ECONOMISTS FOR UKRAINE

WORKING PAPER SERIES

WORKING PAPER No. 25 MARCH 2026

# MIGRATION SHOCKS AND VOTING: EVIDENCE FROM UKRAINIAN MIGRATION TO POLAND

**Dariia Mykhailyshyna and David Zuchowski**

The authors are grateful to João Pereira dos Santos, Mateus Maciel, Hanna Sakhno, Riccardo Turati, Giulio Zanella, an anonymous reviewer, and participants of the EJPE Conference on the Political Economy of Identity, Institutions, and Polarisation in Davos, the Second International Virtual Conference on Ukraine hosted by KTH Royal Institute of Technology, and research seminars at Kyiv School of Economics (KSE) and American University Kyiv for helpful comments and suggestions. We would also like to thank Yurii Havryliuk for his excellent research assistance. David Zuchowski gratefully acknowledges financial support from the Spanish Ministry of Science, Innovation, and Universities (PID2022-137382NB-100) and the hospitality of the Economics Department at ISEG - Lisbon School of Economics and Management during his research stay.



**Economists for Ukraine (Econ4UA)**

Website: https://econ4ua.org/ Email: info@econ4ua.org

# ABSTRACT

## Migration Shocks and Voting: Evidence from Ukrainian Migration to Poland

This paper examines the impact of two massive and unexpected inflows of Ukrainian migrants on voting behavior in Poland. In particular, we examine the effects of a conflict-induced labor migration shock and a refugee shock resulting from Russia's aggression against Ukraine in 2014 and 2022, respectively. Using an instrumental variable approach, we find that greater exposure to labor migrants reduces support for conservative parties in the short run and subsequently shifts voter preferences toward pro-redistribution parties. Exposure to labor migrants as well as to refugees leads to a decrease in far-right voting. This effect emerges only after the salience of Ukrainian migrants increases due to the escalation of Russia's aggression and the rise of anti-Ukrainian rhetoric from the Polish far-right. The backlash from Polish voters against far-right rhetoric is ten times stronger in areas with stronger exposure to refugees than in areas with greater exposure to labor migrants. Our results are robust to the use of a number of instruments and several sensitivity checks.

**JEL CLASSIFICATION: D72, F22, J61, P16, R23**
**KEYWORDS: Immigration, Refugees, Political Economy, Voting, Poland, Ukraine**

Dariia Mykhailyshyna
Kyiv School of Economics
Kyiv, Ukraine
dmykhailyshyna@kse.org.ua

David Zuchowski
Dept. d'Anàlisi Econòmica
Universitat de València
Valencia, Spain
david.zuchowski@uv.es

# 1 Introduction

Over the past decade, Europe has experienced several large-scale immigration waves, driven primarily by ongoing conflicts in the Middle East and Eastern Europe. Although Western Europe has previously seen substantial inflows of refugees and labor migrants, Russia's aggression against Ukraine – ongoing since 2014 – stands out as the largest conflict-induced migration in recent European history. Most notably, post-communist Central and Eastern European (CEE) countries, which have traditionally been countries of emigration rather than immigration, have now absorbed a significant share of these migrants.

These demographic changes have occurred alongside a political transformation. Across Europe, there has been a broad shift to the right, with far-right parties often focusing on refugees' access to welfare systems in their anti-immigration rhetoric.[1] Recent literature shows that rising immigration can increase support for anti-immigration laws (Tabellini, 2020) and foster political polarization through media coverage of migration (Schneider-Strawczynski and Valette, 2025). However, the extensive literature on the political impact of immigration reports mixed results across different contexts.[2] Furthermore, despite a growing interest in the political consequences of immigration, there remains a lack of empirical evidence on this topic from post-communist CEE countries. This gap is especially relevant given recent findings by Lange (2021), who shows that historical exposure to state socialism continues to influence attitudes towards immigration.

In this paper, we examine the impact of Ukrainian migration on voting behavior in Poland. This unique context allows us to provide the first evidence from a post-communist country and to examine the effects of two different types of immigration: (1) conflict-induced labor migration following Russia's aggression against Ukraine in 2014, and (2) refugee inflow following the full-scale invasion of Ukraine in 2022. Using administrative data on migration and relying on three different instruments, we provide novel evidence on the heterogeneous effects of local exposure to different types of migration on the voting

[1] For instance, the Polish far-right party *Konfederacja* strongly opposes granting child support to Ukrainian refugees in Poland (Konfederacja, 2025b).

[2] Some examples include Otto and Steinhardt (2014), Barone et al. (2016), Hangartner et al. (2019), Dustmann, Vasiljeva, and Piil Damm (2019), and Steinmayr (2021).

behavior of natives.

To examine the impact of the Ukrainian migration on voting behavior in Poland, we exploit the spatial variation in the exposure to Ukrainian migrants across Polish counties. For identification, we employ three variants of the instrumental variable approach. Specifically, we use as instruments: (1) the distance to historical hotspots of Ukrainian networks, (2) the distance to the Ukrainian border, and (3) a novel instrument based on the distance to Polish cities that hosted UEFA Euro 2012.

The results show that the effects of the two migration shocks are different and change over time. Specifically, greater exposure to labor migration reduces support for the conservative parties in the short term and subsequently shifts voter preferences towards pro-redistribution parties. The initial decline in support for conservative parties may reflect preferences for greater openness, as shown in our mechanisms analysis, likely driven by the positive impact of Ukrainian temporary workers on local labor markets. The subsequent rise in support for pro-redistribution parties may reflect a desire among the local population to secure a stronger safety net and to benefit from the improved economic situation, especially given that Ukrainian temporary workers were not eligible for social benefits. However, we find no effect on pro-redistribution parties when we examine the effect of exposure to refugees who were eligible for social benefits. Moreover, we find no effect on voting for conservative parties, likely due to the similar attitude of conservative and liberal parties towards Ukrainian refugees after Russia's full-scale invasion.

When analyzing changes in support for the Polish far-right, we find that regions more exposed to both types of Ukrainian migration exhibit a lower share of votes for far-right parties. However, this effect appears for labor migrants only after the salience of Ukrainian migration increases. This may be due to the fact that *Konfederacja*'s anti-Ukrainian rhetoric emerged after the inflow of Ukrainian refugees in 2022. As a result, although *Konfederacja*'s vote share has increased, their far-right, anti-Ukrainian rhetoric may have led to a smaller increase in support in regions with a high concentration of Ukrainians, particularly after Ukrainian migration became more salient. Furthermore, this backlash from Polish voters against the far-right rhetoric is ten times stronger in areas with stronger

exposure to refugees than in areas with greater exposure to labor migrants.

Using data on election results before each of the migration shocks, we find no evidence of different pre-treatment trends in political outcomes between counties with high and low exposure to Ukrainian migration. Moreover, the results are not driven by pre-treatment economic conditions or other county characteristics. The results are also robust to using alternative definitions of the outcome variables, controlling for potential confounders, accounting for spatial spillovers, dropping possible outliers, and a number of additional robustness checks.

While we cannot fully rule out that some of the observed differences between the two shocks are driven by variations in migrant composition - for instance, the share of female migrants was approximately 74% during the 2022 influx, compared to 56% prior to 2022, and refugees in 2022 predominantly originated from Eastern Ukraine, whereas earlier migrants largely came from Central and Western regions - the overall size of the shocks is relatively comparable (Zaika and Vakhitov, 2024) and both migration waves were conflict-induced, with migrants having direct access to the host country's labor markets and coming from the same country. Furthermore, both our analysis of underlying mechanisms and existing studies indicate that the Polish labor market reacted similarly to both shocks (Pham, Talavera, and Wu, 2023; Zuchowski, 2025).[3]

One strand of the existing literature examines whether immigration changes preferences for right-wing and far-right parties. The results are mixed. On the one hand, many studies find that the presence of immigrants increases the vote share of the right-wing and far-right parties. For instance, Otto and Steinhardt (2014) and Edo et al. (2019) show that immigration increases support for the far-right in Germany and France, respectively. Barone et al. (2016) show that immigration boosts support for center-right parties in Italy, indicating that the impact of immigration is not limited to the far-right. In addition, Fonseca, Peralta, and Pereira dos Santos (2025) find that repatriates from Portuguese-

[3]We also acknowledge that the two shocks differ in timing, party competition, macroeconomic conditions, international context, and media salience. However, these differences would be expected to operate primarily at the country-wide level rather than within country (i.e., across counties). As such, they do not threaten our identification strategy, since country-wide shocks are absorbed by the constant term in our regressions.

speaking African countries also increase voting for right-wing parties in Portugal.

Focusing on the impact of refugees, Tomberg, Stegen, and Vance (2021) and Bredtmann (2022) find an increase in support for the far-right in areas with stronger exposure to refugees in Germany. Similarly, Rozo and Vargas (2021) find a shift to the right in areas more affected by the inflow of refugees in Colombia. Some studies show that even very brief exposure to refugees can increase far-right support. Hangartner et al. (2019), examining Greece, Gessler, Tóth, and Wachs (2022) focusing on Hungary, and Steinmayr (2021), studying Austria, find that regions through which refugees passed experienced an increase in far-right support. However, Steinmayr (2021) finds the opposite effect in regions where refugees have settled and had the opportunity to interact with locals.

Moreover, some studies find that immigration decreases support for the right-wing in general. For example, Lonsky (2021) finds that immigrants reduce far-right support in Finland, and Vertier, Viskanic, and Gamalerio (2023) find similar effects for refugees in France. Furthermore, Mykhailyshyna (forthcoming) finds that temporary labor migrants in the US, particularly those working in non-agricultural low-skill occupations, reduce support for the Republican Party.

One possible explanation for this discrepancy in results is that different types of migrants lead to different outcomes. For instance, the skill level of immigrants appears to play a role. Halla, Wagner, and Zweimüller (2017) and Moriconi, Peri, and Turati (2022) find that while low- and medium-skilled migrants increase the support for far-right and nationalistic parties, high-skilled migrants have no effect or a negative effect. Mayda, Peri, and Steingress (2022) find a similar pattern in the US. Another important factor is the ethnic background of migrants. Mendez and Cutillas (2014) suggest that in Spain, immigrants from Latin America increase support for left-wing parties, while immigrants from Africa increase support for the right. Local characteristics of host communities also matter. For instance, Dustmann, Vasiljeva, and Piil Damm (2019) find that anti-immigration parties gain support when immigration increases in rural areas, but this effect does not hold for urban areas.

Another strand of literature related to this paper examines the effect of migration

on preferences for redistribution. Again, the results are mixed. While some papers find that migration reduces the desired amount of redistribution (Tabellini, 2020; Dahlberg, Edmark, and Lundqvist, 2012), others reach more ambiguous conclusions. For instance, Moriconi, Peri, and Turati (2019) suggest that low-skilled immigration leads to reduced support for redistribution, while high-skilled immigration increases it. In addition, Alesina, Murard, and Rapoport (2021) point out the importance of immigrants' country of origin.

This paper contributes to the literature on several fronts. First, it provides the first evidence from a CEE country - specifically Poland - which experienced two large and unexpected inflows of Ukrainian migrants within a relatively short time span. Second, the unique context of Ukrainian migration to Poland allows us to examine the effects of two different types of migration. Importantly, both migration waves were conflict-induced, involved migrants from the same country, and had access to the local labor markets. Third, we contribute by analyzing the dynamics of the effects over time. Finally, this paper introduces a novel instrument and, together with two additional instruments, demonstrates the strong robustness of the results.

The remainder of this paper is organized as follows. Section 2 provides background on the public debate on Ukrainian migration to Poland. Section 3 discusses the empirical framework and the underlying data. Section 4 presents the main results. Section 5 discusses the results and the underlying mechanisms. Section 6 focuses on the robustness of the findings. Section 7 concludes.

# 2 Background and public debate on Ukrainian migration in Poland

## 2.1 Conflict-induced labor migration before February 2022

In September 2015, shortly before the parliamentary elections in October 2015, Janusz Korwin-Mikke from the *KORWiN* party (the predecessor of the *Konfederacja* party) stated that current migration policies were causing Europe to be flooded with "human garbage

who do not want to work". He further claimed that Poland did not have a problem with immigration per se, but only with immigrants unwilling to work. According to him, such immigrants do not wish to stay in Poland but rather want to move to countries with more generous social benefits (Onet, 2015). This reflects the generally hostile attitudes of the Polish far-right at that time toward refugees with access to social benefits, but not necessarily toward labor migrants.

Furthermore, while in 2016 Polish conservative politicians, including former President Andrzej Duda and former Prime Minister Beata Szydlo, spoke of thousands or even millions of Ukrainian refugees in Poland, in reality, prior to February 2022, Poland had only experienced an inflow of Ukrainian labor migrants. In fact, in 2015, only two Ukrainians were granted refugee status (Dziennik.pl, 2016).

In contrast to most Western and Southern European countries, Poland was not affected by the inflow of refugees in 2015, driven mainly by the conflict in the Syrian Arab Republic. In fact, Poland, along with the Czech Republic and Hungary, refused to accept refugees under the European Union's refugee relocation scheme (European Commission, 2017). However, after the destabilization of the Ukrainian economy caused by Russia's aggression in 2014, Poland experienced a massive and unexpected inflow of temporary labor migrants.

This massive inflow of Ukrainian labor migrants into neighboring Poland was driven by the economic instability caused by Russia's annexation of Crimea in 2014 and the ongoing Russian aggression in Eastern Ukraine, which forced many Ukrainians to seek employment abroad. In addition, numerous Ukrainian labor migrants who had previously worked in Russia chose to migrate to Poland in search of jobs (Piontkivska et al., 2018). Based on an employer's declaration of intention to hire, Ukrainians were allowed to work in Poland for up to six months in a 12-month period without a work permit. Around 90% of Ukrainian workers were employed in manual labor. Because Poland was experiencing an oversupply of highly educated workers at the time, Ukrainian workers complemented rather than competed with locals (Zuchowski, 2025).

## 2.2 Refugee migration following the full-scale invasion of Ukraine

On February 24, 2022, Russia launched a full-scale invasion of Ukraine, escalating a conflict that had previously been limited to Ukraine's eastern regions and Crimea. The sudden expansion of the conflict across Ukraine resulted in a massive wave of refugee migration, with neighboring Poland experiencing a massive inflow of Ukrainian refugees.

Ukrainian refugees under the Temporary Protection Directive, invoked by the European Union, had unrestricted access to the Polish labor market. However, this refugee inflow differs significantly from the earlier inflow of temporary labor migrants from Ukraine to Poland before 2022. Whereas earlier migration was primarily driven by economic motives, after February 2022, Ukrainians, mostly women and children, were fleeing an immediate threat to their lives. In fact, only about 5.6% of Ukrainian refugees reported that a job offer influenced their decision to move to their current host country (Vyshlinskyi and Mykhailyshyna, 2025).

About 90 percent of Polish society was in favor of accepting Ukrainian refugees in the immediate aftermath of Russia's full-scale invasion of Ukraine (CBOS, 2023). Solidarity with Ukraine in the face of Russia's aggression appeared to transcend political divisions, as not only left-wing activists but also Polish nationalists spoke out against the invasion. Soon, however, "war fatigue" set in, and anti-Ukrainian public discourse, led by the far-right *Konfederacja* party, became increasingly widespread (Gazeta.pl, 2023).

In the wake of the 2023 parliamentary elections, *Konfederacja*'s political campaign featured nationalist, anti-Ukrainian rhetoric. One focal point of their campaign was the Polish government's spending on social aid for Ukrainians. However, slogans such as "Poland only for Poles" clearly signaled a rise in anti-immigrant and nationalist sentiments, extending beyond opposition to redistributive policies (OKO.press, 2023).[4] In fact, a recent survey among Ukrainian refugees indicates that they perceive Poland as the least welcoming country (Vyshlinskyi and Mykhailyshyna, 2025).

[4]Figure A1 in the Appendix shows an example of an anti-Ukrainian poster distributed by *Konfederacja*, which suggests an abusive attitude of Ukraine towards Poland and calls for an end to "naivety towards Ukraine".

# 3 Empirical strategy and data

## 3.1 Baseline approach

To examine the impact of the presence of Ukrainian migrants on the voting behavior in Poland, we estimate the following baseline equation in first differences:

$$\Delta y_c = \beta \Delta m_c + \tau + \Delta \varepsilon_c, \tag{1}$$

where $\Delta y_c = y_{c,t} - y_{c,2011}$ and it represents the change in the share of votes for conservative, pro-redistribution, or far-right parties, as defined in Table A1, between election year $t$ and the last pre-treatment election in 2011 in county $c$.[5] We measure the intensity of the exposure to the labor migration shock as $\Delta m_c = M_{c,2019}/L_{c,2013}$, where $M_{c,2019}$ is a proxy for the number of Ukrainian labor migrants in county $c$ standardized by the pre-shock working-age local population $L_{c,2013}$.[6] Furthermore, we measure the exposure intensity to the refugee inflow as $\Delta m_c = M_{c,2022}/L_{c,2021}$ where $M_{c,2022}$ is the number of Ukrainian refugees in county $c$ standardized by the pre-shock local population $L_{c,2021}$.[7] The constant term, $\tau$, represents the common time trend, and $\Delta \varepsilon_c$ is the error term.

Estimating the first differences model allows us to remove county-specific factors that do not change over time, while $\tau$ captures the overall time trend and any shocks that impact all counties in the same way.[8] Furthermore, we use heteroskedasticity-robust standard errors, clustered at the NUTS-3 level (one level above the county), to account

[5] We assign parties to groups based on whether they can be described as conservative (versus liberal), pro-redistribution (versus pro-free market), and far-right (versus non-far-right). For example, the Polish party *Sojusz Lewicy Demokratycznej* is pro-redistribution but liberal, so it is assigned only to the pro-redistribution parties group. In contrast, *Prawo i Sprawiedliwosc* can be described as both pro-redistribution and conservative, so it is assigned to both categories.

[6] While the shock started in 2014, due to the absence of reliable county-level data before 2019 we follow the definition of treatment from Zuchowski (2025), which examines migration response to the inflow of labor migrants following Russia's aggression against Ukraine in 2014. Accordingly, we also use data from the first available year as treatment. Thus, we assume here that the spatial variation of the labor supply shock was constant over time.

[7] By definition, $M_{c,2019}$ is not part of $L_{c,2021}$, as the former measures temporary migrants who have not resided in the country permanently.

[8] Thus, while the labor and refugee shocks differ, for instance, in timing, party competition, macroeconomic conditions, international context, and media salience, these differences are expected to operate primarily at the country level rather than within the country (i.e., across counties) and should not threaten our identification strategy, since country-wide shocks are absorbed by this constant term in our regressions.

for potential serial correlation in voting patterns within regions.

Although the inflow of Ukrainians, both after Russia's aggression in 2014 and the full-scale invasion in 2022, was unexpected, the distribution of Ukrainians across Polish counties may be correlated with local characteristics that could influence electoral outcomes. In particular, the location decision of Ukrainian temporary workers, due to the nature of the shock, was primarily driven by local labor market prospects across Polish regions. This, in turn, could affect the impact of immigration on electoral outcomes, as people in areas with better labor market prospects may respond differently to the migration shock than those in counties with worse labor market prospects.

Thus, in addition to our baseline approach, we use three variations of the instrumental variable approach. Specifically, we employ the following three instruments: (1) the distance to historical hotspots of Ukrainian networks, (2) the distance to the Ukrainian border, and (3) a novel instrument based on the distance to cities that hosted UEFA Euro 2012 in Poland, which we discuss in detail in the next section.

Furthermore, we test whether our treatment variables and instruments are correlated with several pre-treatment county characteristics that could potentially affect voting behavior. The balancing tests - presented in Figure A2 for labor migrants and Figure A3 for refugees - reveal that local labor market characteristics, which may influence voting patterns, are strongly correlated with the location of Ukrainians. In particular, Ukrainians are more likely to choose counties with higher initial wages and lower unemployment. While two of our instruments are also at least somewhat correlated with local labor market characteristics, the direction of the correlation is opposite. Thus, we argue that if the results are similar across instruments, it demonstrates the robustness of our findings.[9] The use of instrumental variables allows us to overcome the potential bias arising from the endogenous location of immigrants. Furthermore, employing three different instruments enables us to estimate three local average treatment effects (LATEs) based on distinct sources of variation, allowing us to examine the sensitivity of the results to differences in

[9]Our results are robust to the inclusion of these local labor market characteristics as control variables. We discuss those results in Chapter 6.

compliers to each instrument.

## 3.2 Instrumental variable approach

***Akcja Wisla.***

To capture the exogenous variation in the location of Ukrainian migrants across Polish counties, we first use the instrument proposed by Zuchowski (2025). This instrument is based on historical data derived from military documents on the "Akcja Wisla" (Operation Vistula). During this military operation, around 140,000 ethnic Ukrainians living in Poland were forcibly resettled in 1947. This has led to the emergence of new hotspots of Ukrainian networks in Poland. We instrument the current distribution of Ukrainian migrants with the distance to the historical hotspots of Ukrainian networks that emerged due to Akcja Wisla.[10] This instrument allows us to identify the LATE of the inflow of Ukrainians whose location decision was influenced by the spatial distance to their networks. Table 1 shows that the instrument is relevant for the labor migration shock, with a first-stage F-statistic of 27.9. However, it is a very weak instrument for the refugee shock, with a first-stage F-statistic of around 2. Therefore, while we present all results using the Akcja Wisla instrument for consistency, in the refugee migration case, those results are clearly affected by weak instrument problems.[11]

[Table 1 about here.]

[10]Due to the further persecution of the Ukrainian culture and language after the Akcja Wisla, which led to their (forced) assimilation or de facto Polonization, the Ukrainian culture and language could not survive in the places with a small number of resettled Ukrainians. As a result, the historical share of Ukrainians is not predictive of the contemporary location choices of Ukrainians. Thus, the instrument is based on a distance to the hotspots of the historical Ukrainian network, rather than a shift-share instrument commonly used in the migration literature.

[11]To address concerns about weak identification, additionally to the conventional 2SLS results, in Table A2 we show results based on weak-instrument robust inference following Lee, McCrary, Moreira, and Porter (2022) and Lee, McCrary, Moreira, Porter, and Yap (2023). While our main results remain robust, this confirms that while the Akcja Wisla instruments provides insights on the labor shock, we cannot interpret the results for the refugee shock.

***Border instrument.***

As a second instrument, we use the distance to the border of the migrants' country of origin, a common instrument in the migration literature. Specifically, we instrument the local exposure to migration shocks with the distance from the centroid of each Polish county to the nearest Polish-Ukrainian border crossing. Figure 1a presents the generated border instrument. This instrument allows us to identify the LATE of the inflow of Ukrainians whose location decision was influenced by the spatial distance to the Ukrainian border. Table 1 shows that the border instrument is relevant for both the labor migration shock, with a first-stage F-statistic of 79.3, and the refugee shock, with a first-stage F-statistic of 26.2. Thus, unlike Akcja Wisla, this instrument is not affected by weak instrument problems and allows us to obtain meaningful results also for the refugee shock.

[Figure 1 about here.]

***Euro 2012 instrument.***

Finally, we propose a novel instrument based on the distance to cities that hosted UEFA Euro 2012 in Poland. In 2012, Poland, together with Ukraine, hosted the UEFA European Football Championship, commonly referred to as Euro 2012. A total of eight cities hosted the games, four of which were located in Poland. We construct the Euro 2012 instrument by calculating the distance from each Polish county to the four Polish cities that co-hosted Euro 2012: Warsaw, Wroclaw, Gdansk, and Poznan. Figure 1b illustrates the generated Euro 2012 instrument. We argue that the distance to these cities enables us to estimate the LATE for Ukrainians whose location decisions were influenced by proximity to these cities. This effect could be driven by the networks established during Euro 2012, the improved infrastructure between Ukraine and these Polish cities, or simply the increased visibility of these cities in the Ukrainian media in the years prior to the migration shocks. Table 1 shows that the Euro 2012 instrument is relevant for both the labor migration shock, with a first-stage F-statistic of 49.2, and the refugee shock, with a first-stage F-statistic of 19.3. Thus, this instrument should also provide meaningful results for both shocks.

## 3.3 Data sources

We obtain data for our outcome variables from the data repository of the National Election Committee in Poland. Specifically, we use data on the results of the 2007, 2011, 2015, 2019, and 2023 parliamentary elections. By focusing on this type of election, which takes place every four years, we are able to examine election results from the years immediately following the two immigration shocks. To account for the emergence of new parties and the disappearance of some parties, as well as changes in party names, we create three categories to which we assign parties. [12] In particular, we classify parties by the following dimensions: conservative (as opposed to liberal), pro-redistribution (as opposed to pro-free market), far-right (as opposed to non-far-right) parties, as shown in Table A1.

To assess the spatial distribution of Ukrainian refugees across Polish counties, we use data from the PESEL database, Poland's mandatory nationwide identification system, to measure the spatial distribution of Ukrainian refugees across Polish counties. Furthermore, similarly to Zuchowski (2025), we use variation across Polish counties in firms' statements on the employment of Ukrainian citizens in 2019 as a proxy for the intensity of exposure to the labor migration shock. This data is derived from county-level administrative records from the Ministry of Family, Labor, and Social Policy.

Finally, we use county-level data from Statistics Poland for other variables. In addition to the Akcja Wisla instrument from Zuchowski (2025), we generate our two other instruments based on official data on geocoordinates of Euro 2012 cities and border crossings between Poland and Ukraine. Table A3 in the Appendix provides descriptive statistics for all variables included in the empirical analysis.

[12] Precisely, we assign "electoral committees" (Polish: "Komitet Wyborczy", KW), as the election data are, by construction, available not at the party level but at the electoral committee level. Voters do not vote for individual parties but for committees, which may consist of one or more parties under which they are registered for the elections. We do not use existing classifications because they lack data for recent elections and focus on major parties, excluding smaller parties, which are also relevant to our analysis. Therefore, we create our own classification to ensure comprehensive coverage. In the robustness checks, we also provide evidence on alternative party classifications.

# 4 Main results

## 4.1 Conflict-induced labor migration

Panels (a) to (c) of Table 2 and Figure 2 show the electoral impact of labor migration from Ukraine resulting from Russia's aggression in 2014. Specifically, we present results from the three Polish parliamentary elections following this migration shock: 2015 in Panels (a), 2019 in Panels (b), and 2023 in Panels (c) of Table 2 and Figure 2.

[Table 2 about here.]

[Figure 2 about here.]

Panel a of Table 2 and Figure 3 shows that in the first election after the inflow of conflict-induced labor migrants, counties more exposed to this migration shock experience a decrease in the vote share for conservative parties, which are typically more anti-immigration than liberal parties. While the exact point estimates differ slightly between OLS and instrumental variable specifications, they are all statistically significant. A local increase in the share of Ukrainian workers by 1 percentage point leads to a decrease in the combined vote share of conservative parties by about 0.3 percentage points. There is no evidence of an immediate effect on the vote share for pro-redistribution or far-right parties.

Next, we examine the subsequent election in 2019 in Panels b. The point estimate for the vote share for conservative parties is similar to the 2015 election, but the confidence intervals become larger in the specifications with instrumental variables. Furthermore, the results show that exposure to foreign workers shifts voters' preferences toward more redistribution-oriented parties. Looking at the point estimate using the Akcja Wisla and the border instrument, the magnitude of the point estimates indicates that an increase in the share of Ukrainian workers in a county by 1 percentage point leads to an increase in

votes for pro-redistribution parties by about 0.7 to 0.87 percentage points.[13] Moreover, similar to the 2015 elections, we find no evidence of an effect on the vote share of far-right parties.

Panels c show the results based on the 2023 elections, the last elections in our dataset. In this case, the results for the pro-redistribution and conservative parties turn out to be statistically insignificant in almost all cases. However, as a late reaction to the labor supply shock, we observe a decrease in the vote share of the far-right parties. In particular, the magnitude of the point estimates indicates that a local increase in the share of Ukrainian workers by 1 percentage point leads to a decrease in the far-right share of votes by about 0.15 to 0.27 percentage points.

## 4.2 Refugee inflow

Panel (d) of Table 2 and Figure 3 show the electoral impact of refugee migration from Ukraine, resulting from Russia's full-scale invasion in 2022. Specifically, we present the effect on the results of the 2023 parliamentary elections, which took place after the refugee migration shock. In contrast to the effect of the inflow of temporary migrant workers, we do not find statistically significant results on support for either pro-redistribution or conservative parties.

[Figure 3 about here.]

Similar to the effects of the inflow of labor migrants on election results in 2023, counties more exposed to Ukrainian refugees experience a decline in far-right voting. There are, however, two key differences compared to the effects of labor migrants: (1) for refugees, this effect is immediate and does not occur only after a couple of years, and (2) the size

[13]The point estimate using the Euro 2012 instrument is much smaller and not statistically different from zero. However, a leave-one-out robustness check shows that the point estimate is statistically significant and of similar magnitude to all other instruments, except when we include Warsaw to generate the instrument. Compared to other Polish regions, Warsaw, being the capital and the largest city in Poland, had already experienced higher levels of exposure to international migration prior to the conflict-induced inflows of Ukrainians, so the effect of Ukrainian migration may not be as pronounced. In Figure A4 in the Appendix, we present the results in the case where Warsaw is omitted for the generation of the Euro 2012 instrument.

of the effect is about ten times higher for refugees than for labor migrants. Specifically, the magnitude of the point estimates suggests that, on average, a 1 percentage point increase in the share of Ukrainian refugees in a county leads to a 1.1 to 1.9 percentage point decrease in the vote share of the far-right parties.

# 5 Discussion and underlying mechanisms

## 5.1 Conservative and redistribution-oriented parties

The results show that greater exposure to labor migration immediately reduces support for conservative parties in the short run and subsequently shifts voter support toward pro-redistribution parties. The initial decline in support for conservative parties may reflect preferences for greater openness of the country, while the subsequent rise in support for pro-redistribution parties could signify a desire to secure a stronger safety net and benefits. We argue that improvements in the economic conditions of counties with greater exposure to Ukrainian workers drive both channels.

To investigate the mechanisms, we provide supportive evidence of the positive impact of Ukrainian migration on the local labor markets in Figure A5. Specifically, using the instrumental variable approach, we examine changes in wages and unemployment in areas with greater exposure to Ukrainian migrants between the baseline year 2011 and the election years 2015, 2019, and 2023. Consistent with the literature, the results suggest that temporary labor migrants from Ukraine positively impact local labor markets. In particular, we find that local wages increase and unemployment decreases.[14]

These findings are in line with the literature showing that Ukrainian migrant workers did not compete with native workers but rather complemented them. Most Ukrainian labor migrants worked in Poland in simple occupations (Ukrainian Service of Statistics, 2017), complementing native workers. Thus, locals benefited economically from the Ukrainian labor migration and potentially sought to ensure it would not be halted. As a result,

[14]The coefficient on the unemployment rate is not statistically significant when using the Euro 2012 instrument. However, this instrument could be unreliable for investigating the impact on unemployment because, unlike our other two instruments, it is correlated with pre-treatment unemployment.

locals more exposed to the inflow of migrants further supported Poland's openness by voting for more liberal rather than conservative parties. Furthermore, the literature has shown that the inflow of Ukrainian workers, due to their complementarity with native emigrants, has led to an enlargement of local labor markets and a decrease in emigration in affected regions (Zuchowski, 2025). The absorption of potential emigrants into the local labor markets could also explain the lower support for conservative parties in counties with stronger exposure to Ukrainian workers, as the Polish emigrants are more likely to vote for left-wing parties (Giesing and Schikora, 2023).

Over time, locals in areas that benefit from Ukrainian temporary workers become more supportive of pro-redistribution parties, potentially to ensure they benefit from these improved conditions and to guarantee themselves a safety net in case Ukrainian migrants outcompete them in the labor market.[15]

The lack of a statistically significant positive effect of refugee migration on pro-redistribution parties may be due to the fact that Ukrainian refugees, unlike temporary labor migrants, were eligible for social benefits. As a result, instead of benefiting alone from increased redistribution, natives would share the increased benefits with migrants, making redistribution less attractive. Furthermore, the lack of an effect on the conservative parties can be explained by the fact that both conservative and liberal parties took similar stances toward Ukrainian refugees after the Russian full-scale invasion of Ukraine.

## 5.2 The Polish far-right

We find that counties more exposed to both types of Ukrainian migration experience a decline in support for far-right. This effect, however, emerges only after the massive inflow of Ukrainian refugees in 2022. Furthermore, the effect size is about ten times higher for refugees than for labor migrants.

The initial absence of a link between labor migrants and votes for the far-right can be explained by the fact that, prior to 2022, the far-right rhetoric focused on refugees

[15]Although, as discussed earlier, Ukrainian labor migrants were complements rather than substitutes to local workers, locals may still fear losing their jobs to migrants, as the *perception* of economic threat can exist even in the absence of an *actual* threat.

from Muslim countries rather than Ukrainian labor migrants. However, after the inflow of Ukrainian refugees in 2022, Poland saw a rise in anti-Ukrainian rhetoric from the Polish far-right.

In particular, during the 2023 election campaign, *Konfederacja* used anti-Ukrainian slogans, with one of the focal points being government spending on aid for Ukrainians. Moreover, its anti-Ukrainian stance extended beyond opposition to welfare policies, incorporating nationalist slogans such as "Let Poland be Polish" (Konfederacja, 2025a) or "Poland only for Poles" (OKO.press, 2023).

This ultra-nationalist narrative of *Konfederacja*, directly targeting Ukrainians, could have led to a decrease in voting for the far-right among the local population who had previously had positive experiences with Ukrainians. As a result, the far-right's anti-Ukrainian rhetoric began to deter Polish voters once the opposition to Ukrainian migration became more prominent in the far-right discourse.

Not only the previous positive experience with temporary labor migrants but also the successful integration of Ukrainian refugees into Polish labor markets (Zyzik et al., 2023) made the Polish population in regions with higher exposure to Ukrainian migration less susceptible to right-wing propaganda. Thus, our results are in line with Allport's contact hypothesis, suggesting that local exposure to refugees can reduce prejudice among the native population (Allport, Clark, and Pettigrew, 1954), and therefore, decrease support for far-right parties. However, our findings contradict Rozo and Vargas (2021), who show that the anti-immigrant campaign of right-wing parties was more successful in regions of Colombia with more Venezuelan refugees through 'strategic electoral misinformation'. There, the right-wing managed to associate Venezuelan migrants with Venezuela's economic collapse. Our findings show that the strategic misinformation of the far-right was less successful in places with higher exposure to Ukrainian migrants in Poland.

Furthermore, the aggressive anti-Ukrainian rhetoric may have mobilized Ukrainians to show their opposition to *Konfederacja* more openly and to persuade their local acquaintances not to vote for this party. Additionally, public protests by Ukrainian refugees advocating for support for Ukraine may have further discouraged support for the far-right,

even if they were not directly aimed at *Konfederacja*.

Taken together, the results suggest that before the massive inflow of refugees, economic factors were the main drivers of the voting behavior. However, after the salience of the Ukrainian migrants increased following the Russian full-scale invasion of Ukraine, non-economic factors related to the contact hypothesis became more important. In particular, the difference in the timing and magnitude of the effects can be explained by the much greater salience of the refugee inflow compared to that of labor migrants. This aligns with the literature, which has shown that media coverage influences how immigration affects public attitudes (Schneider-Strawczynski and Valette, 2025).

## 5.3 Additional evidence on mechanisms

The preceding chapter examines some potential mechanisms that could be driving our results. However, it is not clear whether the changes observed in local voting patterns reflect individual vote switching, changes in turnout, or compositional shifts due to internal migration. Since we cannot track individual voters over time, we cannot directly measure vote switching at the individual level. We can, however, provide suggestive evidence at the county level for the other two channels.

***Internal migration.*** First, we check whether internal migration is likely to drive our results. We begin by replacing our main outcome variables with measures of internal migration and re-running our main specifications. In particular, we use the total registrations of departures from one Polish county to another, standardized by the pre-treatment population, as outcome variables. Furthermore, we distinguish between departures to rural and urban counties to account for the potentially different migration patterns in urban and rural areas. We show the results for the labor shock in Figure A6 and for the refugee shock in Figure A7.

For the first election year, 2015, we observe no statistically significant effects of the exposure to Ukrainian labor migrants on internal migration within Poland. This suggests that the initial decrease in conservative votes is unlikely to be driven by compositional

changes due to internal migration.

In subsequent elections, we see a decline in registrations of departures to urban counties, suggesting a crowding-out of internal migration from urban counties due to the inflow of Ukrainians.[16] However, in Figure A8 we observe that higher migration to urban areas was negatively associated with the pre-treatment share of conservative votes. Thus, on average, more conservative counties had a lower migration to urban areas before the treatment than less conservative counties. This suggests that the decrease in internal migration to urban areas would likely lead to an increase in the share of conservative votes in places where the internal in-migration has been crowded out by Ukrainian immigrants. As this is contrary to our findings, if anything, this suggests that we may be underestimating the effects on the decline in conservative vote share.

Lastly, in the 2023 elections, we again observe a decrease in migration to urban counties amid the inflow of Ukrainian labor migrants. While this could potentially explain the observed decrease in far-right voting, we argue that this is unlikely for two reasons: (1) pre-treatment urban migration is not related to far-right voting, and (2) we do not observe a similar decrease in urban migration in counties with stronger exposure to refugees, yet the decrease in far-right voting is even more pronounced in those counties. Therefore, our results are unlikely to be driven by internal migration.[17]

***Turnout and vote share conditional on turnout.*** We then examine the impact on turnout changes in Figures A10 and A11, as well as on our main outcome variables conditional on turnout in Figures A12 and A13, for the labor and refugee shocks, respectively. We define vote share conditional on turnout as the vote share multiplied by turnout.

We observe a decrease in turnout in the 2015 elections, and a decrease in the votes per eligible voters, both for redistribution and far-right parties. Our baseline results, on the contrary, show no effect on the vote share of far-right and pro-redistribution parties in 2015. This indicates that the change in the vote share conditional on turnout is

[16]The crowding-out of internal in-migration is consistent with the short-run findings of Zuchowski (2025) on the effects of Ukrainian labor migrants on local migration patterns.

[17]Furthermore, we show in Figure A9 that our two measures of treatment and our instruments are not systematically correlated with pre-treatment internal migration measures.

driven mechanically by the fall in turnout. At the same time, the conservative vote share, conditional on turnout, is not affected by the presence of labor migrants, and the observed baseline decrease in conservative votes was likely driven by a reduction in participation among conservative voters.

For the 2019 elections, we find suggestive evidence of an increase in turnout and again a strong decrease in far-right vote shares conditional on turnout. As we see no changes in redistribution-oriented votes conditional on turnout, this suggests that our baseline results showing an increase in redistribution-oriented votes are likely driven by higher turnout among voters for redistribution-oriented parties. In the 2023 elections, we observe that, for both the labor and refugee shocks, support for conservative and far-right decreases conditional on turnout. This suggests that our baseline results, showing a decrease in turnout, at least partly reflect vote switchers.

# 6 Robustness checks

***Pre-treatment trends.*** Our identification strategy relies on the common trend assumption. We first examine the validity of this assumption. Using pre-migration shock election results, we find no evidence of differential pre-treatment trends in political outcomes between counties with high and low exposure to Ukrainian migration. We present the results in Figure A14 for the labor migration shock and in Figure A15 for the refugee inflow.

Additionally, we present event-study plots using parliamentary elections in 2007, 2015, 2019, and 2023. In particular, we stack election years into an event-study panel with county and election-year fixed effects. We instrument the exposure to migrants interacted with election-year dummies separately for each instrument. As in the baseline specification, all results are presented relative to the last pre-treatment election in 2011. Figures A16, A17, and A18 show the event-study plots for the labor shock for redistribution-oriented, conservative, and far-right parties, respectively. While some results based on this alternative data structure differ slightly from our baseline estimates, the overall patterns in

the event-study plots are consistent with the baseline results.[18] Furthermore, Figures A19, A20, and A21 present the event-study plots for the refugee shock for redistribution-oriented, conservative, and far-right parties, respectively.[19] For the refugee shock, some estimates differ across instruments; nevertheless, the overall patterns are consistent with our baseline results.[20]

***Alternative definitions of outcome variables.*** We then examine whether the results are sensitive to changing the definition of the outcome variable. In the baseline results, we define the outcome variable as the change in the share of votes for conservative, pro-redistribution, or far-right parties between year $t$ and the last pre-treatment election in 2011. For robustness, we test whether the results hold when the outcome variable is defined as the change in the vote share for parties in the respective category between election year $t$ and election year $t-1$. Figures A22 and A23 in the Appendix show that the results are robust to using this alternative definition of the outcome variable.

Next, we check if our results are sensitive to changing the definitions of our party groups. First, we look at the sensitivity of results for pro-redistribution parties in Figure A24 and A25 for labor and refugee shock, respectively. While our result on the increase in pro-redistributuion parties in the 2019 election is robust to the exclusion of the KW PiS (Law and Justice, in Polish: Prawo i Sprawiedliwosc) and small parties with below 5% vote share, it disappears once we drop electoral committees centered around the Polish traditional left-wing party, SLD *(the Democratic Left Alliance, in Polish: Sojusz Lewicy Demokratycznej)* party. This suggests that voters more strongly exposed to the migration shock primarily shifted toward established left-wing parties rather than toward pro-redistribution parties more broadly.

[18] In particular, for conservative parties we observe a pre-treatment coefficient that is statistically different from zero; however, its sign is opposite to that of our estimates and it is only borderline significant for the border instrument, suggesting that our findings are unlikely to be driven by pre-treatment differences.

[19] For transparency and consistency, we also present the results using Akcja Wisla; however, these estimates again cannot be interpreted due to the very weak instrument.

[20] We observe statistically significant post-treatment coefficients for redistribution-oriented and conservative parties; however, this occurs only for the border instrument and is likely driven by significant pre-treatment trends in the same direction.

Next, we look at the conservative parties group in Figures A26 and A27 for our two immigration shocks. We find that the effect on the decrease in voting for conservative parties in the 2015 election is not driven by the inclusion of far-right parties or small parties. However, it is driven by PiS, the largest Polish conservative party. Interestingly, the effect of PiS flips in the 2023 elections for both labor and refugee shock. While the decrease in the share of votes for conservative parties is not statistically significant in the baseline results, a decline emerges once PiS is excluded. This pattern may reflect the shift of conservative voter support toward PiS in response to its rather welcoming stance toward Ukrainian refugees, particularly in comparison with the far-right party *Konfederacja*.

***Alternative definitions of treatment variables.***
In the baseline specification, we use two different denominators when constructing our treatment variable to account for the differential nature of the two immigration shocks. For the first shock, a clear labor supply shock, we use the pre-treatment working-age population as the denominator to account for differences in the size of local labor markets across Polish counties. For the second migrant inflow, the refugee shock, which is not solely a labor supply shock, we use the pre-treatment total population as the denominator to account for differences in overall population size and, consequently, the intensity of exposure to refugees and their visibility. As a robustness check, we examine whether the results are sensitive to using the same denominator for both shocks; specifically, we use the total population in 2011. Figures A28 and A29 show that our results are not affected by changes in the definition of the denominator.

***Potential confounders.*** Next, we test whether the baseline results are sensitive to controlling for potential confounders. The balancing tests presented in Figures A2 and A3 indicate that, for instance, local labor market characteristics, which may affect voting patterns, are highly correlated with the location of Ukrainians. While we show results using three different instruments, the Euro 2012 instrument, is also correlated with local labor market characteristics, and the border instrument, is correlated with the unemployment rate. Thus, we test whether the results are robust to controlling for the

potential confounders listed in Figures A30 and A31 in the Appendix. The results are robust to this sensitivity test.

***Spatial spillovers.*** We also test the robustness of the results to the inclusion of potential spatial spillovers. In particular, in Figures A32 to A39 in the Appendix, we present results using Conley standard errors that account for spatial spillovers (Conley, 1999; Conley, 2008). The results remain robust to accounting for spatial correlation within different cutoff distances, i.e., we test for the inclusion of spatial spillovers at 25km (Figure A32 and A33), 50km (Figure A34 and A35), 100km (Figures A36 and A37), and 150km (Figures A38 and A39).

***Potential outliers.*** Finally, we examine whether the results are driven by potential outliers, such as large cities or counties with high emigration rates.[21] First, we exclude 5 percent of the counties with the highest emigration rates in 2013. Figures A40 and A41 in the Appendix show that the results remain robust. Then, we split the initial sample of 379 counties and run the regressions separately for cities with county rights (Figures A42 and A43), and all other counties (Figures A44 and A45).[22] The results remain robust to this sensitivity test as well.

# 7 Concluding remarks

This paper examines the impact of two massive and unexpected inflows of Ukrainians resulting from Russia's aggression against Ukraine in 2014 and 2022 on the voting behavior in Poland. In particular, we exploit the spatial variation in the exposure to Ukrainian migrants across Polish counties to examine the impact of Ukrainian migration on parliamentary elections in Poland. For identification, we take advantage of an instrumental variable approach.

[21] Giesing and Schikora (2023) show that selective emigration from Poland leads to a decline in the vote share for left-wing parties and an increase in support for right-wing parties.

[22] A city with county rights is a special type of local government unit in Poland, where a municipal government operates independently, fulfilling county-level responsibilities.

Although the impact of immigration on political outcomes has been widely studied, our paper contributes to the literature by examining a novel context with recent migration inflow, analyzing the dynamics of the effect, and introducing a new instrument. Furthermore, the unique nature of the two shocks enables us to complement existing research by providing evidence on the effects of two distinct types of immigration: conflict-induced labor migration without direct access to the host country's social benefits, and refugee inflows with direct access to such benefits. At the same time, both migration inflows originate from the same country, which keeps the cultural effect of both migration waves constant.

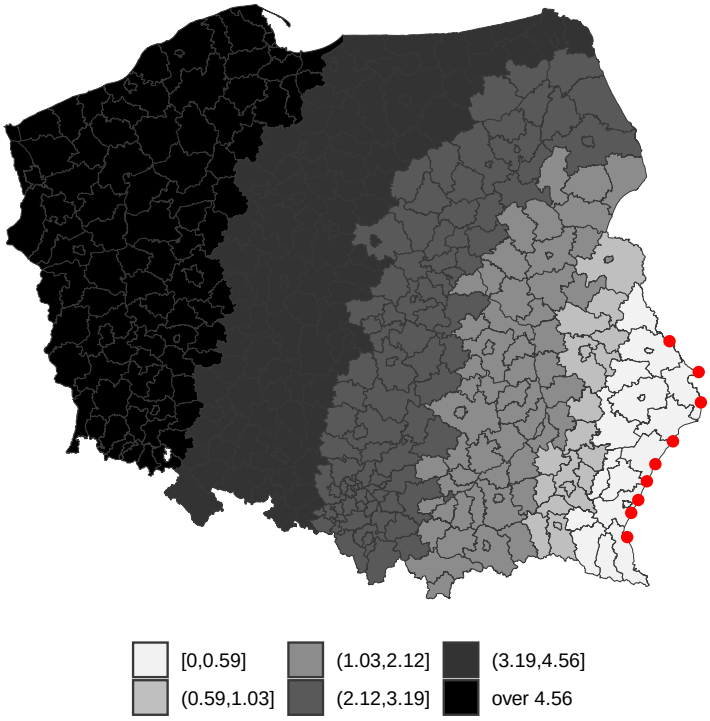
We find that greater exposure to labor migration moves local voter preferences away from conservative parties in the short run and subsequently shifts local voter support towards pro-redistribution parties. Moreover, areas more exposed to Ukrainian migration experience a decline in far-right voting, an effect that is immediate for refugee inflows but not for labor migration. The results are robust to employing three different instruments and to a number of robustness checks.

# Figures and Tables

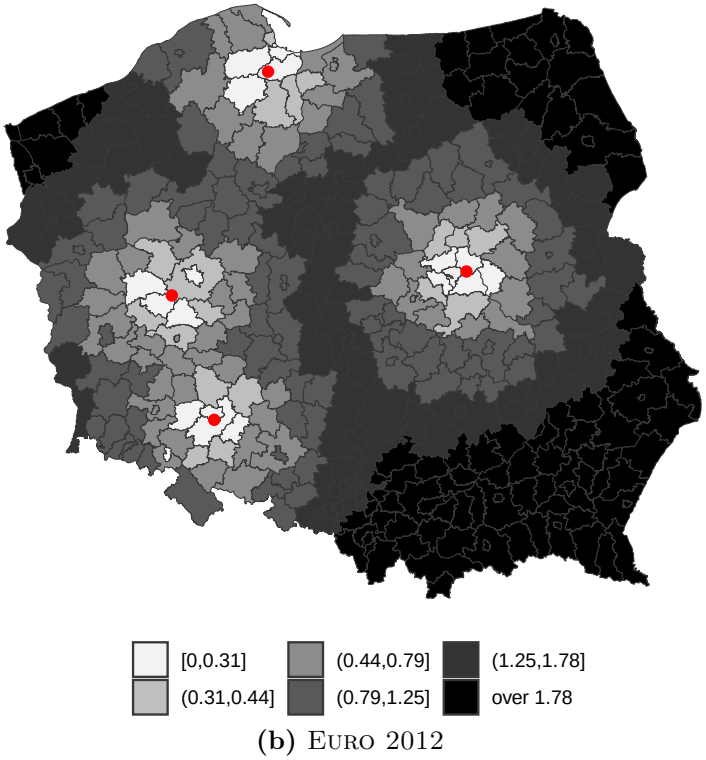
| | Labor migrants | | | Refugees | | |
|---|---|---|---|---|---|---|
| *Instrument* | (1) | (2) | (3) | (1) | (2) | (3) |
| Akcja Wisla | -0.0121*** | | | -0.0007 | | |
| | (0.0030) | | | (0.0009) | | |
| EU 12 | | -0.0332*** | | | -0.0046*** | |
| | | (0.0076) | | | (0.0017) | |
| Border with Ukraine | | | 0.0113*** | | | 0.0017*** |
| | | | (0.0023) | | | (0.0006) |
| Observations | 379 | 379 | 379 | 379 | 379 | 379 |
| $R^2$ | 0.06903 | 0.17386 | 0.11542 | 0.00526 | 0.06507 | 0.04879 |
| F-test | 27.955 | 79.337 | 49.191 | 1.9934 | 26.240 | 19.336 |

**Table 1:** First stage

*Notes:* This table reports the results of first-stage regressions, using separate regressions for each of our three instruments and either labor migrants or refugees. Robust standard errors clustered at NUTS-3 region level are reported in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.




**(a)** Border instrument




**(b)** Euro 2012

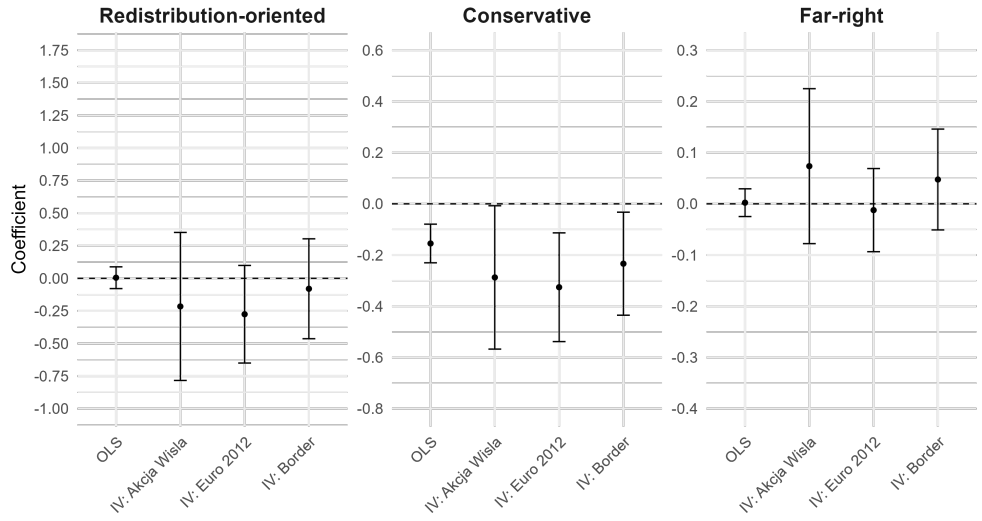
**Figure 1:** Distance instruments

*Notes:* Figure (a) presents the variation in the distance (in 100km) from the centroid of each Polish county to the nearest Polish-Ukrainian border crossing (red points). Figure (b) presents the variation in the distance (in 100km) from the centroid of each Polish county to cities that hosted UEFA Euro 2012 in Poland (red points). The continuous distance instruments are shown here with a discrete scale for visualization purposes.

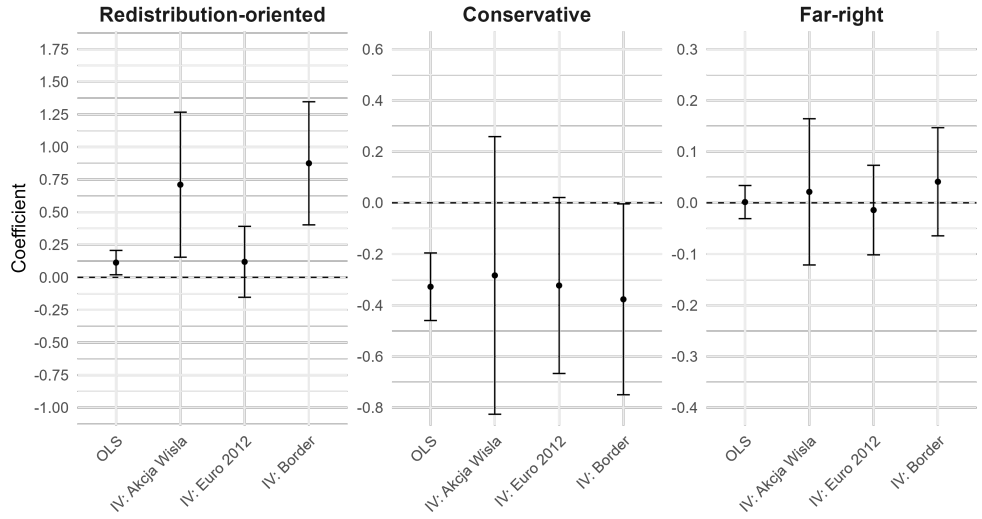
| | Redistribution | | | | Conservative | | | | Far-right | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OLS | IV: Akcja Wisła | IV: Euro 2012 | IV: Border | OLS | IV: Akcja Wisła | IV: Euro 2012 | IV: Border | OLS | IV: Akcja Wisła | IV: Euro 2012 | IV: Border |
| **Panel A: 2015** | | | | | | | | | | | | |
| Labor migrants | 0.005 | -0.216 | -0.276 | -0.080 | -0.155*** | -0.287** | -0.326*** | -0.234** | 0.002 | 0.074 | -0.012 | 0.048 |
| | (0.043) | (0.290) | (0.191) | (0.196) | (0.038) | (0.143) | (0.108) | (0.103) | (0.014) | (0.077) | (0.041) | (0.050) |
| **Panel B: 2019** | | | | | | | | | | | | |
| Labor migrants | 0.113** | 0.711** | 0.119 | 0.875*** | -0.328*** | -0.284 | -0.323* | -0.377* | 0.001 | 0.021 | -0.014 | 0.041 |
| | (0.048) | (0.284) | (0.139) | (0.241) | (0.067) | (0.277) | (0.175) | (0.190) | (0.016) | (0.073) | (0.045) | (0.054) |
| **Panel C: 2023** | | | | | | | | | | | | |
| Labor migrants | 0.096 | 0.353 | -0.032 | 0.590** | -0.385*** | 0.057 | -0.301 | -0.231 | -0.064*** | -0.194** | -0.151*** | -0.275*** |
| | (0.058) | (0.329) | (0.190) | (0.253) | (0.073) | (0.374) | (0.223) | (0.247) | (0.016) | (0.079) | (0.050) | (0.066) |
| **Panel D: 2023** | | | | | | | | | | | | |
| Refugees | 0.275 | 5.69 | -0.237 | 4.04* | -1.60*** | 0.921 | -2.20 | -1.58 | -0.132 | -3.13 | -1.10** | -1.89** |
| | (0.263) | (8.07) | (1.40) | (2.28) | (0.299) | (6.47) | (1.44) | (1.67) | (0.088) | (3.69) | (0.479) | (0.736) |
| F-test: labor migrants | | 27.955 | 79.337 | 49.191 | | 27.955 | 79.337 | 49.191 | | 27.955 | 79.337 | 49.191 |
| F-test: refugees | | 1.9934 | 26.240 | 19.336 | | 1.9934 | 26.240 | 19.336 | | 1.9934 | 26.240 | 19.336 |
| Mean 2015 | | | -0.091 | | | | 0.187 | | | | 0.035 | |
| Mean 2019 | | | 0.692 | | | | 0.543 | | | | 0.065 | |
| Mean 2023 | | | 0.636 | | | | 0.488 | | | | 0.073 | |
| Observations | | | | | | | 379 | | | | | |

**Table 2:** Ukrainian migrants and political outcomes in Poland

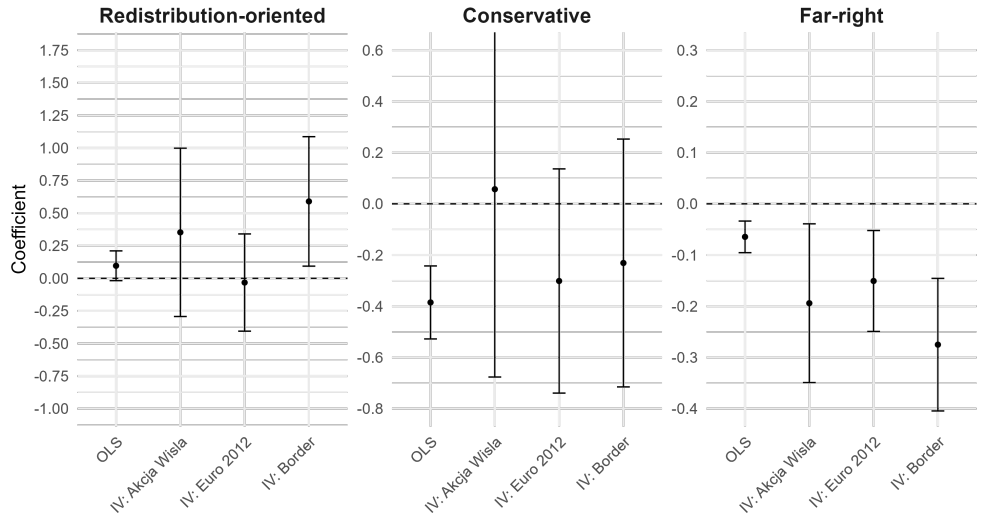
*Notes:* This table reports the results of second-stage regressions, using separate regressions for each of our three instruments and either labor migrants or refugees. Panels (a), (b), and (c) present the results for labor migrants from Ukraine and parliamentary elections in 2015, 2019, and 2023, respectively. Panel (d) shows the results for Ukrainian refugees and the 2023 parliamentary elections. F-test reports the F-test from first-stage regressions, using separate regressions for each of our three instruments and either labor migrants or refugees. Mean reports the mean of the outcome variable, i.e., the average difference between the respective year and 2011. Robust standard errors clustered at NUTS-3 region level are reported in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure 2:** Ukrainian labor migration and political outcomes in Poland
*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

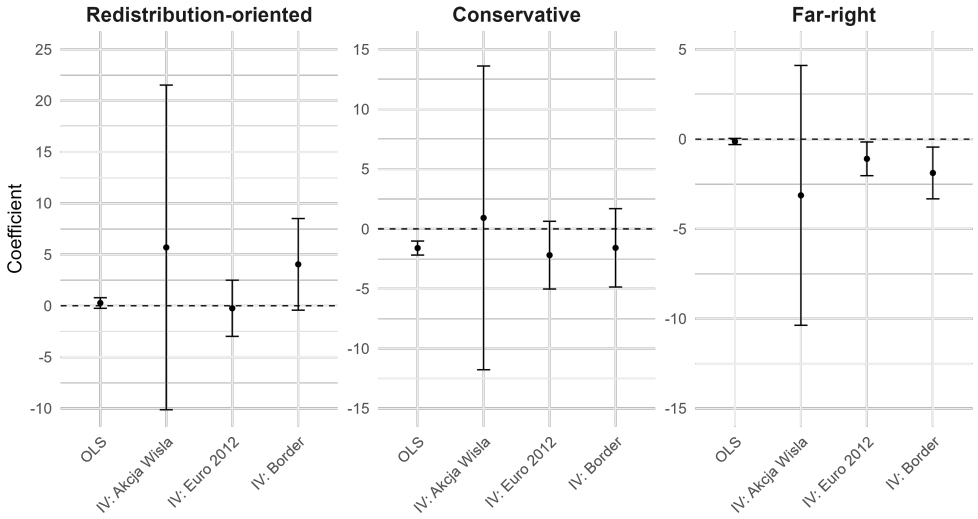



**Figure 3:** Ukrainian refugee inflow and political outcomes in Poland

*Notes:* This figure presents the results for parliamentary elections 2023. Coefficients are depicted with 95% confidence intervals.

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# Online Appendix

(intended for online publication)


**Figure A1:** Example of an anti-Ukrainian poster distributed by Konfederacja
*Source:* https://konfederacja.pl/grafika/dosc-frajerstwa-w-polityce-wschodniej/.

**Table A1:** Classification of political parties

| Election year | Pro-redistribution parties | Conservative parties | Far-right parties |
|---|---|---|---|
| 2023 | KW Prawo i Sprawiedliwosc; KW Polska jest jedna; KW Wyborcow Ruchu Dobrobytu i Pokoju; KW Antypartia; KW Trzecia Droga Polska 2050 Szymona Holowni - Polskie Stronnictwo Ludowe; KW Nowa Lewica | KW Prawo i Sprawiedliwosc; KW Konfederacja Wolnosc i Niepodleglosc; KW Polska jest jedna; KW Wyborcow Ruchu Dobrobytu i Pokoju; KW Normalny Kraj; KW Ruch Naprawy Polski | KW Konfederacja Wolnosc i Niepodleglosc |
| 2019 | KW Prawo i Sprawiedliwosc; KW Polskie Stronnictwo Ludowe; KW Sojusz Lewicy Demokratycznej | KW Prawo i Sprawiedliwosc; KW Konfederacja Wolnosc i Niepodleglosc; KW Prawica | KW Konfederacja Wolnosc i Niepodleglosc |
| 2015 | KW Prawo i Sprawiedliwosc; KW Wyborcow Zbigniewa Stonogi; KW Samoobrona; KW Polskie Stronnictwo Ludowe; Koalicyjny KW Zjednoczona Lewica SLD+TR+PPS+UP+Zieloni | KW Prawo i Sprawiedliwosc; KW KORWiN; KW Wyborcow Grzegorza Brauna “Szczesc Boze”; KW Kongres Nowej Prawicy; KW Wyborcow “Kukiz’15”; KW Wyborcow Zbigniewa Stonogi; KW Wyborcow Ruch Spoleczny Rzeczpospolitej Polskiej; KW Samoobrona | KW KORWiN; KW Wyborcow Grzegorza Brauna “Szczesc Boze”; KW Kongres Nowej Prawicy |
| 2011 | KW Prawo i Sprawiedliwosc; KW Polska Partia Pracy - Sierpien 80; KW Polska jest Najwazniejsza; KW Nasz Dom Polska - Samoobrona Andrzeja Leppera; KW Polskie Stronnictwo Ludowe; KW Ruch Palikota; KW Sojusz Lewicy Demokratycznej | KW Prawo i Sprawiedliwosc; KW Prawica; KW Nowa Prawica - Janusza Korwin-Mikke; KW Polska Partia Pracy - Sierpien 80; KW Polska jest Najwazniejsza; KW Nasz Dom Polska - Samoobrona Andrzeja Leppera | KW Nowa Prawica - Janusza Korwin-Mikke |
| 2007 | KW Prawo i Sprawiedliwosc; KW Polska Partia Pracy; KW Liga Polskich Rodzin; KW Polskie Stronnictwo Ludowe; KW Samoobrona; KW Partia Kobiet; KW Samoobrona Patriotyczna; KW Lewica i Demokraci | KW Prawo i Sprawiedliwosc; KW Polska Partia Pracy; KW Liga Polskich Rodzin; KW Samoobrona; KW Samoobrona Patriotyczna | KW Liga Polskich Rodzin |

**Table A2:** IV Estimates with Weak Instrument Robust Inference

| Period | Treatment | Instrument | Outcome | N | $\hat{\rho}$ | F-stat | $\hat{\beta}$ | SE | $c_{tF}$ | tF CI | $k^-$ | $k^+$ | VtF CI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2011-2015 | Labor migrants | Akcja Wisla | Redistribution-oriented | 379 | 0.2053 | 15.679 | -0.2158 | 0.2897 | 2.820 | [-1.0327, 0.6011] | 1.990 | 1.764 | [-0.7922, 0.2952] |
| 2011-2015 | Labor migrants | Akcja Wisla | Conservative | 379 | -0.4052 | 15.679 | -0.2874 | 0.1428 | 2.820 | [-0.6902, 0.1154] | 1.756 | 2.180 | [-0.5382, 0.0239] |
| 2011-2015 | Labor migrants | Akcja Wisla | Far-right | 379 | -0.1064 | 15.679 | 0.0736 | 0.0772 | 2.820 | [-0.1441, 0.2912] | 1.768 | 1.902 | [-0.0629, 0.2204] |
| 2011-2015 | Labor migrants | Euro 2012 | Redistribution-oriented | 379 | 0.2533 | 19.169 | -0.2756 | 0.1910 | 2.639 | [-0.7796, 0.2284] | 1.971 | 1.791 | [-0.6521, 0.0665] |
| 2011-2015 | Labor migrants | Euro 2012 | Conservative | 379 | -0.3613 | 19.169 | -0.3257 | 0.1083 | 2.639 | [-0.6116, -0.0399] | 1.787 | 2.059 | [-0.5193, -0.1027] |
| 2011-2015 | Labor migrants | Euro 2012 | Far-right | 379 | -0.0640 | 19.169 | -0.0123 | 0.0414 | 2.639 | [-0.1216, 0.0970] | 1.793 | 1.835 | [-0.0865, 0.0637] |
| 2011-2015 | Labor migrants | Border | Redistribution-oriented | 379 | 0.2821 | 24.110 | -0.0802 | 0.1955 | 2.478 | [-0.5646, 0.4043] | 1.930 | 1.820 | [-0.4575, 0.2756] |
| 2011-2015 | Labor migrants | Border | Conservative | 379 | -0.3488 | 24.110 | -0.2338 | 0.1026 | 2.478 | [-0.4881, 0.0205] | 1.820 | 1.976 | [-0.4206, -0.0310] |
| 2011-2015 | Labor migrants | Border | Far-right | 379 | -0.3105 | 24.110 | 0.0475 | 0.0502 | 2.478 | [-0.0770, 0.1720] | 1.820 | 1.949 | [-0.0439, 0.1454] |
| 2011-2019 | Labor migrants | Akcja Wisla | Redistribution-oriented | 379 | 0.2567 | 15.679 | 0.7106 | 0.2838 | 2.820 | [-0.0898, 1.5110] | 2.038 | 1.762 | [0.1322, 1.2107] |
| 2011-2019 | Labor migrants | Akcja Wisla | Conservative | 379 | -0.4561 | 15.679 | -0.2836 | 0.2766 | 2.820 | [-1.0636, 0.4965] | 1.755 | 2.231 | [-0.7691, 0.3334] |
| 2011-2019 | Labor migrants | Akcja Wisla | Far-right | 379 | 0.0183 | 15.679 | 0.0214 | 0.0728 | 2.820 | [-0.1840, 0.2269] | 1.826 | 1.796 | [-0.1116, 0.1522] |
| 2011-2019 | Labor migrants | Euro 2012 | Redistribution-oriented | 379 | 0.4308 | 19.169 | 0.1189 | 0.1388 | 2.639 | [-0.2474, 0.4851] | 2.118 | 1.787 | [-0.1752, 0.3669] |
| 2011-2019 | Labor migrants | Euro 2012 | Conservative | 379 | -0.4750 | 19.169 | -0.3229 | 0.1753 | 2.639 | [-0.7855, 0.1397] | 1.788 | 2.156 | [-0.6363, 0.0551] |
| 2011-2019 | Labor migrants | Euro 2012 | Far-right | 379 | 0.0355 | 19.169 | -0.0141 | 0.0446 | 2.639 | [-0.1319, 0.1036] | 1.822 | 1.797 | [-0.0954, 0.0660] |
| 2011-2019 | Labor migrants | Border | Redistribution-oriented | 379 | 0.2988 | 24.110 | 0.8747 | 0.2410 | 2.478 | [0.2776, 1.4717] | 1.941 | 1.820 | [0.4071, 1.3133] |
| 2011-2019 | Labor migrants | Border | Conservative | 379 | -0.4057 | 24.110 | -0.3768 | 0.1902 | 2.478 | [-0.8480, 0.0944] | 1.820 | 2.015 | [-0.7230, 0.0064] |
| 2011-2019 | Labor migrants | Border | Far-right | 379 | -0.1360 | 24.110 | 0.0412 | 0.0539 | 2.478 | [-0.0924, 0.1747] | 1.820 | 1.833 | [-0.0569, 0.1399] |
| 2011-2023 | Labor migrants | Akcja Wisla | Redistribution-oriented | 379 | 0.2026 | 15.679 | 0.3527 | 0.3294 | 2.820 | [-0.5762, 1.2816] | 1.987 | 1.766 | [-0.3019, 0.9343] |
| 2011-2023 | Labor migrants | Akcja Wisla | Conservative | 379 | -0.4943 | 15.679 | 0.0570 | 0.3742 | 2.820 | [-0.9983, 1.1124] | 1.755 | 2.269 | [-0.5999, 0.9062] |
| 2011-2023 | Labor migrants | Akcja Wisla | Far-right | 379 | -0.2180 | 15.679 | -0.1941 | 0.0791 | 2.820 | [-0.4171, 0.0290] | 1.756 | 2.002 | [-0.3329, -0.0357] |
| 2011-2023 | Labor migrants | Euro 2012 | Redistribution-oriented | 379 | 0.3718 | 19.169 | -0.0325 | 0.1903 | 2.639 | [-0.5345, 0.4696] | 2.068 | 1.788 | [-0.4260, 0.3077] |
| 2011-2023 | Labor migrants | Euro 2012 | Conservative | 379 | -0.4741 | 19.169 | -0.3014 | 0.2234 | 2.639 | [-0.8908, 0.2880] | 1.788 | 2.155 | [-0.7007, 0.1801] |
| 2011-2023 | Labor migrants | Euro 2012 | Far-right | 379 | -0.2717 | 19.169 | -0.1507 | 0.0503 | 2.639 | [-0.2833, -0.0180] | 1.794 | 1.986 | [-0.2409, -0.0508] |
| 2011-2023 | Labor migrants | Border | Redistribution-oriented | 379 | 0.1778 | 24.110 | 0.5900 | 0.2534 | 2.478 | [-0.0379, 1.2179] | 1.860 | 1.829 | [0.1188, 1.0534] |
| 2011-2023 | Labor migrants | Border | Conservative | 379 | -0.4809 | 24.110 | -0.2311 | 0.2469 | 2.478 | [-0.8429, 0.3808] | 1.824 | 2.070 | [-0.6814, 0.2801] |
| 2011-2023 | Labor migrants | Border | Far-right | 379 | -0.2621 | 24.110 | -0.2750 | 0.0660 | 2.478 | [-0.4387, -0.1114] | 1.821 | 1.916 | [-0.3953, -0.1485] |
| 2011-2023 | Refugees | Akcja Wisla | Redistribution-oriented | 379 | 0.1118 | 0.742 | 5.6933 | 8.0726 | 18.660 | [-144.9410, 156.3276] | NA | NA | Unbounded |
| 2011-2023 | Refugees | Akcja Wisla | Conservative | 379 | -0.4388 | 0.742 | 0.9208 | 6.4736 | 18.660 | [-119.8766, 121.7182] | NA | NA | Unbounded |
| 2011-2023 | Refugees | Akcja Wisla | Far-right | 379 | 0.0149 | 0.742 | -3.1328 | 3.6916 | 18.660 | [-72.0188, 65.7532] | NA | NA | Unbounded |
| 2011-2023 | Refugees | Euro 2012 | Redistribution-oriented | 379 | 0.1996 | 7.321 | -0.2366 | 1.3969 | 4.236 | [-6.1540, 5.6808] | 2.445 | 1.788 | [-3.6517, 2.2613] |
| 2011-2023 | Refugees | Euro 2012 | Conservative | 379 | -0.4739 | 7.321 | -2.1951 | 1.4438 | 4.236 | [-8.3114, 3.9212] | 1.588 | 3.023 | [-4.4872, 2.1698] |
| 2011-2023 | Refugees | Euro 2012 | Far-right | 379 | -0.1554 | 7.321 | -1.0974 | 0.4788 | 4.236 | [-3.1255, 0.9307] | 1.851 | 2.362 | [-1.9835, 0.0333] |
| 2011-2023 | Refugees | Border | Redistribution-oriented | 379 | -0.0326 | 7.486 | 4.0438 | 2.2780 | 4.164 | [-5.4407, 13.5284] | 2.022 | 2.126 | [-0.5618, 8.8862] |
| 2011-2023 | Refugees | Border | Conservative | 379 | -0.6122 | 7.486 | -1.5837 | 1.6704 | 4.164 | [-8.5383, 5.3709] | 1.592 | 3.290 | [-4.2431, 3.9125] |
| 2011-2023 | Refugees | Border | Far-right | 379 | -0.0853 | 7.486 | -1.8851 | 0.7358 | 4.164 | [-4.9485, 1.1783] | 1.942 | 2.214 | [-3.3138, -0.2562] |

*Notes:* This figure presents the IV results using weak-instrument-robust inference following Lee et al. (2022, 2023). Coefficient estimates are reported in column $\hat{\beta}$, while the corresponding 95% confidence intervals are shown in columns tF CI and VtF CI, based on Lee, McCrary, Moreira, and Porter (2022) and Lee, McCrary, Moreira, Porter, and Yap (2023), respectively.

**Table A3:** Descriptive statistics

| | 2013 | | 2021 | |
|---|---|---|---|---|
| Variable | Mean | SD | Mean | SD |
| Redistribution oriented | 0.64 | 0.12 | 0.69 | 0.10 |
| Conservative | 0.34 | 0.10 | 0.54 | 0.12 |
| Extreme right | 0.01 | 0.01 | 0.06 | 0.01 |
| Population | 101,260.50 | 117,150.60 | 99,747.87 | 124,023.60 |
| Share of Female | 0.51 | 0.01 | 0.51 | 0.01 |
| Population density | 377.43 | 672.79 | 355.67 | 632.14 |
| Unemployment rate | 0.10 | 0.03 | 0.05 | 0.02 |
| Average salary | 3,297.37 | 471.71 | 5,209.51 | 639.11 |
| Share of Graduates | 0.005 | 0.01 | 0.003 | 0.01 |
| Emigration rate | 0.001 | 0.001 | 0.0003 | 0.0004 |
| Labor migrants per cap (2019) | 0.05 | 0.06 | 0.05 | 0.06 |
| Refugees per cap (2021) | 0.03 | 0.01 | 0.03 | 0.01 |
| Akcja Wisla | 1.77 | 1.20 | 1.77 | 1.20 |
| Euro 2012 | 1.32 | 0.69 | 1.32 | 0.69 |
| Border | 3.32 | 1.65 | 3.32 | 1.65 |
| Observations | 379 | | | |

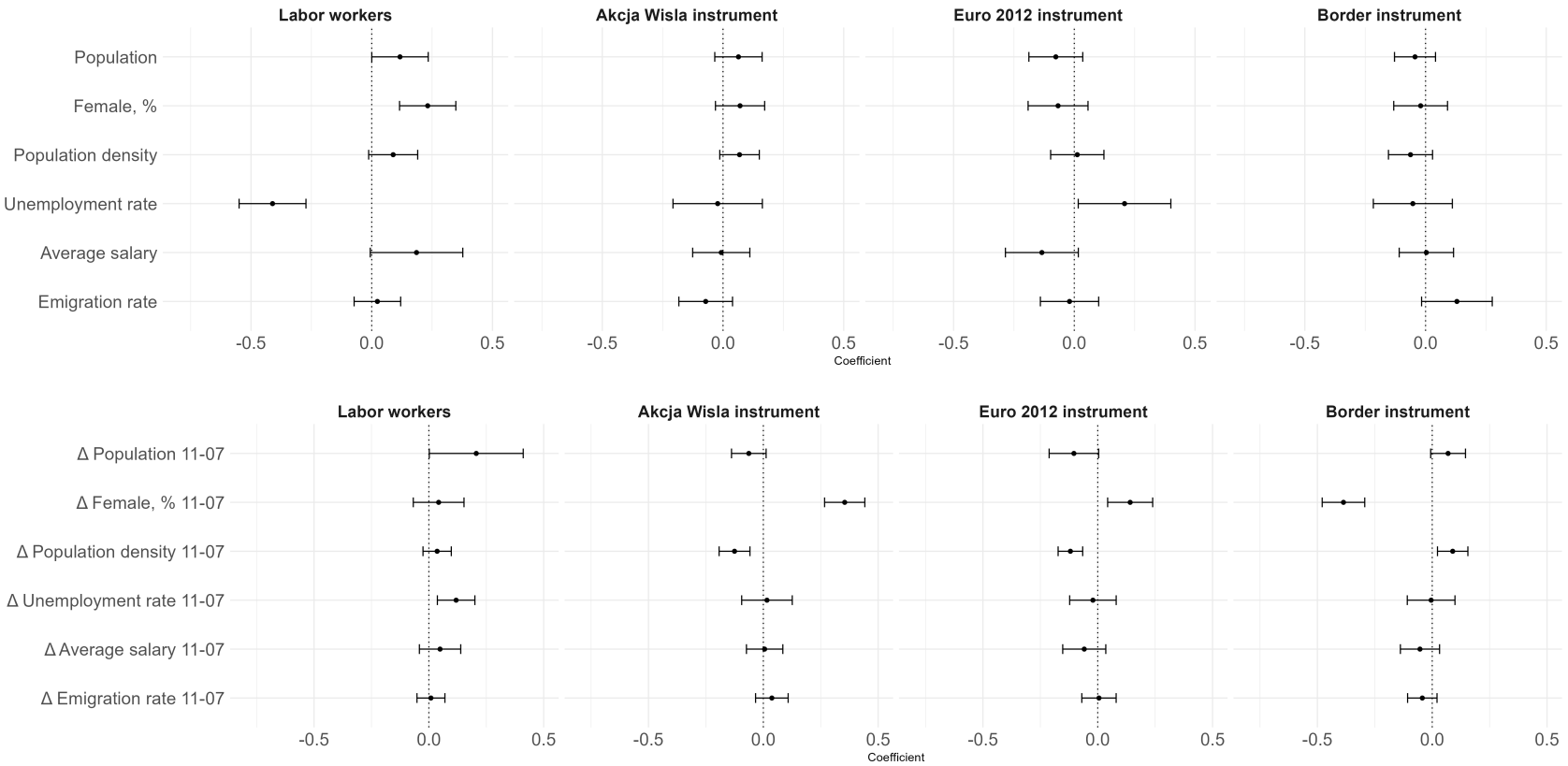



**Figure A2:** Balancing test: Correlates of Ukrainian labor migrants

*Notes:* This figure presents standardized beta coefficients from univariate OLS regressions of the share of Ukrainian labor migrants on various county characteristics measured in 2013. Coefficients are depicted with 95% confidence intervals. Panel (a) presents standardized beta coefficients from univariate OLS regressions of the share of Ukrainian labor migrants on various county characteristics measured in 2013. Panel (b) presents standardized beta coefficients from univariate OLS regressions of the share of Ukrainian refugees on various county characteristics measured in 2021. Coefficients are depicted with 95% confidence intervals.

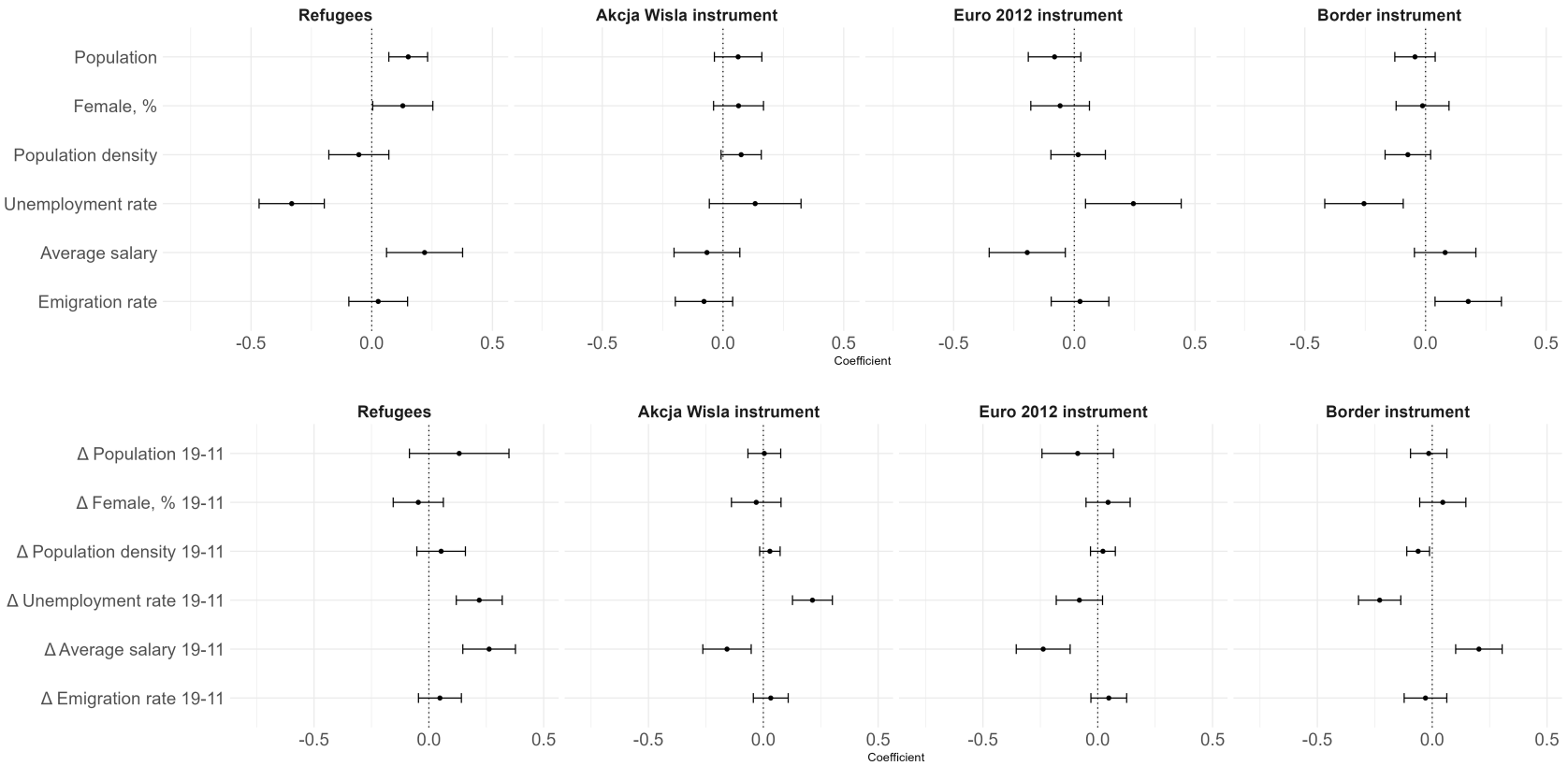
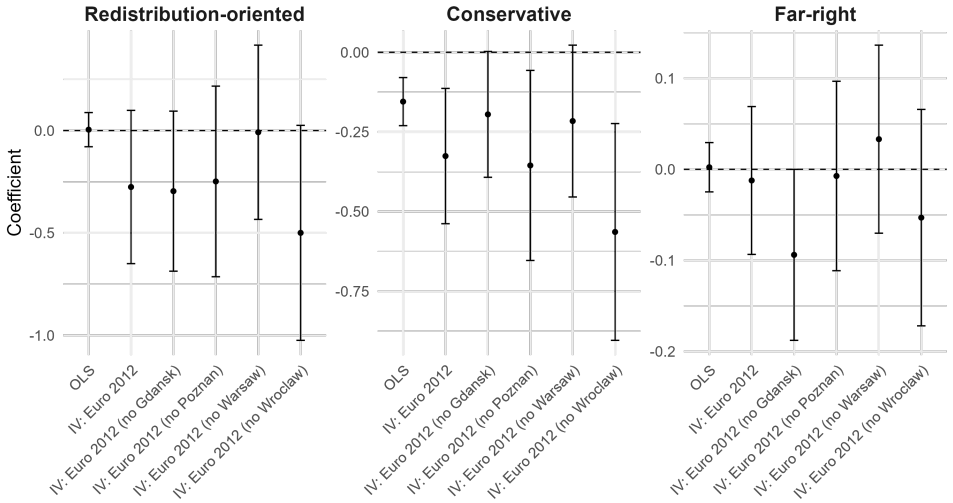
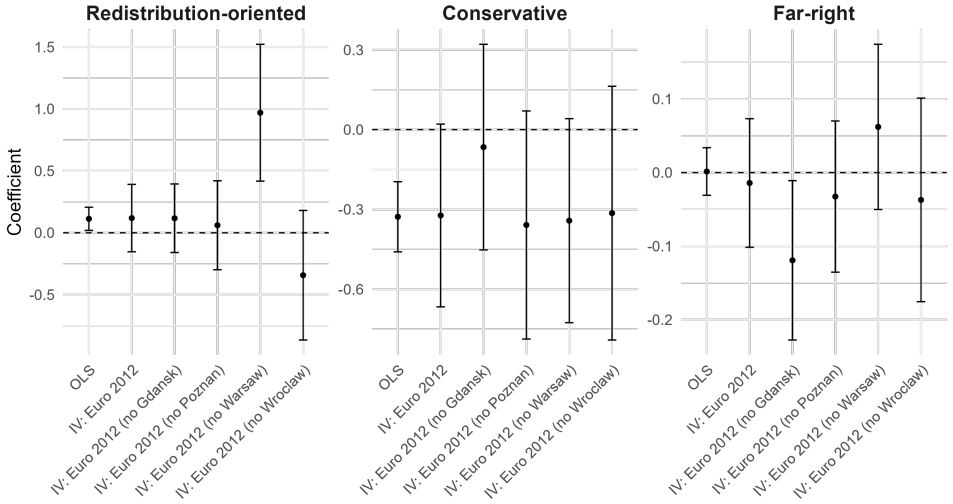



**Figure A3:** Balancing test: Correlates of Ukrainian refugee share

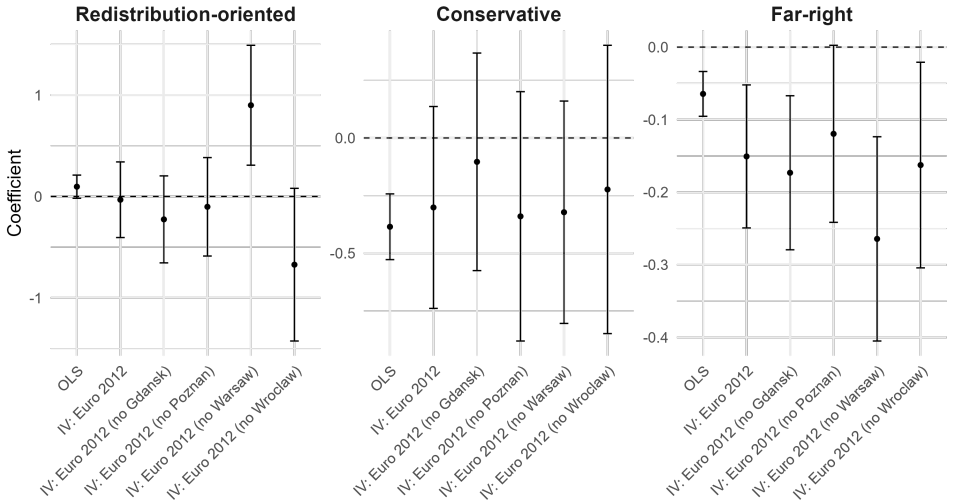
*Notes:* This figure presents standardized beta coefficients from univariate OLS regressions of the share of Ukrainian refugees on various county characteristics measured in 2021. Coefficients are depicted with 95% confidence intervals. Panel (a) presents standardized beta coefficients from univariate OLS regressions of the share of Ukrainian labor migrants on various county characteristics measured in 2013. Panel (b) presents standardized beta coefficients from univariate OLS regressions of the share of Ukrainian refugees on various county characteristics measured in 2021. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A4:** Ukrainian labor migration and political outcomes in Poland: leave-one-out
*Notes:* This figure shows the results when the indicated city is omitted when generating the Euro 2012 Instrument. Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

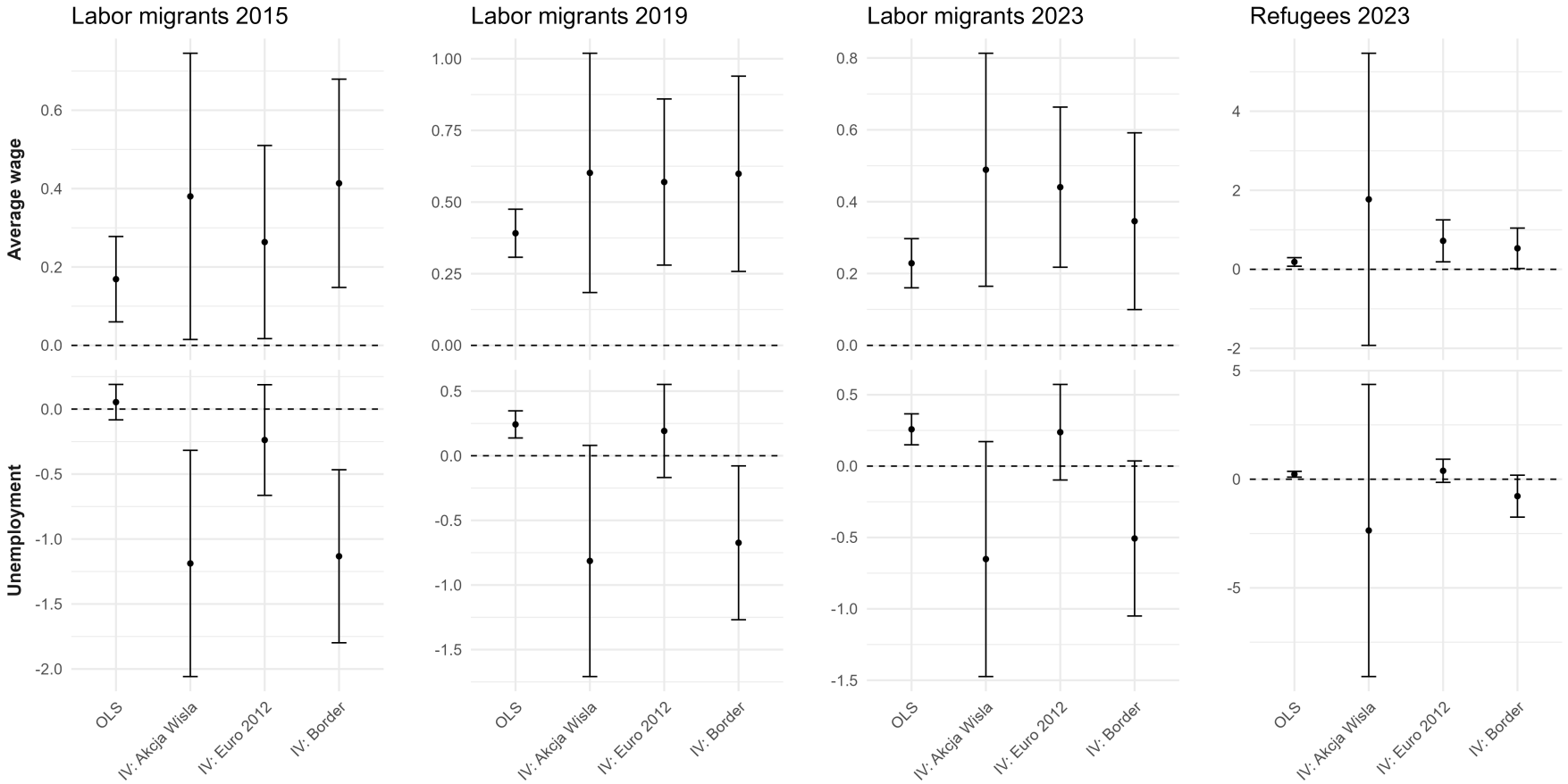
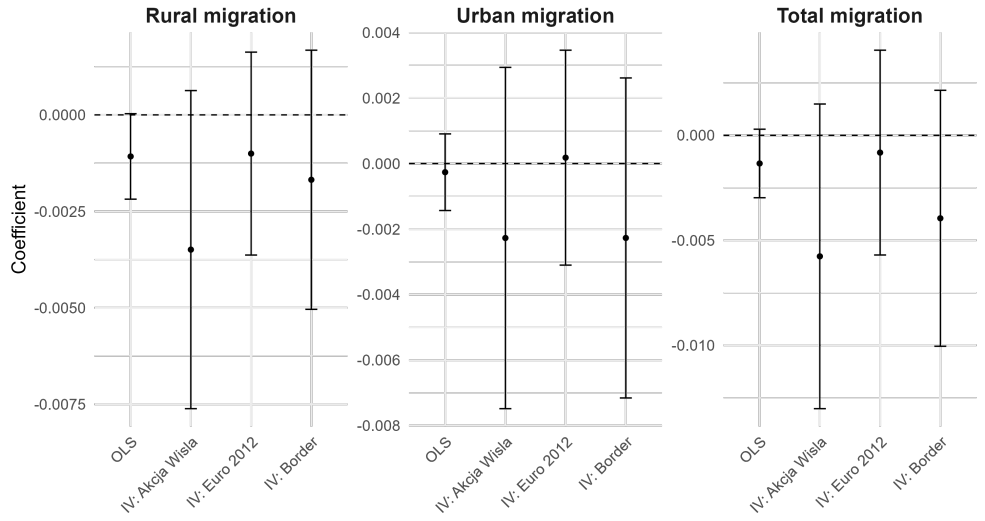
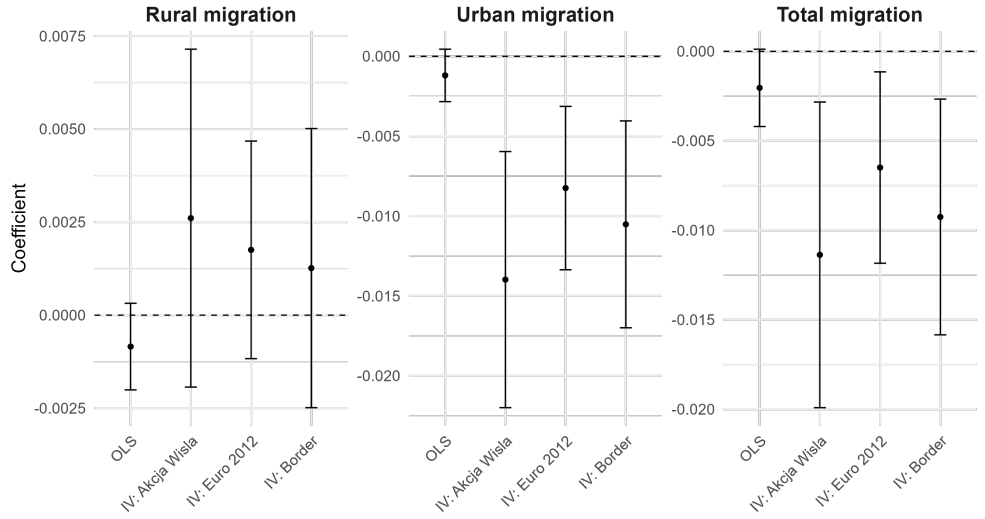



**Figure A5:** Ukrainian migration and political outcomes in Poland: Mechanisms

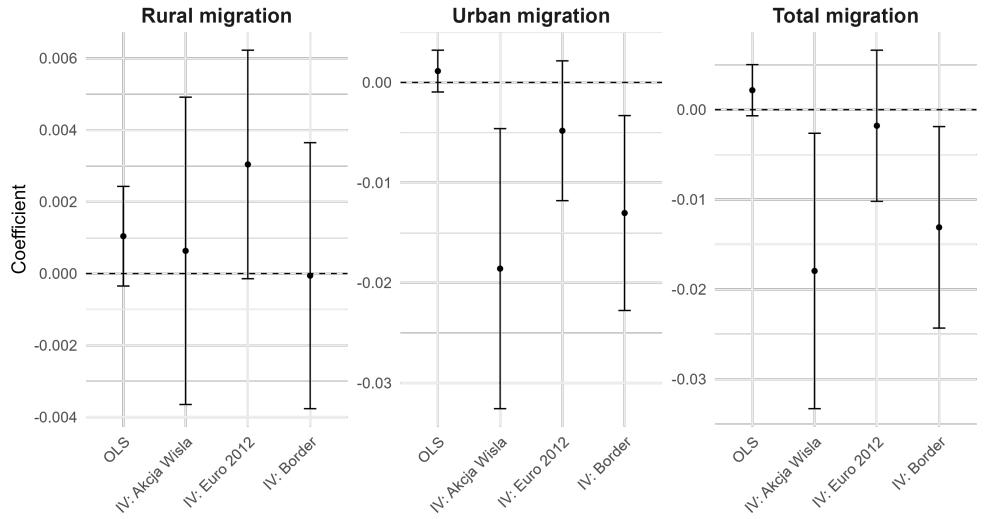
*Notes:* This figure shows standardized beta coefficients. First three columns present the results for the Ukrainian labor migration and parliamentary elections in 2015, 2019, and 2023, respectively. The last column presents the results for the Ukrainian refugee inflow and parliamentary elections in 2023. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A6:** Ukrainian labor migration and internal migration

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

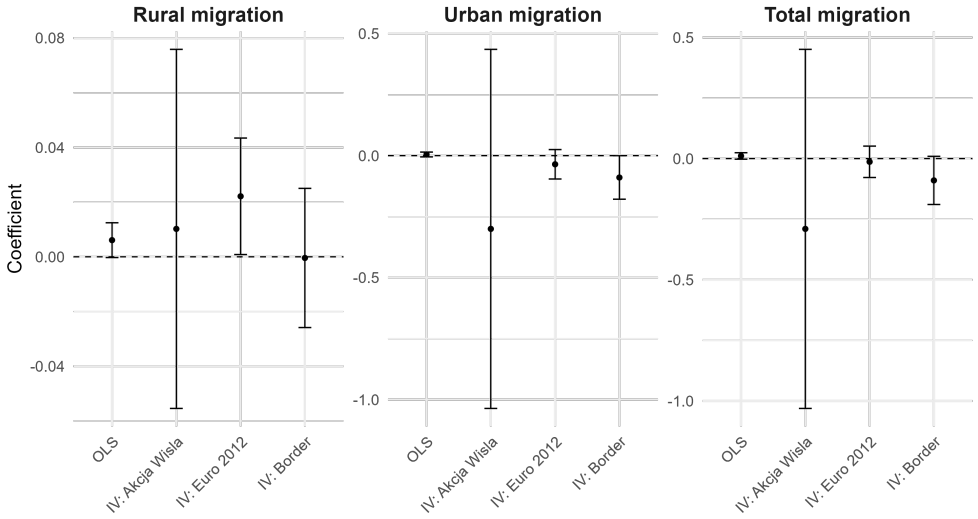
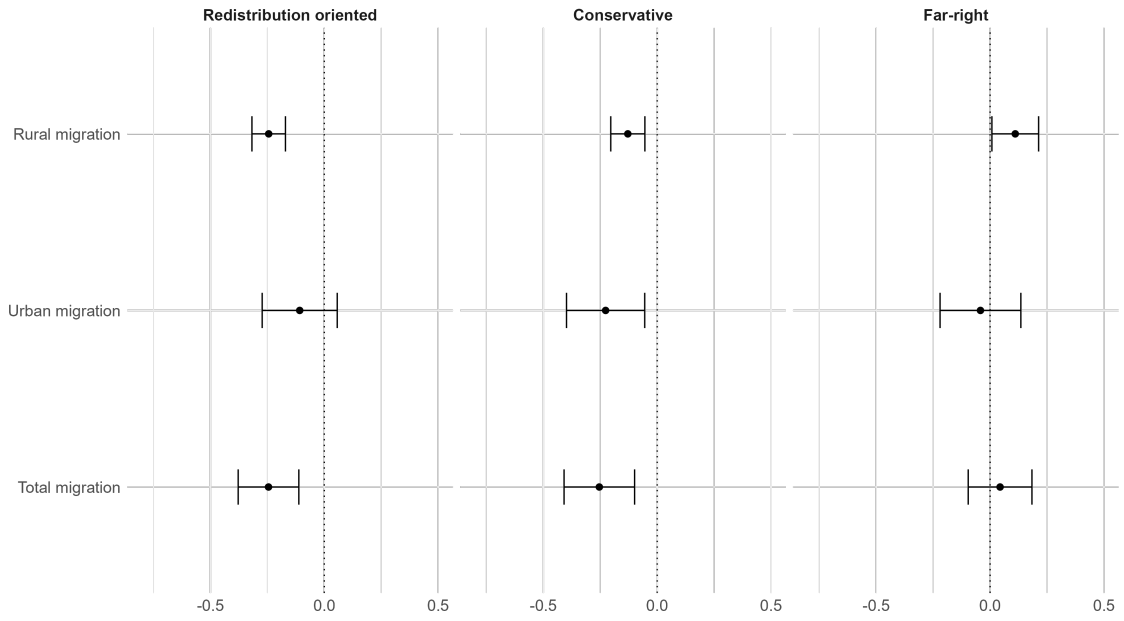
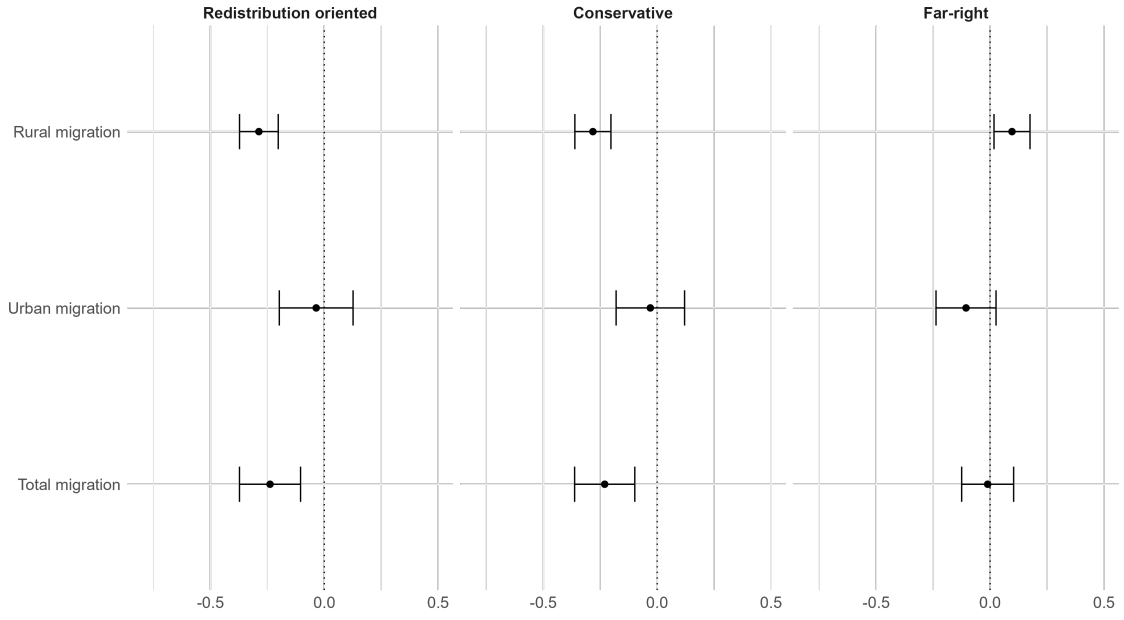



**Figure A7:** Ukrainian refugee inflow and internal migration

*Notes:* This figure presents the results for parliamentary elections 2023. Data on internal migration are based on registrations of departures. Coefficients are depicted with 95% confidence intervals.

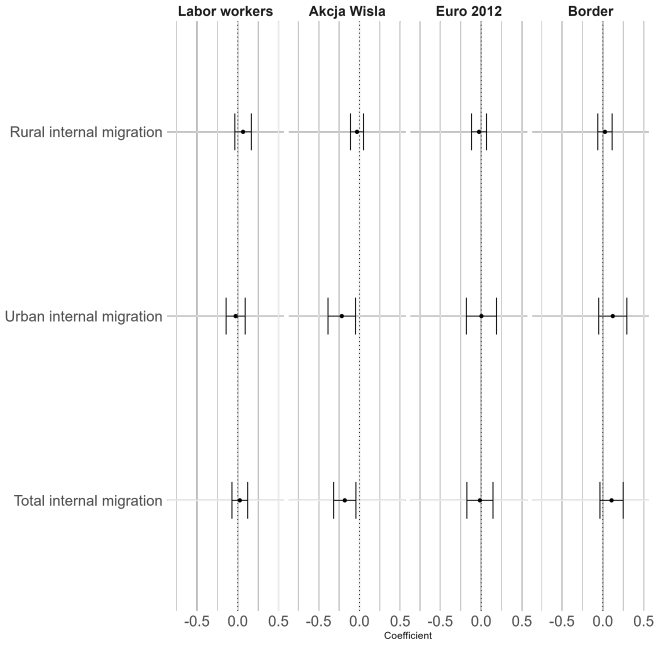



**(a)** Labor migration

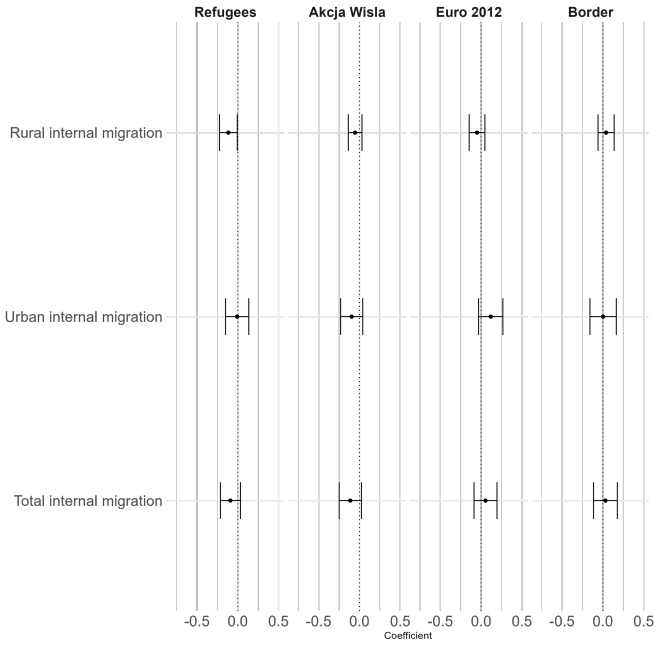



**(b)** Refugee migration

**Figure A8:** Correlation between internal migration and party type support
*Notes:* This figure presents standardized beta coefficients from univariate OLS regressions. Panel (a) presents the results for labor migrants and internal migration in 2011. and Panel (b) presents the results for refugees and internal migration in 2019. Data on internal migration are based on registrations of departures. Coefficients are depicted with 95% confidence intervals.



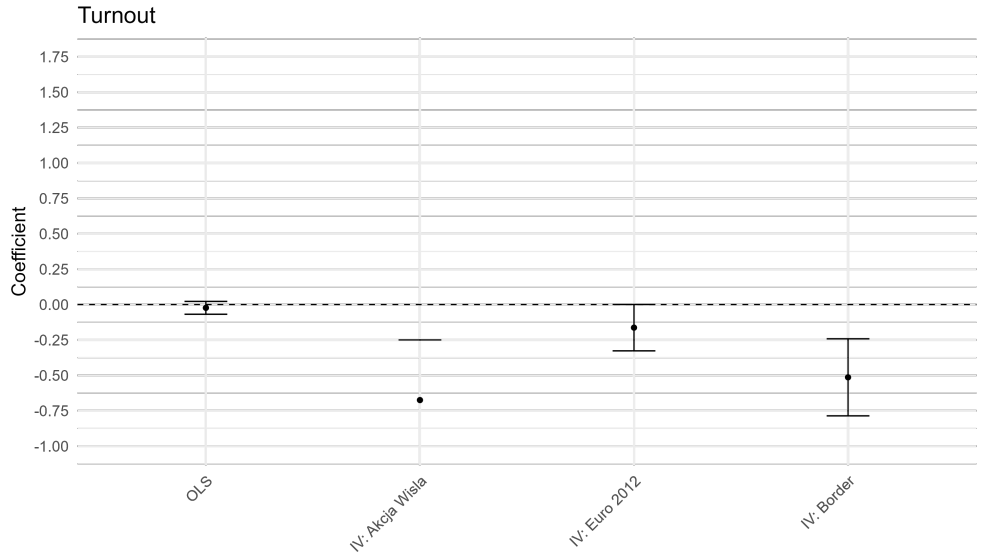

**(a)** Labor migration



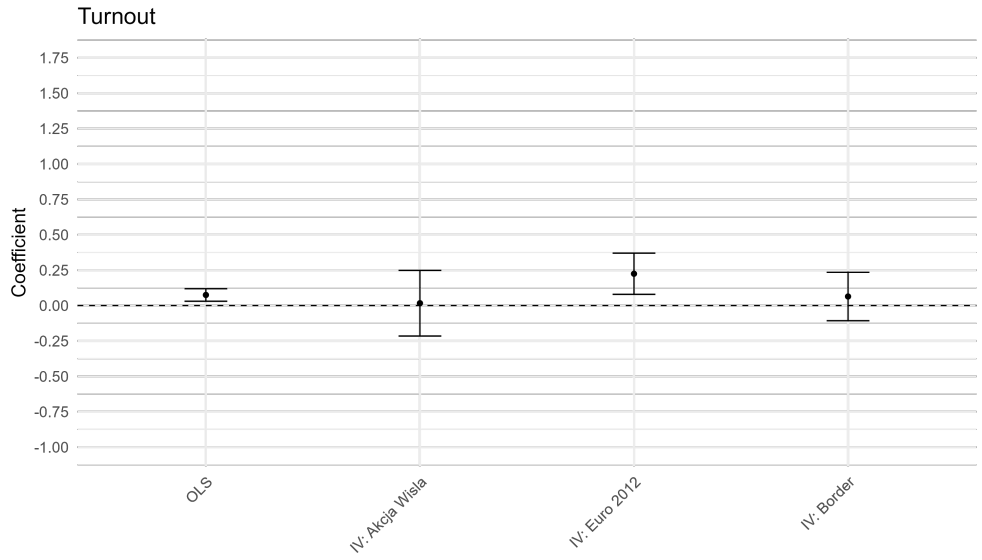

**(b)** Refugee migration

**Figure A9:** Balancing test: Correlates of Ukrainian migrants and instruments with internal migration

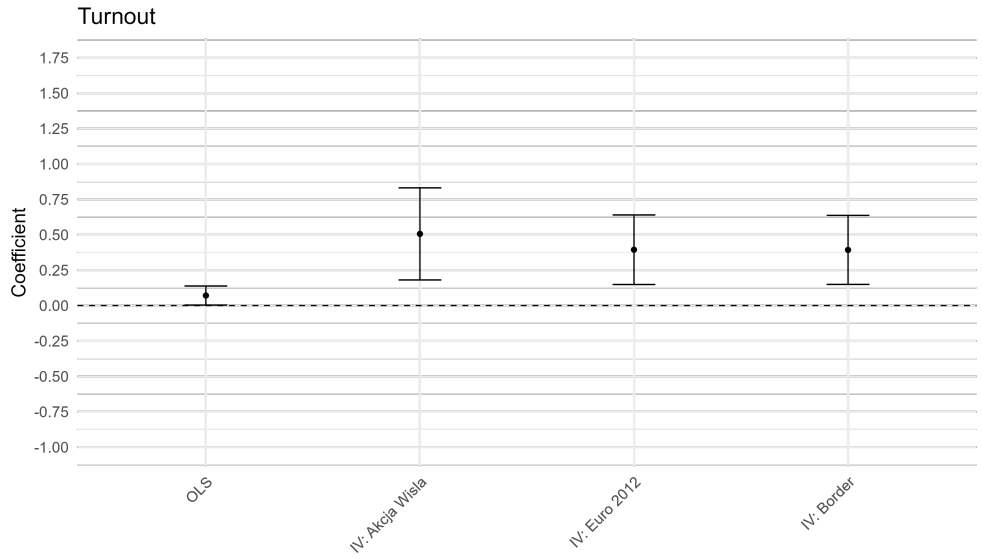
*Notes:* This figure presents standardized beta coefficients from univariate OLS regressions. Panel (a) presents the results for labor migrants and internal migration in 2011. and Panel (b) presents the results for refugees and internal migration in 2019. Data on internal migration are based on registrations of departures. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A10:** Ukrainian labor migration and turnout changes

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

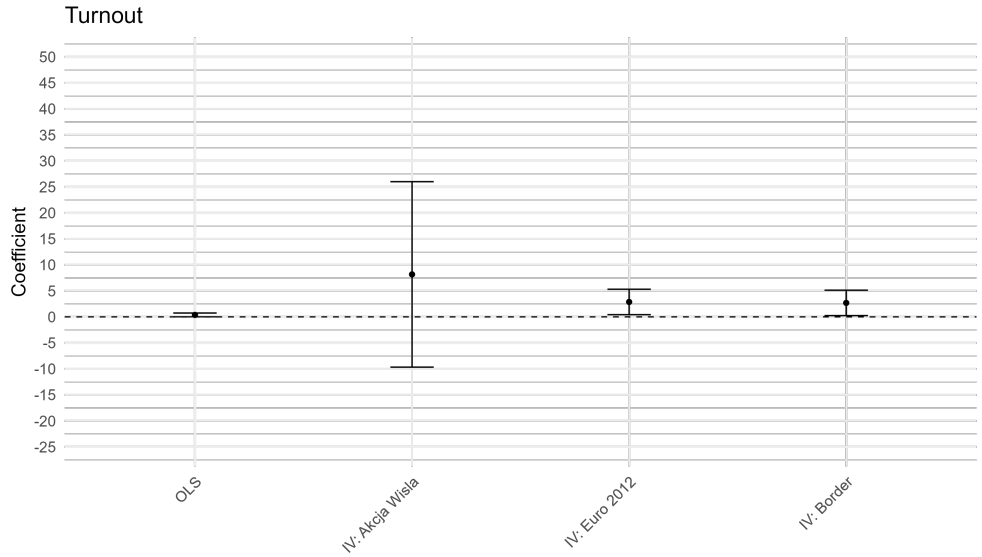
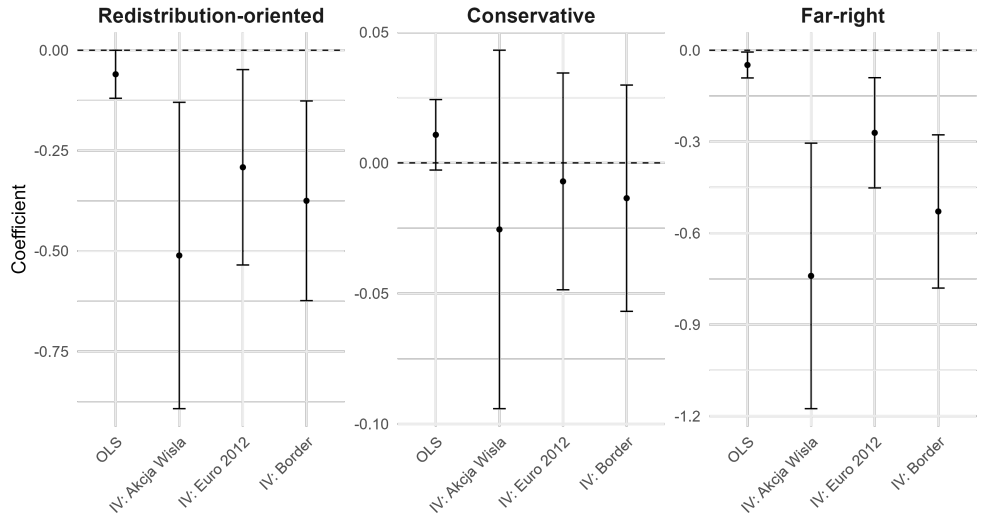
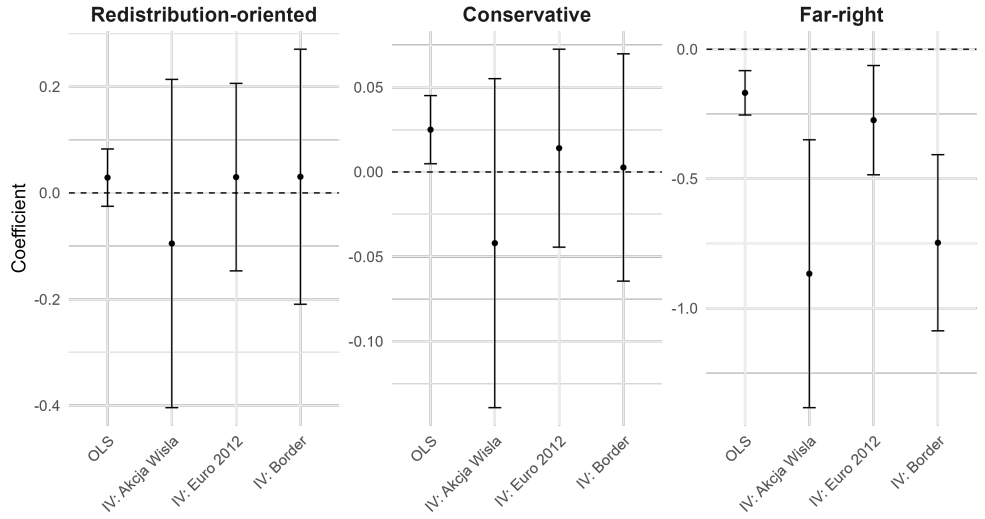



**Figure A11:** Ukrainian refugee inflow and turnout changes

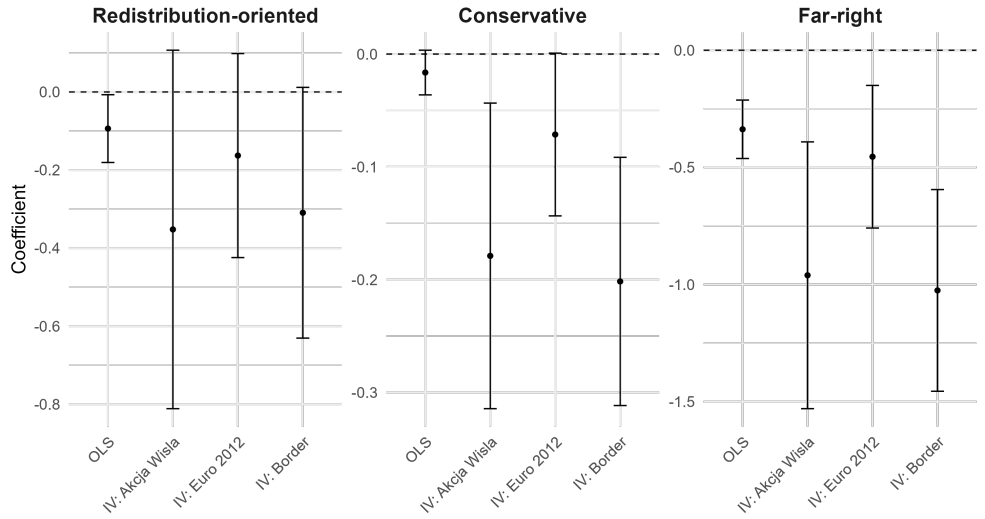
*Notes:* This figure presents the results for parliamentary elections 2023. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A12:** Ukrainian labor migration and party support conditional on turnout
*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

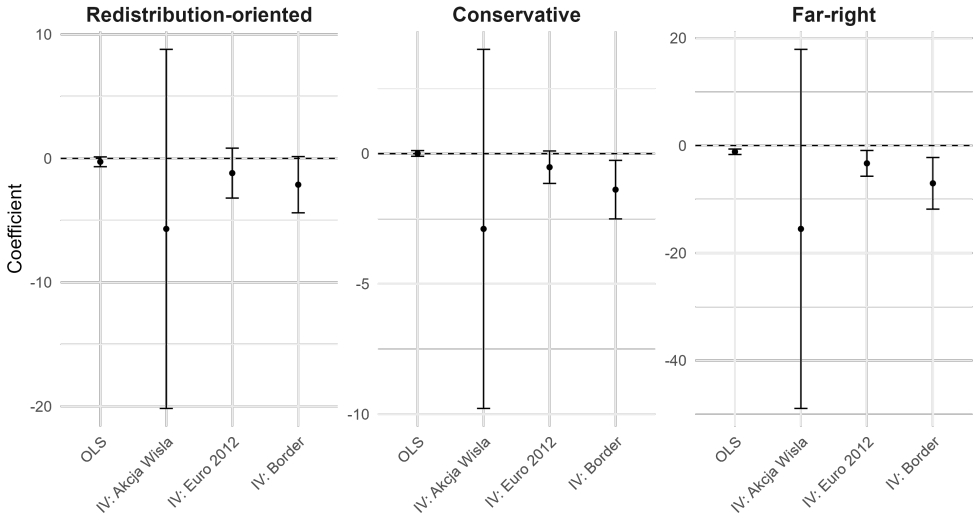



**Figure A13:** Ukrainian refugee inflow and party support conditional on turnout
*Notes:* This figure presents the results for parliamentary elections 2023. Coefficients are depicted with 95% confidence intervals.

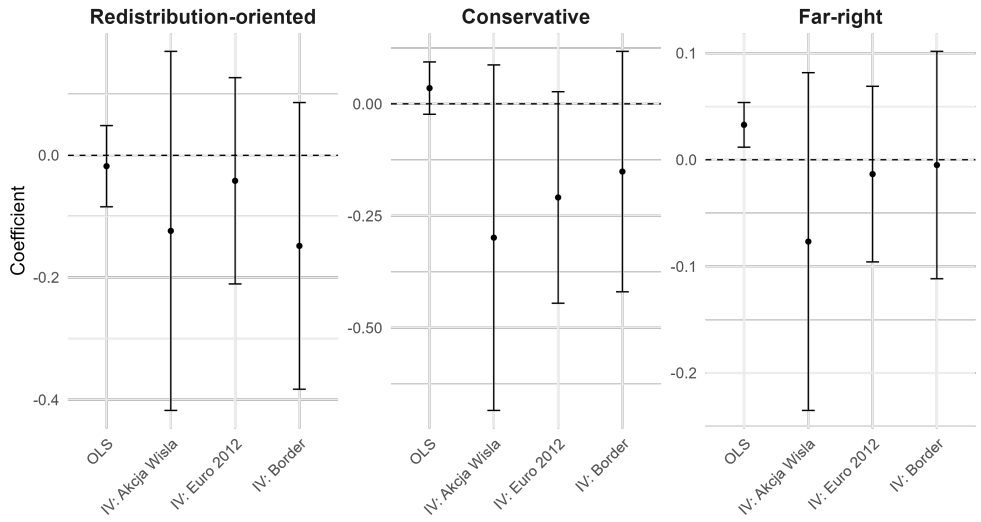



**Figure A14:** Ukrainian labor migration and political outcomes in Poland: pre-treatment trends

*Notes:* This figure presents the pre-treatment results using parliamentary elections 2007. Coefficients are depicted with 95% confidence intervals.

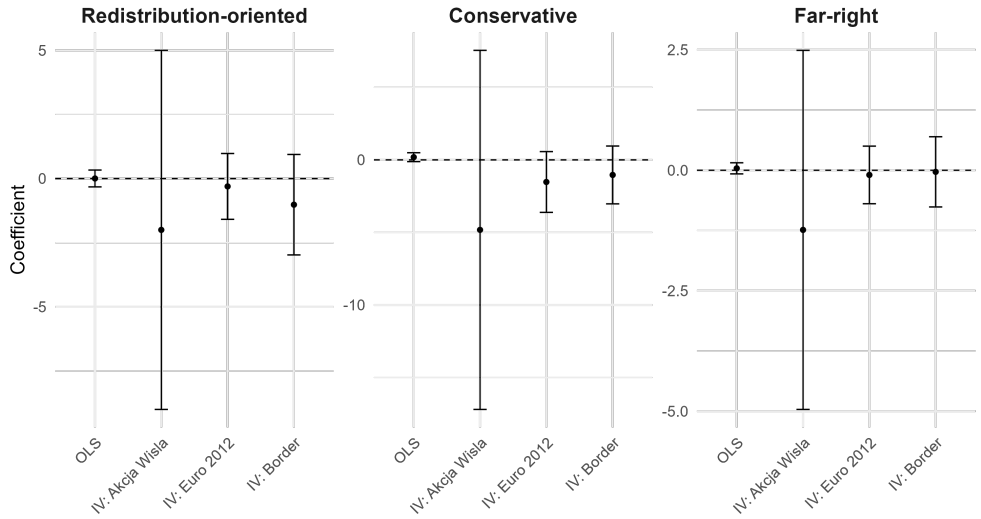
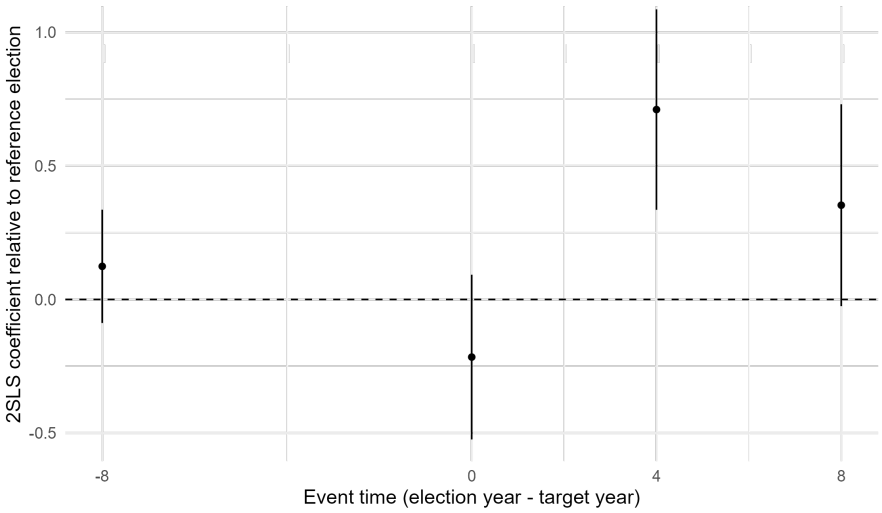
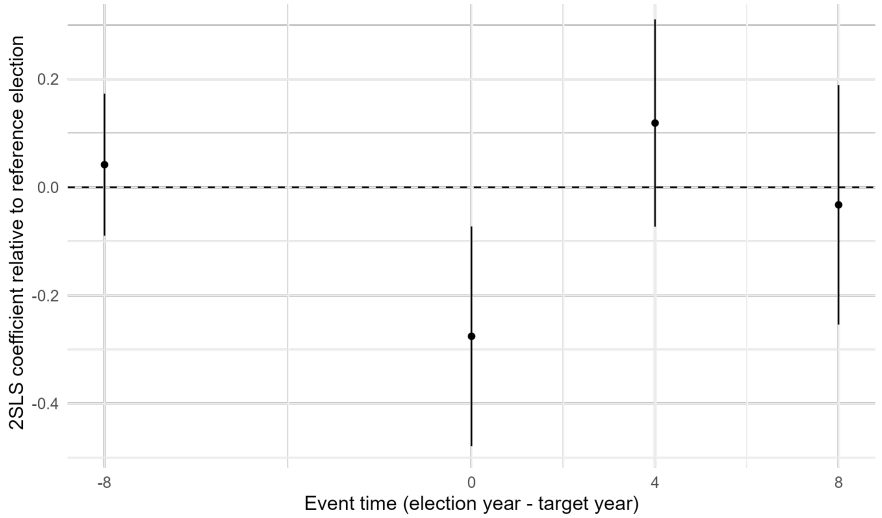



**Figure A15:** Ukrainian refugee inflow and political outcomes in Poland: pre-treatment trends

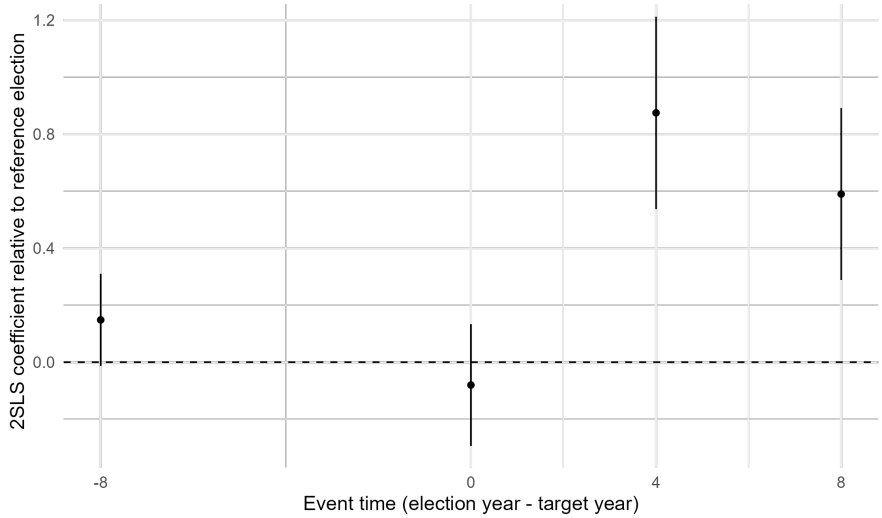
*Notes:* This figure presents the pre-treatment results using parliamentary elections 2007. Coefficients are depicted with 95% confidence intervals.




**(a)** IV: Akcja Wisla



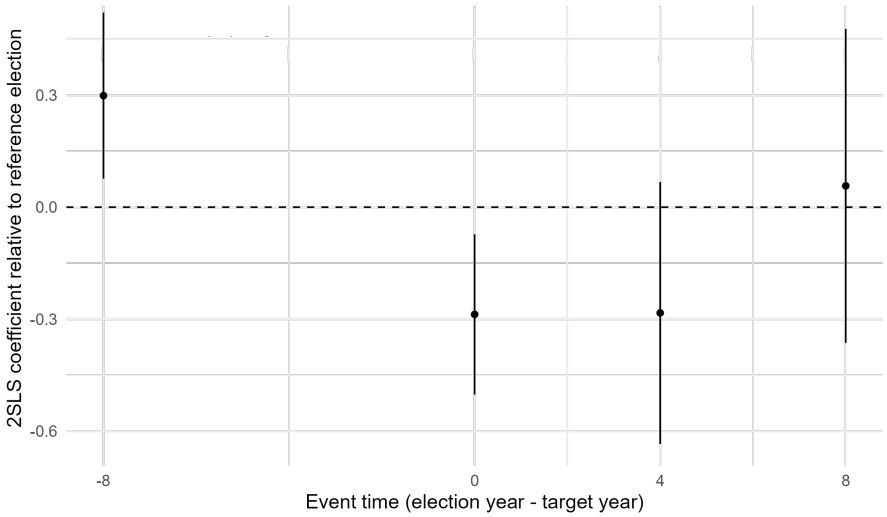

**(b)** IV: Euro 2012



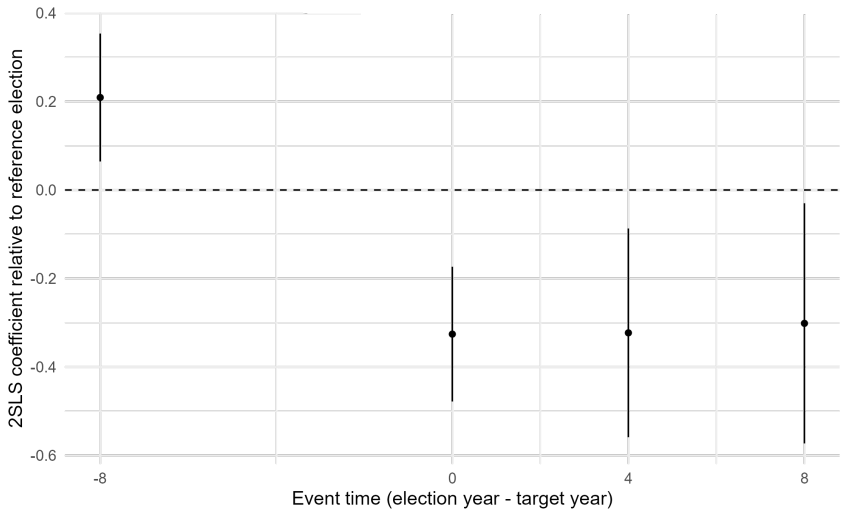

**(c)** IV: Border

**Figure A16:** Event Study for Labor Shock: Redistribution-Oriented

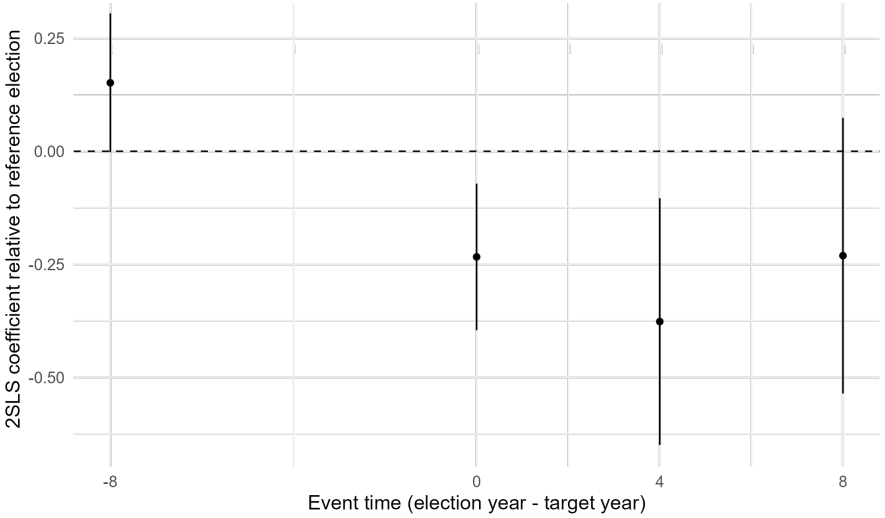
*Notes:* This figure show event-study plots based on regressions with county and election-year fixed effects. We instrument the exposure interacted with election-year dummies separately for each instrument. Panels (a), (b), and (c) present the results using the three different instruments. All results are presented relative to the last pre-treatment election in 2011.Target year is the first post-treatment election year. Coefficients are depicted with 95% confidence intervals.




**(a)** IV: Akcja Wisla



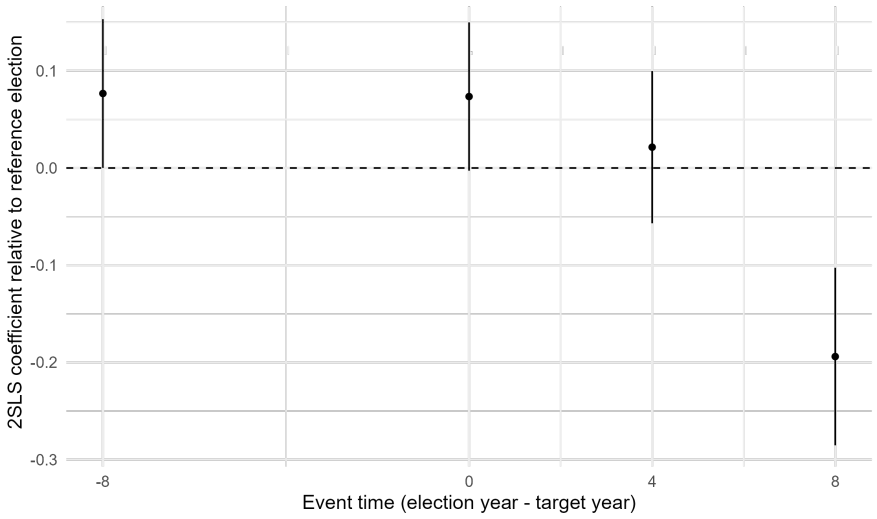

**(b)** IV: Euro 2012



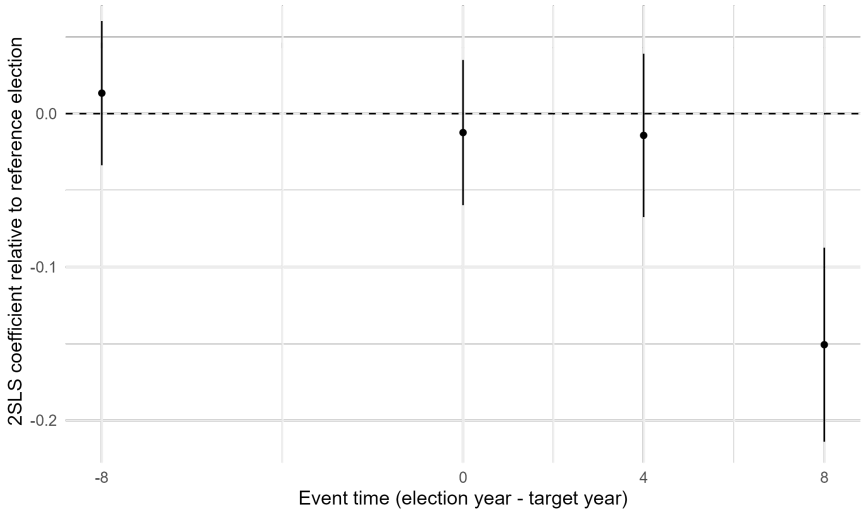

**(c)** IV: Border

**Figure A17:** Event Study for Labor Shock: Conservative

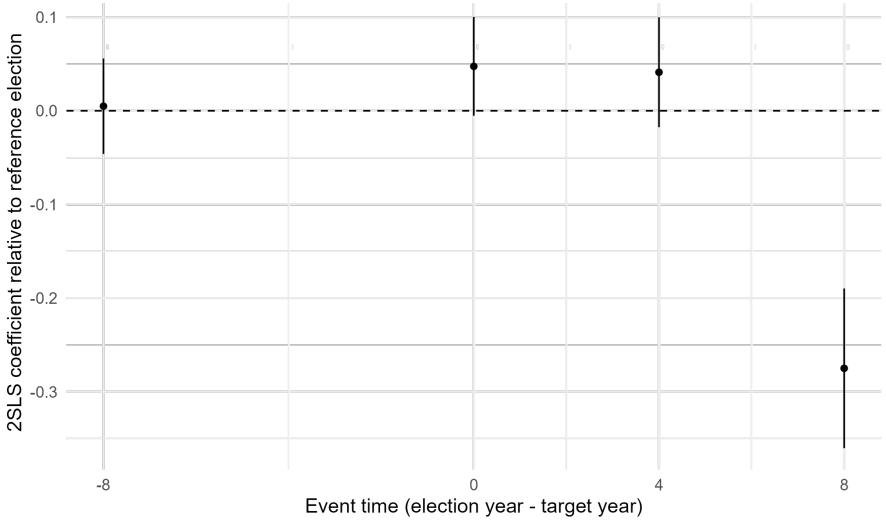
*Notes:* This figure show event-study plots based on regressions with county and election-year fixed effects. We instrument the exposure interacted with election-year dummies separately for each instrument. Panels (a), (b), and (c) present the results using the three different instruments. All results are presented relative to the last pre-treatment election in 2011.Target year is the first post-treatment election year. Coefficients are depicted with 95% confidence intervals.




**(a)** IV: Akcja Wisla



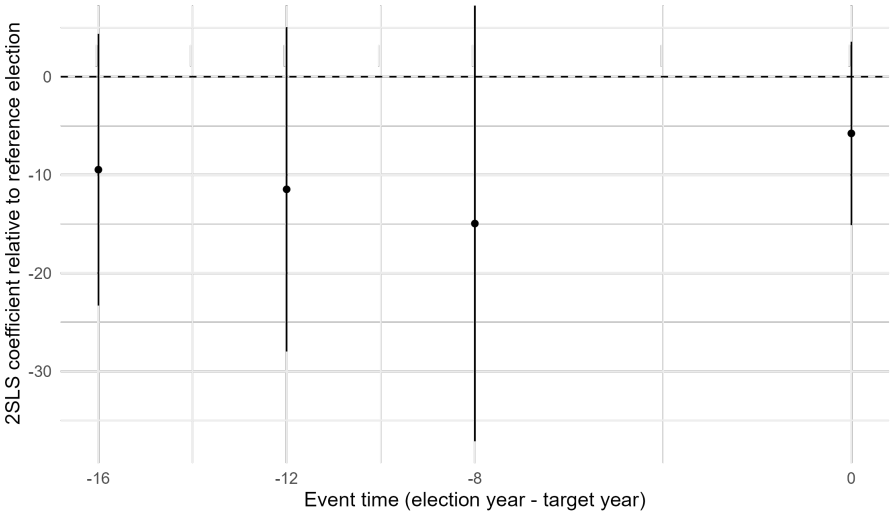

**(b)** IV: Euro 2012



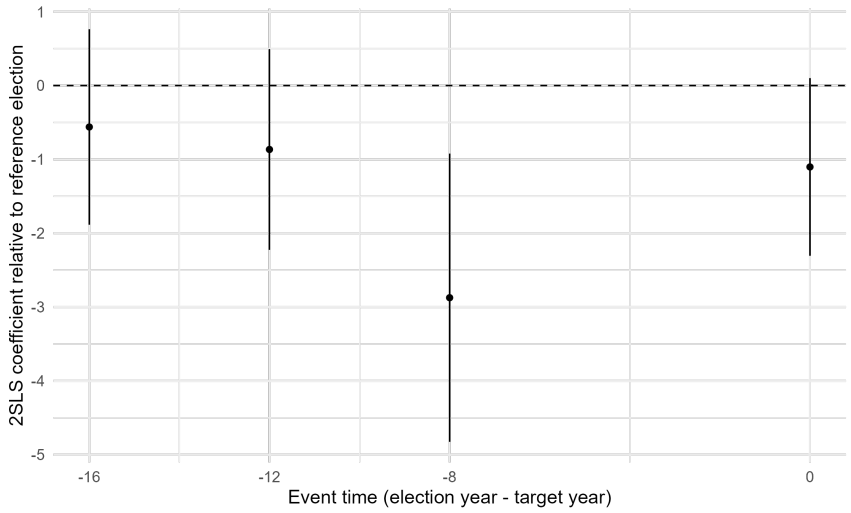

**(c)** IV: Border

**Figure A18:** Event Study for Labor Shock: Conservative

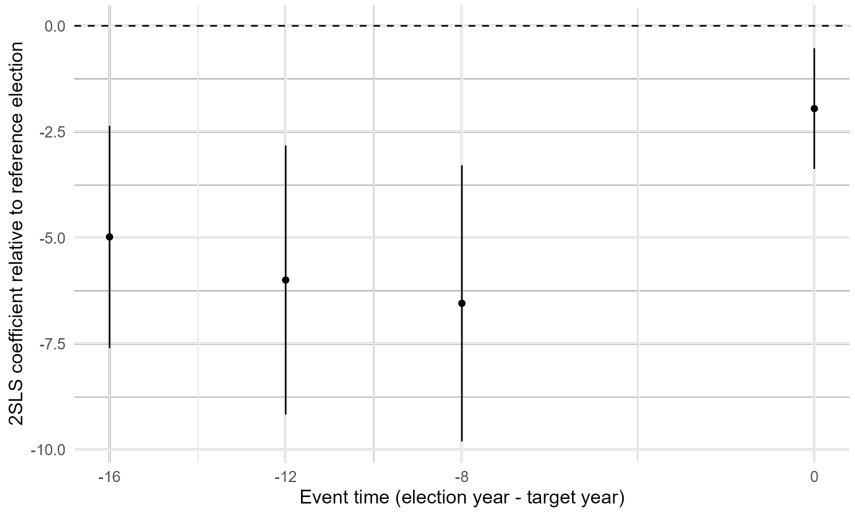
*Notes:* This figure show event-study plots based on regressions with county and election-year fixed effects. We instrument the exposure interacted with election-year dummies separately for each instrument. Panels (a), (b), and (c) present the results using the three different instruments. All results are presented relative to the last pre-treatment election in 2011.Target year is the first post-treatment election year. Coefficients are depicted with 95% confidence intervals.




**(a)** IV: Akcja Wisla



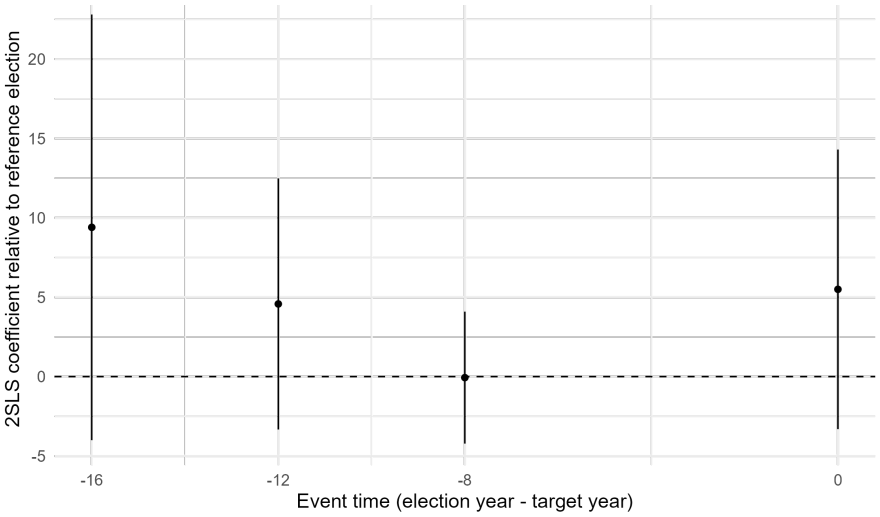

**(b)** IV: Euro 2012



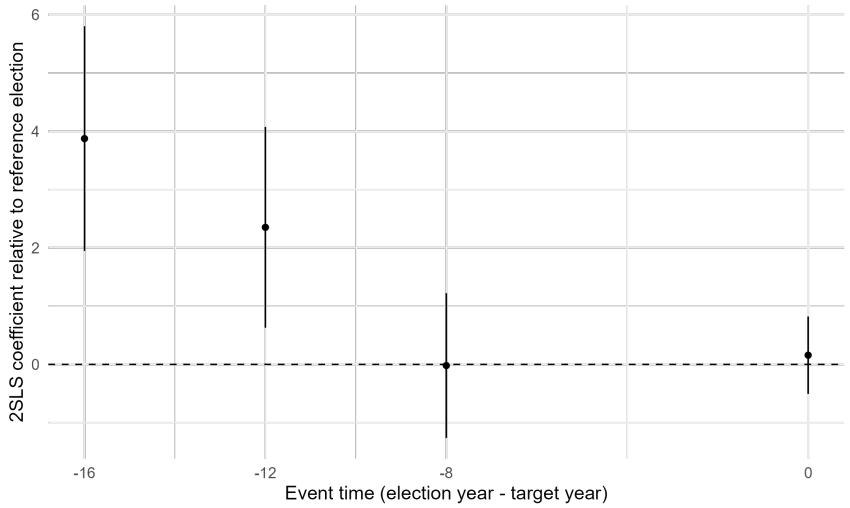

**(c)** IV: Border

**Figure A19:** Event Study for Refugee Shock: Conservative

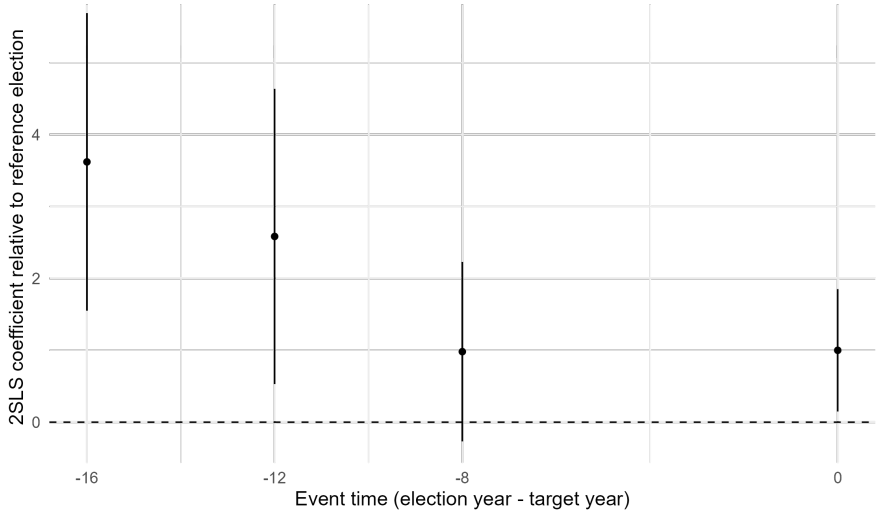
*Notes:* This figure show event-study plots based on regressions with county and election-year fixed effects. We instrument the exposure interacted with election-year dummies separately for each instrument. Panels (a), (b), and (c) present the results using the three different instruments. All results are presented relative to the last pre-treatment election in 2011.Target year is the first post-treatment election year. Coefficients are depicted with 95% confidence intervals.




**(a)** IV: Akcja Wisla



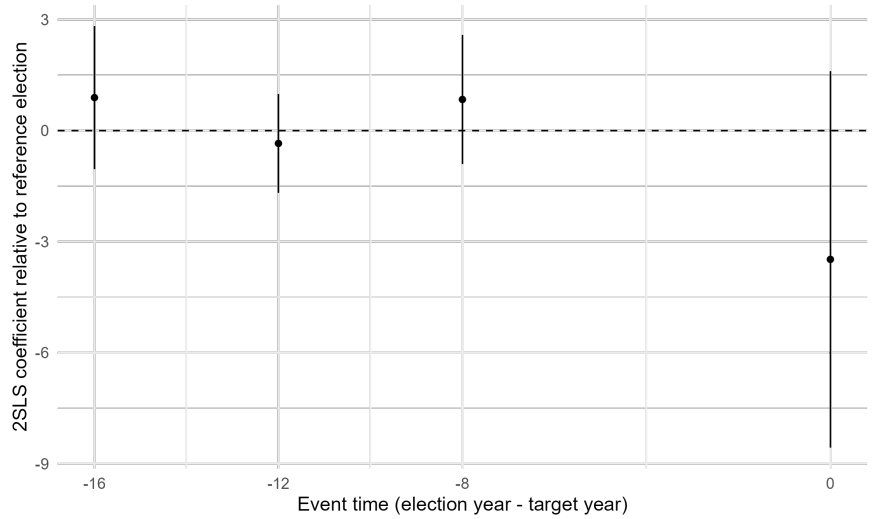

**(b)** IV: Euro 2012



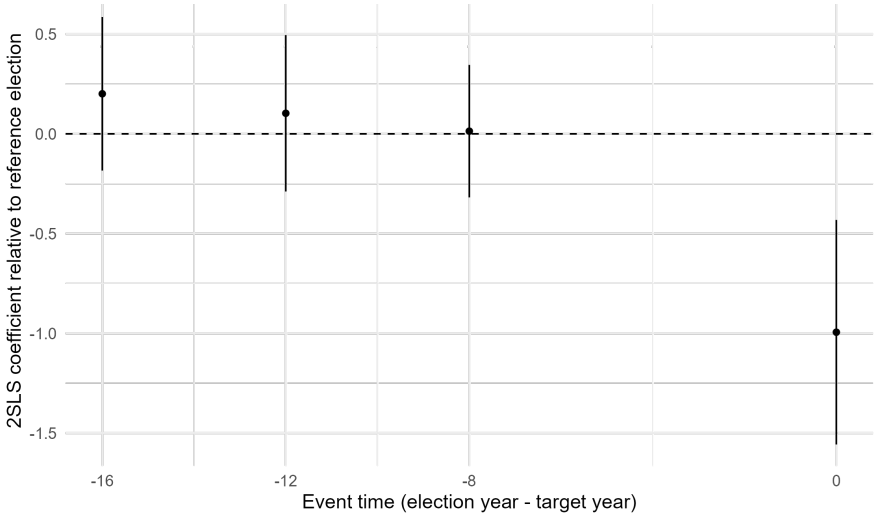

**(c)** IV: Border

**Figure A20:** Event Study for Refugee Shock: Conservative

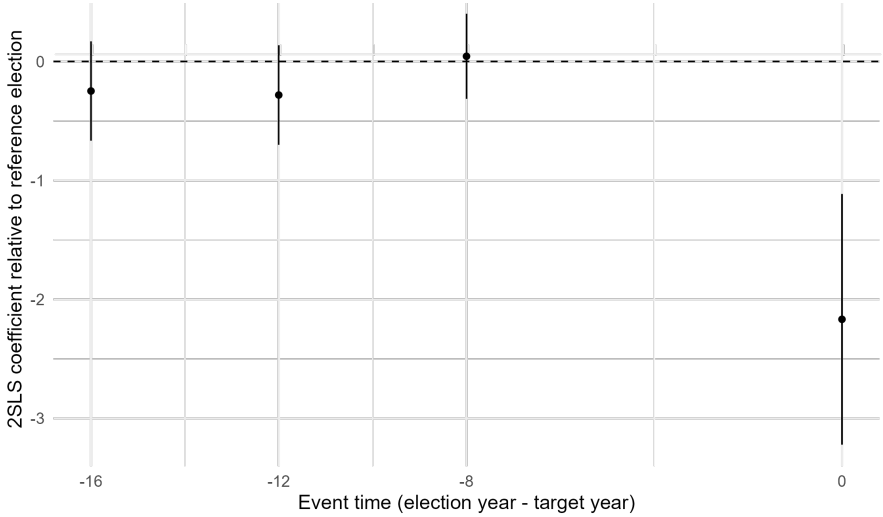
*Notes:* This figure show event-study plots based on regressions with county and election-year fixed effects. We instrument the exposure interacted with election-year dummies separately for each instrument. Panels (a), (b), and (c) present the results using the three different instruments. All results are presented relative to the last pre-treatment election in 2011.Target year is the first post-treatment election year. Coefficients are depicted with 95% confidence intervals.




**(a)** IV: Akcja Wisla



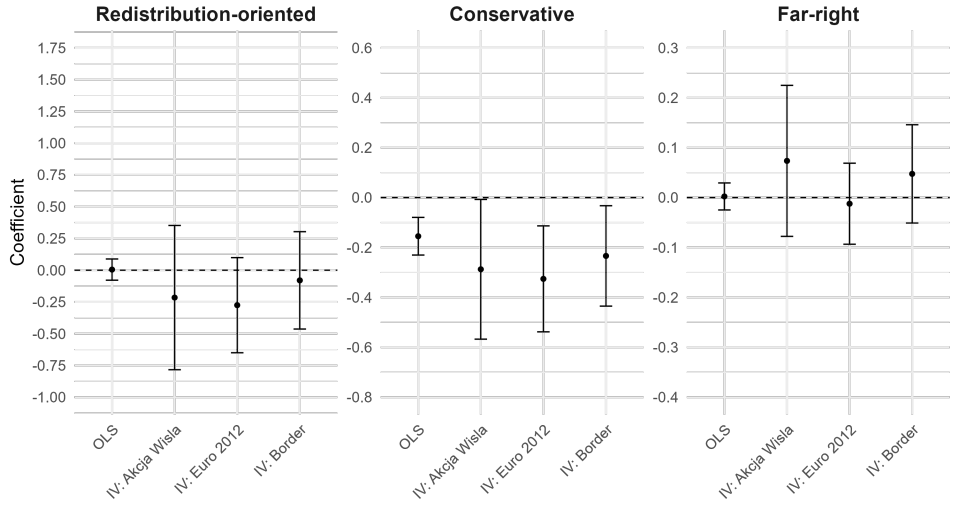

**(b)** IV: Euro 2012



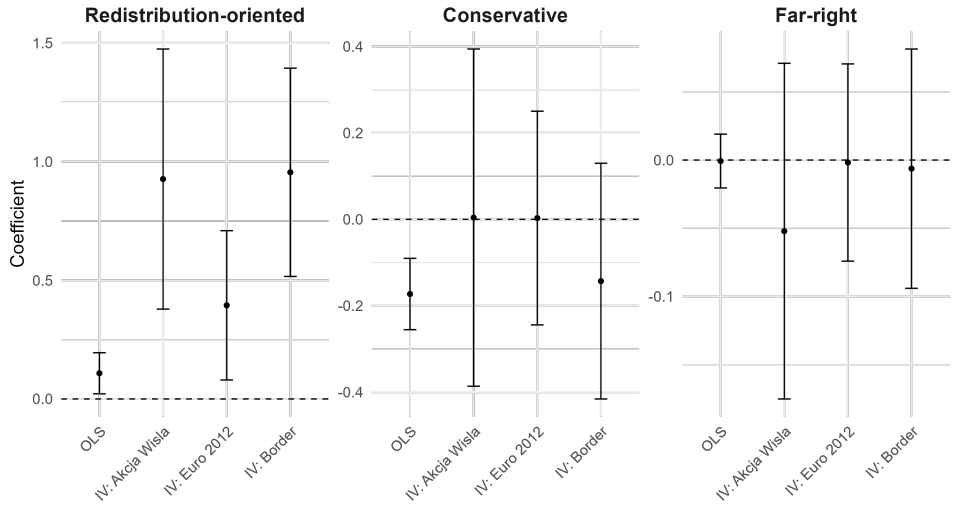

**(c)** IV: Border

**Figure A21:** Event Study for Refugee Shock: Conservative

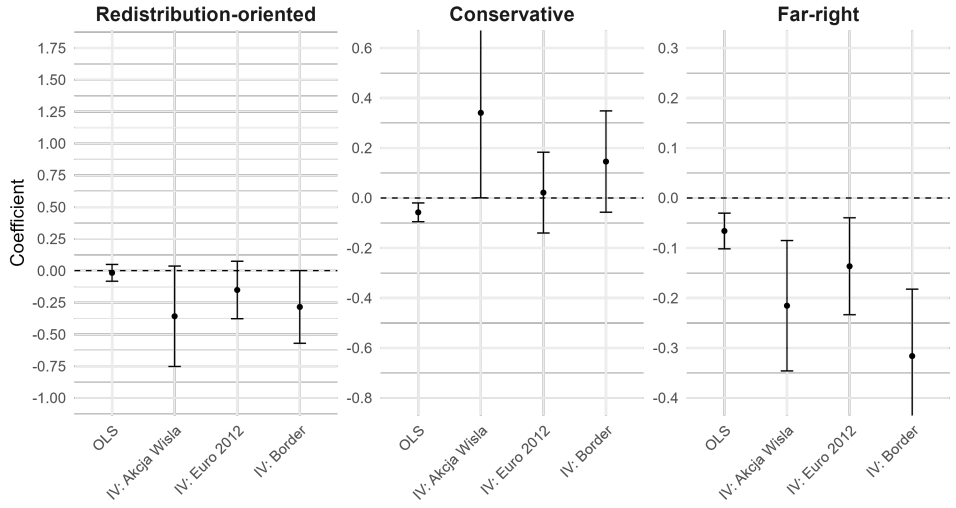
*Notes:* This figure show event-study plots based on regressions with county and election-year fixed effects. We instrument the exposure interacted with election-year dummies separately for each instrument. Panels (a), (b), and (c) present the results using the three different instruments. All results are presented relative to the last pre-treatment election in 2011.Target year is the first post-treatment election year. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A22:** Ukrainian labor migration and political outcomes in Poland: Alternative definitions of outcome variables

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Outcome variables are defined as the change in the vote share for parties in the respective category between election year $t$ and election year $t-1$. Coefficients are depicted with 95% confidence intervals.

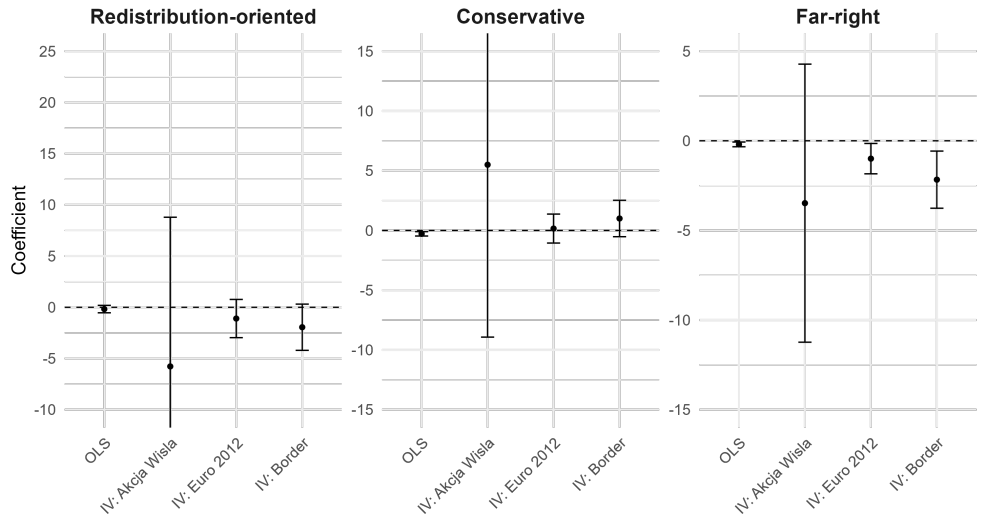
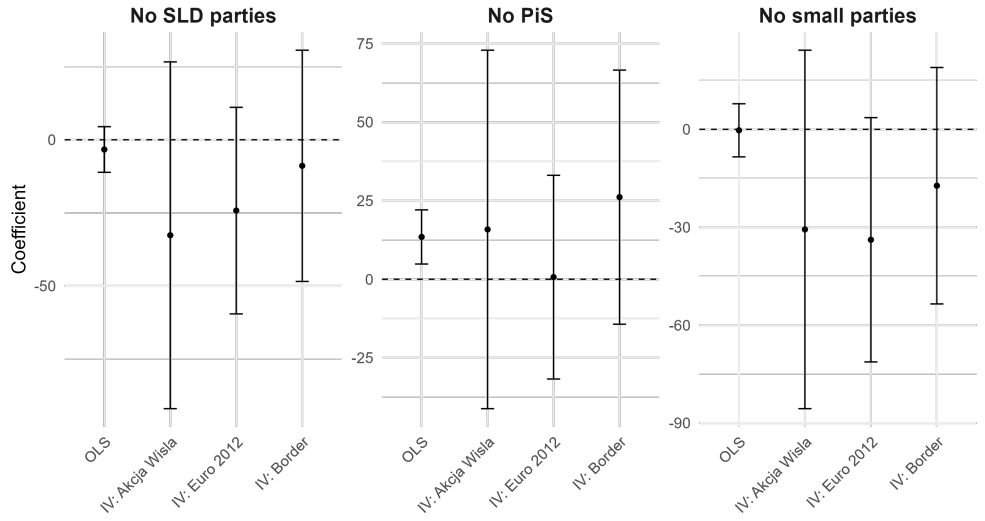
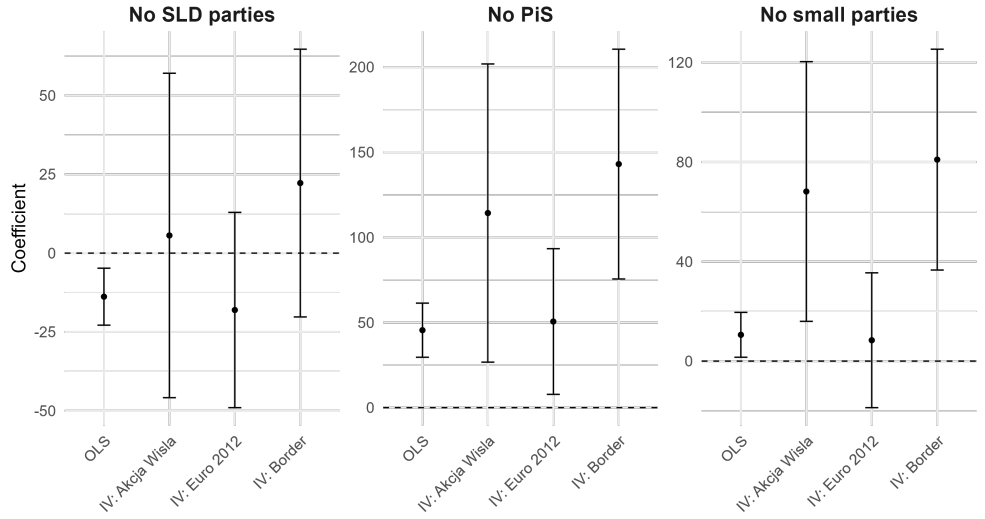



**Figure A23:** Ukrainian refugee inflow and political outcomes in Poland: Alternative definitions of outcome variables

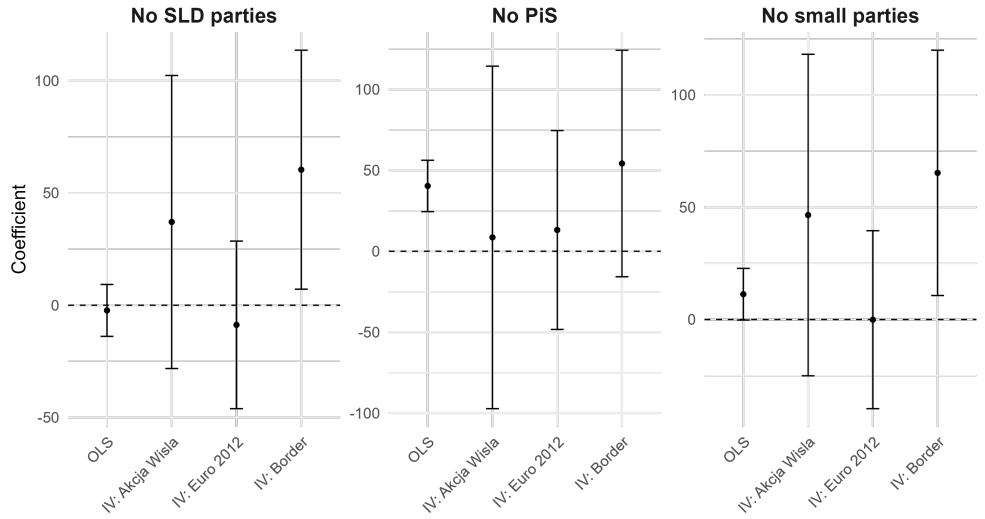
*Notes:* This figure presents the results for parliamentary elections 2023. Outcome variables are defined as the change in the vote share for parties in the respective category between election year $t$ and election year $t-1$. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A24:** Robustness: redistribution-oriented parties classification
*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

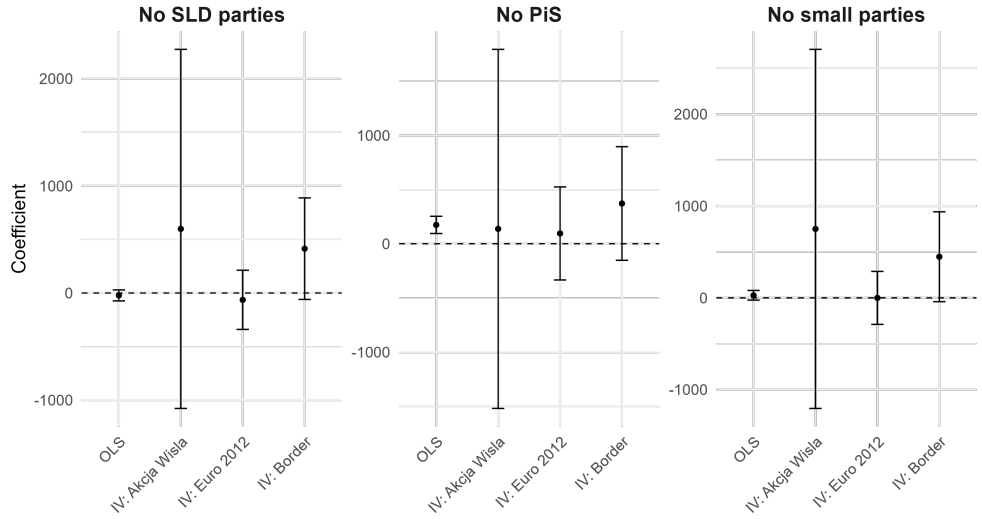
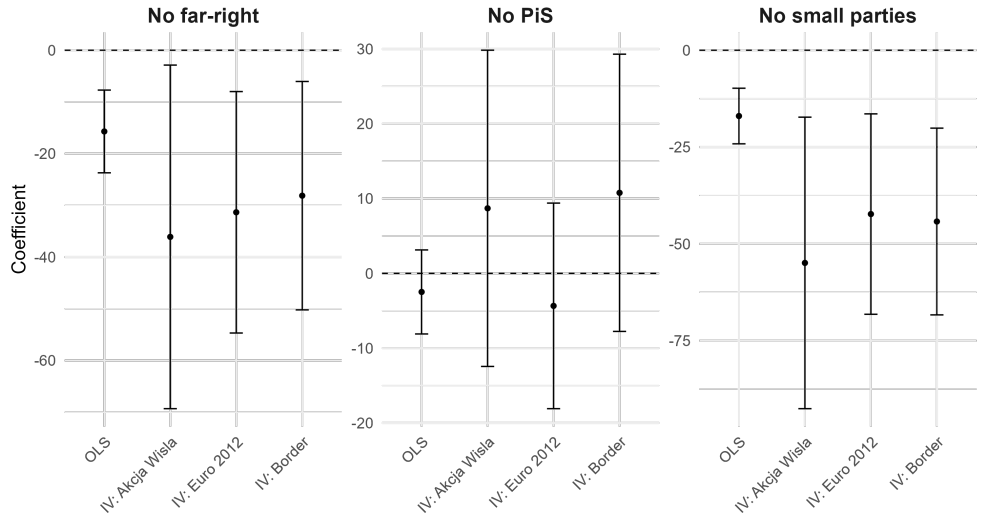
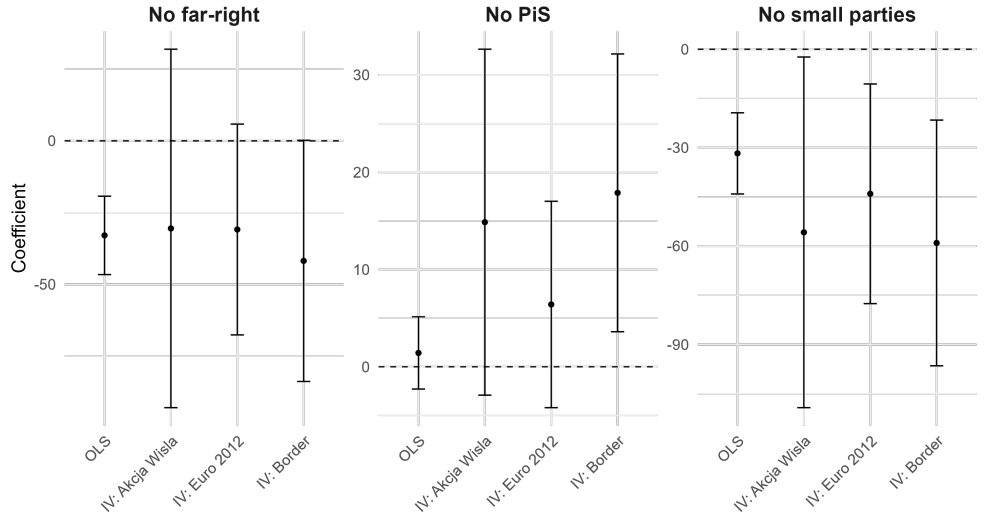



**Figure A25:** Robustness: redistribution-oriented parties classification

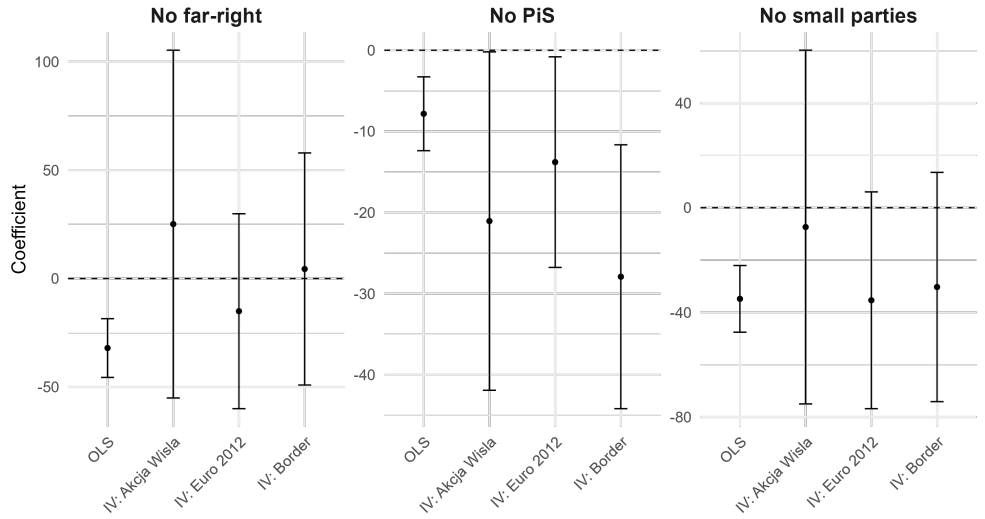
*Notes:* This figure presents the results for parliamentary elections 2023. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A26:** Robustness: conservative parties classification

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

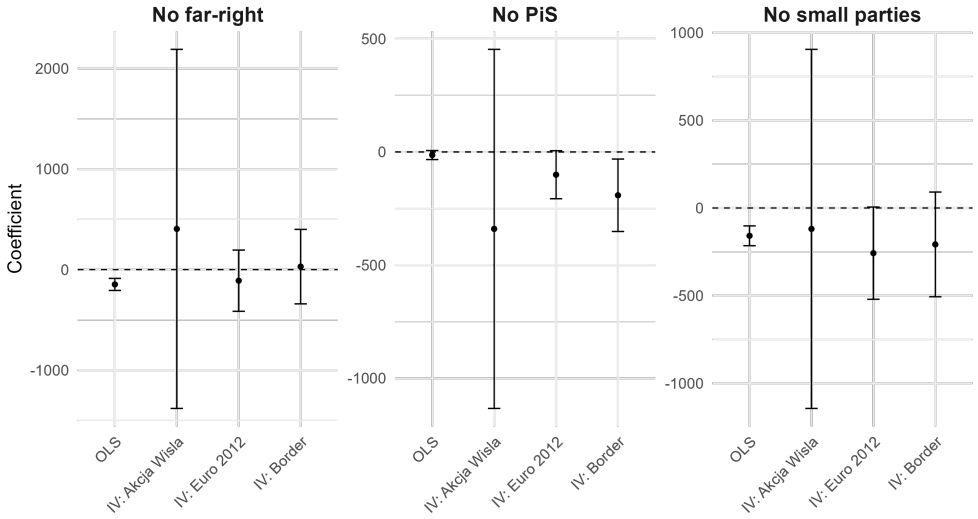
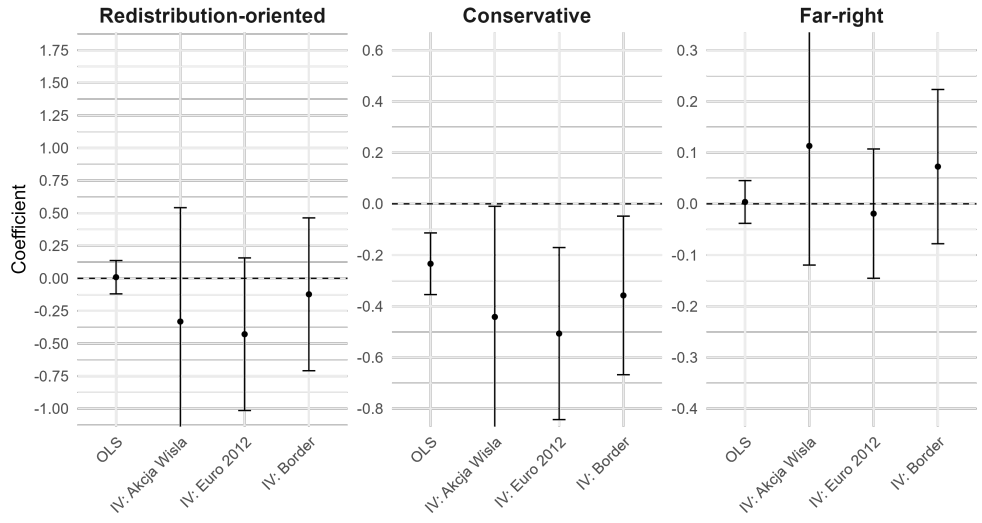
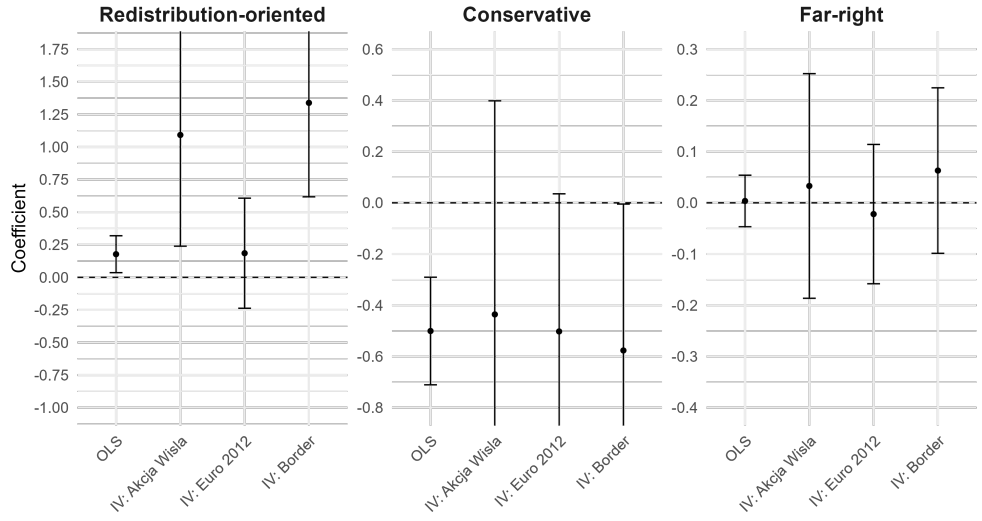



**Figure A27:** Robustness: conservative parties classification

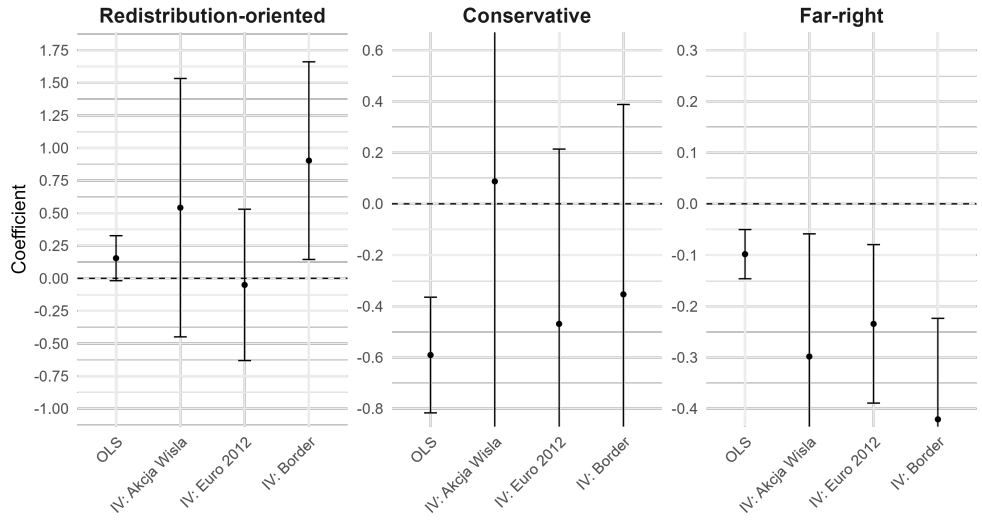
*Notes:* This figure presents the results for parliamentary elections 2023. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A28:** Ukrainian labor migration and political outcomes in Poland: Robustness to same denominator

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. We use total population in 2011 as denominator when generating the treatment variable. Coefficients are depicted with 95% confidence intervals.

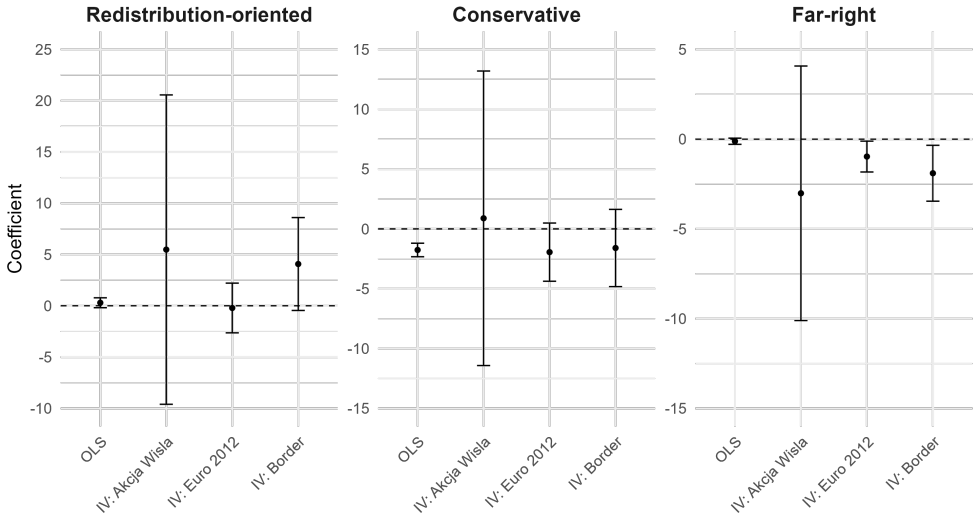
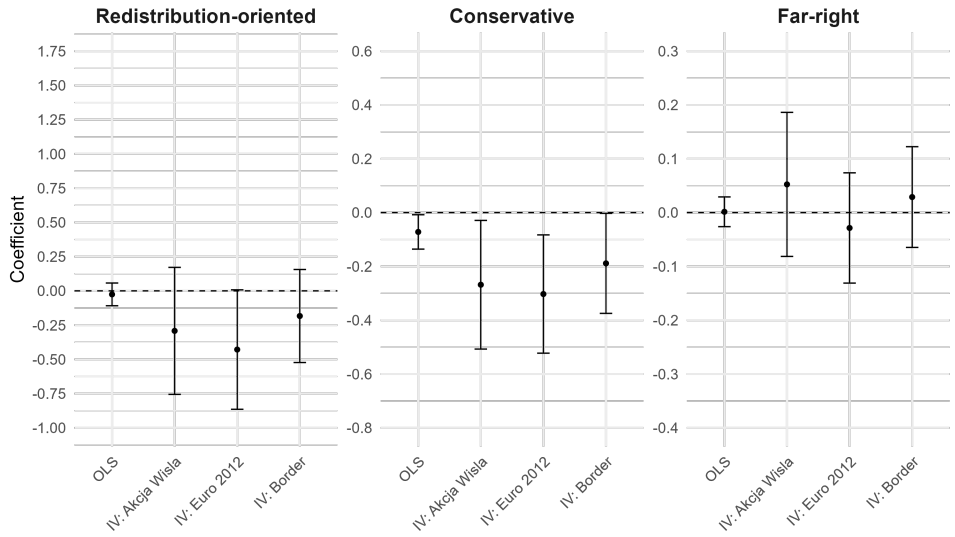
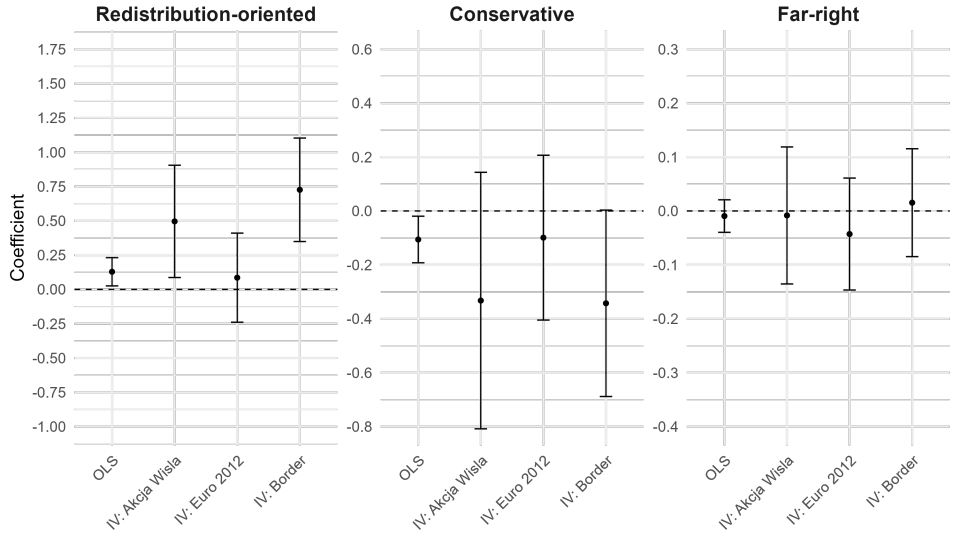



**Figure A29:** Ukrainian refugee inflow and political outcomes in Poland: Robustness to same denominator

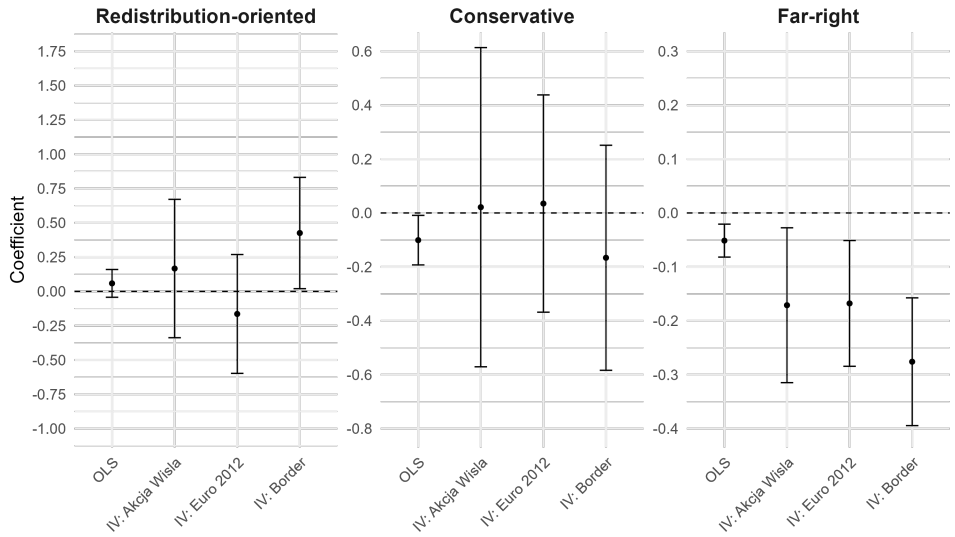
*Notes:* This figure presents the results for parliamentary elections 2023. We use total population in 2011 as denominator when generating the treatment variable. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A30:** Ukrainian labor migration and political outcomes in Poland: Controlling for potential confounders

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. We control for all potential confounders measured in 2011 and their pre-treatment changes between 2007 and 2011, as listed in the balancing tests in Figures A2 and A3. Coefficients are depicted with 95% confidence intervals.

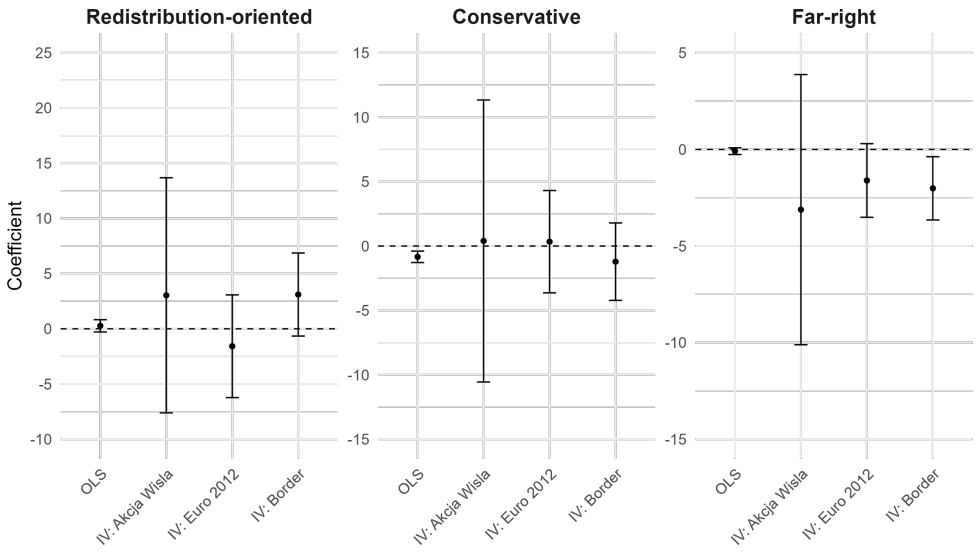
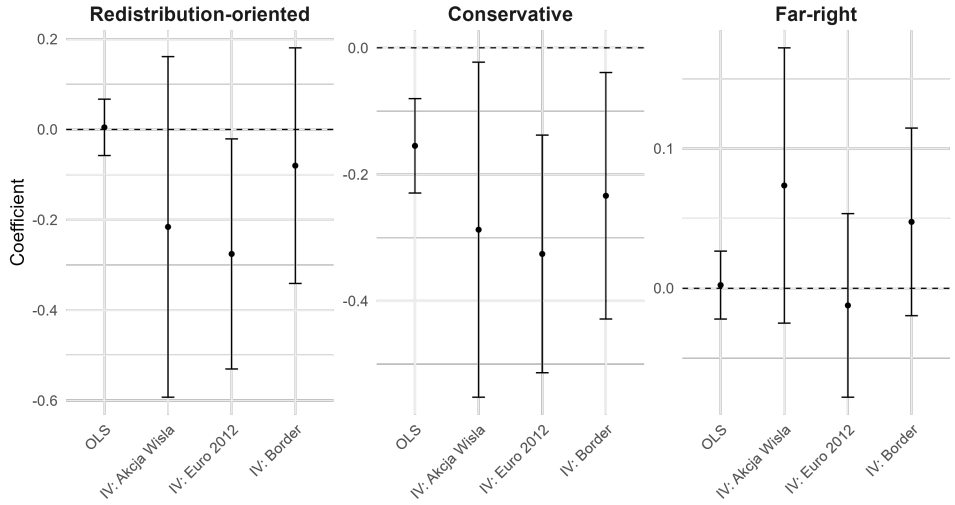
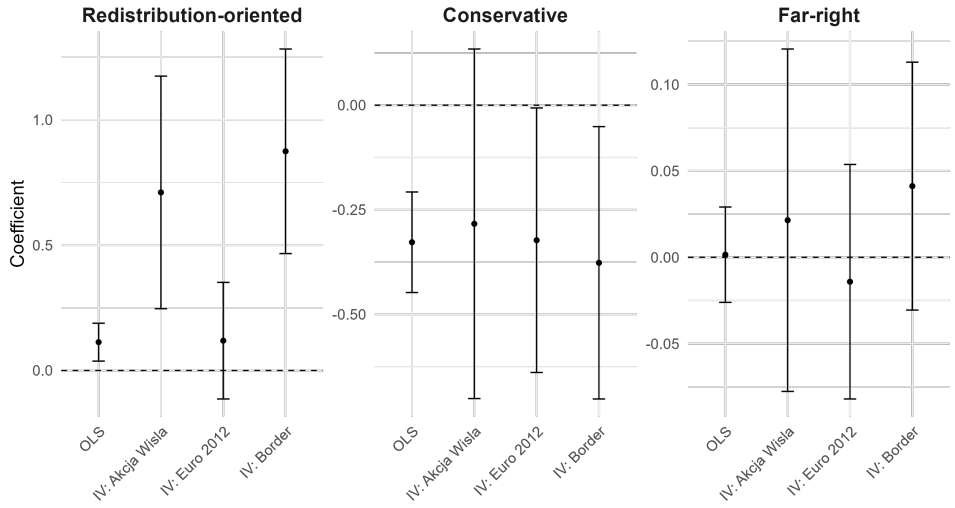



**Figure A31:** Ukrainian refugee inflow and political outcomes in Poland: controlling for potential confounders

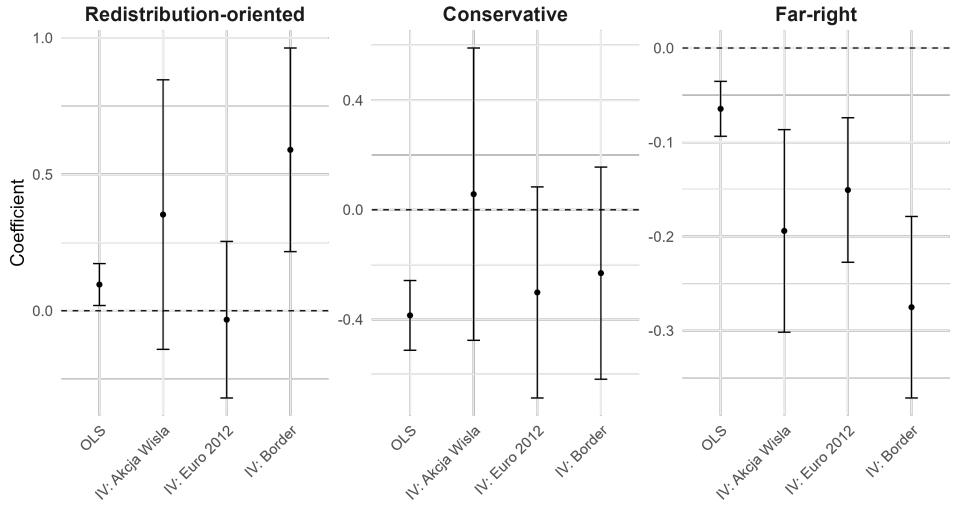
*Notes:* This figure presents the results for parliamentary elections 2023. We control for all potential confounders measured in 2011 and their pre-treatment changes between 2007 and 2011, as listed in the balancing tests in Figures A2 and A3. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A32:** Ukrainian labor migration and political outcomes in Poland: Conley Standard Errors 25 km

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

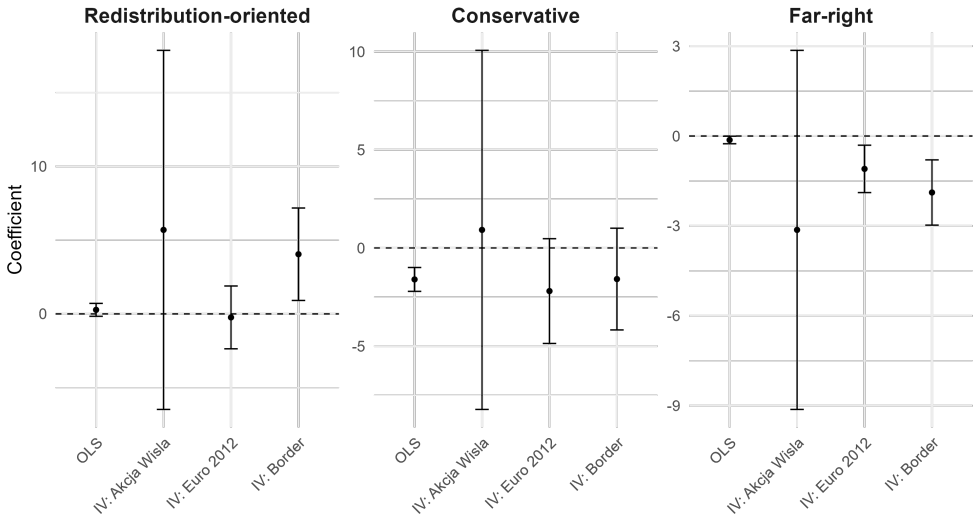
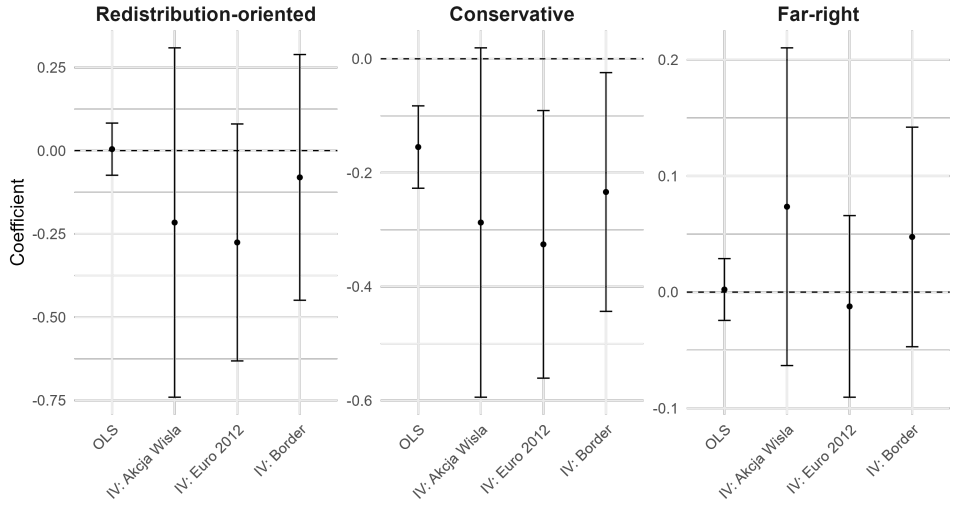
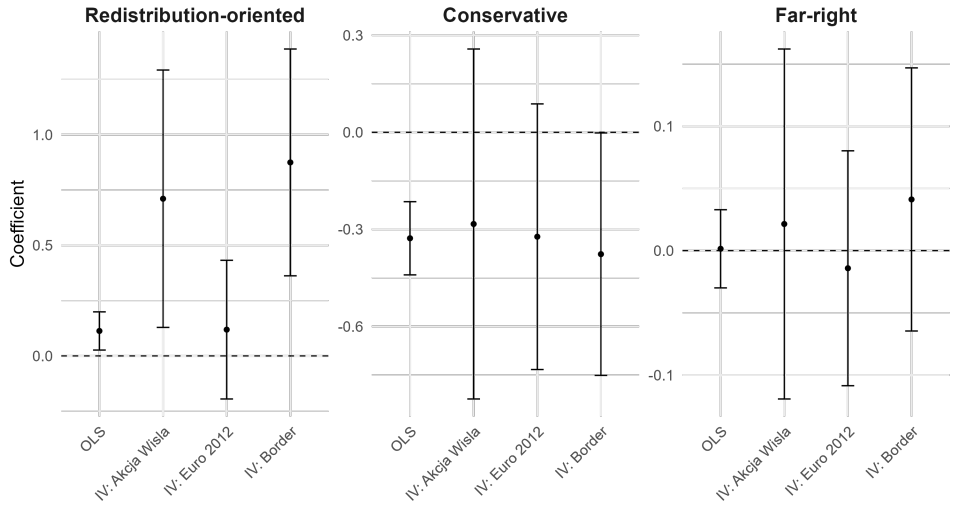



**Figure A33:** Ukrainian refugee inflow and political outcomes in Poland: Conley Standard Errors 25 km

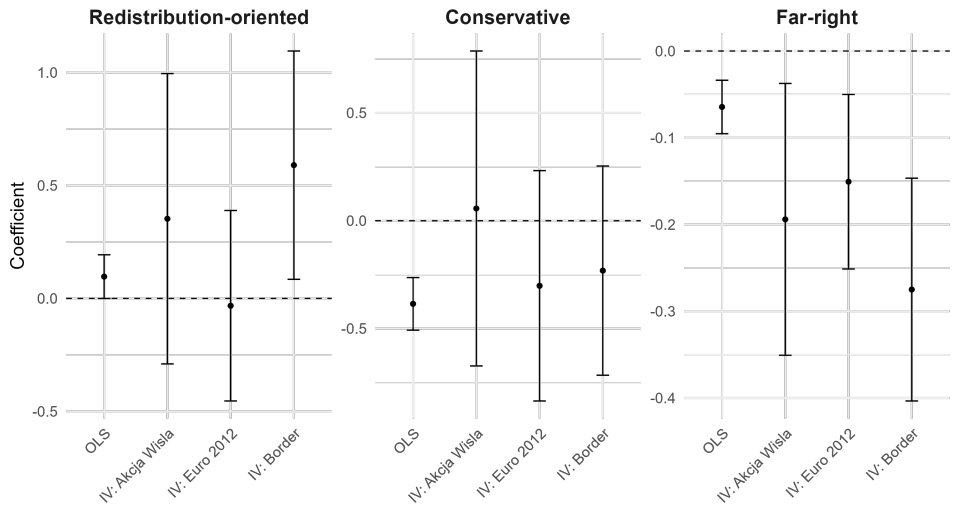
*Notes:* This figure presents the results for parliamentary elections 2023. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A34:** Ukrainian labor migration and political outcomes in Poland: Conley Standard Errors 50 km

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

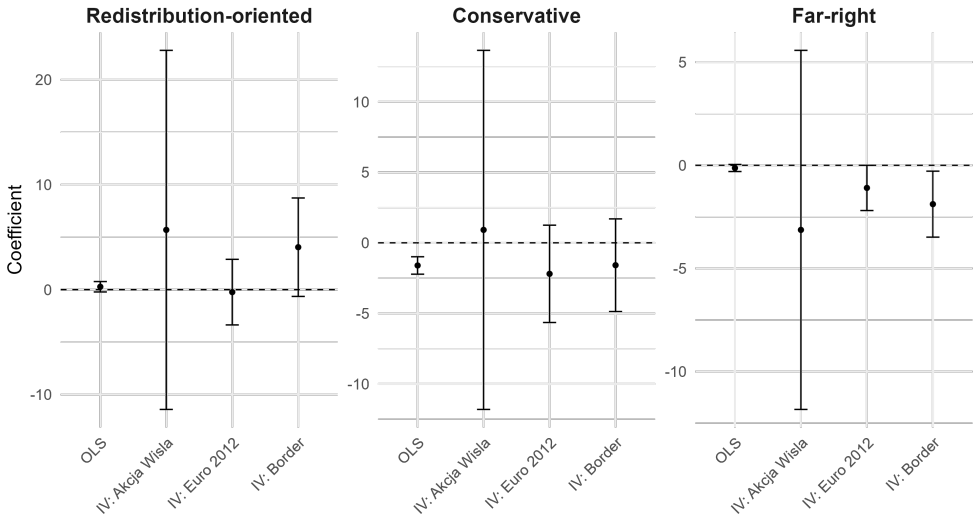
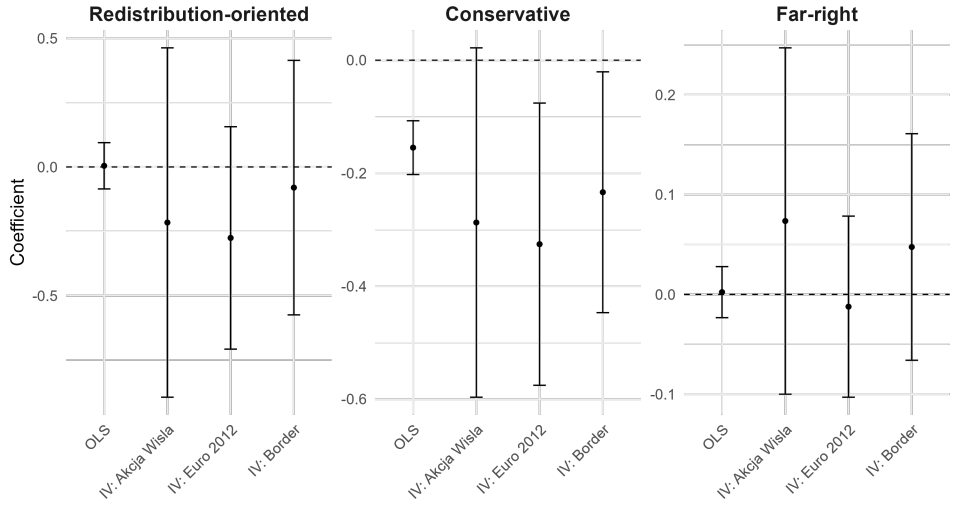
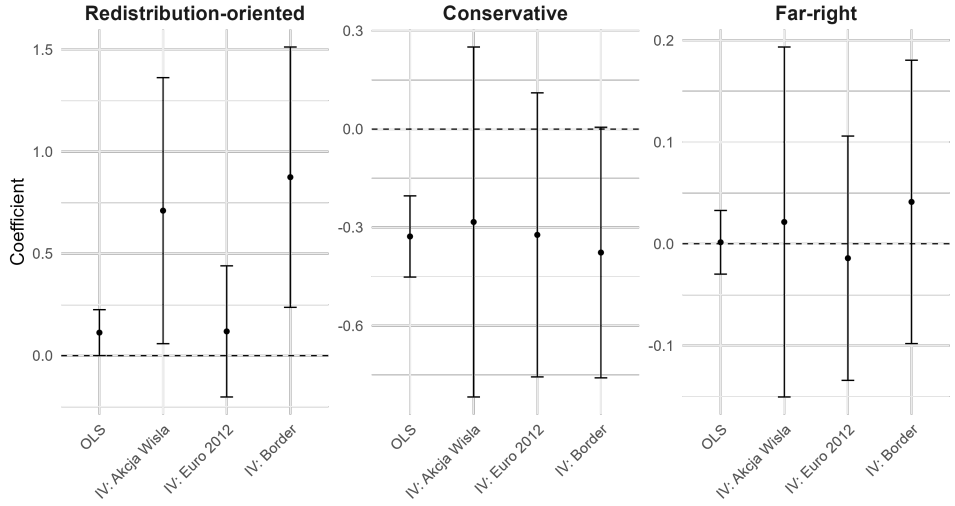



**Figure A35:** Ukrainian refugee inflow and political outcomes in Poland: Conley Standard Errors 50 km

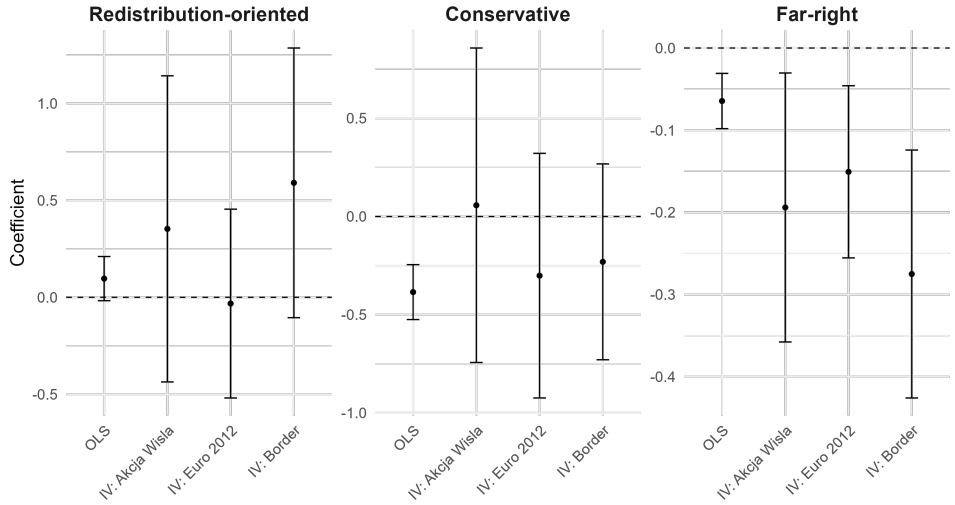
*Notes:* This figure presents the results for parliamentary elections 2023. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A36:** Ukrainian labor migration and political outcomes in Poland: Conley Standard Errors 100 km

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

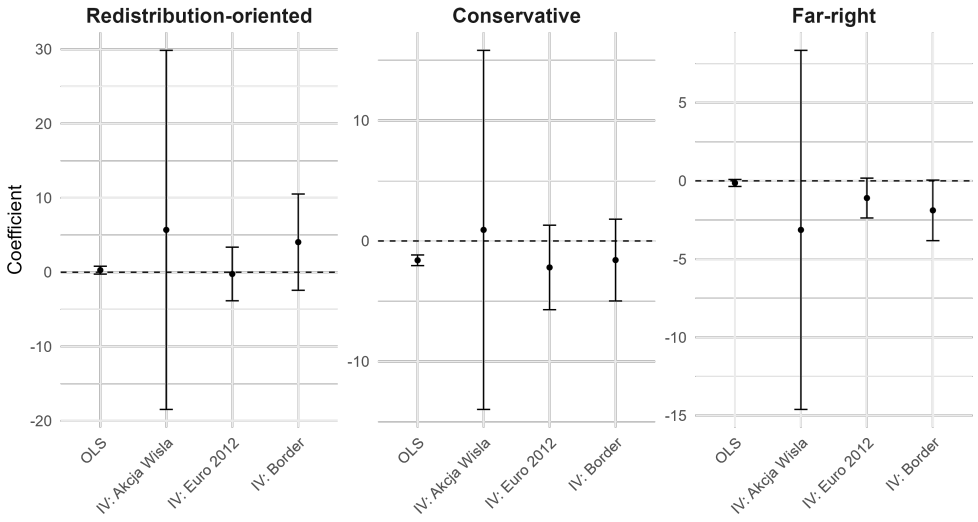
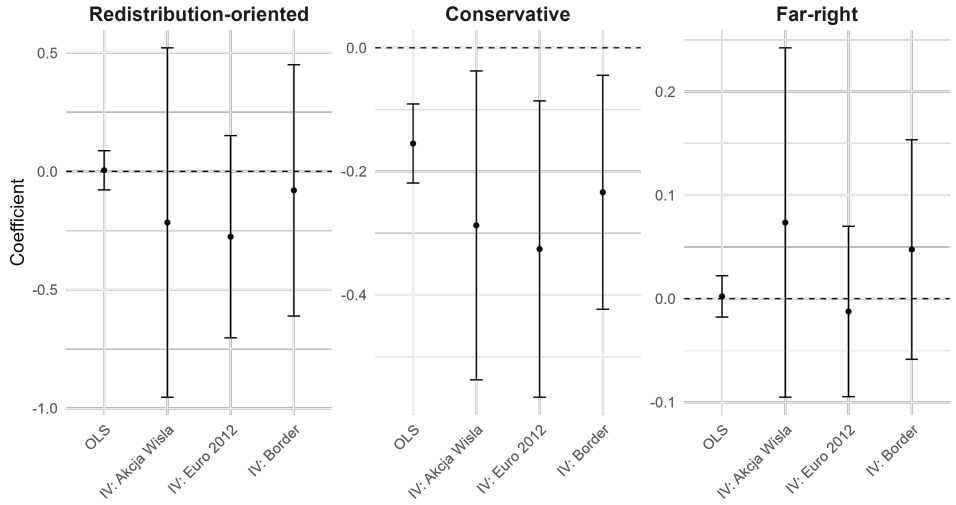
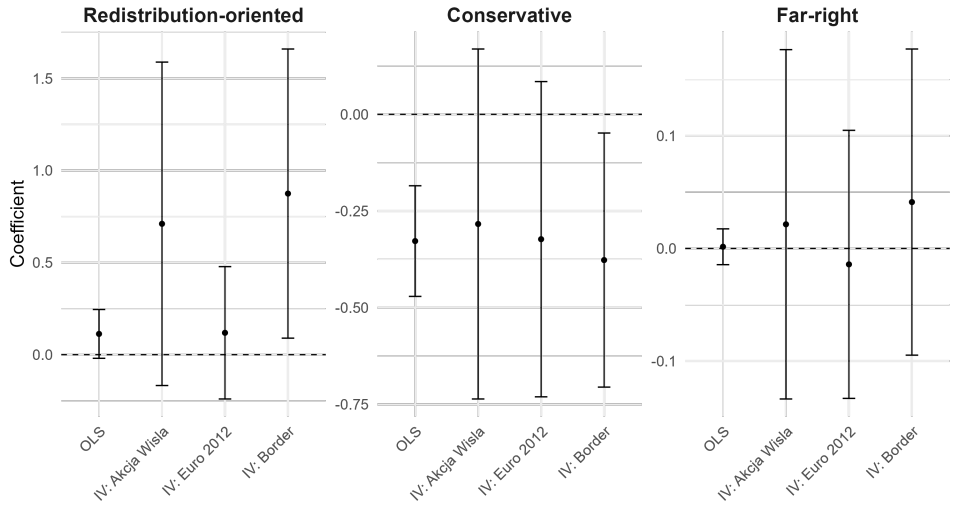



**Figure A37:** Ukrainian refugee inflow and political outcomes in Poland: Conley Standard Errors 100 km

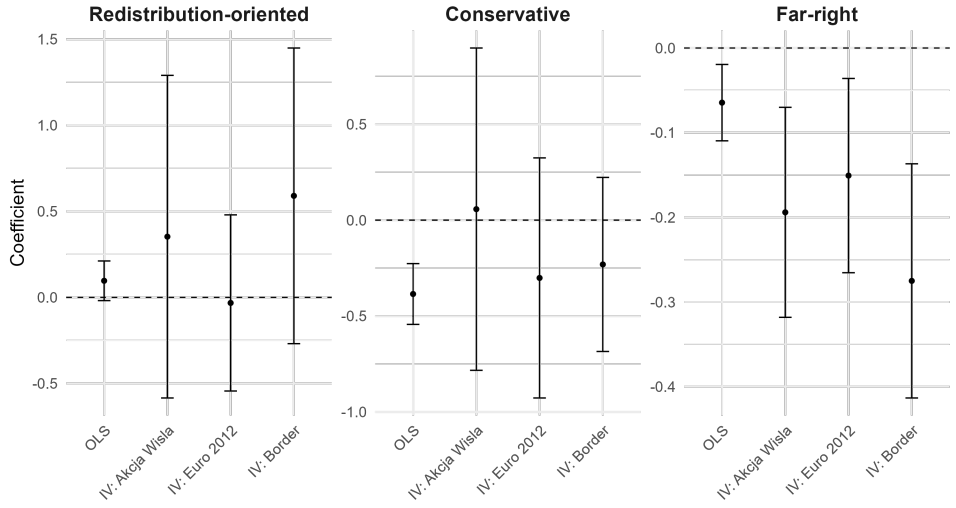
*Notes:* This figure presents the results for parliamentary elections 2023. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A38:** Ukrainian labor migration and political outcomes in Poland: Conley Standard Errors 150 km

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

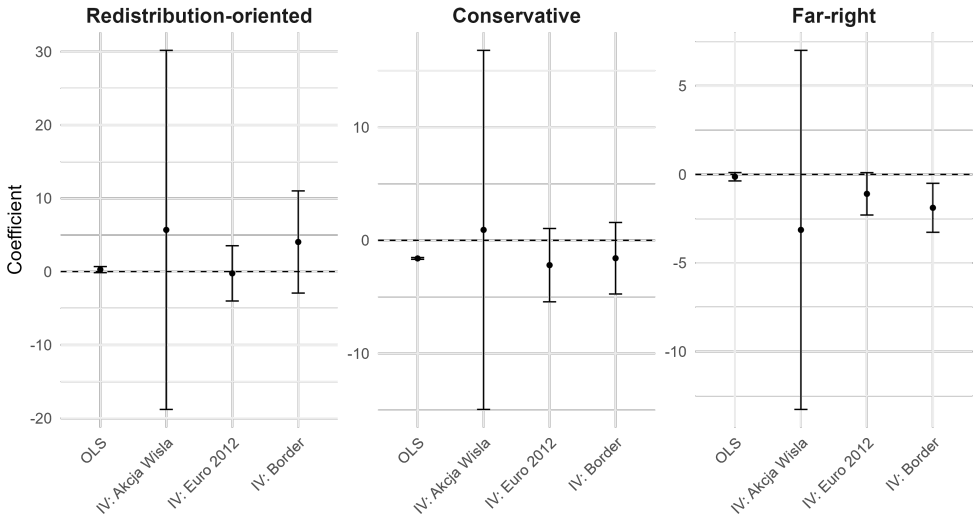
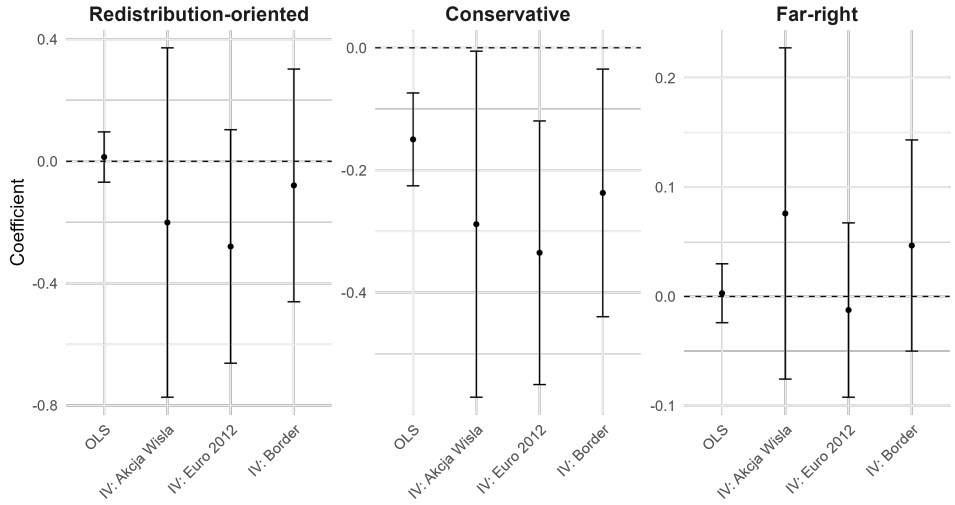
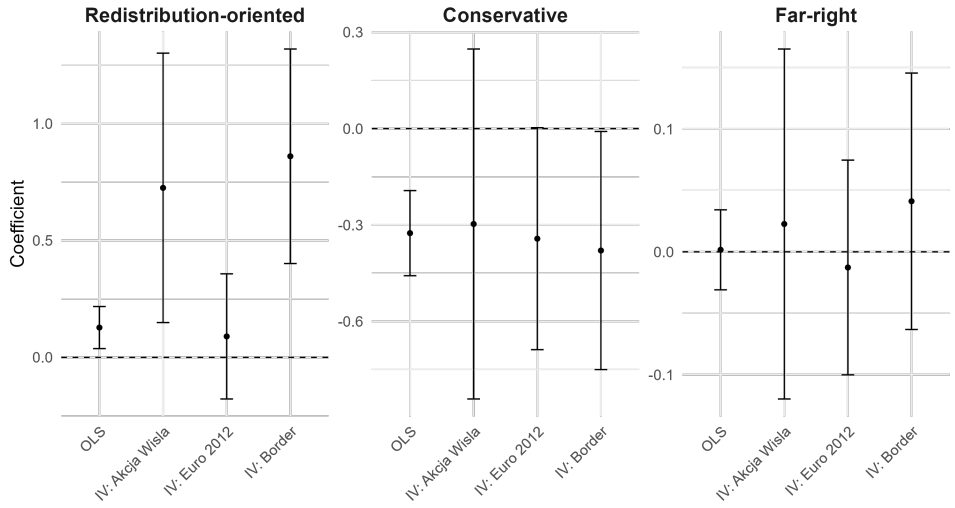



**Figure A39:** Ukrainian refugee inflow and political outcomes in Poland: Conley Standard Errors 150 km

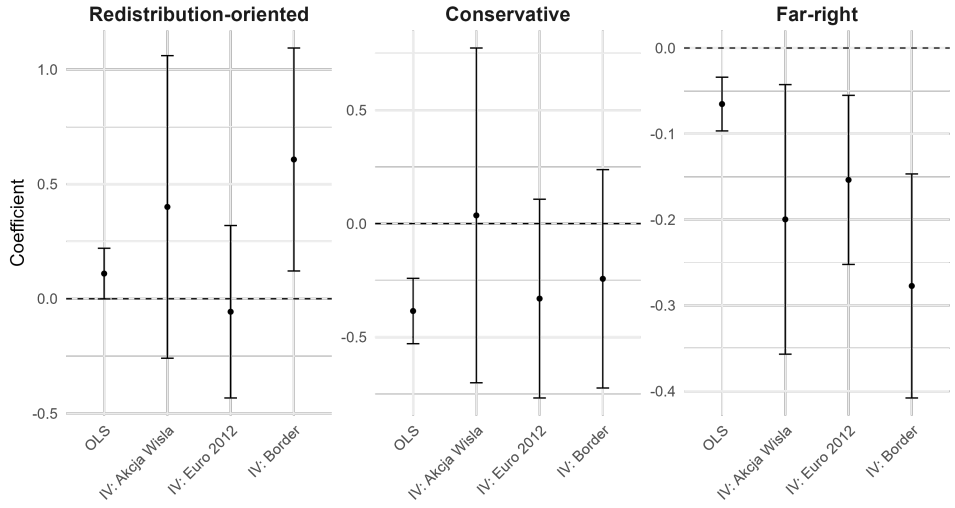
*Notes:* This figure presents the results for parliamentary elections 2023. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A40:** Ukrainian labor migration and political outcomes in Poland: excluding counties with high emigration rates

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

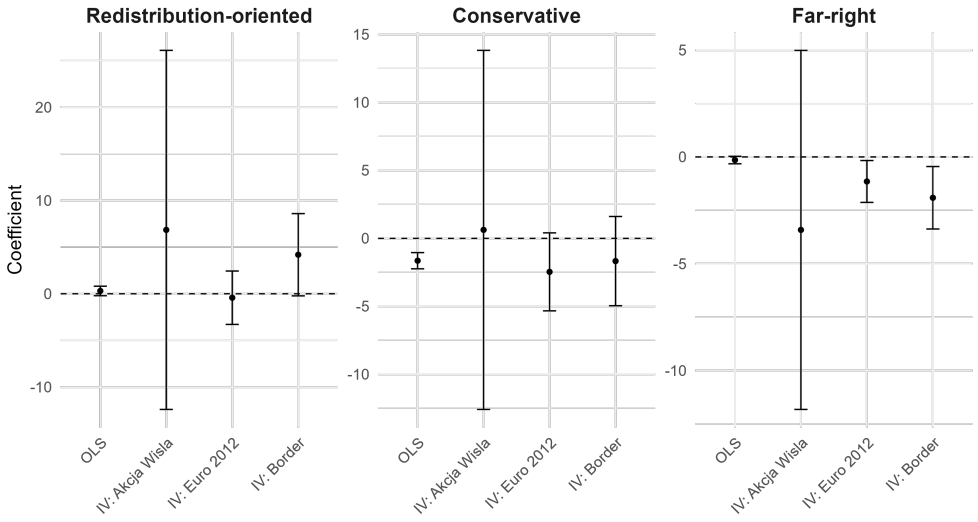
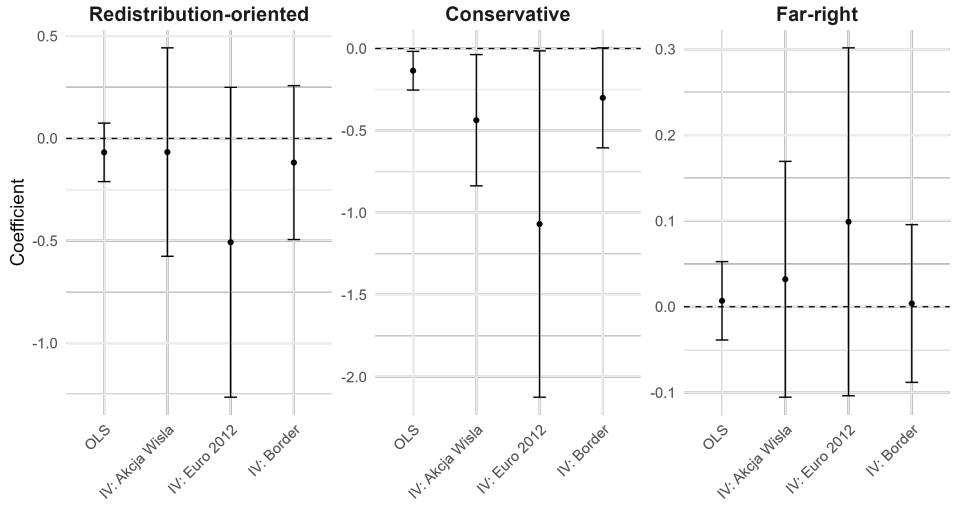
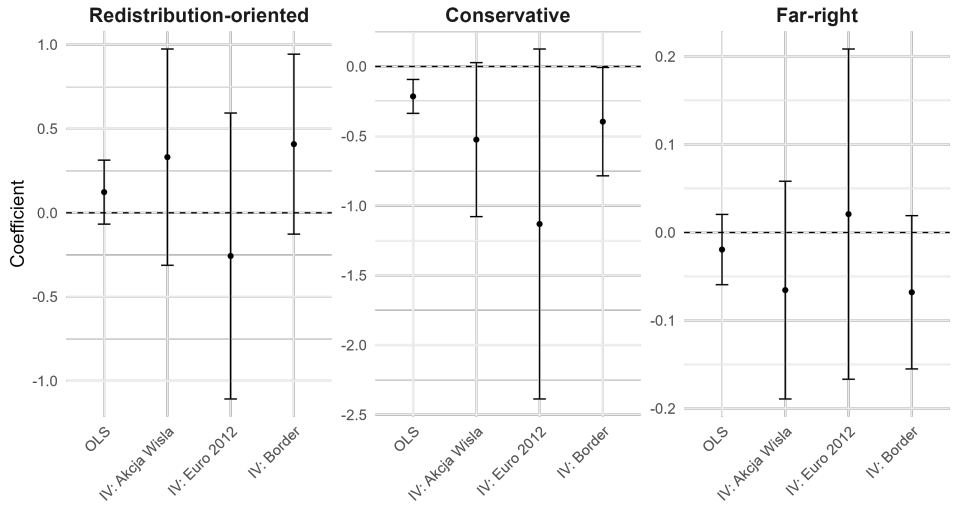



**Figure A41:** Ukrainian refugee inflow and political outcomes in Poland: excluding counties with high emigration rates

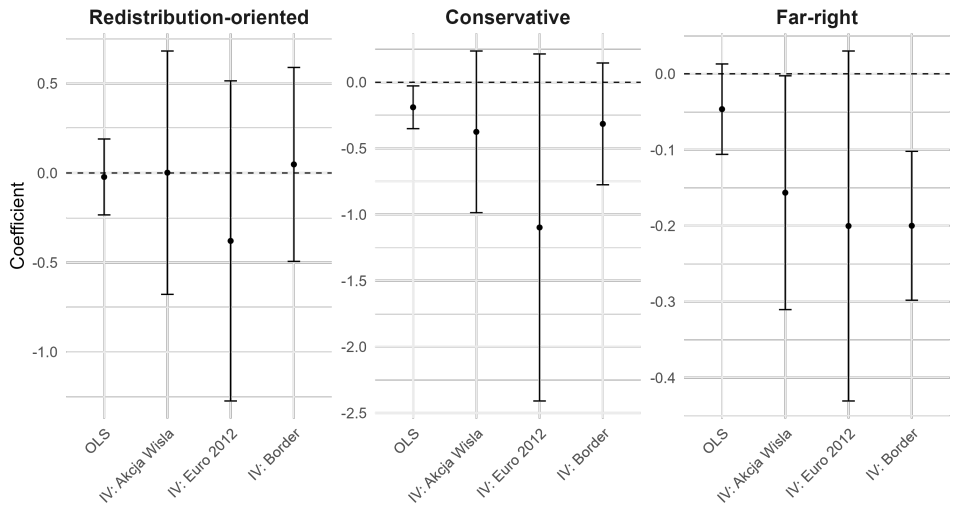
*Notes:* This figure presents the results for parliamentary elections 2023. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A42:** Ukrainian labor migration and political outcomes in Poland: only cities with county rights

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

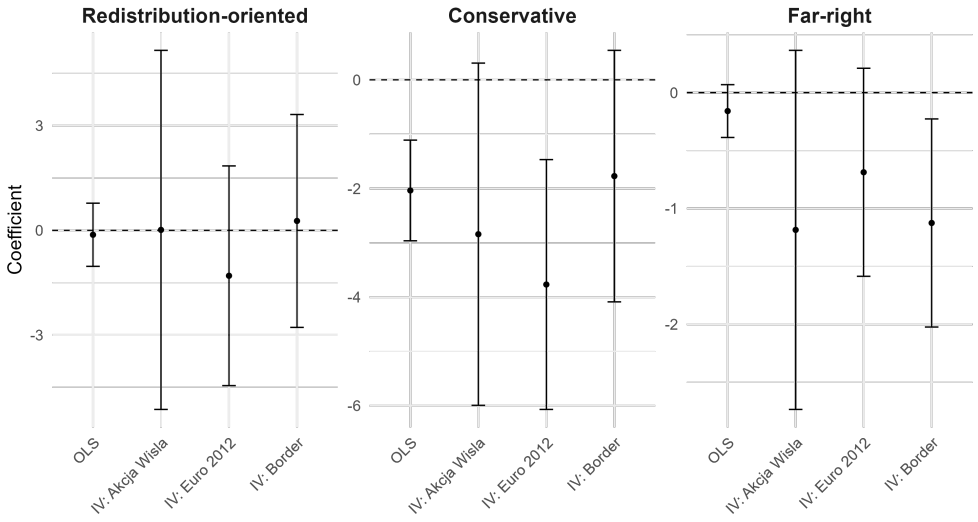
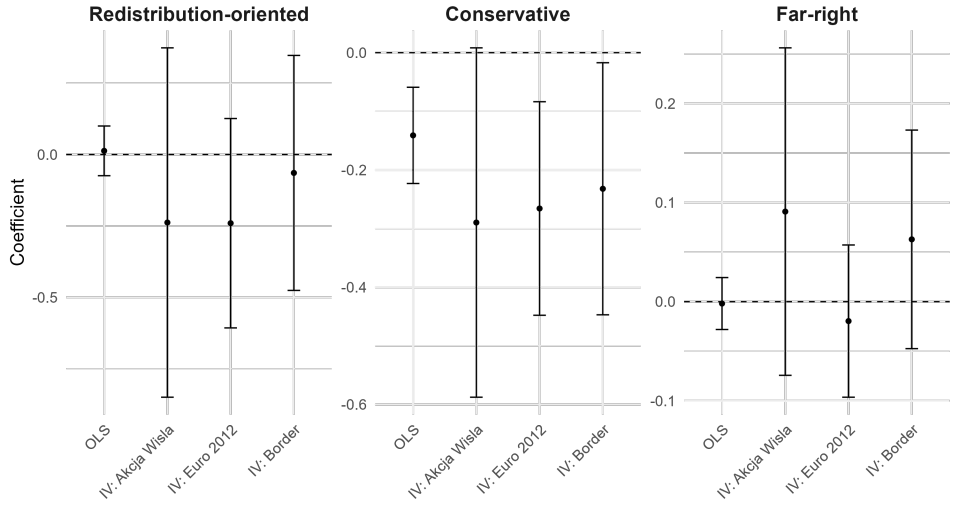
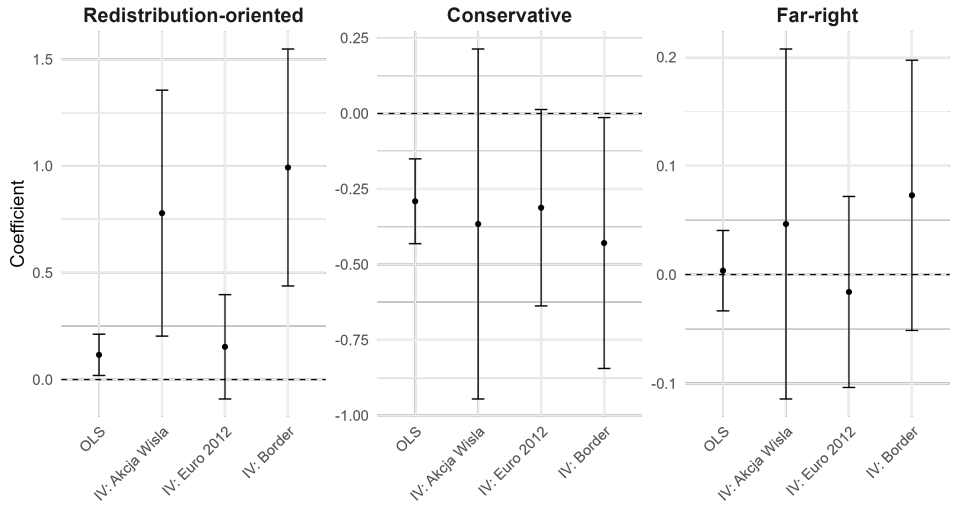



**Figure A43:** Ukrainian refugee inflow and political outcomes in Poland: only cities with county rights

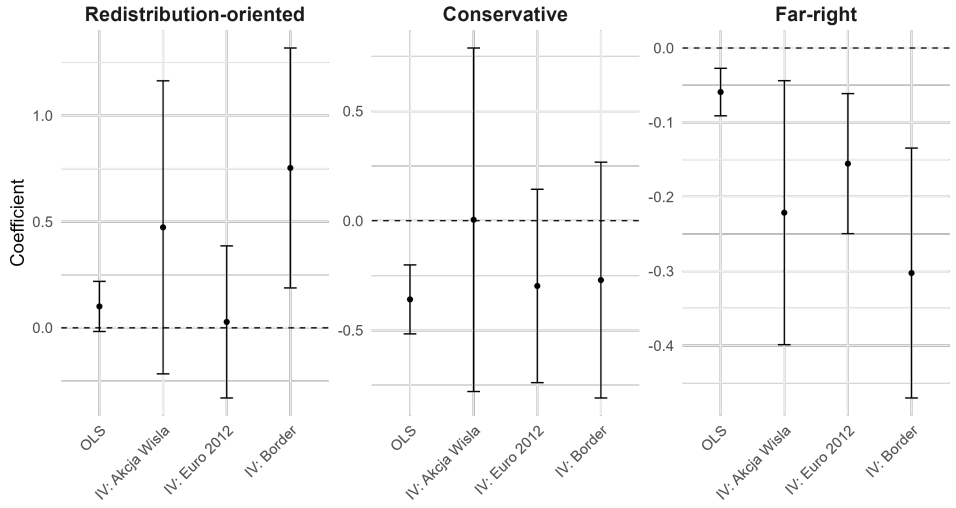
*Notes:* This figure presents the results for parliamentary elections 2023. Coefficients are depicted with 95% confidence intervals.




**(a)** 2015




**(b)** 2019




**(c)** 2023

**Figure A44:** Ukrainian labor migration and political outcomes in Poland: excluding cities with county rights

*Notes:* Panels (a), (b), and (c) present the results for parliamentary elections in 2015, 2019, and 2023, respectively. Coefficients are depicted with 95% confidence intervals.

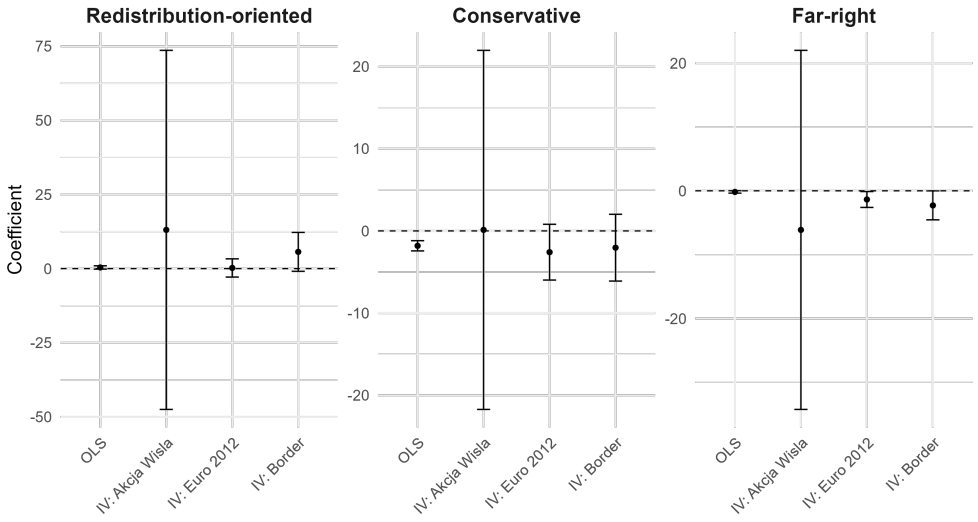



**Figure A45:** Ukrainian refugee inflow and political outcomes in Poland: excluding cities with county rights

*Notes:* This figure presents the results for the parliamentary elections of 2023. Coefficients are depicted with 95% confidence intervals.