Supplamentary Information for "Long-Term Policymaking and Politicians' Beliefs about Voters: Evidence from a Three-Year Panel Study of Politicians"

Lior Sheffer
Tel Aviv University

Peter John Loewen
University of Toronto

Jack Lucas
University of Calgary

February 14, 2023

Contents

1 CMB Sample: Additional Information **3**

2 Additional Model: Logit **4**

3 Additional Models **5**

4 Multinomial Logit Model **7**

5 Election Proximity Models **8**

6 Validity: Theories Measure **10**

7 Robustness Test: Issue Importance and Issue Position **12**

1 CMB Sample: Additional Information

In the table below, we provide additional information on each of the annual samples. The sample is broadly representative of the population of municipal mayors and councillors on observable characteristics including province, municipal population size, and politician gender.

Table 1: Canadian Municipal Barometer: Annual Samples

	2020		2021		2022	
	Population	Sample	Population	Sample	Population	Sample
Overall Response Rate		22%		21%		23%
Province						
BC	12%	12.4%	12.0%	14%	11%	9%
AB	10%	12.2%	10.0%	15%	9%	11%
SK	2.5%	2.5%	2.5%	3%	2%	3%
MB	3%	3.7%	3.0%	2%	3%	2%
ON	36%	35.1%	36.0%	34%	36%	32%
QC	28%	25.4%	28.0%	22%	29%	35%
NB	3%	2.5%	3.0%	2%	3%	3%
NS	3%	3.4%	3.0%	6%	3%	3%
PEI	0.7%	0.9%	0.7%	9%	0.7%	0.9%
NFLD	1.5%	1.7	1.5%	10%	1.5%	1%
YT	0.2%	0.3%	0.2%	2%	0.2%	0.2%
NWT	0.2%	0.1%	0.2%	1%	0.2%	0.1%
Population Size						
9-15K	29%	29.3%	30.0%	29%	30%	26%
15-25K	21%	19.6%	21.0%	19%	21%	19%
25-50K	16%	16.5%	16.0%	16%	16%	15%
50-100K	12%	10%	12.0%	12%	12%	12%
100-500K	14%	16.2%	14.0%	16%	14%	15%
500K+	8%	8.5%	7.0%	8%	7%	8%
Gender						
Men	68%	69.5%	68%	66%	65%	41%
Women	32%	30.5%	32%	34%	35%	59%

2 Additional Model: Logit

Table 2 replicates the results in the main text using a logistic regression model. The direction and statistical significance of the main coefficients is identical to those reported in the main text.

Table 2: Logit: Effect of Politicians' Theory of Voters on Long-Term Policy Choice

	All Data	All Data	All Data	Short-Term	Long-Term
	(1)	(2)	(3)	(4)	(5)
Belief about Voters	0.70***	0.71***	0.81**		
	(0.23)	(0.24)	(0.36)		
Increased Short-Term Cost	−0.60***	−0.57***	−0.74***	−0.98***	−0.63*
	(0.15)	(0.16)	(0.19)	(0.31)	(0.37)
Years to Next Election		−0.06			
		(0.05)			
Age		−0.10			
		(0.32)			
Woman		−0.32***			
		(0.12)			
Education		−0.09*			
		(0.05)			
Ideology		−0.03			
		(0.03)			
mayor		−0.10			
		(0.17)			
Constant	0.67***	1.53***	0.99	−18.59	1.32
	(0.18)	(0.43)	(0.91)	(10,754.02)	(1.28)
Municipal FEs	No	No	Yes	Yes	Yes
Observations	1,473	1,367	1,473	708	522
Log Likelihood	−963.20	−883.16	−653.61	−256.67	−164.27
Akaike Inf. Crit.	1,932.39	1,784.32	2,055.22	1,025.35	762.54

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

3 Additional Models

Table 7 shows that both of the main results presented in the main text (the increased short term costs and the beliefs about voters) remain unchanged when we include the accountability treatment in the models.

Table 3: Robustness Test: Including Accountability Treatment

	(1)	(2)	(3)
Belief about Voters	0.16***	0.16***	0.15**
	(0.05)	(0.05)	(0.07)
Increased Short-Term Cost	−0.13***	−0.13***	−0.12***
	(0.03)	(0.03)	(0.03)
Accountability Treatment		0.02	0.03
		(0.03)	(0.03)
Constant	0.65***	0.64***	0.69***
	(0.04)	(0.04)	(0.19)
Municipal Fixed Effects	No	No	Yes
Observations	1,473	1,473	1,473
Adjusted R^2	0.02	0.02	0.12
Note:			*p<0.1; **p<0.05; ***p<0.01
			All models use OLS

Table 4 shows that the "Increased Short-Term Cost" variable is substantively large, statistically significant, and negative when we separately compare 2021 to 2020 responses and 2022 to 2020 responses in within-respondent models.

By asking the same question in the 2021 and 2022 surveys, we are able to further assess the possibility that individual respondents are trending in the direction of the short-term response, confounding our interpretation of the "short term cost" variable. We do not find support for this hypothesis; if anything, the within-respondent time-trend is in the direction of the long-term choice and the trend is not statistically significant.

Table 5 shows that the results of our subsample analyses in Table 4 are substantively identical when we include municipal fixed effects (as in the main text) or individual-level socio-demographic and political controls (columns two and four in the table).

Table 4: Additional Analysis: Question Type Across Years

2020 vs. 2021	-0.13^{***}
	(0.03)
2020 vs. 2022	-0.09^{***}
	(0.03)
Observations	2,456
Adjusted R^2	0.31
Note:	*p<0.1; **p<0.05; ***p<0.01

Table 5: Effect of Politicians' Theory of Voters on Long-Term Policy Choice

	Short Term	Short Term	Long Term	Long-Term
	(1)	(2)	(3)	(4)
Belief about Voters	-0.13^{***}	-0.14^{***}	-0.08	-0.09
	(0.05)	(0.05)	(0.06)	(0.06)
Increased Short-Term Cost		-0.07		0.11
		(0.10)		(0.11)
Years to Next Election		-0.08^{**}		-0.08^{*}
		(0.04)		(0.05)
Age		-0.04^{***}		0.01
		(0.01)		(0.02)
Woman		-0.02^{*}		0.003
		(0.01)		(0.01)
Education		-0.004		-0.09
		(0.06)		(0.07)
Ideology	0.13	1.07^{***}	0.75^{***}	0.68^{***}
	(0.45)	(0.12)	(0.26)	(0.15)
Municipal Fixed Effects	Yes	No	Yes	No
Observations	708	670	522	486
Adjusted R^2	0.18	0.02	0.15	0.01
Note:				*p<0.1; **p<0.05; ***p<0.01
				All models use OLS

4 Multinomial Logit Model

Table 6 shows that the results reported in Figure **??** in the main text are statistically robust. The base category in the model is a change from the first to the second vignette. The model therefore shows that politicians who believe voters are more focused on the long term are more likely to stick with the long term choice in both vignettes than politicians who believe voters are more focused on the short term.

Table 6: Beliefs About Voters and Policy Choices: Multinomial Logit

	Dependent variable:	
	Always Short Term	Always Long Term
	(1)	(2)
Belief About Voters	0.32	1.07**
	(0.62)	(0.45)
Constant	−0.94***	−0.15
	(0.32)	(0.24)
Akaike Inf. Crit.	887.52	887.52
Note:		*p<0.1; **p<0.05; ***p<0.01

5 Election Proximity Models

We provide the full suite of models for election proximity below. Only one is statistically significant (the bivariate model), and with the opposite relationship to the one we would expect. The within-respondent estimate – arguably the best test of the effect of election proximity on politicians' choices – shows a precise null relationship.

Table 7: Additional Analysis; Proximity to Next Election

	(1)	(2)	(3)
Years to Next Election	−0.02**	−0.01	0.02
	(0.01)	(0.01)	(0.01)
Belief about Voters		0.16***	
		(0.05)	
Increased Short-Term Cost		−0.12***	
		(0.03)	
Age		−0.03	
		(0.07)	
Woman		−0.07***	
		(0.03)	
University Degree		−0.02**	
		(0.01)	
Ideology		−0.01	
		(0.01)	
Constant	0.67***	0.85***	0.94**
	(0.02)	(0.10)	(0.41)
Politician FEs	No	No	No
Observations	2,448	1,367	2,448
Adjusted R^2	0.001	0.02	0.29
Note:	*p<0.1; **p<0.05; ***p<0.01		

We also assessed the possibility that election proximity is non-linearly related to policy choices. In the table below, we show that the relationship remains non-significant when we use "election year" rather than the continuous "years to next election" variable. Both

models use the same suite of individual-level controls (listed in column two in the table above).

Table 8: Additional Analysis; Proximity to Next Election

	(1)	(2)
Years to Next Election	−0.01	
	(0.01)	
Election Year		0.03
		(0.03)
Observations	1,367	1,367
Adjusted R^2	0.02	0.02
Note:	*p<0.1; **p<0.05; ***p<0.01	
	All models use OLS	

6 Validity: Theories Measure

In the main text, we introduced a measure of politicians' theories of voters' long-term or short-term orientations, and we noted that future studies could supplement our analysis by developing a richer multi-item measure of politicians' theoretical beliefs. Here, however, we provide additional evidence of the measure's validity by describing a second survey of elected local government officials in the United States. While this second study did not include our bridge vignette, it *did* include a question about politicians' theories of voters' time horizons, identical to the question described in the main text. The survey also included an open-ended text box providing an opportunity for respondents to describe concerns, misunderstanding, or objections to the question. This question was included in the CivicPulse Spring 2022 Local Policymaker Omnibus Survey, which draws a random sample of elected officials from U.S. local governments above 1,000 population. We have a total of 556 responses available from this survey.

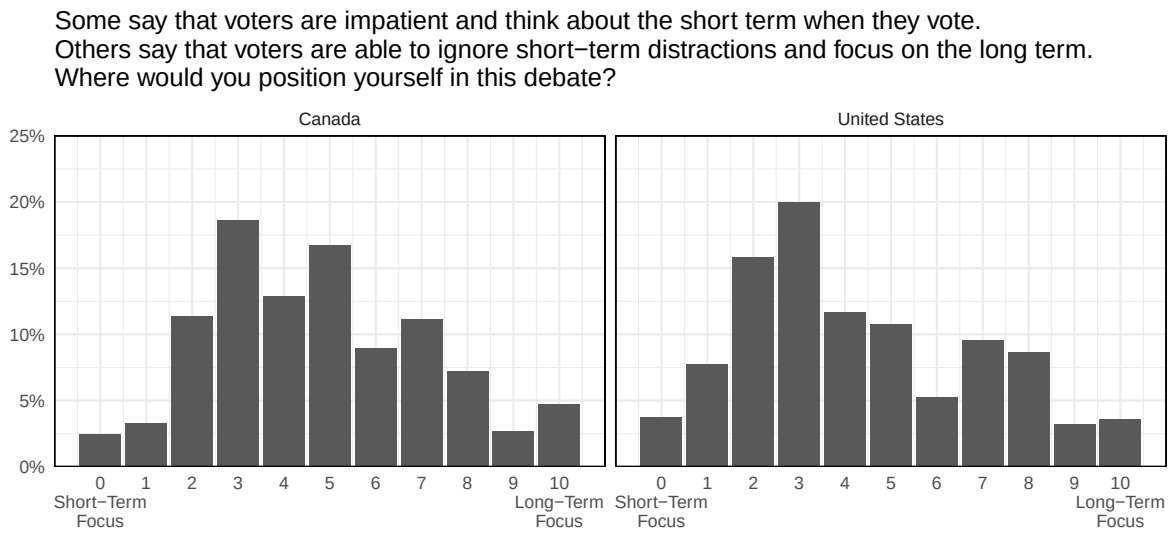

Figure 1: Distribution of Responses: Canada and USA

Three features of the responses to our survey of elected officials in the United States provide reassuring evidence of the validity of our measure. First, while non-response rates in the U.S. survey for all of the questions we included were higher, on average, than in our Canadian surveys, fewer than one in twenty respondents (4.3%) did not provide a response to the time horizons question. Second, none of the 115 individuals who provided

feedback in our open-ended feedback question expressed any concern with the concepts, wording, or logic of the time horizons question. While the feedback offered interesting additional context (for instance, respondents clarified that they were thinking of voters in their own community, rather than voters in general), we have no reason to believe, based on the feedback, that respondents misunderstood or were confused by the question. Finally, as we show in figure 1, the overall distribution of responses to the time horizons question among American politicians was similar to the distribution among Canadian politicians, providing further reassurance that responses are non-random and measure a meaningful belief among elected politicians. Taken together, these indicators suggest, at minimum, that our question was well understood by respondents and that they engaged with it meaningfully in both Canada and the United States.

7 Robustness Test: Issue Importance and Issue Position

Table 9 shows that politicians' beliefs about voters' time horizons remains statistically significant even when we control for politicians' beliefs about the importance of bridges and roads as a local election issue.

Table 9: Robustness: Roads and Bridges Issue Importance

	Dependent variable:		
	Low Importance	High Importance	As Control
	(1)	(2)	(3)
Belief About Voters	0.23**	0.15*	0.19***
	(0.09)	(0.09)	(0.06)
Increased Short-Term Costs	−0.08	−0.11**	−0.10***
	(0.06)	(0.04)	(0.04)
Issue Importance			0.001
			(0.03)
Constant	0.60***	0.66***	0.64***
	(0.07)	(0.05)	(0.05)
Observations	479	504	983
R^2	0.02	0.02	0.02
Adjusted R^2	0.01	0.01	0.01
Residual Std. Error	0.48 (df = 476)	0.47 (df = 501)	0.47 (df = 979)
F Statistic	4.10** (df = 2; 476)	4.74*** (df = 2; 501)	5.90*** (df = 3; 979)
Note:			*p<0.1; **p<0.05; ***p<0.01

An even more stringent test for our hypothesis would be to test for the relationship between politicians' beliefs and their 2022 vote choices when controlling for the politician's response to the policy choice vignette in 2020 or 2021. The results of this test are reported in table 10; the coefficient for politicians' beliefs about voters remains very similar in magnitude to those reported in the main text and is statistically significant at p¡0.1.

Table 10: Robustness Test: Including Past Policy Choice

	(1)	(2)
Belief about Voters	0.15^{*}	0.16^{*}
	(0.09)	(0.09)
Previous Policy Choice	0.25^{***}	0.25^{***}
	(0.05)	(0.05)
Treatment Group (B)		-0.08
		(0.06)
Treatment Group (C)		-0.11^{*}
		(0.06)
Treatment Group (D)		0.01
		(0.06)
Constant	0.37^{***}	0.41^{***}
	(0.06)	(0.07)
Observations	441	441
Adjusted R^2	0.06	0.06
Note:	*p<0.1; **p<0.05; ***p<0.01	
	All models use OLS	