Supplementary Material for "Voting Behavior under Doubts of Ballot Secrecy: (Un)Intentionally Nudging Voters Towards a Dominant Party Regime"

February 22, 2023

## 1 Tables for Figure 2 in the main manuscript

The following tables show the full results for Figure 2 in the main manuscript. Table 2a refers to Figure 2a. Table 2b refers to Figure 2b. Table 2c refers to Figure 2c. All regressions are weighted by age and ethnicity. In all cases, column (3) is the one chosen for Figure 2 in the main manuscript. For the sake of keeping tables to fit one page, the coefficients for "Hong Kong/Taiwan/Macao" and for "Japan, South Korean, South East of Asia" have been omitted in all cases, as well as the coefficients for "other" occupation (mostly, students and retired people), for "non binary" or no answer in gender, and no answer in the question on covid in the lab. Results using slightly different weights (either gender, age, and ethnicity, or gender and ethnicity) are very similar and are available upon request.

Table 2a: Individual correlates of doubts over ballot secrecy

Dependent variable: Believes that authorities track individual votes

Dependent variable: Believes that authorities track individual votes					
	(1)	(2)	(3)	(4)	
	Whole sample	Whole sample	Whole sample	Only HDB residents	
Age	-0.009	-0.006	-0.008	-0.011	
	(0.012)	(0.011)	(0.011)	(0.014)	
Born Singaporean	$0.039^{'}$	$0.035^{'}$	$0.065^{'}$	$0.047^{'}$	
	(0.057)	(0.058)	(0.064)	(0.081)	
Female	-0.001	-0.022	-0.014	-0.015	
	(0.033)	(0.032)	(0.033)	(0.036)	
Ethnicity (base: Chines	` /	,	,	,	
Malay Malay	-0.018	-0.081*	-0.080*	-0.088*	
Maiay	(0.048)				
T 1:	\ /	(0.048)	(0.047)	(0.047)	
Indian	0.008	0.022	0.021	0.018	
	(0.065)	(0.067)	(0.068)	(0.076)	
Formal education (base:	: Secondary at m	ost)			
ITE/Polytech/JC	0.060	0.079	0.065	0.068	
•	(0.057)	(0.054)	(0.056)	(0.062)	
BA/MA/PhD	-0.003	$0.053^{'}$	$0.022^{'}$	0.010	
, ,	(0.053)	(0.053)	(0.057)	(0.063)	
Hhd. monthly Income (	base: 4,000.7,000	)			
\$0 - \$3,999	0.057	0.058	0.061	0.057	
$\psi 0 = \psi 0,999$	(0.049)	(0.047)	(0.045)	(0.048)	
\$2,000 £14,000	` /	,	\ /	` ,	
\$8,000 - \$14,999	0.037	0.054	0.056	0.039	
- 01F 000	(0.040)	(0.037)	(0.039)	(0.044)	
> \$15,000	0.019 $(0.061)$	0.047 $(0.059)$	0.029 $(0.063)$	0.044 $(0.085)$	
	(0.001)	,	, ,	,	
Covid designed in		0.167***	0.163***	0.165***	
a lab (dummy)		(0.043)	(0.043)	(0.046)	
Trust in others (1–4)		-0.058***	-0.046**	-0.038*	
		(0.019)	(0.019)	(0.022)	
Political knowledge (dur	mmy)	-0.048	-0.037	-0.061	
		(0.049)	(0.048)	(0.051)	
Political interest (1–4)		-0.056***	-0.065***	-0.052***	
		(0.018)	(0.018)	(0.020)	
Public sector employee			-0.135***	-0.126***	
			(0.038)	(0.043)	
Distrust in mainstream media			0.090*	0.076	
			(0.052)	(0.060)	
Has lived outside SGP (dummy)			0.013	0.048	
			(0.050)	(0.056)	
West. Europe/USA/CA	N/AUS/NZ		0.188**	0.195**	
- , ,	, ,		(0.075)	(0.091)	
PRC			-0.059	-0.113	
			(0.100)	(0.116)	
Lives in public housing	(HDB)		$0.022^{'}$	· -	
1	` /		(0.044)	-	
Kampung spirit			, ,	-0.031	
				(0.022)	
Observations	1,002	1,002	1,002	842	
$R^2$	0.012	0.078	0.113	0.112	
C. 1	1	41 *** <0.0	0.110	0.1	

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

All regressions weighted by age and ethnicity.

Table 2b: Beliefs that individual voters are penalized when voting for the opposition

Dependent variable: Believes that opposition voters are penalized individually

Dependent var	iable: Believes the	hat opposition vo	ters are penalize	d individually
	(1)	(2)	(3)	(4)
	Whole sample	Whole sample	Whole sample	Only HDB residents
Age	-0.014*	-0.012	-0.013*	-0.015*
	(0.008)	(0.008)	(0.007)	(0.009)
Born Singaporean	0.066**	$0.057^{*}$	0.082**	0.092*
_ ::::	(0.030)	(0.031)	(0.037)	(0.049)
Female	-0.014	-0.015	-0.012	-0.026
1 0111010	(0.021)	(0.020)	(0.020)	(0.024)
Ethnicity (base: Chine	ese)			
Malay	-0.043	-0.073***	-0.076***	-0.067**
·	(0.027)	(0.027)	(0.027)	(0.028)
Indian	$0.073^{'}$	$0.076^{'}$	$0.073^{'}$	0.068
	(0.051)	(0.050)	(0.050)	(0.055)
Other ethnicity	-0.007	-0.051	0.016	0.076
O their commenty	(0.036)	(0.051)	(0.073)	(0.091)
Formal education (base	e: Secondary at	most)		
ITE/Polytech/JC	0.016	0.024	0.024	0.029
11 L/1 ory (cert/ se	(0.039)	(0.039)	(0.039)	(0.045)
BA/MA/PhD	-0.007	0.011	-0.004	-0.007
	(0.033)	(0.034)	(0.033)	(0.040)
Hhd. monthly Income	, ,	` ,	,	,
\$0 - \$3,999	0.070*	0.074**	0.069**	0.069*
$\psi 0 - \psi 0, ggg$	(0.036)	(0.036)	(0.034)	(0.037)
<b>e</b> e 000 <b>e</b> 14 000	` /	0.016	0.034) $0.027$	. ,
\$8,000 - \$14,999	0.012			0.030
. 015 000	(0.025)	(0.025)	(0.028)	(0.034)
> \$15,000	-0.038 $(0.029)$	-0.032 $(0.029)$	-0.027 $(0.032)$	-0.066** (0.031)
C: 1 1: 1 :	(0.020)	0.090***	0.085***	0.097**
Covid designed in				
(T) (1 (1 4)		(0.034)	(0.033)	(0.038)
Trust in others (1–4)		-0.023	-0.019	-0.013
D 1::: 11 11 /1	`	(0.014)	(0.013)	(0.016)
Political knowledge (di	ummy)	-0.053	-0.055	-0.056
		(0.034)	(0.034)	(0.036)
Political interest (1–4)		0.005	0.003	0.005
O/: /1	1 ::	(0.012)	(0.012)	(0.014)
Occupation (base: wor	ks in private sec	tor)	0.027	0.050*
Public sector			-0.037	-0.050* (0.027)
			(0.024)	(0.027)
Distrust in mainstream	n media		0.009	-0.002
			(0.035)	(0.042)
Has lived outside SGP	(dummy)		0.086**	0.093**
			(0.042)	(0.047)
West. Europe/USA/C	AN/AUS/NZ		0.089	0.148*
			(0.069)	(0.086)
PRC			-0.025	-0.076
Lives in public housing (HDB)			(0.081)	(0.090)
			0.420	` '
V			(0.026)	0.010
Kampung spirit				-0.012
01		4.005	4 005	(0.015)
Observations	1,002	1,002	1,002	842
$R^2$	0.027	0.055	0.090	0.105

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

All regressions weighted by age and ethnicity.

Table 2c: Voted for the incumbent out of fear of individual-targeted penalties

Dependent variable: Voted against opposition preference

De	Dependent variable: Voted against opposition preference				
	(1)	(2)	(3)	(4)	
	Whole sample	Whole sample	Whole sample	Only HDB residents	
Age	-0.002	-0.002	-0.001	-0.000	
0*	(0.006)	(0.005)	(0.005)	(0.007)	
Born Singaporean	0.039**	0.033**	0.043**	0.058**	
Dom Singaporean					
D 1	(0.015)	(0.016)	(0.019)	(0.025)	
Female	-0.021	-0.022*	-0.020	-0.028	
	(0.014)	(0.013)	(0.014)	(0.017)	
Ethnicity (base: Chir	nese)				
Malay	-0.010	-0.030	-0.032	-0.027	
	(0.020)	(0.021)	(0.022)	(0.023)	
Indian	$0.029^{'}$	$0.027^{'}$	$0.026^{'}$	$0.030^{'}$	
	(0.032)	(0.032)	(0.035)	(0.041)	
Other ethnicity	0.006	-0.013	0.004	0.017	
Other connerty	(0.022)				
	(0.022)	(0.036)	(0.050)	(0.066)	
Formal education (ba		,			
ITE/Polytech/JC	0.025	0.025	0.031	0.037	
	(0.024)	(0.023)	(0.027)	(0.033)	
BA/MA/PhD	0.025	0.031	0.036	0.049*	
	(0.019)	(0.019)	(0.022)	(0.029)	
Hhd. monthly Incom	e (base: 4.000-7.0	00)			
\$0 - \$3,999	0.036	0.035	0.030	0.029	
ΨΟ ΨΘ,555	(0.023)	(0.023)	(0.023)	(0.026)	
<b>e</b> e 000 <b>e</b> 14 000	` /	` /	` /	` ,	
\$8,000 - \$14,999	0.006	0.012	0.018	0.024	
<b>4.5</b> 000	(0.020)	(0.020)	(0.023)	(0.029)	
> \$15,000	-0.044***	-0.044***	-0.030*	-0.045**	
	(0.012)	(0.013)	(0.016)	(0.018)	
Covid designed in		0.069**	0.065**	0.074**	
		(0.028)	(0.028)	(0.032)	
Trust in others (1–4)		0.006	0.007	$0.014^{'}$	
( )		(0.011)	(0.011)	(0.013)	
Political knowledge (	dummy)	-0.034	-0.035	-0.046*	
ontilear knowledge (	adminy)	(0.023)	(0.023)	(0.026)	
Political interest (1 A	1)	-0.002	` /	0.002	
Political interest (1–4	<b>L</b> )	(0.002)	-0.003 $(0.009)$		
Occupation (base: wo	orks in private sec		(0.009)	(0.010)	
Public sector	orks in private see		-0.018	-0.019	
1 done sector			(0.017)	(0.020)	
			, ,	,	
Distrust in mainstrea	ım media		0.003	-0.004	
			(0.026)	(0.033)	
Has lived outside SGP (dummy)			0.045	0.045	
,			(0.035)	(0.040)	
West. Europe/USA/CAN/AUS/NZ			0.001	0.021	
- , ,	, ,		(0.042)	(0.055)	
PRC			-0.004	-0.006	
: =			(0.075)	(0.092)	
Lives in public housing (HDB)			0.038*	(0.002)	
Erves in public flousing (HDD)			(0.019)	-	
Kampung spirit			(0.019)	-0.006	
rembane shin				(0.013)	
Observations	1,002	1 002	1 002	(0.013)	
$R^2$	,	1,002	1,002		
$\boldsymbol{n}$	0.016	0.041	$\frac{0.057}{01 ** p < 0.05 *}$	0.064	

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 All regressions weighted by age and ethnicity.

### 2 Punishments mentioned by respondents

We had 115 responses (11.5% of the total) to the question on punishments imposed by the authorities to those who do not vote for the incumbent. Only 2 of them explicitly refused to answer because they did not fully trust the survey (see their wording below). Another 47 were explicit "no comment" answers, in slightly varied wording. The remaining 66 answers were in reference to punishment. Only four of them conflated collective punishments with individual punishments. The other 62 correctly understood that our question referred to individual punishments only (even if they mention these punishments do not exist, as three respondents do). Below we (literally) transcribe all answers (we omit the 47 that state "no comment", "nil", etc.).

#### 2.1 Individual punishments mentioned by respondents (62)

"These people may have difficult seeking help from PAP anymore." 2. "Government assistance can be prolonged. Home application can be denied." 3. "I muself experienced it." 4. "especially those in civil service" 5. "Possible delayed promotion for civil servants who voted for opposition party" 6. "BTO" 7. "fine for voting the opposition" 8. "not given a chance to attend NDP parades. no given a chance to get a good BTO number. Not given a chance to enjoy the town estate upgrades due to insufficent and unfair funds allocation." 9. "Might be more difficult in getting a job in the civil sector." 10. "Many many years ago, a PAP MP was walking the grounds in my grandma's flat in Chai Chee, they did not visit my grandma's neighbor's flat. When my grandma asked the MP why he skipped them, he said because they voted for the opposition." 11. "getting financial aids" 12. "delaying in social welfare assistance." 13. "cannot get government job" 14. "No job" 15. "Implications to all related to you" 16. "Denial to welfare benefits. Lack of promotion coz I am a public servant." 17. "Job in public sector may not be given to one" 18. "Person I know has been harrassed by government tax authorities and other departments until he finally migrated." 19. "Reduce privileges" 20. "I believe in all country all Gov will have secrets." 21. "apply for HDB flat" 22. "maybe my wife cannot get ltvp or ltvp+ etc; we already married 10 years" 23. "Unable to get grants etc" 24. "sue until you bankrupt" 25. "The detention and exile of dissidents, and more often the institutional avoidance of hiring artists (writers, filmmakers) who are seen to have dissenting views of society and the politics espoused by the ruling party." 26. "no jobs no assistance" 27. "So I have not come across anyone being punish for voting opposition." 28. "Those people who work in the government sector for example LTA definitely voted for the PAP because they fear

their rice bowl will be crushed if they vote for the opposition." 29. "No evidential example." 30. "If you are a doctor but you did not vote for incubent...you will probably not able to open vr own clinic" 31. "Maybe a longer waiting time to get a flat" 32. "I think that voting is a secret. Whichever party the people join is their own freedom." 33. "If someone applies for PR in a family, he may not get it because the family voted for the opposition." 34. "Many ways the authoritative government link agencies can denied you of your citizen rights." 35. "Applying for public services or applying for help thru govt agencies. Priority might not be given or will be rejected" 36. "Possibly not being able to work in civil service positions" 37. "Some well known figures have more scrutiny in fines and taxes and survellance than others" 38. "Many people are working in government sector. Most are afraid that it will affec their career." 39. "For civil service employee. They will be consequenced that promotion or increment will not be given if they voted for opposition. This happen to my relatives in civil service for voting opposition." 40. "I don't believe in it fully but some of my friends said people who hold high posts are subjected to checks - who they voted for." 41. "cannot bto lor" 42. "unfavorable decisions might be taken against an individual if the boss or management is pro PAP or if the individual is working in the public or government-link organisation (but only if it comes to the boss/management knowledge that the individual voted for the opposition)" 43. "Difficulty in securing a job" 44. "GOVERMENT CAN INCRease tax and make the peop who vote for oppo suffer" 45. "hard to ask for help in finance problem" 46. "Someone who voted for opposition did not get a seat in pap kindergarten for her child." 47. "To apply for subsidy or grants most likely it is unsuccessful." 48. "They might not support those voting opposition" 49. "A personal friend was applying for a house but was rejected more than 10 times. When asked for help, they said "Oh we noticed that you werent a supporter of us, but since you applied more than 10 times, we shall help you. Next time support us okay" 50. "Heard might be difficult to get a HDB flat in the future." 51. "Any transactions/applications/appeals with govt schools/cpf/hdb etc may be rejected or delayed or doesnt lead to favourable outcomes." 52. "Delayed in any kind help when asked because government has majority of the priority to Singapore's funds." 53. "sued, not helped by government" 54. "Some might not get subsidies or scholarships because of that." 55. "My aunt was omitted/left out from important grassroots meeting after she did not vote for PAP" 56. "can't work government sector or get promoted" 57. "no priorities in BTO or other ballot projects or other privileges" 58. "Job prospects" 59. "Getting retrenched" 60. "When applying for Govt related job opportunities. Stand to lose out" 61. "you are not allowed to work in civil service" 62. "Especially in civil service...worry of being blacklist"

# 2.2 Respondents conflating individual with collective punishments (4)

1. "Upgrading was delayed" 2. "bad facilities management. estate gets move down the priority list for upgrading. transport links gets truncated" 3. "Usually you will see there is no upgrading to your HDB when you vote for opposition party." 4. "Delay upgrading and bad transportation"

#### 2.3 Respondents not fully trusting our survey (2)

1. "Who is this asking the above information? Is it government? Why is there such question coming up suddenly? Is there personal consequences or punishment really going on from then till now?" 2. "skip. don't think can trust this survey"