

## Online Appendix I: Additional Tables

**Table A1. Comparison of Village Characteristics with and without Village Elections or Direct Nomination**

Variables	Village with Direct Nomination	Village without Direct Nomination	Diff. (s.e.)	Village with Elections	Village without Elections	Diff. (s.e.)
Minority area	0.157	0.135	0.023 (0.038)	0.151	0.213	-0.062 (0.048)
Distance to town	4.914	5.441	-0.527 (0.601)	5.049	3.800	1.249 (0.764)
Western region	0.298	0.279	0.019 (0.047)	0.293	0.361	-0.068 (0.060)
Income per capita in 1998 (thousand <i>yuan</i> )	2.045	2.121	-0.077 (0.091)	2.032	2.169	-0.137 (0.097)
Population (thousand)	1.845	1.534	0.311** (0.122)	1.822	1.639	0.184 (0.160)
Disaster	0.491	0.621	-0.130** (0.052)	0.498	0.623	-0.125* (0.066)
Obs	854	104		897	61	

*Note:* Village characteristics include whether it is in a minority area, whether it is in the western region, its distance to the township, per capita net income (thousand *yuan*), total population of the village, and whether there is any natural disaster in the survey year. \*, \*\*, and \*\*\* denote the significance at the 10%, 5%, and 1% levels, respectively. In all later regressions, we control for provincial dummies, which fully absorb the dummy of western region, so the western dummy is dropped in regressions.

**Table A2. Variable Definition and Summary Statistics**

<b>Variable</b>	<b>Definition</b>	<b>Mean</b>	<b>Std. Dev.</b>
<i>Individual-level outcome</i>			
Happiness	Subjective well-being reported by the interviewees (1–5)	3.67	0.87
<i>Village-level outcome</i>			
Village head education	Years of schooling of the village head	10.06	2.15
Village head effort	Log (1+The times that the village head reports village problems to the township government and seeks its help)	1.31	0.63
Tax and fee cut	Equals 1 if households in the villiage enjoy the tax and fee cut; 0, otherwise	0.357	0.479
Gross tax and fee rate (0–1)	Sum of taxes and fees (incl. fines) paid by survey households/Sum of household incomes of survey households	0.037	0.034
Participate in rural pension	Equals 1 if the villiage participates in rural pension systems; 0, otherwise	0.069	0.253
Tap water ratio	Proportion of households in the village with access to tap water	0.353	0.450
Per capita public good	Log (1+Expenditure per capita on production service, education, medical care, infrastructure, and public welfare)	2.66	1.73
Per capita admin expenditure	Log (1+Administrative expenditure per capita)	1.19	1.24
<i>Village democracy</i>			
Village election	Equals 1 if village elections have been implemented by 2002; 0, otherwise	0.94	0.24
Direct nomination	Equals 1 if village committee members were directly nominated by villagers; 0, otherwise	0.88	0.31
<i>Interviewee controls</i>			
Age	Age of the interviewee	45.35	10.69
Male	Equals 1 if the interviewee is male; 0, if female	0.75	0.43
Minority	Equals 1 if the interviewee is of minor nationality; 0, otherwise	0.12	0.33
Mood	Equals 1 if the interviewee reports his or her mood status on the day of survey as “very good”; 0, otherwise	0.65	0.48
Married	Equals 1 if the interviewee is married; 0, otherwise	0.95	0.21
CCP	Equals 1 if the interviewee is a member of China’s Communist Party; 0, otherwise	0.16	0.37
Cadre_now	Equals 1 if the interviewee is currently a village cadre; 0, otherwise	0.16	0.37
Cadre_past	Equals 1 if the interviewee was a village cadre; 0, otherwise	0.21	0.41
Edu	Years of schooling of the interviewee	8.07	2.92

Number of children	Number of children of the interviewee	1.67	0.10
Health	Equals 1 if the interviewee reports his/her health status as “very healthy” or “healthy”; 0, otherwise	0.80	0.40
Log_houincpc	Logarithm of household net income per capita	7.70	0.69
Net wealth	Household net asset (in thousand <i>yuan</i> )	37.58	41.43
Working hours	Average daily primary job (non-agricultural) working hours	3.48	4.05
Unemployed	Equals 1 if the interviewee is unemployed; 0, otherwise	0.01	0.10
<i>Spouse characteristics</i>			
CCP_spouse	Equals 1 if the interviewee’s spouse is a member of China’s Communist Party; 0, otherwise	0.05	0.21
Cadre_now_spouse	Equals 1 if the interviewee’s spouse is currently a village cadre; 0, otherwise	0.07	0.26
Cadre_past_spouse	Equals 1 if the interviewee’s spouse is a village cadre; 0, otherwise	0.08	0.28
Edu_spouse	Years of schooling of the interviewee’s spouse	6.63	3.46
Health_spouse	Equals 1 if the interviewee’s spouse reports his/her health status as “very healthy” or “healthy”; 0, otherwise	0.78	0.42
Unemployed_spouse	Equals 1 if the interviewee’s spouse is unemployed; 0, otherwise	0.01	0.10
<i>Inter-family and intertemporal comparison</i>			
Much above average	Equals 1 if the income level of household in the village is much above average; 0, otherwise	0.02	0.13
Above average	Equals 1 if the income level of household in the village is above average; 0, otherwise	0.19	0.39
Much below average	Equals 1 if the income level of household in the village is much below average; 0, otherwise	0.03	0.16
Below average	Equals 1 if the income level of household in the village is below average; 0, otherwise	0.20	0.40
Living better	Equals 1 if the interviewee’s life is better compared with five years ago; 0, otherwise	0.61	0.49
Living worse	Equals 1 if the interviewee’s life is worse compared with five years ago; 0, otherwise	0.05	0.22
Income big increase	Equals 1 if the interviewee expects his or her household’s income to increase greatly in the next five years; 0, otherwise	0.10	0.29
Income small increase	Equals 1 if the interviewee expects his or her household’s income to increase slightly in the next five years; 0, otherwise	0.68	0.47
Income decrease	Equals 1 if the interviewee expects his or her household’s income to decrease in the next five years; 0, otherwise	0.04	0.20

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*Source:* CHIP 2002. See Table A1 for the summary statistics of village-level control variables.

**Table A3. Effects of Village Democracy on the Happiness of Villagers:  
OLS and 2SLS Full Results**

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Village elections	-0.068 (0.064)	-0.095 (0.064)	-0.094 (0.067)	-0.062 (0.064)	-2.1430 (1.3305)	-1.0311 (0.9629)	-0.9033 (0.9421)	-1.6320 (1.1806)
Direct nomination	0.098* (0.057)	0.094* (0.054)	0.105* (0.054)	0.098** (0.049)	1.6030* (0.9385)	1.2908* (0.7449)	1.0630 (0.6685)	1.4992* (0.8793)
Distance to town				0.001 (0.004)				0.0070 (0.0077)
Minority area				0.059 (0.061)				0.1165 (0.1106)
Income per capita in 1998				0.027 (0.017)				0.0281 (0.0256)
Population				0.003 (0.012)				-0.0146 (0.0219)
Disaster				0.025 (0.029)				-0.0017 (0.0608)
Age	0.003 (0.005)	-0.016*** (0.006)	-0.001 (0.007)	-0.005 (0.007)	-0.0024 (0.0070)	-0.0187** (0.0074)	-0.0016 (0.0085)	-0.0088 (0.0088)
Age <sup>2</sup>	-0.000 (0.000)	0.000*** (0.000)	0.000 (0.000)	0.000 (0.000)	0.0001 (0.0001)	0.0002*** (0.0001)	0.0001 (0.0001)	0.0002 (0.0001)
Male	-0.034 (0.023)	-0.047* (0.024)	-0.013 (0.027)	-0.025 (0.026)	-0.0444 (0.0321)	-0.0446 (0.0299)	-0.0209 (0.0323)	-0.0393 (0.0368)
Minority	0.051 (0.054)	0.059 (0.053)	0.068 (0.052)	0.053 (0.058)	0.0772 (0.0871)	0.1035 (0.0695)	0.1021 (0.0650)	0.0355 (0.0943)
Mood	0.611*** (0.025)	0.569*** (0.024)	0.554*** (0.025)	0.394*** (0.024)	0.6394*** (0.0355)	0.5826*** (0.0295)	0.5626*** (0.0277)	0.4257*** (0.0367)
Married		0.275*** (0.051)				0.2814*** (0.0570)		
CCP		0.079*** (0.026)	0.064** (0.027)	0.025 (0.025)		0.0775*** (0.0297)	0.0681** (0.0289)	0.0316 (0.0300)
Cadre_now		-0.021 (0.028)	0.015 (0.030)	-0.015 (0.029)		-0.0320 (0.0345)	0.0029 (0.0341)	-0.0345 (0.0367)
Cadre_past		-0.003 (0.026)	-0.010 (0.027)	-0.001 (0.025)		-0.0094 (0.0296)	-0.0118 (0.0290)	-0.0142 (0.0322)
Education		0.003 (0.004)	-0.002 (0.004)	-0.005 (0.003)		0.0026 (0.0041)	-0.0017 (0.0040)	-0.0038 (0.0043)
Number of children			-0.023** (0.012)	-0.031*** (0.011)			-0.0301** (0.0136)	-0.0408*** (0.0153)
Health		0.232*** (0.026)	0.162*** (0.027)	0.116*** (0.025)		0.2347*** (0.0318)	0.1567*** (0.0342)	0.1237*** (0.0385)
Log_houincpc		0.134*** (0.019)	0.121*** (0.019)	0.046** (0.018)		0.1416*** (0.0249)	0.1283*** (0.0228)	0.0609** (0.0261)
Net wealth		0.002*** (0.000)	0.001*** (0.000)	0.001** (0.000)		0.0015*** (0.0003)	0.0014*** (0.0003)	0.0007* (0.0004)
Working hour		-0.000	-0.001	0.001		-0.0006	-0.0012	0.0008

		(0.003)	(0.003)	(0.003)		(0.0033)	(0.0033)	(0.0037)
Unemployed		-0.098	-0.087	-0.094		-0.1537	-0.1465	-0.1669
		(0.084)	(0.092)	(0.084)		(0.1009)	(0.1075)	(0.1117)
CCP_spouse			-0.008	-0.031			0.0065	-0.0131
			(0.041)	(0.039)			(0.0442)	(0.0469)
Cadre_now_souse			-0.067	-0.052			-0.0544	-0.0305
			(0.043)	(0.041)			(0.0496)	(0.0532)
Cadre_past_spouse			0.009	-0.012			-0.0079	-0.0315
			(0.040)	(0.037)			(0.0447)	(0.0465)
Education_spouse			0.012***	0.009***			0.0080*	0.0051
			(0.003)	(0.003)			(0.0048)	(0.0054)
Health_spouse			0.120***	0.098***			0.1413***	0.1262***
			(0.026)	(0.024)			(0.0319)	(0.0354)
Unemployed_spouse			-0.154*	-0.152*			-0.1975**	-0.2225**
			(0.087)	(0.089)			(0.0977)	(0.1058)
Much above average				0.228***				0.2708***
				(0.061)				(0.0777)
Above average				0.147***				0.1407***
				(0.025)				(0.0322)
Much below average				-0.791***				-0.7403***
				(0.067)				(0.0830)
Below average				-0.273***				-0.2552***
				(0.028)				(0.0374)
Living better				0.226***				0.2091***
				(0.025)				(0.0332)
Living worse				-0.152***				-0.0822
				(0.053)				(0.0761)
Income big increase				0.210***				0.2091***
				(0.038)				(0.0515)
Income small increase				0.105***				0.1202***
				(0.027)				(0.0369)
Income decrease				-0.075				-0.0535
				(0.050)				(0.0654)
Provincial dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9,060	8,954	8,193	8,066	9,015	8,909	8,155	8,055
R <sup>2</sup>	0.203	0.239	0.235	0.315	-0.1664	0.0788	0.1244	0.0413
Cragg-Donald Statistic	F				14.764	16.253	13.643	10.829
Hansen J statistic (p-value)					0.161	0.383	0.382	0.337

*Notes: Standard errors in parentheses are robust to heteroscedasticity and clustered at the village level for all regressions. \*, \*\*, and \*\*\* significance at the 10%, 5%, and 1% levels, respectively.*

**Table A4. Effects of Village Democracy on Villagers' Happiness:  
Probit Regressions and Alternative Happiness Coding**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Village elections	-0.070*	-0.085**	-0.087**	-0.074*	-0.068*	-0.084**	-0.087**	-0.072*
	(0.040)	(0.040)	(0.041)	(0.043)	(0.040)	(0.041)	(0.041)	(0.044)
Direct nomination	0.072**	0.068**	0.072**	0.077**	0.070**	0.067**	0.071**	0.076**
	(0.034)	(0.033)	(0.033)	(0.034)	(0.034)	(0.033)	(0.033)	(0.034)
Minority area				-0.000				-0.000
				(0.002)				(0.002)
Distance to town				0.041				0.045
				(0.047)				(0.047)
Income per capita in 1998				0.022*				0.023*
				(0.012)				(0.013)
Population				0.010				0.011
				(0.010)				(0.010)
Disaster				0.006				0.008
				(0.021)				(0.021)
Age	0.003	-0.006*	-0.001	-0.002	0.004	-0.006*	-0.001	-0.002
	(0.003)	(0.004)	(0.005)	(0.005)	(0.003)	(0.004)	(0.005)	(0.005)
Age <sup>2</sup>	-0.000	0.000**	0.000	0.000	-0.000	0.000**	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Male	-0.021	-0.031*	-0.014	-0.024	-0.020	-0.031*	-0.013	-0.025
	(0.015)	(0.016)	(0.018)	(0.018)	(0.015)	(0.016)	(0.018)	(0.018)
Minority	0.031	0.040	0.039	0.038	0.033	0.042	0.042	0.040
	(0.034)	(0.034)	(0.035)	(0.042)	(0.034)	(0.034)	(0.035)	(0.042)
Mood	0.348***	0.334***	0.329***	0.259***	0.352***	0.338***	0.334***	0.265***
	(0.014)	(0.014)	(0.015)	(0.016)	(0.014)	(0.014)	(0.015)	(0.016)
Married		0.109***				0.111***		
		(0.028)				(0.028)		
CCP		0.048***	0.041**	0.023		0.051***	0.044**	0.026
		(0.018)	(0.018)	(0.019)		(0.018)	(0.018)	(0.019)
Cadre_now		-0.002	0.015	-0.006		-0.006	0.013	-0.008
		(0.019)	(0.020)	(0.021)		(0.019)	(0.020)	(0.021)
Cadre_past		-0.001	-0.009	-0.000		-0.000	-0.009	0.000
		(0.017)	(0.018)	(0.018)		(0.017)	(0.018)	(0.018)
Education		0.002	0.001	-0.001		0.002	0.000	-0.001
		(0.002)	(0.002)	(0.002)		(0.002)	(0.002)	(0.002)
Number of children			-0.009	-0.015*			-0.010	-0.016*
			(0.008)	(0.008)			(0.008)	(0.008)
Health		0.129***	0.090***	0.074***		0.128***	0.089***	0.072***
		(0.017)	(0.019)	(0.019)		(0.017)	(0.019)	(0.019)
Log_houincpc		0.080***	0.074***	0.035***				
		(0.012)	(0.012)	(0.012)				
Net wealth		0.001***	0.001***	0.001**		0.082***	0.076***	0.037***
		(0.000)	(0.000)	(0.000)		(0.012)	(0.012)	(0.012)
Working hour		0.000	0.000	0.000		0.001***	0.001***	0.001**
		(0.002)	(0.002)	(0.002)		(0.000)	(0.000)	(0.000)

Unemployed	-0.015 (0.051)	0.005 (0.059)	0.004 (0.056)	0.001 (0.002)	0.000 (0.002)	0.001 (0.002)		
CCP_spouse		0.002 (0.031)	-0.010 (0.032)	-0.031 (0.051)	-0.009 (0.059)	-0.014 (0.057)		
Cadre_now_souse		-0.023 (0.032)	-0.016 (0.033)		-0.002 (0.031)	-0.013 (0.033)		
Cadre_past_spouse		0.011 (0.028)	-0.004 (0.029)		-0.025 (0.032)	-0.020 (0.033)		
Education_spouse		0.004 (0.002)	0.003 (0.003)		0.013 (0.028)	-0.005 (0.029)		
Health_spouse		0.068*** (0.018)	0.057*** (0.018)		0.004* (0.002)	0.004 (0.003)		
Unemployed_spouse		-0.105 (0.064)	-0.115* (0.069)		0.069*** (0.018)	0.058*** (0.018)		
Much above average			0.125*** (0.046)		-0.114* (0.064)	-0.127* (0.068)		
Above average			0.128*** (0.017)			0.129*** (0.047)		
Much below average			-0.324*** (0.044)			0.125*** (0.018)		
Below average			-0.133*** (0.019)			-0.321*** (0.044)		
Living better			0.132*** (0.018)			-0.134*** (0.019)		
Living worse			-0.052 (0.033)			0.131*** (0.018)		
Income big increase			0.124*** (0.025)			-0.051 (0.033)		
Income small increase			0.061*** (0.019)			0.123*** (0.025)		
Income decrease			-0.016 (0.034)			0.058*** (0.019)		
Provincial dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9,060	8,954	8,193	8,066	9,144	9,037	8,270	8,139
(Pseudo)R <sup>2</sup>	0.1427	0.1688	0.1686	0.2146	0.1449	0.1716	0.1717	0.2166

*Notes:* Robust standard errors in parentheses are clustered at the village level. \*, \*\*, and \*\*\* significance at the 10%, 5%, and 1% levels, respectively. Marginal effects are reported. Columns 1–4: happiness = 1 for answers of “very happy” and “happy;” = 0 for “just so-so,” “not very happy,” and “not happy at all”; Columns 5–8 code happiness in a similar way as Column 1–4, excepting coding happiness as 0 (rather than missing) for answer of “don’t know.”

**Table A5. Effects of Village Democracy on the Happiness of Villagers:  
Multi-level Modelling**

VARIABLES	(1) happy	(2) happy	(3) happy	(4) happy
Village elections	-0.056 (0.065)	-0.088 (0.064)	-0.100 (0.065)	-0.060 (0.062)
Direct nomination	0.088* (0.051)	0.084* (0.050)	0.096* (0.050)	0.089* (0.048)
Minority area				0.002 (0.003)
Distance to town				0.056 (0.066)
Income per capita in 1998				0.026* (0.015)
Population				0.002 (0.013)
Disaster				0.025 (0.030)
Age	0.003 (0.005)	-0.015*** (0.005)	-0.000 (0.006)	-0.005 (0.006)
Age <sup>2</sup>	-0.000 (0.000)	0.000*** (0.000)	0.000 (0.000)	0.000 (0.000)
Male	-0.010 (0.019)	-0.039* (0.020)	0.003 (0.022)	-0.001 (0.021)
Minority	0.077* (0.046)	0.089** (0.045)	0.090** (0.045)	0.084 (0.052)
Mood	0.559*** (0.017)	0.516*** (0.017)	0.500*** (0.018)	0.350*** (0.018)
Married		0.281*** (0.036)		
CCP		0.069*** (0.023)	0.057** (0.024)	0.023 (0.023)
Cadre_now		-0.030 (0.025)	-0.004 (0.026)	-0.028 (0.025)
Cadre_past		0.032 (0.023)	0.025 (0.023)	0.025 (0.022)
Education		0.005* (0.003)	0.001 (0.003)	-0.002 (0.003)
Number of children			-0.019* (0.010)	-0.021** (0.009)
Health		0.197*** (0.020)	0.144*** (0.023)	0.100*** (0.022)
Log_houincpc		0.134*** (0.014)	0.124*** (0.015)	0.044*** (0.014)
Net wealth		0.002*** (0.000)	0.001*** (0.000)	0.001** (0.000)
Working hour		0.002 (0.002)	0.000 (0.002)	0.001 (0.002)
Unemployed		-0.067 (0.081)	-0.096 (0.086)	-0.091 (0.082)
CCP_spouse			0.037 (0.039)	0.016 (0.037)
Cadre_now_spouse			-0.056 (0.039)	-0.037 (0.037)
Cadre_past_spouse			0.002 (0.035)	-0.010 (0.033)
Education_spouse			0.011***	0.009***

			(0.003)	(0.003)
Health_spouse			0.110***	0.089***
			(0.022)	(0.021)
Unemployed_spouse			-0.067	-0.074
			(0.075)	(0.071)
Much above average				0.224***
				(0.058)
Above average				0.171***
				(0.020)
Much below average				-0.751***
				(0.049)
Below average				-0.282***
				(0.020)
Living better				0.206***
				(0.018)
Living worse				-0.143***
				(0.037)
Income big increase				0.137***
				(0.032)
Income small increase				0.063***
				(0.021)
Income decrease				-0.065
				(0.040)
Constant	3.635***	2.288***	2.228***	3.025***
	(0.166)	(0.197)	(0.218)	(0.216)
Observations	9,060	8,954	8,193	8,066
Number of groups	959	959	957	943

*Notes:* Villages are at the higher level (level-2) and individuals are at the lower level (level-1). We allow heterogenous levels (“intercepts”) of villagers’ happiness across villages, heterogenous effects (“slopes”) of election and nomination methods, as well as non-zero covariance (“unstructured covariance”) among these three parameters. The results are similar to those in Table 2 with OLS regressions clustered at the village level. \*, \*\*, and \*\*\* significance at the 10%, 5%, and 1% levels, respectively.

**Table A6. Heterogeneous Effects of Village Elections on Happiness:  
OLS Estimations**

	Live Outside	Not Live Outside	Cadre	Not Cadre
	(1)	(2)	(3)	(4)
Village elections	-0.142 (0.151)	-0.054 (0.063)	-0.122 (0.097)	-0.045 (0.068)
Direct nomination	0.008 (0.103)	0.115** (0.052)	0.083 (0.079)	0.101* (0.052)
Province dummies	Yes	Yes	Yes	Yes
Interviewee full controls	Yes	Yes	Yes	Yes
Spouse controls	Yes	Yes	Yes	Yes
Inter-family and inter-temporal comparison	Yes	Yes	Yes	Yes
Village controls	Yes	Yes	Yes	Yes
Observations	1,050	7,025	1,298	6,787
(Pseudo) R <sup>2</sup>	0.320	0.322	0.309	0.321

*Notes:* Standard errors in parentheses are robust to heteroscedasticity and clustered at the village level for all regressions. \*, \*\*, and \*\*\* denote the significance at the 10%, 5%, and 1% levels, respectively. Columns 1 and 2 distinguish whether the individual lived outside the town for more than one year. Columns 3 and 4 separate current village cadres and other villagers. See Column 4 of Table A3 for the list of control variables, excepting that in Columns 3 and 4 we do not control for current cadre status.

## Online Appendix II: Heterogeneous Effects as Placebo Tests

Similar to market competitions, electoral competitions may reduce political rents (Stigler, 1972; Shepsle, 2001). In their experiment, Beath et al. (2017) found that public projects (e.g., roads, drinking water, etc.) decided by direct democracy are located further away from the houses of the village headmen. Therefore, we hypothesize that the impact of village democracy on subjective well-being may be heterogeneous depending on the villagers' position (i.e., village cadre or non-cadre). The subjective well-being of cadres may not improve owing to lower political rents, whereas non-cadre villagers may benefit from better governance performance.

Moreover, rural elections only determine the village-level leaders, thus affecting governance performance within the villages. That is, the impact is very limited outside the villages. Therefore, we hypothesize that the impact of rural elections on villagers is related to the villager-village connection: the closer the connection between villagers and village, the more benefits they will gain from village democracy.

In sum, we formulate another hypothesis for heterogeneity analysis:

**Hypothesis 3:** *The impact of village democracy in rural China on villagers' subjective well-being is heterogeneous between (1) cadres and non-cadres and (2) villagers living locally and living outside.*

Thus, we separate whether the individual lived outside the town, and whether the individual is a cadre or not. We report the heterogeneous effects in Table A6. The results show that direct nomination only significantly improves the happiness of the non-cadres villagers and those living locally but not that of the cadres and those ever living outside.

## **Online Appendix III: Rationale and Validity for Selected Instrumental Variables**

The instruments we use are as follows: (1) whether the village is in mountain areas, (2) number of years of the current village party secretary in office, and (3) whether the proportion of households with the five most popular surnames in the village is above 50%.

Mountain areas are strongly correlated with rural democracy in China. As O'Brien and Li (2000) proposed, grassroots democracy has been practiced in some remote (mountainous) villages even before the Organic Law was drafted. This is so because giving priority to promoting elections in remote rather than prosperous villages is beneficial to political stability, which is a critical target for local officials (Epstein, 1996; Birney, 2014). More specifically, in the event of losing control of election (such as an unexpected/uncontrolled candidate being elected) in remote villages, it would not seriously harm the interest of township officials; however, these officials would benefit from village economic development if elections do boost economic development and alleviate poverty (Lawrence, 1994). Since direct nomination of village leaders increases the competitiveness and uncertainty of election results, it adds to the potential risk of political stability involving in village elections, implying a correlation between direct nomination and mountainous area as well.

The rationales for using “number of years of the current village party secretary in office” as an instrument are as follows. On the one hand, when the village party secretary has been in the position for long, then the township government and villagers

may face higher incentives to keep a balance of village power by introducing competitive elections and villager nominations for the village head, given that both the party secretary and village head take roles in village decision making (Zhang et al., 2004). On the other hand, the longer the tenure of the party secretary, the more consolidated power he/she may have, the less threat to his/her power will a new village head brings, thus the more likely that the party secretary will accept competitive elections and villager nominations for the village head. O'Brien and Han (2009) found that in early 2000s, villager election committees in many provinces were more likely to be chaired by the party secretary rather than the village head.

Whether the proportion of households with the five largest surnames of the village exceeds 50% is taken as an instrument based on the important influence of clan force in China's rural politics and village democracy (Zhang et al., 2004; Shen & Yao, 2008). In particular, households with the same surname are assumed to belong to the same clan with common interests. If the villagers' surnames are scattered, then the struggle for interests of villagers will become markedly intense and the demand for elections will be high. If the proportion of a single surname is high, then the demand for elections will be reduced because the villagers have common interests from the beginning. Since direct nomination allows more candidates from different clans to participate the election, it becomes more common when surnames are scattered. Therefore, following Zhang et al. (2004), Gan et al. (2006; 2012), and Shen and Yao (2008), we use village surname composition as an instrumental variable for rural election and direct nomination.

The validity of instrumental variables requires the satisfaction of the exclusion

restriction condition, which means that the aforementioned three instrumental variables should not affect happiness through other channels rather than elections. Indeed, the existing literature seems to provide sufficient evidence on this—as suggested by Knight et al. (2009), after adjusting for income, living in mountainous area does not significantly affect happiness in rural China; additionally, the effects of clan and village power structure on happiness in rural China are also found to be highly contingent on individual-level variables (e.g., gender) and village-level variables (e.g., economic development) (Liu et al., 2021). Thus, conditional on a rich set of individual-level, family-level, and village-level control variables in our specifications, the selected instruments tend to satisfy the exclusion restriction condition.

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