Supplementary Appendix to "Understanding and Reducing Biases in Elite Beliefs About the Electorate"

Appendix A - Study 1: The Swedish context

Appendix B - Study 1: Descriptives

- **Table B1**: Policy issue questions concurrently asked in elite and mass surveys, and share of voters supporting each policy by year.

- **Table B2**: Correlations between measures of affluence in mass survey.

- **Table B3**: Descriptive statistics of key variables in MP-policy dataset.

Appendix C - Study 1: Additional analyses

- **Table C1**: The role of high-status voters and MP personal preferences on perceptual accuracy. Complement to Figure 3.

- **Table C2**: The effects of male and female voters' disagreement on perceptual accuracy.

- **Table C3**: Determinants of perceptual accuracy, with fixed effects by individual MP.

- **Table C4**: The role of high-status voters and MP personal preferences on perceptual accuracy, with *whole electorate* as the reference constituency.

- **Figure C1**: The role of low-status voters and MP personal preferences on perceptual accuracy.

- **Table C5**: The role of high-status voters and MP personal preferences on perceptual accuracy, including undecided voters in public opinion measures.

- **Table C6**: The role of high-status voters and MP personal preferences on the gradation of accuracy.

- **Table C7**: The role of high-status voter and MP personal preferences on perceptual accuracy, with bootstrapped standard errors.

- **Table C8**: The role of high-status voter and MP personal preferences on perceptual accuracy, among large and small parties.

- **Table C9**: The marginal effects of white-collar voters disagreeing with the majority on perceptual accuracy, conditional on MP contacts with (a) blue-collar unions, and (b) business organizations. Complement to Figure 4.

- **Table C10**: The effects of different voter preferences on perceived policy support, conditional on MPs background. Complement to Figure 5.

- **Table C11**: The effects of white/blue-collar preferences on perceived support, conditional on constituents preference gap.

Appendix D - Study 2: Case selection

Appendix E - Study 2: Descriptives

- **Table E1**: Descriptive characteristics of the recruitment pool and study participants.

- **Table E2**: Covariate balance across treatment groups.

- **Figure E1**: Example of *Exposure* vignettes for self-determination initiative.

- **Figure E2**: Distributions of local-level support for the horned-cow and self-determination referendums.

Appendix F - Study 2: Additional analyses

- **Table F1**: The effects of exposure and self-awareness to social projection on perceptual accuracy. Complement to Figure 6.

- **Table F2**: The effects of self-awareness on the propensity of legislators to project their preferences on the electorate. Complement to Figure 7.

- **Table F3**: The effect of distance between survey completion and federal vote on perceptual accuracy.

- **Table F4**: Replication of main results among respondents who passed manipulation check.

- **Figure F1**: The effects of exposure and self-awareness to social projection on absolute misperceptions, by referendum.

Appendix G - Study 2: Informed consent and questionnaire

Appendix H - Hertel-Fernandez et al. (2019) extension

- **Table H1**: The effects of high-status voter preferences on perceptions of constituency preferences among US Congressional staffers. Extension of Hertel-Fernandez et al. (2019).

Appendix A - Study 1: The Swedish context

Study 1 is based on individual-level data from Swedish MPs. Sweden is a typical party-centered European system. Parties, as organizations, often play a significant role in providing the link between voters and representatives (Öhberg and Naurin 2016). Between 1985 and 2006, the period studied here, the political landscape was dominated by the Swedish Social Democratic party, winning the majority of votes in all seven elections with vote shares ranging from 35 to 45%. Constitutionally, Sweden has influential parties organized in a parliamentary system with a low degree of separation of powers. Party cohesion is strong, but the relationship between candidates and voters is encouraged through a preferential vote system (Esaiasson and Holmberg 1996).

The Swedish Riksdag is composed by 349 members representing 29 multi-member districts. The districts vary in size, from Gotland (2 seats and roughly 44 thousand eligible voters) to Stockholm County (38 seats representing 892,592 voters, in 2014). Since 1985, the Swedish Parliamentary Study (RDU) regularly asks MPs to describe how important is promoting views they personally consider important, as part of their legislative work, *or* promote the views of their own constituency. Pooling the responses in all six waves of the survey, less than one fourth of MPs (22.0%) consider that behaving as a trustee is more important than behaving as a delegate. This statistic is likely to be inflated by social desirability bias, but still suggests that MPs recognize the value of accommodating voter preferences as part of their job. See Öhberg and Naurin (2016) for a similar conclusion. This is also consistent with research showing that voters consistently prefer their representatives to follow constituency preferences (Carman 2007; Converse and Pierce 1979; Dassonneville et al. 2020).

Appendix B - Study 1: Descriptives

Appendix B describes a series of descriptive analyses from Study 1. Table B1 lists the policy issues asked in each wave of the mass surveys, along with average levels of public support. Table B2 describes the bivariate correlations between the different subconstituencies identified as high-status in the study. The correlations range from 0.08 to 0.35. Finally, Table B3 provides descriptive statistics of all the main variables included in the analyses.

Appendix C - Study 1: Additional analyses

This section describes a series of robustness checks and sensitivity analyses complementing the main results of Study 1. Table C1 presents the full models used to build Figure 3 in the main text. Table C2 provides an alternative conceptualization of high-status constituents, based on gender. Consistent with the main findings, the analysis reveals that elite beliefs about their constituency are swayed by the preferences of male voters. On average, when male constituents disagree with the majority on a given issue, the probability that Swedish MPs correctly identify the majority opinion decreases by 7 percentage points.

Table C3 replicates the main analyses with fixed effects by individual MP (1,205 unique legislators). The results are robust to this stricter modelling strategy that account for any systematic differences across legislators. In Table C4, in turn, I replicate the main findings based on a different conceptualization of constituency: the electorate as a whole. This is possible since in 1985 (and only in this wave) the parliamentary survey asked MPs not only about the preferences of their own party voters (used in the main analyses), but also of the electorate as a whole. Besides the decrease in scope and statistical power, the same substantive results are obtained. These results suggest that the key findings reported in Study 1 do not seem to be contingent on the definition of constituency adopted.

Table C4 also allows for a naïve comparison between the effects of exposure and social projection for different reference constituencies. The coefficients for *High-Status ≠ Majority* in the electorate models (95% confidence interval = $[-0.01, -0.17]$) are indistinguishable from those estimated for party voters (Table C1; coefficients ranging from -0.04 and -0.12). At least in this specific comparison, inequalities in exposure have substantively the same effects for different representations of the public. One explanation for this result is that the

Table B1: Policy issue questions concurrently asked in elite and mass surveys, and share of voters supporting each policy by year.

Policy issues	SNES	SOM	Survey Year					
			1985	1988	1994	1998	2002	2006
Reduce the public sector	✓	✓	41.6	38.5	32.6	26.6	26.8	29.2
Abolish the wage-earner funds	✓	-	55.5	-	-	-	-	-
Reduce defense spending	✓	✓	35.8	29.5	56.2	49.7	-	35.2
More health care should be privately run	✓	✓	53.4	47.5	21.6	28.9	-	37.3
Prohibit all kinds of pornography	✓	-	55.9	-	51.5	64.2	60.2	47.6
Allow commercials on TV	✓	✓	61.9	-	24.7	-	-	-
Build child care centers	✓	-	52.9	-	-	-	-	-
Introduce six hour working day	✓	✓	58.1	53.3	49.2	49.9	55.2	49.1
Retain nuclear power after 2010	✓	✓	29.3	36.5	40.3	-	-	-
Reduce income differences in society	✓	✓	-	59.4	60.3	64.4	-	71.6
Ban private driving in inner cities	✓	-	-	59.8	49.8	40.9	-	35.8
Raise taxes for high income earners	✓	-	-	-	75.0	-	-	-
Accept fewer refugees into Sweden	✓	✓	-	-	53.7	47.3	49.6	42.5
Gender quotas for public management positions	✓	-	-	-	31.8	-	-	-
Membership in the EMU	✓	✓	-	-	-	36.4	35.0	-
Sweden should abolish nuclear power	✓	✓	-	-	-	49.6	44.9	41.6
Sweden should leave the EU	✓	✓	-	-	-	38.7	-	27.5
Sweden should apply for NATO	✓	✓	-	-	15.1	23.8	22.6	20.2
Less stringent labour laws	-	✓	-	-	-	-	29.4	-
Reduce taxes	✓	✓	-	-	-	-	51.8	57.9
Introduce language test for citizenship	✓	-	-	-	-	-	44.0	-
Strengthen the rights of animals	✓	✓	-	-	-	-	65.8	-
Sweden should introduce the Euro	✓	✓	-	-	-	-	-	35.4
Turkey should be granted membership	-	✓	-	-	-	-	-	12.3

Note: Entries are shares of supporters by policy issue and year (assuming a proportional distribution of undecided). SNES and SOM refer to the Swedish National Election Studies and the SOM Institute Survey, respectively. ✓s indicate that a given policy issue was asked in that survey. All policy items were also asked in the elite surveys.

Table B2: Correlations between measures of affluence in mass survey.

	White-collar	College degree	>85th income percentile	Urban
White-collar	-	0.28	0.35	0.15
College degree	-	-	0.21	0.08
>85th income percentile	-	-	-	0.19
Urban	-	-	-	-

Table B3: Descriptive statistics of key variables in MP-policy dataset.

Variable name	Min	Max	Mean	Median	SD
Outcome variables					
Perceptual accuracy	0.00	1.00	0.73	1.00	0.44
Perceived policy support	0.00	1.00	0.50	0.00	0.50
Predictors					
White-collar $\neq$ Majority	0.00	1.00	0.08	0.00	0.27
Higher Education $\neq$ Majority	0.00	1.00	0.11	0.00	0.32
Higher Income $\neq$ Majority	0.00	1.00	0.16	0.00	0.37
Urban $\neq$ Majority	0.00	1.00	0.07	0.00	0.24
Blue-collar $\neq$ Majority	0.00	1.00	0.08	0.00	0.27
Lower Education $\neq$ Majority	0.00	1.00	0.11	0.00	0.31
Lower Income $\neq$ Majority	0.00	1.00	0.24	0.00	0.43
Rural $\neq$ Majority	0.00	1.00	0.04	0.00	0.20
MP and Voters dealigned	0.00	1.00	0.43	0.00	0.50
Moderators					
Contacts with unions	1.00	5.00	2.62	2.00	0.90
Contacts with businesses	1.00	5.00	2.80	3.00	0.91
White-collar MP	0.00	1.00	0.47	0.00	0.50
College degree MP	0.00	1.00	0.57	1.00	0.50
Urban MP	0.00	1.00	0.42	0.00	0.49
Controls					
Preference imbalance	0.00	0.49	0.21	0.21	0.13
Expertise	0.00	1.00	0.11	0.00	0.32
Experience in office (logged terms)	0.00	2.22	0.77	0.69	0.60

demographics of Swedish party voters largely overlap with the demographics of the electorate as a whole. In turn, social projection consistently affects perceptual accuracy, but the effects are larger for party voters (-0.38; s.e. $= 0.01$) than for the electorate as a whole (-0.32; s.e. $= 0.02$). This pattern is in line with prior research showing that individuals are more likely to project their preferences on groups perceived as more similar.

Figure C1, in turn, reveals that the effects of high-status disagreement does not replicate among low-status voters. When less privileged subconstituencies disagree with the majority in a given party, perceptual accuracy *does not* decrease. Tables C5, C6, C7, and C8 replicate the main analyses including a) undecided voters in the measure of public support, b) an alternative outcome variable that captures gradations of accuracy, c) bootstrapped clustered standard errors to account for uncertainty in public opinion estimates derived from the mass surveys, and d) distinguishing between large and small parties, respectively. These analyses mitigate concerns that the findings reported in the main text are contingent on the measurement strategy adopted. Tables C9 and C10 provide supporting information to the mechanism tests for the exposure hypothesis, reported in the main text in Figures 4 and 5, respectively.

Finally, Table C11 provides an alternative modelling strategy to test the exposure hypothesis, modelling perceived support as a function of the interaction between high/low status voters, and the preference gap between subconstituencies. The results are consistent with the main findings and suggest that the predictive power of the preferences of less privileged subconstitiencies (blue-collar voters) decreases as the gap in policy preferences between high- and low-status voters increases (model 2). The opposite is not true for the preferences of more privileged subconstituencies (model 1).

Figure C1: The role of low-status voters and MP personal preferences on perceptual accuracy.
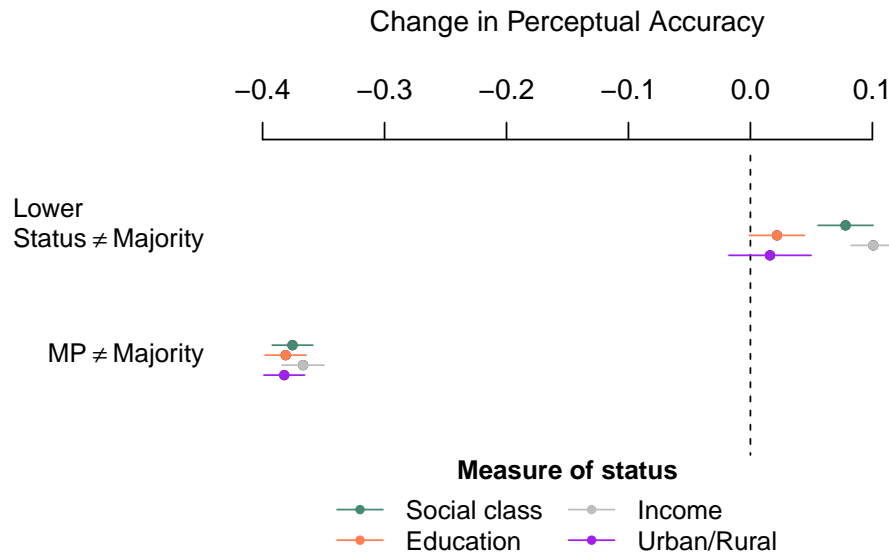
Note: Dots are estimates from linear probability models with perceptual accuracy as the outcome variable. Horizontal lines represent 95% confidence intervals. The main predictors are listed on the y-axis. Each color represents a distinct model based on the operationalization of high-status voters.

Table C1: The role of high-status voters and MP personal preferences on perceptual accuracy. Complement to Figure 3.

	Perceptual Accuracy			
	Social Class	Education	Income	Urban
	(1)	(2)	(3)	(4)
High-Status $\neq$ Majority	-0.12**	-0.11**	-0.04**	-0.10**
	(0.01)	(0.01)	(0.01)	(0.01)
MP and Voters dealigned	-0.38**	-0.37**	-0.38**	-0.38**
	(0.01)	(0.01)	(0.01)	(0.01)
Preference Imbalance	0.71**	0.69**	0.77**	0.75**
	(0.03)	(0.03)	(0.03)	(0.03)
Expertise	-0.001	-0.001	-0.001	-0.001
	(0.01)	(0.01)	(0.01)	(0.01)
Experience in office	0.01	0.01	0.01	0.01
	(0.004)	(0.004)	(0.004)	(0.004)
Constant	0.82**	0.84**	0.82**	0.82**
	(0.02)	(0.02)	(0.02)	(0.02)
Policy FE	Yes	Yes	Yes	Yes
Survey FE	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes
Observations	22,373	22,373	22,351	22,373
Adjusted R^2	0.35	0.35	0.34	0.34

Entries are coefficients of linear probability models with *Perceptual Accuracy* as the outcome (cluster-robust standard errors in parenthesis). Column headers describe the conceptualization of high-status voters in each model. **$p < 0.01$; *$p < 0.05$

Table C2: The effects of male and female voters' disagreement on perceptual accuracy.

	Perceptual Accuracy	
	(1)	(2)
Male Voters $\neq$ Majority	-0.07**	-
	(0.01)	
Female Voters $\neq$ Majority	-	0.05**
		(0.01)
MP and Voters dealigned	-0.38**	-0.38**
	(0.01)	(0.01)
Preference Imbalance	0.75**	0.86**
	(0.03)	(0.03)
Expertise	-0.001	-0.001
	(0.01)	(0.01)
Experience in office	0.01	0.01
	(0.004)	(0.004)
Constant	0.82**	0.79**
	(0.02)	(0.02)
Policy FE	Yes	Yes
Survey FE	Yes	Yes
Party FE	Yes	Yes
Observations	22,373	22,373
Adjusted R^2	0.34	0.34

Entries are coefficients of linear probability models with *Perceptual Accuracy* as the outcome (cluster-robust standard errors in parenthesis). Model 1 operationalizes high-status constituents as male voters. Model 2 operationalizes low-status constituents as female voters. **$p < 0.01$; *$p < 0.05$

Table C3: Determinants of perceptual accuracy, with fixed effects by individual MP.

	Perceptual Accuracy			
	Social Class	Education	Income	Urban
	(1)	(2)	(3)	(4)
High-Status $\neq$ Majority	-0.12^{**}	-0.11^{**}	-0.05^{**}	-0.09^{**}
	(0.01)	(0.01)	(0.01)	(0.01)
MP and Voters dealigned	-0.42^{**}	-0.41^{**}	-0.42^{**}	-0.42^{**}
	(0.01)	(0.01)	(0.01)	(0.01)
Preference Imbalance	0.61^{**}	0.61^{**}	0.64^{**}	0.65^{**}
	(0.02)	(0.02)	(0.02)	(0.02)
Expertise	0.003	0.004	0.002	0.004
	(0.01)	(0.01)	(0.01)	(0.01)
Experience in office	0.004	0.004	0.004	0.002
	(0.01)	(0.01)	(0.01)	(0.01)
Constant	0.87^{**}	0.86^{**}	0.86^{**}	0.86^{**}
	(0.11)	(0.11)	(0.11)	(0.11)
Legislator FE	Yes	Yes	Yes	Yes
Observations	22,373	22,373	22,351	22,373
Adjusted R^2	0.33	0.33	0.33	0.33

Entries are model coefficients of linear probability models with fixed effects by individual MP (N = 1,069). Column headers describe conceptualization of affluence for each respective model. $^{**}p < 0.01$; $^{*}p < 0.05$

Table C4: The role of high-status voters and MP personal preferences on perceptual accuracy, with *whole electorate* as the reference constituency.

	Perceptual Accuracy		
	Social Class	Education	Income
	(1)	(2)	(3)
High-Status $\neq$ Majority	-0.09^*	-0.09^*	-0.09^*
	(0.04)	(0.04)	(0.04)
MP and Electorate dealigned	-0.32^{**}	-0.32^{**}	-0.32^{**}
	(0.02)	(0.02)	(0.02)
Preference Imbalance	0.26	0.26	0.26
	(0.17)	(0.17)	(0.17)
Expertise	-0.002	-0.002	-0.002
	(0.03)	(0.03)	(0.03)
Experience in office	-0.003	-0.003	-0.003
	(0.01)	(0.01)	(0.01)
Constant	0.79^{**}	0.79^{**}	0.79^{**}
	(0.03)	(0.03)	(0.03)
Party FE	Yes	Yes	Yes
Observations	2,792	2,792	2,792
Adjusted R^2	0.11	0.11	0.11

Entries are model coefficients of linear probability models with *Perceptual Accuracy* as the outcome (cluster-robust standard errors in parenthesis). Column headers describe conceptualization of high-status for each respective model. The analyses are based exclusively on data from the 1985 wave of the parliamentary survey (RDU). Therefore, survey and policy FEs were omitted. Urban/rural models not estimated due to lack of variability in the predictors. $^{**}p < 0.01$; $^*p < 0.05$

Table C5: The role of high-status voters and MP personal preferences on perceptual accuracy, including undecided voters in public opinion measures.

	Perceptual Accuracy			
	Social Class	Education	Income	Urban
	(1)	(2)	(3)	(4)
High-Status $\neq$ Majority	−0.10**	−0.09**	−0.07**	−0.14**
	(0.02)	(0.01)	(0.01)	(0.02)
MP and Voters dealigned	−0.38**	−0.38**	−0.38**	−0.39**
	(0.01)	(0.01)	(0.01)	(0.01)
Preference Imbalance	0.62**	0.61**	0.60**	0.62**
	(0.02)	(0.02)	(0.02)	(0.02)
Expertise	0.01	0.01	0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Experience in office	−0.0005	−0.002	−0.002	−0.0004
	(0.005)	(0.005)	(0.005)	(0.005)
Constant	0.80**	0.81**	0.80**	0.81**
	(0.02)	(0.02)	(0.02)	(0.02)
Policy FE	Yes	Yes	Yes	Yes
Survey FE	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes
Observations	22,373	22,373	22,351	22,373
Adjusted R^2	0.29	0.29	0.29	0.29

Entries are model coefficients of linear probability models with *Perceptual Accuracy* as the outcome (cluster-robust standard errors in parenthesis). Column headers describe conceptualization of high-status for each respective model. **$p < 0.01$; *$p < 0.05$

Table C6: The role of high-status voters and MP personal preferences on the gradation of accuracy.

	Gradation of Accuracy			
	Social Class	Education	Income	Urban
	(1)	(2)	(3)	(4)
High-Status $\neq$ Majority	-0.15^{**}	-0.13^{**}	-0.07^{**}	-0.13^{**}
	(0.01)	(0.01)	(0.01)	(0.01)
MP and Voters dealigned	-0.49^{**}	-0.49^{**}	-0.50^{**}	-0.50^{**}
	(0.01)	(0.01)	(0.01)	(0.01)
Preference Imbalance	-0.01	-0.01	-0.01	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Expertise	0.003	0.003	0.003	0.003
	(0.01)	(0.01)	(0.01)	(0.01)
Experience in office	0.004	0.0000	0.0004	0.005
	(0.02)	(0.02)	(0.02)	(0.02)
Constant	1.05^{**}	1.06^{**}	1.06^{**}	1.07^{**}
	(0.02)	(0.02)	(0.02)	(0.02)
Policy FE	Yes	Yes	Yes	Yes
Survey FE	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes
Observations	22,373	22,373	22,351	22,373
Adjusted R^2	0.26	0.26	0.26	0.26

Entries are model coefficients of linear models with *Gradation of Accuracy* as the outcome (cluster-robust standard errors in parenthesis). *Gradation of Accuracy* = 2 if MPs correctly identify the majority opinion; *Gradation of Accuracy* = 1 if MPs misperceived the majority opinion *and* public support for the policy was between the 2nd and 3rd quartiles (between 35% and 74%); *Gradation of Accuracy* = 0 if MPs misperceived the majority opinion *and* public support for the policy was in the 1st or 4th quartile (below 35% and above 74% supporters). Column headers describe conceptualization of high-status for each respective model. **p < 0.01; *p < 0.05

Table C7: The role of high-status voter and MP personal preferences on perceptual accuracy, with bootstrapped standard errors.

	Perceptual Accuracy			
	Social Class	Education	Income	Urban
	(1)	(2)	(3)	(4)
High-Status ≠ Majority	−0.12**	−0.11**	−0.04*	−0.10**
	(0.024)	(0.021)	(0.016)	(0.032)
MP and Voters dealigned	−0.38**	−0.37**	−0.38**	−0.38**
	(0.011)	(0.011)	(0.011)	(0.011)
Preference Imbalance	0.71**	0.69**	0.77**	0.75**
	(0.052)	(0.052)	(0.059)	(0.049)
Expertise	−0.001	−0.001	−0.001	−0.001
	(0.01)	(0.01)	(0.01)	(0.01)
Experience in office	0.01	0.01	0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Constant	0.82**	0.84**	0.82**	0.82**
	(0.024)	(0.023)	(0.023)	(0.023)
Policy FE	Yes	Yes	Yes	Yes
Survey FE	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes
Observations	22,373	22,373	22,351	22,373
Adjusted R^2	0.35	0.35	0.34	0.34

Entries are coefficients of linear probability models with *Perceptual Accuracy* as the outcome (bootstrapped clustered standard errors in parenthesis). Column headers describe the conceptualization of high-status voters in each model. **$p < 0.01$; *$p < 0.05$

Table C8: The role of high-status voter and MP personal preferences on perceptual accuracy, among large and small parties.

	Social Class		Education		Income	
	(1)	(2)	(3)	(4)	(5)	(6)
High-Status $\neq$ Majority	-0.11^{**}	-0.09^{**}	-0.10^{**}	-0.13^{**}	-0.04^{**}	-0.05^{**}
	(0.02)	(0.03)	(0.02)	(0.02)	(0.01)	(0.02)
MP and Voters dealigned	-0.35^{**}	-0.41^{**}	-0.35^{**}	-0.41^{**}	-0.35^{**}	-0.41^{**}
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Preference Imbalance	0.76^{**}	0.54^{**}	0.76^{**}	0.46^{**}	0.82^{**}	0.52^{**}
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)
Expertise	-0.001	-0.003	-0.001	-0.003	-0.001	-0.003
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Experience in office	-0.002	0.02^{**}	-0.002	0.02^{**}	-0.001	0.02^{**}
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Constant	0.83^{**}	0.83^{**}	0.83^{**}	0.86^{**}	0.81^{**}	0.84^{**}
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)
Policy FE	Yes	Yes	Yes	Yes	Yes	Yes
Survey FE	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	14,271	8,102	14,271	8,102	14,271	8,080
Adjusted R^2	0.35	0.36	0.35	0.37	0.35	0.36

Entries are model coefficients of linear probability models (cluster-robust standard errors in parenthesis). Column headers describe conceptualization of affluence for each respective model. Models 1-3-5 restrict the analyses to large parties (Social Democratic Party, and Moderate Party); models 2-4-6 restrict the analysis to smaller parties. **p < 0.01; *p < 0.05

Table C9: The marginal effects of white-collar voters disagreeing with the majority on perceptual accuracy, conditional on MP contacts with (a) blue-collar unions, and (b) business organizations. Complement to Figure 4.

	Perceptual Accuracy	
	(1)	(2)
High-Status $\neq$ Majority	-0.20**	-0.09*
	(0.04)	(0.04)
Union contacts	-0.001	-
	(0.004)	
White-Collar $\neq$ Majority $\times$ Union Contacts	0.02	-
	(0.01)	
Business contacts	-	0.01*
		(0.004)
White-Collar $\neq$ Majority $\times$ Business Contacts	-	-0.02
		(0.01)
MP and Voters dealigned	-0.36**	-0.36**
	(0.01)	(0.01)
Preference Imbalance	0.71**	0.72**
	(0.03)	(0.03)
Expertise	-0.001	-0.001
	(0.01)	(0.01)
Experience in office	0.01	0.004
	(0.01)	(0.01)
Constant	0.81**	0.79**
	(0.02)	(0.02)
Policy FE	Yes	Yes
Survey FE	Yes	Yes
Party FE	Yes	Yes
Observations	16,093	16,099
Adjusted R^2	0.36	0.36

Entries are coefficients of linear probability models with *Perceptual Accuracy* as the outcome variable (cluster-robust standard errors in parenthesis). **$p < 0.01$; *$p < 0.05$

Table C10: The effects of different voter preferences on perceived policy support, conditional on MPs background. Complement to Figure 5.

	Perceptual Accuracy		
	Social Class	Education	Urban
	(1)	(2)	(3)
High-Status $\neq$ Majority	−0.11**	−0.08**	−0.08**
	(0.02)	(0.02)	(0.02)
White-collar MP	0.01	-	-
	(0.01)		
High-Status $\neq$ Majority $\times$ White-collar MP	−0.01	-	-
	(0.02)		
College degree MP	-	−0.01	-
		(0.01)	
High-Status $\neq$ Majority $\times$ College degree MP	-	−0.05*	-
		(0.02)	
Urban MP	-	-	−0.01
			(0.01)
High-Status $\neq$ Majority $\times$ Urban MP	-	-	−0.05*
			(0.02)
MP and Voters dealigned	−0.38**	−0.37**	−0.38**
	(0.01)	(0.01)	(0.01)
Preference Imbalance	0.71**	0.69**	0.75**
	(0.03)	(0.03)	(0.03)
Expertise	−0.001	−0.001	−0.001
	(0.01)	(0.01)	(0.01)
Experience in office	0.01	0.01	0.01
	(0.004)	(0.004)	(0.004)
Policy FE	Yes	Yes	Yes
Survey FE	Yes	Yes	Yes
Party FE	Yes	Yes	Yes
Observations	22,373	22,373	22,373
Adjusted R^2	0.35	0.35	0.34

Entries are coefficients of linear probability models with *Perceptual Accuracy* as the outcome variable (cluster-robust standard errors in parenthesis). Column headers describe conceptualization of high-status for each respective model. **$p < 0.01$; *$p < 0.05$

Table C11: The effects of white/blue-collar preferences on perceived support, conditional on constituents preference gap.

	Perceived Support	
	(1)	(2)
% White-collar supporters	1.40**	-
	(0.02)	
% Blue-collar supporters	-	1.40**
		(0.02)
% White-collar − % Blue-collar supporters	−0.10	1.95**
	(0.07)	(0.09)
%White-collar supporters × (% White − % Blue supporters)	**0.21**	-
	(0.12)	
% Blue-collar supporters × (% White − % Blue supporters)	-	**−0.96****
		(0.15)
Constant	−0.24**	−0.25**
	(0.01)	(0.01)
Policy FE	Yes	Yes
Survey FE	Yes	Yes
Party FE	Yes	Yes
Observations	22,632	22,632
Adjusted R^2	0.41	0.41

Entries are coefficients of linear models with *Perceived Support* as the outcome (cluster-robust standard errors in parenthesis). **$p < 0.01$; *$p < 0.05$

Appendix D - Study 2: Case selection

Switzerland holds an average of 10 popular voters per year (Giger and Klüver 2016). There are three types of direct democratic instruments in the country: *mandatory referendums* for constitutional changes initiated by the Federal Assembly; *optional referendums* to vote on laws already accepted by the Federal Assembly; and *popular initiatives* where citizens can propose constitutional amendments, by collecting 100,00 signatures or more. The two issues explored in this study are popular initiatives. This study leverages referendum results to produce *accurate measures* of expressed voter preferences at the local (*gemeinde*) level.

It is worth elaborating on this opportunity. Previous work on perceptions of public opinion contrasted elite beliefs with constituency opinion based on nationally representative samples (e.g., Converse and Pierce 1986, Miller and Stokes 1963). However, by partitioning representative samples, the different sub-groups may no longer be representative. Recently, the combination of larger samples with poststratification techniques (Park et al. 2004) motivated new work on elite perceptions (Broockman and Skovron 2018; Hertel-Fernandez et al. 2019). However, this method still relies on important assumptions about the data (Buttice and Highton 2013), and sample sizes that are rare outside the United States. By relying on the actual behavior of voters on different referendums it is possible to have accurate measures of expressed preferences even in small administrative units.

Two other features of the Swiss context make it an interesting case to study elite misperceptions. First, the large number of popular votes gives Swiss representatives ample resources to develop accurate perceptions of voters. Second, Swiss municipalities are fairly small. In 2014, the average population was 3,545 inhabitants. Hence, the task of gauging public opinion is arguably easier than in larger and more diverse constituencies, leaving less room to improve elite perceptions.

Swiss municipalities are relatively small, with roughly half having less than 1,000 inhabitants. Despite their size, municipalities play an important role in the Swiss political system, being responsible for over 30% of public spending and having wide fiscal autonomy (Ladner 2005).

To collect data on elite perceptions of public support for the policy issues on the ballot, I fielded a survey with municipal representatives: members of the executive council. Municipal governments are governed by a local council and headed by a mayor, like most of their European counterparts (Norton 1991). The legislative side of Swiss local governments can either take the form of town meetings or city parliaments. But officials in this branch were not included in the study. Nearly two thirds of all councilors do not belong to a specific political party. Finally, like in the United States and in other European countries, in most Swiss municipalities local councilor is a part-time occupation.

Appendix E - Study 2: Descriptives

This section of the Appendix describes some relevant descriptive information from Study 2. Table E1 provides basic demographics of the sample of local officials who took part in the survey, and compares this sample with the larger pool of officials from which they were recruited (N = 6,973), representing nearly 60% of the population of Swiss local councilors. There are no statistically distinguishable differences across the samples on the observed

characteristics. Figure E1 presents screenshots of the exposure vignette. Table E2, in turn, provides a series of covariate balance tests suggesting that the randomization worked properly on these relevant observables. Finally, Figure E2 plots the distribution of local support for the two initiatives included in the study. The distributions reveal considerable variation across municipalities.

Table E1: Descriptive characteristics of the recruitment pool and study participants.

	Pool	Sample
Female (%)	25.78	22.41
Age (years)	54.02	54.54
University degree or higher (%)	36.29	41.59
Experience in office (years)	7.9	8.0
In majority (%)	–	66.45
Hired by local administration (%)	30.90	29.98
Full time politician (%)	17.40	18.14
FDP member (%)	29.40	30.57
SVP member (%)	20.15	18.51
SP member (%)	12.96	15.87
Size of executive (N)	6.1	6.2
Population (N)	4463.0	4421.0
N	6,973	2,787

Note: The left column describes the pool of local officials surveyed in the 2017 National Survey of Members of Local Executives, representing $\approx 60\%$ of the population of Swiss local councilors. The right column describes the sample of officials recruited from this pool who took part in the current study.

Appendix F - Study 2: Additional analyses

This section presents a series of complementary results and sensitivity analyses regarding Study 2. Tables F1 and F2 complement Figures 6 and 7 in the main text. Table F3 test whether the time between survey completion and the referendums moderated perceptual accuracy, and the treatment effects. The analysis provides no conclusive results. In turn, Table F4 replicates the main results restricting the sample to respondents who passed the manipulation check. The effect sizes are consistently larger among local officials who passed the manipulation check. Finally, Figure F1 replicates the main analysis with an alternative pre-registered outcome variable: the absolute difference between the official's estimate and the referendum results. The results for each initiative separately are substantively the same. Only the coefficient of Electorate Composition in the pooled analysis is no longer reliable.

Table E2: Covariate balance across treatment groups.

Covariates	Control	Exposure	Exposure & Self-Awareness	p-value
FDP member	0.29	0.30	0.32	0.34
SVP member	0.20	0.19	0.17	0.15
SP member	0.15	0.16	0.17	0.37
German language	0.70	0.72	0.71	0.85
Population	4502.76	4135.50	4620.25	0.82
% SVP support	34.55	34.45	33.89	0.28
% Foreign-born citizens	17.12	16.59	17.54	0.35
% SP+Green support	21.30	21.31	21.71	0.31
% Farmers	13.94	13.44	12.49	0.03
In Majority	0.67	0.67	0.65	0.50
Election expectations	3.37	3.42	3.41	0.49
Support for self-determination	0.34	0.33	0.33	0.88
Support for horned-cow	0.33	0.32	0.35	0.25
Likelihood Ratio Test:				
Exposure - Control	$\chi^2(24) = 18.2$		$Pr(> \chi^2) = 0.79$	
Exposure & Self-Awareness - Control	$\chi^2(24) = 16.8$		$Pr(> \chi^2) = 0.86$	
Exposure & Self-Awareness - Exposure	$\chi^2(22) = 15.3$		$Pr(> \chi^2) = 0.85$	

Note: Entries in the top panel are means of covariates across treatment conditions and p-values correspond to F tests of difference in means. The model fit of logistic regressions with treatment assignments as a function of all covariates was compared with the respective null model. The likelihood ratio tests described in the bottom panel do not reject the null models.

Figure E1: Example of *Exposure* vignettes for self-determination initiative.

Title: *Self-Determination Initiative (Swiss Law over foreign judges)*
Description: The initiative launched by the SVP/UDC seeks to solve conflicts between the Federal Constitution and the international treaties signed by Switzerland. The idea is that if a popular initiative supported by a majority is in conflict with a pre-existing international treaty, the constitution will have to prevail (subject to peremptory rules of international law, such as the prohibition of torture). Currently, in the event of conflicts between the constitution and an international treaty, a solution through democratic processes is favored. In most cases, these conflicts are solved through a law change subject to an optional referendum.

We will ask you to predict the share of voters in your municipality that will support the Self-Determination Initiative. However, because it is hard to anticipate the results of popular votes, **we will give you some tips in advance.**

(a) Policy description

Title: Self-Determination Initiative (Swiss Law over foreign judges)

When thinking about the preferences of voters, it often helps **considering the views of different groups in the constituency**. To help you in this process, think about the residents of ▨▨▨ and give us your best guess to the following questions:

	Your guess
In the 2015 federal elections, what share of voters in ▨▨▨ voted for the SVP?	[ ] %
What share of the population in ▨▨▨ is foreigner?	[ ] %

→

(b) Perceived electorate composition

Title: Self-Determination Initiative (Swiss Law over foreign judges)

To give you some reference points, here are your answers along with the most recent data from the Federal Statistical Office in your municipality and in Switzerland as a whole.

	Your guess	▨▨▨*	Switzerland*
% SVP Supporters in 2015	28%	**30.9%**	29.4%
% Foreigners	11%	**12.8%**	24.6%

*Source: Federal Statistical Office

This information is intended to help you <u>consider the preferences of the average voter in your municipality.</u>

→

(c) Contrasting perceptions with statistical data

With this in mind, give us your expectation of **the share of voters in ▨▨▨ that will SUPPORT the Self-Determination Initiative**. Please give us your best guess from 0% to 100%:

[ ] % of voters in ▨▨▨ supporting the initiative

How confident are you in your prediction?

Not confident at all	Slightly confident	Moderately confident	Highly confident
○	○	○	○

→

(d) Measuring outcome

Note: Panel labels describe each step in the treatment, in alphabetical order. Panel (a) remained constant across treatment conditions (except for the last paragraph). Censored text refers to the municipality of the respondent.

Figure E2: Distributions of local-level support for the horned-cow and self-determination referendums.
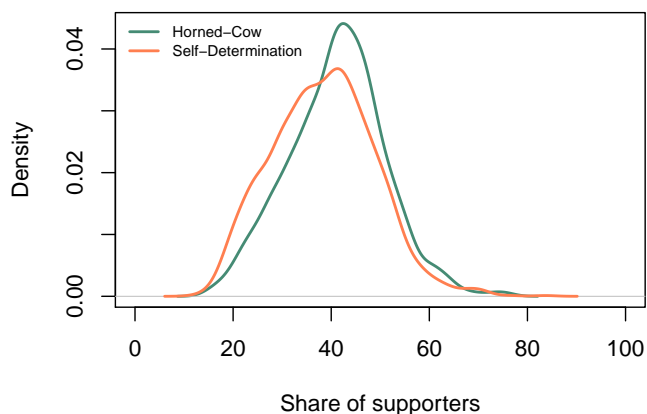
Note: Lines represent density functions of the share of supporters in each municipality for each of the referendums.

Table F1: The effects of exposure and self-awareness to social projection on perceptual accuracy. Complement to Figure 6.

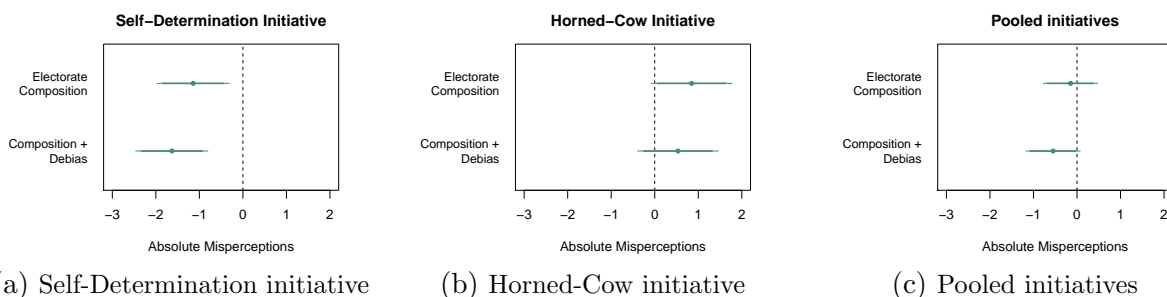| | *Perceptual Accuracy* | | |
	Self-Determination	Horned-Cow	Pooled
	(1)	(2)	(3)
Exposure	0.06**	0.03	0.05**
	(0.02)	(0.02)	(0.01)
Exposure & Self-Awareness	0.04*	0.02	0.03*
	(0.02)	(0.02)	(0.01)
Horned-cow initiative	-	-	0.02
			(0.01)
Constant	0.69**	0.73**	0.70**
	(0.01)	(0.01)	(0.01)
Observations	2,787	2,787	5,574
Adjusted R^2	0.003	0.000	0.002

Note: Entries are coefficients of linear probability models (SEs in parenthesis, and cluster-robust SEs in model 3) of the effect of providing information on the electorate composition and self-awareness on perceptual accuracy. *p$<$0.05; **p$<$0.01

Table F2: The effects of self-awareness on the propensity of legislators to project their preferences on the electorate. Complement to Figure 7.

| | *Predicted support* | | |
| | Self-Determination | Horned-Cow | Pooled |
	(1)	(2)	(3)
Own support	3.10**	4.54**	3.77**
	(0.34)	(0.41)	(0.28)
Exposure & Self-Awareness	1.22	2.68*	1.93*
	(1.13)	(1.36)	(0.92)
Own support × [Exposure & Self-Awareness]	−0.95*	−1.17*	−1.04**
	(0.48)	(0.58)	(0.40)
Horned-Cow Initiative	-	-	−7.33**
			(0.42)
Constant	37.63**	26.88**	36.01**
	(0.80)	(0.96)	(0.67)
Observations	1,803	1,797	3,600
Adjusted R^2	0.06	0.09	0.13

Note: Entries are OLS estimates of the effect of policy support on perceptions of public support, by treatment group (SEs in parenthesis, and cluster-robust SEs in model 3). Control group omitted to isolate the effect of the self-awareness intervention. *p$<$0.05; **p$<$0.01

Figure F1: The effects of exposure and self-awareness to social projection on absolute misperceptions, by referendum.

(a) Self-Determination initiative   (b) Horned-Cow initiative   (c) Pooled initiatives

Note: Points are average treatment effects of exposure and exposure & self-awareness on absolute misperceptions (control group as reference point). Negative effects represent higher perceptual accuracy. Wider/Thinner horizontal lines are 95%/90% confidence interval from two-sample *t*-tests.

Table F3: The effect of distance between survey completion and federal vote on perceptual accuracy.

	Self-Determination		Horned-Cow		Pooled	
	(1)	(2)	(3)	(4)	(5)	(6)
Distance to election (days)	−0.003	0.004	−0.004	−0.002	−0.003	0.001
	(0.002)	(0.004)	(0.002)	(0.004)	(0.002)	(0.003)
Exposure	-	0.185	-	0.055	-	0.120
		(0.094)		(0.092)		(0.064)
Distance × Exposure	-	−0.008	-	−0.002	-	−0.005
		(0.006)		(0.006)		(0.004)
Exposure & Self-Awareness	-	0.197*	-	0.045	-	0.121
		(0.091)		(0.089)		(0.065)
Distance ×	-	−0.011	-	−0.002	-	−0.006
Exposure & Self-Awareness		(0.006)		(0.006)		(0.004)
Horned-cow initiative	-	-	-	-	0.019	0.019
					(0.012)	(0.012)
Constant	0.766**	0.632**	0.800**	0.765**	0.773**	0.689**
	(0.038)	(0.067)	(0.037)	(0.066)	(0.027)	(0.047)
Observations	2,787	2,787	2,787	2,787	5,574	5,574
Adjusted R^2	0.0001	0.003	0.001	−0.0002	0.001	0.002

Note: Entries are coefficients of linear probability models (SEs for models 1-4 and cluster-robust SEs for models 5-6) of the effect of distance between survey completion and election day, on perceptual accuracy. Models 1, 3, and 5 only include the measure of distance to referendum, while models 2, 4, and 6 interact this measure with the different treatments. *p<0.05; **p<0.01

Table F4: Replication of main results among respondents who passed manipulation check.

| | Perceived accuracy | | |
	Self-Determination	Horned-Cow	Pooled
	(1)	(2)	(3)
Exposure	0.10**	0.03	0.06**
	(0.03)	(0.03)	(0.02)
Exposure & Self-Awareness	0.06*	0.02	0.04*
	(0.03)	(0.02)	(0.02)
Horned-cow initiative	-	-	0.02
			(0.01)
Constant	0.68**	0.73**	0.70**
	(0.02)	(0.02)	(0.02)
Observations	1,766	1,766	3,532
Adjusted R^2	0.01	0.01	0.01

Note: Entries are coefficients of linear probability models (SEs for models 1-2 and cluster-robust SEs for model 3) of the effect of providing information on electorate composition and self-awareness on perceptual accuracy. $^*p<0.05$; $^{**}p<0.01$

Appendix G - Study 2: Informed consent and questionnaire

Available in the APSR Dataverse at `https://doi.org/10.7910/DVN/HKV6YX`.

Appendix H - Hertel-Fernandez et al. (2019) extension

A potential concern with Study 1 is that Swedish MPs were asked to estimate the perceptions of policy preferences among party voters and not the electorate as a whole. It is reassuring to find substantively the same patterns among the electorate as a whole in the first wave of the Riksdag panel (Table C4; see also Study 2). To further explore the sensitivity of the arguments to different conceptualizations of constituency, in this section I describe an out-of-sample test of the exposure and social projection hypotheses. To do so, I replicate and extend the analyses in Hertel-Fernandez et al. (2019). In the original study, the authors surveyed Congressional staffers in the United States about their perceptions of policy preferences nationwide, and contrasted these beliefs with public opinion data from the Cooperative Congressional Election Study (CCES). Legislative staffers are a key source of information to politicians, acting as the "bridge between elected officials, the public, and interest groups" (Hertel-Fernandez et al. 2019; 1). As the original study articulates, distortions in perceptions of public opinion among staffers are likely reflected on legislators.

I extended the original analyses distinguishing between the preferences of high-status voters and the majority following as close as possible the operationalization of the independent variables in Study 1. High-status voters are measured as (1) white-collar voters, (2) voters with a college degree or higher, and (3) voters in the top 15th income percentile. The outcome variable in all models is the respondents' estimate of the share of constituents

supporting a given policy.

To test the exposure hypothesis, the main predictor is difference between the share of high-status voters supporting the policy and the majority opinion (*High-Status − Majority*). If officals are swayed by the preferences of high-status voters, there should be a positive relationship between this preference differencial and perceptions of public opinion. The models also include an indicator for whether the respondent (1) supports or (0) opposes each specific policy included in Hertel-Fernandez et al.. Consistent with the social projection hypothesis, I expect a positive relationship between policy support and perceptions of public opinion. All models include fixed effects by party and clustered standard errors by individual respondent.

The results reported in Table H1 are consistent with the findings in Study 1. Models 1, 3, and 5 in each table report simple regressions with the measure of preference differential as the predictor, while Models 2, 4, and 6 report multiple regressions including the measure of personal preferences and fixed effects by party. The positive coefficients for *High-Status − Majority* suggest that when high-status voters deviate from the majority opinion, perceptions of public opinion tend to follow the position of the more privileged subconstituency. The effects are meaningful. Using model 2 as an example, the coefficient for *High-Status − Majority* (1.96; s.e. = 0.22) means that when the share of high-collar voters supporting a given policy is 5 points higher than the electorate as a whole, perceptions of public support the same policy are, on average, 9.8 percentage points higher. This pattern is consistent with the exposure hypothesis. Finally, the analyses also support the social projection hypothesis. On average, perceptions of the share of pubic support for a given policy are 12.5-13.1 percentage points higher among respondents who support the policy. Together, the results provide additional evidence for the two main theoretical predictions in the paper.

Table H1: The effects of high-status voter preferences on perceptions of constituency preferences among US Congressional staffers. Extension of Hertel-Fernandez et al. (2019).

	Social Class		Education		Income	
	(1)	(2)	(3)	(4)	(5)	(6)
High-Status − Majority	2.56**	1.94**	2.03**	1.57**	1.63**	1.17**
	(0.23)	(0.22)	(0.19)	(0.17)	(0.15)	(0.15)
Supports policy		13.13**		12.48**		13.59**
		(1.89)		(1.85)		(1.92)
Republican		−0.33		−0.35		−0.61
		(1.15)		(1.17)		(1.17)
Constant	58.50**	48.57**	61.70**	50.19**	57.66**	46.76**
	(0.88)	(1.56)	(1.08)	(1.85)	(0.84)	(1.55)
Observations	368	367	368	367	368	367
Adjusted R^2	0.23	0.35	0.26	0.37	0.21	0.34

Entries are model coefficients of OLS models (cluster-robust standard errors in parenthesis) with perceived public support as the outcome variable. Column headers describe the conceptualization of high-status voters in each model: white-collar voters (columns 1, 2), voters with college degree (columns 3, 4), and voters in top 15% income percentile. $^{**}p < 0.01$; $^{*}p < 0.05$