Appendix: Descriptive statistics and additional analyses

In this appendix, we briefly summarize the variables used for the statistical analysis in the main text. First, we briefly explain the survey design before taking a closer look at how the different group types (citizen groups, economic groups, and others) were coded and which interest groups fall into the three categories. This second short section also includes summary statistics for all variables used in the paper. Then we apply bivariate analysis to have a first brief look into how group type and resources (i.e. employees) potentially affect access. Finally, we construct an additional measure capturing access to the policy process and use this new dependent variable for a robustness check.

Survey design: Following the method proposed by Wonka et al. (2010), the authors of the survey relied on a wide variety of data sources in order to take stock of the entire IG population. More specifically, data collection started with the 'Schweizer Jahrbuch des öffentlichen Lebens' (Schwabe, 2009). Since no official IG registry exists in the Swiss parliament, the parliament's 'Gästeregister' (guest registry) for relevant organizations was used as a second source of information. Finally, the Swiss list of IGs was completed by checking the website 'www.verbaende.ch' for potentially relevant organizations not yet included in the list. The different lists were merged, and duplicate entries were deleted. The response rate in Switzerland was 40% (985 of 2475 organizations).

Descriptive statistics: Table A1 provides an overview of the 928 interest groups in the dataset, which we were able to place into one of the three categories using the INTERARENA coding scheme (Binderkrantz et al., 2015). The vast majority of citizen groups are public interest groups (159 out of 256), while for economic interests the business groups and associations make up the by far largest share (239 of 303). This distribution is roughly similar to the one

observed by Binderkrantz et al. (2015) in the Danish case. Citizen groups represent 27 percent of all groups in the Swiss case, and 30 percent in the Danish case. Economic groups represent 30 percent of the group population in Switzerland, and 40 percent in Denmark. The main difference relates to the share of occupational groups which is considerably higher in the Swiss case (31% as compared to 11.5% in the Danish case). We believe that this related to our reliance on the registry 'www.verbaende.ch' which represents an inventory of occupational associations. For more information on the coding of group type, please refer to p. 18 in the main text.

Table A1: Composition of interest group categories

Type	**N**	**Composition**
Citizen groups	256 (27%)	Identity groups: 75 (8%) Religious groups: 22 (2%) Public interest groups: 159 (17%)
Economic groups	303 (33%)	Unions: 24 (3%) Business groups: 239 (26%) Institutional associations: 40 (4%)
Others	369 (40%)	Occupational associations not negotiating terms and conditions: 281 (30%) Sports and leisure groups: 88 (9%)

To complete the descriptive statistics section, Table A2 below presents summary statistics for all variables used in this paper. This summary table contains only information for those 681 observations for which none of the variables used in the statistical models are missing values, and which therefore are used in the statistical analysis.

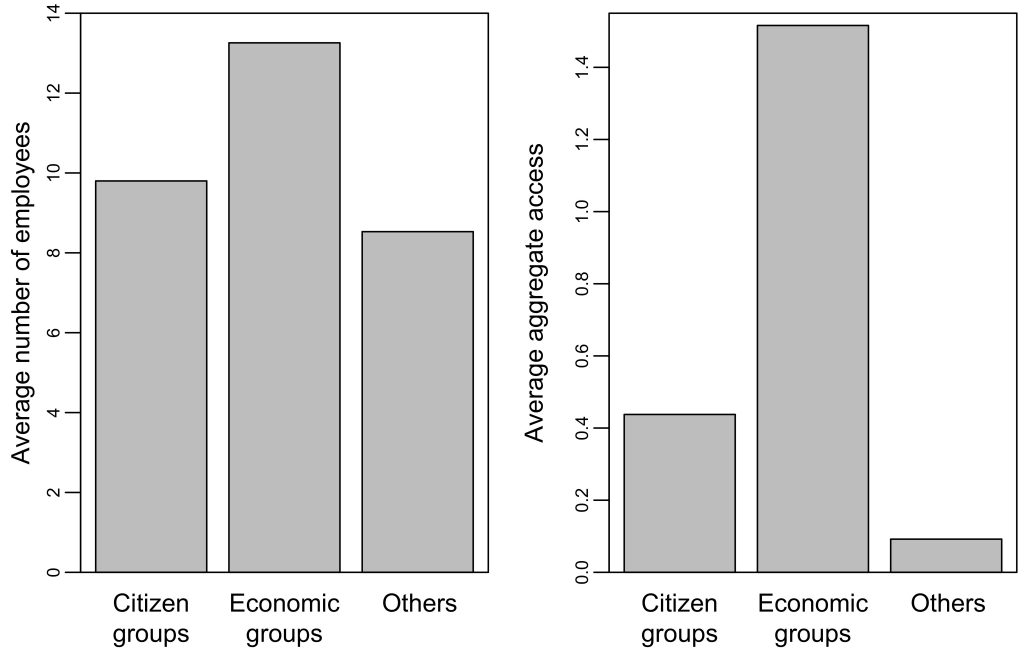
Table A2: Summary statistics for all variables used in the statistical models

Numeric Variables	**Min**	**Max**	**Mean**	**Median**	**SD**	**Skew**	**N.Obs.**
Seats administrative venue	0	9	0.36	0	0.92	4.22	681
Seats legislative venue	0	18	0.30	0	1.56	8.30	681
Employees	0	310	10.43	2.7	26.62	6.56	681
Combined access	0	29.08	0.59	0	2.63	8.06	681
Individual members	0	900,000	6,457	98	46,185	13.93	681
Corporate members	0	26,000	321	15	1,819	10.48	681
Importance national level	1	5	3.94	4	1.12	-0.96	681
Political competition	1	5	2.68	3	0.96	0.15	681
Age	0	197	56.89	45	40.82	0.68	681
Political activity	1	5	3.08	3	1.14	-0.04	681
Categorical variables							
Group type	Citizen groups: 176, Economic groups: 235, Others: 270						681

Bivariate analysis: Now that we established the composition of interest groups and provided summary statistics, we turn to some additional bivariate and multivariate analyses. Starting with the bivariate analysis, Figure A1 (right-hand panel) shows that economic IGs enjoy a substantially higher average aggregate (weighted) access than citizen groups. To be clear, the y-axis cannot readily be interpreted as the number administrative or legislative seats interest groups obtained, as it is an aggregation of the two measures weighting for the importance of the respective venues during policy-making processes. As can be seen on the left-hand panel of Figure 1, economic groups also display a higher average number of employees. This suggests that economic groups' higher average access might be linked to their superior staff resources. The statistical models in the main text attempt to disentangle whether economic groups' stronger average access merely reflects their superior resources, or whether it is also related to the fact that they represent employers and employees (i.e. interests strictly related to

economic production as opposed to the broader causes defended by citizen groups).

Figure A1: Average number of employees and aggregate overall access to the political system[1]



Robustness check: Finally, we turn to an additional measure of aggregate access as a robustness check for the findings presented in the main text of the paper. Both our measure in the main text combine two quantities of access which might not be directly comparable to each other. For instance, if one group has only access to the legislative venue, and accessing the legislative venue is much easier than the administrative venue, then our combined measures of access might be biased. To acknowledge this potential problem, we generate an additional dependent variable and use it as a robustness check. To make the two measures of

[1] Note that the distributions of both the number of employees as well as (aggregate) access are heavily skewed (overall and within the three types of interest groups, see also Table A2), as there are many groups with few employees and a few with very many in all three categories. As a consequence, the standard deviation of the number of employees for interest groups for citizens is 23.03, for economic groups 29.61, and for other groups 27.31. Similarly, for (aggregate) access, these standard deviation numbers are 1.15 for citizen groups, 4.89 for economic groups, and 0.46 for the others. Thus, confidence intervals for the bars in the graph would be very wide, which is why we did not to include them.

access comparable, we use the value of access by individual groups, and divide these values by overall access granted. We apply this procedure to both venues separately. For instance, the group with the largest access to the legislative venue has 9 seats, out of a total of 248. Thus, this group gained 3.6 per cent of overall access to the legislative venue. By repeating this calculation for both venues and then adding the two percentage values up, we obtain a third measure of overall access. Table A3 shows the selection and allocation stages using this additional measure of access. The selection stage remains the same as for the combined measures reported in the main text of the paper. However, the models for the allocation stage – using again Gamma regression models – we see some small differences, yet the overall findings are remarkably stable. This is additional evidence for the validity of our modeling approach.

Table A3: Hurdle models for the access measure adding the proportions of access to the two venues

	Dependent Variable:	
	Cumulative access (binary) (1)	Cumulative access (proportions added) (2)
Employees (log)	0.21***	0.16***
	(0.06)	(0.05)
Group type (base = citizen groups)		
Economic	0.30	0.41**
	(0.24)	(0.19)
Others	-1.35***	-0.16
	(0.27)	(0.24)
Age (log)	-0.10	-0.01
	(0.11)	(0.08)
Importance nat. level	0.15	0.26***
	(0.11)	(0.09)
Political competition	0.11	-0.07
	(0.11)	(0.09)
Political activity	0.64***	0.18**
	(0.11)	(0.09)
Corporate members	0.06	-0.02
	(0.04)	(0.03)
Individual members	0.01	-0.01
	(0.03)	(0.02)
Constant	-4.49***	-3.04***
	(0.66)	(0.51)
Observations	681	192
Log-Likelihood	-636.09	-192.44

References:

Binderkrantz, A. S., Christiansen, P. M., & Pedersen, H. H. (2015). Interest Group Access to the Bureaucracy, Parliament, and the Media. *Governance*, *28*(1), 95–112.