**Table A1** – 2018 organizational population densities

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Policy domain | Population | Czech Republic | Hungary | Poland | Slovenia | Sample total |
| healthcare | non-medical employees | 8 | 6 | 15 | 13 | 42 |
| healthcare | healthcare institutions | 18 | 5 | 12 | 22 | 57 |
| healthcare | medical professionals | 68 | 124 | 139 | 67 | 398 |
| healthcare | patients | 92 | 29 | 49 | 60 | 230 |
| healthcare | healthcare business | 12 | 6 | 8 | 1 | 27 |
| higher education | higher education employees | 3 | 8 | 2 | 4 | 17 |
| higher education | higher education institutions | 7 | 8 | 8 | 1 | 24 |
| higher education | higher education scientific | 19 | 30 | 37 | 29 | 115 |
| higher education | higher education students | 12 | 17 | 38 | 44 | 111 |
| energy policy | nuclear energy | 4 | 6 | 3 | 2 | 15 |
| energy policy | environmental protection | 21 | 7 | 22 | 16 | 66 |
| energy policy | renewable energy | 19 | 30 | 56 | 10 | 115 |
| energy policy | fossil energy | 36 | 48 | 31 | 13 | 128 |
|  | Country total | 319 | 324 | 420 | 282 | 1345 |

**Table A2** –Number of surveyed organizations per country, policy domain, and population.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Population | Czech Republic | Hungary | Poland | Slovenia | Total |
| Fossil energy | 21 | 18 | 8 | 13 | 60 |
| Nuclear energy | 4 | 0 | 1 | 1 | 6 |
| Environmental protection | 5 | 2 | 5 | 11 | 23 |
| Renewable energy | 7 | 6 | 8 | 4 | 25 |
| **Energy total** | 37 | 26 | 22 | 29 | 114 |
| Higher education employees | 3 | 3 | 3 | 5 | 14 |
| Higher education scientific | 7 | 12 | 9 | 21 | 49 |
| Higher education institutional | 2 | 1 | 8 | 6 | 17 |
| Higher education students | 4 | 2 | 5 | 5 | 16 |
| **Higher education total** | 16 | 18 | 25 | 37 | 96 |
| Healthcare institutional | 2 | 4 | 5 | 5 | 16 |
| Healthcare non-medical employees | 5 | 3 | 0 | 5 | 13 |
| Healthcare medical employees | 13 | 25 | 12 | 9 | 59 |
| Healthcare patients | 44 | 17 | 25 | 28 | 114 |
| Healthcare business | 4 | 4 | 4 | 3 | 15 |
| Healthcare total | 68 | 53 | 46 | 50 | 217 |
| **Sample total** | 121 | 97 | 93 | 116 | 427 |

**Table A3** **online appendix** – The operationalization and data of the energy (governmental expenditures) and area (latent constituency size) terms

|  |  |  |
| --- | --- | --- |
| Variable | Operationalisation | Source |
| Energy (resources) - Healthcare – Business and institutional groups | Healthcare expenditure by function as % of GDP, 2017 (Poland 2016): pharmaceuticals and medical goods | Eurostat (2020b) |
| Energy (resources) - Healthcare – Medical professionals, Non-medical employees | Healthcare expenditure by function as a % of the GDP, 2017 (Poland 2016): all categories except expenditures for any function with rehabilitative and long-term care, and pharmaceuticals and medical goods | Eurostat (2020b) |
| Energy (resources) - Healthcare – Patient groups | Healthcare expenditure by function as % of GDP, 2017 (Poland 2016): all functions with rehabilitative and long-term care | Eurostat (2020b) |
| Energy (resources) – Higher education – All groups (business, students, employees, institutional)  | Public expenditure on education by education level and programme orientation - as % of GDP | Eurostat (2020e) |
| Energy (resources) – Energy policy – Fossil energy groups | Public support for fossil fuels as a % of GDP, 2017 | Yearwood et al. (2020) |
| Energy (resources) – Energy policy – Nuclear energy groups | Public support for nuclear energy as a % of GDP, 2017 | Yearwood et al. (2020) |
| Energy (resources) – Energy policy – Renewable energy groups | Public support for renewable energy as a % of GDP, 2017 | Yearwood et al. (2020) |
| Energy (resources) – Energy policy – Environmental protection groups | Total government expenditure on environmental protection (waste management, water management, pollution abatement, protection of biodiversity and landscape, R&D environmental protection) as % of GDP in 2017 | Eurostat (2021a) |
| Area (constituency) – Fossil energy policy groups | Logarithm of the number of employees per 100,000 inhabitants in: mining of coal and lignite, extraction of crude petroleum, extraction of natural gas, support activities for petroleum and natural gas extraction, electric power generation, transmission and distribution, manufacture of gas; distribution of gaseous fuels through mains, in 2017 | Eurostat (2021b) |
| Area (constituency) – Nuclear energy policy groups | Logarithm of the employment impact of the nuclear power sector in countries with current capacities per 100,000 inhabitants (Poland does not have any current capacities), 2019 | Deloitte (2020) |
| Area (constituency) – Renewable energy policy groups | Logarithm of the number of employees in the renewable energy sector (total – all technologies) per 100,000 inhabitants in 2018 | IRENA (2020) |
| Area (constituency) – Environmental protection groups | Premature deaths attributable to PM2.5, NO2 and O3 exposure per 100,000 inhabitants in 2016 | EEA (2019) |
| Area (constituency) – Healthcare business | Logarithm of the number of pharmaceutical employees per 100,000 inhabitants in 2017 (Slovenia 2011) | Eurostat (2021c) |
| Area (constituency) – Healthcare – medical doctors/professionals and non-medical employees | The logarithm of the number health personnel by NUTS 2 regions per 100,000 inhabitants in 2017 | Eurostat (2020c) |
| Area (constituency) – Healthcare – patient groups | The logarithm of the number of standardised death rates (per 100,000 inhabitants) for treatable diseases/conditions among persons aged less than 75 in 2017 | Eurostat (2020g) |
| Area (constituency) – Healthcare – institutional groups | Available beds in hospitals per 100,000 inhabitants in 2017 | Eurostat (2020d) |
| Area (constituency) – Higher education – higher education students | The logarithm of the number of tertiary education students per country per 100,000 inhabitants | Eurostat (2020f) |
| Area (constituency) – Higher education – higher education employee and scientific populations | The logarithm of the number of classroom teachers in tertiary education per 100,000 inhabitants | Eurostat (2020a) |
| Area (constituency) – Higher education – higher education institutional groups | The logarithm of the number of tertiary education students per country per 100,000 inhabitants | Eurostat (2020f) |

**Table A4** –Coding scheme for the concentrated (1) vs diffuse interests (0) dichotomous variable

|  |  |  |
| --- | --- | --- |
| Policy field | Concentrated Interests | Diffuse Interests |
| Healthcare groups | medical doctors, medical and pharmaceutical industry, private hospitals  | patients, healthcare awareness, healthcare unions and healthcare non-medical employees |
| Higher education groups | groups representing the academic profession and/or institutions (e.g., rectors’ conferences) as well as lobbyists for the university system | higher education unions, student organizations |
| Energy policy groups | energy producers and associations of energy suppliers / business organizations (fossil, nuclear, renewables) | consumers’ groups, groups promoting clean and sustainable energy (environmental) as well as energy efficiency and energy employees’ organizations (unions) |

**Table A5** - Descriptive Statistics of Dependent and Independent Variables

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | count | mean | sd | min | max |
| Access to the government and parliament - composite index | 369 | 8.428184 | 3.909418 | 1 | 18 |
| Professionalization | 412 | 15.06068 | 8.235211 | 1 | 30 |
| Organizational age logged | 424 | 2.826994 | .8615059 | 0 | 5.342334 |
| Concentrated interests | 428 | .5280374 | .4997975 | 0 | 1 |
| Expertise | 431 | .6844548 | .4652727 | 0 | 1 |
| Cooperation with other domestic groups | 342 | 3.69883 | 1.874336 | 0 | 8 |
| Relative population density (%) | 428 | 34.13745 | 18.84766 | 0 | 72.94118 |
| Government expenditure | 427 | 1.320118 | 1.654139 | 0 | 4.56 |
| Logarithm of latent constituency size | 427 | 5.832781 | 1.140984 | 0 | 8.314515 |
| Change in the deliberative democracy index 2005-2019 | 431 | .1931323 | .1301115 | 0 | .36 |
| Legislative fractionalization | 431 | .7071694 | .140755 | 0 | .85 |
| Frequency of government consultations in the policy field | 331 | .4954683 | .5007364 | 0 | 1 |

**Table A6** - Macro-, meso-, and individual level determinants of access to policy makers (with financial planning horizon dummy) - Czech, Hungarian, Polish, and Slovenian health care, higher education and energy policy interest groups

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|  | Access to the government and parliament - composite index | Access to the government and parliament - composite index | Access to the government and parliament - composite index | Access to the government and parliament - composite index | Access to the government and parliament - composite index | Access to the government and parliament - composite index | Access to the government and parliament - composite index |
| Professionalization | 0.136\*\*\* [0.0327] | 0.0957\*\* [0.0332] | 0.0913\*\* [0.0338] | 0.0878\*\* [0.0336] | 0.0861\* [0.0333] | 0.0848\* [0.0331] | 0.0360 [0.0326] |
| Organizational age logged | -0.0127 [0.236] | -0.305 [0.223] | -0.329 [0.222] | -0.315 [0.213] | -0.283 [0.209] | -0.198 [0.216] | -0.213 [0.217] |
| Concentrated interests | 0.463 [0.423] | 0.651 [0.408] | 0.816 [0.479] | 0.922 [0.485] | 0.974\* [0.486] | 0.948 [0.487] | 0.552 [0.479] |
| Expertise | 2.388\*\*\* [0.506] | 1.906\*\*\* [0.529] | 1.852\*\*\* [0.531] | 1.602\*\* [0.548] | 1.539\*\* [0.547] | 1.661\*\* [0.560] | 1.436\*\* [0.539] |
| Financial resources | -0.424 [0.415] | -0.255 [0.390] | -0.173 [0.407] | -0.447 [0.436] | -0.467 [0.425] | -0.414 [0.441] | -0.400 [0.424] |
| Cooperation with other domestic groups |   | 0.665\*\*\* [0.104] | 0.667\*\*\* [0.104] | 0.691\*\*\* [0.102] | 0.697\*\*\* [0.101] | 0.688\*\*\* [0.102] | 0.603\*\*\* [0.104] |
| Relative population density (%) |   |   | -0.00783 [0.0103] | -0.00456 [0.0103] | -0.00405 [0.0103] | -0.00292 [0.0102] | -0.00182 [0.00974] |
| Government expenditure |   |   | -0.253 [0.170] | -0.223 [0.168] | -0.208 [0.167] | -0.197 [0.167] | -0.180 [0.167] |
| Logarithm of latent constituency size |   |   | 0.289 [0.280] | 0.290 [0.277] | 0.289 [0.276] | 0.284 [0.275] | 0.331 [0.291] |
| Change in the deliberative democracy index 2005-2019 |   |   |   | -3.508\* [1.584] |   |   |   |
| Legislative fractionalization |   |   |   |   | 4.405\*\* [1.624] |   |   |
| Czechia |   |   |   |   |   | 0.261 [0.541] | 0.0382 [0.537] |
| Hungary |   |   |   |   |   | -1.416\* [0.573] | -1.079 [0.586] |
| Poland |   |   |   |   |   | -0.109 [0.592] | -0.826 [0.606] |
| Slovenia |   |   |   |   |   | 0 [.] | 0 [.] |
| Frequency of government consultations in the policy field |   |   |   |   |   |   | -2.834\*\*\* [0.433] |
| Constant | 4.264\*\*\* [0.903] | 3.612\*\*\* [0.874] | 2.608 [1.645] | 3.385\* [1.705] | -0.495 [1.887] | 2.599 [1.671] | 5.400\*\* [1.761] |
| *R*2 | 0.125 | 0.232 | 0.241 | 0.253 | 0.260 | 0.268 | 0.376 |
| Observations | 311 | 295 | 295 | 295 | 295 | 295 | 266 |

Standard errors in brackets

Linear regression models, robust standard errors

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Financial resources at the micro-level are based on a question on the organization’s financial planning horizon, measured on a 5-point scale ranging from less than 1 year to more than 5 years. We recoded this variable into a dichotomous variable (0: less than 1 to 3 years, 1: from 4 to more than 5 years).

The findings from the ‘baseline’ models stay essentially the same: that is, professionalization, domestic cooperation, legislative fractionalization, and our organizational level proxy for backsliding all prove to be robust, lending further support to our results. However, none of the population ecology variables reach statistical significance. This most probably can be explained by the much smaller sample size though.

We decided to drop the financial planning horizon variable from the models as it drastically reduces the number of observations and does not yield any significant results. As the number of observations in each model shows, unfortunately, not every respondent answered every question, and we must be very careful in which variables to include. We control for financial resources in the main models though: our composite professionalization index includes having paid staff.

**Table 6. online appendix** - Population-level determinants of access to policy makers - Czech, Hungarian, Polish, and Slovenian health care, higher education and energy policy interest groups

|  |  |
| --- | --- |
|  | (1) |
|  | Access to the government and parliament - composite index |
| Relative population density (%) | -0.0178 [0.0110] |
| Government expenditure | -0.322\* [0.150] |
| Logarithm of latent constituency size | 0.601\*\* [0.227] |
| Constant | 5.970\*\*\* [1.274] |
| *R*2 | 0.028 |
| Observations | 368 |

Standard errors in brackets

Linear regression models, robust standard errors

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001





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