Online Appendix
Talking it Out: Building Democratic Citizens in Unequal Democracies
By Amy Erica Smith, *British Journal of Political Science*
aesmith2@iastate.edu

Table A1. Characteristics of the Brazilian Population and the Sample

	2000 Census	Panel Study	
		% of respondents	Average waves responding
Male	49.2%	48.0%	2.89
Female	50.8%	52.0%	3.19
Urban	81.2%	NA	
Rural	18.8%	NA	
White	53.7%	70.1%	3.05
Black (*Preta*)	6.2%	8.5%	3.26
Asian descent (*Amarela*)	0.4%	0.5%	3.06
Brown (*Parda*)	38.5%	20.1%	3.29
Indigenous	0.4%	0.8%	2.79
% of voting aged (16 and over):			
Age 16-29	38.3%	27.3%	2.97
Age 30-49	38.4%	40.6%	3.20
Age 50-69	17.8%	24.8%	3.28
Age 70+	5.5%	7.3%	3.25
% of population aged 25 and over:			
No education	14.8%	2.0%	3.77
1-3 years of schooling	17.8%	9.5%	3.21
4-7 years of schooling	30.6%	31.8%	3.14
8 years of schooling	12.8%	12.0%	3.02
9-11 years (high school)	16.3%	26.6%	3.05
University (undergraduate)	6.4%	15.1%	2.90
Graduate education	0.4%	3.0%	2.89

Note: 2000 census data are reported by the IBGE. Race is self-identified in the Brazilian census, but interviewer-coded in the panel study. The panel study was limited to people of voting age (age 16 and over), but educational attainment is presented for those aged 25 and over for consistency with the census. The second column presents the respondents in each category, as a percentage of all 6,950 people who responded to this study in one or more waves. The third column presents the mean number of waves a person in that category responded to the study.

Table A2. Descriptive Statistics for Political Knowledge and Conversation

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Political conversation (coded 0-1): Mean	0.43	0.50	0.60	0.51	0.51	0.54
Standard Deviation	*0.28*	*0.29*	*0.28*	*0.29*	*0.30*	*0.29*
Candidates mentioned (coded 0-6): Mean	2.52	3.17	3.58		2.14	3.26
Standard Deviation	*1.85*	*1.35*	*1.37*		*1.43*	*1.24*
Issue knowledge (coded 0-2): Mean	1.29	1.30	1.31	1.01	0.93	1.13
Standard Deviation	*0.79*	*0.76*	*0.74*	*0.76*	*0.74*	*0.75*
Office-holder knowledge (coded 0-1): Mean	0.59		0.57	0.53	0.54	0.60
Standard Deviation	*0.39*		*0.40*	*0.32*	*0.35*	*0.35*
General knowledge ratings (coded 0-1): Mean	0.50	0.48	0.48	0.49	0.48	0.48
Standard Deviation	*0.26*	*0.26*	*0.26*	*0.24*	*0.26*	*0.24*
Correlation coefficients						
Candidate mentions & issue knowledge	0.37	0.35	0.19		0.23	0.22
Candidate mentions & office-holder knowl.	0.54		0.30		0.55	0.43
Candidate mentions & gen. knowl. ratings	0.50	0.47	0.32		0.53	0.47
Issue knowledge & office-holder knowl.	0.35		0.32	0.27	0.25	0.29
Issue knowledge & gen. knowledge ratings	0.36	0.36	0.31	0.24	0.27	0.30
Office-holder knowl. & gen. knowl. ratings	0.53		0.55	0.54	0.53	0.58

Note: Candidate mentions were not asked in Wave 4. Knowledge quiz was not administered in Wave 2.

Table A3. Descriptive Statistics for Political Knowledge and Conversation in **High-Education** Neighborhoods

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Political conversation (coded 0-1): Mean	0.50	0.58	0.66	0.60	0.60	0.61
Standard Deviation	*0.29*	*0.29*	*0.28*	*0.29*	*0.29*	*0.28*
Candidates mentioned (coded 0-6): Mean	3.21	3.57	3.76		2.79	3.65
Standard Deviation	*1.81*	*1.09*	*1.35*		*1.32*	*1.21*
Issue knowledge (coded 0-2): Mean	1.47	1.47	1.45	1.10	1.06	1.26
Standard Deviation	*0.73*	*0.71*	*0.70*	*0.77*	*0.75*	*0.73*
Office-holder knowledge (coded 0-1): Mean	0.70		0.70	0.64	0.68	0.71
Standard Deviation	*0.36*		*0.36*	*0.29*	*0.31*	*0.32*
General knowledge ratings (coded 0-1): Mean	0.59	0.59	0.60	0.60	0.60	0.59
Standard Deviation	*0.24*	*0.24*	*0.25*	*0.23*	*0.25*	*0.23*
Correlation coefficients						
Candidate mentions & issue knowledge	0.32	0.29	0.14		0.20	0.23
Candidate mentions & office-holder knowl.	0.49		0.24		0.50	0.41
Candidate mentions & gen. knowl. ratings	0.48	0.43	0.24		0.50	0.43
Issue knowledge & office-holder knowl.	0.29		0.24	0.23	0.21	0.29
Issue knowledge & gen. knowledge ratings	0.32	0.32	0.24	0.22	0.29	0.28
Office-holder knowl. & gen. knowl. ratings	0.48		0.51	0.50	0.51	0.50

Note: Candidate mentions were not asked in Wave 4. Knowledge quiz was not administered in Wave 2.

Table A4. Multi-Level Model: Determinants of Political Conversation

	Coefficient	Standard Error	p
Non-nested second level coefficients			
Neighborhood Education	0.020	0.009	0.031
Election Month	0.087	0.008	0.000
Individual-level coefficients			
Education	0.234	0.010	0.000
TV News Frequency	0.094	0.006	0.000
Newspaper Frequency	0.175	0.006	0.000
Income (logged; coded 0-1)	0.197	0.026	0.000
Race: "brown" skin	-0.007	0.005	0.164
Race: "black"	-0.018	0.007	0.009
Asian heritage	-0.036	0.022	0.099
Indigenous heritage	0.023	0.023	0.311
Female	-0.039	0.004	0.000
Age 30-49	0.023	0.005	0.000
Age 50-69	-0.015	0.006	0.022
Age 70+	-0.051	0.009	0.000
Has a Permanent Job	0.071	0.004	0.000
Student	0.070	0.007	0.000
Church Attendance	0.036	0.006	0.000
Juiz de Fora	0.049	0.008	0.000
Apartment Building	0.014	0.004	0.000
Constant	0.047	0.026	0.067
Number of observations	*18,150*		
Log likelihood	*-307.0114*		

Note: Models include random effects for waves and neighborhood. Dependent and all independent variables are coded to run from 0 to 1.

Table A5. Regression Models: Determinants of Political Knowledge, with Lags of Dependent and Time-Varying Independent Variables

	Number of Candidates Named		Issue Knowledge		Office-holder Knowledge (Waves 4-6)		Interviewer-Rated General Knowledge	
	Coefficient	Std Error	Coefficient	Std Error	Coefficient	Std Error	Coefficient	Std Error
Political conversation index	1.296*	0.143	0.393*	0.065	0.216*	0.033	0.104*	0.017
Political conversation (t-1)	-0.811*	0.129	-0.173*	0.057	-0.049	0.027	-0.036*	0.015
Conversation x Education	-0.773*	0.222	-0.017	0.109	-0.160*	0.050	-0.049	0.028
Conversation x Education (t-1)	0.635*	0.198	0.055	0.094	0.096*	0.041	0.115*	0.024
TV News Frequency	0.322*	0.050	0.071*	0.023	0.056*	0.012	0.037*	0.006
TV News Frequency (t-1)	0.244*	0.048	0.040	0.022	0.032*	0.012	0.013*	0.006
Newspaper Frequency	0.059	0.045	0.034	0.023	0.041*	0.012	0.041*	0.006
Newspaper Frequency (t-1)	0.084	0.043	0.011	0.022	0.008	0.012	0.007	0.006
Cooperativeness	0.339*	0.078	0.191*	0.035	0.048*	0.020	0.247*	0.010
Cooperativeness (t-1)	0.072	0.078	0.057	0.035	0.020	0.019	-0.036*	0.010
Education	1.088*	0.130	0.218*	0.059	0.268*	0.031	0.171*	0.016
Income (logged; coded 0-1)	0.396*	0.200	0.051	0.093	0.295*	0.055	0.209*	0.026
Female	-0.193*	0.027	-0.146*	0.013	-0.085*	0.007	-0.047*	0.004
Brown	-0.127*	0.036	0.017	0.016	-0.032*	0.009	-0.020*	0.004
Black	-0.190*	0.054	-0.033	0.023	-0.026	0.014	-0.032*	0.007
Yellow	-0.295	0.163	-0.057	0.055	-0.024	0.031	-0.018	0.021
Indian	-0.235	0.186	0.068	0.078	-0.027	0.033	-0.020	0.021
Age 30-49	-0.029	0.042	0.033	0.019	0.046*	0.011	0.019*	0.005
Age 50-69	-0.026	0.048	0.054*	0.022	0.091*	0.012	0.039*	0.006
Age 70+	-0.173*	0.064	0.015	0.030	0.075*	0.017	0.036*	0.008
Has a Permanent Job	-0.020	0.030	-0.014	0.015	-0.014	0.008	0.004	0.004
Student	0.236*	0.049	0.102*	0.024	-0.002	0.017	0.020*	0.006
Church Attendance	0.003	0.042	-0.009	0.020	-0.019	0.011	-0.003	0.005
Juiz de Fora	0.003	0.029	0.027	0.014	-0.054*	0.007	-0.017*	0.004
Apartment Building	-0.005	0.027	0.000	0.013	-0.007	0.007	-0.001	0.003
Dependent variable (t-1)	0.164*	0.010	0.315*	0.010	0.342*	0.013	0.326*	0.010
Constant	0.941*	0.154	0.233*	0.069	-0.120*	0.040	-0.169*	0.019
Observations	9619		12088		5948		12030	
R-Squared	0.224		0.209		0.451		0.491	

Note: All independent variables are coded to run from 0 to 1. Dependent variables are coded 0-3, 0-2, 0-1, and 0-1, respectively. Coefficients are significant at * $p<.05$.

Table A6. Non-nested Multilevel Models: Determinants of Political Knowledge (Coefficients presented in Figure 3)

	Number of Candidates Named		Issue Knowledge		Office-holder Knowledge		Interviewer-Rated General Knowledge	
	Coefficient	Std Error	Coefficient	Std Error	Coefficient	Std Error	Coefficient	Std Error
Second level coefficients: fixed effects								
Neighborhood Education	0.931*	0.115	0.249*	0.048	0.170*	0.028	0.036	0.025
Election Month	0.721*	0.342	0.061	0.138	0.026	0.017	-0.020	0.012
Individual-level coefficients								
Political conversation index	1.201*	0.082	0.480*	0.041	0.247*	0.020	0.106*	0.011
Conversation x Neigh. Ed.	-0.889*	0.137	-0.187*	0.069	-0.123*	0.033	0.050*	0.019
Education	1.236*	0.061	0.307*	0.030	0.417*	0.014	0.309*	0.008
TV News Frequency	0.519*	0.034	0.159*	0.017	0.091*	0.008	0.058*	0.005
Newspaper Frequency	0.128*	0.033	0.068*	0.017	0.070*	0.008	0.065*	0.005
Income (logged; coded 0-1)	1.439*	0.147	0.248*	0.075	0.334*	0.037	0.195*	0.020
Race: "brown" skin	-0.140*	0.028	0.004	0.014	-0.033*	0.007	-0.028*	0.004
Race: "black"	-0.196*	0.041	-0.009	0.020	-0.046*	0.010	-0.043*	0.006
Asian heritage	-0.060	0.130	-0.073	0.062	0.005	0.029	-0.030	0.017
Indigenous heritage	-0.100	0.130	0.034	0.065	-0.047	0.031	-0.011	0.018
Female	-0.313*	0.022	-0.187*	0.011	-0.152*	0.005	-0.071*	0.003
Age 30-49	0.116*	0.032	0.060*	0.016	0.057*	0.008	0.038*	0.004
Age 50-69	0.249*	0.037	0.083*	0.018	0.108*	0.009	0.065*	0.005
Age 70+	0.058	0.051	0.024	0.025	0.081*	0.012	0.063*	0.007
Cooperativeness	0.668*	0.057	0.342*	0.029	0.145*	0.014	0.303*	0.008
Has a Permanent Job	0.000	0.024	0.016	0.012	0.008	0.006	0.014*	0.003
Student	0.049	0.038	0.037	0.019	0.031*	0.010	0.017*	0.005
Church Attendance	-0.030	0.034	-0.043*	0.017	-0.031*	0.008	-0.009*	0.005
Juiz de Fora	0.140*	0.046	0.033*	0.016	-0.051*	0.011	-0.035*	0.012
Apartment Building	0.025	0.022	-0.012	0.011	-0.005	0.005	-0.006*	0.003
Constant	-0.761*	0.246	0.132	0.097	-0.207*	0.031	-0.177*	0.020
Number of observations	15173		17749		14086		17707	
Log likelihood	-25518.647		-18944.405		-3129.666		-4126.428	

Note: Models include random effects for waves and neighborhood. All independent variables are coded to run from 0 to 1. Dependent variables are coded 0-3, 0-2, 0-1, and 0-1, respectively. Coefficients are significant at * p<.05.

Table A7. Non-nested Multilevel Models: Determinants of Political Knowledge, Using Imputed Neighborhood Education Measure

	Number of Candidates Named		Issue Knowledge		Office-holder Knowledge		Interviewer-Rated General Knowledge	
	Coefficient	Std Error	Coefficient	Std Error	Coefficient	Std Error	Coefficient	Std Error
Second level coefficients: fixed effects								
Neighborhood Education	0.721*	0.111	0.234*	0.044	0.154*	0.026	0.030	0.022
Election Month	0.721*	0.343	0.062	0.138	0.026	0.017	-0.020	0.012
Individual-level coefficients								
Political conversation index	1.081*	0.070	0.466*	0.035	0.240*	0.017	0.111*	0.010
Conversation x Neigh. Ed.	-0.747*	0.124	-0.185*	0.062	-0.127*	0.030	0.046*	0.017
Education	1.243*	0.061	0.308*	0.030	0.417*	0.014	0.309*	0.008
TV News Frequency	0.521*	0.034	0.159*	0.017	0.091*	0.008	0.057*	0.005
Newspaper Frequency	0.130*	0.033	0.069*	0.017	0.071*	0.008	0.065*	0.005
Income (logged; coded 0-1)	1.465*	0.147	0.254*	0.075	0.338*	0.037	0.195*	0.020
Race: "brown" skin	-0.143*	0.028	0.003	0.014	-0.034*	0.007	-0.028*	0.004
Race: "black"	-0.199*	0.041	-0.009	0.020	-0.046*	0.010	-0.043*	0.006
Asian heritage	-0.063	0.130	-0.076	0.062	0.004	0.029	-0.030	0.017
Indigenous heritage	-0.110	0.130	0.030	0.065	-0.049	0.031	-0.011	0.018
Female	-0.314*	0.022	-0.188*	0.011	-0.152*	0.005	-0.071*	0.003
Age 30-49	0.117*	0.032	0.060*	0.016	0.057*	0.008	0.038*	0.004
Age 50-69	0.253*	0.037	0.084*	0.018	0.108*	0.009	0.065*	0.005
Age 70+	0.065	0.051	0.025	0.025	0.082*	0.012	0.064*	0.007
Cooperativeness	0.668*	0.057	0.341*	0.029	0.144*	0.014	0.303*	0.008
Has a Permanent Job	0.000	0.024	0.016	0.012	0.008	0.006	0.014*	0.003
Student	0.049	0.038	0.037	0.019	0.031*	0.010	0.017*	0.005
Church Attendance	-0.030	0.034	-0.043*	0.017	-0.031*	0.008	-0.009*	0.005
Juiz de Fora	0.167*	0.050	0.041*	0.016	-0.046*	0.012	-0.032*	0.012
Apartment Building	0.029	0.022	-0.011	0.011	-0.004	0.005	-0.006*	0.003
Constant	-0.654*	0.246	0.146	0.097	-0.196*	0.030	-0.174*	0.020
Number of observations	15173		17749		14086		17707	
Log likelihood	-25526.39		-18943.49		-3129.65		-4126.30	

Note: Neighborhood education based on non-imputed measure using 2000 Census data. Models include random effects for wave and neighborhood. All independent variables are coded to run from 0 to 1. Dependent variables are coded 0-3, 0-2, 0-1, and 0-1, respectively. Coefficients are significant at * p<.05.

Table A8. Fixed Effects Instrumental Variables Models: Determinants of Political Knowledge, with Exogenized Conversation Measure

	Candidates Mentioned	Issue Knowledge	Office-holder Knowledge	Interviewer-Rated General Knowledge
General Political Conversation	1.364*	0.997*	0.210	0.170
(Instrument)	*(0.664)*	*(0.439)*	*(0.157)*	*(0.122)*
TV News Frequency	0.321*	0.103	0.025	0.023
	(0.093)	*(0.061)*	*(0.023)*	*(0.017)*
Newspaper Frequency	-0.063	-0.124	0.034	0.022
	(0.104)	*(0.069)*	*(0.025)*	*(0.019)*
Education	0.028	0.023	0.013*	0.015*
	(0.022)	*(0.014)*	*(0.005)*	*(0.004)*
Age 30-49	-0.063	-0.015	-0.026	-0.009
	(0.134)	*(0.088)*	*(0.032)*	*(0.024)*
Age 50-69	0.091	-0.055	0.003	-0.002
	(0.167)	*(0.110)*	*(0.040)*	*(0.031)*
Senior Citizen (Age 70+)	0.071	0.039	0.026	-0.024
	(0.224)	*(0.148)*	*(0.055)*	*(0.041)*
Cooperativeness	0.013	-0.052	0.003	0.200*
	(0.143)	*(0.094)*	*(0.037)*	*(0.026)*
Wave 5	-1.083*	-0.400*	-0.012	-0.013*
	(0.036)	*(0.024)*	*(0.009)*	*(0.007)*
Number of observations	*3672*	*3664*	*3128*	*3646*
Sargan Statistic	2.395	5.756	1.223	11.667
Chi-Squared of Sargan Statistic	0.792	0.331	0.943	0.040
Cragg-Donald Wald F statistic	11.13	11.06	10.31	11.02

Notes: Models limited to waves 2 and 5 because of need for certain instruments. Excluded instruments include number of discussants named, employment status, church attendance, evangelicalism, race, and family size. The Sargan Statistic tests the endogeneity of the excluded instruments; in this case *acceptance* of the null hypothesis indicates that the excluded instruments are appropriately exogenous. The Cragg-Donald Wald F statistic tests weak identification; acceptance of the null hypothesis indicates that the endogenous regressor is weakly identified. The F-statistics of 11.13, 11.06, 11.02, and 10.31 exceed the Stock-Yogo (2005) critical values under several assumptions.