A False Promise for the Left Behind:
The Uneven Political Impact of Place-Based Policies

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Preliminary draft

Abstract

To counter regionally concentrated political frustration, place-based economic policies targeting disadvantaged regions have become increasingly popular among policymakers. This paper examines the effectiveness of place-based policies in mitigating political frustration and populism with a focus on their distributional effects within regions. We argue that place-based policies are unlikely to benefit the most disadvantaged voters due to a skill bias. Empirically, we study the world's largest place-based policy in the context of the European Union (EU) using a natural experiment and a randomized survey experiment. We construct a 1990-2017 dataset with subnational geocodes at the individual level (N=1.4 million) across the EU from *Eurobarometer* surveys and leverage a discontinuity in regional funding eligibility in an RD design. In addition, we provide experimental evidence from a pre-registered survey in Germany (N=1,700), where we expose respondents to information related to the policy. Both analyses show that place-based policies reduce political discontent only among the highly skilled and the rich, while political attitudes of other groups are not affected. These results highlight that the effectiveness of place-based policies in addressing political discontent is severely limited by their distributional effects.

Keywords: inequality, place-based policies, Euroscepticism, political discontent

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1 Introduction

Recent election results in advanced democracies have demonstrated that political discontent is often regionally concentrated. A growing literature has identified a "geography of discontent" in which extremist and populist voting clusters in regions that are economically left-behind (Broz et al., 2021; Ejrnæs et al., 2024; Guriev & Papaioannou, 2022; Rodríguez-Pose, 2018). To counter such regionally concentrated political frustration, place-based economic policies targeting disadvantaged regions have become increasingly popular among policymakers (Muro, 2023). Although many countries now deploy more place-based spending than ever before, political discontent and anti-establishment voting remains firm in many supported regions.

The evidence on whether place-based policies actually affect political discontent and political behavior more broadly is surprisingly thin.[1] Some studies find them to affect regional voting outcomes (Borz et al., 2022; Gold & Lehr, 2024; Rodríguez-Pose & Dijkstra, 2021), others find only weak links (Crescenzi et al., 2020; Fidrmuc et al., 2019). While the most recent studies have made substantial progress on understanding the political effects of place-based public spending, the evidence so far focuses mainly on aggregate regional outcomes. An emerging literature on regional inequality, however, stresses that socio-economic inequalities *within* disadvantaged regions are stark (Bauluz et al., 2023; Königs et al., 2023; Lang et al., 2022). At the same time, place-based policies are typically too small in scale to reach everyone within supported regions and thus have *uneven* economic effects in these regions (Bartik, 2020; Lang, 2024; Reynolds & Rohlin, 2015). In light of these findings, understanding the political effects of place-based policies requires going beyond the aggregate.

This is why, in this paper, we provide new theory and evidence on the microfoundations of the political effects of place-based policies. We argue that place-based policies are more likely to affect political behavior of voter groups that directly benefit from place-based transfers. Because of their limited region-wide effects, sociotropic effects on the political behavior voters without direct exposure to the policy much less likely. As the distributional economic effects of place-based policies imply that voters with lower skill levels and less well-paid occupations are unlikely to directly benefit, we expect shifts in views among highly-skilled and affluent voters. The fact that these voters are the least likely

[1] The literature review by Guriev and Papaioannou (2022) concludes that "relatively little work has been done on using place-based policies to prevent the rise of populism" (p. 818).

to be politically frustrated limits the overall political effectiveness of place-based policies. Discontent among the most politically frustrated is unlikely to be affected.

We test our argument with both a natural experiment and a survey experiment in the context of the world's largest place-based policy, the European Union's (EU) Cohesion Policy. This empirical setting allows us to evaluate effects for a long period of time across multiple democracies while providing a consistent operationalization of political discontent in the EU: Euroscepticism. First, we assemble a 1990-2020 panel of EU-wide georeferenced survey data by combining existing waves of the *Eurobarometer* and harmonizing geographic identifiers covering more than 1.4 million respondents. Leveraging a discontinuity in access to place-based funding, we estimate its effect on political attitudes across different subsets of voters with a regression discontinuity design. Second, we conduct a pre-registered and geo-coded survey in Germany (N=2,046) in which we expose voters to an information treatment on the place-based policy while collecting detailed data on socio-economic variables, exposure to the policy, and relevant political attitudes.

Empirical results across the two analyses provide consistent evidence for profoundly uneven effects of place-based policies on political discontent. Overall, they reduce political discontent, but only among highly-skilled and well-paid voters. Political attitudes among the poor and low-skilled do not change. As a result, the policy fails to increase support for those groups of voters who feel left behind the most and, instead, further reduces discontent among those groups who already hold relatively positive attitudes towards the EU. Our analysis of mechanisms shows that an absence of perceived personal benefit among the low-skilled is an important channel. Overall, the results are thus consistent with voter responses to place-based policies that are *egotropic* rather than *sociotropic*. For voters' political attitudes to be affected by such regional policies, they need to perceive them as beneficial for them personally and not just for their home region. Against the backdrop of large inequalities within disadvantaged regions, these results point to serious limitations of place-based policies as tools to counter political frustration. This, in turn, can explain why contemporary political discontent remains strong in many regions despite large financial efforts.

2 Theory

2.1 Regional inequality and political discontent

In recent years, democracies worldwide have experienced a surge of political discontent among their electorate (O'Rourke, 2019). In most countries, such political discontent is regionally concentrated. In particular, former industrial regions that have experienced economic decline have become prone to support populist, anti-establishment politicians that give a voice to voters that are frustrated with mainstream politics (Broz et al., 2021; Colantone and Stanig, 2018b). As underlying root causes for such regional economic decline, scholars have identified the distributional effects of import competition, automation and digitization, structural change more broadly as well as austerity policies (Autor et al., 2013, 2020; Baccini & Sattler, 2025; Colantone & Stanig, 2018b). This phenomenon of concentrated discontent in economically disadvantaged regions — sometimes labeled as the "places that don't matter" (e.g Rodríguez-Pose, 2018) or "left-behind places" (e.g MacKinnon et al., 2022) — has been observed not only in the United States (Morgan and Lee, 2018), but also in the UK (Colantone and Stanig, 2018a, Becker et al., 2017), in Italy (Urso et al., 2023) and in the EU more broadly (Rodríguez-Pose, 2018).

One reason for this pattern is that many of the individual-level determinants of political discontent are clustered in these regions. Economically disadvantaged areas often have older, less-educated, and poorer populations who are more vulnerable to economic shocks resulting from import competition, financial crises, austerity, migration, and technological change (Ahlquist et al., 2020; Baccini & Sattler, 2025; Dustmann et al., 2019; Goodwin & Heath, 2016). Additionally, voters in these regions, which are often rural and peripheral, tend to uphold traditional values and social hierarchies. As a result, they are more sensitive to perceived social status loss in the face of shifting societal norms and hierarchies that often accompany structural change (Gidron & Hall, 2019; Kurer, 2020) The literature on anti-establishment voting has identified these individual-level characteristics – age, education, income, exposure to economic shocks, social status loss – as significant predictors of political frustration (Algan et al., 2017; Baute & Tober, 2024; Hobolt, 2016; Kriesi et al., 2008; Kurer & Van Staalduinen, 2020; Vasilopoulou, 2016)

Beyond, individual-level factors, the recent literature increasingly emphasizes the role of regional-

level structural determinants as important drivers for the rise of populist attitudes (Rickard, 2020; Ballard-Rosa et al., 2021; Alabrese et al., 2019; Albrecht, 2022; Dijkstra et al., 2020). Building on the theory of sociotropic voting, which argues that vote choice depends on voters' assessment of the national economy, a recent literature has found that voters also pay attention to *regional* economic developments when making vote choices (Rickard, 2020; Johnston and Pattie, 2001, Veiga and Veiga, 2010, Simonovits et al., 2019 ; Huijsmans, 2023). Relatedly, (Cremaschi, Rettl, et al., 2024) find local deprivation in public services to fuel political discontent. As public services deteriorate as a result of regional economic decline and lower local tax revenues, this is another channel through which regional economic inequalities drive political discontent (Baccini and Sattler, 2023; Cremaschi, Bariletto, and De Vries, 2024) Against this backdrop, the rise in inequality across regions, which a growing literature in regional economics has documented (Bauluz et al., 2023; Königs et al., 2023; von Ehrlich and Overman, 2020) may at least partly explain the recent surge in regionally concentrated discontent.

2.2 Political discontent and place-based policies

Over the last years, place-based policies have emerged as a prominent strategy among policymakers seeking to address the economic challenges faced by disadvantaged regions. These policies are frequently conceptualized as a viable approach to enhancing the economic well-being of citizens. By supporting local businesses, bolstering local infrastructure and incentivizing local investments, they aim to address specific local needs. Many researchers have engaged with the question of whether place-based policies indeed can improve local economies in many contexts such as the US (Reynolds and Rohlin, 2014, Bartik, 2020), the UK (Crescenzi et al., 2020, Criscuolo et al., 2019), in Germany (Henkel et al., 2021), in France (Givord et al., 2013) and the EU (Bachtrögler-Unger et al., 2023, Dellmuth, 2021, Becher and Donnelly, 2013) Taken together, the majority of studies on average find positive effect of place-based policies on economic outcomes such as GDP (Bachtrögler-Unger et al., 2023), income (Reynolds and Rohlin, 2014) and jobs (Bartik, 2020). The estimated effects are typically moderate in size and short-lived. Estimates of fiscal multipliers in this literature are often close to one (Becker et al., 2010, 2018; Lang et al., 2022) and estimates of costs per job are close to average wage levels in the respective countries (Busso et al., 2013; Criscuolo et al., 2019). This implies that regional economic gains are of similar magnitude as the amount of input resources. Except in large-scale "big-

push" programs, positive effects are often found to vanish once the policies are discontinued, suggesting an absence of transformational long-term effects (Criscuolo et al., 2019; Kline & Moretti, 2014).

In light of this growing interest among policy-makers in the potential of place-based funds as a tool to support left-behind places, scholars have also sought to understand whether such strategies can effectively address local discontent of such regions. The scholarly debate on whether place-based policies are successful in doing so is ongoing. Several studies find that place-based policies are able to curb the surge of populist voting (Rickard, 2023; Jacobs and Munis, 2019;Gold and Lehr, 2024; Rodríguez-Pose and Dijkstra, 2021; Borz et al., 2022; Ward et al., 2025;Heddesheimer et al., 2024). Other studies on the same question, however, find either mixed or insignificant effects (e.g López-Bazo, 2022, Crescenzi et al., 2020, Fidrmuc et al., 2019, Bayerlein and Diermeier, 2022). One interpretation of this aggregate evidence is that there is considerable variability in the political effects of these policies.

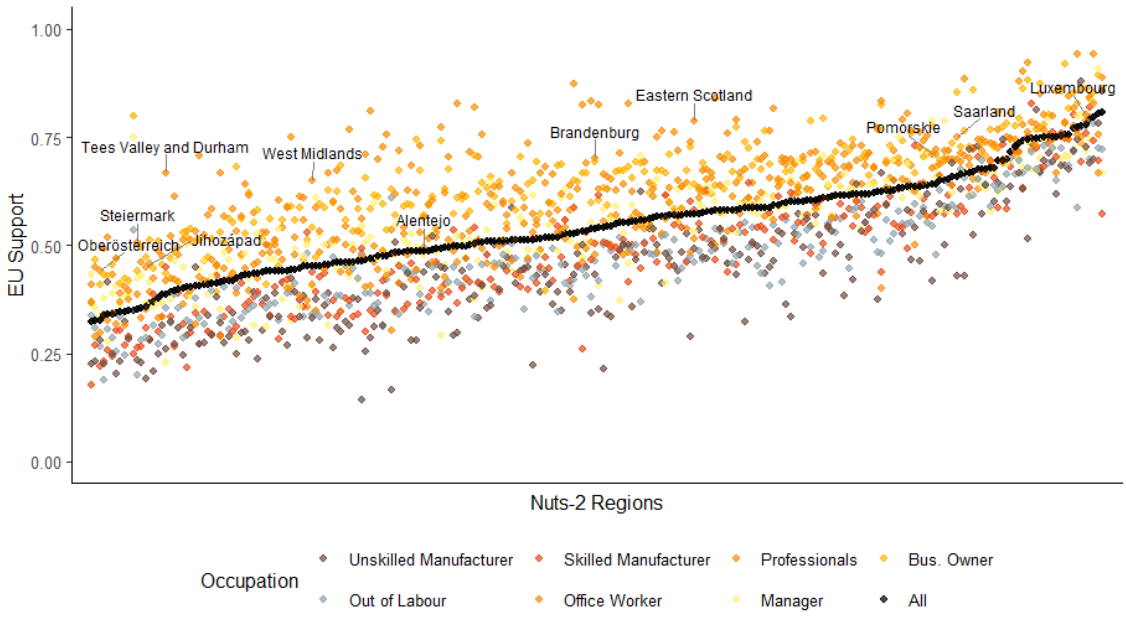
Our theory is an attempt to reconcile these various findings in the existing literature. By going beyond the aggregate and studying heterogeneous individual-level effects, we show how positive economic effects can coexist with mixed political effects.

2.3 Argument: the uneven effects of place-based policies

The starting point of our argument builds on a recent observation in the literature on regional inequalities. More granular data has helped an emerging strand in this literature to go beyond measuring inequality across regions and also study inequality *within* regions. An key finding in this literature is that inequality within regions is large and a much larger component of overall inequality than inequality across regions. While research on this question has so far focused on European and North American democracies, this pattern holds for all countries that have so far been studied. In most countries, inequality within regions accounts for about 95 percent of overall inequality. Bauluz et al. (2023) find this for the United States, the United Kingdom, Germany, France and Canada. Königs et al. (2023) find similar results for Austria, Belgium, Hungary, Italy, and Slovakia. Their results across countries are consistent with earlier pioneering work for the UK (Gibbons et al. 2014) and France (Combes et al. 2008) as well as with a study on intra-regional inequality in EU regions (Lang et al., 2022).

In Figure 1, we illustrate that such intra-regional inequality is not limited to economic outcomes. Within regions, there also is a large variance in political attitudes. The figure shows variation in political discontent measured as Euroscepticism within and across European regions. The plot is ordered by the mean EU support in the region but also shows mean EU support for each occupational group within a given region. It shows that while there are considerable differences in mean EU support across regions, differences within these regions in EU support are also notable. While professionals, office workers, managers and business owners, indicate rather high EU support in comparison to their region mean, unskilled manufacturer most often exhibit the lowest values for this measure. Given such large differences in political attitudes across groups within regions, how do place-based policies affect such groups differently?

Figure 1: EU support across "left-behind" regions by Occupation



Note: The figure plots the mean value of *EU support* across region and occupation groups. Data source: harmonized *Eurobarometer* waves 1990-2017.

In this regard, the literature emphasizes that the effects of place-based policies are conditional on other factors. For instance, findings suggest that, in the case for the UK, place-based policies were successful in decreasing support for Brexit only if they were successful in improving local labor markets (Crescenzi et al., 2020). Furthermore, local demands and the customization of place-based policies matter for political outcomes (Capello and Perucca, 2018). Finally, research on the economic effects

of place-based policies suggests that economic outcomes are likely to be heterogeneous, and positively biased towards more affluent citizens (Reynolds and Rohlin, 2015, Becher and Donnelly, 2013, Lang et al., 2022). This resonates with findings that larger and more productive firms are more likely to receive place-based policies in the first place (Criscuolo et al., 2019, Bachtrögler-Unger et al., 2023, Slattery and Zidar, 2020). Additionally, place-based policies seem to be more economically effective for regions with higher levels of education. (Becker et al., 2013). These findings raise the question of whether place-based policies are an effective tool to decrease political discontent among citizens of all socio-demographic groups.

We argue that citizens only react to place-based policies when they benefit from them. The greater the personal gain from such policies, the more inclined citizens are to hold more favorable views on the authority responsible for distributing such financial resources. Building on existing findings, we show that variation in economic gains translates into differences in political responses. We argue that these benefits are skill-biased and that citizens with higher socio-economic status are most likely to expect substantial advantages from place-based policies. This assumption is built upon established literature that has shown place-based policies to particularly benefit affluent citizens (Reynolds and Rohlin, 2015, Becher and Donnelly, 2013). As a result, we expect EU place-based policies to be particularly effective in fostering pro-EU attitudes among these groups. Conversely, we expect citizens who expect no benefits of place-based policies to show no change in political attitudes. This expectation aligns with prior research indicating that the political impact of place-based policies depends on expected benefits (Debus and Schweizer, 2024). We add to this by arguing that due to this conditionality, only citizens with high socio-economic status will react politically to place-based policies. Our argument, therefore, is situated in a growing literature emphasizing heterogeneity within place-based policies. Moreover, our argument carries important implications for policy-making. It indicates that EU place-based policies do not effectively engage citizens with low levels of support for the EU, rather, they tend to consolidate the attitudes of those already predisposed toward the European Union. This suggests that, notwithstanding the considerable financial resources allocated through Cohesion Policy, such interventions are unlikely to mitigate political disaffection among socioeconomically disadvantaged or "left-behind" populations.

Moreover, our argument implies that citizens primarily react egocentrically to place-based poli-

cies. We posit that citizens tend to show no sociotropic effects due to the redistributional character of place-based policies. Thus, they only change political attitudes when they personally benefit from such. Our argument thus engages with an ongoing scholarly debate in economic voting theory (Lewis-Beck and Whitten, 2013; Dassonneville et al., 2016; Becher and Donnelly, 2013, Afzal, 2024, Bechtel and Liesch, 2020) as to whether sociotropic or egocentric considerations are more strongly influenced by political policies. While the literature has shown that voters are more likely to respond to economic shocks in a sociotropic manner (Colantone and Stanig, 2018a), relatively little is known about whether this pattern holds when the focus shifts to general policy implementations. We describe why we expect citiziens to show no sociotropic behavior in the effects of place-based policies.

Drawing on the literature on inequality (Rodríguez-Pose, 2018; Lipps and Schraff, 2021) and relative deprivation (Betz, 1994; Runciman, 1966), we argue that raising levels of economic inequality caused by place-based policies (Reynolds and Rohlin, 2015;Becher and Donnelly, 2013) mitigate positive considerations on the regional, state, or national level. Thus, citizens within lagging regions are confronted with a financial policy measure that on the one hand has been shown to improve economic conditions on average (Bachtrögler-Unger et al., 2023, Reynolds and Rohlin, 2014, Bartik, 2020), but on the other increases inequality within their regions (Reynolds and Rohlin, 2015, Becher and Donnelly, 2013, Lang et al., 2022). Drawing on relative deprivation theory (Betz, 1994; Runciman, 1966), we argue that, especially in the context of increased inequality within lagging regions, the perception of once-in-groups (e.g., economically struggling people) to be in disadvantage relative to other outgroups (e.g., higher segments of society) should omit potential sociotropic considerations of citizens.

To summarize, we expect that the EU cohesion policy influences political attitudes unevenly across socio-economic groups. Drawing on earlier research that links place-based policies to rising inequality (Reynolds and Rohlin, 2014, Becher and Donnelly, 2013, Lang et al., 2022) and to a tendency to favor larger, more productive firms (Bachtrögler-Unger et al., 2023), we argue that such policies are unlikely to shift public opinion among lower socio-economic classes. Conversely, we expect place-based funding to be skill-biased, thereby primarily benefiting high-income citizens with occupations that on average already hold high EU support (see. Figure 1). Thus, our theoretical contribution challenges the common believe that place-based policies can mitigate the political consequences of regions being left-behind, as they fail to specifically reach those citizens with high political discontent.

3 Research Design: Observational Data

3.1 EU Funding Data

For the analysis of the heterogeneous political effect of the EU Cohesion policy, we rely on multiple data sources. First, we collect data about funding decisions that are collected at the NUTS-2 level. Hereby, we concentrate on one specific funding scheme that consists of two types of funds that are part of the overall cohesion policy. Namely, we focus on the "Convergence objective" (formerly Objective 1), which is financed by the European Regional Development Fund (ERDF) and the European Social Fund (ESF). By focusing on "Objective 1," we can leverage an institutional rule that directs funding to regions whose GDP per capita falls below 75 percent of the EU average. This threshold creates quasi-random variation that we can leverage for our identification strategy following Becker et al. (2010).

In contrast to the existing literature, we do not use the statistics on regional GDP that are currently available from *Eurostat*. These figures have repeatedly been revised and do not necessarily correspond to the GDP figures that were available at the time the decision on funding eligibility was made. Instead, we use the historical data used by the European Commission for the eligibility decisions collected by Lang et al. (2022). This allows constructing a running variable that enables a cleaner identification via a sharp RD design.

3.2 Harmonization of Eurobarometer Data

Our observational data consists of a comprehensive harmonization of Eurobarometer surveys in the 1990-2017 period. In total, these data contain up to 1.4 million observations and include variables such as gender, age, education, and occupation. A main feature of our data harmonization is the consistent coding of subnational regions according to the NUTS-2 classification. While the subnational coding in Eurobarometer waves varies over time and is based on different subnational units, our harmonization allows subnational analyses at the NUTS-2 level.

A second important feature of our harmonization is the coding of a consistent measure of Euroscepticism. Some Eurobarometer items, especially those asking about support for the EU, have changed over the years. Therefore, we combine different measures of EU support to create a harmonized variable and to increase the sample size. To do this, we code a variable set to one if a respondent

supports the EU and to zero if the respondent has a neutral or unfavorable opinion of the EU. The variable harmonizes three different measures of support for the EU. First, we use a standard EU question asking whether respondents evaluate the EU as a bad thing, a good thing, or neither. We code EU support as one if respondents perceive it as good. If this variable is missing, we use a second variable that measures the perceived benefit of the EU membership of the respondent´s country on a binary scale (benefited/no benefit). Benefit is coded as EU support. The last variable, used if both previous variables are missing, is based in the respondent's EU image on a scale from 1 (very bad) to 5 (very good). Here we code only respondents as EU supporters, who have a good or very good image of the EU. Tables on each of the variables used to harmonize our dependent variable can be found in the Appendix in Table 2. We also provide results based on each individual variable in the Appendix. We match these data with NUTS-2 level funding data.

3.3 Method: Regression Discontinuity Design

For identifying the causal effect of EU funds on EU support with observational data, we leverage the quasi-randomness of the institutional rule that determines the eligibility of funding in a regression discontinuity (RD) design. Utilizing this institutional rule is an established way to obtain causal estimates of this policy (Becker et al., 2010, Borin et al., 2021, Gold and Lehr, 2024). According to this rule, regions will receive funding if they are below a threshold of 75% of the EU´s mean GDP per capita.

For implementing the RD design, we use the continuous measure of the relative GDP per capita value as our running variable. We visualize our cutoff based on our running variable in Figure 9 in the appendix. We include country and year-fixed effects to estimate the local average treatment effect (LATE). Furthermore, we cluster our standard errors on the NUTS-2 level. We use a triangular kernel so that observations close to the 75% cutoff are weighted more. We estimate local linear regressions to obtain our RD estimates for different bandwidth specifications. Specifically, we estimate:

$$Y_{irt}^{s} = \beta_s c_{rt} + \gamma_1 gdp_{rt}^{EU} + \gamma_2 c \cdot gdp_{rt}^{EU} + X_i'\mu + \mu_c + \tau_t + e_{rt}, \quad \forall s \in S \tag{1}$$

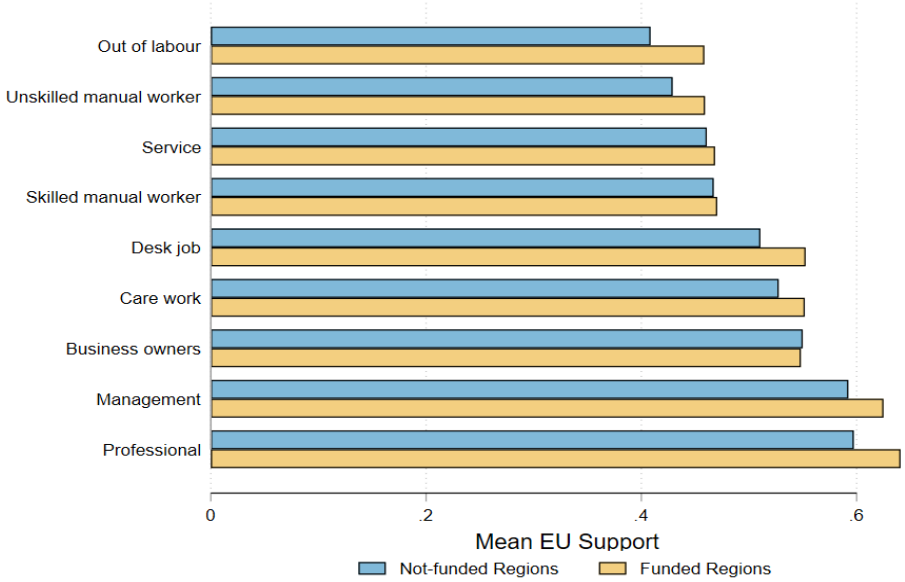
In the baseline, Y_{rts} denotes *EU support* of respondent i living in region r and belonging to socio-economic group s in year t. The cutoff variable c_{rt} indicates *treated* regions below the cutoff. The running variable is gdp_{rt}^{EU}. X_i are individual-level socio-demographic control variables. Country fixed effects and year fixed effects are denoted by μ_c and τ_t. e_{rt} is the error term and we estimate this regression separately for different socio-economic groups s.

The smallest RD bandwidth we utilize is 20 percent above and below the threshold of 75% percent of the mean EU GDP per capita. Figure 9 in the appendix shows that the cutoff constitutes an almost perfect compliance with the allocation rule. Only very few, exceptional regions received funding, even though they were above the 75% cutoff. In robustness tests, we drop these exceptional cases. Furthermore, a common threat to causal identification in RDDs is biases resulting from sorting effects. Therefore, in Figure 8 in the Appendix, we test whether regions systematically sort themselves into the treatment group. We find this bias not to be present in our setup.

4 Results: Observational Analysis

4.1 Descriptive Evidence

Figure 2: EU support by Occupation and Funding Status



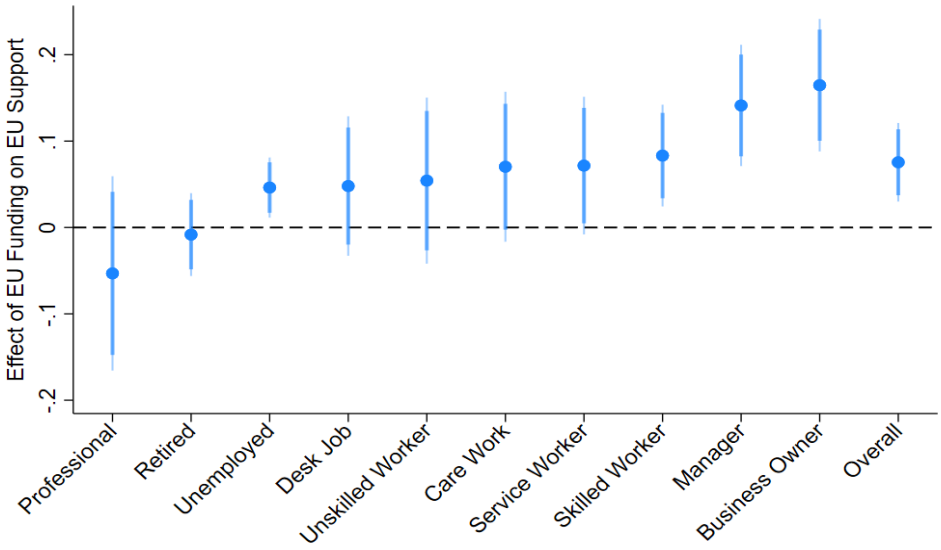
As a first step, we present insights into the current state of political discontent in EU member states. Similar to Figure 1, Figure 2 shows the mean values of EU support for job categories based on observations from the Eurobarometer dataset; however, it aggregates the results on the EU level and presents the values by supported and not supported regions. The figure shows that, professionals, managers and business owners indicate the highest EU support, followed by citizens responsible for home duties and desk job employees. On the other hand, citizens who are unemployed have the lowest EU support, followed by citizens who work in unskilled manufacturing jobs. Moreover, the figure shows that there are some discrepancies between individuals in funded vs. non-funded regions.

These descriptive findings are not surprising and only underline previous research on this issue, which shows that people with lower income and less education are more likely to hold Eurosceptic views (Hobolt, 2016, Kriesi et al., 2008, Goodwin and Heath, 2016, Algan et al., 2017). In addition, we are able to replicate these findings with income and subjective income as well as education using our experimental data. The results are shown in Figure 14, Figure 15 and Figure 16 in the appendix. Nevertheless, the conclusions of the literature, together with our descriptive findings, suggest that EU place-based policies should specifically target people with low levels of EU support, namely citizens

from lower socio-economic classes, in order to most effectively address political discontent. In the following section, we examine whether the EU is successful in doing so by examining how the political effect of place-based policies differs across socio-economic segments.

4.2 RD Results

Figure 3: Effects of EU Funding by Occupation



Note: This coefficient plot shows the RD estimates based on equation 1 for different occupation groups as sub-samples and the full sample The outcome variable is *EU support*.

For the individual-level analysis, we rely on RD estimations for subsets to obtain our estimates. Specifically, based on the indicated occupation of respondents in the Eurobarometer, we summarize respondents into several occupation categories and run RDs for each category. We include country and year fixed-effects and control for age and gender. Moreover, we include standard errors clustered by NUTS-2 regions. Our dependent variable is set to 1 if a respondent supports the EU and to 0 if that is not the case. Figure 2 depicts the results of these estimations. The estimates show that only for the occupation categories of Unemployed, Skilled Worker, Manager, and Business Owner, the estimates of EU funds on EU support shows a positive and significant ($p < 0.05$) effect, whereas the effect is the highest for the latter. Interestingly, also unemployed respondents seem to be positively

effected by the treatment, however, they do indicate the smallest positive significant effect. Interestingly, there is no significant result for Professionals (e.g. lawers, doctors). However, given the nature of the projects funded, this finding is not too surprising, as most EU projects aim to support industry or social projects. Moreover, other occupation categories such as retired citizens and citizens responsible for home duties, indicate no significant effect. We reiterated this analysis by using a different set of cutoffs for the RD design, namely, we include above and below 40 percent of the mean EU GDP per capita. The results of this estimation are shown in Figure 12 and largely remain the same in interpretation.

We also run a similar analysis but differentiate across an education dimension. To obtain the educational attainment of respondents, we utilize a measurement that indicates the age at which an individual completed their highest level of education. This is one of the few variables that is consistently included in all waves of the Eurobarometer survey and serves us as a proxy for respondents' educational level. For the education analysis, we employ the same RDD specification utilized in the occupation analysis presented above. The results of this can be found in Figure 14 in the appendix. There is no significant impact of EU funds on EU support. However, as educational levels increase, the influence of EU funds on EU support becomes more pronounced, reaching its peak in the second-highest education category.

To summarize, the results from our observational Eurobarometer analysis provide evidence supporting our hypothesis that the impact of EU place-based funding on EU support is heterogeneous, indicating that the effect is conditional on socio-demographic characteristics. The results indicate that, particularly for occupational categories associated with high income, EU place-based policies appear to be especially effective in enhancing EU support. An exception to this is the occupation category of professionals. It is possible that the negative estimate in this case is explained by the fact that EU place-based policies only very rarely support companies or institutions in which professionals work (hospitals, lawyers). Also, our education analysis resonates with our hypothesis, underlining that with higher education, the effect of EU place-based policies on EU support seems to be stronger.

The Eurobarometer analysis provides quasi-experimental insights into the actual impact of EU funding by relying on observational data. In the following section, we present the results of a survey experiment. This experiment has two main objectives. The first is to challenge our results by repli-

cating them in a more clinical setup. The second is to test our mechanisms by analyzing the expected benefits of place-based policies across socio-economic categories. It also strengthens the causal claim of our findings.

5 Research Design: Experimental Data

We complement our results from the observational data with a pre-registered survey experiment in Germany (N = 1.700). The survey was preregistered in June 2025 and was in the field in July 2025. The questionnaire comprised a series of questions regarding the perception of EU funds and their benefits, as well as demographic controls and three dependent variables measuring EU support. We chose to examine Germany for a case study as it consists of heterogeneous regions that vary in terms of funding eligibility. Whereas, traditionally, the east of Germany is considered a transitional region, and thus was eligible for a significantly higher amount of EU funding, most other regions in Germany are considered developed regions. Moreover, as Germany is a comparatively wealthy state in the European Union, we consider our results to hold conservative estimates in this setting.

The survey relies on a between-subjects design and primes one main treatment. The treated condition included information on EU place-based policies, an exemplary picture of a sign of an EU-funded project, and a small open-ended response field in which participants were supposed to write down their thoughts on the scheme. The exact treatment condition respondents were exposed to is shown in Figure 4.

To repeat our theoretical mechanism from above, we expect people in higher socio-economic categories to anticipate higher benefits from EU funds. Therefore, we argue that respondents who anticipate greater utility from their region receiving funding will respond more favorably to funding information than those who do not expect utility. Consequently, it is expected that people in higher socio-economic classes will be more affected by the treatment than those in lower classes.

We have summarized our expectations in the pre-registration as follows. First, we expect that reported views toward the EU and its place-based policies will be more favorable among the respondents in the treatment group. Second, we expect that this effect will not be homogenous. It will depend on respondents' socio-demographic characteristics such as income group(subjective and objective), level of education,and occupation. Last, we expect that this effect will be stronger among respondents

Figure 4: Treatment Condition in Survey

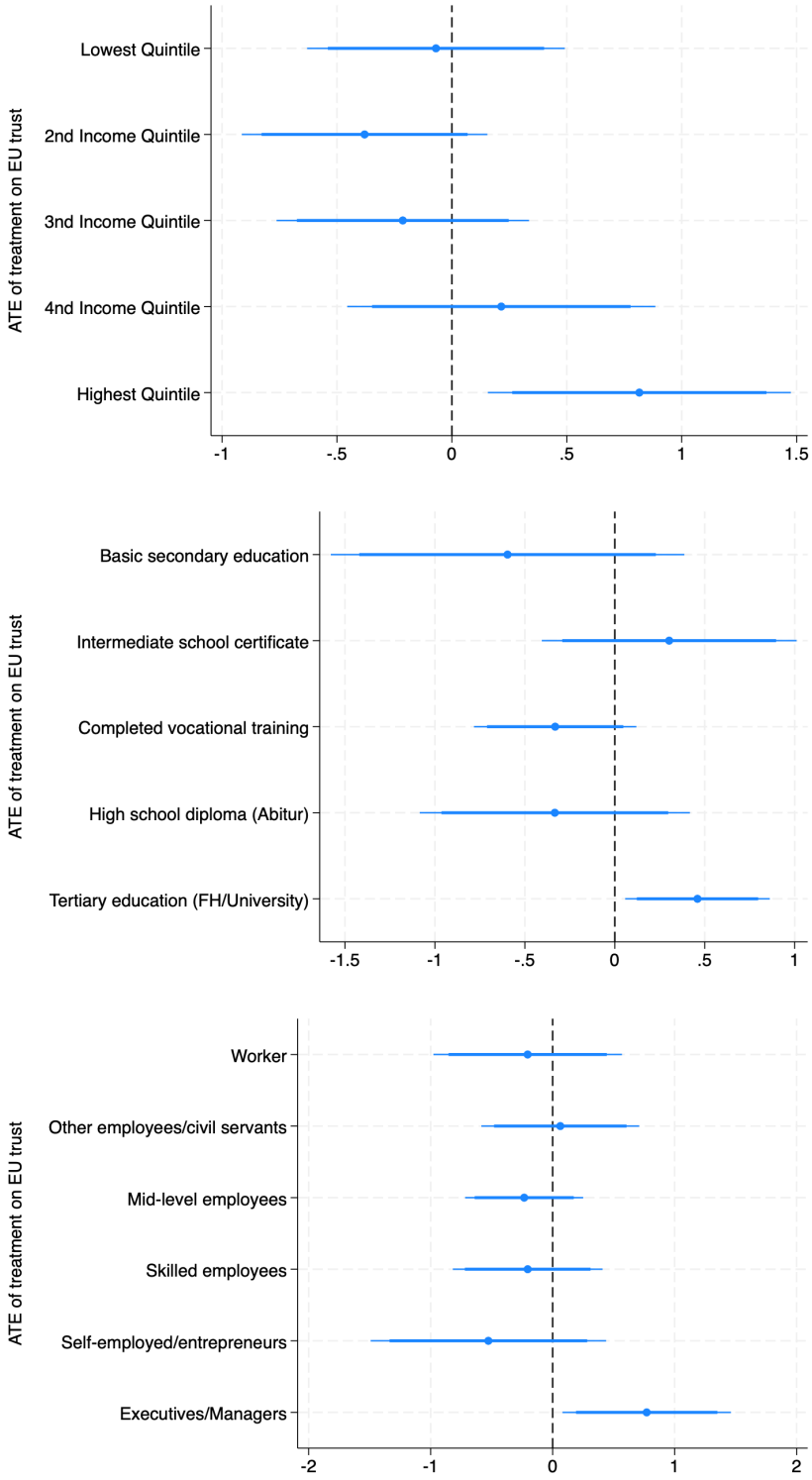
"The survey is almost over. In closing, we pose several questions on the European Union. As part of EU regional policy, the EU supports projects for economic development in Germany. This EU regional policy is of great importance for Germany. In the period from 2021-2027, a total of around €21 billion will be spent in Germany (in figures: €21,000,000,000). Most of these funds will flow directly into investments in growth, employment and education, primarily via the "European Regional Development Fund" and the "European Social Fund". In general, what do you think about EU regional policy? Write down the first thoughts that come to mind."

Thoughts:

who report to have higher incomes, are more educated and work in high-skilled occupations. We pre-registered the analysis of several dimensions of socio-demographic categories. We present results on objective and subjective income, education and occupation. Moreover, we also proposed to test these on a set of three dependent variables. While we will present all pre-registered analyses, we will only include the most relevant results in the main text and present all other results in the Appendix due to space restrictions. Nevertheless, together with the main results, they will be discussed in the conclusion. In all our regressions for the survey analysis, as indicated in the pre-registration we include controls for gender and age. In addition to these, we also decided to add state fixed effects to control for contexts of citiziens.

6 Results: Experimental Study

Figure 5: Marginal Effect of the Treatment on EU Support EU by Group



Note: This figure shows coefficient of heterogeneous treatment effects on EU support across sub-groups in terms of income, education, and occupation.

We begin this analysis by examining the treatment effect without considering differences between socio-demographic variables. Contrary to our preregistered expectations, the treatment, on average, did not change attitudes towards the EU. This result is illustrated in Figure 17 in the appendix. These results align with the most recent research, suggesting no effect of EU funding (Ward et al., 2025) and further highlight the importance of considering socio-economic differences in the analysis.

To do this, we asked respondents about their income, education, and occupation. Based on this information, we grouped respondents and estimated average treatment effects for each group. The results are shown in Figure 5. Regarding income, the figure shows that the estimates are statistically insignificant for all income subgroups, except for the highest quintile. Thus, only respondents in the highest quintile hold more trust toward the EU after having seen an information treatment on European place-based policies. We repeat the same analysis for education and occupation and find a similar pattern. Only the highest education category, including university education, indicates a marginally positive effect ($p < 0.1$). Looking at occupation only, respondents in the category of executives and managers have a marginally positive treatment effect ($p < 0.1$).

7 Mechanisms

Our argument posits that the political effect differs on the socio-economic dimension because citizens with higher socio-economic status are more likely to benefit from place-based policies. In this section we aim to provide empirical evidence for this posited mechanism. We present results both based on occupation using Eurobarometer data and based on income and perceived income position using our survey data.

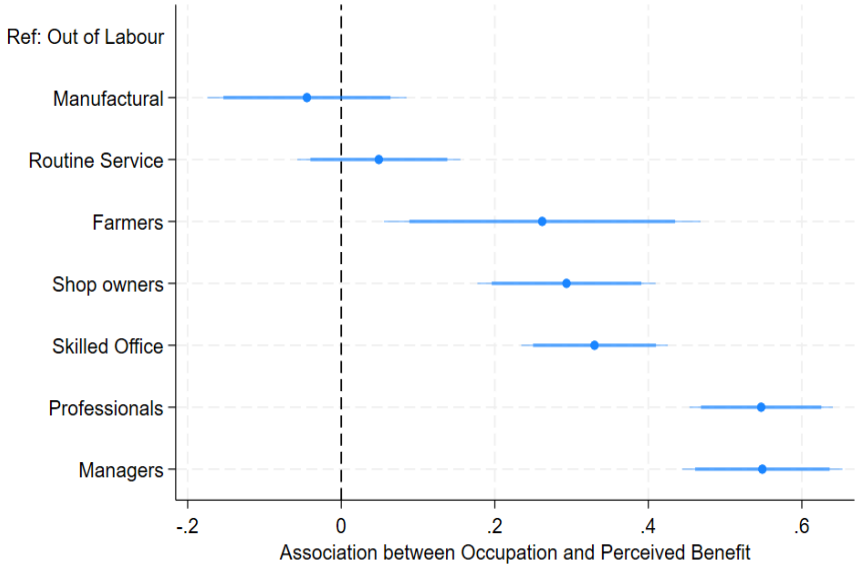
For the former analysis we examine an extra three waves from the flash-Eurobarometer from 2015 (European Commission, 2023), 2017 (European Commission, 2020) and 2019 (European Commission, 2015) which is not included in our harmonized Eurobarometer version. We do this because the harmonized waves do not ask about the perceived benefit from the Cohesion policy. These three waves instead do not include any EU support measurements, but ask specifically about the perceived benefit from the policy, which is why they are a good fit to test this mechanism. Altogether these three waves consist of approximately 80,000 respondents across all EU member states.

Second, we repeat this analysis using our survey data from Germany. In the survey we asked: "Do

you agree with the following statement? EU-funded projects have a very positive impact on my region" and "Do you agree with the following statement? 'I personally benefit greatly from projects funded by the EU in my region." Answer categories range from strongly disagree (1) to strongly agree (5).

7.1 Observational Data

Figure 6: Association of Occupation and personal benefit of EU funds



Note: This plot shows the coefficients from the analysis with the Flash Eurobarometer 2015, 2017 and 2019. It shows the estimated effects sizes of occupation categories on perceived benefit by the Cohesion policy compared to citiziens who are out of the labour force.

Figure 6 shows the results of the analysis using Eurobarometer data, differentiating between occupation groups. In line with our expectation, we find that shop owners, skilled office workers, professionals, and managers have a significantly higher positive evaluation of personal benefits of the EU Cohesion policy in comparison to citizens out of labor. These differences are substantial in size.

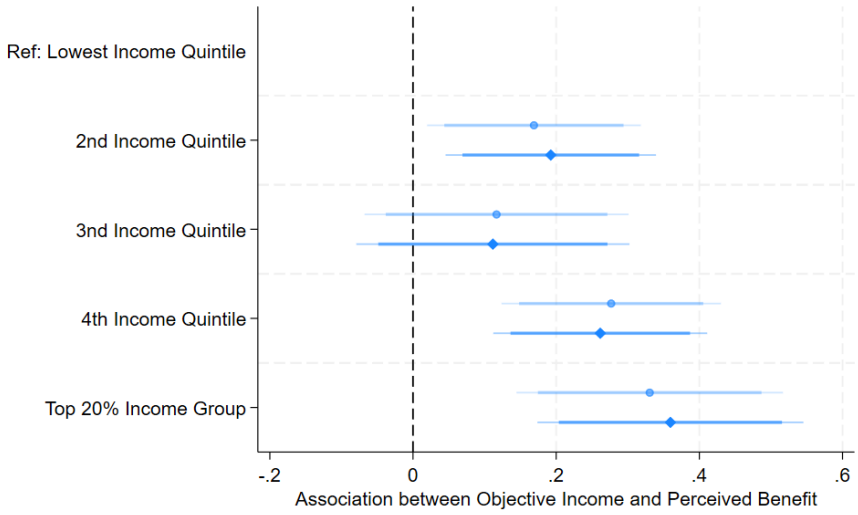
7.2 Survey Data

In our own survey, we aim to corroborate the results found in the Eurobarometer analysis. This analysis examines the perceived personal and regional benefits across income and occupation categories. Figure 7 shows the results of regressions in which this question constitutes the dependent variable. For income, the lowest category is used as the reference group, and for occupation, workers are chosen

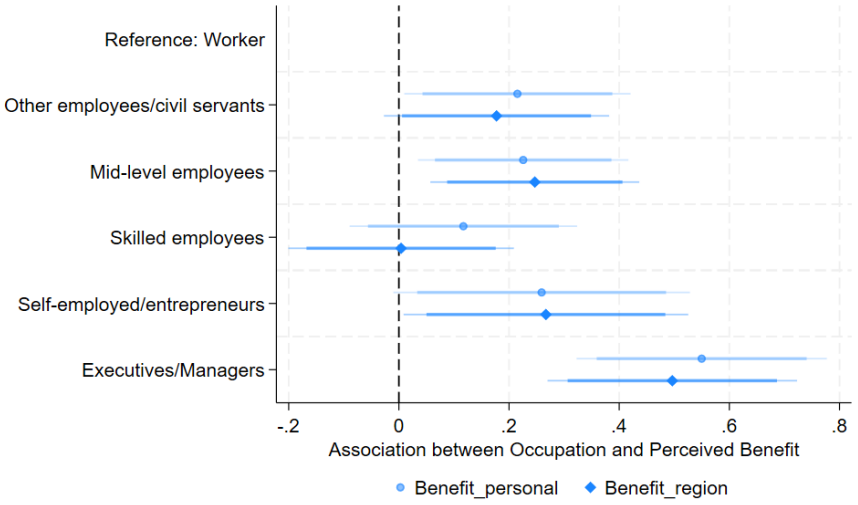
as the reference category. The estimates show that respondents with higher income significantly ($p < 0.01$) evaluate personal and regional benefits of EU place-based policies higher than respondents in the lowest income category.

The figure below shows the same regression but for occupation categories. The results reveal a clear pattern in which entrepreneurs and managers report a significantly higher perception of personal and regional benefits from the EU Cohesion Policy than workers ($p < 0.05$). We find a similar effect for mid-level employees, although the effect is strongest among managers.

Figure 7: Perceived Benefit of EU Cohesion Policy by Income and Occupation



(a) Objective Income



(b) Occupation

Thus, our results support the proposed theoretical mechanism that high-skilled and high-income

individuals perceive greater benefits from the EU Cohesion Policy and, as a result, are more likely to shift their political attitudes in a pro-EU direction.

To summarize, our findings show that the information treatment regarding EU Cohesion Policy funding significantly influenced attitudes toward the EU among respondents with higher socio-economic status. Likewise, individuals with higher incomes and in high-paying occupations were more likely to perceive EU funds as beneficial than others. We identify this mechanism as a key driver of the heterogeneity in political outcomes. Because place-based policies often fail to reach citizens in the lower segments of society, these groups are less likely to perceive EU funds as beneficial and therefore have little incentive to change their views of the EU.

8 Conclusion

This paper examines the microfoundations of the political effects of place-based policies. Relying on both a quasi-experimental analysis and a survey-experimental analysis, it analyzes heterogeneities in the effect of place-based spending on political responses and attitudes. The results of the two studies provide consistent support for the argument that EU place-based policies primarily benefit individuals with higher socio-economic status in terms of income, education and occupation.

Overall, these findings carry important policy implications. They indicate that place-based policies alone are insufficient to address political discontent among groups with lower levels of education and in lower-status occupations. This is particularly relevant given that citizens with lower education and lower income are especially likely to hold negative views of the EU, a pattern well established in the literature (e.g., Hobolt, 2016; Algan et al., 2017). Our descriptive analyses also provide consistent support for this association. For the EU, this implies that the current form of place-based spending may not be sufficient to counter the rise of Eurosceptic attitudes. Instead these policies primarily reach segments of society that already hold positive views of the EU and fail to reach those citizens with the lowest levels of support.

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