# Online Appendix

Mass or Elite Polarization as the Driver of Authoritarian Backsliding? Evidence from 14 Polish Surveys (2005–2021)

## A.1 Sampling design

The sample was created to be representative of the Polish electorate by using 5 layers:

- 16 wojewodztwa regions
- 6 catergories for size of locality
- 3 categories of education
- 2 gender categories
- 6 age categories.

The gender and age categories were then merged to create 4 layers. The tables below illustrate the layering and the target sample based on the Polish census (here for year 2021). Next, sampling was conducted within each layer to match the census data. The primary sampling unit was an individual. Upon concluding the survey, to correct for mismatches between the census and the sample (within the 5 categories above), weights were created to apply to each surveyed respondent.

| sex | age | percentage |
|---|---|---|
| female | 18-24 | 4.2% |
| female | 25-34 | 8.2% |
| female | 35-44 | 10.0% |
| female | 45-54 | 8.0% |
| female | 55-64 | 8.3% |
| female | 65-85 | 13.7% |
| male | 18-24 | 4.4% |
| male | 25-34 | 8.5% |
| male | 35-44 | 10.2 % |
| male | 45-54 | 7.9% |
| male | 55-64 | 7.6% |
| male | 65-85 | 9.1% |

Table 1: Age and Sex layer

| education | percentages |
|---|---|
| some high school or lower | 38.9% |
| high school diploma | 35.1% |
| college diploma or more | 26.0% |

Table 2: Education layer

| locality size | percentages |
|---|---|
| village | 39.5% |
| town up to 20 000 | 13.2% |
| city up to 20-50 000 | 11.1% |
| city up to 50-100 000 | 8.3 % |
| city up to 100-500 000 | 16.3 % |
| city above 500 000 | 11.6 % |

Table 3: Locality size layer

| region | percentages |
|---|---|
| dolnoslaskie | 7.6 % |
| kujawsko-pomorskie | 5.4 % |
| lubelskie | 5.5% |
| lubuskie | 2.6% |
| lodzkie | 6.5% |
| malopolskie | 8.8% |
| mazowieckie | 14.0% |
| opolskie | 2.6 % |
| podkarpackie | 5.5 % |
| podlaskie | 3.1% |
| pomorskie | 6.0% |
| ślaskie | 11.9% |
| świetokrzyskie | 3.3% |
| warminsko-mazurskie | 3.7 % |
| wielkopolskie | 9.0 % |
| zachodniopomorskie | 4.5 % |

Table 4: Regional layer

## A.2 Measuring polarization

Table 5 presents summary statistics for the thermometer question analyzed in the main text, "Poland should be as closely integrated with the EU as possible."

| Survey | Obs | Mean | St. Dev. | Min | Pctl(25) | Pctl(75) | Max |
|---|---|---|---|---|---|---|---|
| 2005 (May) | 170 | 5.835 | 1.975 | 1.000 | 6.000 | 7.000 | 7.000 |
| 2007 (October) | 352 | 3.662 | 2.249 | 1.000 | 1.000 | 6.000 | 7.000 |
| 2007 (November) | 689 | 3.597 | 2.258 | 1.000 | 1.000 | 6.000 | 7.000 |
| 2009 (August) | 338 | 3.287 | 2.075 | 1.000 | 1.000 | 5.000 | 7.000 |
| 2009 (September) | 390 | 3.664 | 2.156 | 1.000 | 2.000 | 5.000 | 7.000 |
| 2011 (June) | 438 | 3.678 | 2.310 | 1.000 | 1.000 | 6.000 | 7.000 |
| 2011 (July) | 395 | 3.592 | 2.212 | 1.000 | 1.000 | 5.000 | 7.000 |
| 2015 (April) | 514 | 4.082 | 2.123 | 1.000 | 2.000 | 6.000 | 7.000 |
| 2015 (May) | 574 | 4.167 | 2.274 | 1.000 | 2.000 | 7.000 | 7.000 |
| 2016 (March) | 328 | 3.851 | 2.185 | 1.000 | 2.000 | 6.000 | 7.000 |
| 2019 (August) | 574 | 3.801 | 2.267 | 1.000 | 1.000 | 6.000 | 7.000 |
| 2019 (September) | 560 | 3.788 | 2.302 | 1.000 | 1.000 | 6.000 | 7.000 |
| 2021 (May) | 438 | 3.966 | 2.397 | 1.000 | 1.000 | 6.000 | 7.000 |
| 2021 (June) | 470 | 4.209 | 2.402 | 1.000 | 2.000 | 7.000 | 7.000 |

Table 5: Descriptive statistics for answers to "Poland should be as closely integrated with the EU as possible"

Table 6 presents the values for the measure developed in the main text, Polarization in Electorate on EU integration (2005-2021). The measure was defined as:

$$P_j(m, n, i) = \frac{Var_j^i(n_j + m_j)}{MaxVar(n_j + m_j)}$$

where polarization of the electorate in survey $j$ on issue $i$ (in our case EU integration) is a function of the responses of the $n$ respondents who declared voting for the first party (in our case for PO) and the $m$ voters who declared voting for the second party (in our case, PiS).

| Survey | Value: Polarization in Electorate on EU integration |
|---|---|
| May 2005 | 0.437 |
| October 2007 | 0.566 |
| November 2007 | 0.567 |
| August 2009 | 0.540 |
| September 2009 | 0.572 |
| June 2011 | 0.629 |
| July 2011 | 0.653 |
| April 2015 | 0.514 |
| May 2015 | 0.582 |
| March 2016 | 0.615 |
| August 2019 | 0.696 |
| September 2019 | 0.671 |
| May 2021 | 0.802 |
| June 2021 | 0.822 |

Table 6: Polarization in Electorate on EU integration (2005-2021)

Figure A.1 presents the values for the alternative measure developed in the main text, which we call here Uniform-adjusted Polarization in the Electorate and define as:

$$P_j(m,n,i) = \frac{Var_j^i(n_j + m_j) - UniVar(n_j + m_j)}{MaxVar(n_j + m_j) - UniVar(n_j + m_j)}$$

where $UniVar(n_j + m_j)$ is the variance of the uniform distribution with $n$ voters for PiS and $m$ voters for PO in survey $j$.

Figure A.1: Uniform-adjusted Polarization in the Electorate