

Do place-based policies matter at the poll?

Doerr, L.^{a,b, d}, Dorn, F.^{a,b,d}, and Freitas, D.^c

^a*ifo Institute, Munich, Germany*

^b*University of Munich (LMU), Germany*

^c*TUD Dresden University of Technology, Germany*

^d*CESifo*

2026

Abstract

This paper studies whether place-based policies affect electoral outcomes by exploiting a major public-sector relocation program in Germany, which relocated more than 60 agencies and 3,000 civil-service jobs to municipalities in structurally weaker regions of Bavaria between 2015 and 2025. Exploiting exogenous variation generated by the state's rule-based allocation of public agencies, we find sizable electoral effects in treated municipalities. The incumbent governing party, CSU, which actively claimed credit for the policy, gains just over 2 percentage points in state elections, while its coalition partner, the Free Voters, loses about 1.6 points. The program also reduces support for the far-right populist party AfD by roughly 0.5–1 point. Turnout falls by 0.72 percentage points in the first election following a relocation, consistent with a modest demobilization effect. In federal elections, we observe aligned but smaller shifts in vote shares (CSU +0.7 percentage points; Free Voters −1.5 percentage points; AfD -0.3 percentage points).

Keywords: Place-based policies, relocation, voting, populism, incumbent

JEL-Classification: R53, D72, R12

1 Introduction

The rise of far-right populism in Western democracies has become a significant political phenomenon in recent years. Guriev and Papaioannou (2022) identify multiple factors contributing to the emergence of far-right populism. Secular factors like automation (Anelli *et al.*, 2019) and globalization (Autor *et al.*, 2020; Colantone and Stanig, 2018) create spatially concentrated clusters of economic winners and losers¹ and radical and populist parties benefit from the economic distress and insecurity individuals experience in such regions (see Guiso *et al.*, 2017; Liberini *et al.*, 2019; Dal Bó *et al.*, 2019; Algan *et al.*, 2017; Dorn *et al.*, 2024; Dippel *et al.*, 2022).

At the same time, Henn and Hannemann (2023) find that firms operating in regions with strong right-wing movements face difficulties recruiting skilled labor, maintaining positive customer relations, and integrating into local business networks. This can exacerbate and consolidate regional inequalities. See Funke *et al.* (2020) for a detailed elaboration of the economic consequences of populists in power.

Policymakers are increasingly targeting structurally weak regions through place-based policies, such as regional public investments, subsidies, and EU funds. Even if such policies are not primarily implemented to counter the rise of populism, they may influence voting behavior and alter the success of radical parties and politicians at the polls. As populists gain support among voters who feel left behind in economically weak regions, policies aimed at improving economic development and living conditions in poor regions may decrease the support for radical parties. Rational voters may also reward incumbent parties' economic policies at the polls, either because of a real, local economic impact or because the incumbent government's visible signaling indicates that it aims to improve regional living conditions.

In this paper, we examine the effect of a place-based policy on electoral outcomes. Between 2015 and 2025, the state of Bavaria relocated around 60 public agencies, and more than 3,000 civil service jobs, and study places to structurally weak municipalities to improve local economic development. The program was announced in 2014 and was mainly promoted by leading politicians of the state's main incumbent party, the Christian Social Union (CSU).

To identify the causal impact of the relocation policy on local vote shares and turnout, we employ a difference-in-differences (DiD) estimator following Callaway and Sant'Anna (2021). Identification exploits rule-based eligibility for receiving an agency: municipalities in districts classified as structurally weak by a government index were prioritized for relocations, while other districts were ineligible. We use a municipality-level panel of 2056 municipalities observed from 2008 to 2023 and control for time-varying confounders. Electoral outcomes come from four Bavarian state elections (2008, 2013, 2018, 2023) and four federal elections (2009, 2013, 2017, 2021), allowing us to assess both within-state effects and cross-level political alignment.

We find that the far-right populist AfD's vote share declines by about one percentage point in treated municipalities (roughly 33% of the sample mean). In state elections, the CSU— the leading governing party that implemented and publicly claimed credit for the program— gains 2-3 percentage points, while its coalition partner, the Free Voters (FW), loses about 1.6 percentage points. Turnout falls by 0.72 percentage points in the first post-relocation election, consistent with modest voter demobilization. Effects in neighboring municipalities are small, indicating

¹ Crises-related factors like financial crises (Funke *et al.*, 2016) or austerity policies (Fetzer, 2019) can equally exacerbate regional economic disparities.

that impacts are largely localized. In federal elections, effects are smaller and follow parties' alignment with the Bavarian government: the CSU gains about 0.7 percentage points, while FW loses about 1.5 percentage points; AfD also declines by about 0.3 percentage points.

This paper contributes to several interconnected strands of literature, primarily extending research on the effects of place-based policies by examining their political consequences. First, our findings contribute to the evidence about the relationship between economic policy and political outcomes. Only a few papers have examined the effect of regional policies on voting. The evidence is mixed, though. A first strand of literature focused on the Brexit voting: Los *et al.* (2017) reveal that in the 2016 UK referendum regarding whether to remain in or leave the European Union, the regions that voted strongly for leave tended also to be those structurally weak regions with greatest levels of dependency on EU markets for their local economic development. Moreover, Becker *et al.* (2017) and Crescenzi *et al.* (2020) examine the effect of EU structural policies and the leave share in the Brexit referendum and find, on average, no effect of the EU regional funds on the Brexit vote. However, if the funds improved economic conditions, they reduced Euroscepticism (Crescenzi *et al.*, 2020). In a related paper, however, Fetzner (2019) find that national fiscal cuts spurred populism and the Brexit vote share in the UK, suggesting that national policies matter for electoral outcomes in left-behind regions. In a different context, Albanese *et al.* (2022) use a spatial Regression-Discontinuity-Design (RDD) estimation and find a negative effect of EU funds at the local level on populism in the 2013 national elections in Italy, irrespective of the channel through which the money is delivered to the municipalities. They find that EU funds reduce the vote shares of populist parties by 9%. EU policies, however, do not translate into a more pro-European voting. In the same direction, Gold and Lehr (2024) also finds a negative effect of regional EU policies on populist support in elections for the EU parliament by using RDD, DiD, and matching techniques in a pan-European setting. Over the period 1999-2019, they show that European Objective-1 transfers ("development objective") decrease the vote share of (right-fringe) populist parties throughout Europe by around 20% for the average region (around 2,8 pp). In addition, individual-level survey data show that EU regional policy also increases trust in democratic institutions. Further papers studying voting behavior in the Brexit referendum include Fidrmuc *et al.* (2019) and Becker *et al.* (2017). The former does not find that EU regional policy correlates with the leave share. The latter identifies structural factors such as socioeconomic profiles and regional characteristics, e.g. the economic structure as primary drivers of voting behavior.

Second, a growing body of work has investigated the impact of public employment reallocation on regional economic development, considering both direct effects and multiplier effects on the private sector in target regions. These studies have explored various channels, including wages, housing prices, and productivity (Alesina *et al.*, 2001; Algan *et al.*, 2002; Auricchio *et al.*, 2020; Becker *et al.*, 2021; Caponi, 2017; Faggio and Overman, 2014; Faggio, 2019; Faggio *et al.*, 2019; Jefferson and Trainor, 1996; Jofre-Monseny *et al.*, 2020). However, we are the first to examine the electoral consequences of public employment reallocation as a place-based policy.

Third, our findings contribute to the evidence on the (economic) determinants of populism and the success of radical parties. We show that targeted place-based policies are not only an economic reallocation mechanism towards less developed regions but also a regional intervention for economic and democratic stability and may also have an impact on limiting the success of populists.

Fourth, we also contribute to the incumbent voting literature.² Our findings show that visible place-based policies can decrease vote shares of populists in favor of the incumbents who implement the targeted policies.³ Our findings also contribute to the literature on credit claiming (see Levitt and Snyder Jr, 1997; Grimmer *et al.*, 2012; Lazarus and Reilly, 2010; Gerber *et al.*, 2022; Bueno, 2023). As the leading government party CSU announced and implemented the homeland strategy, they claimed credit for the place-based policy in the targeted regions. The CSU gained the popular votes in the following years, while the other incumbent coalition party, FW, lost vote shares. We show that the incumbent government party at the state level also gains (with some lower effect) in elections at the federal level in Germany. That is, economic policies adopted at a different political layer have some influence on the political alignment of the voters and spillover effects on electoral outcomes at another political level.

The paper is structured as follows: In the next chapter, we describe some institutional details about the Bavarian relocation program "Heimatstrategie 2015" and the decision to relocate the largest number of jobs in the history of the state of Bavaria. We also discuss the local political system. In chapter three, we move on to describe our rich dataset and provide descriptive results. In chapter four, we describe the identification strategy. Finally, we discuss our empirical findings before concluding.

² In a related paper on economic voting at the regional level in Italian regions, Rombi and Valbruzzi (2024) show that regional economic conditions are correlated with regional incumbent's electoral outcomes.

³ While the movement of public employment may explain minor shifts in vote shares (see, Bhatti and Hansen, 2013; Corey and Garand, 2002; Geys and Sørensen, 2022), the size of the economic impact in our findings exceeds by large potential effects of new voters in the municipality.

2 Institutional details and relocation in Bavaria

2.1 Relocation program in Bavaria: "Heimatstrategie"

The Free State of Bavaria is Germany's largest federal state in terms of geographic area and the second largest in terms of population. With almost 13.5 million inhabitants (as of 2023), it is larger than European countries such as Belgium, Sweden, the Czech Republic, Austria, or Switzerland.

In 2014 the Bavarian "Heimatstrategie" (homeland strategy) was established by the federal government of Bavaria (STMFH, 2014), represented by leading politicians of the main incumbent party at the state level — the Christian Social Union (CSU).⁴ The initiative aimed at balancing equal living conditions across the Bavarian regions and strengthening the economic development and the promotion of jobs in structural weaker regions. The initiative was announced and introduced by the Bavarian Minister of Finance, Regional Development, and Homeland, represented by its Minister of State Markus Söder (CSU) – who claimed credit for the program and served as visible and responsible Minister for the Homeland strategy until 2018, and has been serving as the Bavarian Prime Minister ever since. That way, the Prime Minister and the leading incumbent party CSU is closely linked to the implemented place-based policies in the target regions.

The relocation program of public institutions and government jobs is a key component of the structural place-based policy within the homeland strategy. In 2015 and 2016, the Bavarian government started the first phase of the largest relocation of public authorities and state institutions in recent decades. The concept comprises 66 relocation projects⁵ by 2025 with a total of 3,155 people, of which 2,225 are civil servants and employees and 930 are students (see Bayerischer Landtag 2018). The relocations are mainly from the Munich area.⁶

For the new locations, the government used a quantitative eligibility rule based on a composite index of structural weakness: the Bavarian average was normalized to 100, and districts scoring 90 or below were designated as *Räume mit besonderem Handlungsbedarf* (RmbH) and prioritized for relocations. The Bavarian government's structural-weakness index is a weighted composite of five indicators, with weights fixed ex ante and a cutoff rule for eligibility. In the RDP 2013/14 version used for the first phase of the Heimatstrategie, the weights are: 30% population predictions, 30% unemployment, 10% employment density, 20% disposable income, and 10% net migration of young adults.

By 2021, more than three quarters of the relocation projects had already been implemented, including the relocation of more than 50 authorities and institutions with over 1,500 civil service jobs (STMFH, 2021). In 2019 the Bavarian government announced to extend the homeland strategy with a second phase of relocations of public authorities and the promotion of structurally weaker regions with a new program until 2030. It builds on the successes of the first phase and expands new relocation projects in target regions. The first and second phases together

⁴ Following the constitutional mandate of the Bavarian Constitutional Law, Article 3, Paragraph 2, Sentence 2, which calls for the promotion and safeguarding of equal living and working conditions in Bavaria, in both urban and rural areas.

⁵ Three relocation projects are transitioned to the Autobahn GmbH of the Federal Government in 2021 and are excluded.

⁶ An example is the relocation of parts of the Bavarian State Office for Statistics from Munich to the cities Fürth and Schweinfurt.

encompass 80 relocation projects, creating jobs in the target regions for around 5,200 civil service jobs (and new study places for 1,330 students).

2.2 Political landscape

State elections in Bavaria are held every five years, usually in September or October. The latest election took place on October 8, 2023. Article 14 of the Bavarian State Constitution stipulates that the state parliament is elected according to “improved proportional representation”. The electoral system consists of two pillars: first, there are direct mandates, i.e. all regions of Bavaria should send at least one representative to the state parliament. For this reason, the whole of Bavaria is divided into 91 constituencies in which citizens vote for a direct candidate with their **first vote**. A simple majority is sufficient to win. The second pillar consists of list mandates. Just under half (89 out of 180) of the seats in the Bavarian state parliament are allocated to list candidates. To this end, the parties draw up lists of their candidates for each of the seven administrative districts (*Regierungsbezirke*).⁷ With their **second vote**, citizens vote for a candidate on these lists and thus determine who enters the state parliament in addition to the direct candidates. Unlike in federal elections, it is not just this second vote that determines the distribution of seats in the state parliament, but the total number of votes. All direct candidates who have won their constituency – provided their party received more than 5% of the votes state-wide – enter the state parliament. If the party in question is entitled to more seats based on its total votes, additional list candidates – those who personally received the most votes – move in. In our empirical analysis, we use second votes for the Bavarian state parliament to determine party vote shares.

Currently, five parties make up the Bavarian state parliament: the Christian Conservatives (*CSU*), the liberal-conservative Free Voters (*FW*), the far-right Alternative for Germany (*AfD*), the Green party and the Social Democrats (*SPD*). The liberal party (*FDP*) failed to re-enter the state parliament in 2023. The Bavarian party system deviates significantly from the overall federal level in several respects. First and foremost, there is the special status of the CSU in the federal parliament. The “sister parties” CDU and CSU – often referred to as the Union parties (*Unionsparteien*) – form a joint parliamentary group in the German federal parliament which brings together MPs from two independent parties. Since its foundation in 1949, the CSU has seen itself as the parliamentary representation of an independent party. Its special status as a ‘parliamentary group within the parliamentary group’ (Günter Buchstab) is recognised by the CDU.⁸ The government of the CSU and the FW under Prime Minister Markus Söder (CSU) has been in office since 31 October 2023. It is the only government in Germany with the participation of the FW. The Free Voters originated as an electoral association which ran in local and regional elections with their own independent candidates as an alternative to the established parties. Its orientation can be described as ‘liberal-conservative’ and ‘value-conservative’, with a focus on the expansion of local self-government. Standing in the 1998 Bavarian state elections was internally controversial, because according to the critics, the Free Voters would be leaving their actual field of activity at the local level. Since 2008, the FW are members of the Bavarian state parliament and since 2018 participated in the state government.

⁷ These lists vary in length, as the administrative districts receive different numbers of seats in the Bavarian state parliament depending on the number of inhabitants.

⁸ The joint parliamentary group is only possible because the two parties do not run against each other in any federal state. Until now, the CSU is only organized and active in Bavaria.

3 Data and Descriptives

3.1 Data

We use data on the four latest federal (2009, 2013, 2017, and 2021) and state elections (2008, 2013, 2018, and 2023) measured at the municipality level. Data are provided by the Federal Statistical Office of Bavaria. We construct (second) vote shares for the major parties competing at both levels by dividing the votes by party through the valid votes.⁹

The Bavarian relocation dataset was manually compiled from the BayernAtlas. This dataset includes the program name, managing state ministry, agency address, job relocation figures, and relocation status. Completion dates for relocations were obtained from the annual report on the Homeland Strategy program. For agencies not included in these reports, we conducted manual searches in local newspapers to determine the exact relocation dates. The average relocation was small, and amounted to 55 jobs, and 7 study places. Figure 1 shows the municipalities treated more than once in our sample. Since 2015, agencies have been iteratively relocated from the sending locations, mainly Munich, to other regions that are on average 180 km away. Some localities were treated more than once. For those, we count the first relocation as treatment period.

Our control variables, population, unemployment, employment, and tax income per capita, are sourced from the German Regional Database ('Regionalstatistik'). The Bavarian government relies on these statistics to determine which areas to subsidize and consider for the public employment relocation program. We account for pre-treatment trends in these statistics by calculating the log differences between 2009 and 2014.

To account for long-term municipal preferences for certain political platforms, we also consider the log differences in vote shares for the CSU and Freie Wähler in state elections before the relocations between 2003 and 2013. Since the AfD did not participate in the 2013 state election, we use the log differences in AfD vote shares between the 2013 and 2017 federal elections. The right-wing party AfD was founded in 2013. Although they participated in the federal elections of the same year, they did not participate in the Bavarian state elections happening at the same time. Therefore, to control for preferences for a right-wing party platform, we use the log differences in AfD vote shares between the 2013 and 2017 federal elections. This is not a bad control since we only analyze the AfD vote shares in state elections as outcomes from 2018 onwards.

3.2 Descriptive statistics

Table 1 shows descriptive statistics for the outcome variables and table 2 for the control variables. The 2008 election marked a major disruption for the CSU in Bavaria. For the first time in over 30 years, the CSU missed the absolute majority and had to enter a coalition government (then with the liberal-conservative party FDP). Compared to the preceding election in 2003, the CSU lost 18 percentage points on average. Since 2018, the CSU has governed together with the right-wing conservative party FW (German: Freie Wähler) who have enjoyed an increased support since 2013. Although the far-right populist party AfD was founded in February 2013, it did not compete in the 2013 Bavarian state elections, the focus being on the federal elections that took

⁹ Note that for the state elections, the Bavarian Statistical Office publishes the total votes and the first votes. Thus, to calculate the second votes, we subtracted the first votes from the total votes.

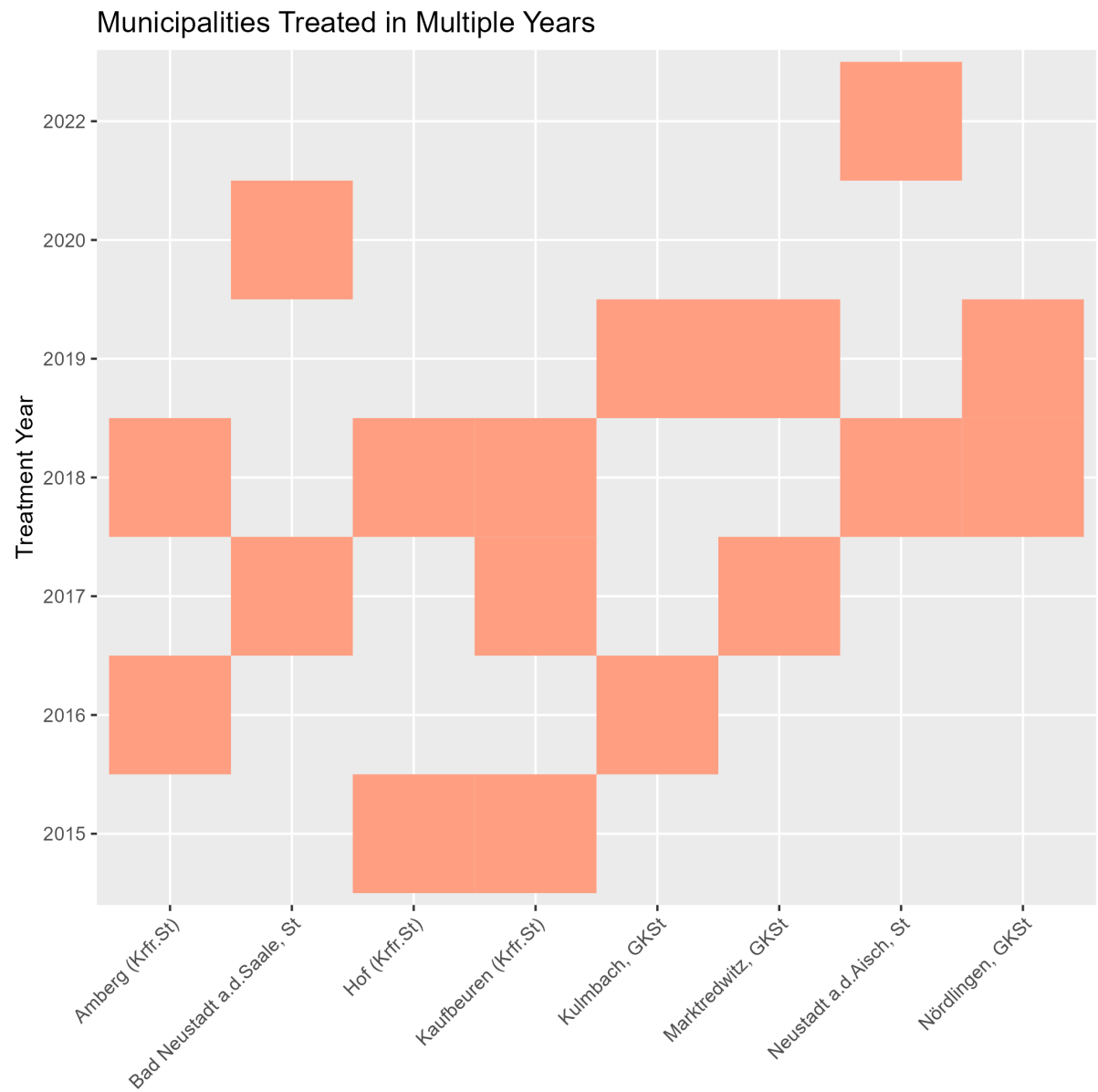


Figure 1: Municipalities that were treated more than once until 2022. For example, Hof was treated in 2015, and then again in 2018.

place the same year. In the 2018 state elections, the AfD won 11% of the votes, in 2023 16%.

Year	2003			2008			2013			2018			2023		
Variable	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
CSU vote share	2031	67	8.5	2031	49	7.7	2031	54	7.8	2031	42	6.9	2031	39	7.4
AfD vote share	2031	0	0	2031	0	0	2031	0	0	2031	11	3.1	2031	16	4.2
Freie Wähler vote share	2031	4.6	4.1	2031	12	5.8	2031	10	5.5	2031	14	5.8	2031	21	9.6

Table 1: Summary statistics for outcome variables. Data was extracted from the German Regional Database, and the Bavarian Statistical Office. Vote shares are in percent.

Variable	N	Mean	Std. Dev.	Min	Pctl. 25	Pctl. 75	Max
<i>Control Variables</i>							
Population	2031	-0.00061	0.04	-0.3	-0.025	0.023	0.28
Unemployment	2031	-0.26	0.22	-1.2	-0.39	-0.13	0.92
Employment	2031	0.09	0.049	-0.36	0.06	0.12	0.49
Tax Income per cap.	2031	0.15	0.061	-0.5	0.13	0.18	0.84
Population btw. 18-30 yrs	2031	0.0046	0.1	-0.59	-0.057	0.064	0.57
CSU Vote Share	2031	-0.23	0.1	-0.88	-0.28	-0.17	0.2
Freie Wähler Vote Share	2031	0.99	0.67	-1.2	0.54	1.4	3.5
AfD Fed. Vote Share	2056	1.2	0.37	0.2	0.95	1.4	2.6

Table 2: Summary statistics for control variables. Data was extracted from the German Regional Database, and the Bavarian Statistical Office. We take the log differences between 2009 and 2014 for all economic, and demographic control variables except for the tax income per capita, where we take the 2010 to 2014 log differences. For the controls concerning prior voting outcomes, we take the 2003-13 log differences for the CSU, and the FW vote share. For the AfD, we take the log 2013-17 vote shares of the local results for the federal elections because they didn’t participate in the 2013 state elections.

4 Identification strategy and method

4.1 Main Specification

In our baseline approach, we estimate a canonical difference-in-differences model following equation 1, exploiting variation in timing across relocation waves and variation in exposure across space:

$$\Delta y_{it} = \alpha_j + \delta_t + \beta reloc_{it} + \Delta X'_{it}\gamma + \epsilon_{it}, \quad (1)$$

where Δy_{it} denotes the change in party vote shares in municipality i between election years t and $t - 1$. The indicator $reloc_{it}$ equals one if municipality i is targeted by a relocation project (and remains one in subsequent periods) and zero otherwise. X'_{it} is a vector of municipality covariates. α_j captures district-specific time-invariant factors and δ_t common time shocks. Our coefficient of interest is β , measuring the average effect of the relocation program on municipalities’ changes in party vote shares. Because equation 1 is estimated in first differences, it nets out municipality fixed effects.

Identification relies on the assumption that, absent the relocation program, voting patterns would have evolved in parallel between treated and control municipalities conditional on observables. We assess this assumption visually by plotting the evolution of vote shares by treatment status. Figures A1, A2 and A3 show the corresponding pre-trend diagnostics for the CSU, the Freie Wähler, and the AfD, respectively.

A key institutional feature of the Heimatstrategie is that receiving areas were prioritized using a quantitative eligibility rule based on a composite index of structural weakness (RmbH). Districts with an index value below 90 percent of the Bavarian average were designated as *Räume mit besonderem Handlungsbedarf* and targeted for relocation projects. This raises concerns that treated municipalities may systematically differ from untreated ones. We address this in two complementary ways. First, we control directly for the economic and demographic fundamentals underlying the policy rule by including the index components as covariates in X'_{it} . Second, we account for differential pre-policy political trajectories—i.e., persistent “taste” for specific parties—by adding pre-treatment changes in the respective party’s vote share to X'_{it} . These pre-policy vote-share changes flexibly absorb municipality-specific political trends that could otherwise be correlated with both relocation targeting and subsequent voting outcomes.

To further tighten comparability, our strictest specification restricts the control group to municipalities with index values between 80 and 100, thereby comparing treated locations to economically and demographically similar municipalities around the eligibility threshold and in moderately comparable structural conditions. In addition, we exclude sending locations, which are typically large agglomerations on distinct growth paths relative to structurally weaker receiving areas. Under these restrictions and conditioning on the index components and pre-policy party-specific vote-share dynamics, we argue that target locations **within districts** are as good as randomly assigned.

4.2 Heterogeneity in Treatment Timing

Given the staggered nature of treatment timing, we know that the canonical difference-in-difference estimates might be biased. Thus, we advance our baseline estimator to the estimator following Callaway and Sant’Anna (2021). This estimator splits the treated municipalities into cohorts based on their treatment timing and creates long-differences for all cohorts, comparing each of them separately to never-treated units or not-yet-treated units.

In our case, the outcome voting results are measured every five years, while the relocations happen yearly. Therefore, we adapt our treatment cohorts to match the election periods. We assign all municipalities that were treated between 2015 and 2017 to the 2018 cohort, and all municipalities treated between 2019 and 2021 to the 2023 cohort. We do not assign municipalities that were treated in the same year to the respective cohorts because we don’t know exactly when the relocation happened. Since it might have happened after the elections, we decided to exclude them from the sample. Additionally, we only analyze relocations completed until 2021, as we depend on the yearly government report to assign treatment periods, and it hasn’t been released for the following years yet.

The base period for comparison is always the first pre-treatment period for each cohort. This means that for each estimation, the parallel trends assumption only has to hold between two periods for a single cohort and the control group, and not all periods analyzed, which makes it very flexible.

For the Callaway & Sant’Anna estimator, the cohort-specific average treatment effect (ATT) is defined as:

$$ATT(g, t) = E[Y_{it}(g) - Y_{it}(\infty) \mid \mathcal{G}i = g] \quad (2)$$

The effect is identified by comparing the expected change in outcomes for a given cohort g

between periods $g-1$ and t with those for units that are either yet-to-be-treated or never-treated:

$$ATT(g, t) = E[Y_{it} - Y_{i,g-1}(\infty) \mid \mathcal{G}i = g] - E[Y_{it} - Y_{i,g-1}(\infty) \mid \mathcal{G}i \in \mathcal{G}_{comp}], \quad (3)$$

where $\mathcal{G}_{comp} = g' : g' > t$. To aggregate these cohort-specific effects into a single event-study parameter, we use:

$$ATT_l^w = \sum_g w_g \times ATT(g, g + l), \quad (4)$$

Here, l represents the number of periods after the policy was implemented. For statistical inference, bootstrap methods are employed.

5 Results

6 Results

6.1 Main results

In the baseline specification, we estimate a difference-in-differences regression on a municipality–election-year panel. The treatment variable is coded as an interaction term and assumes the value of one in all elections after a given municipality received treatment, i.e. a relocated public institution, and zero otherwise. As dependent variables, we use the change in the CSU, Freie Wähler, and AfD vote shares at the four Bavarian state elections between 2008–2023. Standard errors are clustered at the district level, and we include year and district fixed effects.

Table 3: Baseline results for state elections

	(1) Δ AfD	(2) Δ CSU	(3) Δ FW
Treat $\times$ Post	-0.535** (0.252)	2.004*** (0.481)	-1.537*** (0.430)
Observations	3387	7288	7096
R^2	0.402	0.706	0.451
District FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Mean dep.var.	6.00	-6.96	3.73

The baseline results indicate that relocations are associated with a statistically significant reallocation of votes across the three parties. Receiving municipalities experience an increase in CSU support of about 2 percentage points in the subsequent state election. In contrast, the Freie Wähler lose around 1.5 percentage points in treated municipalities relative to the control group, despite rising on average over the sample period. For the AfD, we estimate a modest negative differential of roughly half a percentage point.

Tighter comparability: restricting the control group to index values 80–100. A potential concern with the baseline comparison is that treated municipalities may systematically differ from the full set of untreated municipalities, since relocations were prioritized using the

structural-weakness index. To increase comparability and sharpen the quasi-experimental contrast, we re-estimate the model restricting the sample to municipalities whose index values fall between 80 and 100 (i.e., treated municipalities in the relevant range and a control group drawn from the same segment of the structural-weakness distribution). Table 4 reports the results.

Table 4: State elections: control group restricted to index values 80–100

	(1)	(2)	(3)
	Δ AfD	Δ CSU	Δ FW
Treat $\times$ Post	-0.764* (0.450)	2.604*** (0.721)	-1.796** (0.837)
Observations	896	1906	1844
R^2	0.335	0.694	0.439
District FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Mean dep.var.	6.80	-6.53	3.58

Relative to the baseline, the qualitative pattern is unchanged but the estimated effects become larger in magnitude. The CSU gains increase to about 2.6 percentage points and remain highly statistically significant. The Freie Wähler losses deepen to roughly 1.8 percentage points and are statistically significant at conventional levels. For the AfD, the point estimate becomes more negative (about -0.8 percentage points) and is marginally significant. This strengthening is consistent with the interpretation that the baseline specification attenuates treatment effects by comparing treated municipalities to a heterogeneous set of controls that differ in structural conditions and underlying political dynamics. Restricting the comparison to municipalities in the 80–100 index band plausibly reduces this heterogeneity and yields a tighter counterfactual.

Another margin to examine is whether the relocation program increased political participation in targeted regions. We therefore re-run the baseline specification using the change in turnout at state elections as the dependent variable. As Table 5 shows, we do not find evidence of a statistically significant turnout effect. Hence, the baseline party effects are unlikely to be driven primarily by broad mobilization, and instead reflect changes in party choice conditional on participation.

Table 5: Change in turnout at state elections

	(1)	(2)
	Δ turnout	Δ turnout
Treat $\times$ Post	-0.105 (0.221)	-0.229 (0.208)
Observations	7288	7288
R^2	0.557	0.597
District FE	No	Yes
Year FE	Yes	Yes
Controls	Yes	Yes
Mean dep.var.	4.29	4.29

In Table 6, we repeat the analysis for federal elections to assess whether state-level relo-

cations also affect federal voting behavior. The baseline results suggest spillovers to federal elections: the CSU gains remain positive but are smaller than at the state level, whereas the Freie Wähler exhibit losses of comparable magnitude. The AfD coefficient is negative but not precisely estimated in the baseline comparison.

Table 6: Baseline results for federal elections

	(1) Δ AfD	(2) Δ CSU	(3) Δ FW
Treat $\times$ Post	-0.290 (0.222)	0.683** (0.299)	-1.402*** (0.225)
Observations	3736	5661	3736
R^2	0.851	0.876	0.730
District FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Mean dep.var.	3.25	-3.95	3.24

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

When we condition on program exposure more tightly by restricting the sample to structurally comparable municipalities, the federal-election effects become clearer. Table 7 shows that the CSU gains are about 0.9 percentage points and highly significant, while the Freie Wähler lose around 1.24 percentage points and remain strongly significant. For the AfD, the estimate is negative (around -0.34 percentage points) and statistically significant at the 10% level. Together, these results indicate that relocations not only shifted voting patterns in Bavarian state elections—the level at which the policy was implemented—but also translated into electorally meaningful spillovers at the federal level.

Table 7: Federal elections: alternative specification (program-only / restricted comparison)

	(1) Δ AfD	(2) Δ CSU	(3) Δ FW
Treat $\times$ Post	-0.341* (0.182)	0.920*** (0.307)	-1.243*** (0.239)
Observations	3733	5657	3733
R^2	0.851	0.876	0.730
District FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Mean dep.var.	3.25	-3.95	3.24

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

6.2 Heterogeneity Analysis

We evaluate the impact of the relocation program on the vote shares of CSU, Freie Wähler, and AfD using the estimator proposed by Callaway and Sant’Anna (2021). The results indicate a positive effect on the CSU vote share in the first election following the relocation program, as

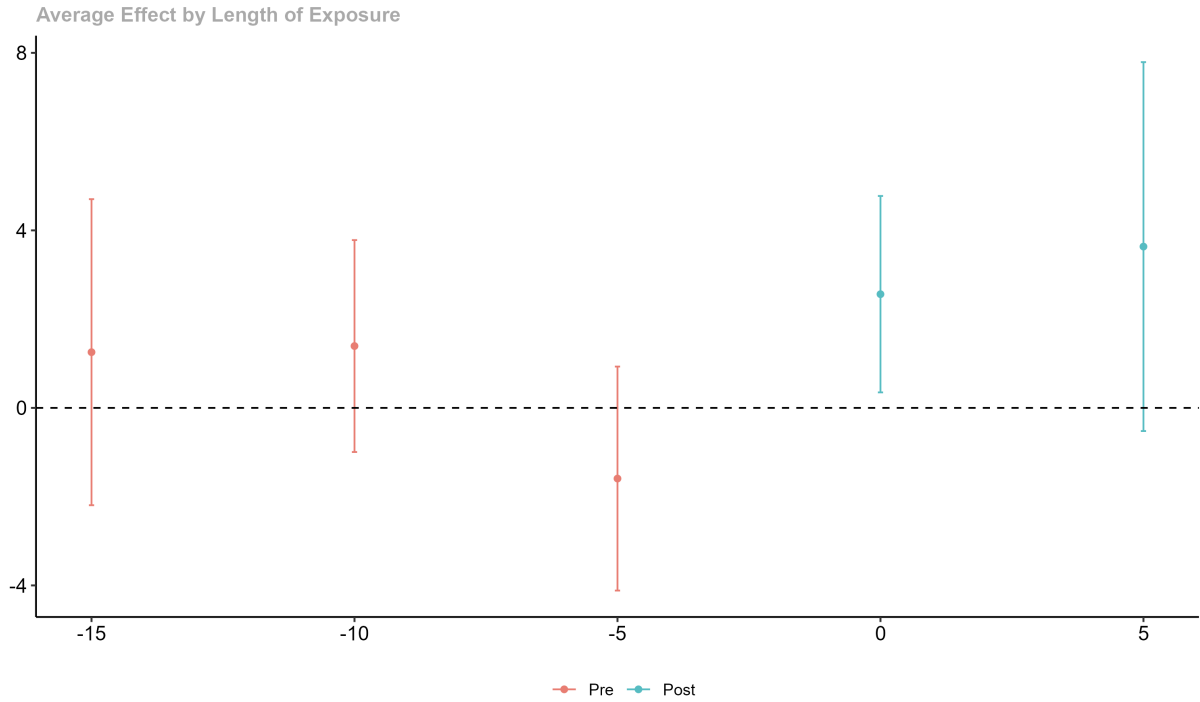


Figure 2: Event Study - CSU vote share. Estimated based on the Callaway and Sant’Anna (2021) estimator. The state election outcomes are measured every five years.

depicted in Figure 2. On average, the CSU vote share increases significantly by 3.1 percentage points in municipalities that received relocations. The observed effect is primarily driven by municipalities treated before 2018, as shown in Figure 3.

Conversely, in Figure 4 we observe a reduction of approximately 1.8 percentage points in the Freie Wähler vote share, although this effect is not statistically significant. Due to the AfD’s absence in the 2013 state elections, we can only analyze the effect of relocations on their vote share in the 2023 election, using the 2018 election as the sole pre-treatment period. The lower panel of Figure 5 illustrates that for municipalities treated before 2023, the AfD vote share decreased significantly by an average of 1.22 percentage points.

We also analyze turnout in the heterogeneity framework. When splitting the ATT by cohort, we find a negative, insignificant effect of the relocations on turnout. In fig. 6 we see that the negative effect is more pronounced for the 2023 cohort - a reduction by 1.15 percentage points in turnout, than for the 2018 cohort with a reduction by -0.30 percentage points.

However, when we look at time since treatment, we find a negative, and significant effect of -0.72 percentage points on turnout in the first election after a relocation relocation took place in a municipality. fig. 7 shows that turnout is generally lower every second second election indicating a trend.

6.3 Geographic Spillover Effects

We implement two types of geographic spillover analyses. First, we define all geographic neighbors to treated municipalities based on whether they share a common border and exclude them from the control group. Second, we use this group of neighbors as alternative treatment group (and simultaneously exclude the treated municipalities from the estimation sample). Results from the this exercise point towards some spillover effects at least for the CSU. When we ex-

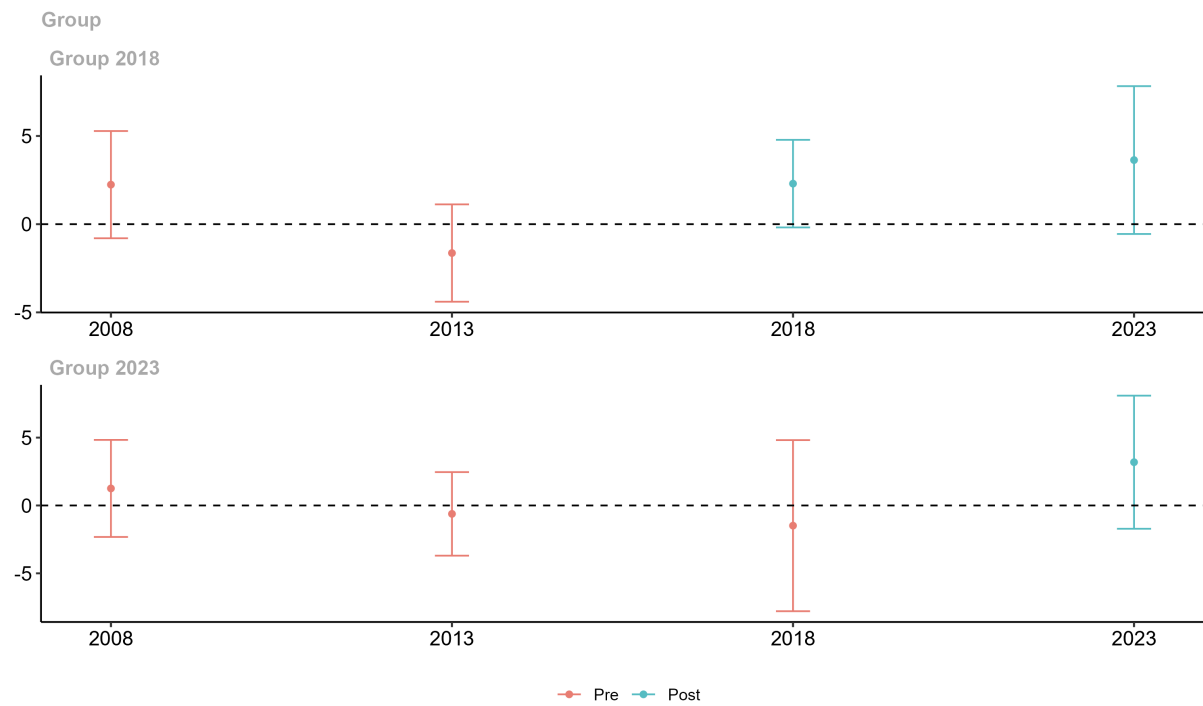


Figure 3: Event Study by Treatment Cohort - CSU vote share. Estimated based on the Callaway and Sant'Anna (2021) estimator. The state election outcomes are measured every five years.

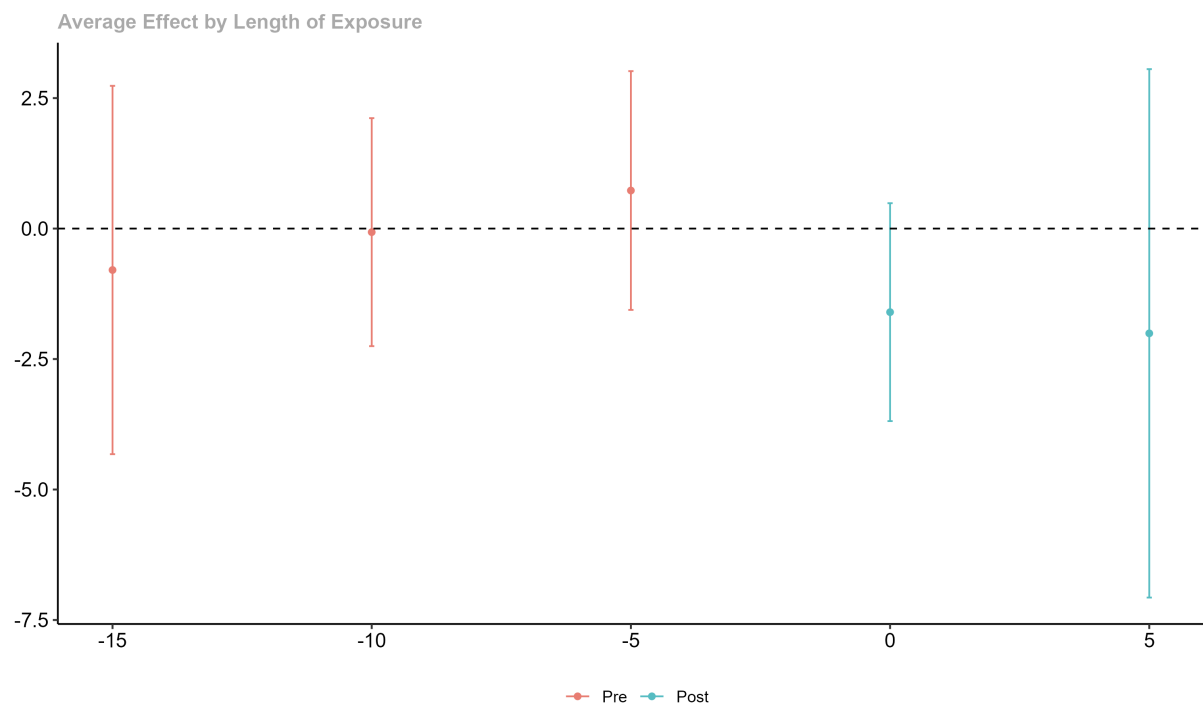


Figure 4: Event Study - Freie Wähler vote share. Estimated based on the Callaway and Sant'Anna (2021) estimator. The state election outcomes are measured every five years.

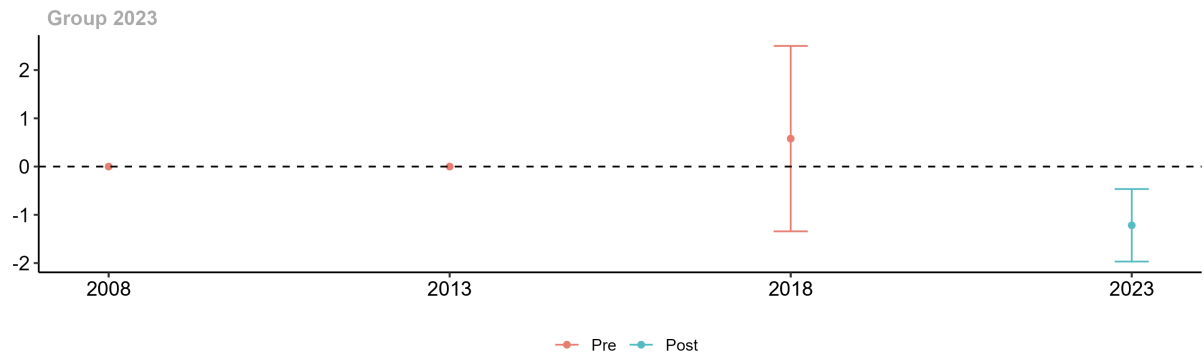


Figure 5: Event Study by Treatment Cohort - AfD vote share. Estimated based on the Callaway and Sant'Anna (2021) estimator. The state election outcomes are measured every five years. The first panel shows that we do not observe AfD vote shares on the state level before 2018, and hence, the value for the pre-treatment periods are 0.

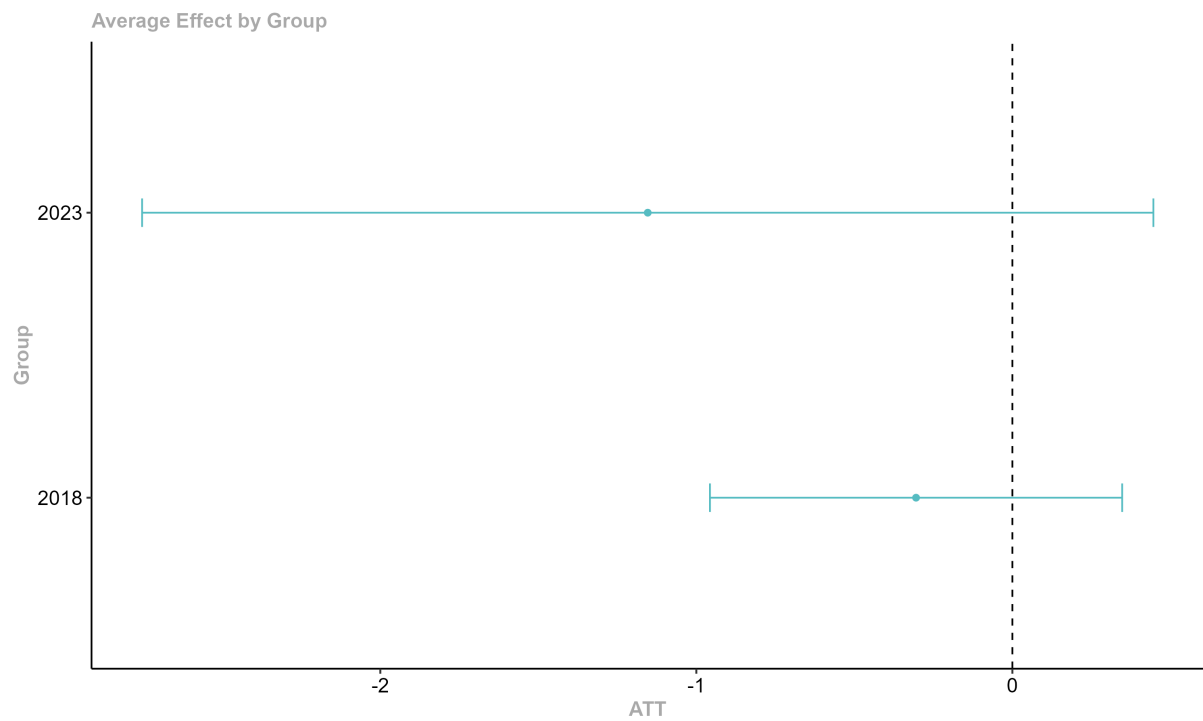


Figure 6: ATT estimator for turnout with Callaway and Sant'Anna (2021) estimator by cohort. Treatment cohorts were adjusted to match election periods.

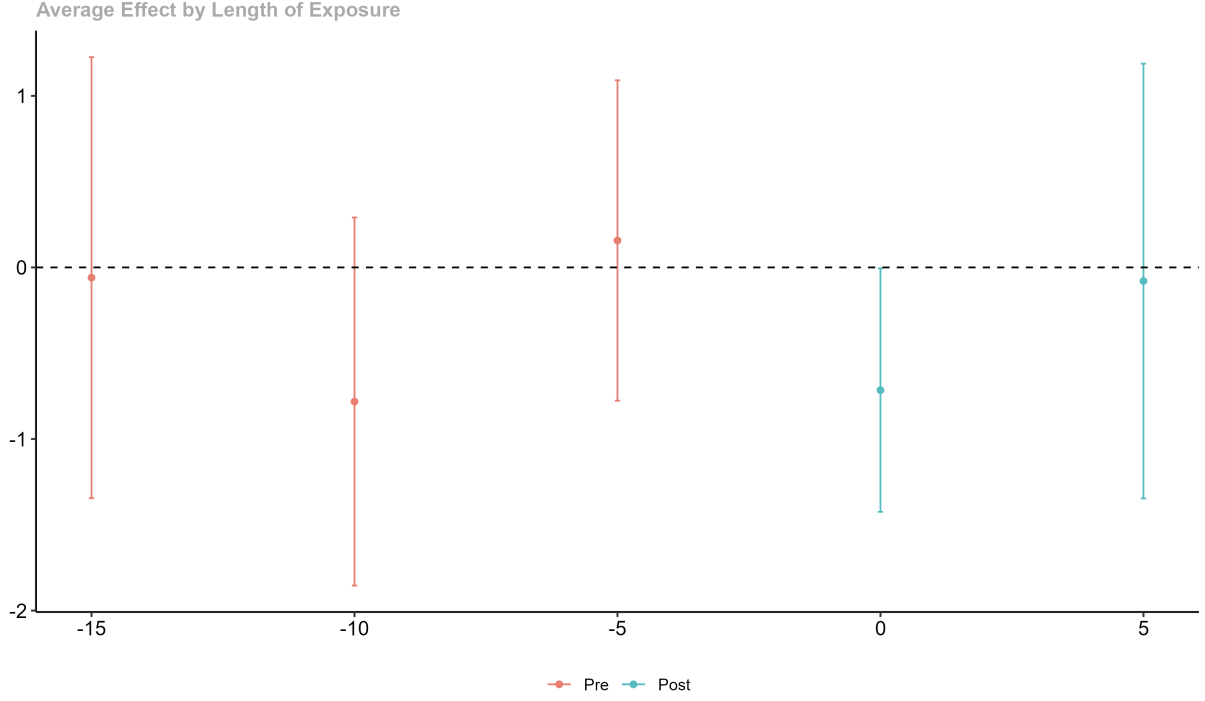


Figure 7: Event study on turnout based on Callaway and Sant’Anna (2021) estimator. Treatment cohorts were adjusted to match election periods.

clude the neighbors of treated municipalities, the treatment effect for the CSU is 2 percentage points, so quantitatively similar to the baseline effect. For the Freie Wähler the coefficient of -2 percentage points exceeds the baseline estimate. When we use the neighbors of treated municipalities as treatment group, however, we do not find any evidence for spillover effects.

6.4 Robustness Checks

As a preliminary robustness check, we also implement other new estimators in the difference-in-differences literature and compare them with the results from the Callaway and Sant’Anna (2021) estimator. We implement the regular TWFE, the Borusyak *et al.* (2024), the Roth and Sant’Anna (2023), and the Sun and Abraham (2021) estimator. TWFE might be biased towards zero as we know from the literature since early treated units might serve as control group for later treated units. Borusyak *et al.* (2024) is an imputation estimator treating the fundamental problem of causal inference, where do not observe the counterfactual as a missing data problem. Roth and Sant’Anna (2023) provides a more efficient way to estimate design-based policies, where the rollout is as good as random. We note that we do not know if this is the case in our set-up. We know that availability of building sped up the relocation process, while localities where construction was needed receiving an agency later in the problem. However, we can’t be sure if other factor, such as local political leniency towards the coalition parties determined the rollout speed. Sun and Abraham (2021) disentangles the ATT into cohorts, similarly to Callaway and Sant’Anna (2021). However, the base period is dynamic, and not the period before the policy started, making it less flexible than Callaway and Sant’Anna (2021).

fig. 8 shows the event study plots for the changes in vote shares for the incumbent parties CSU, and FW (Freie Wähler). The positive effect of the policy on the CSU vote share is confirmed by the Borusyak *et al.* (2024) estimator. However, since the other estimator are not

Table 8: Spillover effects

	Exclude neighbors			Analyse treated neighbors		
	(1)	(2)	(3)	(4)	(5)	(6)
	Δ AfD	Δ CSU	Δ FW	Δ AfD	Δ CSU	Δ FW
Treat $\times$ Post	-0.431 (0.320)	2.129*** (0.591)	-1.741*** (0.464)			
Treat $\times$ Post (neighbor)				-0.219 (0.245)	0.945 (0.595)	-0.295 (0.542)
Observations	2956	6353	6197	3297	7109	6923
R^2	0.416	0.719	0.452	0.402	0.708	0.452
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep.var.	5.89	-7.00	3.72	5.99	-6.98	3.74

as flexible as the Callaway and Sant’Anna (2021) estimator in terms of for long the parallel trends assumption needs to hold, the results are mostly insignificant. The negative effect on the FW vote shares is confirmed by all estimators, except for TWFE, and Sun and Abraham (2021). The effect remains insignificant as in the main event study estimation.

fig. 9 displays the event study plot for the changes in vote shares for the far-right party AfD, and fig. 10 shows the robustness check for the previous turnout results. Both effects are insignificant in all other estimators.

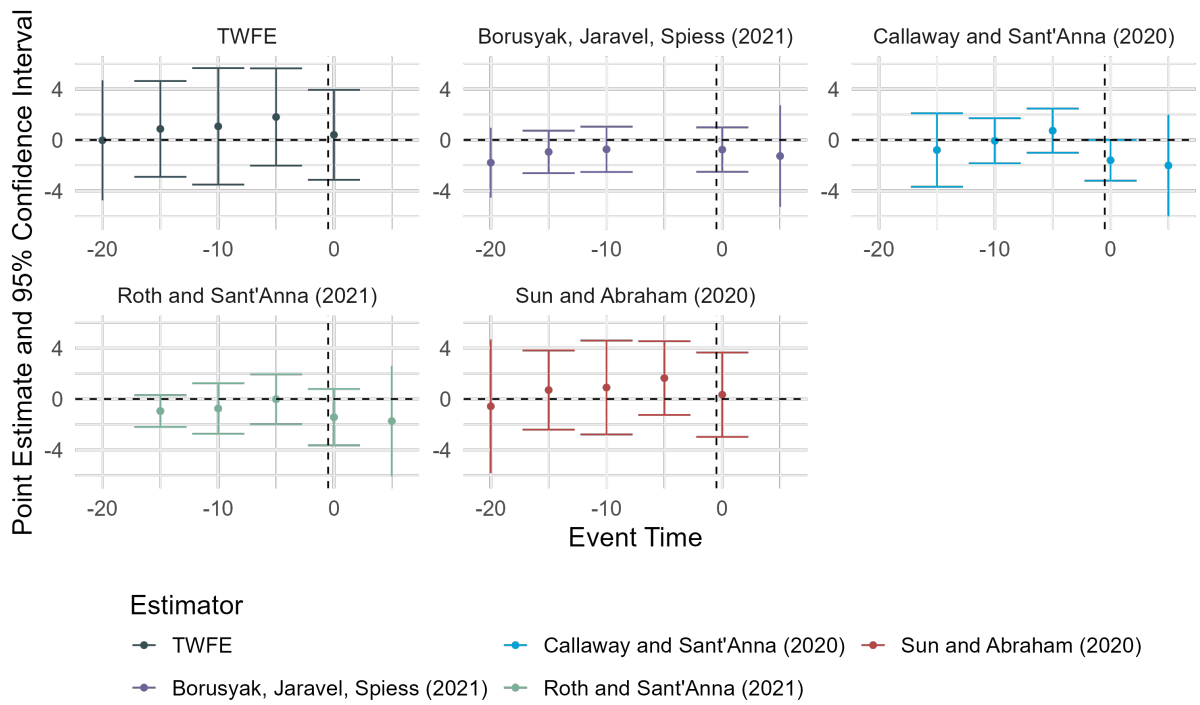
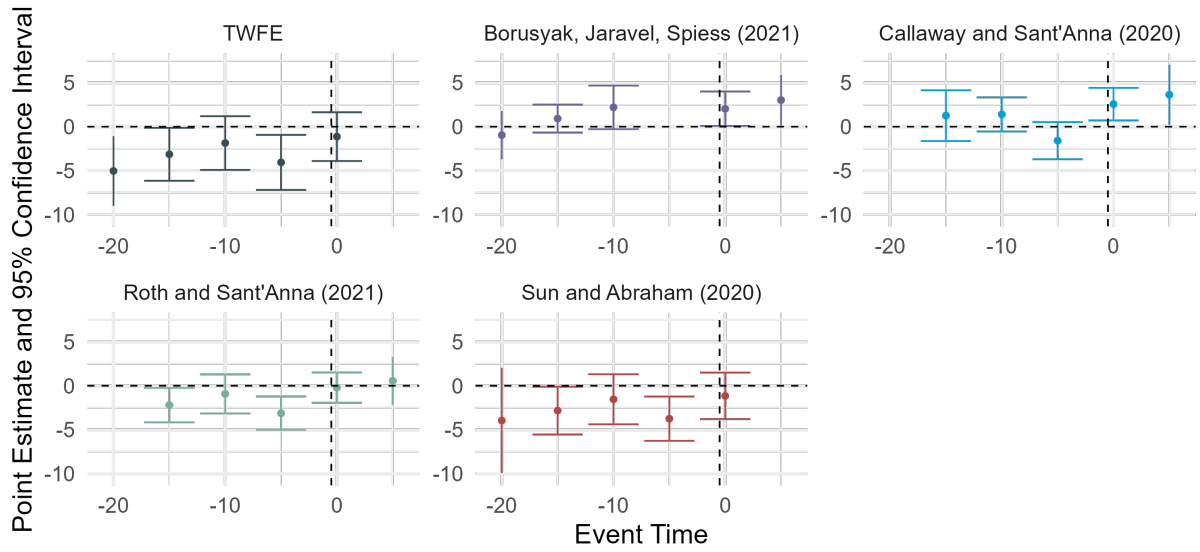


Figure 8: Robustness Check for CSU (upper panel), and FW (lower panel) vote shares using the TWFE, Borusyak *et al.* (2024), the Callaway and Sant'Anna (2021), the Roth and Sant'Anna (2023) and the Sun and Abraham (2021) estimators.

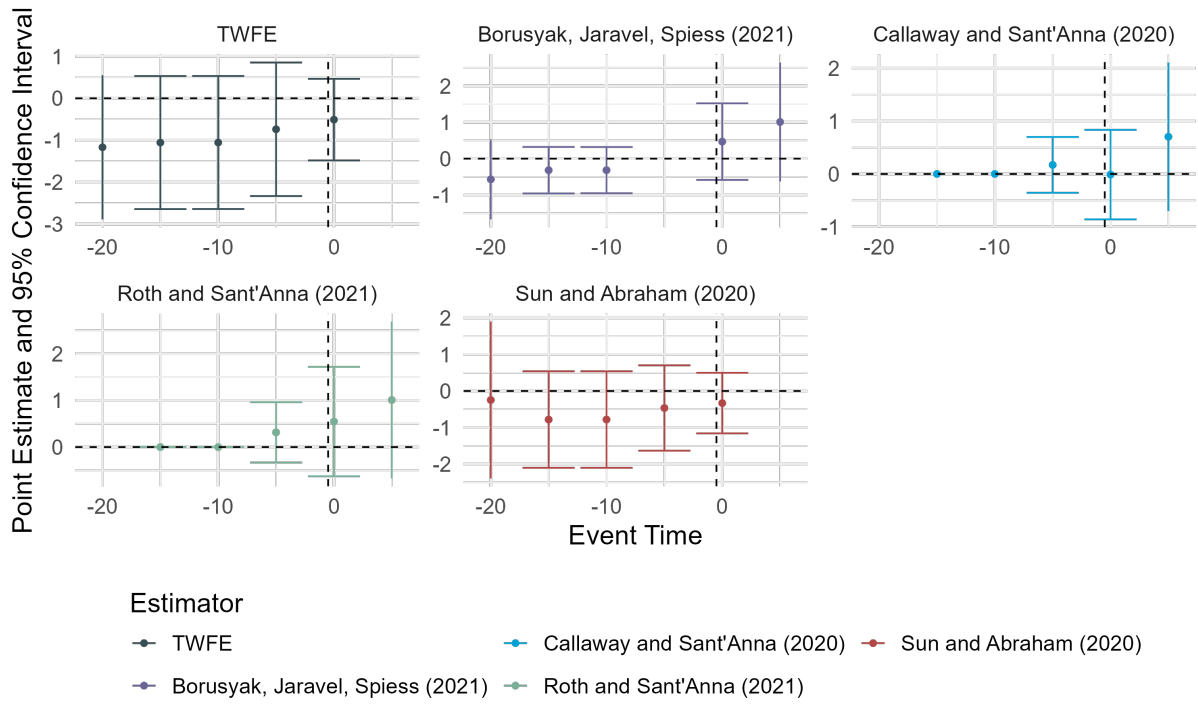


Figure 9: Robustness Check for AfD vote shares using the TWFE, Borusyak *et al.* (2024), the Callaway and Sant'Anna (2021), the Roth and Sant'Anna (2023) and the Sun and Abraham (2021) estimators.

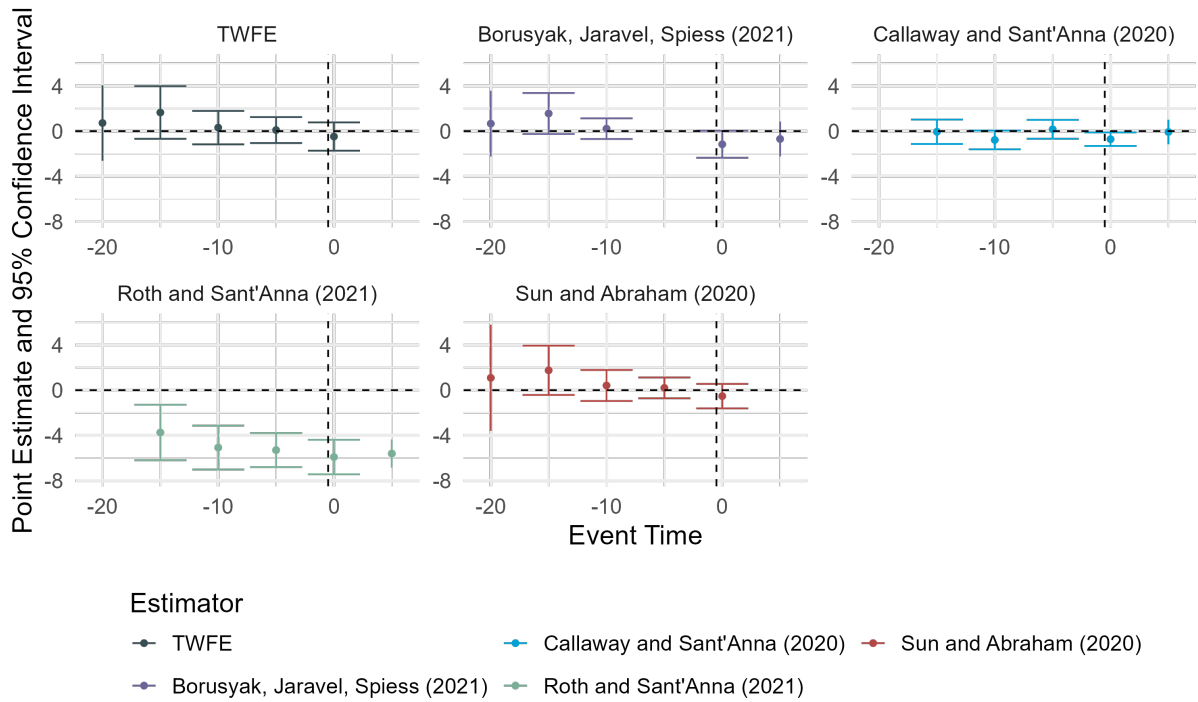


Figure 10: Robustness Check for turnout changes using the TWFE, Borusyak *et al.* (2024), the Callaway and Sant'Anna (2021), the Roth and Sant'Anna (2023) and the Sun and Abraham (2021) estimators.

7 Concluding remarks

Our study demonstrates that place-based policies can significantly influence electoral outcomes. By exploiting Bavaria’s large-scale public sector relocation program, we find compelling evidence that such interventions shape voting patterns in targeted regions. The Christian Social Union (CSU), as the leading incumbent party responsible for implementing the policy, reaped substantial electoral benefits both at the state and federal levels. This suggests a strong incumbency advantage derived from visible, targeted interventions in economically distressed areas.

Conversely, the smaller coalition partner, the Free Voters (FW), experienced electoral losses in treated regions, highlighting the nuanced political consequences of such policies. Importantly, our findings indicate that the relocation program had some success in containing the rise of the far-right populist Alternative for Germany (AfD) party in treated municipalities, with their vote share decreasing by approximately one percentage point, or a third of their average vote share.

These results have significant implications for governing parties and democratic stability. On one hand, governments can potentially win over voters in economically disadvantaged regions through targeted and visible place-based policy measures. On the other hand, such policies may serve as a tool to counteract the rise of populist movements that often thrive in areas feeling economically left behind.

Moreover, the limited geographical spillover effects we observed suggest that the policy’s impact was largely confined to host localities, with only small spillovers to federal elections. This underscores the localized nature of such interventions and their political consequences.

In conclusion, our findings highlight the potential of place-based policies as a dual-purpose tool for governments: addressing regional economic disparities while simultaneously shaping electoral outcomes.

References

- ALBANESE, G., BARONE, G. and DE BLASIO, G. (2022). Populist voting and losers' discontent: Does redistribution matter? *European Economic Review*, **141**, 104000.
- ALESINA, A., DANNINGER, S. and ROSTAGNO, M. (2001). Redistribution through public employment: the case of Italy. *IMF Staff Papers*, **48** (3), 447–473.
- ALGAN, Y., CAHUC, P. and ZYLBERBERG, A. (2002). Public employment and labour market performance. *Economic Policy*, **17** (34), 7–66.
- , GURIEV, S., PAPAIOANNOU, E. and PASSARI, E. (2017). The European trust crisis and the rise of populism. *Brookings Papers on Economic Activity*, **2017** (2), 309–400.
- ANELLI, M., COLANTONE, I. and STANIG, P. (2019). We Were the Robots: Automation and Voting Behavior in Western Europe. *IZA - Institute of Labor Economics*.
- AURICCHIO, M., CIANI, E., DALMAZZO, A. and DE BLASIO, G. (2020). Life after public employment retrenchment: evidence from Italian municipalities. *Journal of Economic Geography*, **20** (3), 733–782.
- AUTOR, D., DORN, D., HANSON, G. and MAJLESI, K. (2020). Importing political polarization? The electoral consequences of rising trade exposure. *American Economic Review*, **110** (10), 3139–3183.
- BECKER, S. O., FETZER, T. and NOVY, D. (2017). Who voted for Brexit? A comprehensive district-level analysis. *Economic Policy*, **32** (92), 601–650.
- , HEBLICH, S. and STURM, D. M. (2021). The impact of public employment: Evidence from Bonn. *Journal of Urban Economics*, **122**, 103291.
- BHATTI, Y. and HANSEN, K. M. (2013). Public employees lining up at the polls—the conditional effect of living and working in the same municipality. *Public Choice*, **156**, 611–629.
- BORUSYAK, K., JARAVEL, X. and SPIESS, J. (2024). Revisiting Event-Study Designs: Robust and Efficient Estimation. *The Review of Economic Studies*, p. rdae007.
- BUENO, N. S. (2023). The timing of public policies: Political budget cycles and credit claiming. *American Journal of Political Science*, **67** (4), 996–1011.
- CALLAWAY, B. and SANT'ANNA, P. H. C. (2021). Difference-in-Differences with multiple time periods. **225** (2), 200–230.
- CAPONI, V. (2017). Public employment policies and regional unemployment differences. *Regional Science and Urban Economics*, **63**, 1–12.
- COLANTONE, I. and STANIG, P. (2018). The trade origins of economic nationalism: Import competition and voting behavior in Western Europe. *American Journal of Political Science*, **62** (4), 936–953.
- COREY, E. C. and GARAND, J. C. (2002). Are government employees more likely to vote?: An analysis of turnout in the 1996 US national election. *Public Choice*, **111** (3), 259–283.
- CRESCENZI, R., DI CATALDO, M. and GIUA, M. (2020). It's not about the money. EU funds, local opportunities, and euroscepticism. *Regional Science and Urban Economics*, **84**, 103556.
- DAL BÓ, E., FINAN, F., FOLKE, O., PERSSON, T. and RICKNE, J. (2019). Economic losers and political winners: Sweden's radical right. *Working Paper, mimeo*.

- DIPPEL, C., GOLD, R., HEBLICH, S. and PINTO, R. (2022). The effect of trade on workers and voters. *The Economic Journal*, **132** (641), 199–217.
- DORN, F., FUEST, C., GSTREIN, D., IMMEL, L. and NEUMEIER, F. (2024). Economic deprivation and radical voting: Evidence from Germany. *Working Paper*.
- FAGGIO, G. (2019). Relocation of public sector workers: Evaluating a place-based policy. *Journal of Urban Economics*, **111**, 53–75.
- and OVERMAN, H. (2014). The effect of public sector employment on local labour markets. *Journal of urban economics*, **79**, 91–107.
- , SCHLÜTER, T. and VOM BERGE, P. (2019). Interaction of public and private employment: Evidence from a german government move. *Working Paper*.
- FETZER, T. (2019). Did austerity cause brexit? *American Economic Review*, **109** (11), 3849–3886.
- FUNKE, M., SCHULARICK, M. and TREBESCH, C. (2016). Going to extremes: Politics after financial crises, 1870–2014. *European Economic Review*, **88**, 227–260.
- , — and — (2020). Populist Leaders and the Economy. *CEPR: Macroeconomics & Growth (Topic)*.
- GERBER, A. S., PATASHNIK, E. M. and TUCKER, P. D. (2022). How voters use contextual information to reward and punish: Credit claiming, legislative performance, and democratic accountability. *The Journal of Politics*, **84** (3), 1839–1843.
- GEYS, B. and SØRENSEN, R. J. (2022). Public sector employment and voter turnout. *American Political Science Review*, **116** (1), 367–373.
- GOLD, R. and LEHR, J. (2024). Paying off populism: How regional policies affect voting behavior. *Kiel Working Paper*, (2266).
- GRIMMER, J., MESSING, S. and WESTWOOD, S. J. (2012). How words and money cultivate a personal vote: The effect of legislator credit claiming on constituent credit allocation. *American Political Science Review*, **106** (4), 703–719.
- GUIO, L., HERRERA, H., MORELLI, M. and SONNO, T. (2017). Populism: demand and supply. *CEPR Discussion Paper*, (118710).
- GURIEV, S. and PAPAIOANNOU, E. (2022). The political economy of populism. *Journal of Economic Literature*, **60** (3), 753–832.
- HENN, S. and HANNEMANN, M. (2023). Populist resentments and identities and their repercussions on firms and regions. The example of East Thuringia. *Journal of Economic Geography*.
- JEFFERSON, C. and TRAINOR, M. (1996). Public sector relocation and regional development. *Urban Studies*, **33** (1), 37–48.
- JOFRE-MONSENY, J., SILVA, J. I. and VÁZQUEZ-GRENNO, J. (2020). Local labor market effects of public employment. *Regional Science and Urban Economics*, **82**, 103406.
- LAZARUS, J. and REILLY, S. (2010). The electoral benefits of distributive spending. *Political Research Quarterly*, **63** (2), 343–355.
- LEVITT, S. D. and SNYDER JR, J. M. (1997). The impact of federal spending on house election outcomes. *Journal of political Economy*, **105** (1), 30–53.

- LIBERINI, F., OSWALD, A. J., PROTO, E. and REDOANO, M. (2019). Was brexit triggered by the old and unhappy? or by financial feelings? *Journal of Economic Behavior & Organization*, **161**, 287–302.
- LOS, B., McCANN, P., SPRINGFORD, J. and THISSEN, M. (2017). The mismatch between local voting and the local economic consequences of Brexit. *Regional Studies*, **51** (5), 786–799.
- ROMBI, S. and VALBRUZZI, M. (2024). Economic voting goes local: Evidence from the Italian regions. *Italian Political Science Review/Rivista Italiana di Scienza Politica*, **54** (1), 54–69.
- ROTH, J. and SANT’ANNA, P. H. C. (2023). Efficient Estimation for Staggered Rollout Designs.
- STMFH (2014). *Heimatstrategie – Starke Zukunft für Stadt und Land*. München: Bayerisches Staatsministerium der Finanzen und für Heimat.
- (2021). *Heimatstrategie – Behördenverlagerungen Bayern 2030, 2. Stufe*. München: Bayerisches Staatsministerium der Finanzen und für Heimat.
- SUN, L. and ABRAHAM, S. (2021). Estimating dynamic treatment effects in event studies with heterogeneous treatment effects. *Journal of Econometrics*, **225** (2), 175–199.

Appendix

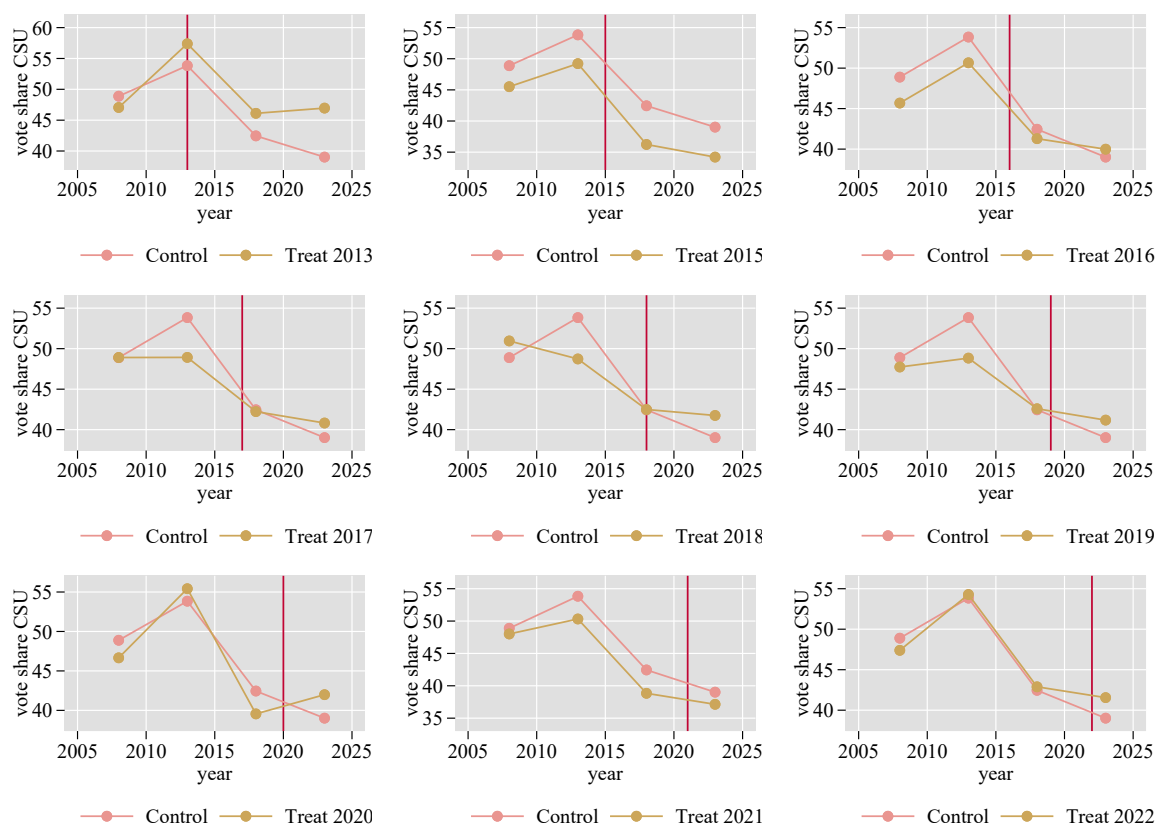


Figure A1: Vote shares for the CSU by treatment cohorts.

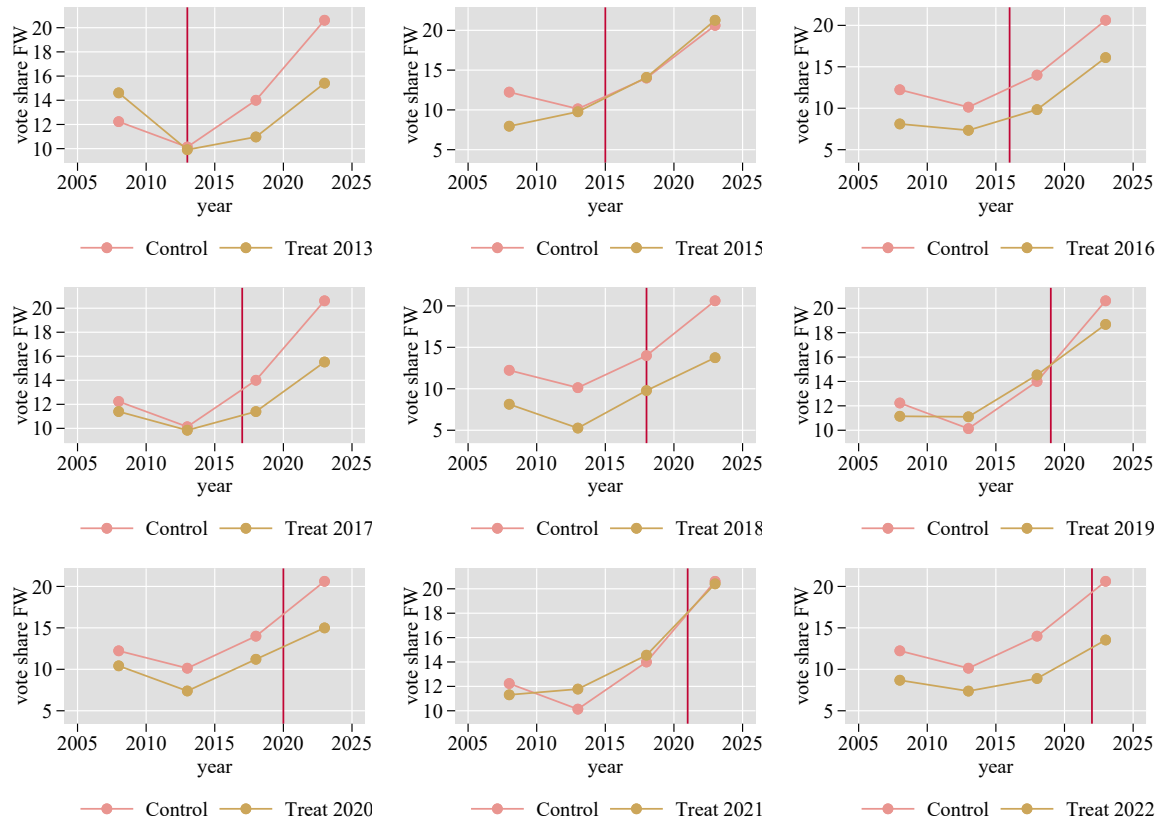


Figure A2: Vote shares for the Freie Wähler by treatment cohorts.

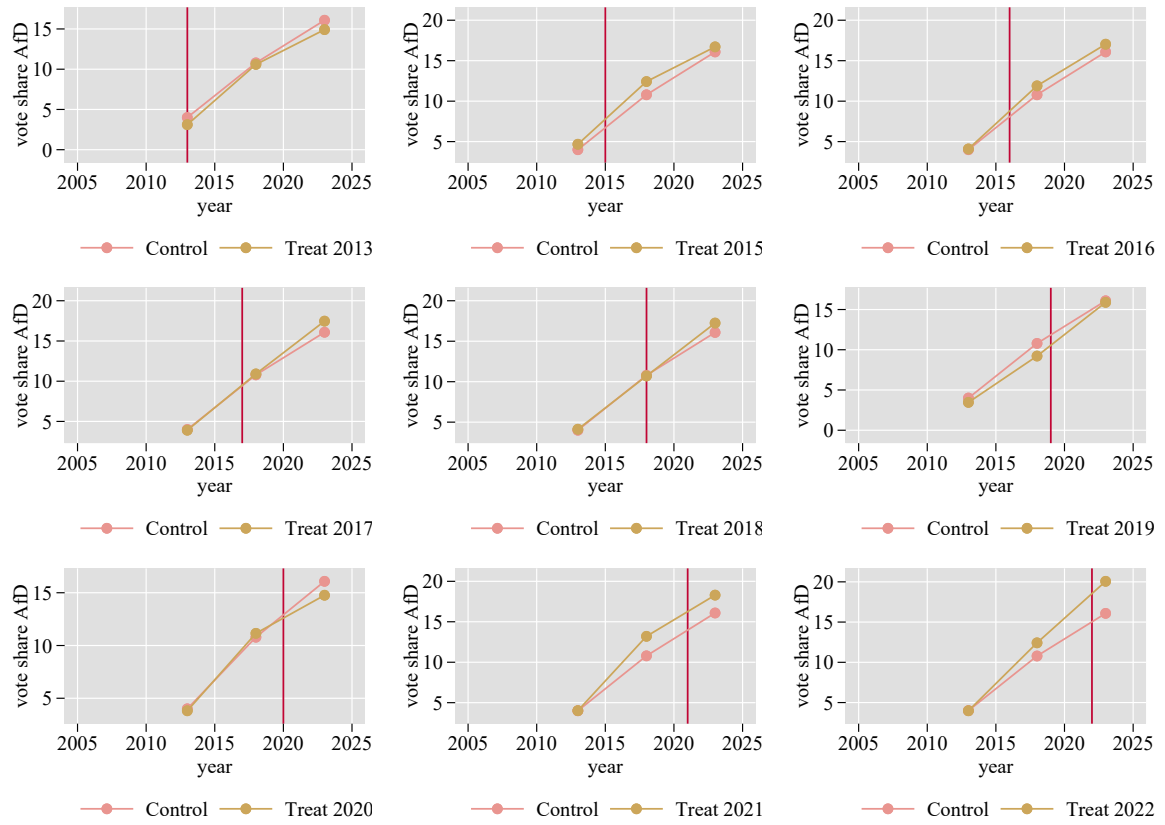


Figure A3: Vote shares for the AfD by treatment cohorts.