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The Political Economy of Targeting: An Empirical Assessment of Poland's Family 500+ Programme

Stefanie Roost* † and Franziska Gassmann*

October 24, 2024

Abstract

Questions surrounding the allocation and design of social transfers have long intrigued scholars and policymakers in the field of political economy. While transfers targeting those most in need aim to maximize the value of their benefits and improve their livelihood, the political economy of targeting posits that such restrictive eligibility criteria might dampen general social support. This study delves into the social and political sustainability of social protection systems and explores whether and to what extent a broadening of social protection programs impacts society's redistributive and tax preferences. Using longitudinal individual-level data from Poland's Panel Survey, we examine the effects of the 2016 transition from income-tested to quasi-universal child benefits on redistributive, tax, and political preferences. Contrary to expectations from political economy models, the findings reveal nuanced responses among beneficiaries and non-beneficiaries. Beneficiaries do not become more supportive of redistribution, and their political and tax preferences remain similar to those of overall non-beneficiaries. A specific group of non-beneficiaries, the ones with children but excluded due to income requirements, react to the policy change by retaliating against the incumbent party and preferring a tax schedule that shifts the burden to other income groups. Overall, the study advances our understanding of the political economy of targeting social transfers and provides insights for policymakers navigating the trade-offs between targeting efficiency and societal endorsement in welfare policy design.

Keywords: Social Transfers, Targeting, Preference for redistribution, Tax Preferences, Political Preferences, Poland

JEL codes: P29, H23, D72

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1 Introduction

The question about who should benefit from social transfers interests academics and policy-makers alike. During the 1990s and early 2000s, international organizations, such as the IMF and World Bank, advocated for more efficient social protection system where only individuals in real need would be eligible for assistance. More recently, a move towards more universal social protection systems has been promoted, amongst others, by the ILO (2021). The support for poverty-targeted transfers derives from the argument that, for a fixed budget, focusing on groups most in need would allow for higher individual benefits and, consequently, improve the livelihood of the poor (Coady, Grosh, & Hoddinott, 2004). Leakage of resources to the non-poor is considered undesirable, as it decreases the efficiency and effectiveness of anti-poverty schemes. Yet, the ability of targeting methods to identify those most in need depends on factors such as country context and administrative implementation capacity (Barrientos & Hulme, 2016; Coady et al., 2004; Devereux et al., 2017; Gugushvili & Hirsch, 2014). Researchers also draw attention to social and political considerations that influence the feasibility of (highly) selective targeting programs beyond the concerns related to economic efficiency. The social costs of targeting include the negative stereotyping of residual benefits recipients, leading to feelings of shame or inferiority (Baekgaard, Herd, & Moynihan, 2023), particularly when eligibility is restrictive and based on economic requirements (Van Oorschot & Roosma, 2015).

Work on the political considerations of whether or not to target focuses on the feasibility of implementation and the sustainability of welfare policies. From the supply side, institutional characteristics and the political game between actors with veto power within the government may determine the stability or change of the status quo of welfare policies (Angelova, Bäck, Müller, & Strobl, 2018; Däubler, 2008). From the demand side, benefit and beneficiary characteristics are argued to influence how likely the society is to support political platforms advocating for higher or lower social spending. Contrary to standard economic theory, research on the political economy of targeting does not take the social budget as fixed. Instead, it argues that it reacts to the level of targeting (Gelbach & Pritchett, 2002). According to the theory, individuals are more likely to support policies from which they either immediately benefit or from which they perceive a greater probability of benefiting in the future. In democratic settings, the social budget is determined via majority voting, and cross-class coalitions are needed to ensure the success of a political platform, which will reflect the voters' political, tax, and redistributive preferences. When welfare policies are restricted to a small group of low-income voters with low levels of leakage, preferences around tax rate and depth of welfare policies of the middle class (the pivotal voters in the model) will align with those of high-income earners towards low support for redistribution and taxes to finance the budget allocated for social protection (De Donder & Hindriks, 1998; Gelbach & Pritchett, 2002; Moene & Wallerstein, 2001). As a consequence, the overall budget available for social assistance contracts, leading to the 'paradox of redistribution' (Korpi & Palme,

1998), where welfare policies with high levels of targeting have lower support from the population, leading to less poverty relief compared to a more universal approach.

Early anecdotal and qualitative evidence suggested that the level and coverage of the benefits are connected to the public acceptance of the policy (Lindert, 2004) and motivated further quantitative analysis at the country level, which has, so far, remained inconclusive (McKnight, 2015; Van Oorschot & Roosma, 2015). Micro-level evidence casts doubts on whether support is indeed lower for means-tested benefits *vis-a-vis* universal schemes (Muñoz & Pardos-Prado, 2019; Schüring & Gassmann, 2016). Laenen, Van Hootegem, and Rossetti (2023); Rincón, Vlandas, and Hiilamo (2022) find that conditionalities imposed on beneficiaries are relevant to explain the acceptance of means-tested transfers while the unconditional character of more inclusive transfers echos priors on (un)deservingness of beneficiaries and opposition to the transfers. Rincon (2023), on the other hand, provides evidence that such views might depend on other institutional or socio-economic characteristics. Her evidence from experiments in Spain, for instance, suggests that unconditionality does not activate unpopular opinions around universal transfers (Rincon, 2023).

In this paper, we analyze to what extent a change in the targeting of social transfers influences people's attitudes toward redistribution using individual-level panel data. If political economy models hold, a change to more narrow targeting would lead to a decrease in its political support and vice versa. We exploit a real-life policy change to empirically test the validity of the theory. In 2016, Poland introduced a quasi-universal child benefit in parallel to a means-tested family allowance, the Family 500+ program. We use three waves of the Polish Panel Survey (POLPAN), which is conducted every five years by the Polish Academy of Sciences, including before (2013) and after (2018) the change in the child benefit policy. To the best of our knowledge, this paper is the first to test the theoretical predictions in a real-world setting, using individual longitudinal data. To do so, this paper investigates how the widening of policy coverage influences people's redistributive and political preferences, and their attitudes toward the allocation of tax burden. While existing work focuses on recipients or analyzes hypothetical policy changes using (survey) experiments, we distinguish between the responses of both (potential) beneficiaries and individuals who were likely excluded from the expansion. Our findings corroborate the literature that identifies path dependence and relative cultural stability of redistributive preferences (Luttmer, 2001) given a person's view of the world. However, tax preferences are more sensitive to policy change. Lastly, we find that individuals who are in a disadvantaged position and may not benefit from the transfers, despite partially fulfilling eligibility requirements, tend to be less supportive of the political agent responsible for the change.

The remainder of the paper first describes the Polish context around the policy change (Section 2). This is followed by a description of the data and methodology (Section 3). Section 4 presents the results and Section 5 concludes.

2 Background: Poland

From 2003 to July 2016, Poland's child benefits consisted of a set of means-tested family transfers, the main one being a family allowance available only to families with a monthly income below a threshold of PLN 674/EUR 137[1] (threshold value for January 2016). The system also included child tax credits, and additional supplements, such as a childbirth grant, an allowance for single parents, and special allowances for children with disabilities, (Sowa, 2016). Prior to Family 500+, welfare policies followed a social investment approach, where spending on contributory schemes largely overshadowed their non-contributory counterparts, accounting for ca. 15% and 1% of GDP, respectively (Goraus-Tanska & Inchauste, 2016). The difference is mainly explained by the low amount and the narrowly targeted nature of non-contributory schemes, which in 2015 reached only those in extreme poverty by 2015[2] (Goraus-Tanska & Inchauste, 2016).

The targeted nature of family benefits radically changed in 2016. On April 1, 2016, the government, led by the recently elected PiS (*Law and Justice Party*)[3], launched the Family 500+ program (in Polish *Rodzina 500+*), with the intention of providing financial support to families raising children and increasing fertility rates in Poland. In its initial form, the program had a quasi-universal profile and consisted of two branches. The first branch provided a monthly payment of 500 PLN/EUR 115 for the second and every subsequent child below the age of 18. The second branch included an income-tested transfer of 500 PLN to the oldest child in low-income families with a net monthly income of up to 800 PLN per capita[4]. The child benefit was tax-free and did not affect the eligibility of families for other social transfers, such as family allowances or social assistance benefits[5].

Applications to the new scheme could be submitted from April 1st to July 1st, 2016, and re-submitted every year (Sowa, 2016). Payments started already in April 2016, and by June 2016, 1.6 million out of the 2.5 million submitted applications had been processed. By the end of 2016, around 2.5 million families had benefited from Family 500+ transfers, totaling PLN 17 billion in transfers that year (GUS, 2017). The number of beneficiary families remained roughly the same in 2017 and 2018 (2.5 million and 2.4 million, respectively). Overall, more than PLN 20 billion were allocated to the transfers (23.2 billion in 2017 and 22.2 billion in 2018). By the end of 2018, over 50% of the Polish children up to 18 years old benefited from Family 500+ transfers (GUS, 2018; GUS, 2019). In July 2019, the Family 500+ program was extended to cover all children in all families, regardless of

[1]The benefit amount depended on the child's age (increasing in child's age), but ranged from PLN 89 to PLN 129 per child per month.

[2]See Figure 1, Supplementary Material, for eligibility criteria and benefit value over the years.

[3]PiS first came to power in 2005 and ruled until 2007, losing two consecutive parliamentary elections in 2007 and 2011, before winning the 2015 presidential elections in June and securing a majority of seats in the Parliament in October of the same year (Jacuński et al., 2021).

[4]For families with a disabled child, the threshold for receiving the child benefit for the oldest child was set at 1,200 PLN (Sowa, 2016).

[5]In 2016, the Family 500+ was worth 27% of the gross minimum wage in Poland (Magda, Kiełczewska, & Brandt, 2018). The benefit value remained the same (Reuters, 2013), and was readjusted to 800 PLN in January 2024. .

family income. Since then, the program has become a fully universal unconditional child benefit and reached 6.1 million children in the second semester of 2019 (GUS, 2020), benefiting mainly families in upper-income deciles (Myck, Król, Trzciński, & Oczkowska, 2021)[6].

The provision of generous family benefits to increase fertility rates was linked to two important aspects of PiS electoral promises and the broader political agenda. In 2013, the Civic Platform, a center-right party that ruled Poland between 2011 and 2015, passed in 2013 a resolution that would gradually raise the retirement age to 67 years old for both men and women to address the issue of the aging population. In 2015, an important point in the PiS electoral campaign was the promise to reverse the retirement age back to 65 (men) and 60 (women) (Deloy, 2015). The generous Family 500+ benefits would lead to higher birth rates and ensure the future pension system's sustainability. The Family 500+ program was also part of a broader shift towards a conservative understanding of society rooted in traditional family roles (Orenstein & Bugarič, 2022). The proposed welfare system would be central to its social policy, characterized by traditional gender roles and disincentivizing dual-earner families through the provision of natalist benefits, lack of investment in public childcare, and differential retirement ages, confining women to the caring role (Meardi & Guardiancich, 2022).

Opinion polls suggest that changes introduced after 2015 have influenced public opinion on family benefit policies. Between 1996 and 2013, the Polish family policy was assessed as merely adequate or even inadequate (CBOS, 2017). This has changed considerably after the introduction of Family 500+. In 2017, 52% of the surveyed population considered the family policy as 'Good' (compared to 13% in 2013), and only 10% considered it 'Inadequate' (versus 32% in 2013). The outcomes and consequences of the Family 500+ program have been the subject of policy and academic research. On the one hand, research indicates that the transfers substantially reduced extreme material poverty (Jkedrzejczak & Pekasiewicz, 2020), for both observed and perceived poverty (Paradowski, Wolszczak-Derlacz, & Sierminska, 2020), and micro simulations predicted the near end of child poverty (Brzeziński & Najsztub, 2017). On the other hand, the program failed to have lasting effects on birth rates (Hrytsai, 2021), and its overall costs have been heavily criticized. Experts point out that richer households have more children and thus tend to benefit more than poorer households (Myck et al., 2021). Additionally, empirical evidence suggests that the program increased support for the incumbent populist party PIS in later elections (Gromadzki, Sałach, & Brzeziński, 2024) and decreased female labor force participation, with especially detrimental effects among lower-educated women (Magda et al., 2018).

[6]See timeline in Figure 2, Supplementary Material.

3 Data and Methodology

3.1 Polish Panel Survey - POLPAN

The Polish POLPAN is a program of panel surveys carried out in 5-year intervals since 1988 that focuses on describing the social structure and its change during the last 30 years in Poland[7]. Initially, the survey covered a national sample of 5,817 individuals representing Poland's adult population (aged 21-65). In 1993, the sample was reduced to 2,500 individuals. To ensure a representative age balance, subsequent waves have been replenished with newly sampled young cohorts. The most recent wave carried out in 2018 included 2,161 respondents[8].

For our analysis, we use the survey waves from 2008, 2013, and 2018. This limits attrition and ensures that the observations include sufficient respondents potentially eligible for the Family 500+ program in 2018. Given that the means-tested family allowances were introduced at the end of 2003, including that wave could affect the outcome variables in that wave. Thus, our preferred specification considers a balanced panel from 2008 to 2018. We exclude individuals with children in the household born after the implementation of Family 500+ (children born in 2017 or 2018). It is plausible that some individuals decided to expand their families following the announcement of Family 500+ and that this decision is correlated with their priors on the role of the government in society. As the program was launched in April 2016, and payments ramped up in June-July 2016, it is unlikely that children born in 2016 were a reaction to the new transfer in place[9].

Table 1 lists the basic demographics for the balanced 2008 - 2018 panel. It is important to note that, since we restrict the observations, the sample is no longer representative of the Polish population. The average age of respondents in the three last waves is 51 years, and women comprise a slight majority of the sample. One-third of the sample is married, 30% of the sample report having at least one child in the household, and the average household consists of three individuals. Nearly half of the sample resides in rural areas. The mean educational level attained is general secondary, 32% of the observations report pursuing or having a higher educational degree, and 59% of the sample is working at the time of the interview.

[7]The data from the POLPAN panel survey are publicly available at GESIS, Leibniz Institut fur Sozialwissenschaften, and Harvard Dataverse.

[8]See Tomescu-Dubrow et al. (2021) for more information on the POLPAN dataset and data collection methodology

[9]Considering a 9 months pregnancy, the first "Family 500+ cohort" would have be born in January 2017.

Table 1: Summary statistics: Demographics. Balanced Sample

Variable	Mean	SD	Min	Max	Count
1+ child in HH	0.30	0.46	0.00	1.00	2628
Age	51.22	17.82	21.00	95.00	2628
Woman	0.52	0.50	0.00	1.00	2628
HH size	3.12	1.58	1.00	12.00	2627
Married	0.67	0.47	0.00	1.00	2628
Working	0.59	0.49	0.00	1.00	2628
Education	4.41	2.52	1.00	8.00	2628
Primary education or less	0.14	0.35	0.00	1.00	2628
Secondary education	0.54	0.50	0.00	1.00	2628
Higher education	0.32	0.47	0.00	1.00	2628
Rural household	0.48	0.50	0.00	1.00	2628

The variables 1+ child in the household, Woman, Married, Working, Primary education or less, Secondary education, Higher education, and Rural household are dummy variables which take a value of 1 when the respondent('s household) fits the category. Age is a continuous variable, and Education a 8-point categorical variable for the highest educational level achieved by the respondent. Source: POLPAN (2021).

3.2 Empirical Strategy

The Family 500+ program was introduced in 2016 at the national level in one single phase. While the political economy of targeting suggests that new beneficiaries are more likely to change their preferences, conceptually, non-recipients could also respond to the new policy by resenting not being considered by the change or by anticipating to benefit in the future. In other words, the impact of Family 500+ on preferences would differ across different categories of individuals according to how exposed they were to the national change in transfers. Therefore, we refrain from estimating the effect of benefiting from the welfare transfer vis-à-vis a clear counterfactual, as we cannot ensure that the control group – the non-beneficiaries – would not be affected by the treatment. Instead, we examine the differential impact of the policy expansion at the individual level and across groups defined by their likelihood to benefit from the transfer immediately or possibly in the future. The relevance of exposure to the policy change has been explored in the context of welfare retrenchments and government support (Larsen, 2018). More recently, this approach has also been adopted by research on the unequal effects of the Covid-19 pandemic, a common shock, across different types of workers compared to a baseline category (see Bussolo, Kotia, & Sharma, 2021, for an example). Formally, this paper follows the approach in Bussolo et al. (2021) and uses a difference-in-difference event study panel regression, according to the specification below.

$$Pref_{i,t} = \alpha + \sum_{c} \alpha_c Category_c + \sum_{t} \beta_t WAVE_t + \sum_{c,t} \gamma_{c,t} Category_c \times WAVE_t \quad (1)$$
$$+ \sum_{t} \eta_{i,t} X_{i,t} + \sum \lambda_{j,t} (NUTS2_j \times WAVE_t) + \mu_i + \varepsilon_{i,t}$$

where the dependent variable, $Pref_{i,t}$, reflects redistributive, tax, and political preferences for individual i in year t; $Category_c$ is a vector of binary variables identifying the child- and income-related category the individual belongs to (see below); $WAVE_t$ indicates the survey wave, which controls for time-specific factors; $X_{i,t}$ are time-varying individual controls[10]. We control for educational attainment, per capita income, employment status, and whether the individual performs a high-skilled profession. $\sum_{j,t} NUTS2_j \times WAVE_t$ are region-time fixed effects[11], which control for region-wave-specific shocks like the subnational governmental administration and social trends. Lastly, we control for individual-level fixed effects, which account for time-invariant traits impacting a person's preferences, such as gender, upbringing, and cultural components.

3.2.1 Redistributive preferences

In our analysis, we first focus on redistributive preferences. The choice of the dependent variable follows the hypotheses derived from the theories of the political economy of targeting. According to that literature, individuals will be more supportive of allocating budget to welfare policies when their (perceived) odds of benefiting from such policies are high enough. We construct an index using survey questions that capture attitudes towards redistribution, gauging support for government provision to vulnerable groups, including that of services and reduction of income differences.

POLPAN has various questions related to redistributive preferences. The first question asks the respondents to what extent they agree with the statement that the government is responsible for reducing differences in people's incomes. This question is conventionally used in the literature to measure preferences for redistribution (Alesina & Giuliano, 2011) and is widely included in international values and social surveys[12]. Other questions do not directly address opinions on redistribution but the underlying dimensions that shape support for redistribution. They gauge the individual's support for government-funded social policies (Cavaillé & Trump, 2015), specifically in the labor market and education realms. The first question asks whether the government should assist children

[10] Following the conventional approach, we replace the 2018 values by the 2013 values of each time-varying variables. Thus, $X_{i,t}$ varies between 2008 and 2013, but not between 2013 and 2018. Time-specific controls are not required to ensure parallel trends. Table 28, in Supplementary Material, displays results without time-varying covariates.

[11] We test the robustness of the results with no region × wave fixed effects and NUTS1 × wave fixed effects. The results remain qualitatively stable, albeit with occasional changes in the significance level (Tables 29 and 30 in the Supplementary material)

[12] Renowned examples include the *World Values Survey*, *European Social Survey*, and the *General Social Survey*. Those surveys usually use either the question stated in the text or a close alternative asking whether it is the government's or individual responsibility to provide for each citizen.

from poor families by facilitating their access to higher education. The second elicits support for the government providing jobs for all individuals who want to work. All three variables are measured by POLPAN using a 5-point Likert scale ranging from 'strongly disagree' (1) to 'strongly agree' (5) (See Table 5 in annex)[13]. Based on the three questions, we compute a composite index of support for redistribution, converting direct opinions and proxies measuring support for government-funded social policies. The index is constructed with factor analysis using a polychoric correlation matrix [14] and normalized to consist of values between 0 (lowest) and 1 (highest support).

3.2.2 Tax preferences

Secondly, we focus on tax preferences as an outcome variable. While direct transfers and income taxes have a reasonably progressive profile in Poland, the burden of indirect taxes rendered the system progressive only at the bottom deciles; households starting from the second decile were net payers to the treasury (Goraus-Tanska & Inchauste, 2016).

According to the literature on the political economy of targeting, individuals react to the degree of targeting of social protection systems when choosing their preferred tax rates. Potential recipients accept higher tax rates as they have the prospect of benefiting from the transfers. As posed by the canonical models in Moene and Wallerstein (2001) and Gelbach and Pritchett (2002), a change in the coverage rate of welfare policies influences the preferred tax rate and schedule of those who become (in)eligible to receive the benefit. Thus, based on the predictions of the models, we expect the (potential) beneficiaries to change their tax preferences toward higher tax rates vis-à-vis the reference category. The POLPAN survey asks the respondents about their preferred tax rate for individuals in different reference income levels. Table 6 in the Annex lists the income values used in each wave for the different reference groups[15].

The original question is recorded in POLPAN with 4 distinct variables, corresponding to the tax rates for each income group; namely, the rows in Table 6. Using these four original tax variables, we build different measures that capture preferences for the level and distribution of tax rates. The two variables are combined to generate, per respondent, (i) the preferred average tax rate, and (ii) a concentration coefficient that measures how unequal the distribution of the tax burden would be across income groups. The preferred average tax rate is measured by Equation 2 for each individual i and wave t, as the mean of the tax rates assigned for the different income groups 1 through 4.

[13] Summary statistics by variable available on Table 22, Supplementary Material.

[14] We use the unbalanced dataset covering waves 1998 to 2018 to perform the analysis. The factor loadings for all variables are above the minimum conventional values of 0.4 (minimum loading 0.54). Only one factor with Eigenvalue above 1 is used for computing the index. Tables 19, 20 and 21, Supplementary Material, display the Correlation Matrix, Factor Analysis output and Factor Loadings, respectively.

[15] The respondent could answer a tax percentage or a tax value in PLN. In cases where the answer was in values, we calculated the corresponding percentage based on the questions' reference income. For instance, if in 2018 the respondent assigned a tax value of 200 PLN to people earning 2,000 PLN, the corresponding tax rate is 10%.

$$AvgTax_{i,t} = \frac{tax_{1,i,t} + tax_{2,i,t} + tax_{3,i,t} + tax_{4,i,t}}{4} \tag{2}$$

Tax progressivity is measured by the concentration index, calculated for each i and wave t based on the tax rates assigned for every income group g:

$$ConcTax_{i,t} = 2 * \frac{cov(tax_{g,i,t}, R_{g,i,t})}{(tax_{1,i,t} + tax_{2,i,t} + tax_{3,i,t} + tax_{4,i,t})/4} \tag{3}$$

$tax_{g,i,t}$ is the tax rate that individual i assigned to income group g, in year-wave t. The income groups (subscript g) are groups 1, 2, 3, and 4, in Table 6. $R_{g,i,t}$ is the group g's rank in income distribution, and cov(...) the covariance between the tax rate assigned to group g, and g's income rank. The concentration index measures the nature of the tax allocation across the different income groups and takes values between -1 and +1. A negative coefficient indicates that lower-income groups mostly bear the tax burden (regressive tax), while positive values occur when taxes are concentrated on higher-income groups (progressive tax), and zero corresponds to perfect equality across groups (neutral tax). When two negative indices are compared, the lower the index, the higher the burden is placed on lower-income groups, even though both cases represent a regressive tax system. Similarly, for positive values, the greater the index, the higher the tax burden is placed on higher-income groups.

3.2.3 Voting intentions

Lastly, we assess the impact of Family 500+ on political preferences of (in)eligible households. According to the literature on the political economy of targeting, a more inclusive welfare system would imply greater support of redistributive policies, a larger tax schedule, and, ultimately, a vote for political platforms that advocate for this structure of social protection (Gelbach & Pritchett, 2002; Moene & Wallerstein, 2001). The literature on economic voting makes similar predictions, where voters are driven by their material self-interest and reward or punish the incumbent for their personal financial situation (Lewis-Beck & Paldam, 2000). In the Polish case, research has linked the widening of the child benefit to increased support for the Law and Justice party in municipalities with greater shares of Family 500+ transfers.

Given the individual-level nature of the POLPAN data, we are able to build upon previous work (e.g. Gromadzki et al., 2024), reduce concerns of ecological fallacy, and distinguish between different categories of (non-)recipients to assess whether they react differently to the 2016 policy implementation. To operationalize this analysis, we use the respondents' stated voting intentions in favor of the incumbent party, PiS, who implemented the Family 500+ programme.

Since Family 500+ was introduced after the 2015 elections, using the reported vote in the 2015 elections would not accurately capture this change of support given the child benefit expansion. There-

fore, we opt for using expected future vote, instead of reported past vote[16]. POLPAN inquires the respondents about their party/candidate preferences[17] should the elections be held in the upcoming Sunday. From this question, we compute a dummy variable, taking the value of 1 if the respondent indicates an intention to vote for PiS and 0 otherwise.

Table 2 provides the summary statistics for the outcome variables per wave. Overall, individuals in the sample are less supportive of redistribution in 2018 compared to 2013, measured with the composite redistributive index. The tax-related variables suggest a preference for lower tax levels in 2018 relative to 2013, with stable preferences on tax progressivity. Lastly, PiS enjoyed a growing support throughout the waves within our sample.

Table 2: Summary statistics: outcome variables per wave

Variable	Wave 2008		Wave 2013		Wave 2018	
	Mean	SD	Mean	SD	Mean	SD
	Outcome variables					
Redistributive Index	0.78	0.18	0.80	0.19	0.73	0.19
Tax: Average value	15.54	7.19	16.23	7.23	15.55	7.17
Tax: Progressivity	0.30	0.18	0.27	0.18	0.28	0.16
PiS vote	0.12	0.33	0.18	0.39	0.33	0.47

Summary statistics per wave for the balanced panel sample 2008-2018 (N=876). Source: POLPAN (2021)

3.2.4 Beneficiary groups

In an event study approach, the groups and waves constitute the explanatory variables, for which the differential treatment effects will be assessed. We define the different groups according to their likelihood of benefiting from the Family 500+, and whether we expect the group to change their preferences as a reaction. For the definition of the categories, the likelihood of benefiting is defined by whether the individual satisfies the eligibility criteria, which comprise two dimensions: the number of children below 18 years in the household and per capita household income.

As the policy excluded households without underage children, the likelihood of benefiting depended firstly on the number of children in the household. The households are assigned into categories (see Table 3) according to the number of children born between 2000 and 2016 living in the household in 2018: one, two, or two or more. Moreover, we differentiate the households according to their income, as the policy design included a quasi-universal and means-tested arm. We create a binary variable identifying those respondents whose household belongs to the bottom quintile of the sample's per

[16] One could be concerned that the question reflects the expansion of Family 500+ to a full universal transfer in 2019. However, the expansion was only announced in February 2019, and the data collection of POLPAN's last wave took place in 2018, with over 90% of the sample interviewed by July. Therefore, the stated voting intentions are unlikely to reflect expectations of the future broadening.

[17] The stated answer is the spontaneous political preference.

capita income distribution in 2013 (pre-policy)[18]. With this approach, we can explore the reaction of respondents with children who were (not) likely to benefit in 2018 from Family 500+ for the firstborn child, depending on their income. More specifically, low-income individuals with one child are more likely to benefit from the policy change compared to individuals with one child who do not belong to the bottom quintile. The evolution of their preferences (relative to respondents without children) would reflect this different exposure.

The categories identified in Table 3 are entered into equation (1) as $Category_c$ and they are time-invariant: the main coefficients of interest, $\gamma_{c,t}$, capture the differential impact of Family 500+ on individual's preferences based on the categories they belong to in 2013, the period before the policy change. The 2013 period, and the respective interaction terms, are the omitted time variables in all regressions, so all regression coefficients are scaled with reference to this base period. Low-income households with children, who are in principle eligible for the child benefits, constitute our categories of interest and, if the theoretical predictions hold, should show a distinct impact of the policy change relative to individuals with no children, the baseline category, and the coefficient $\gamma_{c,2018}$, the category-specific effects of Family 500+, would be significant. If (any of the) 2018 coefficients ($\gamma_{c,2018}$) are statistically different from zero, the respondents belonging to that category have a different response to the Family 500+ compared to respondents without children. Alternatively, statistically zero coefficients suggest that preferences evolve similarly to childless respondents, and there would be no empirical evidence for the theoretical predictions that (likely) beneficiaries would support a larger welfare state.

Besides measuring how people differ in their responses to the policy change, the event study approach allows us to examine the trends before the policy change ($\gamma_{c,2008}$), which should be statistically zero for the parallel trends assumption to hold. β_{2018} captures the preferences changes among childless respondents (the reference category), the common social effect of Family 500+, as well as other events that impacted society as a whole between 2013 and 2018. Examples of the latter could include, for instance, the impact of the 2015 European refugee crisis or the Euro-recession on economic and political preferences (Algan, Cahuc, & Sangnier, 2016; Matakos, Savolainen, & Tukiainen, 2020).

Table 3: Categories of households: Specification 1 and Specification 2

	Group	*Coefficient of interest:* Overall effect	Additional effect	Number of children	Bottom quintile	Share of the Total sample
	Baseline	β_{2018}	-	*0*	-	70,7%
	1Q1	β_{2018}	$\gamma_{1q1,2018}$	1	Yes	2,7%
Categories	1Q2+	β_{2018}	$\gamma_{1q2,2018}$	1	No	8,6%
	2Q1	β_{2018}	$\gamma_{2q1,2018}$	2+	Yes	4,8%
	2Q2+	β_{2018}	$\gamma_{2q2,2018}$	2+	No	8,2%
	1+Qmissing (omitted)	β_{2018}	$\gamma_{1qm,2018}$	1+	N/A (Missing income)	5,0%

[18]We group individuals with children and missing income into a separate group, whose results we omit from the main text due to space considerations.

4 Results

4.1 Main analysis

The main findings of our analysis are presented in Table 4. The table is divided into three panels. The upper panel presents the estimated coefficients for the waves' fixed effects (the 2013 wave is the baseline value), which capture common societal trends in preferences for that wave. The middle panel shows the coefficients $\gamma_{c,2008}$, which are used to inspect whether the parallel trend assumption holds. Finally, the bottom panel displays the coefficients for the category-specific effects of Family 500+ ($\gamma_{c,2018}$). We estimate the model for each of the four outcome variables with the corresponding results in columns 1 to 4. The identifying assumption of the event study is that the preferences of respondents in each category, defined by the number of children in the household and income quintile, developed in parallel to childless respondents before the introduction of Family 500+ and that these households did not experience systematically different idiosyncratic shocks after it. None of the coefficients for the pre-trend variables is statistically significant, which confirms that the parallel trend assumption is reasonable.

The β_{2018} coefficients, in the top panel, capture the shared impact of events taking place between 2013 and 2018, as well as the effect of Family500+ on childless individuals since they constitute the baseline category for which the group-specific coefficient $\gamma_{0,2018}$ is omitted. Compared to 2013, redistributive preferences were lower among the Polish society, who preferred a more regressive tax scheme and was more likely to support PiS in 2018, measured by β_{2018} in columns 1, 3, and 4, respectively. The preferred average tax rate, on the other hand, remained stable in 2018 compared to 2013. The table's bottom panel, which displays the category-specific effects in 2018, shows that the coefficients $\gamma_{c,2018}$ are statistically not different from zero when the redistributive index or the preferred average tax are the outcome variables. In other words, the redistributive preferences of households with children do not evolve statistically differently from respondents without children after the introduction of Family 500+, regardless of income level (Column 1). The respondents are in general less supportive of governmental assistance in 2018 compared to 2013, given the significant negative β_{2018} and statistically insignificant $\gamma_{c,2018}$ in Column 1. Likewise, the main coefficient for the preferred average tax rate is insignificant (Column 2). Interestingly, while all categories of Polish society preferred tax levels in 2018 that are similar to those of 2013, it changed its opinion on distribution and supported more regressive tax systems in 2018 compared to 2013 (Column 2). This change; however, was not uniform across all categories. Respondents who, despite having children at home, are likely ineligible for the transfers differ in how the tax should be distributed across income groups and are more likely to prefer a more progressive system than their childless counterparts, as indicated by the positive $\gamma_{1q2+,2018}$ point estimate, significant at the 5% level.

While the overall population was more likely to report support for PiS in 2018 compared to 2013, as indicated by the positive and significant β_{2018}, support for PiS in 2018 was significantly lower among higher-income respondents, who in the absence of an income criterion would be eligible for the benefit, effect significant at a 1% significance level[19]. The lack of effects across other categories, interpreted together with β_{2018}, suggests that the incumbent is not only rewarded by the transfer beneficiaries for concerns regarding their individual finances but also by non-recipients. However, the negative coefficient for higher-income households with 1 child indicates resentment by those who are excluded from the policy's beneficiaries pool, despite fulfilling a main requirement, namely, the presence of children in the household, which is tightly connected to the policy's primary scope. Yet, the negative effect is not sufficiently strong to reverse the effect of Family 500+ for that category, i.e. respondents in all categories express higher support for PiS in 2018 vis-à-vis their political views in 2013. Our results align with Gromadzki et al. (2024) in that childless voters were not likely to punish the incumbent party for being excluded. However, while it is not possible to make claims regarding the 2019 voting behavior with the currently available POLPAN data (collected in 2018), our results suggest that there was a relative punishment by a specific share of non-recipients, a group that is not identifiable in previous research using aggregate-level data.

[19]The inclusion of past PiS vote, as a time-varying covariate, does not drive the results.

Table 4: Effects of the Family 500+ introduction

		(1) Redistributive Index	(2) Tax: Average	(3) Tax: Progressivity	(4) PiS Vote
β_{2008}	2008	-0.014	-1.082	-0.076***	-0.023
		(0.023)	(1.155)	(0.026)	(0.040)
β_{2018}	2018	-0.061***	-1.126	-0.084***	0.197***
		(0.023)	(0.925)	(0.027)	(0.053)
		Parallel trends			
$\gamma_{1q1,2008}$	2008 × 1 Child, Q1	-0.042	-0.846	0.000	-0.055
		(0.040)	(2.228)	(0.041)	(0.110)
$\gamma_{1q2+,2008}$	2008 × 1 Child, Q2+	-0.017	0.941	-0.007	0.008
		(0.022)	(1.161)	(0.030)	(0.052)
$\gamma_{2q1,2008}$	2008 × 2+ Children, Q1	-0.020	-1.386	0.023	-0.030
		(0.031)	(1.589)	(0.040)	(0.076)
$\gamma_{2q2+,2008}$	2008 × 2+ Children, Q2+	-0.008	0.362	0.031	0.054
		(0.025)	(0.956)	(0.029)	(0.045)
		Main coefficients of interest			
$\gamma_{1q1,2018}$	2018 × 1 Child, Q1	0.014	1.208	-0.005	-0.132
		(0.034)	(3.658)	(0.036)	(0.125)
$\gamma_{1q2+,2018}$	2018 × 1 Child, Q2+	0.008	1.191	0.049**	-0.110***
		(0.026)	(0.939)	(0.024)	(0.039)
$\gamma_{2q1,2018}$	2018 × 2+ Children, Q1	-0.019	-0.618	0.025	0.053
		(0.043)	(1.241)	(0.040)	(0.073)
$\gamma_{2q2+,2018}$	2018 × 2+ Children, Q2+	0.025	0.901	0.047	0.057
		(0.023)	(1.061)	(0.030)	(0.061)
	Observations	2565	2295	2272	2628
	R^2	0.091	0.045	0.072	0.137

All difference-in-difference event study estimations include individual time-varying controls, individual and $NUTS2 \times wave$ fixes effects, with robust standard errors in parentheses. Time-varying controls are fixed for the 2013 values in 2018, and include education, income (including missing income dummy), unemployment, and high-skill employment status. Number of children below 18 years old as reported in 2018, but excluding individuals with children in the household born in 2017 and 2018. Income quintiles are computed with 2013 per capita income, and individuals with children and non missing income are regarded as a separate respondent category, with interaction terms not displayed due to space constraints. The redistributive index is continuous between 0 and 1. The average tax rates and tax progressivity are continuous variables, ranging from 0 to 100 and between -1 and +1, respectively. Lastly, the PiS vote is a dummy variable of voting intention, which takes the value of 1 when the individual states that they would vote for PIS should elections occur next Sunday. The regression is estimated using the 2008 to 2018 balanced panel sample. N=876 individuals. Source: POLPAN (2021).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

4.2 Analysis of Heterogeneous effects

The analysis above has only shown very limited effects of the Family 500+ program on redistributive preferences. Yet, the overall effects might underestimate the program's impact on different population groups. In this section, we explore whether the effects differ for each category based on gender, area of residence, level of education, and attitudes such as fairness concerns[20]. For ease of interpretation, we split the samples according to the different characteristics to conduct the analysis. To maintain a sufficient number of observations per category for each subsample, we redefine the categories according only to the number of children in the household, so that individuals with at least two children who are eligible for the transfers for at least one child are grouped together. Moreover, we focus on the 2013 and 2018 waves. A drawback of this approach is that we are not able to test whether the parallel trend assumption holds for the different categories in each subsample. Nonetheless, apart from occasional changes in significance levels, the results of the post-change coefficients for the 2013-2018 panel mirror those of the 2008-2018 panel, as shown in Tables 23 and 24[21] in the Supplementary Material. Importantly, the bundling into one group of high and low-income respondents with two or more children does not reveal any effects of the Family 500+ on the preferences of beneficiaries. In other words, the program had effects on neither the extensive (receiving vs. not receiving the transfer, Table 23) nor the intensive (value of transfers received, Table 4) margins. Moreover, the effects among nonbeneficiaries drive the evolution of respondents with one child. All Tables with the outcomes of the heterogeneity analysis exercises are included in the Annex.

4.2.1 Demographic characteristics

First, we explore whether individuals react to the Family 500+ differently based on demographic characteristics. Research consistently indicates that women are more socially oriented than men (Alesina & Giuliano, 2011; Ranehill & Weber, 2022), especially in higher-income countries (Bozzano, Profeta, Puglisi, & Scabrosetti, 2024; Falk & Hermle, 2018), and that their social preferences are more malleable than those of men (Croson & Gneezy, 2009). The results in Table 7 indicate that the Family 500+ program more likely affected women's preferences for redistribution depending on their (likely) eligibility, albeit the gender differences are less pronounced than in previous research. Women living in a household with one child prefer higher tax rates and favor a more progressive tax profile in comparison to childless women. Men's preferences, on the other hand, are not influenced by higher exposure to the program. Women also respond more starkly than men to being excluded from transfers: women with one child were less likely to support PiS than other women in 2018, although

[20] Previous research highlights the moderating effect that ideology may have on redistributive preference (Alesina & Fuchs-Schündeln, 2007; Esarey, Salmon, & Barrilleaux, 2012). However, POLPAN does not elicit the respondents' left-right placement, hindering a heterogeneity analysis according to political ideology.

[21] The main results survive different sample specifications: balanced 2008-2018, unbalanced 2008-2018, and balanced 2013-2018 panel samples. See the description of the samples in each Table's footnotes.

they were more supportive of PiS compared to 2013. The penalization among women is stronger and more precisely estimated than the corresponding effect for the same group among men.

Treatment effects might also differ by geographical location[22]. Research suggests that residents of urban and rural areas differ in their values and pro-social attitudes (Aydinli, Bender, & Chasiotis, 2013; Luca, Terrero-Davila, Stein, & Lee, 2023). According to the estimated coefficients in Table 8, urban residents with one child responded to widening child benefits with support for higher preferred average tax rates and a more progressive tax structure. In both subsamples, respondents with two children did not differ from childless individuals in their preferences after 2016. On the other hand, the political backlash after the policy change was rather visible among the rural population. More specifically, rural residents with one child were less likely to support PiS in 2018 than those with no or more than one child. This contrasts with the findings for redistributive and tax preferences, where the policy effects were observed among the urban population, but absent in rural areas.

Education attainment has also been associated with preferences for redistribution (Alesina & Giuliano, 2011) and tax progressivity, including in Eastern European countries (Domonkos, 2016). We find a weak positive effect on tax progressivity among higher-educated respondents with children (Table 9). Effects are stronger concerning tax rate preferences for lower-educated respondents with two or more children. They prefer a higher average tax rate relative to others with the same educational attainment and no children. Assuming that the level of education is closely correlated with income, these results could indicate that poorer households drive the changed preferences. Similarly, individuals with lower educational attainment became more supportive of PiS in 2018 compared to 2013, whereas there was no systematic difference between 2018 and 2013 for the educated. Moreover, the PiS punishment effect was driven by lower-educated respondents with one child, while the category-specific preferences of the higher-educated remained stable.

4.2.2 Attitudes and Beliefs

Lastly, we explore whether individuals (likely) benefiting from the Family 500+ program react differently based on their prior related to inequality aversion and the role of luck and own efforts in explaining success. Poverty attitudes shape preferences for redistribution (Alesina & Angeletos, 2005; Durante, Putterman, & Van der Weele, 2014; Gassmann & Timár, 2024). People who believe everybody can succeed in society if they work hard enough are less inclined towards redistributive policies (Alesina & Angeletos, 2005; Alesina & Giuliano, 2011; Karadja, Mollerstrom, & Seim, 2017). Among people who do not agree that hard work is important to achieving success (Table 10), the policy expansion strongly affected tax preferences according to the respondent's eligibility for the new transfers. Both respondents with only one or with more children favor higher tax rates and were less

[22]The sample split was made using pre-defined labels provided by POLPAN. We defined the location as rural if specified as such in POLPAN, and urban otherwise.

supportive of PiS than those without children but hold similar beliefs that success is not determined by hard work. Likely, Table 11 suggests that attitudes related to fairness concerns and attribution of responsibility moderate the effect of Family 500+. Among individuals who believe that one is to blame for unfavorable outcomes in life, the evolution of preferences was stable between groups with no heterogeneous responses according to the degree of exposure to the extension of benefits coverage. But those who have one child and believe the person is not the sole responsible for life mishappenings favored higher and more progressive tax rates and would hold PiS accountable in the next elections.

4.3 Robustness analysis

Given our choices to estimate our main models, testing how robust our findings are to changes in the underlying sample or the model design is essential. First, we replace the redistribution index with the underlying variables used for its construction as outcome variables. Next, we redefine respondent categories using more disaggregated income specifications. Additionally, we investigate whether the lack of effect among beneficiaries results from anticipation effects. Finally, address possible threats to the identification of our model stemming from confounding changes. All tests include the estimation of the preferred tax rate of the median income group as an alternative dependent variable[23].

The estimations for the underlying variables used to construct the index do not reveal patterns that would corroborate the theoretical predictions. We are not able to ensure parallel trends for the individual input variables (Table 12 in Annex), apart from when the outcome variable measures support for the government providing education assistance to poor children, which would more closely relate to the family function that Family 500+ serves. In that case, individuals with one child became more supportive of the measure after Family 500+ compared to other categories.

To test the robustness of our beneficiary groups, we explore the effects of Family 500+ across different category specifications. In Specification 2, we distinguish childless individuals who belonged to the bottom quintile from those who did not to test whether a pure income force was driving the main results[24]. Moreover, we construct Specification 3 using the number of children in the household and a more granular income breakdown: bottom quintile, middle-income (quintiles 2 and 3), and higher-income (quintiles 4 and 5).

The parallel trends for all outcome variables continue to hold under Specifications 2 and 3 (Tables 13 and 14, respectively, in the Annex). Specification 2, which splits the childless category, suggests that the main results are not due to bundling low and high(er)-income respondents in the baseline category, as the results remain stable (Table 13). The income disaggregation of Specification 3 (Table 14) reveals

[23]The Median Group Tax Rate is calculated as $MedianGroupTax_{i,t} = \frac{tax_{2,i,t}+tax_{3,i,t}}{2}$. It corresponds to the mean value between the tax rates of income groups 2 and 3, defined according to the income groups in Table 6, for each individual i and wave t. The Median Group Tax does not report the median tax value chosen by each individual, instead, the tax rate that the respondent chose for the "median group". Since the survey asks about the rates for an even number of groups, the value of the median group corresponds to the mean between the two bordering observations.

[24]Table 26 presents the characteristics of each specification.

that the backlash against PiS occurred among both middle-income and higher-income respondents, thus, the effect was not driven by individuals located closer to, but above, the transfer eligibility threshold. The tax preferences, however, show patterns suggesting a tax burden shift away from the income group to which the individual was likely to belong. Non-beneficiaries with one child did not systematically change their preferred average rate, but higher-income individuals favored higher tax rates to median groups, whereas middle-income respondents reported a more progressive tax scheme compared to other categories. In other words, not being included in the policy expansion did not affect the overall level of taxes the individual understands society should direct to the government. Instead, wealthier respondents attributed a higher burden to the middle class, possibly due to understanding that this group started benefiting from public transfers. Middle-income respondents, on the other hand, shifted the tax to higher classes by preferring a more progressive scheme. A possible explanation is that the policy change and the new income threshold might have served as a signal for middle-income individuals of their placement in the income distribution. Our findings corroborate existing research suggesting that middle-income individuals align preferences to other income classes they are close to (Lupu & Pontusson, 2011) and support more progressive taxes when learning that they rank lower in the income distribution than previously thought (Fernández-Albertos & Kuo, 2018).

A lack of effect among recipients may be explained by expectations of future benefits by childless young respondents, who expect to be able to benefit from the program in the future. However, it is important to note that, due to the balanced panel structure of the sample, the youngest respondents were 31 years old when interviewed in 2018, which reduces concerns about the strong influence of young adults with no children to bias the results[25]. Nonetheless, we test for this possibility by excluding childless individuals below the age of 40 from the sample, whose preferences are more likely to change due to expectations of future benefits. The main results survive the sample restriction and remain qualitatively stable to the new specification (Table 15).

Lastly, our identification strategy assumes that no other contemporary shocks systematically and differentially affected respondents across the different categories in Specifications 1 and 2 between 2013 and 2019. However, other reforms introduced by the PiS administration could potentially confound our results. First, the Civic Platform's earlier increase in the retirement age was a key political issue for PiS, leading to the Polish Parliament's passage of legislation reversing the reform in November 2016. The law was enacted in October 2017 and restored the previous scheme: 60 years for women and 65 for men (versus 67 for both). To address this issue, our main model already controls for the respondents' age via the individual and wave-fixed effects. Moreover, we re-run our estimations adding an interaction between a dummy indicating individuals impacted by the pension reforms[26] and the wave dummies. If the pension reforms differentially impacted the Family 500+ categories

[25]The average women's age at birth of first child in 2018 Poland was 27.4 years (UNECE, n.d.).

[26]This dummy takes the value of 1 for women between 61 and 67 years old in 2018 (between 60 and 66 in 2017) and 66- and 67-year-old men in 2018 (65 and 66 in 2017)

we constructed, the addition of this interaction term would absorb the effect. Results in Table 16 suggest that individuals impacted by the pension reform did, in fact, become more supportive of PiS in 2018 compared to those who were not. Nonetheless, our results survive the inclusion of the pension effect, suggesting the pension reform beneficiaries were not systematically correlated with the different categories of Family 500+ (non-)beneficiaries.

Second, the PiS government reformed the educational system in 2016, eliminating lower-secondary schools and, more significantly, raising the compulsory school attendance age from six to seven years. Research has linked this change to increased enrollments in private preschools, largely due to overcrowding in public institutions (Ciepielewska-Kowalik, 2020). Although our strategy distinguishes between households with children (who would, *a priori*, be equally affected by the educational reform), this reform may have mitigated any positive effects among Family 500+ recipients, potentially biasing the results toward zero in comparison to childless households. To account for this, we include in our model an interaction between a dummy variable indicating households with preschool-age children[27] and the wave dummy. If the reform influences our results, this interaction term should capture the confounding effect. However, the results in Table 17 show that the experiences of households with preschool-age children did not drive our main findings[28].

Thirdly, in line with the experiences of other countries, in 2015 Poland's government went from a liberal democracy to an illiberal one, characterized by social conservatism and criticism of libertarian values (Guriev & Papaioannou, 2022). To address concerns that the implementation of Family 500+ reflects changes in preferences that led to the victory of PiS in 2015, we restrict our sample to individuals who maintained a consistent pattern of voting in the 2013 and 2018 elections. Using the classification provided by the Chapel Hill Expert Survey (CHES), we identify individuals who voted for comparable parties in both elections. More specifically, we classify the parties into libertarians or traditionalists according to the CHES GAL-TAN measure, which expresses the parties' social and cultural values in a quantifiable measure[29]. Thus, we exclude from the sample respondents who changed from libertarian to authoritarian preferences (or reversely) and respondents who did not inform of their party preferences in either wave. The main results[30] are reproduced with this new sample (Table 18), with the caveat that parallel trends cannot be ensured for average tax rates.

[27] Preschool-age children are defined as those aged 3 to 6 in 2018, and children who were of preschool age in 2016 and 2017, thus aged 7 and 8 in 2018.

[28] We perform the same exercise, with the underlying index variable on education provision as the dependent variable. The results, available upon request, replicate those in Table 12.

[29] Table 27, Supplementary Material, lists the parties' scores in the GAL-TAN measure in the CHES editions closest to the election years.

[30] As the only source of votes for PiS are respondents in the 'authoritarian' category and the small sample size for that group limits variation, our analysis is limited to the redistributive index and tax-related measures as outcome variables. Due to the number of observations, we estimate the model using the unbalanced 2008-2018 panel.

5 Discussion and conclusion

Despite the positive trends in (extreme) poverty reduction over the past decades, challenging domestic circumstances and the aftermath of international shocks heightened international concerns about ensuring livelihoods and social inclusion for those in need, exemplified by the 2030 Agenda for Sustainable Development. Research has shown that (non-contributory) social transfers to families have the potential to protect and improve a range of outcomes for the beneficiaries, including relieving financial distress and improving children's education and health markers, among others (Bastagli et al., 2016; Millán, Barham, Macours, Maluccio, & Stampini, 2019). However, even programs that are effective in achieving the desired outcomes with their target population must be fiscally sustainable and enjoy social endorsement to ensure their continuity through the years. A core idea put forward to explain policy support is that individuals are materially self-interested and will advocate for policies from which they can benefit. This rationale is introduced in the seminal Meltzer and Richard (1981) model to explain redistributive government spending given inequality levels. Moreover, research has shown that when lower-income individuals are aware of their income position, they are more supportive of redistribution as they are prospective beneficiaries of transfers financed by the taxes of their richer counterparts (Cruces, Perez-Truglia, & Tetaz, 2013).

The literature on the political economy of targeting proposes at its core that for a transfer to find and sustain political support, it should cover a broader beneficiary group (Gelbach & Pritchett, 2002; Moene & Wallerstein, 2001). A voter coalition will be formed by people who have a high likelihood of benefiting from the policy and deem the policy fair (Rothstein, 2012). Thus, a program that benefits only a small share of society is predicted by the theory to shape the tax and redistributive preferences of non (potential) beneficiaries accordingly, leading them to oppose a political agenda that advocates for greater levels of social provision by the government. Similarly, a more inclusive transfer will reach more individuals, who, guided by self-interest, will support the maintenance of the system that benefits them. We exploited a widening of the Polish family benefit coverage, which went from means-tested to quasi-universal in 2016, to test the pro-universalism argument that self-interested individuals will support a greater welfare state if they benefit from it.

We find that individuals who became beneficiaries after 2016 - higher income households with more than one child - do not become more supportive of governmental redistribution than households not eligible for transfers due to being childless. In other words, actually benefiting from a child transfer does not shape preferences for redistribution or tax structure substantially different from childless households, as the theory would have predicted. However, our findings suggest that among those who did not benefit from the expansion, individuals with children who were excluded due to income considerations reacted to the policy changes; they preferred more progressive taxes and were more likely to punish the government in the next elections. These effects were particularly strong among

lower-educated women.

With a series of robustness checks, we attempt to alleviate concerns about the limitations of our study design. Our results survive further breakdowns of the households according to their per capita income. This suggests that the changes observed in our data are not a result of pure income concerns but rather a combination of income and the presence of children in the house, the program's defining eligibility criteria. Furthermore, the results remain stable after restricting our analysis to a reduced sample of voters with consistent voting preferences. Although this approach cannot entirely eliminate the possibility of confounding factors given the data and the policy context, it suggests that changing liberal-traditional social values are not the primary driver behind the observed results. Similarly, our main findings survive the inclusion of the possible effects of PiS' educational and pension reforms, suggesting that those impacted by these changes did not systematically correlate with our (non-)beneficiaries categories. Lastly, We derive our measure for redistributive preference from questions that can be understood as stemming from a general ideological dimension, instead of concrete support for a program and elicitation, connected to individual perceptions of gains/losses from it. While opinions on the specific policy would allow the examination of the social sustainability of that programme, that information is unfortunately not available with other data necessary for a rigorous scholarly investigation. Nonetheless, one of the items used for our index computation specifically addresses children, which relates more directly to the family function of Family 500+. A disaggregated analysis of that subcomponent indicates that households more likely to have benefited more from Family 500+ do not become more supportive of the educational measure vis-a-vis childless households.

Beyond possible research limitations, the lack of a stronger response among beneficiaries might stem from two complementary explanations. First, family and children's benefits are examples of welfare policies that enjoy considerable levels of broad social support, even by non-direct beneficiaries (Bremer & Bürgisser, 2023; Goerres & Tepe, 2010; Neustadt & Zweifel, 2023). It is plausible that childless respondents have (close) ties to other individuals with children and would be willing to pay for a system benefiting these individuals (Goerres & Tepe, 2010). Additionally, families with children are also commonly thought to be a vulnerable group of society to whom little group-specific insurance is available (Neustadt & Zweifel, 2023). The specific Polish socio-political context of increasing conservative values would likely reinforce this protective view of families as worthy beneficiaries (Meardi & Guardiancich, 2022; Orenstein & Bugarič, 2022). Thus, instead of a primary self-motivated reaction, the reaction of the childless to the Family 500 would be a display of altruism to a group that is not seen as undeserving by society and that exemplifies the desired features of Polish society. A second explanation for the lack of difference between those two groups relates to the policy feedback literature, which poses that personal experiences with public policies matter for the attitudes of the public (Larsen, 2018; Rothstein, 2012). Individuals would adapt their political attitudes from their

(personal) exposure to the policy and the institutions involved with it. However, the literature acknowledges that the dynamics of welfare expansion and retrenchment operate in different dimensions (Larsen, 2019), and it is possible that the immediate and stark reaction observed in the context of a policy curtail is not a mirrored image of the positive acceptance of a policy widening. To the extent that attitudes towards redistribution are a deep-rooted cultural element (Luttmer, 2001), it is possible that it would require more than two years of living under a more inclusive system for its structure to exert any changes to one's preferences. The current political mistrust and polarization observed in Poland (Applebaum, 2020; Sadura & Sierakowski, 2021) plausibly pose additional challenges to changes in welfare attitudes and increase support for a larger welfare state (Daniele & Geys, 2015; Gubello, 2024), especially within a relatively short period of time. Support of a social protection system depends on personal views about the welfare bureaucracy, (Rothstein, 2012), and among Poles, those more likely to benefit highly from the welfare policies have lower levels of faith in the government's ability to provide a holistic range of public goods and services (Sadura & Sierakowski, 2021).

The concentration of the effect on non-beneficiaries with children suggests that the design of policy features is relevant for the transfers' acceptance by non-beneficiaries. As Family 500+ prompted different preferences from non-beneficiaries with one child than from non-beneficiaries with no or more than one child, the economic eligibility criteria seem to carry weight, particularly for individuals likely to see themselves close to the policy's primary goal. Our findings resonate with research that considers proximity to the policy as a crucial factor when exploring reactions to its change. Differently from much of the work that explores reactions to those adversely affected by a policy retrenchment (De Vries & Hobolt, 2012; Elinder, Jordahl, & Poutvaara, 2015; Larsen, 2018), we suggest that similar punishment might be observed in the case of a policy expansion that fails to include the whole group that could, in theory, benefit from the transfer. While we are not able to inspect it directly, it is plausible that respondents with one child understood the income criteria to be discretionary since it referred to household conditions not related to the program's main function for which they qualified and was only applicable to a subgroup of potential beneficiaries.

Our paper sheds light on how a coverage widening of transfers might change the political and tax attitudes - both levels and shape - among non-beneficiaries, which the political economy of targeting does not expressively disentangle. The response of non-beneficiaries over tax levels is different from that of tax distribution, corroborating previous evidence that there is a decoupling of these two tax attitudes on people's minds (Barnes, 2015). In comparison to other households, one-child households excluded from the benefits transferred the tax burden to other income groups; however, did not change their preferred average tax rate. This provides additional indications that those respondents do not support a system where they finance but do not benefit from transfers. While we do not find evidence that the policy beneficiaries would have a greater willingness to pay for a welfare system that benefits

them (which research such as Neustadt & Zweifel, 2023, predicts), non-beneficiaries do not necessarily become less willing to finance such a system. Instead, they expect other groups also to contribute: high-income non-beneficiaries prefer higher middle-income taxes after the change, and middle-income non-beneficiaries favor more progressive tax schemes. The null effect of Family 500+ on beneficiaries' tax preferences, on the other hand, echos previous evidence suggesting a lack of clear understanding among many Poles of the connection between taxes paid and the provision of welfare transfers, goods, and services (Sadura & Sierakowski, 2021). As it had already been argued for mature social protection systems (Busemeyer & Neimanns, 2017), the case of the welfare policies in transitioning economies also seems to involve complex distribution considerations.

Importantly, our findings do not refute the argument that a more universal system enjoys greater overall support than a targeted one. Even though the estimated 2018 wave effect suggests a society that favors less redistribution and a more regressive tax system, we are not able to make inferences about whether and how the widening of social transfers influences broad preferences for redistribution or tax, only about the differential effects across different categories of (non-)beneficiaries. As the policy was announced and implemented nationally at the same time, it is not possible to use any spatial variation to explore a non-treated region as a control group and examine broad changes in support for redistribution. Even in that case, one could argue that a staggered policy implementation would affect the preferences of individuals in treated and untreated areas alike, either by an expectation of the policy roll-out or resentment of exclusion. While this bears little or no consequences when studying outcomes such as economic activities, it is plausible that the study of preferences and perceptions is highly vulnerable to such effects. Additionally, even though experimental settings ensure a high degree of control and non-spillovers, there are challenges in replicating the effects of living under a policy structure and adapting your attitudes accordingly. Therefore, it is crucial to combine experimental work with research grounded on observational data to explore how preferences react to different designs of (welfare) policies.

Data availability

Data is available through the Polish Panel Survey.

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A Annex

Table 5: Redistributive attitudes: description

Variable	Type	Scale
Index: preferences for redistribution	Continuous: Normalized index	0 - 1
Index: input variables		
The government should reduce differences in income	Ordinal: Agree/Disagree	5 points
The government should assist poor children in higher education	Ordinal: Agree/Disagree	5 points
The government should provide jobs for everyone who wants to work	Ordinal: Agree/Disagree	5 points
Variables for heterogeneity analyses		
The role of hard work to achieve success in life	Ordinal: Agree/Disagree	5 points
Establishment of upper-income limit	Ordinal: Agree/Disagree	5 points
Whose responsibility is it when something goes wrong in one's life	Nominal: Own/Others/Depends	3 points

Source: POLPAN, 2008, 2013, 2018.

Table 6: Tax schedule preferences: Question: "How much tax should be paid – on a monthly basis – by people who earn the following amounts per month (gross):"

	Wave		
Income group	**2008**	**2013**	**2018**
1	1,200	1,500	2,000
2	3,000	4,000	5,000
3	9,000	9,000	12,000
4	45,000	50,000	60,000

In each year, POLPAN asks the respondents about their preferred tax rates for four groups with different incomes. In Table 6 above, the columns 2008, 2013, and 2018 refer to the income values used in each wave. Within the same survey wave, the values for each group are listed in different rows in the same column. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).

Table 7: Heterogeneous effects: Gender

	Index		Avg tax		Tax progressivity		PiS vote	
Gender	Man	Woman	Man	Woman	Man	Woman	Man	Woman
2018 × 1 Child	0.01	0.02	0.10	2.17*	0.01	0.05*	-0.06	-0.10**
	(0.02)	(0.02)	(0.86)	(1.19)	(0.02)	(0.03)	(0.04)	(0.05)
2018 × 2+ Children	-0.00	0.03*	1.12	0.56	0.03	0.01	0.04	-0.00
	(0.03)	(0.02)	(0.99)	(0.93)	(0.03)	(0.02)	(0.06)	(0.05)
Observations	1526	1866	1278	1469	1268	1459	1556	1950
R^2	0.111	0.109	0.052	0.036	0.073	0.049	0.092	0.101

All difference-in-difference event study estimations include individual, wave and $NUTS2 \times wave$ fixed effects, with robust standard errors in parentheses. Number of children below 18 years old reported in 2018, but excluding individuals with children in the household born in 2017 and 2018. The redistributive index is continuous between 0 and 1. The average tax rates and the median group tax rates are continuous variables ranging from 0 to 100. Lastly, tax progressivity is continuous, between -1 and 1. The regression is run on a sample of the 2013 to 2018 balanced panel. The sample is split according to the respondent's gender for each outcome variable's estimation, identified in the table's header. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 8: Heterogeneous effects: Rural - Urban

	Index		Avg tax		Tax progressivity		PiS vote	
Location	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
2018 × 1 Child	0.03	-0.00	2.19**	0.26	0.06**	0.01	-0.04	-0.14***
	(0.02)	(0.02)	(0.93)	(1.24)	(0.03)	(0.02)	(0.05)	(0.05)
2018 × 2+ Children	0.01	0.03	0.79	0.61	0.03	0.00	-0.05	0.01
	(0.03)	(0.02)	(1.14)	(0.87)	(0.03)	(0.02)	(0.04)	(0.05)
Observations	1869	1523	1471	1276	1464	1263	1930	1576
R^2	0.096	0.151	0.069	0.038	0.054	0.082	0.068	0.141

See Table 7 for a decription of the estimation methods and variables specifications. The sample is split according to the respondent's dwelling location, identified in the table's header. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 9: Heterogeneous effects: Education

	Index		Avg tax		Tax progressivity		PiS vote	
Education	Lower	High	Lower	High	Lower	High	Lower	High
2018 × 1 Child	0.03	-0.01	1.26	1.27	0.03	0.05*	-0.12***	-0.00
	(0.02)	(0.03)	(1.05)	(1.19)	(0.02)	(0.03)	(0.04)	(0.05)
2018 × 2 Children	0.02	0.02	1.62*	-0.57	0.02	0.02	-0.01	0.05
	(0.02)	(0.03)	(0.83)	(1.17)	(0.03)	(0.03)	(0.05)	(0.06)
Observations	2451	941	1957	790	1941	786	2544	962
R^2	0.110	0.104	0.046	0.064	0.046	0.111	0.106	0.075

See Table 7 for a description of the estimation methods and variables specifications. The sample is split according to the respondent's educational attainment. Lower education: up to, and including, secondary level; High education: post-secondary and above. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 10: Heterogeneous effects: Determinant of success: Hardwork

	Index		Avg tax		Tax progressivity		PiS vote	
Agrees Hardwork is important	No	Yes	No	Yes	No	Yes	No	Yes
2018 × 1 Child	-0.02	0.02	3.59**	0.47	-0.01	0.05**	-0.10*	-0.07
	(0.03)	(0.02)	(1.55)	(0.89)	(0.03)	(0.02)	(0.05)	(0.04)
2018 × 2 Children	0.04	0.02	3.96***	-0.12	0.05	0.02	-0.09	0.04
	(0.03)	(0.02)	(1.51)	(0.76)	(0.05)	(0.02)	(0.08)	(0.04)
Observations	1455	1937	861	1886	859	1868	1522	1984
R^2	0.127	0.104	0.085	0.038	0.073	0.062	0.117	0.085

See Table 7 for a description of the estimation methods and variables specifications. The sample is split according to the respondent's belief whether hard work is important to achieve success in life (elicited in the 2013 wave), identified in the table's header. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 11: Heterogeneous effects: If something goes wrong with life, whose fault is it?

	Index		Avg tax		Tax progressivity		PiS vote	
Fault for wrong things in life	Others	Own	Others	Own	Others	Own	Others	Own
2018 × 1 Child	0.01	0.00	1.88**	-0.73	0.04*	0.02	-0.08*	-0.04
	(0.02)	(0.03)	(0.83)	(1.75)	(0.02)	(0.03)	(0.04)	(0.06)
2018 × 2 Children	0.01	0.04	0.49	1.42	0.03	0.00	0.06	0.00
	(0.02)	(0.03)	(0.81)	(1.19)	(0.02)	(0.03)	(0.04)	(0.06)
Observations	1931	807	1882	774	1871	765	1988	822
R^2	0.129	0.121	0.049	0.061	0.043	0.075	0.102	0.081

See Table 7 for a description of the estimation methods and variables specifications. The sample is split according to the respondent's belief about whose fault it is if something goes wrong in their life (attitude elicited in the 2013 wave), identified in the table's header. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 12: Index breakdown: input variables

	Government responsibility		Education assistance		Job provision	
	Highly Agrees	Agrees	Highly Agrees	Agrees	Highly Agrees	Agrees
2008	0.007	0.064	0.015	0.086**	-0.217***	-0.165***
	(0.075)	(0.071)	(0.072)	(0.041)	(0.074)	(0.056)
2018	-0.166***	-0.163**	-0.176**	0.001	-0.122*	-0.094**
	(0.057)	(0.075)	(0.073)	(0.051)	(0.072)	(0.046)
Parallel trends						
2008 × 1 Child, Q1	-0.149	-0.047	0.104	0.022	-0.103	-0.209**
	(0.157)	(0.142)	(0.126)	(0.048)	(0.139)	(0.085)
2008 × 1 Child, Q2+	-0.045	-0.061	-0.072	0.035	-0.014	0.026
	(0.059)	(0.071)	(0.079)	(0.036)	(0.068)	(0.059)
2008 × 2+ Children, Q1	0.001	-0.168*	0.131	-0.048	-0.025	-0.004
	(0.092)	(0.088)	(0.094)	(0.059)	(0.111)	(0.056)
2008 × 2+ Children, Q2+	0.084	-0.021	0.041	0.036	-0.041	-0.077
	(0.074)	(0.074)	(0.082)	(0.044)	(0.079)	(0.064)
Main coefficients of interest						
2018 × 1 Child, Q1	-0.034	0.124	0.087	0.080*	-0.072	0.036
	(0.135)	(0.112)	(0.144)	(0.044)	(0.120)	(0.046)
2018 × 1 Child, Q2+	-0.003	0.009	-0.082	0.091*	0.015	-0.001
	(0.065)	(0.075)	(0.074)	(0.047)	(0.079)	(0.062)
2018 × 2+ Children, Q1	0.064	-0.127	0.057	-0.061	0.024	-0.014
	(0.095)	(0.088)	(0.107)	(0.073)	(0.116)	(0.077)
2018 × 2+ Children, Q2+	0.037	0.023	0.031	0.003	0.064	-0.017
	(0.068)	(0.081)	(0.076)	(0.049)	(0.068)	(0.048)
Observations	2628	2628	2628	2628	2628	2628
R^2	0.056	0.041	0.085	0.061	0.079	0.060

See notes in Table 4 for a description of the estimation methods and explanatory variables specifications. The outcome variables, described in the table's header, are dummies for weather the individual highly agrees or agrees with the statements used as input variables to construct the redistributive index. See Table 5 for a description of the input variables. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 13: Specification 2: Breakdown 0 children and low-income categories

	Redistributive Index	Tax: Average	Tax: Median Group	Tax: Progressivity	PiS Vote
2008 × 1 Child, Q1	-0.041	-1.041	-2.105	0.002	-0.051
	(0.040)	(2.239)	(2.358)	(0.042)	(0.110)
2008 × 1 Child, Q2+	-0.016	0.768	0.050	-0.005	0.011
	(0.022)	(1.168)	(1.204)	(0.031)	(0.052)
2008 × 2+ Children, Q1	-0.020	-1.595	-1.059	0.025	-0.026
	(0.031)	(1.604)	(1.433)	(0.040)	(0.076)
2008 × 2+ Children, Q2+	-0.007	0.178	0.019	0.033	0.056
	(0.026)	(0.973)	(1.091)	(0.029)	(0.045)
2008 × 0 Child, Q1	-0.028	-1.807	-2.090	0.011	0.007
	(0.023)	(1.469)	(1.473)	(0.028)	(0.044)
2018 × 1 Child, Q1	0.020	1.131	1.069	-0.002	-0.125
	(0.034)	(3.674)	(3.853)	(0.037)	(0.125)
2018 × 1 Child, Q2+	0.014	1.116	1.553	0.053**	-0.103***
	(0.026)	(0.968)	(1.019)	(0.025)	(0.040)
2018 × 2+ Children, Q1	-0.013	-0.709	0.040	0.029	0.061
	(0.043)	(1.277)	(1.395)	(0.041)	(0.074)
2018 × 2+ Children, Q2+	0.030	0.813	0.974	0.051*	0.064
	(0.024)	(1.095)	(1.076)	(0.030)	(0.062)
2018 × 0 Child, Q1	-0.035	-1.910	-1.770	-0.003	0.052
	(0.026)	(1.369)	(1.511)	(0.028)	(0.070)
Observations	2565	2295	2290	2272	2628
R^2	0.098	0.048	0.038	0.073	0.138

See notes in Table 4 for a description of the estimation methods and explanatory variables specifications. See the main text for a description of the Specification 3 categories. The categories of missing income ("0 children, missing income" and "1+ children missing income" categories have been omitted from the table. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 14: Specification 3: Further income breakdown

	Redistributive Index	Tax: Average	Tax: Median Group	Tax: Progressivity	PiS Vote
2008 × 1 child, Q1	-0.041	-0.850	-1.926	0.001	-0.055
	(0.040)	(2.230)	(2.347)	(0.041)	(0.110)
2008 × 1 child, Q2 AND Q3	-0.015	0.921	-0.210	0.018	-0.001
	(0.028)	(1.659)	(1.623)	(0.040)	(0.080)
2008 × 2+ children, Q1	-0.020	-1.387	-0.847	0.023	-0.030
	(0.031)	(1.590)	(1.417)	(0.040)	(0.076)
2008 × 2+ children, Q2 AND Q3	0.024	0.233	-0.402	0.049	0.073
	(0.028)	(1.069)	(1.266)	(0.039)	(0.058)
2008 × 1 child, Q4 AND Q5	-0.019	0.938	0.657	-0.033	0.018
	(0.030)	(1.444)	(1.538)	(0.043)	(0.060)
2008 × 2+ children, Q4 AND Q5	-0.059	0.573	1.228	0.002	0.022
	(0.045)	(1.647)	(1.721)	(0.037)	(0.059)
2018 × 1 child, Q1	0.014	1.225	1.117	-0.005	-0.131
	(0.034)	(3.661)	(3.840)	(0.037)	(0.125)
2018 × 1 child, Q2 AND Q3	0.017	0.404	0.631	0.072**	-0.102*
	(0.036)	(1.214)	(1.316)	(0.035)	(0.060)
2018 × 2+ children, Q1	-0.019	-0.618	0.080	0.025	0.053
	(0.043)	(1.241)	(1.369)	(0.040)	(0.073)
2018 × 2+ children, Q2 AND Q3	0.036	1.126	1.155	0.049	0.084
	(0.026)	(1.237)	(1.205)	(0.040)	(0.080)
2018 × 1 child, Q4 AND Q5	-0.000	1.962	2.491**	0.028	-0.117***
	(0.034)	(1.250)	(1.262)	(0.031)	(0.042)
2018 × 2+ children, Q4 AND Q5	0.008	0.549	0.809	0.044	0.011
	(0.042)	(1.806)	(1.743)	(0.040)	(0.087)
Observations	2565	2295	2290	2272	2628
R^2	0.093	0.046	0.036	0.074	0.137

See notes in Table4 for a description of the estimation methods and explanatory variables specifications. See the main text for a description of the Specification 3 categories. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 15: Robustness: Expectation effects

	Redistributive Index	Tax: Average	Tax: Median Group	Tax: Progressivity	PiS Vote
2008	-0.02	-1.08	0.69	-0.07***	-0.03
	(0.02)	(1.30)	(1.43)	(0.03)	(0.05)
2018	-0.06**	-1.10	-0.70	-0.10***	0.21***
	(0.03)	(0.97)	(1.04)	(0.03)	(0.06)
			Parallel trends		
2008 × 1 Child, Q1	-0.04	-0.51	-1.62	-0.01	-0.05
	(0.04)	(2.20)	(2.29)	(0.04)	(0.11)
2008 × 1 Child, Q2+	-0.02	1.27	0.56	-0.01	0.03
	(0.02)	(1.18)	(1.24)	(0.03)	(0.05)
2008 × 2+ Children, Q1	-0.02	-0.97	-0.37	0.02	-0.02
	(0.03)	(1.60)	(1.43)	(0.04)	(0.08)
2008 × 2+ Children, Q2+	-0.00	0.72	0.60	0.03	0.07
	(0.03)	(0.97)	(1.09)	(0.03)	(0.05)
			Main coefficients of interest		
2018 × 1 Child, Q1	0.02	1.52	1.35	0.01	-0.15
	(0.03)	(3.69)	(3.86)	(0.04)	(0.12)
2018 × 1 Child, Q2+	0.01	1.56	1.91*	0.06**	-0.13***
	(0.03)	(0.95)	(1.01)	(0.02)	(0.04)
2018 × 2+ Children, Q1	-0.02	-0.17	0.43	0.04	0.03
	(0.04)	(1.27)	(1.38)	(0.04)	(0.07)
2018 × 2+ Children, Q2+	0.02	1.23	1.25	0.06**	0.04
	(0.02)	(1.08)	(1.06)	(0.03)	(0.06)
Observations	2290	2016	2012	1997	2346
R^2	0.090	0.049	0.042	0.079	0.149

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

See notes in Table 4 for a description of the estimation methods and specification of the outcome and explanatory variables. The sample excludes 40-year-old and younger, childless respondents. See the main text for a description of the Specification 2 categories. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).

Table 16: Robustness: Pension Reform

	Redistributive Index	Tax: Average	Tax: Median Group	Tax: Progressivity	PiS Vote
2008	-0.01	-1.22	0.31	-0.08***	-0.03
	(0.02)	(1.16)	(1.28)	(0.03)	(0.04)
2018	-0.06***	-1.10	-0.83	-0.08***	0.18***
	(0.02)	(0.93)	(1.00)	(0.03)	(0.05)
			Parallel trends		
2008 × 1 Child, Q1	-0.04	-0.71	-1.83	0.00	-0.05
	(0.04)	(2.22)	(2.34)	(0.04)	(0.11)
2008 × 1 Child, Q2+	-0.02	1.12	0.32	-0.00	0.01
	(0.02)	(1.17)	(1.21)	(0.03)	(0.05)
2008 × 2+ Children, Q1	-0.02	-1.21	-0.75	0.03	-0.03
	(0.03)	(1.60)	(1.43)	(0.04)	(0.08)
2008 × 2+ Children, Q2+	-0.01	0.54	0.30	0.04	0.06
	(0.03)	(0.97)	(1.09)	(0.03)	(0.04)
			Main coefficients of interest		
2018 × 1 Child, Q1	0.01	1.19	1.05	-0.01	-0.12
	(0.03)	(3.65)	(3.83)	(0.04)	(0.13)
2018 × 1 Child, Q2+	0.01	1.16	1.50	0.05*	-0.09**
	(0.03)	(0.97)	(1.02)	(0.02)	(0.04)
2018 × 2+ Children, Q1	-0.02	-0.64	0.00	0.02	0.07
	(0.04)	(1.25)	(1.38)	(0.04)	(0.07)
2018 × 2+ Children, Q2+	0.03	0.88	0.94	0.04	0.07
	(0.02)	(1.07)	(1.05)	(0.03)	(0.06)
			Robustness check coefficient		
2008 × Affected pension reform	-0.01	1.08	0.57	0.03	0.02
	(0.02)	(0.93)	(0.96)	(0.02)	(0.04)
2018 × Affected pension reform	0.00	-0.03	-0.31	-0.01	0.11**
	(0.02)	(0.98)	(1.04)	(0.02)	(0.05)
Observations	2565	2295	2290	2272	2628
R^2	0.092	0.046	0.035	0.074	0.140

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

See notes in Table 4 for a description of the estimation methods and specification of the outcome and explanatory variables. See the main text for a description of the Specification 2 categories. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).

Table 17: Robustness: Educational Reform

	Redistributive Index	Tax: Average	Tax: Median Group	Tax: Progressivity	PiS Vote
2008	-0.01	-1.10	0.38	-0.08***	-0.02
	(0.02)	(1.15)	(1.27)	(0.03)	(0.04)
2018	-0.06***	-1.18	-0.94	-0.08***	0.20***
	(0.02)	(0.92)	(0.99)	(0.03)	(0.05)
			Parallel trends		
2008 × 1 Child, Q1	-0.04	-0.91	-1.87	0.01	-0.05
	(0.04)	(2.25)	(2.38)	(0.04)	(0.11)
2008 × 1 Child, Q2+	-0.01	0.83	0.27	0.00	0.01
	(0.02)	(1.31)	(1.35)	(0.03)	(0.06)
2008 × 2+ Children, Q1	-0.01	-1.59	-0.80	0.04	-0.02
	(0.03)	(1.68)	(1.55)	(0.04)	(0.08)
2008 × 2+ Children, Q2+	0.00	0.18	0.27	0.05	0.06
	(0.03)	(1.22)	(1.38)	(0.04)	(0.06)
			Main coefficients of interest		
2018 × 1 Child, Q1	0.01	0.70	0.66	-0.00	-0.14
	(0.03)	(3.40)	(3.58)	(0.04)	(0.13)
2018 × 1 Child, Q2+	0.00	0.28	0.79	0.05*	-0.13***
	(0.03)	(1.05)	(1.12)	(0.03)	(0.05)
2018 × 2+ Children, Q1	-0.03	-2.11	-1.21	0.03	0.02
	(0.05)	(1.58)	(1.76)	(0.05)	(0.08)
2018 × 2+ Children, Q2+	0.01	-0.62	-0.30	0.06	0.03
	(0.03)	(1.46)	(1.47)	(0.03)	(0.07)
			Robustness check coefficients		
2008 ×Post-2016 pre-school Child	-0.02	0.25	-0.10	-0.02	-0.01
	(0.02)	(1.15)	(1.20)	(0.03)	(0.05)
2018 ×Post-2016 pre-school Child	0.02	2.14	1.84	-0.01	0.05
	(0.03)	(1.43)	(1.50)	(0.03)	(0.06)
Observations	2565	2295	2290	2272	2628
R^2	0.092	0.047	0.037	0.073	0.137

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

See notes in Table 4 for a description of the estimation methods and specification of the outcome and explanatory variables. See the main text for a description of the Specification 2 categories. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).

Table 18: Robustness: GALTAN Restricted sample

	Unbbalanced 2008-2018 panel sample				Balanced 2013-2018 panel sample			
	Redistributive Index	Tax: Avg	Tax: Median	Tax: Progressivity	Redistributive Index	Tax: Avg	Tax: Median	Tax: Progressivity
2008	0.021	-2.763	-1.107	-0.050				
	(0.052)	(2.178)	(2.545)	(0.037)				
2018	-0.021	-1.110	-1.773	-0.057	-0.021	-0.682	-1.222	-0.056
	(0.030)	(0.987)	(1.137)	(0.038)	(0.030)	(0.994)	(1.100)	(0.039)
2008 × 1 Child, Q1	-0.002	-2.048	-2.526	0.013				
	(0.061)	(2.968)	(2.390)	(0.086)				
2008 × 1 Child, Q2+	-0.033	5.209**	4.179	0.033				
	(0.037)	(2.577)	(2.829)	(0.048)				
2008 × 2+ Children, Q1	0.044	-0.613	-1.492	0.042				
	(0.059)	(2.744)	(3.095)	(0.100)				
2008 × 2+ Children, Q2+	0.023	2.897*	3.714	-0.053				
	(0.044)	(1.694)	(2.293)	(0.054)				
2018 × 1 Child, Q1	-0.010	-1.461	-1.809	-0.056	-0.009	-1.055	-1.340	-0.071
	(0.045)	(1.445)	(1.479)	(0.051)	(0.044)	(1.420)	(1.462)	(0.050)
2018 × 1 Child, Q2+	-0.009	1.374	1.390	0.071**	-0.007	1.206	1.305	0.072**
	(0.042)	(1.504)	(1.482)	(0.034)	(0.042)	(1.506)	(1.488)	(0.034)
2018 × 2+ Children, Q1	-0.001	0.861	1.685	-0.086	-0.001	0.704	1.425	-0.093
	(0.060)	(1.875)	(2.372)	(0.072)	(0.059)	(1.890)	(2.390)	(0.073)
2018 × 2+ Children, Q2+	0.035	-1.623	-1.272	-0.026	0.033	-1.800	-1.403	-0.026
	(0.040)	(1.949)	(1.896)	(0.059)	(0.040)	(1.932)	(1.877)	(0.060)
Observations	1234	1019	1016	1015	978	761	760	760
R^2	0.090	0.124	0.098	0.113	0.085	0.092	0.079	0.071

See notes in Table 4 for a description of the estimation methods and explanatory variables specifications and main text for a description of the Specification 3 categories. The sample includes only individuals who voted in a party belonging to the GALTAN 'Authoritarian' category in 2013 and 2018 or individuals who voted in a party belonging to the GALTAN 'Libertarian' category in 2013 and 2018. See Table 27 for an overview of the parties' classification. Unbalanced 2008-2018 includes individuals who participated the 2008, 2013, and 2018 waves and respondents who only participated in the 2013 and 2018 waves. Balanced 2013-2018 covers only the latter.
Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021). Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

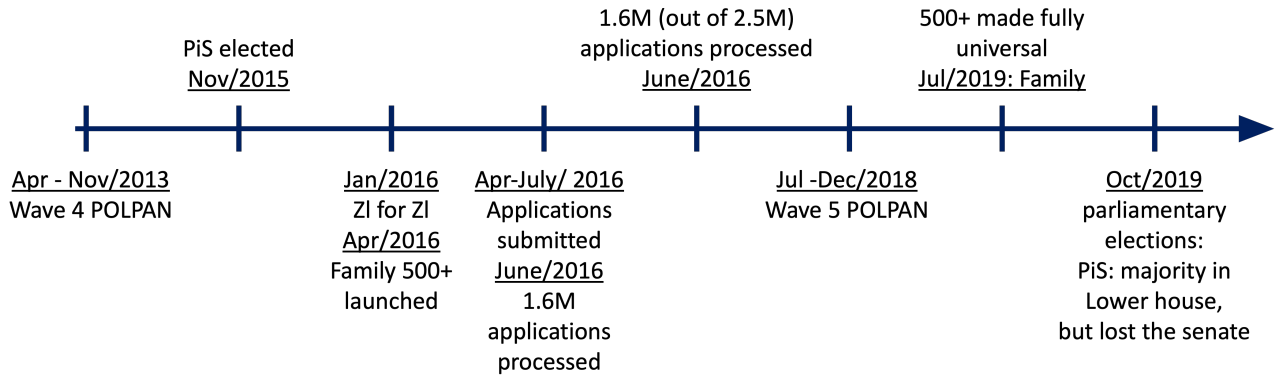
B Supplementary material

Figure 1: Eligibility criteria throughout the years.

		2003	2008	2013	2015	2016	2018	2019
Means-tested								
Family Allowance *(Zasiłek rodzinny)*	Pc income Eligibility	1+ child & PLN 504	1+ child & PLN 504	1+ child & PLN 539	1+ child & PLN 574	1+ child & <674 PLN	1+ child & < 674PLN	1+ child & < 674PLN
	Benefit	< 5yo: 43 5-18yo: 53 18-24 yo: 66	< 5yo: 48 5-18yo: 64 18-24 yo: 68	< 5yo: 77 5-18yo: 106 18-24 yo: 115	< 5yo: 77 5-18yo: 106 18-24 yo: 115	< 5yo: 89 5-18yo: 118 18-24 yo: 129	< 5yo: 95 5-18yo: 124 18-24 yo: 135	< 5yo: 95 5-18yo: 124 18-24 yo: 135
Zloty for zloty	-	-	-	-	-	Allows families with income a little above the income threshold receive some allowance. The benefits payable is reduced by the amount by which family income exceeds the income threshold, when the adjustment is at least PLN20		
Family 500+ (Świadczenie wychowawcze, 500 Plus)	Pc income Eligibility	-	-	-	-	1 child & <800 PLN	1 child & <800 PNL	-
	Benefit	-	-	-	-	500	500	-
Not income-tested								
Family 500+ (Świadczenie wychowawcze, 500 Plus)	Eligibility	-	-	-	-	2+ children	2+ children	1+ children
	Benefit	-	-	-	-	500	500	500

Source: Mutual Information System on Social Protection (MISSOC)

Figure 2: Timeline



Source: Authors' owm elaboration

Table 19: Redistributive index: Polychoric correlation matrix

	Reduce differences in income	Education assistance	Job provision
Reduce differences in income	1		
Education assistance	0.30355568	1	
Job provision	0.44378081	0.42047418	1

Table 20: Redistributive index: Factor analysis using input components

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor 1	1.01834	1.11817	1.4668	1.4668
Factor 2	-0.09983	0.12439	-0.1438	1.3230
Factor 3	-0.22423	.	-0.3230	1.0000

LR test: independent vs. saturated: chi2(3) = 4433.20 Prob>chi2 = 0.0000. Number of observations = 10,198. Method: principal factors. Factor analysis performed using a polychoric correlation matrix. Source: POLPAN 1998, 2003, 2008, 2013, 2018

Table 21: Redistributive index: Factor loadings (pattern matrix) and unique variances of input variables

Variable	Factor1	Uniqueness
The government should reduce income differences	0.5590	0.6876
The government should assist poor children in higher education	0.5358	0.7129
The government should provide jobs for those who want	0.6471	0.5812

Table 22: Summary statistics: index input variables, per wave

Variable	Wave 2008		Wave 2013		Wave 2018	
	Mean	SD	Mean	SD	Mean	SD
	Outcome variables					
Redistributive Index	0.78	0.18	0.80	0.19	0.73	0.19
Tax: Average value	15.54	7.19	16.23	7.23	15.55	7.17
Tax: Progressivity	0.30	0.18	0.27	0.18	0.28	0.16
PiS vote	0.12	0.33	0.18	0.39	0.33	0.47

Summary statistics per wave.Respondents included in the balanced panel sample 2008-2018. See Table 5 for a description of the variables. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021)

Table 23: Results comparison of 2008-2018 and 2013-2018 panels. Combined categories.

	Index			Avg tax			Tax progressivity			PiS Vote		
	Balanced 3	Unbalanced 3	Balanced 4	Balanced 3	Unbalanced 3	Balanced 4	Balanced 3	Unbalanced 3	Balanced 4	Balanced 3	Unbalanced 3	Balanced 4
2008	-0.02	-0.01		-1.29	-1.55		-0.07***	-0.06**		-0.02	-0.04	
	(0.02)	(0.02)		(1.14)	(1.10)		(0.03)	(0.02)		(0.04)	(0.04)	
2018	-0.06**	-0.05***	-0.05***	-1.04	-1.63**	-1.54**	-0.09***	-0.06***	-0.05***	0.20***	0.17***	0.17***
	(0.02)	(0.02)	(0.02)	(0.89)	(0.64)	(0.64)	(0.03)	(0.02)	(0.02)	(0.05)	(0.04)	(0.04)
2008 × 1 Child	-0.02	-0.01		0.99	1.12		-0.00	-0.01		-0.02	0.00	
	(0.02)	(0.02)		(1.04)	(0.99)		(0.02)	(0.02)		(0.04)	(0.04)	
2008 × 2 Children	-0.01	-0.00		0.02	0.27		0.03	0.02		0.01	-0.02	
	(0.02)	(0.02)		(0.85)	(0.81)		(0.02)	(0.02)		(0.04)	(0.04)	
2018 × 1 Child	-0.00	0.01	0.01	0.89	1.22	1.27	0.04*	0.03**	0.04**	-0.13***	-0.09**	-0.09**
	(0.02)	(0.01)	(0.01)	(1.10)	(0.78)	(0.78)	(0.02)	(0.02)	(0.02)	(0.04)	(0.03)	(0.03)
2018 × 2 Children	0.01	0.02	0.02	0.33	0.87	0.91	0.04*	0.02	0.02	0.06	0.01	0.01
	(0.02)	(0.02)	(0.02)	(0.82)	(0.67)	(0.67)	(0.02)	(0.02)	(0.02)	(0.05)	(0.04)	(0.04)
Observations	2565	4280	3392	2295	3652	2747	2272	3623	2727	2628	4414	3506
R^2	0.089	0.090	0.104	0.041	0.038	0.035	0.067	0.055	0.047	0.138	0.109	0.087

Each column represents a different estimation of the model in Equation 1. The first line ('Index', 'Avg tax', 'Tax progressivity', 'PiS Vote') indicates that column's regression outcome variable. The second line indicates the sample used for that estimation. Balanced 3 represents a balanced panel sample of individuals who participated in the 2008, 2013, and 2018 wave. Unbalanced 3 refers to the unbalanced panel sample of individuals who participated in at least two of those three waves. Balanced 4 denotes the balanced panel sample of individuals who participated in the 2013 and 2018 waves. Refer to the main text for an explanation of the categories used as explanatory variables.
Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 24: Results comparison of 2008-2018 and 2013-2018 panels.

	Index			Avg tax			Tax progressivity			PiS Vote		
	Balanced 3	Unbalanced 3	Balanced 4	Balanced 3	Unbalanced 3	Balanced 4	Balanced 3	Unbalanced 3	Balanced 4	Balanced 3	Unbalanced 3	Balanced 4
2008	-0.01	-0.01		-1.18	-1.41		-0.07***	-0.06**		-0.03	-0.04	
	(0.02)	(0.02)		(1.14)	(1.11)		(0.03)	(0.02)		(0.04)	(0.04)	
2018	-0.06***	-0.05***	-0.05***	-1.12	-1.64**	-1.54**	-0.08***	-0.05***	-0.05***	0.20***	0.17***	0.17***
	(0.02)	(0.02)	(0.02)	(0.92)	(0.65)	(0.65)	(0.03)	(0.02)	(0.02)	(0.05)	(0.04)	(0.04)
2008 × 1 Child, Q1	-0.04	-0.04		-0.85	-0.67		0.00	-0.01		-0.05	-0.01	
	(0.04)	(0.04)		(2.23)	(2.25)		(0.04)	(0.04)		(0.11)	(0.09)	
2008 × 1 Child, Q2+	-0.02	-0.01		0.93	0.75		-0.01	-0.00		0.01	0.03	
	(0.02)	(0.02)		(1.16)	(1.12)		(0.03)	(0.03)		(0.05)	(0.05)	
2008 × 2+ Children, Q1	-0.02	-0.01		-1.36	-0.65		0.02	0.01		-0.03	-0.07	
	(0.03)	(0.03)		(1.60)	(1.53)		(0.04)	(0.04)		(0.08)	(0.08)	
2008 × 2+ Children, Q2+	-0.01	-0.01		0.38	0.39		0.03	0.03		0.05	0.03	
	(0.03)	(0.02)		(0.97)	(0.93)		(0.03)	(0.03)		(0.04)	(0.04)	
2018 × 1 Child, Q1	0.01	0.03	0.03	1.21	1.63	1.66	-0.01	-0.03	-0.04	-0.13	-0.04	-0.04
	(0.03)	(0.03)	(0.03)	(3.66)	(2.25)	(2.22)	(0.04)	(0.03)	(0.03)	(0.12)	(0.09)	(0.09)
2018 × 1 Child, Q2+	0.01	0.02	0.02	1.19	0.85	0.91	0.05**	0.06***	0.06***	-0.11***	-0.06*	-0.06*
	(0.03)	(0.02)	(0.02)	(0.94)	(0.74)	(0.73)	(0.02)	(0.02)	(0.02)	(0.04)	(0.04)	(0.04)
2018 × 2+ Children, Q1	-0.02	0.00	0.01	-0.66	0.79	0.91	0.03	0.01	0.00	0.05	-0.04	-0.04
	(0.04)	(0.03)	(0.03)	(1.25)	(1.07)	(1.07)	(0.04)	(0.03)	(0.03)	(0.07)	(0.06)	(0.06)
2018 × 2+ Children, Q2+	0.03	0.01	0.01	0.90	0.97	0.98	0.05	0.04	0.04	0.06	0.01	0.01
	(0.02)	(0.02)	(0.02)	(1.06)	(0.91)	(0.91)	(0.03)	(0.03)	(0.03)	(0.06)	(0.05)	(0.05)
Observations	2565	4280	3392	2295	3652	2747	2272	3623	2727	2628	4414	3506
R^2	0.091	0.091	0.104	0.044	0.040	0.035	0.068	0.058	0.053	0.136	0.108	0.086

Each column represents a different estimation of the model in Equation 1. The first line ('Index', 'Avg tax', 'Tax progressivity', and 'PiS Vote') indicates that column's regression outcome variable. The second line indicates the sample used for that estimation. Balanced 3 represents a balanced panel sample of individuals who participated in the 2008, 2013, and 2018 wave. Unbalanced 3 refers to the unbalanced panel sample of individuals who participated in at least two of those three waves. Balanced 4 denotes the balanced panel sample of individuals who participated in the 2013 and 2018 waves. Refer to the main text for an explanation of the categories used as explanatory variables.
Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 25: Number of observations per income quintile and children in the household. Balanced sample 2008 - 2018

Quintile (2013)	Number of children (2018) 0 Children	1 Child	2+ Children
1	72	24	42
2	103	21	27
3	83	15	18
4	153	24	13
5	116	15	14
Missing income	92	20	24
Total	*619*	*119*	*138*

Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).

Table 26: Categories of households: Specification 2 and Specification 3

	Group	*Coefficient of interest:* Overall effect	Additional effect	Number of children	Quintile
Specification 2	*Baseline*	β_{2018}	-	*0*	2013 quintile 2+
	1Q1	β_{2018}	$\gamma_{1q1,2018}$	1	2013 quintile 1
	1Q2+	β_{2018}	$\gamma_{1q2,2018}$	1	2013 quintile 2+
	2Q1	β_{2018}	$\gamma_{2q1,2018}$	2+	2013 quintile 1
	2Q2+	β_{2018}	$\gamma_{2q2,2018}$	2+	2013 quintile 2+
	0Q1	β_{2018}	$\gamma_{0q1,2018}$	0	2013 quintile 1
Specification 3	*Baseline*	β_{2018}	-	*0*	-
	1Q1	β_{2018}	$\gamma_{1q1,2018}$	1	2013 quintile 1
	1Q2-3	β_{2018}	$\gamma_{1q2-3,2018}$	1	2013 quintiles 2 and 3
	1Q4-5	β_{2018}	$\gamma_{1q4-5,2018}$	1	2013 quintiles 4 and 5
	2Q1	β_{2018}	$\gamma_{2q1,2018}$	2+	2013 quintile 1
	2Q2-3	β_{2018}	$\gamma_{2q2-3,2018}$	2+	2013 quintiles 2 and 3
	2Q4-5	β_{2018}	$\gamma_{2q4-5,2018}$	2+	2013 quintiles 4 and 5

Table 27: Parties classification according to CHES - GAL-TAN

Party	CHES 2014	CHES 2019	Other CHES	Binary classification	Notes
PiS	8.47	9.14		Traditional	
PSL	6.94	7.10		Traditional	
Korwin	N/A	N/A		Traditional	Single politician, described as a right-wing populist (Jacuński et al., 2021)
PJN	N/A	N/A		Traditional	A spinoff group from the Law and Justice founded in 2010. Dissolved in 2013 (Jacuński et al., 2021).
SP	8.65	N/A		Traditional	A spinoff group from the Law and Justice party founded in 2012 (Jacuński et al., 2021).
Kukiz	N/A	7.61		Traditional	Founded in 2015
PO	4.59	4.67		Libertarian	
RP	1.18	N/A		Libertarian	
SLD	2.76	3.57		Libertarian	
Nowo	N/A	2.61		Libertarian	Founded in 2015
Lewica Razem	N/A	1.22		Libertarian	Founded in 2015
UW/PD	N/A	N/A	2.38 (2002)	Libertarian	Dissolved in 2005.

The GAL-TAN measure runs from 0 (Libertarian/Postmaterialist) to 10 (Traditional/Authoritarian). The binary classification considers the threshold median of 5 for allocating into the categories. When a party's classification is unavailable for a given edition, another survey edition is considered. In cases where no GAL-TAN measure is available, qualitative (phydescribed in 'Notes') information is used for the allocation. Only parties mentioned by respondents who informed their voting preferences in both the 2013 and 2018 POLPAN waves are considered. 'Missing', 'Would not vote', 'Difficult to say' and 'Others' are not considered. Sources: Jacuński et al. (2021) and Jolly et al. (2022).

Table 28: Main results: no time-varying controls

	(1) Redistributive Index	(2) Tax: Average	(3) Tax: Progressivity	(4) PiS Vote
2008	-0.01	-1.15	-0.07***	-0.03
	(0.02)	(1.14)	(0.02)	(0.04)
2018	-0.06***	-1.13	-0.08***	0.20***
	(0.02)	(0.92)	(0.03)	(0.05)
	Parallel trends			
2008 × 1 Child, Q1	-0.05	-0.96	0.01	-0.06
	(0.04)	(2.24)	(0.04)	(0.11)
2008 × 1 Child, Q2+	-0.01	1.39	-0.01	0.02
	(0.02)	(1.12)	(0.03)	(0.05)
2008 × 2+ Children, Q1	-0.02	-1.20	0.02	-0.03
	(0.03)	(1.58)	(0.04)	(0.08)
2008 × 2+ Children, Q2+	-0.01	0.59	0.03	0.06
	(0.02)	(0.95)	(0.03)	(0.04)
	Main coefficients of interest			
2018 × 1 Child, Q1	0.01	1.21	-0.00	-0.13
	(0.03)	(3.65)	(0.04)	(0.12)
2018 × 1 Child, Q2+	0.01	1.19	0.05**	-0.11***
	(0.03)	(0.94)	(0.02)	(0.04)
2018 × 2+ Children, Q1	-0.02	-0.65	0.03	0.05
	(0.04)	(1.25)	(0.04)	(0.07)
2018 × 2+ Children, Q2+	0.03	0.91	0.05	0.06
	(0.02)	(1.06)	(0.03)	(0.06)
Observations	2565	2295	2272	2628
R^2	0.089	0.041	0.065	0.135

All difference-in-difference event study estimations include individual time-varying controls, individual and $NUTS2 \times$ *wave* fixes effects, with robust standard errors in parentheses. Number of children below 18 years old as reported in 2018, but excluding individuals with children in the household born in 2017 and 2018. Income quintiles are computed with 2013 per capita income, and individuals with children and non missing income are regarded as a separate respondent category, with interaction terms not displayed due to space constraints. The redistributive index is continuous between 0 and 1. The average tax rates and tax progressivity are continuous variables, ranging from 0 to 100 and between -1 and +1, respectively. Lastly, the PiS vote is a dummy variable of voting intention, which takes the value of 1 when the individual states that they would vote for PIS should elections occur next Sunday. The regression is estimated using the 2008 to 2018 balanced panel sample. N=876 individuals. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 29: Main results: No NUTS2 X Wave FE

	Index Index	Tax: Average	Tax: Median group	Tax: Progressivity	PiS Vote
2008	-0.012	-0.970**	-0.794**	0.013	-0.064***
	(0.008)	(0.400)	(0.403)	(0.009)	(0.017)
2018	-0.066***	-0.735*	-0.558	0.002	0.147***
	(0.008)	(0.410)	(0.437)	(0.009)	(0.018)
Parallel trend					
2008 × 1 Child, Q1	-0.041	-1.240	-2.024	-0.017	-0.052
	(0.041)	(2.301)	(2.479)	(0.039)	(0.110)
2008 × 1 Child, Q2+	-0.009	0.477	-0.111	-0.000	0.009
	(0.022)	(1.126)	(1.156)	(0.032)	(0.051)
2008 × 2+ Children, Q1	-0.020	-0.934	-0.285	0.035	-0.035
	(0.031)	(1.520)	(1.374)	(0.040)	(0.076)
2008 × 2+ Children, Q2+	-0.005	0.480	0.294	0.043	0.057
	(0.025)	(0.921)	(1.017)	(0.029)	(0.044)
2008 × 1+ Child, Missing inc	0.021	1.869	1.579	0.035	-0.072
	(0.026)	(1.676)	(1.825)	(0.047)	(0.066)
Main coefficients of interest					
2018 × 1 Child, Q1	0.018	1.213	1.046	-0.026	-0.105
	(0.034)	(3.627)	(3.811)	(0.040)	(0.127)
2018 × 1 Child, Q2+	0.012	1.008	1.243	0.055**	-0.094**
	(0.025)	(0.902)	(0.962)	(0.025)	(0.037)
2018 × 2+ Children, Q1	-0.024	-0.150	0.559	0.022	0.043
	(0.042)	(1.230)	(1.362)	(0.040)	(0.072)
2018 × 2+ Children, Q2+	0.031	1.019	1.125	0.052*	0.061
	(0.023)	(1.076)	(1.051)	(0.030)	(0.062)
2018 × 1+ Child, Missing inc	-0.018	0.561	0.948	0.053	-0.011
	(0.028)	(1.633)	(1.631)	(0.044)	(0.085)
Observations	2565	2295	2290	2272	2628
R^2	0.068	0.012	0.010	0.022	0.109

See notes in Table 4 for a description of the estimation methods and variables specifications. The estimations include individual and time fixed effect, but do not include NUTS2 × Wave fixed effect. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 30: Main results: NUTS1 X Wave FE

	Index Index	Tax: Average	Tax: Median group	Tax: Progressivity	PiS Vote
2008	-0.009	-0.071	0.508	0.015	-0.043
	(0.014)	(0.711)	(0.708)	(0.018)	(0.029)
2018	-0.055***	0.169	0.157	-0.013	0.154***
	(0.016)	(0.654)	(0.703)	(0.018)	(0.032)
Parallel trend					
2008 × 1 Child, Q1	-0.042	-1.289	-2.178	-0.019	-0.052
	(0.041)	(2.244)	(2.415)	(0.041)	(0.111)
2008 × 1 Child, Q2+	-0.016	0.741	0.082	-0.014	0.004
	(0.022)	(1.149)	(1.176)	(0.031)	(0.053)
2008 × 2+ Children, Q1	-0.019	-0.982	-0.504	0.038	-0.032
	(0.032)	(1.559)	(1.406)	(0.040)	(0.077)
2008 × 2+ Children, Q2+	-0.006	0.437	0.174	0.038	0.053
	(0.025)	(0.935)	(1.044)	(0.030)	(0.044)
Main coefficients of interest					
2018 × 1 Child, Q1	0.019	1.121	0.996	-0.020	-0.101
	(0.033)	(3.613)	(3.802)	(0.039)	(0.125)
2018 × 1 Child, Q2+	0.012	1.251	1.560	0.050**	-0.098**
	(0.026)	(0.936)	(0.997)	(0.025)	(0.038)
2018 × 2+ Children, Q1	-0.019	-0.086	0.575	0.035	0.056
	(0.043)	(1.252)	(1.375)	(0.040)	(0.073)
2018 × 2+ Children, Q2+	0.028	0.999	1.090	0.054*	0.062
	(0.024)	(1.074)	(1.044)	(0.031)	(0.062)
Observations	2565	2295	2290	2272	2628
R^2	0.079	0.023	0.021	0.043	0.117

See notes in Tables 4 for a description of the estimation methods and variables specifications. The estimations include individual, time, and NUTS1 × Wave fixed effect. Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 31: Main results controlled for PiS vote in last elections

	(1) Redistributive Index	(2) Tax: Average	(3) Tax: Progressivity	(4) PiS Vote
2008	-0.015	-1.260	-0.071***	-0.043
	(0.023)	(1.154)	(0.025)	(0.038)
2018	-0.061***	-1.117	-0.084***	0.197***
	(0.023)	(0.924)	(0.027)	(0.053)
Parallel trends				
2008 × 1 Child, Q1	-0.042	-0.948	-0.000	-0.067
	(0.040)	(2.206)	(0.041)	(0.108)
2008 × 1 Child, Q2+	-0.017	0.979	-0.006	0.015
	(0.022)	(1.162)	(0.031)	(0.050)
2008 × 2+ Children, Q1	-0.020	-1.237	0.022	-0.010
	(0.031)	(1.595)	(0.041)	(0.073)
2008 × 2+ Children, Q2+	-0.007	0.417	0.030	0.060
	(0.025)	(0.967)	(0.028)	(0.042)
Main coefficients of interest				
2018 × 1 Child, Q1	0.014	1.197	-0.005	-0.132
	(0.034)	(3.655)	(0.036)	(0.125)
2018 × 1 Child, Q2+	0.008	1.194	0.049**	-0.110***
	(0.026)	(0.938)	(0.024)	(0.039)
2018 × 2+ Children, Q1	-0.019	-0.644	0.028	0.053
	(0.043)	(1.246)	(0.041)	(0.073)
2018 × 2+ Children, Q2+	0.025	0.904	0.047	0.057
	(0.023)	(1.062)	(0.030)	(0.061)
Voted PiS last elections	0.006	0.793	0.002	0.123***
	(0.013)	(0.645)	(0.016)	(0.039)
Observations	2565	2295	2272	2628
R^2	0.091	0.045	0.068	0.145

See notes in Tables 4 for a description of the estimation methods and variables specifications. The estimations include individual, time, and NUTS1 × Wave fixed effect. Voted PiS last elections is a time-varying dummy, with a value of 1 if the respondent reports that wave having voted for PiS in the last elections (see footnote 10 for details on values). Source: POLPAN, Słomczyński, Kazimierz M. and Tomescu-Dubrow, Irina and Institute of Philosophy and Sociology, Polish Academy of Sciences (2021).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

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