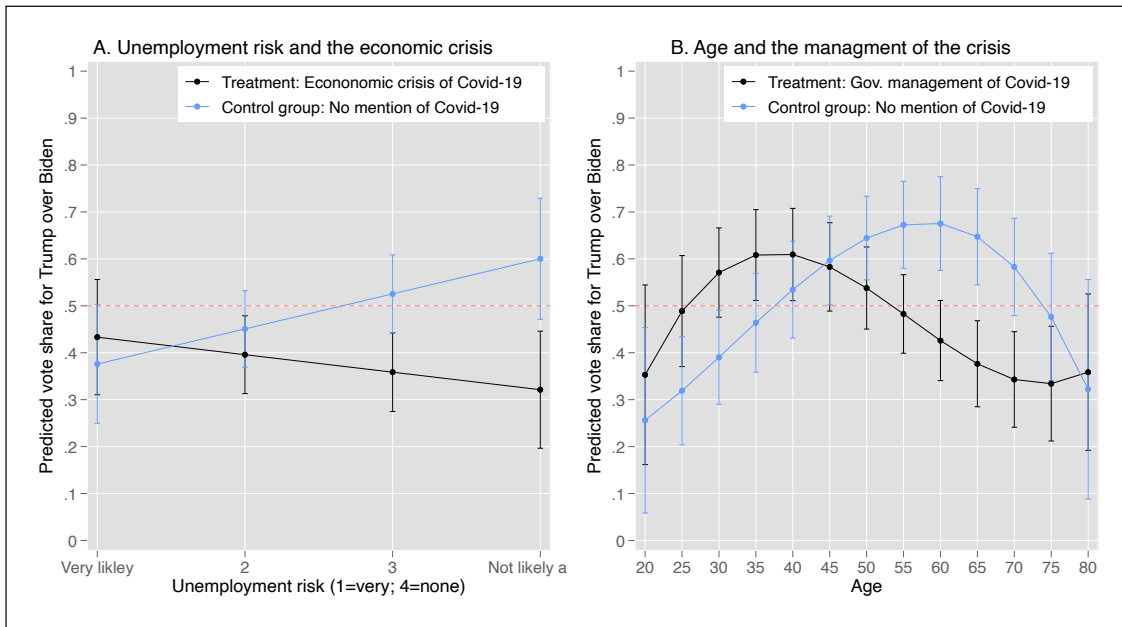
7 Predicted vote share

7.1 Predicted vote share for Trump (over Biden) by treatment group



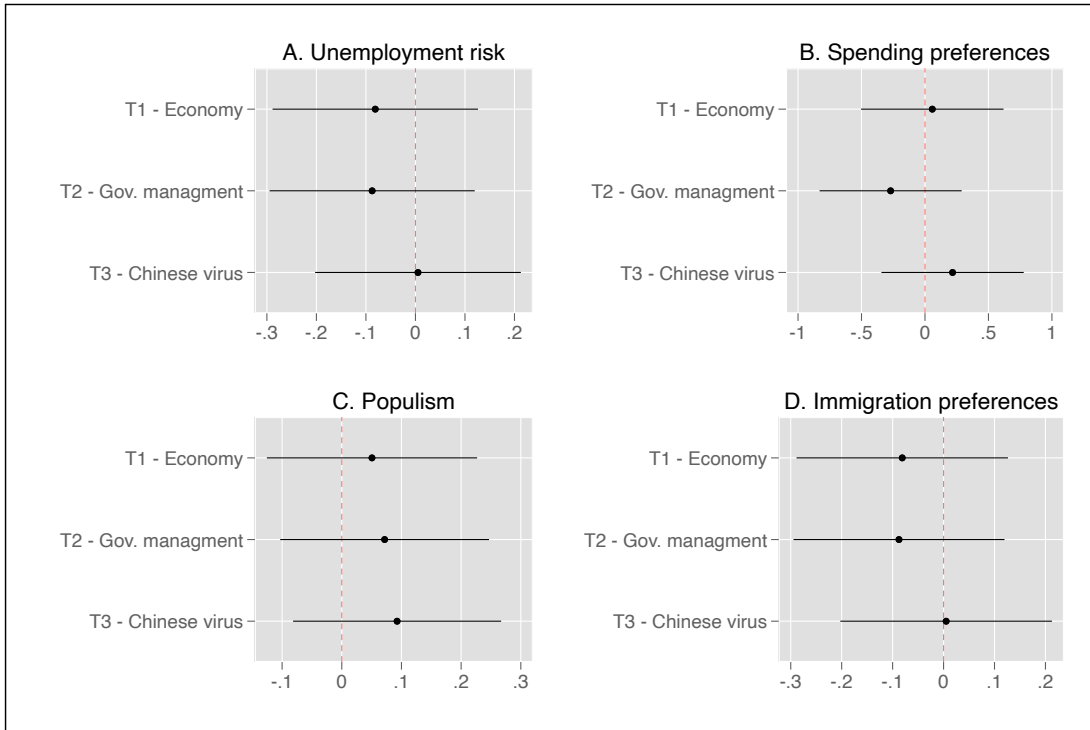
Note: The figure is presenting predicted values based on the results shown in Table ?? and model M1 in Appendix 3.

7.2 Predicted vote share for Trump (over Biden) by unemployment risk (A) and age (B) and treatment group



Note: The figure is presenting predicted values based on the results shown in Figures ??2.A and ??3.B.

8 Impact of treatments on potentially endogenous moderating and mediating variables



Note: The results are based on OLS regressions, predicting vote for Trump over Biden. The models control for all pre-treatment control variables to get more precise estimators and to account for slight imbalances in the treatment randomization.