Supplementary Information

Surfacing Electoral Processes: Operational Transparency Increases Trust in Local Elections

Contents

Supplementary Note 1: Trust measure instruments **2**

Supplementary Note 2: Lab study instruments and regression tables **5**

Supplementary Note 3: Shasta County pilot study instruments and regression tables **11**

Supplementary Note 4: Main field study: Shasta County postcards **15**

Supplementary Note 5: Balance tests **16**

Supplementary Note 6: Main field study extra analysis **18**

Supplementary Note 7: Multiple comparisons **24**

Supplementary Note 1: Trust measure instruments

To measure trust in the lab study, we utilize the three dimensions established in the organizational trust literature: integrity, competence, and benevolence. Our trust scales measured trust in state government, local government, and federal government as well as in institutions such as the supreme court, religious leaders, congress, and the executive branch.

Main government trust measure

The same items were asked about three levels of government. Each item began "When it concerns elections ...". Items marked * form the validated nine-item version of the scale (three items for each dimension). For each level of government, each participant was randomly shown the items for one of the three dimensions. In the lab data, four competence items, three benevolence items and four integrity items were recorded for each level.

[Federal] *When it concerns elections ...*

Competence:
COMP1: The federal government is capable.*
COMP2: The federal government is effective.
COMP3: The federal government is skillful.
COMP4: The federal government is an expert.*
COMP5: The federal government carries out its duty very well.*

Benevolence:
BEN1: If citizens need help, the federal government will do its best to help them.*
BEN2: The federal government acts in the interest of citizens.*
BEN3: The federal government is genuinely interested in the wellbeing of citizens.*

Integrity:
INT1: The federal government approaches citizens in a sincere way.*
INT2: The federal government is sincere.*
INT3: The federal government keeps its commitments.
INT4: The federal government is honest.*

[State] *When it concerns elections ...*

Competence:
COMP1: My state government is capable.*
COMP2: My state government is effective.
COMP3: My state government is skillful.
COMP4: My state government is an expert.*
COMP5: My state government carries out its duty very well.*

Benevolence:
BEN1: If citizens need help, my state government will do its best to help them.*
BEN2: My state government acts in the interest of citizens.*
BEN3: My state government is genuinely interested in the wellbeing of citizens.*

Integrity:
INT1: My state government approaches citizens in a sincere way.*
INT2: My state government is sincere.*
INT3: My state government keeps its commitments.
INT4: My state government is honest.*

[Local] *When it concerns elections ...*

Competence:
COMP1: My local government is capable.*
COMP2: My local government is effective.
COMP3: My local government is skillful.
COMP4: My local government is an expert.*
COMP5: My local government carries out its duty very well.*

Benevolence:
BEN1: If citizens need help, my local government will do its best to help them.*
BEN2: My local government acts in the interest of citizens.*
BEN3: My local government is genuinely interested in the wellbeing of citizens.*

Integrity:
INT1: My local government approaches citizens in a sincere way.*
INT2: My local government is sincere.*
INT3: My local government keeps its commitments.
INT4: My local government is honest.*

Source: https://journals.sagepub.com/doi/10.1177/0020852315585950

ANES

People have different ideas about the government in Washington. These ideas don't refer to Democrats or Republicans in particular, but just to the government in general. We want to see how you feel about these ideas. For example...

1. How much of the time do you think you can trust the government in Washington to do what is right: Just about always/most of the time/or only some of the time;
2. Would you say the government is: Pretty much run by a few big interests looking out for themselves/or that it is run for the benefit of all the people;
3. Do you think that people in government: Waste a lot of the money we pay in taxes/waste some of it/or don't waste very much of it;
4. Do you feel that: Almost all of the people running the government are smart people who usually know what they are doing/or do you think that quite a few of them don't seem to know what they're doing;
5. Do you think that: Quite a few of the people running the government are a little crooked/not very many are/or do you think hardly any of them are crooked at all?

Source: https://electionstudies.org/wp-content/uploads/2018/04/gershtenson-plane-2007-trust-in-government.pdf

GSS

Would you say that most of the time people try to be helpful, or that they are just looking out for themselves?

Do you think most people would try to take advantage of you if they got the chance or would they try to be fair?

Some people say that most people can be trusted. Others say you can't be too careful in your dealings with people. How do you feel about it?

I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

- Executive branch of the federal government
- U.S. Supreme Court
- Congress
- Local Government
- State Government
- Etc. (Scientific Community, Press, TV, Organized Labor, . . .)

Source: https://electionstudies.org/wp-content/uploads/2018/04/nes011889.pdf

PEW

How much confidence do you have in the future of the United States?

Some people say they are basically content with the federal government, others say they are frustrated, and others say they are angry. Which of these best describes how you feel?

Source: https://www.pewresearch.org/politics/wp-content/uploads/sites/4/2021/05/PP_2021.05.17_scope-of-government_TOPLINE.pdf

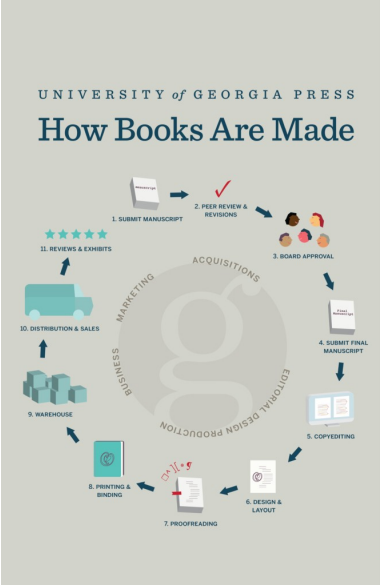
Vote-by-mail understanding (lab study, exploratory)

Participants rated how well they understand how to sign up to vote by mail, receive their ballot, complete their ballot and return their ballot, and how they would know their ballot was returned and counted (1–5).

Supplementary Note 2: Lab study instruments and regression tables

Supplementary Table 1 shows the prompts for each condition. Supplementary Table 2 shows the effect of each condition on trust by political orientation. Supplementary Table 3 shows the exploratory outcomes, and Supplementary Table 4 shows the effect on overall trust by 2020 vote and by voting method; the tests of whether effects differ between these groups are not significant ($p = 0.46$ and $p = 0.80$). Compared with an earlier version of this analysis, we corrected the coding of political orientation, which had excluded 13 participants whose scores fell on the boundaries between groups and scored missing answers as zero; the analysed sample is now 906 participants.

Supplementary Table 1: Lab study conditions and prompts.

Condition	Prompt
Control (video)	Please carefully watch the following "behind-the-scenes" video that explains how Krispy Kreme donuts are made. https://www.youtube.com/watch?v=0UV8E7vWxhU (embedded video)
Control (infographic)	Please review the following infographic that explains the process for how books are made. 

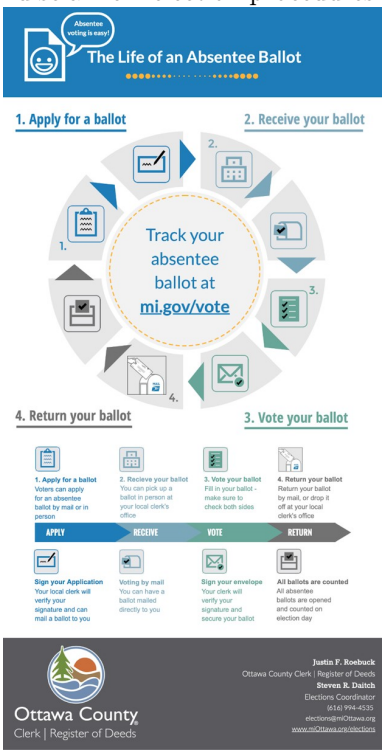
continued on next page

Supplementary Table 1 continued

Condition	Prompt
State-specific mail-in voting process (video)	*Ohio condition:* Please carefully watch the following "behind-the-scenes" video that explains the absentee voting process in Ohio. Absentee ballots are ballots typically submitted by mail in advance of an election by a registered voter. It is also referred to as "vote by mail." *disclaimer: election procedures may vary by county. https://www.youtube.com/watch?v=SqAv146yC70 (embedded video) [4pt] *California condition:* Please carefully watch the following "behind-the-scenes" video that explains the absentee voting process in California. Absentee ballots are ballots typically submitted by mail in advance of an election by a registered voter. It is also referred to as "vote by mail." *disclaimer: election procedures may vary by county. https://www.youtube.com/watch?v=62gNNDx5f-I (embedded video) [4pt] *Washington condition:* Please carefully watch the following "behind-the-scenes" video that explains the absentee voting process in Washington state. Absentee ballots are ballots typically submitted by mail in advance of an election by a registered voter. It is also referred to as "vote by mail." *disclaimer: election procedures may vary by county. Elections 2020: Track Your Ballot with the new Intelligent Mail Barcode from King County TV on Vimeo (https://vimeo.com/470369247) [4pt] *Missouri condition:* Please carefully watch the following "behind-the-scenes" video that explains the absentee voting process in Missouri. Absentee ballots are ballots typically submitted by mail in advance of an election by a registered voter. It is also referred to as "vote by mail." *disclaimer: election procedures may vary by county. https://www.youtube.com/watch?v=444fl8pZeeI (embedded video)
Mail-in voting process (US wide) (video)	Please carefully watch the following "behind-the-scenes" video that explains the absentee voting process in the United States. Absentee ballots are ballots typically submitted by mail in advance of an election by a registered voter. It is also referred to as "vote by mail." *disclaimer: election procedures may vary by county. https://www.youtube.com/watch?v=9-LhH3K9PxY (embedded video)

continued on next page

Supplementary Table 1 continued

Condition	Prompt
Mail-in voting process (infographic)	Absentee ballots are ballots typically submitted by mail in advance of an election by a registered voter. It can also be referred to as "vote by mail." *disclaimer: election procedures may vary by county. 
Ballot tracking (video)	Please carefully watch the following "behind-the-scenes" video that explains how mail or absentee ballots can be tracked in elections across the United States. Absentee ballots are ballots typically submitted by mail in advance of an election by a registered voter. It is also referred to as "vote by mail." *disclaimer: procedures may vary by county. Democracy Works – Ballot Scout from KJO Media on Vimeo (https://vimeo.com/589483475)

Supplementary Table 2: Lab study effect on trust in elections, by political lean.

	Overall	Local	State	Federal
	(1)	(2)	(3)	(4)
US Vote-by-Mail Process Video	8.495*	7.566	6.767	11.153**
	(4.509)	(5.003)	(5.334)	(5.331)
Ballot Tracking Video	−2.090	−1.133	−3.903	−1.235
	(4.512)	(5.005)	(5.337)	(5.334)
State Vote-by-Mail Process Video	−5.894	−9.540*	−8.512	0.369
	(4.783)	(5.306)	(5.658)	(5.655)
Vote-by-Mail Infographic	4.863	2.055	3.642	8.894
	(4.891)	(5.426)	(5.785)	(5.783)
Lean Left Politically	11.130***	4.872	8.337**	20.180***
	(3.307)	(3.668)	(3.911)	(3.909)
Middle Politically	5.239	0.445	3.123	12.150***
	(3.558)	(3.947)	(4.208)	(4.206)
Age Group	5.096***	5.944***	4.714***	4.630***
	(1.039)	(1.152)	(1.228)	(1.228)
Left × US Process	−1.881	−0.477	0.756	−5.923
	(5.514)	(6.117)	(6.522)	(6.519)
Left × Ballot Tracking	7.068	5.629	11.346*	4.229
	(5.561)	(6.169)	(6.578)	(6.574)
Left × State Process	10.475*	13.472**	17.811***	0.144
	(5.724)	(6.350)	(6.771)	(6.767)
Left × Infographic	−2.852	−1.818	0.817	−7.555
	(5.730)	(6.357)	(6.778)	(6.774)
Middle × US Process	−8.010	−6.966	−6.242	−10.823
	(5.930)	(6.578)	(7.014)	(7.011)
Middle × Ballot Tracking	7.880	5.967	9.385	8.289
	(6.047)	(6.708)	(7.153)	(7.149)
Middle × State Process	11.891*	17.260**	13.546*	4.868
	(6.136)	(6.807)	(7.258)	(7.255)
Middle × Infographic	1.565	4.825	5.098	−5.228
	(6.283)	(6.970)	(7.431)	(7.428)
Constant	35.877***	44.426***	40.888***	22.318***
	(3.382)	(3.752)	(4.001)	(3.999)
Observations	906	906	906	906
R^2	0.092	0.061	0.073	0.095
Adjusted R^2	0.076	0.045	0.057	0.080
Residual Std. Error	21.706	24.080	25.675	25.662
degrees of freedom	890	890	890	890
F Statistic	5.98***	3.83***	4.68***	6.24***
degrees of freedom	15; 890	15; 890	15; 890	15; 890

Note: *p<0.1; **p<0.05; ***p<0.01

Supplementary Table 3: Lab study effect on understanding, confidence in election officials and placebo outcomes.

	Understanding	Election officials	Science	Religion	Trust in people	Intends to vote in 2024
	(1)	(2)	(3)	(4)	(5)	(6)
US Vote-by-Mail Process Video	0.327***	0.195**	0.087	0.085	1.935	−0.003
	(0.098)	(0.089)	(0.085)	(0.112)	(2.211)	(0.107)
Ballot Tracking Video	0.136	−0.118	−0.104	−0.067	2.422	−0.039
	(0.101)	(0.091)	(0.087)	(0.114)	(2.265)	(0.108)
State Vote-by-Mail Process Video	0.145	0.144	0.063	−0.134	1.012	−0.018
	(0.099)	(0.089)	(0.085)	(0.112)	(2.228)	(0.107)
Vote-by-Mail Infographic	0.393***	0.123	0.035	−0.116	3.497	−0.018
	(0.098)	(0.088)	(0.084)	(0.111)	(2.196)	(0.106)
Lean Left Politically	0.472***	0.769***	1.063***	−0.096	10.788***	0.073
	(0.086)	(0.078)	(0.074)	(0.097)	(1.929)	(0.092)
Middle Politically	−0.004	0.351***	0.638***	−0.090	6.665***	−0.417***
	(0.093)	(0.084)	(0.080)	(0.106)	(2.091)	(0.100)
Age Group	0.230***	0.258***	0.056	0.055	3.708***	0.132***
	(0.047)	(0.043)	(0.041)	(0.053)	(1.060)	(0.051)
Constant	2.670***	1.486***	2.349***	2.591***	34.263***	4.357***
	(0.123)	(0.112)	(0.106)	(0.140)	(2.775)	(0.133)
Observations	906	902	905	905	906	890
R^2	0.097	0.144	0.194	0.007	0.047	0.048
Adjusted R^2	0.090	0.138	0.188	-0.000	0.040	0.041
Residual Std. Error	0.992	0.892	0.854	1.124	22.292	1.063
degrees of freedom	898	894	897	897	898	882
F Statistic	13.72***	21.56***	30.84***	0.96	6.33***	6.41***
degrees of freedom	7; 898	7; 894	7; 897	7; 897	7; 898	7; 882

Note: *p<0.1; **p<0.05; ***p<0.01

Supplementary Table 4: Lab study effect on overall trust in elections, by 2020 vote and voting method.

	Trump voters	Biden voters	In-person voters	Mail voters
	(1)	(2)	(3)	(4)
US Vote-by-Mail Process Video	9.375**	4.157	7.570**	2.218
	(4.195)	(2.788)	(3.139)	(3.265)
Ballot Tracking Video	−0.629	2.279	2.119	−0.503
	(4.325)	(2.766)	(3.178)	(3.365)
State Vote-by-Mail Process Video	−0.971	2.661	1.406	0.466
	(4.525)	(2.652)	(3.129)	(3.244)
Vote-by-Mail Infographic	3.691	1.675	3.969	0.949
	(4.688)	(2.610)	(3.008)	(3.389)
Lean Left Politically	8.941	9.275*	11.190***	19.786***
	(6.006)	(5.540)	(2.498)	(3.210)
Middle Politically	6.368*	6.739	8.493***	14.294***
	(3.428)	(5.711)	(2.747)	(3.568)
Age Group	2.263	7.026***	4.219***	6.315***
	(2.138)	(1.263)	(1.488)	(1.557)
Constant	38.777***	36.974***	35.267***	31.224***
	(5.082)	(6.072)	(3.684)	(4.664)
Observations	227	510	407	366
R^2	0.050	0.072	0.075	0.127
Adjusted R^2	0.020	0.060	0.058	0.110
Residual Std. Error	22.034	20.267	20.843	20.993
degrees of freedom	219	502	399	358
F Statistic	1.64	5.60***	4.60***	7.41***
degrees of freedom	7; 219	7; 502	7; 399	7; 358

Note: *p<0.1; **p<0.05; ***p<0.01

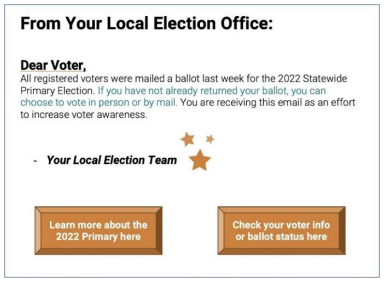
Supplementary Note 3: Shasta County pilot study instruments and regression tables

Supplementary Table 5 shows the effect of the pilot emails on voting and voting by mail in the June 2022 primary, compared with the basic reminder email (n = 37,755; 35,152 with voting history). Supplementary Table 6 shows their effect on trust among survey respondents (n = 406); political orientation is self-placed on a 1–7 scale. In exploratory analyses, the vote by mail security email increased perceived transparency (0.30 points on a five-point scale, 95% CI 0.02 to 0.58, $p = 0.038$) but not understanding of the vote-by-mail process (-0.02, $p = 0.86$; Supplementary Table 7).

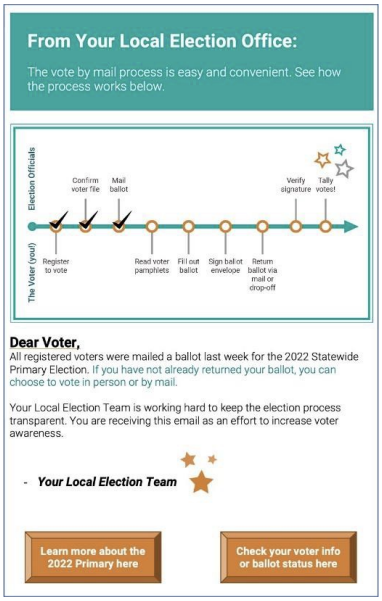
Shasta County pilot study emails

Each email read "[Condition]: Please review the following infographic that provided details about California's 2022 Statewide Primary.", followed by the infographic shown below.

Basic communication



Transparency of process



Security



Supplementary Fig. 1: Shasta County pilot study emails, by condition.

Supplementary Table 5: Shasta County June 2022 primaries behaviour.

	Voting			Voting-by-Mail		
	(1)	(2)	(3)	(4)	(5)	(6)
Vote-by-Mail Process	−0.012	−0.028	−0.006	0.006	−0.010	0.015
	(0.028)	(0.030)	(0.041)	(0.028)	(0.030)	(0.041)
Vote-by-Mail Security	0.015	0.027	0.053	0.009	0.021	0.023
	(0.027)	(0.030)	(0.040)	(0.027)	(0.030)	(0.040)
Left Political Party	0.0004	−0.055*	−0.006	0.163***	0.133***	0.176***
	(0.026)	(0.029)	(0.041)	(0.026)	(0.029)	(0.041)
No Party Preference	−0.545***	−0.397***	−0.403***	−0.421***	−0.260***	−0.289***
	(0.030)	(0.034)	(0.048)	(0.031)	(0.034)	(0.048)
Age	0.043***	0.035***	0.035***	0.042***	0.034***	0.034***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Frequency of Voting in		2.408***	2.409***		2.287***	2.288***
Eligible Elections		(0.040)	(0.040)		(0.040)	(0.040)
Left ×			−0.075			−0.101
Vote-by-Mail Process			(0.071)			(0.071)
Left ×			−0.120*			−0.072
Vote-by-Mail Security			(0.071)			(0.071)
No Party Preference ×			−0.008			0.016
Vote-by-Mail Process			(0.084)			(0.084)
No Party Preference ×			0.032			0.099
Vote-by-Mail Security			(0.082)			(0.082)
Constant	−2.230***	−3.383***	−3.396***	−2.412***	−3.499***	−3.507***
	(0.038)	(0.048)	(0.049)	(0.039)	(0.048)	(0.049)
Observations	37,755	35,152	35,152	37,755	35,152	35,152
Akaike Inf. Crit.	46,268.1	38,834.3	38,838.4	45,760.7	38,953.5	38,956.7

Note: *p<0.1; **p<0.05; ***p<0.01

Supplementary Table 6: Shasta County June 2022 primaries trust in groups.

	Without interactions				With interactions			
	Election official (1)	Local gov. (2)	State gov. (3)	Federal gov. (4)	Election official (5)	Local gov. (6)	State gov. (7)	Federal gov. (8)
Vote-by-Mail Process	0.223	−0.002	0.228	0.150	0.044	−0.208	0.373	0.363
	(0.225)	(0.224)	(0.197)	(0.203)	(0.357)	(0.355)	(0.312)	(0.320)
Vote-by-Mail Security	0.424*	0.481**	0.312	0.339*	0.330	0.228	0.311	0.450
	(0.220)	(0.219)	(0.193)	(0.199)	(0.355)	(0.352)	(0.312)	(0.321)
Left Political Party	2.486***	0.291	3.397***	2.365***	2.405***	0.125	3.431***	2.632***
	(0.207)	(0.206)	(0.181)	(0.187)	(0.286)	(0.285)	(0.249)	(0.256)
Middle Politically	0.640***	−0.013	1.459***	1.169***	0.471	−0.239	1.559***	1.036***
	(0.237)	(0.235)	(0.207)	(0.213)	(0.345)	(0.343)	(0.301)	(0.310)
Age	0.202***	0.096*	0.192***	0.152***	0.198***	0.093*	0.186***	0.150***
	(0.050)	(0.049)	(0.043)	(0.045)	(0.050)	(0.050)	(0.044)	(0.045)
Left ×					−0.040	0.035	−0.448	−0.852*
Vote-by-Mail Process					(0.517)	(0.514)	(0.451)	(0.463)
Left ×					0.354	0.631	0.277	−0.300
Vote-by-Mail Security					(0.507)	(0.504)	(0.444)	(0.456)
Middle ×					0.769	0.768	0.026	0.398
Vote-by-Mail Process					(0.583)	(0.579)	(0.509)	(0.523)
Middle ×					−0.085	0.143	−0.380	0.055
Vote-by-Mail Security					(0.570)	(0.566)	(0.499)	(0.512)
Constant	2.146***	2.953***	1.007***	1.391***	2.225***	3.074***	0.995***	1.322***
	(0.254)	(0.252)	(0.221)	(0.228)	(0.273)	(0.271)	(0.238)	(0.245)
Observations	406	405	405	405	406	405	405	405
R^2	0.294	0.030	0.480	0.301	0.301	0.041	0.485	0.312
Adjusted R^2	0.285	0.017	0.473	0.292	0.285	0.019	0.473	0.296
Residual Std. Error	1.823	1.813	1.591	1.640	1.823	1.811	1.590	1.635
degrees of freedom	400	399	399	399	396	395	395	395
F Statistic	33.29***	2.43**	73.53***	34.31***	18.95***	1.86*	41.36***	19.87***
degrees of freedom	5; 400	5; 399	5; 399	5; 399	9; 396	9; 395	9; 395	9; 395

Note: *p<0.1; **p<0.05; ***p<0.01

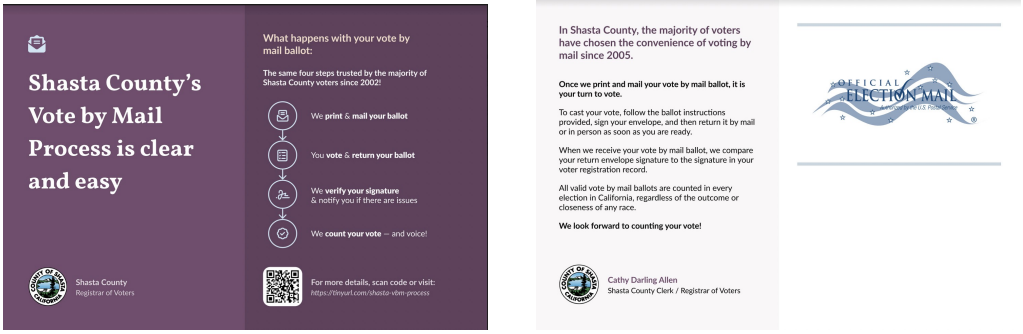
Supplementary Table 7: Shasta County pilot: effect of the emails on perceived transparency, understanding and beliefs about elections (exploratory).

	Transparency	Understanding	Fair elections	Mail fraud	In-person fraud	Votes counted
	(1)	(2)	(3)	(4)	(5)	(6)
Process Email	0.261*	0.126	0.264	−0.196	−0.166	0.044
	(0.147)	(0.111)	(0.165)	(0.147)	(0.135)	(0.151)
Security Email	0.297**	−0.019	0.212	−0.172	−0.371***	0.032
	(0.143)	(0.108)	(0.160)	(0.143)	(0.131)	(0.147)
Lean Left	1.354***	0.750***	1.380***	−2.669***	−1.333***	1.691***
	(0.135)	(0.102)	(0.151)	(0.135)	(0.124)	(0.139)
Middle	0.454***	0.052	0.465***	−1.103***	−0.231	0.531***
	(0.154)	(0.117)	(0.173)	(0.154)	(0.142)	(0.159)
Age	0.101***	0.100***	0.142***	−0.117***	−0.073**	0.105***
	(0.032)	(0.024)	(0.036)	(0.032)	(0.030)	(0.033)
Constant	2.027***	3.261***	1.808***	4.494***	3.031***	2.298***
	(0.165)	(0.125)	(0.185)	(0.165)	(0.152)	(0.170)
Observations	407	410	410	405	404	407
R^2	0.223	0.160	0.197	0.500	0.257	0.283
Adjusted R^2	0.214	0.149	0.187	0.493	0.247	0.274
Residual Std. Error	1.186	0.903	1.335	1.187	1.089	1.223
degrees of freedom	401	404	404	399	398	401
F Statistic	23.06***	15.36***	19.83***	79.67***	27.47***	31.67***
degrees of freedom	5; 401	5; 404	5; 404	5; 399	5; 398	5; 401

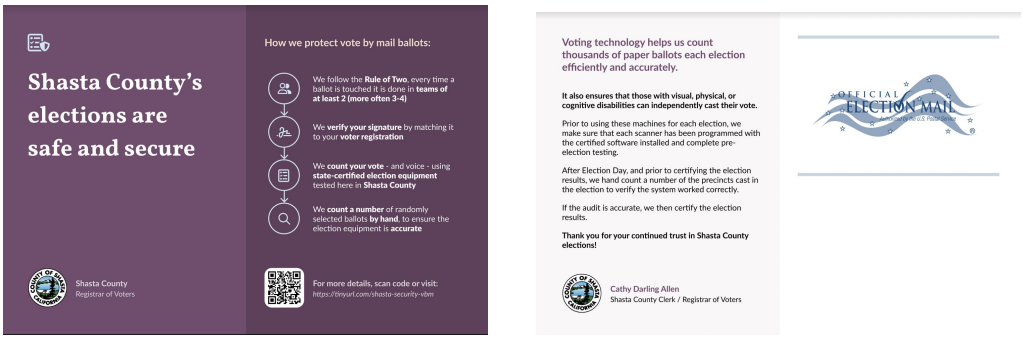
Note: *p<0.1; **p<0.05; ***p<0.01

Supplementary Note 4: Main field study: Shasta County postcards

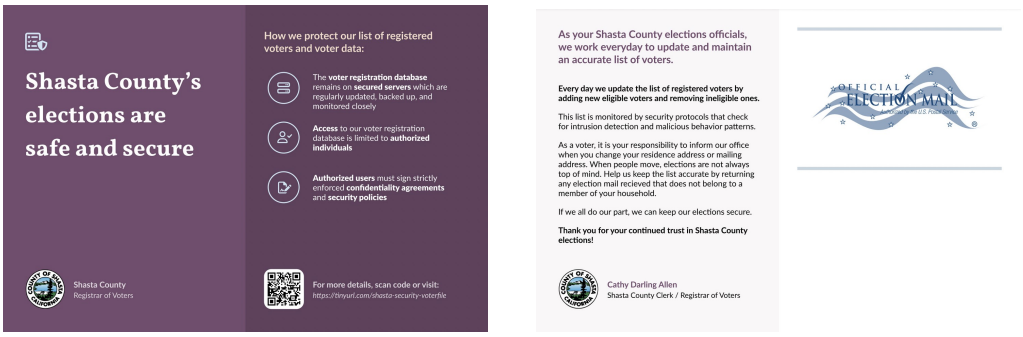
Condition 1: Transparency of vote by mail



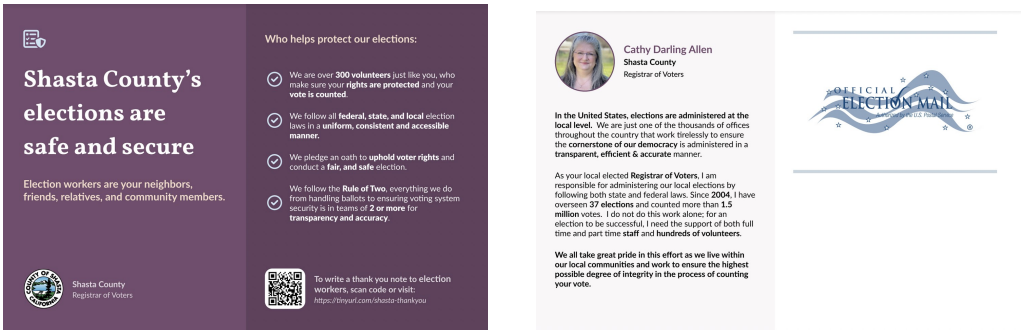
Condition 2: Vote by mail security



Condition 3: Voter file security



Condition 4: Election worker security



Supplementary Fig. 2: Shasta County postcards, front (left) and back (right) for each condition.

Supplementary Note 5: Balance tests

Supplementary Table 8 regresses each pre-treatment characteristic on condition: party registration, email on file, whether the voter had previously voted by mail, the share of eligible past elections in which they voted, and age. Voters in the vote by mail Security condition are 0.34 years younger than the control group ($p < 0.1$); no other characteristic differs.

Supplementary Table 8: Shasta County 2022 balance tests.

	Logistic					OLS	
	Left party	No preference	Right party	Email on file	Has voted by mail	Previous voting	Age
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Election Workers	−0.004	0.010	−0.004	0.018	−0.008	−0.001	−0.080
	(0.022)	(0.023)	(0.019)	(0.018)	(0.021)	(0.003)	(0.172)
Vote-by-Mail Process	−0.010	−0.011	0.014	0.006	0.014	0.002	0.009
	(0.022)	(0.023)	(0.019)	(0.018)	(0.021)	(0.003)	(0.172)
Vote-by-Mail Security	0.013	−0.0004	−0.009	0.023	−0.009	−0.004	−0.336*
	(0.021)	(0.023)	(0.019)	(0.018)	(0.021)	(0.003)	(0.172)
Voter File Security	−0.003	0.024	−0.013	0.005	0.005	0.003	0.018
	(0.022)	(0.023)	(0.019)	(0.018)	(0.021)	(0.003)	(0.172)
Constant	−1.093***	−1.363***	0.182***	−0.429***	1.166***	0.547***	52.750***
	(0.013)	(0.014)	(0.012)	(0.012)	(0.013)	(0.002)	(0.107)
Observations	104,918	104,918	104,918	111,597	109,771	109,771	111,562
R^2						0.000	0.000
Adjusted R^2						0.000	0.000
Residual Std. Error						0.356	19.028
degrees of freedom						109766	111557
F Statistic						1.15	1.28
degrees of freedom						4; 109766	4; 111557
Akaike Inf. Crit.	118,205.6	106,266.1	144,612.5	149,899.3	120,358.4		

Note: *p<0.1; **p<0.05; ***p<0.01

Supplementary Note 6: Main field study extra analysis

Control vs. treatment, behaviour and trust

Supplementary Table 9: Shasta County 2022 midterms behaviour: control vs. treatment.

	Voting			Voting-by-Mail		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.030*	0.036*	0.025	0.029*	0.034**	0.024
	(0.016)	(0.019)	(0.026)	(0.015)	(0.017)	(0.023)
Left Political Party	−0.365***	−0.419***	−0.418***	−0.033**	0.020	0.008
	(0.017)	(0.020)	(0.038)	(0.016)	(0.019)	(0.035)
No Party Preference	−0.860***	−0.485***	−0.520***	−0.590***	−0.201***	−0.223***
	(0.018)	(0.021)	(0.040)	(0.018)	(0.020)	(0.037)
Age	0.044***	0.021***	0.021***	0.039***	0.018***	0.018***
	(0.0004)	(0.0005)	(0.0005)	(0.0004)	(0.0004)	(0.0004)
Frequency of Voting in Eligible Elections		4.073***	4.073***		3.271***	3.271***
		(0.029)	(0.029)		(0.026)	(0.026)
Left × Treatment			−0.001			0.017
			(0.045)			(0.041)
No Party Preference × Treatment			0.049			0.030
			(0.047)			(0.044)
Constant	−1.452***	−2.358***	−2.350***	−1.725***	−2.489***	−2.482***
	(0.025)	(0.030)	(0.033)	(0.024)	(0.029)	(0.031)
Observations	102,695	101,058	101,058	102,695	101,058	101,058
Akaike Inf. Crit.	117,847.7	89,370.0	89,372.8	126,507.6	104,551.8	104,555.2

Note: *p<0.1; **p<0.05; ***p<0.01

Supplementary Table 10: Shasta County 2022 midterms trust: control vs. treatment.

	Without interactions				With interactions			
	Election official (1)	Election workers (2)	Local elections (3)	US elections (4)	Election official (5)	Election workers (6)	Local elections (7)	US elections (8)
Treatment	0.235	0.240	0.277**	0.092	0.411	0.380	0.290	0.086
	(0.172)	(0.154)	(0.115)	(0.118)	(0.274)	(0.245)	(0.182)	(0.188)
Lean Left Politically	2.907***	2.452***	1.905***	2.330***	3.275***	2.693***	2.057***	2.387***
	(0.158)	(0.142)	(0.106)	(0.109)	(0.336)	(0.301)	(0.225)	(0.232)
Middle Politically	2.080***	1.668***	1.266***	1.618***	1.961***	1.708***	0.944***	1.448***
	(0.184)	(0.166)	(0.124)	(0.128)	(0.438)	(0.393)	(0.293)	(0.302)
Age	0.190***	0.113***	0.138***	0.158***	0.190***	0.113***	0.136***	0.157***
	(0.047)	(0.042)	(0.032)	(0.033)	(0.047)	(0.042)	(0.032)	(0.033)
Left × Treatment					−0.476	−0.310	−0.199	−0.075
					(0.381)	(0.341)	(0.255)	(0.262)
Middle × Treatment					0.134	−0.055	0.384	0.204
					(0.483)	(0.434)	(0.324)	(0.334)
Constant	2.174***	2.990***	1.879***	1.262***	2.035***	2.878***	1.878***	1.271***
	(0.292)	(0.260)	(0.194)	(0.199)	(0.343)	(0.304)	(0.227)	(0.234)
Observations	630	630	633	631	630	630	633	631
R^2	0.371	0.336	0.360	0.441	0.373	0.336	0.363	0.442
Adjusted R^2	0.367	0.331	0.356	0.437	0.367	0.330	0.357	0.436
Residual Std. Error	1.744	1.568	1.172	1.205	1.743	1.569	1.171	1.207
degrees of freedom	625	625	628	626	623	623	626	624
F Statistic	92.17***	78.89***	88.27***	123.4***	61.86***	52.65***	59.52***	82.25***
degrees of freedom	4; 625	4; 625	4; 628	4; 626	6; 623	6; 623	6; 626	6; 624

Note: *p<0.1; **p<0.05; ***p<0.01

Trust in local, state, and federal government

Supplementary Table 11: Shasta County 2022 midterms trust in levels of government.

	Without interactions			With interactions		
	Local gov.	State gov.	Federal gov.	Local gov.	State gov.	Federal gov.
	(1)	(2)	(3)	(4)	(5)	(6)
Election Workers	0.139	0.232	0.100	0.322	0.307	0.273
	(0.214)	(0.182)	(0.192)	(0.345)	(0.293)	(0.310)
Vote-by-Mail Process	0.318	0.189	0.322	0.297	0.149	0.435
	(0.273)	(0.234)	(0.246)	(0.411)	(0.349)	(0.368)
Vote-by-Mail Security	0.467*	0.402*	0.376*	0.719*	0.569*	0.708**
	(0.246)	(0.211)	(0.222)	(0.388)	(0.330)	(0.348)
Voter File Security	0.138	0.279	0.125	0.092	0.184	0.148
	(0.203)	(0.173)	(0.183)	(0.321)	(0.273)	(0.289)
Lean Left Politically	1.078***	3.908***	3.343***	1.313***	4.176***	3.750***
	(0.162)	(0.139)	(0.146)	(0.344)	(0.292)	(0.308)
Middle Politically	0.952***	2.384***	2.194***	0.706	1.746***	1.771***
	(0.190)	(0.162)	(0.171)	(0.448)	(0.381)	(0.408)
Age	0.225***	0.171***	0.215***	0.217***	0.162***	0.210***
	(0.048)	(0.041)	(0.043)	(0.049)	(0.041)	(0.044)
Left × Election Workers				−0.594	−0.349	−0.605
				(0.480)	(0.407)	(0.430)
Left × Vote-by-Mail Process				0.165	−0.264	−0.503
				(0.621)	(0.528)	(0.556)
Left × Vote-by-Mail Security				−0.753	−0.934**	−1.083**
				(0.544)	(0.465)	(0.487)
Left × Voter File Security				0.001	−0.108	−0.197
				(0.455)	(0.386)	(0.408)
Middle × Election Workers				0.309	0.489	0.465
				(0.587)	(0.498)	(0.530)
Middle × Vote-by-Mail Process				0.050	0.848	0.538
				(0.733)	(0.623)	(0.660)
Middle × Vote-by-Mail Security				0.358	1.221**	0.709
				(0.700)	(0.595)	(0.631)
Middle × Voter File Security				0.341	0.820*	0.465
				(0.557)	(0.472)	(0.503)
Constant	2.223***	0.825***	0.918***	2.202***	0.865***	0.832***
	(0.297)	(0.253)	(0.267)	(0.348)	(0.296)	(0.312)
Observations	629	632	629	629	632	629
R^2	0.108	0.569	0.474	0.118	0.579	0.484
Adjusted R^2	0.098	0.564	0.468	0.096	0.569	0.471
Residual Std. Error	1.789	1.530	1.608	1.791	1.522	1.604
degrees of freedom	621	624	621	613	616	613
F Statistic	10.77***	117.5***	80.06***	5.46***	56.44***	38.31***
degrees of freedom	7; 621	7; 624	7; 621	15; 613	15; 616	15; 613

Note: *p<0.1; **p<0.05; ***p<0.01

Robustness checks

Supplementary Table 12 repeats the survey models of Table 2 with condition only, on the same respondents. Survey respondents were not a random sample of each condition, and their political orientation differed between conditions: 46.9% of respondents in the vote by mail process condition placed themselves on the right and 31.2% on the left, compared with 40.0% and 43.0% in the control group. Because right-leaning respondents report lower trust, condition effects are smaller without adjustment; only the effect of the vote by mail security condition on trust in local elections remains significant ($p = 0.048$).

Supplementary Table 13 repeats the voter file models with voting history, adding whether an email was on file; the condition effects are unchanged. Supplementary Table 14 repeats the models of Table 3 as linear probability models; 39 of 40 condition effects reach the same level of significance as in the logistic models.

Mediation by postcard

Supplementary Table 15 shows the effect of each postcard, compared with the no-contact control, on each of the six pre-registered mediators.

Supplementary Table 16 includes perceived transparency and the belief that one's vote is counted in the same model.

Supplementary Table 12: Shasta County survey data regression analysis, condition only.

	Election official (1)	Election workers (2)	Local elections (3)	US elections (4)
Election Workers	0.234	0.245	0.305*	0.103
	(0.262)	(0.228)	(0.173)	(0.191)
Vote-by-Mail Process	0.252	0.288	0.237	0.151
	(0.335)	(0.294)	(0.222)	(0.245)
Vote-by-Mail Security	0.358	0.420	0.398**	0.261
	(0.303)	(0.264)	(0.201)	(0.221)
Voter File Security	0.093	0.073	0.190	−0.036
	(0.248)	(0.216)	(0.164)	(0.181)
Constant	4.733***	4.886***	3.591***	3.318***
	(0.192)	(0.167)	(0.127)	(0.140)
Observations	630	630	633	631
R^2	0.003	0.006	0.008	0.004
Adjusted R^2	-0.003	-0.001	0.001	-0.002
Residual Std. Error	2.196	1.918	1.460	1.609
degrees of freedom	625	625	628	626
F Statistic	0.47	0.88	1.22	0.64
degrees of freedom	4; 625	4; 625	4; 628	4; 626

Note: *p<0.1; **p<0.05; ***p<0.01

Supplementary Table 13: Shasta County voter file regression analysis, controlling for whether an email was on file.

	Voting (1)	Voting-by-Mail (2)
Election Workers	0.022	0.029
	(0.025)	(0.023)
Vote-by-Mail Process	0.062**	0.048**
	(0.025)	(0.023)
Vote-by-Mail Security	0.053**	0.054**
	(0.025)	(0.023)
Voter File Security	0.007	0.006
	(0.025)	(0.023)
Left Political Party	−0.417***	0.016
	(0.020)	(0.019)
No Party Preference	−0.486***	−0.199***
	(0.021)	(0.020)
Age	0.020***	0.019***
	(0.001)	(0.0005)
Frequency of Voting in	4.077***	3.267***
Eligible Elections	(0.029)	(0.026)
Email on File	−0.040**	0.076***
	(0.017)	(0.016)
Constant	−2.330***	−2.545***
	(0.033)	(0.031)
Observations	101,058	101,058
Akaike Inf. Crit.	89,367.7	104,532.4

Note: *p<0.1; **p<0.05; ***p<0.01

Supplementary Table 14: Shasta County voter file regression analysis, linear probability models.

	Voting			Voting-by-Mail		
	(1)	(2)	(3)	(4)	(5)	(6)
Election Workers	0.003	0.003	0.002	0.004	0.005	0.004
	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.005)
Vote-by-Mail Process	0.010**	0.008**	0.008*	0.009**	0.008**	0.008
	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.005)
Vote-by-Mail Security	0.007*	0.007**	0.006	0.009**	0.009**	0.007
	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.005)
Voter File Security	0.003	0.001	−0.001	0.003	0.001	−0.002
	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.005)
Left Political Party	−0.073***	−0.061***	−0.061***	−0.008**	0.002	0.001
	(0.003)	(0.003)	(0.005)	(0.003)	(0.003)	(0.006)
No Party Preference	−0.183***	−0.080***	−0.086***	−0.131***	−0.037***	−0.041***
	(0.004)	(0.003)	(0.006)	(0.004)	(0.003)	(0.006)
Age	0.009***	0.003***	0.003***	0.009***	0.003***	0.003***
	(0.00007)	(0.00007)	(0.00007)	(0.00008)	(0.00008)	(0.00008)
Frequency of Voting in		0.730***	0.730***		0.665***	0.665***
Eligible Elections		(0.004)	(0.004)		(0.004)	(0.004)
Left × Election Workers			0.00002			0.003
			(0.009)			(0.009)
Left × Vote-by-Mail Process			0.006			0.008
			(0.009)			(0.009)
Left × Vote-by-Mail Security			−0.006			−0.0004
			(0.009)			(0.009)
Left × Voter File Security			−0.004			−0.003
			(0.009)			(0.009)
No Party Preference ×			0.009			0.004
Election Workers			(0.009)			(0.010)
No Party Preference ×			−0.006			−0.011
Vote-by-Mail Process			(0.009)			(0.010)
No Party Preference ×			0.014			0.013
Vote-by-Mail Security			(0.009)			(0.010)
No Party Preference ×			0.018*			0.016
Voter File Security			(0.009)			(0.010)
Constant	0.202***	0.098***	0.099***	0.113***	0.017***	0.018***
	(0.005)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
Observations	102,695	101,058	101,058	102,695	101,058	101,058
R^2	0.163	0.381	0.382	0.136	0.307	0.307
Adjusted R^2	0.162	0.381	0.381	0.136	0.307	0.307
Residual Std. Error	0.442	0.380	0.380	0.462	0.414	0.414
degrees of freedom	102687	101049	101041	102687	101049	101041
F Statistic	2847.1***	7789.6***	3895.7***	2309.5***	5601.3***	2801.4***
degrees of freedom	7; 102687	8; 101049	16; 101041	7; 102687	8; 101049	16; 101041

Note: *p<0.1; **p<0.05; ***p<0.01

Supplementary Table 15: Effect of each postcard on each pre-registered mediator.

	Transparency	Vote counted	Understanding	Know official	Capable	Motivated
	(1)	(2)	(3)	(4)	(5)	(6)
Vote-by-Mail Process	0.409**	0.404**	0.008	0.092	0.081	0.134
	(0.166)	(0.175)	(0.156)	(0.189)	(0.168)	(0.169)
Vote-by-Mail Security	0.344**	0.248	0.001	0.201	0.293*	0.270*
	(0.150)	(0.158)	(0.140)	(0.170)	(0.151)	(0.152)
Election Workers	0.258**	0.237*	−0.132	0.056	0.180	0.147
	(0.130)	(0.137)	(0.122)	(0.147)	(0.131)	(0.132)
Voter File Security	0.178	0.182	0.122	0.108	0.057	0.003
	(0.123)	(0.130)	(0.115)	(0.140)	(0.124)	(0.125)
Lean Left Politically	1.582***	2.061***	0.892***	0.740***	1.524***	1.492***
	(0.099)	(0.104)	(0.092)	(0.112)	(0.099)	(0.100)
Middle Politically	0.949***	1.441***	0.579***	0.588***	1.067***	1.036***
	(0.115)	(0.121)	(0.108)	(0.131)	(0.116)	(0.117)
Age	0.141***	0.100***	−0.019	0.051	0.088***	0.089***
	(0.029)	(0.031)	(0.027)	(0.033)	(0.030)	(0.030)
Constant	2.035***	2.010***	3.420***	1.817***	2.675***	2.714***
	(0.180)	(0.190)	(0.168)	(0.205)	(0.181)	(0.182)
Observations	632	633	630	632	633	632
R^2	0.314	0.404	0.140	0.075	0.293	0.281
Adjusted R^2	0.307	0.397	0.131	0.065	0.285	0.273
Residual Std. Error	1.089	1.146	1.016	1.235	1.097	1.103
degrees of freedom	624	625	622	624	625	624
F Statistic	40.89***	60.48***	14.50***	7.27***	36.92***	34.85***
degrees of freedom	7; 624	7; 625	7; 622	7; 624	7; 625	7; 624

Note: *p<0.1; **p<0.05; ***p<0.01

Supplementary Table 16: Perceived transparency and the belief that one's vote is counted as mediators in the same model (exploratory).

	Estimate	95% CI	Share of total effect
Indirect effect via perceived transparency	0.11**	0.02 to 0.20	40%
Indirect effect via my vote is counted	0.13**	0.01 to 0.25	46%
Both indirect effects together	0.24**	0.05 to 0.42	86%
Direct effect (not through either)	0.04	−0.09 to 0.18	14%
Total effect	0.28**	0.03 to 0.52	100%

Note: Effect of any postcard on trust in local elections (1–5). 10,000 nonparametric bootstrap draws; all models adjust for political orientation and age; $n = 632$. *p<0.1; **p<0.05; ***p<0.01

Supplementary Note 7: Multiple comparisons

Due to the number of conditions included in the main field study, and that the primary hypothesis of operational transparency increasing trust in elections was not condition specific, we performed a robustness check using the Benjamini–Hochberg procedure to control for the false discovery rate with behavioral outcomes. This method rank-orders p-values within a test and compares them to an adjusted critical value to determine significance. Voting and voting by mail models are adjusted together, despite only having a directional hypothesis for voting by mail results, not overall voting results. Main models and interaction models are adjusted separately. Adjusted p-values are shown in Supplementary Table 17.

The significant increases seen in voting and voting by mail for the vote by mail Process and vote by mail Security conditions ($p < 0.05$) are downgraded to trending towards significance (adjusted $p = 0.074$ to 0.075). The original interaction models only had trending results ($p = 0.073$ to 0.075), which became non-significant (adjusted $p = 0.63$).

Supplementary Table 17: Benjamini–Hochberg adjusted p-values for behavioural outcomes in the main field study.

Condition	Outcome	Model	p	BH-adjusted p
Election Workers	Voting	Main	0.378	0.504
Vote-by-Mail Process	Voting	Main	0.014	0.074
Vote-by-Mail Security	Voting	Main	0.038	0.075
Voter File Security	Voting	Main	0.789	0.808
Election Workers	By mail	Main	0.203	0.324
Vote-by-Mail Process	By mail	Main	0.036	0.075
Vote-by-Mail Security	By mail	Main	0.018	0.074
Voter File Security	By mail	Main	0.808	0.808
Vote-by-Mail Process (right)	Voting	Interaction	0.075	0.634
Voter File Security × No Party Preference	Voting	Interaction	0.073	0.634

Note: p-values are from the pre-registered logistic models with voting history (Table 3). Voting and voting by mail are adjusted together; main and interaction models are adjusted separately. In the interaction models, the condition term is the effect for voters registered with a right-leaning party. Interaction-model terms are shown only where $p < 0.1$; the adjustment uses all terms in the model.