APPENDICES

"Alien Enfranchisement and External Political Efficacy in Diverse Democracies"

Appendix A: Local non-citizen enfranchisement efforts in Switzerland

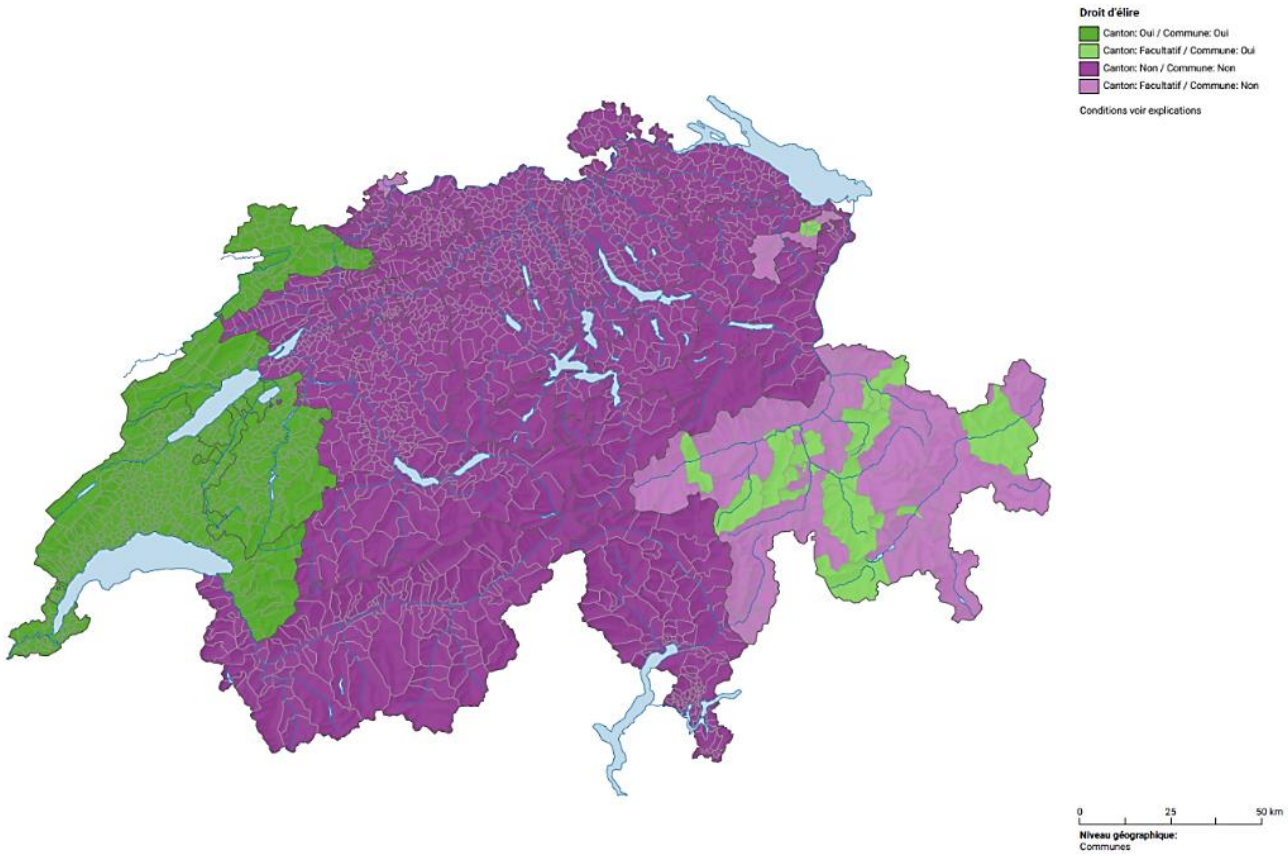
Table A1: Year of legislation and the level of enfranchisement reforms in Switzerland

Canton	**Non-citizen enfranchisement efforts (type/level/year)**	**Conditions for eligibility**	**Percentage yes vote accepting the policy**
Jura	Non-citizen enfranchisement at the municipal level: voting rights since 1977; limited to parliament until 2014, extended to the executive (except for the position of the mayor)	Minimum ten years of residency in Switzerland, thereof min. one year in the canton	70.0% (introduction of AE at the moment of foundation of the canton through the acceptance of the cantonal constitution)
Neuchâtel	Non-citizen enfranchisement in all municipalities since 2000[1]	Minimum one year of residency in the canton	76,6 % (when accepting full revised cantonal constitution)
Appenzell-Ausserrhoden	Since 1995, municipalities can introduce non-citizen enfranchisement at the municipal level (4/20 municipalities have introduced such political rights).	Minimum ten years of residency in Switzerland, thereof min. five years in the canton	Municipal assembly (*Landsgemeinde*)
Vaud	Non-citizen enfranchisement at the municipal level since 2002	Minimum ten years of continuous residency in Switzerland, thereof min. three years continuously in the canton	55.9%
Graubünden	Since 2004, municipalities can introduce non-citizen enfranchisement at the municipal level (23/105	No cantonal regulations on criteria of eligibility	59.7%

[1] Neuchâtel had introduced alien enfranchisement policies on the municipal level in 1849. However, the policy was removed in 1861, then reintroduced in 1874, and again removed in 1888. During the full revision of the cantonal constitution, active voting rights for non-citizens were re-introduced on the cantonal and municipal level in 2000, with the policy being implemented 2001. In 2007, two initiatives were proposed to introduce passive voting rights of non-citizens on the municipal and cantonal level, whereof only the initiative regarding passive voting rights on the municipal level was accepted with 54.4% of the votes in favor.

	municipalities have introduced such political rights)		
Geneva	Non-citizen enfranchisement at the municipal level since 2005	Minimum eight years of residency in the canton	52.3%
Fribourg	Non-citizen enfranchisement at the municipal level since 2006	Residence permit, minimum five years of residency in the canton	58.0%
Basel-Stadt	Since 2005, municipalities can introduce non-citizen enfranchisement at the municipal level.	No cantonal regulations on criteria of eligibility	76.%

Figure A1: Map of municipalities with and without alien enfranchisement across Switzerland (2020)



Source : Atlas Statistique de la Suisse & Zentrum für Demokratie Aarau

Table A2 : Introduction of non-citizen voting rights and constitutional changes across cantons

Canton	**Way of introducing non-citizen voting rights**	**Additional constitutional changes (if applicable)**
Jura	Establishment of canton in 1979 by adoption of a cantonal constitution	First cantonal constitution
Neuchatel	Active voting rights introduced in the context of full revision of the cantonal constitution	Full editorial revision of cantonal constitution to clarify the role of cantonal authorities and the rights and obligations between citizens and canton
	Passive voting rights introduced through popular initiative	No other changes occurred when passive voting rights were adopted
Appenzell Ausserrhoden	Voting rights introduced in the context of a full revision of the cantonal constitution	Editorial revision of the constitution. The changes further include an expansion of fundamental and social rights, clarifications about the obligations to provide information by the cantonal institutions, the separation of religion and state, and regulations about environmental protection.
Vaud	Voting rights introduced in the context of a full revision of the cantonal constitution	Full editorial revision clarified the *principes généraux* of the public service, reinforcement of the Grand Conseil (cantonal parliament), financial coordination among municipalities, introduction of a *Cour des comptes*, and minor changes in the naturalization procedures in the canton.
Graubünden	Voting rights introduced in the context of a full revision of the cantonal constitution	Editorial revision. Other, minor changes include the institutionalization of the cantonal constitutional court, the replacement of the mandatory by a facultative referendum and the constitutional confession to the trilingualism of the canton
Geneva	Popular initiative	Specific popular initiative referendum on the voting rights of non-citizens
Fribourg	Voting rights introduced in the context of a full revision of the cantonal constitution	A comprehensive revision of the cantonal constitution including sensitive issues such as the non-citizen voting rights, maternity insurance, Council of the Judiciary, on a system guaranteeing the balance of finances,

		on the maintenance of districts, revision of the preamble.[2]

While several cantons have adopted non-citizen voting (NCV) rights in the context of a general revision of the cantonal constitution, enlargement of enfranchisement to non-citizens was not linked to any other policy change that aimed particularly at enhancing political turnout among. In most cases, constitutional changes were minor and addressed editorial revisions of outdated constitutions and clarified responsibility of cantonal and municipal authorities (see table below for further details).

Sources: Adler et al. 2016; Historisches Lexikon der Schweiz (see https://hls-dhs-dss.ch/); Canton of Vaud (2008). Rapport du Conseil d'Etat au Grand Conseil, présentant le bilan de la mise en œuvre de la Constitution du 14 avril 2003 du Canton de Vaud, cinq ans après son entrée en vigueur : See https://www.vd.ch/fileadmin/user_upload/themes/etat_droit/lois/constitution/fichiers_pdf/RapportCst0908.pdf)

[2] https://www.letemps.ch/suisse/constituante-fribourgeoise-troisieme-derniere-lecture (*Le Temps* 15 January 2004).

Appendix B: Efficacy differences between Swiss cantons

Figure B1: Mean external efficacy by cantons 1999 & 2004

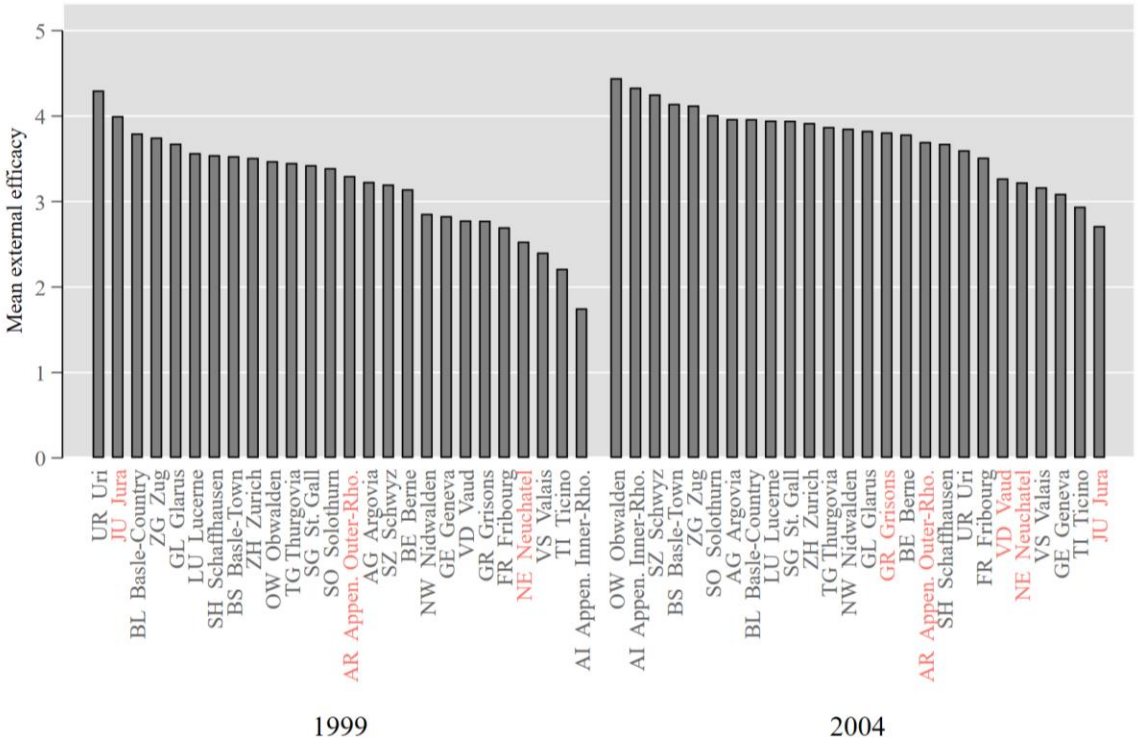
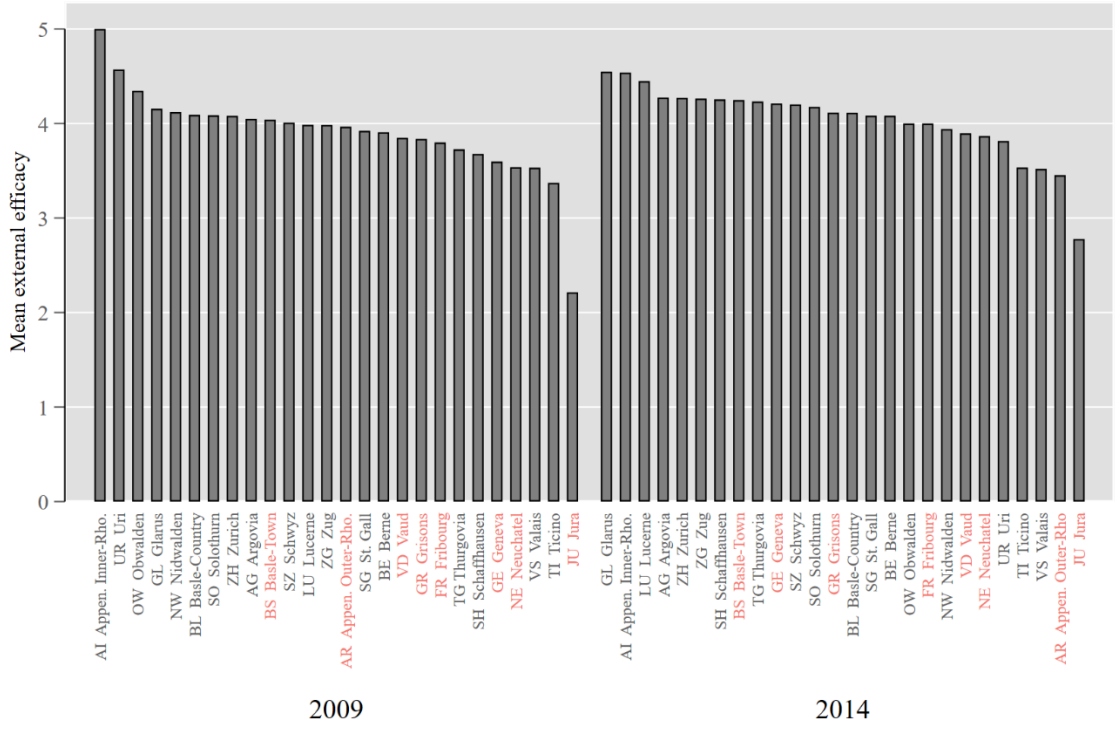
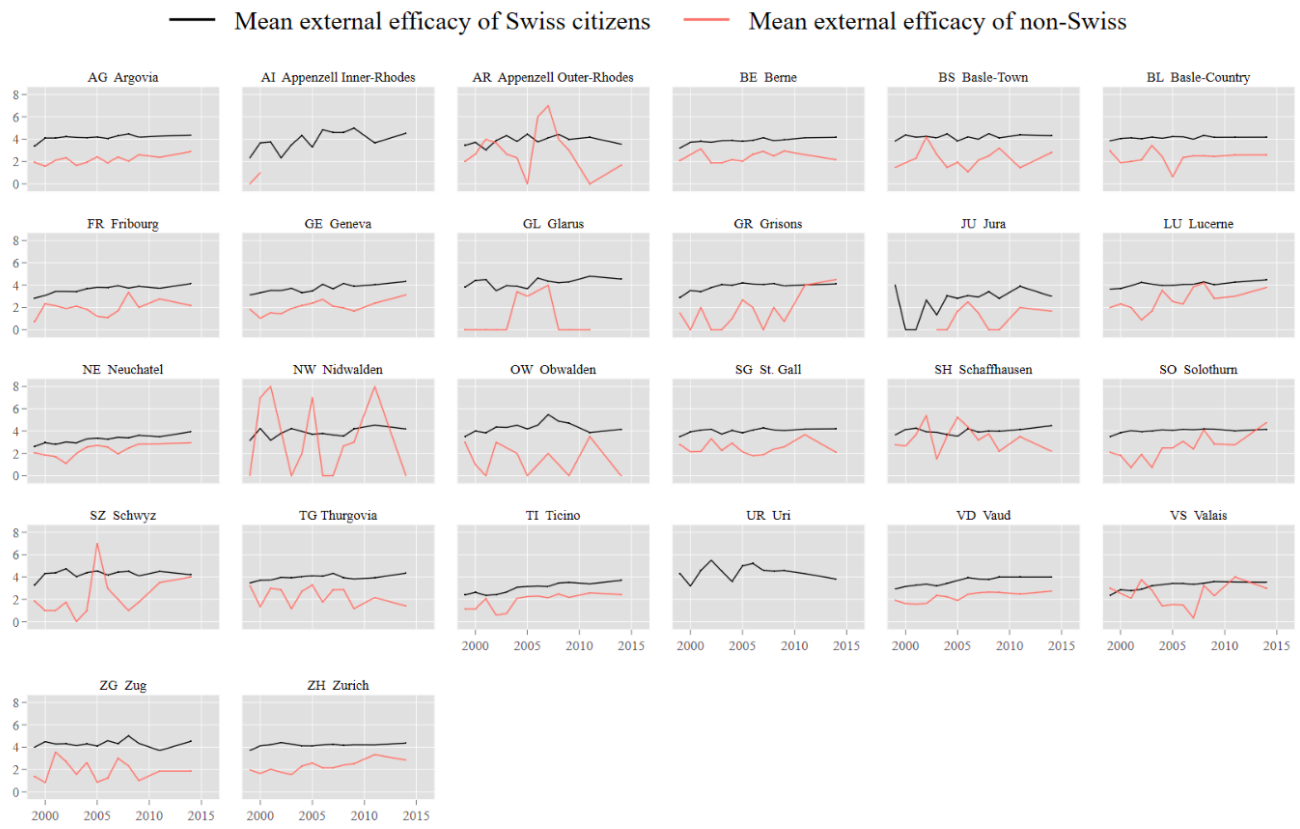


Figure B2: Mean external efficacy by cantons 2009 & 2014



Regardless of the timing of the introduction of alien enfranchisement, the French-speaking cantons such as Geneva, Neuchatel, and Vaud, which enfranchised non-citizens, are lower in external efficacy overall. In fact, across the period we observe, cantons with the strongest perceptions of political influence are those who have not enfranchised immigrants. While explaining such between-canton differences fall beyond the scope of our research goals in this paper, some of the reasons why French (and Italian) speaking cantons report lower external efficacy have a lot to do with their minority status in the majority German-speaking Swiss political system and ideological differences (the more left-wing attitudes) of the constituency of these cantons compared to the average (Bernhard and Bühlmann 2015).

Figure B3: Mean external efficacy in each Swiss canton over time, by citizenship status



Appendix C: Question items used in the analysis from the Swiss Household Panel (SHP)

Variable	**Operationalisation in SHP**	**Variable**
Immigration status	Birth in Switzerland (yes/no)	d160_
Citizenship status	Nationality (first, second, or third in case of multiple nationalities identifying citizens with an immigration background)	nat_1_ nat_2_ nat_3_
	Swiss since birth (yes/no) Reception of Swiss citizenship (yes/no)	d161_ d162_
Alien enfranchisement	Coded by authors from https://www.bfs.admin.ch/	mvoting
Canton of residence	Canton of residence (each wave)	canton
Municipality of residence*	Community numbers of residence (each wave)	ofs_
External efficacy	How much influence do you think someone like you can have on government policy? 0 means "no influence", and 10 "a very strong of influence"	p03_
Work status	Working/professional status (post-coded); actively occupied, not employed, not in the labour force	wstat
Region of origin	First nationality reported by respondents post-coded into either being Swiss or other 12 geographical regions	reg_1_
Sex	Sex (man/woman)	sex
Age	Age (in years) – post-coded	age
Education	Years of education attainment (post-coded based on ISCED classification)	edyear
Income (H)	Yearly net income at the household level (recoded to 10 quintiles by authors for the analysis)	htyn_
Region of origin	First nationality reported by respondents post-coded into either being Swiss or other 12 geographical regions: Northern, Eastern, Central, Western, South-West, Southern, and South-East Europe, Africa, Latin America, Northern America, Asia, and Oceania	reg_1_ reg_2_ reg_3_
Union membership	Could you tell me for "Syndicate, employees association" whether you are an active member, a passive member or not a member?	n42_
Religiosity	Choice options: "never", "only for family ceremonies", "only for religious celebrations", "both family and religious celebrations", "a few times year", "once a month", "every two weeks", "once a week", "several times a week"	r04_
Political trust	How much confidence do you have in federal government Berne? 0 means "no confidence" and 10 means "full confidence"	p04_

Political interest	Generally, how interested are you in politics, if 0 means "not at all interested" and 10 "very interested"?	p01_
Left-right ideological placement	When they talk about politics, people mention left and right. Personally, where do you position yourself 0 means "left" and 10 means "right"	p10_
Additional variable controlled for as robustness checks		
Duration of stay in Switzerland	"Since which year do you live in Switzerland without an interruption for more than two years?" (syear-hab_ch)	syear hab_ch
Satisfaction with financial situation	How satisfied are you with your financial situation, if 0 means "not at all satisfied" and 10 "completely satisfied"?	i01_
Political party membership	Could you tell me for "Political party" whether you are an active member, a passive member or not a member?	n43_
Membership to charity organisations	Could you tell me for "Charity organisations" whether you are an active member, a passive member or not a member?	n45_
Satisfaction with democratic institutions	Overall, how satisfied are you with the way in which democracy works in our country, if 0 means "not at all satisfied" and 10 "completely satisfied" ?	p02_
Social trust	Would you say that most people can be trusted or that you can't be too careful in dealing with people, if 0 means "Can't be too careful" and 10 means "Most people can be trusted" ?	p45_
Inter-personal relationship	How satisfied are you with your personal relationships, if 0 means "not at all satisfied" and 10 "completely satisfied"?	ql04_

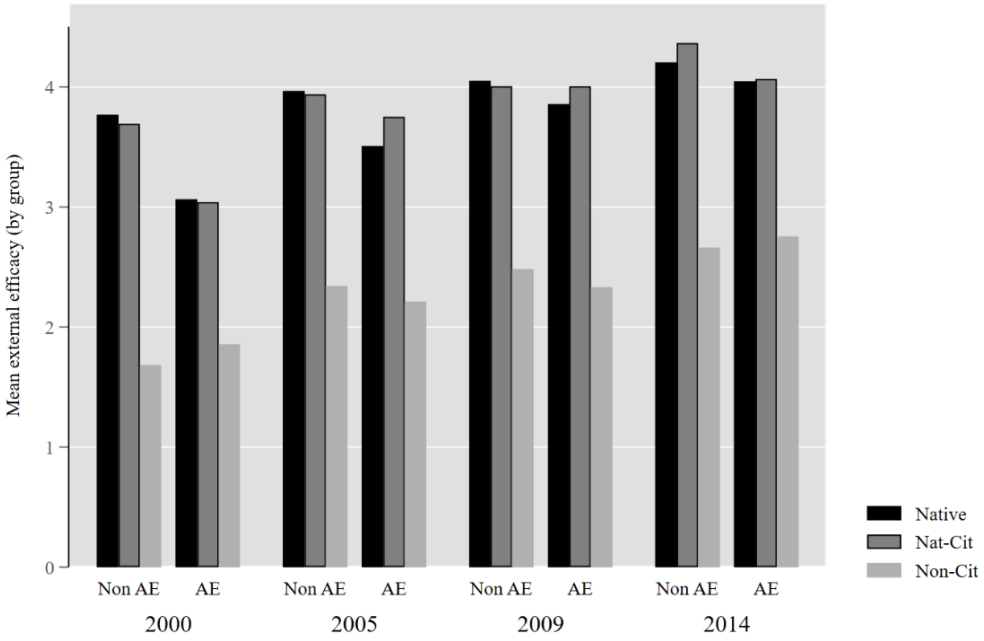
*All SHP data waves are publicly available upon contract agreement online at FORS database https://forscenter.ch/projects/swiss-household-panel/data/ This is except for identifiers that link households to their residence at the communal (*Gemeinde/commune*) level. The ofs_ variable is also available upon reasonable request for academic researchers by contacting swisspanel@fors.unil.ch. Canton and municipality of residence variables are from household-level data (H) whereas all others are from person-level (P) datasets. We merged individual year waves of the SHP by creating a long format panel data. Therefore, each variable comes from the specific wave that they are administered. Using the variable naming conventions in SHP, we create one variable that contains the data and information on a particular question for the repeated observations in our panel structure.

Appendix D: Summary statistics (SHP) and descriptive information

Table D1: Summary statistics of variables used in the analysis

Variable	**N**	**Mean**	**Std. Dev.**	**Min**	**Max**
External efficacy	67,625	3.789427	2.601118	0	10
Group	67,625				
Native citizen	*(n=53,935)*	.8271349	.3781334	0	1
Naturalised citizen	*(n=5,500)*	.0813309	.2733446	0	1
Non-citizens	*(n=6,190)*	.0915342	.2883694	0	1
Alien enfranchisement	67,625	.1807763	.3848356	0	1
Age	67,625	47.4302	16.33414	18	96
Woman	67,625	.5498558	.4975119	0	1
Education	67,625	13.31617	2.97889	8	21
Income (household)	67,625	4.322721	2.935228	0	9
Employment status	64,999				
Employed	*(n=48, 218)*	.7130203	.4523554	0	1
Unemployed	*(n=1,070)*	.0158226	.1247895	0	1
Not in labour force	*(n=18,337)*	.2711571	.4445603	0	1
Union membership	46,304				
Active member	*(n= 3,257)*	.069382	.2541053	0	1
Passive member	*(n= 5,602)*	.1193362	.3241872	0	1
Not a member	*(n=38,084)*	.8112818	.3912888	0	1
Religiosity	46,943	3.065718	2.114285	0	8
Left right position	46,943	4.718169	2.097925	0	10
Political trust	46,943	5.666148	2.054692	0	10
Political interest	46,943	6.109665	2.464928	0	10

Figure D1: Average external efficacy attitudes by each residential groups and alien enfranchisement rules (SHP)



Note: Native: Native Swiss citizens; Nat-Cit: Naturalized citizens; Non-cit: Non-Swiss

Figure D1 visualizes average efficacy perceptions by the residential groups over the temporal scope of our sample in about five-year intervals for municipalities with or without alien enfranchisement. There are several observations from Figure D1 that are worth further discussion. To start, there seems to be a large gap in external efficacy if we compare non-citizens to citizens in Switzerland. In fact, Switzerland seems to be a particularly prominent case where the gaps are among the highest, see Figure H1.[3] This makes the Swiss case a most likely case for a policy such alien enfranchisement to have an impact in altering such differences. While the Swiss case alone may not be sufficient in generalizing the findings of our study, if we do not find an external efficacy boost among non-citizens considering the large gap and the low baseline, it may be even more unlikely to observe such an effect elsewhere where gaps are already more modest. Second, naturalized citizens do not exhibit any particularly striking feeling of being politically left behind compared with native citizens. In addition, when compared to native citizens, naturalized citizens are, on average, more efficacious in municipalities with alien enfranchisement. Finally, there are no noticeable descriptive differences in the efficacy of non-citizens in municipalities with alien enfranchisement when compared to municipalities without alien enfranchisement. However, comparing the gaps between native citizens and non-citizens shows that that the gaps in efficacy between these two groups are smaller in municipalities with alien enfranchisement compared to those without such policies. Moving beyond such descriptive aggregate means, we systematically assess differences in efficacy among immigrants when compared to other groups predicted by the municipal electoral inclusivity towards non-citizens.

[3] Using data from the last three waves of the European Social Survey (2014-2018), we plot weighted averages of external efficacy differences between European countries demonstrating this claim, see appendix H for further details.

Appendix E: Main analysis presented in the paper

Table E1: Full table of results presented in the main analysis

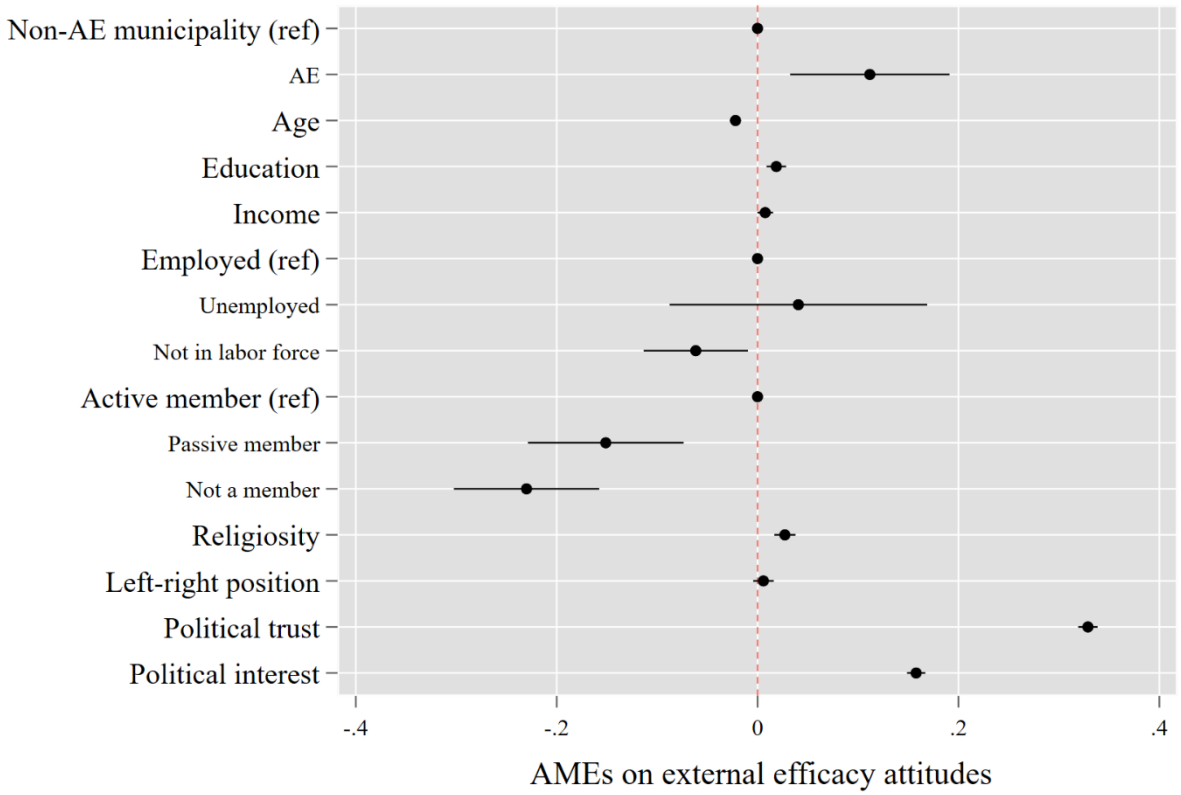
	(M1)	(M2)	(M3)	(M4)	(M5)	(M6)
Ref: Native citizens						
Naturalised citizens	0.11t	-0.55	-0.21	0.09	-0.21	-0.14
	(0.065)	(0.965)	(0.884)	(0.070)	(0.884)	(0.886)
Non-citizens	-1.49***	-2.17*	-1.83*	-1.53***	-1.85*	-1.76*
	(0.056)	(0.966)	(0.887)	(0.059)	(0.886)	(0.889)
Alien Enfranchisement (AE)	0.18***	0.16***	0.11*	0.16***	0.08	-0.07t
	(0.043)	(0.046)	(0.048)	(0.046)	(0.051)	(0.040)
Ref: Native citizens *AE						
*AE*Nat-citizens*				0.05	0.11	0.16
				(0.101)	(0.132)	(0.132)
*AE*Non-citizens*				0.17t	0.23*	0.25*
				(0.098)	(0.113)	(0.113)
Age	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Female	-0.10**	-0.09*	0.14***	-0.10**	0.14***	0.14***
	(0.037)	(0.040)	(0.038)	(0.037)	(0.038)	(0.038)
Education	0.06***	0.06***	0.02**	0.06***	0.02**	0.02**
	(0.005)	(0.006)	(0.006)	(0.005)	(0.006)	(0.006)
Income	0.03***	0.03***	0.01	0.03***	0.01	0.01*
	(0.004)	(0.005)	(0.005)	(0.004)	(0.005)	(0.005)
Employment status (**Ref***: Employed*)						
Unemployed	-0.00	0.01	0.04	-0.00	0.04	0.04
	(0.066)	(0.074)	(0.078)	(0.066)	(0.078)	(0.078)
Not in labor force	0.07**	0.04	-0.06t	0.07**	-0.06*	-0.07*
	(0.027)	(0.031)	(0.032)	(0.027)	(0.032)	(0.032)
Union membership (**Ref**: *Active member*)						
Passive member		-0.19***	-0.15**		-0.15**	-0.15**
		(0.048)	(0.047)		(0.047)	(0.047)
Not a member		-0.27***	-0.23***		-0.23***	-0.23***
		(0.045)	(0.044)		(0.044)	(0.044)
Religiosity		0.05***	0.03***		0.03***	0.03***
		(0.006)	(0.006)		(0.006)	(0.006)
Left right placement			0.01		0.01	0.01
			(0.006)		(0.006)	(0.006)
Political trust			0.33***		0.33***	0.33***
			(0.006)		(0.006)	(0.006)
Political interest			0.16***		0.16***	0.16***

			(0.006)		(0.006)	(0.006)
Region of origin (**Ref***: Swiss*)						
North Europe		1.12	0.58		0.56	0.55
		(1.042)	(0.957)		(0.957)	(0.960)
E.Europe		0.66	0.81		0.82	0.77
		(1.146)	(1.098)		(1.098)	(1.101)
C.Europe		0.48	0.13		0.12	0.10
		(0.970)	(0.890)		(0.890)	(0.892)
W.Europe		0.56	0.30		0.24	0.07
		(0.971)	(0.892)		(0.892)	(0.894)
SW.Europe		0.36	0.36		0.31	0.17
		(0.974)	(0.896)		(0.896)	(0.898)
S.Europe		0.56	0.48		0.46	0.31
		(0.968)	(0.888)		(0.888)	(0.891)
SE. Europe		0.94	0.50		0.49	0.41
		(0.975)	(0.898)		(0.897)	(0.900)
Africa		0.82	0.43		0.36	0.22
		(1.000)	(0.925)		(0.926)	(0.928)
L.America		0.52	0.19		0.16	0.03
		(1.002)	(0.930)		(0.929)	(0.932)
N.America		1.70t	1.14		1.10	0.97
		(1.029)	(0.946)		(0.946)	(0.949)
Asia		1.16	0.58		0.58	0.45
		(0.999)	(0.923)		(0.923)	(0.925)
Constant	3.45***	3.57***	1.47***	3.45***	1.48***	1.32***
	(0.104)	(0.126)	(0.129)	(0.104)	(0.129)	(0.117)
Observations	67,625	53,303	46,943	67,625	46,943	46,943
Year Fixed Effects	Y	Y	Y	Y	Y	Y
Canton Fixed Effects	Y	Y	Y	Y	Y	N
Number of individuals	12,104	10,407	9,730	12,104	9,730	9,730
RMSE	1.845	1.843	1.764	1.845	1.764	1.764

Note: Individual clustered standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, t p<0.

Figure E1: Coefficient plot of theoretically relevant predictors of external efficacy (estimated from Model 3 in Table 1)



Appendix F: Alternative estimation strategy

Table F1: Alien enfranchisement and external efficacy attitudes (Two-way FE Models)

	Full Sample	Native citizens	Naturalised immigrants	Immigrants
Alien enfranchisement	0.46***	0.44***	0.45***	0.43**
	(0.037)	(0.041)	(0.123)	(0.141)
Constant	3.66***	3.85***	3.74***	2.11***
	(0.009)	(0.010)	(0.041)	(0.042)
Observations	81,874	61,339	6,215	6,784
Number of individuals	15,359	9,908	1,055	1,706
RMSE	1.876	1.793	2.002	2.332
Log likelihood	-159184	-117438	-12555	-14388

Note: Individual clustered standard errors in parentheses.
*** p<0.001, ** p<0.01, * p<0.05, t p<0.

Figure F1 plots the linear predictions obtained from Table F1 for external efficacy for each sample by alien enfranchisement alien enfranchisement context.

Figure F1: Linear predictions of efficacy in sub-samples of residential category (Two-way FE)

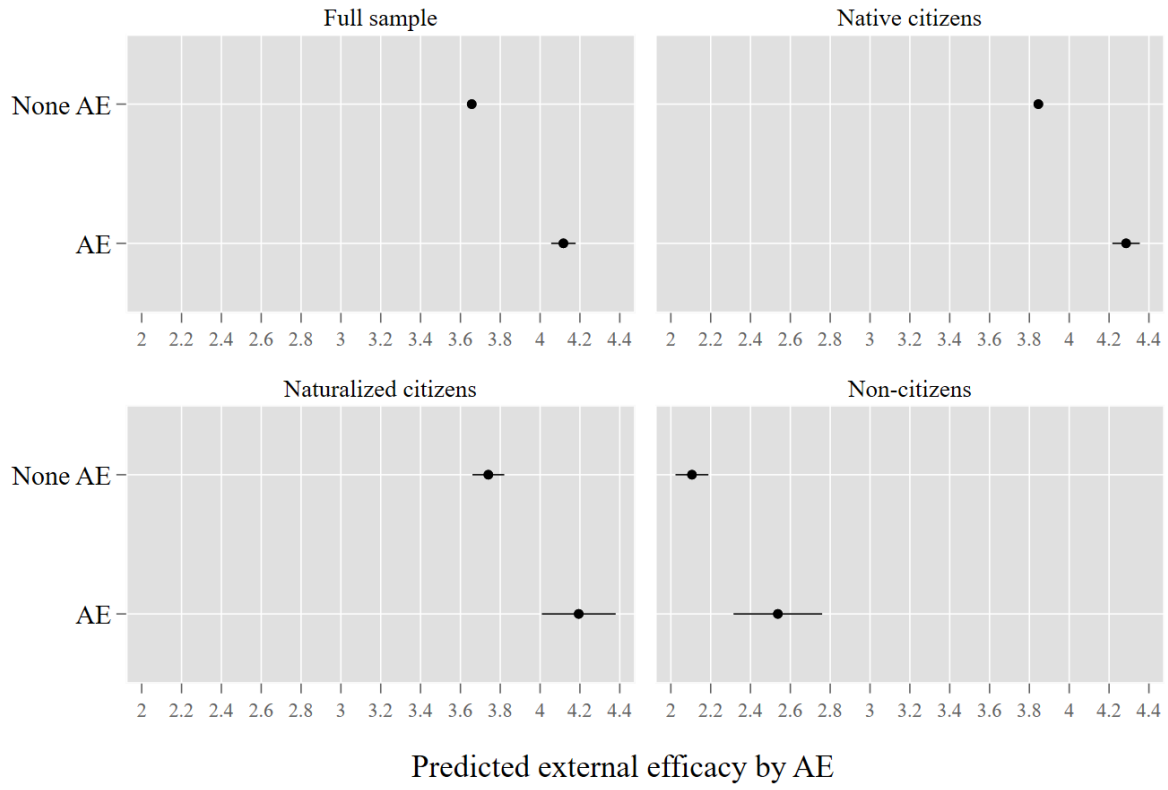


Table F2: Estimating a two-way fixed effects models with an interaction term of civic status and alien enfranchisement

Two-way Fixed Effects Models	(M1)	(M2)	(M3)
Ref: None-AE*Non-Swiss			
None-AE*Swiss	1.68***	1.53***	1.52***
	(0.102)	(0.102)	(0.102)
AE*Non-Swiss	0.48***	0.24*	0.25*
	(0.106)	(0.107)	(0.107)
AE*Swiss	2.11***	1.73***	1.71***
	(0.105)	(0.107)	(0.108)
year = 2000		0.26***	0.26***
		(0.034)	(0.034)
year = 2001		0.33***	0.33***
		(0.035)	(0.035)
year = 2002		0.34***	0.34***
		(0.037)	(0.037)
year = 2003		0.27***	0.27***
		(0.038)	(0.038)
year = 2004		0.41***	0.41***
		(0.036)	(0.036)
year = 2005		0.38***	0.38***
		(0.038)	(0.038)
year = 2006		0.45***	0.45***
		(0.038)	(0.038)
year = 2007		0.49***	0.49***
		(0.037)	(0.037)
year = 2008		0.51***	0.51***
		(0.038)	(0.038)
year = 2009		0.46***	0.46***
		(0.037)	(0.037)
year = 2011		0.55***	0.55***
		(0.037)	(0.037)
year = 2014		0.62***	0.63***
		(0.038)	(0.039)
Constant	2.12***	1.91***	1.77***
	(0.093)	(0.096)	(0.156)
Observations	81,859	81,859	81,859
Canton FE	N	N	Y
Individual FE	Y	Y	Y
Year FE	Y	Y	Y
Number of individuals	15,357	15,357	15,357
RMSE	1.872	1.868	1.868

Note: Figure 2 presented in the manuscript is predicted using Model 3. Two-way FE models Individual clustered standard errors in parentheses. *** p<0.001, ** p<0.01, * p<0.05, t p<0.1

Appendix G: Alternative model specifications and sensitivity checks

Table G1: Replication of main results with alternative specifications - I

	(M1)	(M2)	(M3)	(M4)
Ref: Native citizens				
Naturalised citizens	0.10	0.10	0.14*	0.12t
	(0.143)	(0.145)	(0.064)	(0.069)
Non-citizens	-1.50***	-1.52***	-1.45***	-1.49***
	(0.128)	(0.128)	(0.056)	(0.059)
Alien enfranchisement (AE)	0.18***	0.16***	0.18***	0.15***
	(0.043)	(0.046)	(0.043)	(0.046)
Ref: Native citizens *AE				
*Naturalised citizens *AE*		0.05		0.05
		(0.101)		(0.101)
*Non-citizens*AE*		0.17t		0.16t
		(0.098)		(0.098)
Duration of stay in CH (**Ref**: Native Swiss)				
+10 years	0.00	-0.01		
	(0.129)	(0.129)		
5-10 years	0.04	0.03		
	(0.134)	(0.134)		
Satisfaction with financial situation			0.05***	0.05***
			(0.005)	(0.005)
Constant	3.45***	3.45***	3.17***	3.18***
	(0.104)	(0.104)	(0.107)	(0.107)
Year FE	Y	Y	Y	Y
Canton FE	Y	Y	Y	Y
Observations	67,625	67,625	67,513	67,513
Number of individuals	12,104	12,104	12,094	12,094
RMSE	1.845	1.845	1.845	1.845

All models are specified as Model 1 and Model 4 (interaction model) in Table 1.
Individual clustered standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, t p<0.1

Table G2: Replication of main results with alternative specifications - II

	(M1)	(M2)	(M3)	(M4)
Ref: Native citizens				
Naturalised citizens	0.12t	0.11	0.11t	0.10
	(0.064)	(0.069)	(0.064)	(0.069)
Non-citizens	-1.45***	-1.48***	-1.48***	-1.52***
	(0.055)	(0.059)	(0.056)	(0.059)
Alien enfranchisement (AE)	0.18***	0.15***	0.18***	0.15***
	(0.043)	(0.046)	(0.043)	(0.046)
Ref: Native citizens *AE				
		0.04		0.05
*Naturalised citizens *AE*		(0.101)		(0.101)
		0.16		0.16t
*Non-citizens*AE*		(0.097)		(0.098)
Political party member (**Ref**: Active member)				
Passive member	-0.44***	-0.44***		
	(0.055)	(0.055)		
Not a member	-0.78***	-0.78***		
	(0.051)	(0.051)		
Participation in charity assoc. (**Ref**: Active member)				
Passive member			-0.08*	-0.08*
			(0.038)	(0.038)
Not a member			-0.23***	-0.23***
			(0.037)	(0.037)
Constant	4.26***	4.26***	3.70***	3.71***
	(0.116)	(0.116)	(0.111)	(0.111)
Year FE	Y	Y	Y	Y
Canton FE	Y	Y	Y	Y
Observations	67,586	67,586	67,577	67,577
Number of individuals	12,101	12,101	12,102	12,102
RMSE	1.844	1.844	1.845	1.845

All models are specified as Model 1 and Model 4 (interaction model) in Table 1.
Individual clustered standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, t p<0.1

Table G3: Replication of main results with alternative specifications - III

	(M1)	(M2)	(M3)	(M4)	(M5)	(M6)
Ref: Native citizens						
Naturalised citizens	0.13*	0.15*	0.19**	0.20**	0.02	0.01
	(0.067)	(0.074)	(0.067)	(0.075)	(0.060)	(0.065)
Non-citizens	-1.47***	-1.54***	-1.39***	-1.47***	-1.57***	-1.61***
	(0.061)	(0.067)	(0.062)	(0.070)	(0.053)	(0.056)
Alien enfranchisement (AE)	0.26***	0.24***	0.22***	0.19**	0.16***	0.13**
	(0.054)	(0.057)	(0.065)	(0.068)	(0.042)	(0.045)
Ref: Native citizens *AE						
		-0.05		-0.05		0.04
*Naturalised citizens *AE*		(0.114)		(0.122)		(0.098)
		0.28*		0.31**		0.21*
*Non-citizens*AE*		(0.111)		(0.120)		(0.096)
Satisfaction with personal relationships	0.05***	0.05***	0.12***	0.12***		
	(0.007)	(0.007)	(0.005)	(0.005)		
Generalized trust						
Satisfaction with democratic institutions					0.30***	0.30***
					(0.005)	(0.005)
Constant	3.37***	3.38***	3.29***	3.30***	1.82***	1.83***
	(0.122)	(0.122)	(0.110)	(0.110)	(0.102)	(0.103)
Canton FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y
Observations	59,231	59,231	55,012	55,012	66,647	66,647
Number of individuals	11,829	11,829	11,715	11,715	12,032	12,032
RMSE	1.803	1.803	1.794	1.794	1.815	1.815

All models are specified as Model 1 and Model 4 (interaction model) in Table 1.
Individual clustered standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, t p<0.1

Table G4: Failed referenda intending to introduce alien enfranchisement policies

Date	Percentage of decision (no-vote)	Canton	Content of the Law[4]
04.03.2001	52.0%	Geneva	Active and passive election and voting rights on municipal level
04.03.2001	70.2%	Schaffhausen	Voting rights on municipal level
24.04.2005	52.8%	Geneva	Active and passive election and voting rights on municipal level
25.09.2005	60.8%	Solothurn	Active and passive election and voting rights on municipal level, opting-in option for municipalities
17.06.2007	51.0%	Jura	Active and passive election rights on municipal level extending to executive level
17.06.2007	59.3%	Neuchâtel	Passive election rights on municipal and cantonal level
02.05.2010	Municipal assembly (Landsgemeinde)	Glarus	Active election and voting rights on municipal and cantonal level
26.09.2010	80.9%	Basel-Stadt	Active and passive election and voting rights on cantonal level
26.09.2010	61.0%	Basel-Stadt	Active election and voting rights on cantonal level
26.09.2010	72.3%	Bern	Active and passive election and voting rights on municipal level, opting-in option for municipalities
04.09.2011	69.0%	Vaud	Active and passive election and voting rights on cantonal level
27.11.2011	84.0%	Luzern	Voting rights on municipal level, opting-in option for municipalities
22.09.2013	75.0%	Zürich	Active and passive election and voting rights on municipal level,

[4] The direct democratic system in Switzerland foresees that citizens cannot only take part in elections but can also express their opinion by voting on referenda and initiatives. While we use the term "voting right" throughout the paper to indicate encompassing political rights (on elections and voting), in this table we distinguish alien enfranchisement laws by

- (1) voting rights, meaning the right to vote on referenda and initiatives, and
- (2) election rights, meaning the right to elect representatives to the parliament for *active election rights* or the right to run for office in elections for the term *passive election rights*.

			opting-in option for municipalities
28.09.2014	85.0%	Schaffhausen	Active and passive election and voting rights on municipal and cantonal level

Note: We code the year as a failed referendum if at the same instance there was also a voting reform enfranchising non-citizens that passed such as in the case of Geneva in 2005 and Neuchatel in 2007. In 2010 in Basel-City, this was coded as a case of failed referendum (not specifically indicative of the *two* reforms that failed to pass in the popular vote).

Table G5: Replication of main results with alternative specifications – IV

	(M1)	(M2)	(M3)	(M4)	(M5)	(M6)
Ref: Native citizen						
Naturalised citizen	0.12t	0.11	0.08	0.11t	0.09	0.04
	(0.065)	(0.070)	(0.070)	(0.065)	(0.070)	(0.069)
Non-citizen	-1.50***	-1.55***	-1.57***	-1.49***	-1.53***	-1.58***
	(0.057)	(0.060)	(0.060)	(0.056)	(0.059)	(0.059)
Alien enfranchisement	0.23***	0.19***	-0.07t	0.18***	0.16***	-0.10**
	(0.046)	(0.049)	(0.039)	(0.043)	(0.046)	(0.037)
Ref: Native citizens *AE						
		0.05	0.09		0.05	0.10
*Naturalised citizens *AE*		(0.104)	(0.104)		(0.101)	(0.101)
		0.25*	0.24*		0.17t	0.17t
*Non-citizens*AE*		(0.103)	(0.103)		(0.098)	(0.098)
SVP vote share (%)	-0.00	-0.00	0.01***			
	(0.002)	(0.002)	(0.001)			
Failed AE referendum (dummy)				0.05	0.06	0.05
				(0.056)	(0.056)	(0.055)
Constant	3.45***	3.46***	3.01***	3.45***	3.45***	3.25***
	(0.120)	(0.120)	(0.098)	(0.104)	(0.104)	(0.090)
Year FE	Y	Y	Y	Y	Y	Y
Canton FE	Y	Y	N	Y	Y	N
Observations	65,155	65,155	65,155	67,625	67,625	67,625
Number of individuals	11,966	11,966	11,966	12,104	12,104	12,104
RMSE	1.837	1.837	1.838	1.845	1.845	1.846

All models are specified as Model 1 and Model 4 (interaction model) in Table 1.
Individual clustered standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, t p<0.1

Table G6: Sample distribution across alien enfranchised municipalities and moves

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2011	2014	**Total**
AE														
0	4,211	3,851	3,889	3,341	3,154	5,473	4,331	4,148	4,420	4,411	4,719	4,847	4,605	55,400
1	2	272	273	673	651	1,035	1,096	1,293	1,310	1,289	1,420	1,502	1,409	12,225
Total	4213	4,123	4,162	4,014	3,805	6,508	5,427	5,441	5,730	5,700	6,139	6,349	6,014	67,625

Moved to an AE municipality (from *t-1*)	Frequency	Percent
0	56, 037	99.06
1	534	0.94
Total	56, 571	100.00

Table G7: Replication of main results with alternative specifications – IV

	Full sample				Movers removed from sample			
	(M1)	(M2)	(M3)	(M4)	(M5)	(M6)	(M7)	(M8)
Ref: Native								
Nat-cit	0.09	-0.38	0.14t	-0.35	0.10	-0.31	0.14t	-0.28
	(0.069)	(0.893)	(0.076)	(0.892)	(0.070)	(0.902)	(0.077)	(0.902)
Non-cit	-1.58***	-2.14*	-1.68***	-2.23*	-1.58***	-2.06*	-1.67***	-2.16*
	(0.062)	(0.895)	(0.068)	(0.895)	(0.063)	(0.905)	(0.069)	(0.905)
AE	0.23***	0.18**	0.21***	0.14*	0.24***	0.19**	0.21***	0.15*
	(0.050)	(0.057)	(0.054)	(0.061)	(0.052)	(0.059)	(0.055)	(0.062)
Ref: N*AE								
*Nat-cit *AE*			-0.18	-0.06			-0.15	-0.09
			(0.114)	(0.149)			(0.117)	(0.152)
*NonCit*AE*			0.38***	0.39**			0.37**	0.39**
			(0.111)	(0.128)			(0.113)	(0.131)
Movers (from *t-1*)	-0.02	-0.04	-0.02	-0.04				
	(0.042)	(0.048)	(0.042)	(0.048)				
Constant	3.76***	1.75***	3.77***	1.75***	3.75***	1.73***	3.76***	1.74***
	(0.116)	(0.144)	(0.116)	(0.144)	(0.118)	(0.147)	(0.118)	(0.147)
Canton FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y
Observations	56,571	38,411	56,571	38,411	54,205	36,787	54,205	36,787
Number of individuals	10,719	8,433	10,719	8,433	10,606	8,353	10,606	8,353
RMSE	1.795	1.710	1.794	1.710	1.794	1.710	1.794	1.710

Note: Movers indicate observations who have moved to a new municipality at *t* different from *t-1*. Models 1,3, 5, 7 are specified as Model 1 in Table 1 and models 2, 4, 6, 8 are fully specified model as in Model 3 in Table 1. Individual clustered standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, t p<0.1

Table G8: Replication of main results using more detailed categorisation of resident groups

	(M1)	(M2)	(M3)	(M4)
Ref: Native citizens (without immigration background)				
Swiss citizens from birth with immigration background (SCIB)	-0.04	-0.07	-0.03	-0.07
	(0.080)	(0.083)	(0.089)	(0.091)
Naturalised Swiss citizens (NSC)	0.10	-0.22	0.09	-0.22
	(0.065)	(0.884)	(0.070)	(0.884)
Non-citizens (NC)	-1.50***	-1.84*	-1.53***	-1.85*
	(0.056)	(0.887)	(0.060)	(0.887)
Alien enfranchisement (AE)	0.18***	0.11*	0.16***	0.08
	(0.043)	(0.048)	(0.047)	(0.053)
Ref: Native citizens*AE				
*SCIB*AE*			-0.01	0.03
			(0.120)	(0.133)
*NSC*AE*			0.05	0.11
			(0.102)	(0.133)
*NC*AE*			0.16t	0.23*
			(0.098)	(0.114)
Age	-0.02***	-0.02***	-0.02***	-0.02***
	(0.001)	(0.001)	(0.001)	(0.001)
Female	-0.10**	0.14***	-0.10**	0.14***
	(0.037)	(0.038)	(0.037)	(0.038)
Education	0.06***	0.02**	0.06***	0.02**
	(0.005)	(0.006)	(0.005)	(0.006)
Income	0.03***	0.01t	0.03***	0.01
	(0.004)	(0.005)	(0.004)	(0.005)
Employment status (**Ref**: Employed)				
Unemployed	-0.00	0.04	-0.00	0.04
	(0.066)	(0.078)	(0.066)	(0.078)
Not in labour force	0.07**	-0.06t	0.07**	-0.06t
	(0.027)	(0.032)	(0.027)	(0.032)
Union membership (**Ref**: Active member)				
Passive member		-0.15**		-0.15**
		(0.047)		(0.047)
Not a member		-0.23***		-0.23***
		(0.044)		(0.044)
Religiosity		0.03***		0.03***
		(0.006)		(0.006)
Left-right ideology		0.01		0.01
		(0.006)		(0.006)
Political trust		0.33***		0.33***
		(0.006)		(0.006)
Political interest		0.16***		0.16***

		(0.006)		(0.006)
Country of origin (**Ref**: Swiss)				
North Europe		0.58		0.57
		(0.958)		(0.957)
E.Europe		0.81		0.82
		(1.098)		(1.098)
C.Europe		0.13		0.13
		(0.890)		(0.890)
W.Europe		0.30		0.24
		(0.892)		(0.892)
SW.Europe		0.36		0.31
		(0.896)		(0.896)
S.Europe		0.48		0.46
		(0.889)		(0.888)
SE. Europe		0.50		0.49
		(0.898)		(0.898)
Africa		0.42		0.36
		(0.925)		(0.926)
L.America		0.19		0.16
		(0.930)		(0.929)
N.America		1.14		1.10
		(0.947)		(0.946)
Asia		0.58		0.58
		(0.923)		(0.923)
Constant	3.45***	1.48***	3.46***	1.49***
	(0.104)	(0.130)	(0.105)	(0.130)
Observations	67,617	46,935	67,617	46,935
Canton FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
Number of individuals	12,103	9,728	12,103	9,728
RMSE	1.845	1.764	1.845	1.764

Individual clustered standard errors in parentheses.
*** p<0.001, ** p<0.01, * p<0.05, t p<0.1

Table G9: Replication of main results with 1-year lag and lead effect of alien enfranchisement

	(M1)	(M2)	(M3)	(M4)
Ref: Native citizens				
Naturalised citizens	-0.38	-0.34	-0.42	-0.41
	(0.895)	(0.895)	(0.907)	(0.907)
Non-citizens	-2.15*	-2.26*	-2.00*	-2.05*
	(0.898)	(0.898)	(0.910)	(0.910)
Alien enfranchisement (AE) ***t-1***	0.19***	0.16**		
	(0.051)	(0.055)		
Alien enfranchisement (AE) ***t+1***			0.08	0.05
			(0.055)	(0.058)
Ref: Native citizens*AE ***t-1***				
Naturalised citizens*AE ***t-1***		-0.15		
		(0.143)		
Non-citizens*AE ***t-1***		0.41**		
		(0.124)		
Ref: Native citizens*AE ***t+1***				
Naturalised citizens*AE ***t+1***				0.07
				(0.144)
Non-citizens*AE ***t+1***				0.31*
				(0.122)
Age	-0.02***	-0.02***	-0.02***	-0.02***
	(0.001)	(0.001)	(0.001)	(0.001)
Woman	0.13**	0.13***	0.15***	0.15***
	(0.040)	(0.040)	(0.039)	(0.039)
Education	0.02**	0.02**	0.02**	0.02**
	(0.006)	(0.006)	(0.006)	(0.006)
Income	0.01	0.01	0.01*	0.01*
	(0.005)	(0.005)	(0.005)	(0.005)
Employment status (**Ref**: Employed)				
Unemployed	0.03	0.03	0.02	0.02
	(0.086)	(0.086)	(0.083)	(0.083)
Not in labour force	-0.03	-0.03	-0.05t	-0.06t
	(0.034)	(0.034)	(0.033)	(0.033)
Union membership (**Ref**: Active member)				
Passive member	-0.11*	-0.11*	-0.16**	-0.16**
	(0.050)	(0.050)	(0.049)	(0.049)
Not a member	-0.19***	-0.19***	-0.22***	-0.22***
	(0.047)	(0.047)	(0.045)	(0.045)
Religiosity	0.03***	0.03***	0.03***	0.03***

	(0.007)	(0.007)	(0.007)	(0.007)
Left-right ideology	0.01	0.01	0.01	0.01
	(0.007)	(0.007)	(0.006)	(0.006)
Political trust	0.34***	0.34***	0.33***	0.33***
	(0.006)	(0.006)	(0.006)	(0.006)
Political interest	0.16***	0.16***	0.16***	0.16***
	(0.006)	(0.006)	(0.006)	(0.006)
Constant	1.46***	1.46***	1.43***	1.44***
	(0.146)	(0.146)	(0.134)	(0.134)
Year FE	Y	Y	Y	Y
Canton FE	Y	Y	Y	Y
Region of origin controlled for	Y	Y	Y	Y
Observations	39,952	39,952	43,516	43,516
Number of individuals	8,542	8,542	9,012	9,012
RMSE	1.720	1.720	1.756	1.756

Individual clustered standard errors in parentheses.
*** p<0.001, ** p<0.01, * p<0.05, t p<0.1

Appendix H: Cross-national comparison of external efficacy attitudes in Europe

Figure H1: External efficacy of native and naturalized citizens and immigrants in Europe (20014-2018)

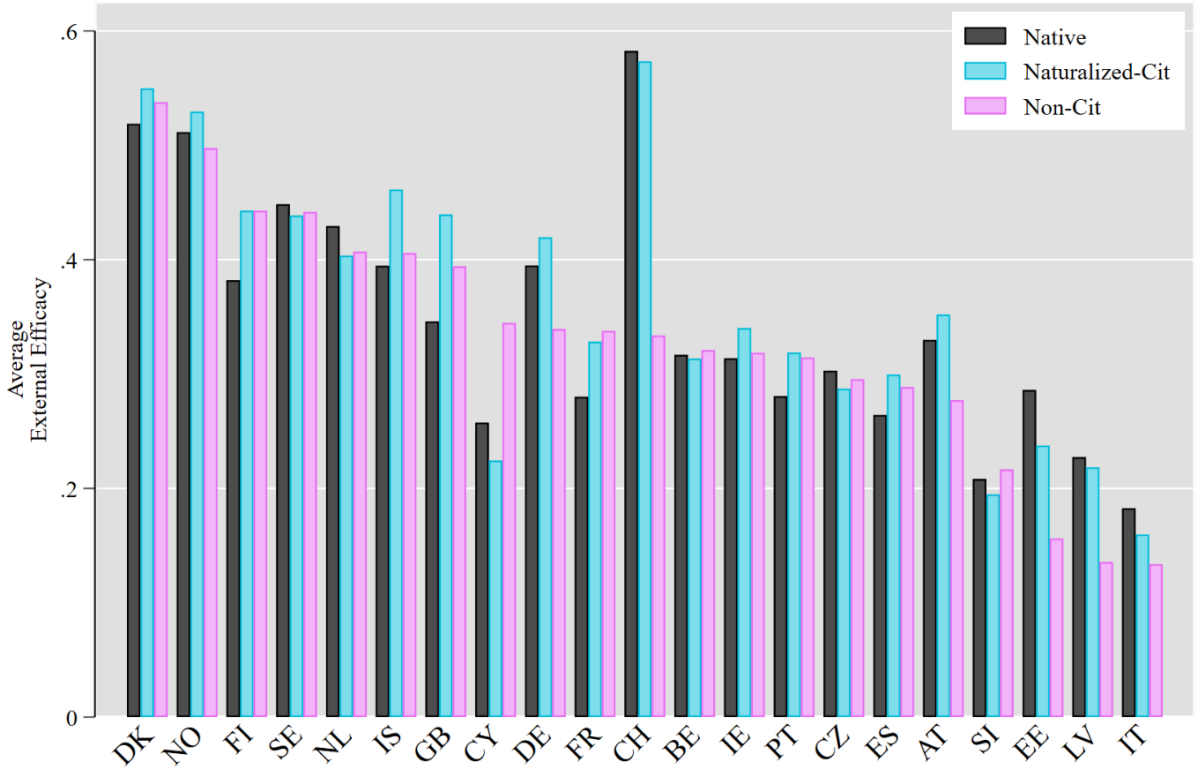


Figure H1 visualises the pooled average reported external efficacy attitudes of citizens, citizens with an immigration background, and immigrant non-citizens across 22 European countries in the three most recent European Social Survey waves (2014-2018). We only included countries cases where the number of observations for each group was above 30 in the pooled ESS sample. External efficacy questions are only asked from 2014 onwards. We measure external efficacy by creating an index of the following two questions in the ESS; "How much would you say the political system in [host country] allows people like you to have a say in what the government does?" and "How much would you say that the political system in [host country] allows people like you to have an influence on politics?" harmonizing the scales across ESS waves. The index is measured from 0 to 1 where higher values indicate stronger external efficacy.

In addition to strengthening the justification of the Swiss case as a most likely case based on the wide gap between citizens and non-citizens, Figure H1 also strengthens the argument that *place matters* when it comes to external efficacy. Average external efficacy seems to oscillate widely between comparable Western European cases where in France or Belgium, efficacy for all groups is markedly lower than those in Germany or the Netherlands. It is also clear that the Northern European countries advance strong efficacy for all, whereas the Southern and Eastern European countries are low for all resident populations.

Appendix I: SHP sampling strategy and checks for attrition

The Swiss Household Panel's sampling strategy is a stratified random sampling of private households whose members represent the resident population in Switzerland. The SHP project started in 1999 with the first wave of survey respondents (SHP_I) where the "methodology section of the Swiss Federal Statistical Office drew a simple random sample in each of the seven major statistical regions of Switzerland from the Swiss telephone directory" (Voorpostel et al. 2021, 10). In 2004 (SHP_II) and 2013 (SHP_III) two additional refreshment random samples of households were added to the panel where the former was incorporated using the same methodology as in SHP_I and the latter sample was drawn from the data coming from the cantonal and communal register of residents at the individual level. All three samples in the SHP are stratified by the NUTS-II level seven major geographic regions in Switzerland. This means that the selection was proportional to the number of households per major region without overrepresentation of smaller regions. Within one major region, each household (SHP_I and SHP_II) or individual (SHP_III) had the same inclusion probability. Table I1 presents the stratification method of the gross sample in the SHP in the three sampling waves.

Table I1: Stratification method of SHP in the sample (I, II, III sampling waves)

Strata	Cantons[a]	Proportion of addresses SHP_I (%)	Proportion of addresses SHP_II (%)	Proportion of addresses SHP_III (%)
Lake Geneva region	VD, VS, GE	18.45	18.22	18.90
Mittelland	BE, FR, SO, NE, JU	23.25	22.92	22.25
North-west Switzerland	BS, BL, AG	13.44	13.86	13.57
Zurich	ZH	17.51	18.22	17.52
Eastern Switzerland	GL, SH, AR, AI, SG, GR, TG	15.68	13.70	13.98
Central Switzerland	LU, UR, SZ, OW, NW, ZG	7.20	8.75	9.53
Ticino	TI	4.47	4.33	4.25
Total		100	100	100

Source : (Voorpostel et al. 2021), p.11.

In our analyses we use these stratified random samples of the SHP samples. Since we need the household residential information to match the individuals to their municipality to operationalize our key non-citizen voting rights indicator, we use data both at the individual and household level, merging the reported SHP files. Importantly, while SHP has other projects where the panel incorporates an over-sampling of certain groups such as the residents of Vaud, higher-income households etc. in the data sample we use, we only analyze the core SHP sample households and individuals, sampled in the method as described above.

Table I2: Participation in the SHP waves (1999-2016 across three sampling waves)

Participation rates for the first wave sample (SHP_I) recruited in 1999

Number of participating units	SHP _I 1999 (w1)	SHP _I 2000 (w2)	SHP _I 2001 (w3)	SHP _I 2002 (w4)	SHP _I 2003 (w5)	SHP _I 2004 (w6)	SHP _I 2005 (w7)	SHP _I 2006 (w8)	SHP _I 2007 (w9)	SHP _I 2008 (w10)	SHP _I 2009 (w11)	SHP _I 2010 (w12)	SHP _I 2011 (w13)	SHP _I 2012 (w14)	SHP _I 2013 (w15)	SHP _I 2014 (w16)	SHP _I 2015 (w17)	SHP _I 2016 (w18
Households with grids completed	5,074	4,532	4,314	3,685	3,289	2,918	2,526	2,580	2,893	2,793	3,052	3,065	3,055	3,032	2,936	2,821	2,802	2,700
Household interview completed	**5,074**	**4,425**	**4,139**	**3,582**	**3,227**	**2,837**	**2,457**	**2,537**	**2,817**	**2,718**	**2,930**	**2,985**	**2,977**	**2,968**	**2,881**	**2,778**	**2,761**	**2,651**
Persons living in participating households	12,931	11,678	11,116	9,537	8,478	7,517	6,491	6,587	7,225	6,905	7,469	7,477	7,450	7,274	6,999	6,703	6,571	6,268
Persons aged 14 years and older eligible for individual interviewing	10,293	9,297	8,942	7,553	6,719	5,976	5,220	5,333	5,972	5,740	6,224	6,286	6,335	6,229	6,043	5,798	5,720	5,469
Personal interview completed	**7,799**	**7,073**	**6,601**	**5,700**	**5,220**	**4,413**	**3,888**	**4,091**	**4,630**	**4,494**	**4,800**	**5,057**	**5,103**	**5,032**	**4,880**	**4,678**	**4,596**	**4,311**
Proxy Interviews [a]	2,638	2,381	2,174	1,984	1,724	1,482	1,241	1,237	1,226	1,127	1,216	1,163	1,085	1,029	923	882	831	779
Persons responding in current and all previous waves	------	6,335	5,429	4,480	3,888	3'076	2,622	2,399	2,209	2,060	1,952	1,879	1,813	1,739	1,661	1,598	1,547	1,461
Grid level net response rates [b]	64%	91%	88%	86%	90%	82%	91%	87%	86%	91%	91%	94%	93%	93%	94%	92%	94%	92%
Individual level net response rates [c]	85%	84%	88%	89%	88%	85%	87%	81%	81%	82%	81%	85%	84%	85%	85%	84%	84%	83%

Source: Swiss Household Panel, 1999-2016 (http://www.swisspanel.ch/)

[a] The SHP proxy interviews include information about children under 14 years and adult persons unable to respond to the survey (old age, handicap, etc.); the SILC survey doesn't conduct proxy interviews regarding children.
[b] Referring to all gross households minus those with neutral problems (neutral problems: invalid telephone, etc.).
[c] Referring to all called individuals minus those with neutral problems (foreign language etc.).

Participation rates for the second wave sample (SHP_II) recruited in 2004 and the third wave sample (SHP_III) recruited in 2013

Number of participating units	SHP_II 2004 (w1)	SHP_II 2005 (w2)	SHP_II 2006 (w3)	SHP _II 2007 (w4)	SHP _II 2008 (w5)	SHP _II 2009 (w6)	SHP _II 2010 (w7)	SHP _II 2011 (w8)	SHP _II 2012 (w9)	SHP _II 2013 (w10)	SHP _III 2013 (w1)	SHP _II 2014 (w11)	SHP _III 2014 (w2	SHP _II 2015 (w12)	SHP _III 2015 (w3)	SHP _II 2016 (w13)	SHP _III 2016 (w4)
Households with grids completed	2,703	1,907	1,753	1,547	1662	1,539	1,608	1,560	1,560	1,530	4,065	1,412	3,283	1,353	2,732	1,277	2,425
Household interview completed	**2,537**	**1,798**	**1,683**	**1,493**	**1545**	**1,475**	**1,556**	**1,519**	**1,492**	**1,487**	**3,988**	**1,384**	**3,196**	**1,325**	**2,700**	**1,246**	**2,365**
Persons living in participating households	6,565	4,669	4,272	3,773	3980	3,682	3,851	3,724	3,692	3,572	9,881	3,324	7,990	3,149	6,624	2,905	7,788
Persons aged 14 years and older eligible for individual interviewing	5,376	3,845	3,500	3,123	3291	3,033	3,184	3,136	3,115	3,020	7,910	2,808	6,498	2,659	5,388	2,465	4,771
Personal interview completed	**3,652**	**2,647**	**2,566**	**2,349**	**2409**	**2,307**	**2,487**	**2,479**	**2,411**	**2,324**	**6,088**	**2,147**	**5,262**	**2,072**	**4,498**	**1,909**	**3,809**
Proxy Interviews [a]	1,115	770	743	637	645	622	653	570	564	543	------	511	1,455	482	1,219	433	980
Persons responding in current and all previous waves	------	2,393	1,928	1,600	1,399	1,288	1,220	1,156	1,101	1,038	------	956	4,451	899	3,588	837	2,901
Grid level net response rates [b]	65%	81%	78%	84%	81%	91%	88%	90%	89%	92%	60%	89%	89%	88%	88%	87%	85%
Individual level net response rates [c]	76%	75%	78%	80%	80%	81%	83%	84%	82%	81%	81%	81%	86%	82%	88%	81%	85%

Source: Swiss Household Panel, 1999-2016 (http://www.swisspanel.ch/)

As with all survey and longitudinal panel projects, the quality of the data relies on the continuous participation and response rate quality in the data collection. In this respect, SHP is considered a high quality scientifically appropriate data source for which analyses of attrition rates and composition are like household panel projects such as British Household Panel and European Community Household Panel. Lipps reports that, even though attrition is relatively higher in the

SHP when compared to these projects that "it is not particularly selective with respect to important socio-demographic or economic variables" (Lipps 2007, 63). The difficulty of the attrition seems to be to track and keep the younger respondents in the panel and the tracking of the respondents who do not have Swiss citizenship. Table I2, above, reports the participation rates and attrition across the three sampling waves of the SHP reported by FORS - the Swiss Centre of Expertise in the Social Science Data, which is responsible for the management of the SHP data collection.

Table I3: Descriptive information on the respondents that remain above and below median rates in the analysis

Respondents remaining below median	Mean	Sd.	Min.	Max.
External efficacy	3.598469	2.669404	0	10
Swiss citizen	.8603605	.3466196	0	1
Female	1.522278	.4995136	1	2
Age	42.7018	17.90539	18	96
Education	12.84851	3.009897	8	21
Income	5.265879	2.723518	1	10
Left-right scale	4.869203	2.183347	0	10
Political interest	5.15987	2.877232	0	10
Political trust	5.542842	2.230764	0	10
Religiosity	2.883887	2.13762	0	8
Respondents remaining above median	Mean	Sd.	Min.	Max.
External efficacy	3.899224	2.554606	0	10
Swiss citizen	.9360894	.2445964	0	1
Female	1.565713	.4956688	1	2
Age	50.14894	14.68436	18	95
Education	13.58507	2.927313	8	21
Income	5.966758	2.756889	1	10
Left-right scale	4.675998	2.066344	0	10
Political interest	5.985789	2.600734	0	10
Political trust	5.702888	2.049347	0	10
Religiosity	3.15808	2.137014	0	8

Since attrition is particularly important for foreigners, we evaluate the sensitivity of the key dependent variable and the non-citizen voting rights distribution vis-à-vis such dynamics. To check for this, first, we calculate the participation rate of each individual respondent in the SHP panel and responding to the external efficacy question with a non-missing response. Since our analysis observes the respondents in the 1999-2014 period, for instance, an individual can remain in the analysis for a minimum of 1 and a maximum of 16 times. We are unable to use the SHP waves after 2014 because the more precise municipality of resident information for households is only

available up to 2014. As an initial check, we report that the remaining rate in the analysis does not correlate highly with reported external efficacy variable (*R*= 0.0690).

Next, we see that the median number of time a respondent has been included in our analysis is about 8 waves. Using this, we create a binary variable indicating individuals who are in the panel above or below the median participation rate. Inspecting the key covariates of our analysis, and most importantly, political attitudes, we see that below and above median participants in our analysis are not systematically different in these important aspects which can influence our findings, see Table I3 above. We, then, estimate the probability of high participation using a logistic regression with individual clustered errors in a model specification of potential covariates that are likely predictors of such remaining rate in the analysis (both based on panel attrition and response sate) such as age, gender, education level, income, employment status, and whether the respondent is a native citizen, naturalized citizen or foreigner. Table I4, below, reports the results from this estimation. Using this prediction, we calculate the predicted probability of the high participation rate for our observations and report that the probability does not correlate highly either with the reported external efficacy, i.e., our DV, (*R*= -0.0089) or living in a municipality with non-citizen voting rights (*R*= -0.0135).

Table I4: Predicting below above median staying rate in the sample analysed

Pr (High remaining rate)	(1)
Ref: Native citizen	-0.73
Naturalized citizens	(0.654)
	-3.67***
Non-citizens	(0.714)
	(0.012)
Female	1.07*
	(0.437)
Education	0.29***
	(0.069)
Income	0.15t
	(0.078)
Employment status (**Ref**: Employed)	
Unemployed	-0.66
	(0.901)
Not in labour force	-1.04*
	(0.431)
Constant	-2.71t
	(1.504)
Observations	62,321
Year FE	Y
Canton FE	Y
Number of individuals	11,762
Log likelihood	-8238

Logistic regression predicting the probability of individuals remaining in more than 8 waves of the SHP and responding to the outcome variable. Clustered standard errors in parentheses.

*** p<0.001, ** p<0.01, * p<0.05, t p<0.1

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