Are Fertility Responses Ideologically Driven? Evidence from Hungary's 2019 Family Protection Action Plan

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June 14, 2026

Abstract

This paper examines Hungary's Family Protection Action Plan (FPAP), a large-scale, pronatalist policy package designed to address the country's below-replacement birth rates. I use an event-study approach, implemented at the municipality level, to examine how fertility rates evolved after the policy's enactment based on pre-treatment ideological orientation. I find that areas with higher pre-policy support for the Fidesz party experience larger increases in fertility following the policy than those with lower levels of support, underscoring the importance of political framing in shaping fertility responses.

Introduction

Declining global fertility poses a major structural challenge for the future of society, as fertility rates across much of the world have fallen below replacement levels (Lesthaeghe 2014; Sobotka 2017; Fernández-Villaverde 2025). In response to this "demographic question," governments have enacted a wide range of policies to make childbearing more attractive (Gauthier 2007; Zhang et al. 2023). Yet, like many state-led policies, these measures are not ideologically neutral; rather, they reflect normative assumptions about national identities, immigration, and the division of labor within the household. Although such policies are not exclusive to the political right, left-leaning parties tend to more quietly frame these objectives in terms of affordability and gender equality. As a result, overtly pro-family policies that emphasize pronatalist, nationalist, or traditionalist values are consistently associated with the right, most notably in Eastern Europe but also globally (Cook et al. 2023; Forati and Bartz 2025).

Demographers have raised concerns that this politicization of fertility may at least temporarily suppress birth rates, suggesting that it could generate social stigma for left-leaning women who want children earlier in life (Pető and Juhász 2024; Wootton and Morison 2025; Forati and Bartz 2025). Media reports also point to anecdotal cases in which the right-wing framing of motherhood has provoked female activists to refuse childbearing altogether (Rutai 2024). This

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implies that policies designed to increase fertility may not unilaterally affect incentives in the same way across different groups of women. While previous research has examined the differential impact of fertility support policies based on socioeconomic status (Raute 2019; Zhang et al. 2023), little research has examined whether these fertility responses differ systematically by ideology or political opinions. This dimension of heterogeneity is important, as differential responses—or even backlash—could undermine the effectiveness of policies aimed at increasing overall fertility rates.

To better understand the relationship between ideology and fertility responses, this paper examines Hungary's 2019 Family Protection Action Plan. Hungary offers a particularly useful case, as the pro-family policy was closely associated with the right-wing Fidesz party led by Viktor Orbán, and was both announced and implemented within a single year. In the absence of individual-level data, I exploit geographical variation in political alignment at the municipality level, analyzing how fertility rates evolved after the policy's enactment based on pre-treatment ideological orientation. I find that municipalities with higher support for the Fidesz party experienced larger increases in fertility following the policy than those with lower levels of support, underscoring the importance of political framing in shaping fertility responses.

Governing Reproduction

The role of the state in reproductive behavior is not without controversy. Starting a family is a markedly personal decision, with long-lasting ramifications for individuals' careers, identities, and relationships. As such, state-led interventions—particularly when politicized or monetary in nature—may generate dissonance by embedding elements of commodification into decisions occurring within the household. Regardless of this complexity, however, the state has historically been instrumental in monitoring and (dis)incentivizing reproduction. Michel Foucault (1976) famously coined the concepts of "biopolitics" and "biopower" to describe how the regulation of life itself falls under state discretion, with reproduction often framed in terms of national, ethnic, or religious survival.

Practical strategies to control reproductive behavior, however, vary by regime type, welfare arrangements, and the political party in power. In democratic contexts, these tactics are generally voluntary rather than coercive, aimed at reducing the opportunity costs of having children. Other goals, including gender equality and immigration control, also shape policy designs. For instance, policies explicitly directed at increasing fertility while also reducing gender inequality may extend paternity leave in familial regimes, as in Spain; or promote greater access to state-based childcare in social-democratic regimes, as in Scandinavian countries. In contexts where liberal ideals are less emphasized, such as in Eastern Europe, states may more strategically target child-related benefits toward specific groups, including native, married, and higher-income individuals (Walker 2020). Although the overall effectiveness of pro-family policies across countries is debated—often producing tempo rather than quantum effects (Gauthier 2007; Zhang et al. 2023)—there is consistent evidence that they reshape incentive structures,

particularly for those already considering starting a family (Neyer and Andersson 2008).

Previous literature has explored variation in the uptake of these policies by socioeconomic status. Financial incentives have been found to more strongly affect fertility for more-educated and/or higher-earning women in Germany (Raute 2019), Poland (Bokun 2024), Israel (Schellekens 2009), Canada (Parent and Wang 2007), and across the Global North more broadly (Bergsvik et al. 2021). However, there is limited research exploring how state-led fertility initiatives may produce compliance or resistance depending on individuals' ideological predispositions.

Fertility as a Site of Political Preferences

There are strong reasons to believe that pronatalist policies in middle- and high-income countries are more likely to elicit stronger responses from individuals on the political right. Although this link is not inherently intuitive—leftist politicians also display concern about declining fertility (Council of Economic Advisers 2024) and Soviet regimes historically promoted childbearing (Frejka and Gietel-Basten 2016)—the association between pronatalism and the political right has grown over recent years and is consistently supported by empirical evidence.

Research on the ideological determinants of fertility generally finds that right-leaning individuals have higher fertility intentions and outcomes than those on the left. In the United States, the gap between young Republicans and Democrats' desired number of children has increased over fourfold during the past few decades (Rackin and Gibson-Davis 2024), with worries about declining fertility more strongly expressed on the right (Cohen 2025). In Europe, individuals at the extreme right of the political ideology scale possess higher fertility intentions even controlling for other values, attitudes, and socio-economic factors (Arpino and Mogi 2024). These intentions are generally realized, as social conservatism is positively associated with total fertility across most European countries (Carlsson 2025). A wide range of factors likely underpin this relationship, including affective polarization, shifting gender relations, educational differences, religious beliefs, and attitudes toward immigration (Arpino and Mogi 2024). What is particularly interesting for this case, however, is that fertility unites the right around a broader pro-family coalition, bringing together anti-immigration populists and family-oriented conservatives. As such, I expect fertility responses to pronatalist policies to be right-biased.

There are three possible mechanisms driving this expectation. First, there might be a general *economic optimism* effect. Dahl et al. (2022) demonstrate that, after Donald Trump's victory in 2016, birth rates increased to a greater extent in Republican-leaning counties relative to Democratic counties. The authors suggest that this divergence reflects Republicans' belief that the country was "on the right track," coupled with more optimistic expectations about the economic future—conditions conducive to having children. However, this explanation is better suited to changes in government than to the introduction of a new policy under the same ruling party. In the case of the latter, there are two additional reasons why fertility responses would be right-biased. Assuming pronatalist policies are introduced by right-wing parties, a more pragmatic explanation centers on *patronage politics*. Politicians may strategically structure

benefits to better serve their constituencies, often through rules that privilege specific groups. For instance, Hungary's 2019 Family Protection Action Plan prohibited IVF for lesbians and made benefits conditional on financial and creditworthiness criteria (Walker 2020). Controlling for eligibility, however, ideological divergence in fertility responses may still remain. This persistence likely reflects a broader *political alignment* channel, in which right-leaning individuals are more receptive to a policy that is normatively consistent with their values and promoted by a trusted government. By selecting a case in which the ruling party is constant, this study concentrates on the latter two mechanisms, seeking to differentiate between their effects.

The Family Protection Action Plan

This study focuses on Hungary's Family Protection Action Plan (FPAP). Announced in February and implemented in July of 2019, the FPAP represents a large-scale, pronatalist policy package designed to address the country's below-replacement birth rates. It is best understood not solely as a policy *per se* but rather as a comprehensive and intertwined set of incentives. As displayed in Table 1, the FPAP contains seven points, each designed to make childbearing more feasible. These policy points range from subsidies for buying larger cars and homes to allowing grandparents to also take leave to watch children. The FPAP therefore places an emphasis on offering (potentially forgivable) loans to couples *ex ante*, conditional on having children *ex post*. Together, these policies foster financial dependence on the state which, in turn, generates a perceived obligation to have children.

Table 1: **Hungary's 2019 Family Protection Action Plan**

#	**Policy Area**	**Measure**
1	Marriage loan	Interest-free loan for married couples, with repayment linked to childbirth
2	Housing support	Subsidized loans and grants for families purchasing homes
3	Mortgage relief	Debt reduction for families after additional children
4	Tax policy	Lifetime income tax exemption for mothers with 4+ children
5	Car subsidy	Financial support to purchase larger family vehicles
6	Childcare provision	Expansion of nursery and childcare capacity
7	Grandparental leave	Allowance for grandparents providing childcare

This dynamic also reflects the political framing of the policy at large. The FPAP was introduced by Fidesz, a right-wing party known internationally for Viktor Orbán's dominant presence. Fidesz remained in power from 2010 to 2026, securing a two-thirds "super-majority" in all four election cycles (2010, 2014, 2018, 2022). Although Fidesz emphasized pro-family rhetoric throughout this period, the FPAP marked a major scaling-up of incentives for family formation. In this sense, the FPAP should not be understood as a qualitative "shock" in public

opinion, but rather as a consolidation of the actual means to have children. The policy package was also proposed as an alternative to immigration, geared toward native, married, working, and heterosexual couples. To qualify, individuals had to prove their working status, with loans more likely to be granted to those with better credit scores. These stipulations appear to follow a general pattern in the Fidesz regime, which some commentators have labeled as "welfare for the wealthy" (Szikra 2018). Academics have also discussed the policy's role in the construction of a "righteous motherhood" identity (Cromer and Taragin-Zeller 2022; Pető and Juhász 2024), and journalists have reported that some childfree women on the left perceive that the FPAP implies that they are "second-class citizens" for choosing not to have children (Rutai 2024).

Hungary's FPAP therefore provides a useful case for this study, as it situates pro-family policies within a clear partisan context. However, while non-eligible couples were unlikely to receive the subsidies directly, indirect spillover effects may still have occurred. For example, couples may have chosen to marry in order to qualify for the benefits, and the policy itself may also have contributed to broader shifts in social norms surrounding childbearing. In addition, housing subsidies for eligible couples may have increased local housing demand and, consequently, housing prices for non-eligible households in the same areas. Such effects may have partially offset any positive impact of the policy on overall municipal fertility rates. However, based on the mechanisms discussed above, I still expect policy uptake to be skewed toward right-leaning areas (*patronage politics*), with differences persisting even after controlling for eligibility criteria (*political alignment*).

Hypothesis 1: Areas with higher pre-policy support for Fidesz experience larger post-2019 increases in birth rates than areas with lower pre-policy support for Fidesz.

Hypothesis 2: This effect persists even after accounting for group differences in eligibility.

Data and Methods

Data

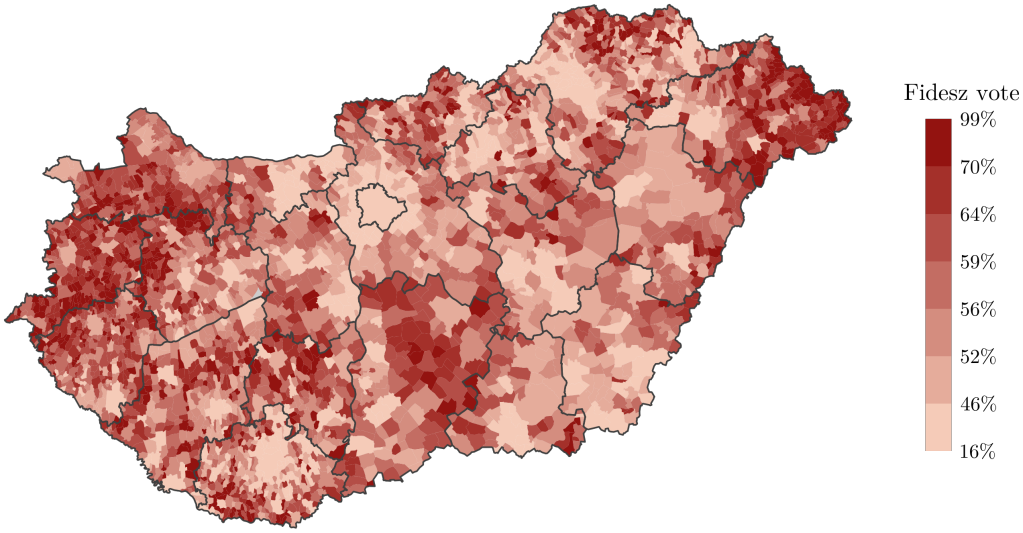
The dataset consists of a municipality-year panel covering the period 2013–2024, drawn from the *Hungarian Central Statistical Office* and the *Hungarian National Election Office*. Although individual-level, longitudinal data would have been more straightforward, such data are not available in Hungary. The closest approximation would be the *Turning Points of the Life Course Panel Survey*; however, this database covers only up to 2017 and does not include the relevant attitudinal variables. While concerns about an "ecological fallacy" cannot be fully ruled out in a spatial design, conducting the analysis at a highly granular geographic level—the municipality, or *település*—helps mitigate this bias. Fortunately for this research project, Hungary is characterized by a high degree of municipal fragmentation, with a total of 3,154 municipalities and an average municipality population of just over 3,000 inhabitants

(OECD 2023).[1] Additionally, decisions about childbearing are shaped by the communities in which individuals are embedded, making this unit of analysis particularly fruitful.

Measures

For my primary explanatory variable, I construct a time-invariant indicator of pre-treatment ideology based on the results from the 2018 parliamentary elections. These elections are national in scope and represent the most salient electoral contests in Hungary. I aggregate data from 10,285 polling stations to the municipality level, constructing a variable that captures the proportion of list votes cast for the Fidesz party.[2] Figure 1 displays the geographical heterogeneity in this variable. As to be expected, Fidesz support is most heavily concentrated in the rural areas furthest away from Budapest. In the Appendix (Table A3), I repeat the analysis using alternative measures, including the vote share of all right-wing parties for robustness.

Figure 1: **Fidesz list vote share in 2018 parliamentary elections** ($N = 3,153$)



Colors show equal-count bins. County borders shown.

In the absence of regional statistics on policy uptake, I use municipality data on births per thousand residents as the dependent variable.[3] Although this indicator cannot capture changes in the total fertility rate (Bongaarts and Feeney 1998), it adequately reflects tempo

[1] The 3,154 municipalities are further organized into 175 districts and 19 counties.

[2] Although Hungary uses a mixed-member majoritarian electoral system in which voters cast both party-list and candidate votes, I focus on list vote shares because they provide a more consistent measure of party-level support and are less affected by candidate-specific dynamics. Due to missing election results, one small municipality in western Hungary (*Balatonakarattya*) is excluded from the analysis.

[3] I use births per thousand residents rather than raw birth counts because Hungarian municipalities range from fewer than 100 to over 1.7 million residents, making raw counts substantively incomparable across units. Results are robust to replacing the outcome with raw birth counts and controlling for population.

effects—shifts in the timing of births—which are more likely to be affected by cash transfer policies such as those implemented in Hungary. In the subsequent analyses, I also control for net internal migration and mortality to account for changes in the variable's denominator. Net internal migration captures residential moves across municipality boundaries within Hungary, although it excludes international immigration, for which municipality-level data are unavailable. The birth rate specification partially mitigates this issue, but robustness checks excluding Budapest—home to roughly a quarter of Hungary's foreign-born population—provide a further check on this limitation (Hungarian Central Statistical Office 2022).

Due to privacy concerns, birth rates are not reported for small municipalities in years when the number of births is very low. As a result, the dependent variable contains some non-random missing observations. The missingness is not concentrated in any particular year, although it is more common in high-Fidesz areas (See Appendix Table A1). At the same time, however, this censoring can partially mitigate artificial volatility in small municipalities. For instance, in a town of 200 residents, a change from two to five births in a year can substantially alter the rate, even if such variation is largely random. To best address these issues, I restrict the analysis to a balanced panel of 2,342 municipalities with complete birth-rate data in all 12 years. Table 2 contains the summary statistics.

Table 2: **Descriptive Statistics**

	N	Mean	SD	Min	Max
Live births (per 1,000)	28104	10.14	4.81	0.80	69.00
Fidesz share	28104	0.57	0.10	0.22	0.99
Right vote share	28104	0.78	0.08	0.49	0.99
Population	23420	4068	36798	85.00	1741601
Female population aged 15–64	23420	1349	12586	18.00	610346
Deaths (per 1,000)	28020	14.89	6.94	0.90	136.40
Marriages (per 1,000)	24508	5.63	2.85	0.30	35.60
Net migration (per 1,000)	23420	−0.03	22.51	−172.60	309.60
Enterprises (per 1,000)	23400	53.40	40.15	0.00	1626.00
Dwelling stock (per 1,000)	28104	435.03	78.92	0.00	1003.00
Dwellings with 3+ rooms (%)	25762	59.88	12.72	18.10	95.80
Kindergarten children (per 1,000)	26481	35.17	17.08	0.00	214.80
Income tax base per taxpayer	28104	2618	1202	0.00	10203.00
Unemployment support (per 10,000)	28104	25.54	24.35	0.00	138.50

Notes: Municipality-year observations, 2013–2024 ($T = 12$, $N = 2{,}342$). Fidesz and right vote shares are time-invariant (measured in 2018), and right vote share represents the proportion of votes for both parties.

Methods

Political ideology is never randomly distributed, and it is typically correlated with many sociologically relevant factors. As shown in Table 3, municipalities with higher Fidesz support tend to be poorer, smaller, and more reliant on unemployment benefits. In this sense, partisan support can be understood as a proxy for a broader bundle of cultural, religious, and political attitudes that tend to be geographically clustered, in part due to residential sorting. For the purposes of this project, I place less emphasis on identifying the specific drivers of ideology, focusing instead on how this clustering of attitudes shapes observable policy responses. Therefore, while this study uses methodological techniques to isolate the effect of political ideology, I primarily aim to document systematic heterogeneity and suggest plausible mechanisms, rather than making a causal claim *per se*. Consequently, I do not control for variables such as a municipality's strength of religious identification (*e.g.* the number of churches) or cultural capital (*e.g.* the number of library books lent). These factors are themselves closely tied to ideology and would risk over-controlling for the mechanism of interest.

Table 3: **Difference-in-Means Test by Pre-Policy Fidesz Support**

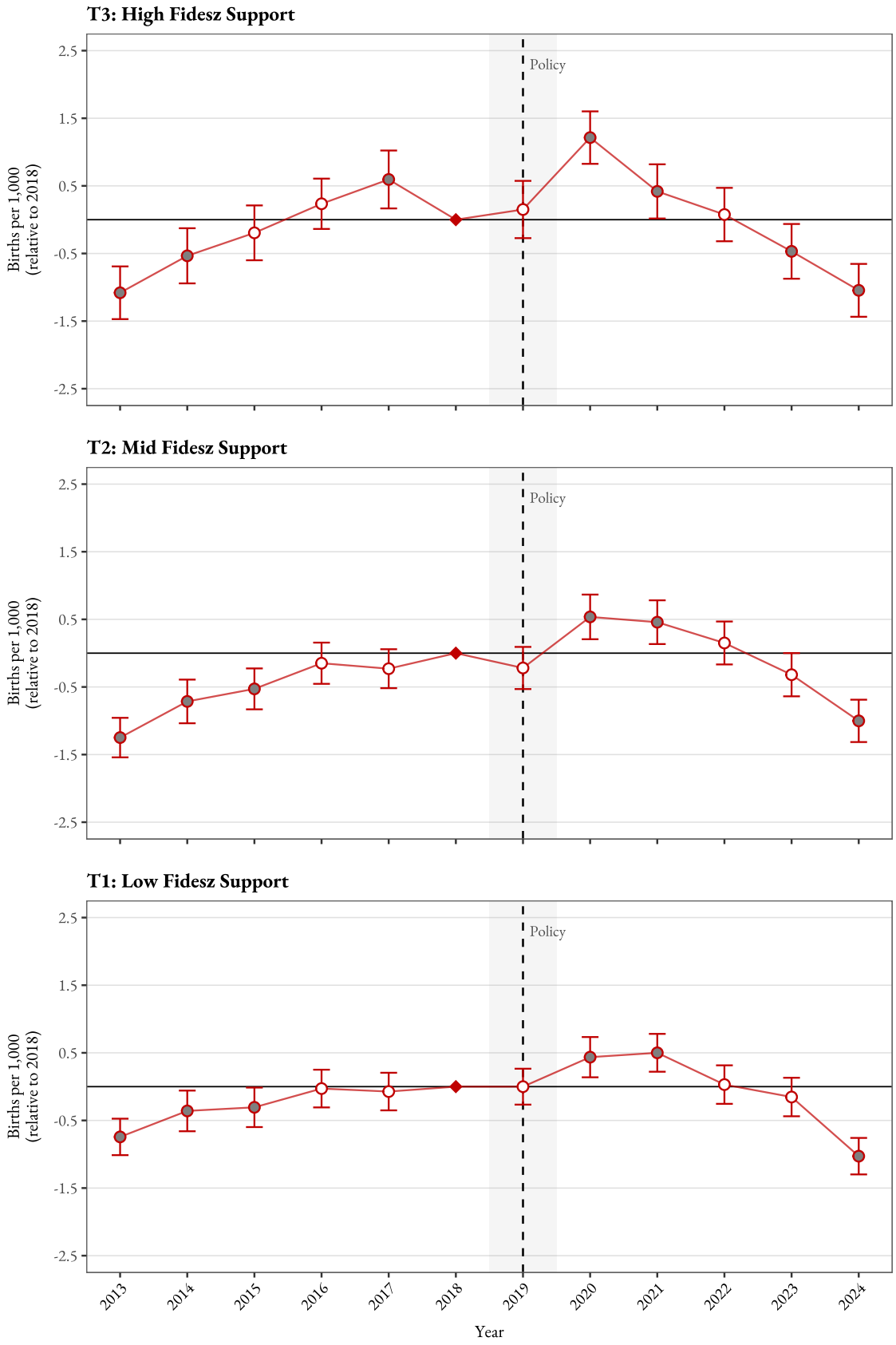
	Fidesz Tertiles			**Differences**	
	T1 (Low)	**T2 (Mid)**	**T3 (High)**	**T2–T1**	**T3–T1**
Live births (per 1,000)	9.15	9.54	11.30	0.39^{**}	2.15^{***}
Population	8,897	2,169	1,198	$-6{,}728^{**}$	$-7{,}700^{***}$
Female population aged 15–64	3,031	713	387	$-2{,}318^{**}$	$-2{,}644^{***}$
Deaths (per 1,000)	13.8	14.5	14.9	0.69^{**}	1.07^{***}
Marriages (per 1,000)	4.61	4.65	4.99	0.04	0.39^{***}
Net migration (per 1,000)	1.18	-0.65	-5.14	-1.83^{**}	-6.32^{***}
Enterprises (per 1,000)	53.9	43.6	35.1	-10.1^{***}	-18.7^{***}
Dwelling stock (per 1,000)	425.5	429.3	427.4	3.81	1.86
Dwellings with 3+ rooms (%)	61.0	59.3	55.1	-1.70^{**}	-5.92^{***}
Kindergarten children (per 1,000)	31.9	31.9	32.2	0.01	0.33
Income tax base per taxpayer	2,002	1,789	1,594	-213^{***}	-408^{***}
Unemployment support recipients (per 10,000)	28.6	30.6	35.0	1.96^{+}	6.29^{***}
Municipalities	781	781	780		

$^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

Notes: Pre-policy means (2013–2018) are reported for each tertile of Fidesz support.

To evaluate the policy's effects, I first present the descriptive trends of how birth rates evolve over time across tertiles of Fidesz support. Figure 2 normalizes birth rates relative to 2018 ($t-1$), the final year prior to the policy's announcement and implementation. The figure suggests a post-policy increase in birth rates, with the largest gains observed in municipalities with higher levels of Fidesz support.

Figure 2: **Event Study of Fertility by Fidesz Support**



However, since the key dependent variable captures tempo effects, there are non-trivial deviations from the baseline across the observed years. Nonetheless, pre-treatment trends are broadly parallel across municipalities, with no evidence of differential trends in the two years immediately preceding the policy baseline.[4] I do, however, note a decline among high-Fidesz municipalities between 2017 and 2018, which raises the possibility of an "Ashenfelter's Dip," whereby a temporary pre-treatment decline can inflate the estimated effect (Ashenfelter 1978). While 2018 remains the primary baseline year to capture the policy's direct effects, I re-estimate the analysis in Table A2 in the Appendix using 2016 as well. This approach yields somewhat reduced, though still statistically significant, results—implying that the findings are not exclusively driven by this bias.

I then conduct a two-period differences estimation, presenting the results for both the continuous and tertile measures of Fidesz support. The baseline specification is given by:

$$\text{Birth\_Rate}_{mt} = \beta_1 \, \text{Post}_t + \beta_2 \, (\text{Post}_t \times \text{Fidesz\_Share}_m) + \mathbf{X}'_{mt}\boldsymbol{\gamma} + \alpha_m + \varepsilon_{mt} \tag{1}$$

in which Birth_Rate_{mt} denotes the number of births per thousand inhabitants in municipality m at time t. The indicator Post_t represents the year following the introduction of the policy. The coefficient of interest, β_2, measures whether municipalities with higher levels of Fidesz support experience differential changes in birth rates following the policy. The vector $\mathbf{X}'_{mt}$ includes time-varying municipal characteristics, including demographic and economic controls, and α_m denotes municipality fixed effects, which absorb all time-invariant differences across municipalities. I do not control for changes in population, since doing so could introduce post-treatment bias. Log transformations are applied to selected control variables based on skewness tests and model fit considerations, using the inverse hyperbolic sine transformation to accommodate observations with zero values (Norton 2022).[5]

Results

I present multiple variations of this model in Table 4: Models 1 and 5 present the baseline results, Models 2 and 6 add time-varying controls, and Models 3 and 7 exclude Budapest to verify that the findings are not driven by a potential outlier. The coefficient associated with the Fidesz vote share is consistently positive and significant across all models, indicating that more right-wing municipalities experience higher fertility following the policy's implementation. However, these estimations cannot, as is, differentiate between eligibility and ideology effects. It is possible that municipalities with higher Fidesz support were also more likely to qualify for the policy from the outset. To account for this concern, I specify Models 4 and 8, which aim to partial out municipality-level differences in policy eligibility and thereby isolate *voluntary*

[4] The joint Wald test over the full pre-period 2013–2017 rejects the null, driven entirely by a convergence trend in 2013–2015 during which high-Fidesz municipalities closed an earlier fertility gap. Restricting the test to 2016–2017 yields $F = 1.05$, $p = 0.35$, consistent with parallel trends in the identifying window.

[5] This transformation is expressed as $\text{asinh}(x) = \ln\left(x + \sqrt{x^2 + 1}\right)$.

responses. This is approximated with a "horse race" approach, in which I sequentially add seven Z_m interaction terms to test alternative drivers of geographic variation in birth rates.

The variables included in these interactions are carefully selected as proxies for two key dimensions: policy eligibility and local housing capacity. First, to approximate eligibility, I incorporate variables that reflect the population targeted by the FPAP—namely, high-income, married couples. To do this, I consider the marriage rate, measured as the total number of marriages in 2018. Second, although a more precise measure would be preferable, the available demographic data are aggregated to the 15–64 age bracket. I therefore use the share of the population that is female and aged 15–64 as an (admittedly imperfect) measure of women of childbearing age. The number of unemployment support recipients captures variation in economic disadvantage.[6] Finally, personal income tax base per taxpayer offers a direct proxy for local income levels, approximating the extent to which municipalities contain households likely to meet the program's income-related criteria. In addition, I include the number of kindergarten-aged children per thousand inhabitants as a proxy for the presence of families. Since the FPAP primarily targeted households that already had children—aiming to incentivize higher-order births (*e.g.* second, third, or fourth children)—this variable helps capture the underlying pool of potentially eligible families. Unfortunately, there are no data available explicitly capturing changes in parity, so this remains the most appropriate indicator.

Second, I account for differences in local housing capacity across municipalities. This is important because constraints in the housing market are often a key barrier to fertility decisions, particularly in post-communist countries (Brauner-Otto 2021). To isolate these effects, I include measures of both the total dwelling stock per thousand inhabitants and the share of that stock consisting of units with at least three rooms. Together, these variables represent not only the availability of housing, but also the suitability of that housing for larger families. For all of these variables, I use pre-policy (2018) levels to avoid post-treatment bias (*e.g.* individuals may choose to get married after the policy is enacted in order to qualify for certain benefits). I also include county-by-year fixed effects in Models 5 and 10 to ensure that the findings come exclusively from differences between municipalities within the same county in a given year. This specification absorbs any county-level shocks or regional time trends, ensuring that the estimated relationship between pre-policy Fidesz support and post-policy birth rates is not driven by broader regional dynamics but instead reflects within-county variation in municipal political alignment.

Since multicollinearity may suppress the significance of these additional interactions, I estimate all possible subsets of the seven Z_m interactions, yielding $\sum_{k=0}^{7} \binom{7}{k} = 128$ unique model specifications, to assess whether the coefficient on Post × Fidesz share remains consistent across these potential combinations. Visualized in Figure 3, I find that the Fidesz interaction is significant at the 5% level in all models, with the parameter increasing as more controls are included.

[6] Although these data are only available at the district level ($N = 175$), they still provide useful information on local income conditions.

Table 4: **Two-Period Difference Estimates of the 2019 FPAP Policy**

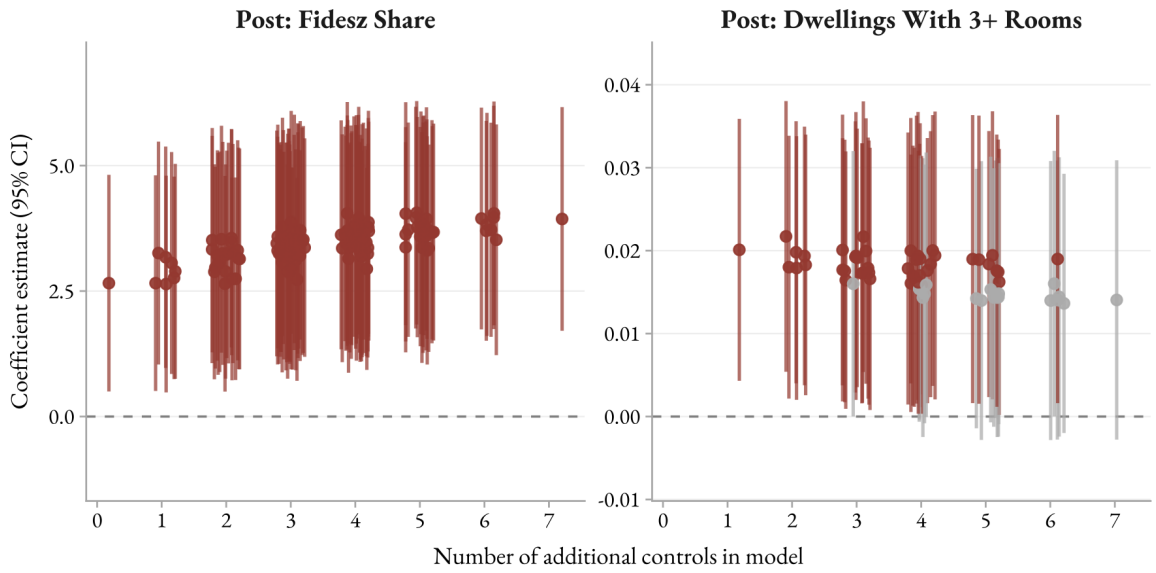
	Continuous					**Tertile**				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Post	−0.690	−0.797	−0.794	−9.331*		0.503**	0.447*	0.448*	−6.359+	
	(0.603)	(0.611)	(0.612)	(3.689)		(0.136)	(0.176)	(0.176)	(3.334)	
Post × Fidesz share	2.551*	2.658*	2.654*	3.937**	4.481**					
	(1.109)	(1.101)	(1.103)	(1.137)	(1.405)					
Post × Mid Fidesz (T2)						0.032	0.036	0.035	0.076	0.131
						(0.217)	(0.218)	(0.218)	(0.218)	(0.228)
Post × High Fidesz (T3)						0.725**	0.744**	0.743**	0.993**	1.097**
						(0.241)	(0.240)	(0.240)	(0.248)	(0.289)
Deaths per thousand capita		−0.022	−0.022	−0.001	−0.001		−0.022	−0.022	−0.000	0.000
		(0.022)	(0.022)	(0.021)	(0.021)		(0.022)	(0.022)	(0.021)	(0.021)
Net migration per thousand capita		−0.002	−0.002	−0.001	−0.001		−0.002	−0.002	−0.001	−0.001
		(0.005)	(0.005)	(0.005)	(0.005)		(0.005)	(0.005)	(0.005)	(0.005)
Enterprises per thousand capita		0.008	0.008	0.008	0.007		0.008	0.008	0.008	0.007
		(0.010)	(0.010)	(0.010)	(0.010)		(0.010)	(0.010)	(0.010)	(0.010)
Post × Marriages per thousand capita (2018)				0.060	0.057				0.058	0.055
				(0.056)	(0.056)				(0.056)	(0.056)
Post × Logged dwelling stock per thousand capita (2018)				0.067	−0.030				0.036	−0.042
				(0.579)	(0.724)				(0.574)	(0.713)
Post × Proportion of dwellings with 3+ rooms (2018)				0.014	0.015				0.015+	0.017+
				(0.009)	(0.010)				(0.009)	(0.010)
Post × Kindergarten children per thousand capita (2018)				0.006	0.006				0.006	0.006
				(0.008)	(0.008)				(0.008)	(0.008)
Post × District-level unemployment support (2018)				−0.006	−0.019*				−0.007	−0.018*
				(0.006)	(0.008)				(0.006)	(0.008)
Post × Logged income tax base (2018)				0.316	0.681				0.236	0.555
				(0.447)	(0.559)				(0.438)	(0.534)
Post × Female share 15–64 (2018)				10.635+	10.183				9.838	9.425
				(6.448)	(6.644)				(6.349)	(6.484)
Observations	4654	4654	4652	4452	4450	4654	4654	4652	4452	4450
R^2	0.756	0.757	0.757	0.763	0.766	0.757	0.757	0.757	0.763	0.766
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County × Year FE	No	No	No	No	Yes	No	No	No	No	Yes
Excl. Budapest	No	No	Yes	No	No	No	No	Yes	No	No

$^{+}p < 0.1$, $^{*}p < 0.05$, $^{**}p < 0.01$.

Notes: Standard errors are clustered at the municipality level. The sample is restricted to a two-period comparison between 2018 (pre-policy) and 2020 (post-policy). Fidesz tertiles are defined using the 2018 municipality-level list vote share, with the lowest tertile as the reference category. The dependent variable is live births per thousand capita.

This result suggests that the primary relationship between ideology and post-policy fertility is remarkably stable, rather than being unique to a particular combination of variables. In the most rigorous model, I find that moving from the lowest to the highest tertile of pre-policy Fidesz support—a difference of 23.7 percentage points in vote share—is associated with an additional 1.1 births per 1,000 inhabitants in the post-2019 period, representing an increase of approximately 11% of the sample mean birth rate.

Figure 3: **Coefficient Stability Across All Subsets of Municipality Controls**

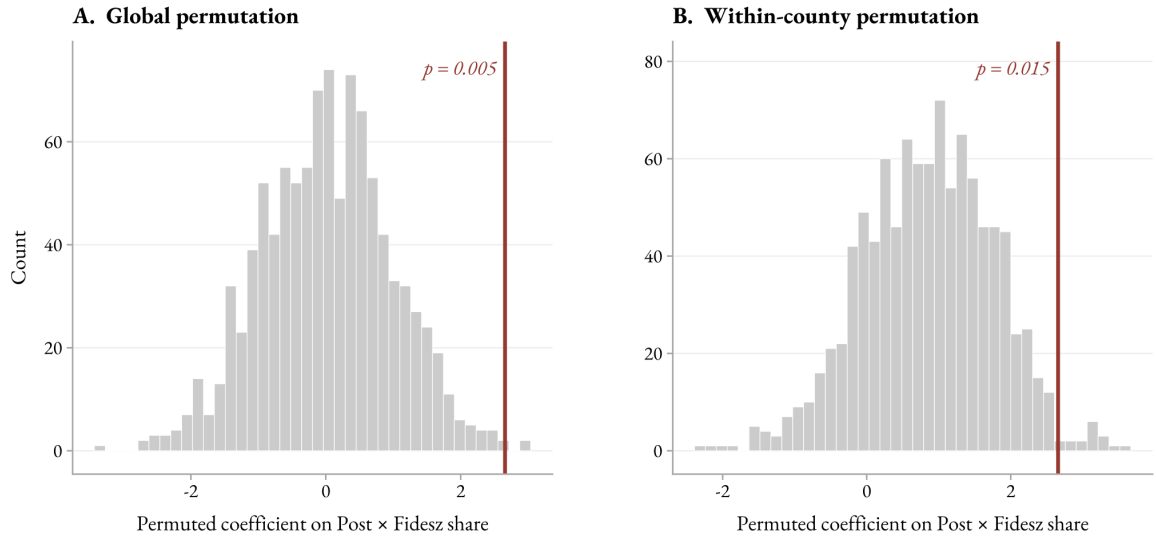


Standard errors clustered at the municipality level. N = 4,452-4,654. Red bars indicate statistical significance ($p < 0.05$).

The additional seven interaction terms are either insignificant or inconsistently significant across specifications. For instance, the share of the population that is female and aged 15–64 is statistically significant in only 3 of the 64 models. In contrast, the most robust additional interaction is the proportion of dwellings with three or more bedrooms, which is significant in 44 of the 64 models. This result suggests that the local availability of housing suitable for families may limit or facilitate family formation, revealing the importance of structural constraints.

Finally, to assess whether the observed relationship between political alignment and post-policy fertility is stronger than would be expected by chance, I implement permutation tests in which municipality-level Fidesz vote shares are randomly reassigned while holding all other features of the data fixed. Figure 4 presents the resulting distributions of placebo estimates from 1,000 re-estimations of the baseline specification. Panel A shows the results from a global permutation, where Fidesz vote shares are shuffled across all municipalities. The observed coefficient (red line) lies in the extreme right tail of the simulated distribution ($p = 0.005$). Panel B presents a more conservative test, where vote shares are reassigned only among municipalities within the same county, thereby preserving regional political structure. Reassuringly, the observed coefficient remains highly unusual relative to the placebo distribution ($p = 0.015$). Together, these results suggest that the estimated relationship between political alignment and

Figure 4: **Placebo Permutation Tests**



post-policy fertility is unlikely to be a statistical artifact stemming from how Fidesz support happens to be distributed across municipalities.

Discussion

Does ideology shape the uptake of pro-family policies? The evidence suggests that it does, albeit with important caveats. First, I note that these results speak only to the timing of births rather than total fertility rates. In the absence of data on completed fertility, I cannot conclude that the policy led to a lasting increase in births in right-leaning areas. This concern is reinforced by the event-study estimates, which show a pronounced decline in births beginning in 2022. This shift likely reflects saturation in policy uptake, whereby individuals who intended to participate did so within the first two years. It may also be that the policy appealed to a particular demographic, namely those individuals who were on the cusp of having a child but could not afford it beforehand. Nonetheless, the findings do indicate that Fidesz supporters were more likely to take advantage of the policy, exhibiting sharper increases in birth rates immediately following its introduction. I also note that there is no obvious "backlash" or decline in birth rates among municipalities with low levels of Fidesz support. This pattern likely reflects the party's super-majority, as only a limited number of municipalities exhibited strong opposition to right-wing politicians during this period. So even though some journalistic sources highlight that left-leaning women expressed frustration with the FPAP, fertility decisions are not so easily postponed in the long run.

Among the three mechanisms outlined in the theoretical section, the economic optimism channel appears the least convincing. Birth rates in high-Fidesz municipalities did not increase following the right-wing victory in the 2018 election, as this mechanism would predict (Dahl et al. 2022). Additionally, this explanation cannot account for the rise in birth rates during the

pandemic years of 2020 and 2021, a period marked by rising inflation and slowing GDP growth. Although the pandemic complicates identification, it is more likely that COVID-19 biased the estimates downward. By this, I mean that municipalities with higher Fidesz support tend to be poorer and more reliant on unemployment benefits, implying that the pandemic's economic shock should have depressed birth rates more strongly in these areas than in wealthier, more progressive municipalities, where employment was more adaptable to remote work.

While it is more difficult to disentangle the patronage politics and political alignment channels, attempts to control for differences in eligibility indicate that these adjustments, if anything, strengthen the estimated effect of Fidesz vote share. However, it is worth noting that support for Jobbik—a more peripheral right-wing party—does not result in a statistically significant increase in fertility during this period (see Appendix Table A3). This pattern suggests that it is not exclusively right-wing ideology that drives the results, but rather alignment with the party in power. This is not altogether surprising, as responsiveness to government rhetoric may diffuse through social networks or be reinforced by local political elites and institutions. Trust in the credibility of the policy is also likely to play a role. For instance, some commentators on the left have characterized the FPAP as a financial scam, arguing that the government may fail to honor its commitments, leaving participants "out of luck" (Rutai 2024).

Regardless, it is interesting to reflect on how the public discourse around a specific policy package can shape deeply personal choices, such as deciding whether or not to have a child. Future research could examine whether these effects differ when fertility-targeted policies are implemented by left-leaning parties, as well as whether similar patterns emerge in other institutional or national contexts.

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Appendix

Table A1: **Missing Birth-Rate Observations by Fidesz Tertile, 2013–2024**

	Missing Observations (#)	Missing (%)
Low Fidesz support (T1)	723	5.7
Mid Fidesz support (T2)	689	5.5
High Fidesz support (T3)	1,344	10.7
All municipalities	2,756	7.3

Table A2: **Sensitivity to Pre-Policy Baseline Year**

	Pre: 2018, Post: 2020 (1)	*Pre: 2016, Post: 2020* (2)
Post	−9.331**	2.250
	(3.689)	(9.225)
Post × Fidesz share (2018)	3.937***	2.207*
	(1.137)	(1.256)
Deaths per thousand capita	−0.001	−0.003
	(0.021)	(0.019)
Net migration per thousand capita	−0.001	−0.001
	(0.005)	(0.005)
Enterprises per thousand capita	0.008	−0.005
	(0.010)	(0.004)
Post × Marriages per thousand capita	0.060	0.028
	(0.056)	(0.066)
Post × Logged dwelling stock per thousand capita	0.067	0.042
	(0.579)	(0.831)
Post × Proportion dwellings with 3+ rooms	0.014	0.008
	(0.009)	(0.009)
Post × Kindergarten children per thousand capita	0.006	0.003
	(0.008)	(0.009)
Post × District-level unemployment support	−0.007	−0.012*
	(0.006)	(0.007)
Post × Logged income tax base	0.316	−0.553
	(0.447)	(0.640)
Post × Female share 15–64	10.635*	3.654
	(6.448)	(7.131)
Observations	4,452	4,458
R^2	0.763	0.739
Municipality FE	Yes	Yes

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

Notes: The dependent variable is live births per thousand capita. Fidesz share is always measured in 2018. All other Z_m interaction variables are measured at the pre-period baseline year (2018 in column 1, 2016 in column 2).

Table A3: **Alternative Political Alignment Variables**

	Fidesz share				**Right vote share**				**Jobbik share**			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Post	-0.690	-9.331*	0.503**	-6.359+	-1.562+	-9.818*	0.527**	-5.429	1.134**	-3.309	0.778**	-3.372
	(0.603)	(3.689)	(0.136)	(3.334)	(0.933)	(3.852)	(0.141)	(3.370)	(0.416)	(3.298)	(0.189)	(3.401)
Post × Vote share	2.551*	3.937**			2.978*	4.825**			-1.795	-2.293		
	(1.109)	(1.137)			(1.236)	(1.397)			(1.843)	(1.784)		
Post × Mid (T2)			0.032	0.076			0.107	0.232			0.189	0.222
			(0.217)	(0.218)			(0.217)	(0.226)			(0.247)	(0.243)
Post × High (T3)			0.725**	0.993**			0.575*	0.872**			-0.263	-0.314
			(0.241)	(0.248)			(0.243)	(0.268)			(0.248)	(0.250)
Deaths per thousand capita		-0.001		-0.000		-0.002		-0.001		-0.001		-0.001
		(0.021)		(0.021)		(0.021)		(0.021)		(0.021)		(0.021)
Net migration per thousand capita		-0.001		-0.001		-0.000		-0.000		-0.001		-0.001
		(0.005)		(0.005)		(0.005)		(0.005)		(0.005)		(0.005)
Enterprises per thousand capita		0.008		0.008		0.009		0.009		0.007		0.006
		(0.010)		(0.010)		(0.010)		(0.010)		(0.010)		(0.010)
Post × Marriages per thousand capita (2018)		0.060		0.058		0.062		0.059		0.066		0.068
		(0.056)		(0.056)		(0.056)		(0.056)		(0.056)		(0.056)
Post × Logged dwelling stock (2018)		0.067		0.036		-0.032		0.009		0.231		0.218
		(0.579)		(0.574)		(0.577)		(0.572)		(0.572)		(0.575)
Post × Proportion dwellings 3+ rooms (2018)		0.014+		0.015+		0.016+		0.015+		0.011		0.011
		(0.009)		(0.009)		(0.009)		(0.009)		(0.009)		(0.009)
Post × Kindergarten children (2018)		0.006		0.006		0.007		0.007		0.006		0.006
		(0.008)		(0.008)		(0.008)		(0.008)		(0.008)		(0.008)
Post × District employment support (2018)		-0.006		-0.007		-0.008		-0.008		-0.007		-0.007
		(0.006)		(0.006)		(0.006)		(0.006)		(0.006)		(0.006)
Post × Logged income tax base (2018)		0.316		0.236		0.285		0.153		-0.132		-0.160
		(0.447)		(0.438)		(0.448)		(0.438)		(0.428)		(0.431)
Post × Female share 15–64 (2018)		10.635+		9.838		9.838		9.530		9.074		8.796
		(6.448)		(6.349)		(6.399)		(6.377)		(6.409)		(6.387)
Observations	4654	4452	4654	4452	4654	4452	4654	4452	4654	4452	4654	4452
R^2	0.756	0.763	0.757	0.763	0.756	0.763	0.756	0.763	0.756	0.761	0.756	0.762
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

$^{+}p < 0.1$, $^{*}p < 0.05$, $^{**}p < 0.01$.

Notes: Standard errors clustered at the municipality level. The sample is restricted to a two-period comparison between 2018 (pre-policy) and 2020 (post-policy). Right vote share is defined as Fidesz + Jobbik combined. Tertiles are assigned separately within each vote share variable. The dependent variable is live births per thousand capita.

Table A4: **Population-Weighted Difference Estimates**

	Unweighted		**Weighted**	
	(1)	(2)	(3)	(4)
Post	−0.690	−9.331*	−1.605**	−2.920
	(0.603)	(3.689)	(0.270)	(2.688)
Post × Fidesz share	2.551*	3.937**	4.030**	3.113**
	(1.109)	(1.137)	(0.554)	(0.742)
Deaths per thousand capita		−0.001		−0.004
		(0.021)		(0.016)
Net migration per thousand capita		−0.001		0.002
		(0.005)		(0.003)
Enterprises per thousand capita		0.008		−0.001
		(0.010)		(0.007)
Post × Marriages per thousand capita (2018)		0.060		0.008
		(0.056)		(0.040)
Post × Logged dwelling stock per thousand capita (2018)		0.067		0.025
		(0.579)		(0.362)
Post × Proportion of dwellings with 3+ rooms (2018)		0.014		0.018**
		(0.009)		(0.005)
Post × Kindergarten children per thousand capita (2018)		0.006		0.002
		(0.008)		(0.006)
Post × District-level unemployment support (2018)		−0.006		0.002
		(0.006)		(0.004)
Post × Logged income tax base (2018)		0.316		−0.107
		(0.447)		(0.303)
Post × Female share 15–64 (2018)		10.635+		4.340
		(6.448)		(4.350)
Observations	4,654	4,452	4,654	4,452
R^2	0.756	0.763	0.819	0.823
Municipality FE	Yes	Yes	Yes	Yes

$^{+}p < 0.1$, $^{*}p < 0.05$, $^{**}p < 0.01$.

Notes: Columns (1) and (2) replicate the baseline and horse-race specifications without weights. Columns (3) and (4) weight each municipality by its 2018 population, fixed at the pre-policy baseline. The dependent variable is live births per thousand capita.