



East Prussia 2.0: Persistent regions, rising nations[☆]

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ABSTRACT

In this study, we examine the political effects of the breakup of East Prussia into what is today Poland, Russia, and Lithuania. We expect that East Prussian legacies of nationalist and conservative political preferences persist in the respective partitions of Poland, Russia, and Lithuania. We find that there is no pattern of persistence in the Polish partition of former East Prussia, whereas East Prussian persistence appears to be robust in the Lithuanian and Russian partitions. In the context of forced migration, comparative human capital between outgoing refugees (Germans) and incoming settlers (Soviets, Poles) predicts patterns of long-run political development. Hence, higher literacy rates of incoming settlers in the Russian partition (Kaliningrad) predict higher levels of support for conservative and nationalist political parties. The opposite is observed in the Polish partition. The persistence of East Prussian legacies in Eastern Europe relates to settler literacy.

1. Introduction

Cultural and institutional factors have a massive impact on economic behavior and economic development. Economic research on persistence of cultural traits has gained much momentum in the last few decades, and an important role is played by the literature on legacies of states long vanished. It includes studies of the European empires that broke down in World War I, and of the long-lasting impact of socialism. Our goal is to explore the question of post-imperial persistence and political development from a different perspective, namely, through a lens of state dissolution. If one installs different institutional environments in a homogeneous region, will the similarities across this region persist? How much does this persistence depend on the presence of inter-generational transmission or comparative human capital of incoming and outgoing populations?

Our regional focus lies in the former German province of East Prussia, which, by the end of World War II, was partitioned between Lithuania, Poland and Russia (at that time a member of the Soviet Union). The region's location within the modern states is illustrated in Fig. 1. Like borders that vanish *de jure* but are *de facto* visible in socioeconomic data for decades, regions that vanish through such dissolution might remain visible for quite long. Especially in terms of geographically small regions like East Prussia, one can ask whether there is a tradeoff between nation-building, which culminated in the development of nation-states during the twentieth century, and the preservation of regional ties, which have existed for centuries. The case of East Prussia is outstanding for research on persistence, as there is much variation in terms of initial ethnic diversity and the scale of forced migration after the partition.

Our empirical approach toward “culture” is to compare political preferences in and around former East Prussia. Using detailed regional data on modern Lithuania, Poland and Russia, we first investigate whether the regions of those countries located in former

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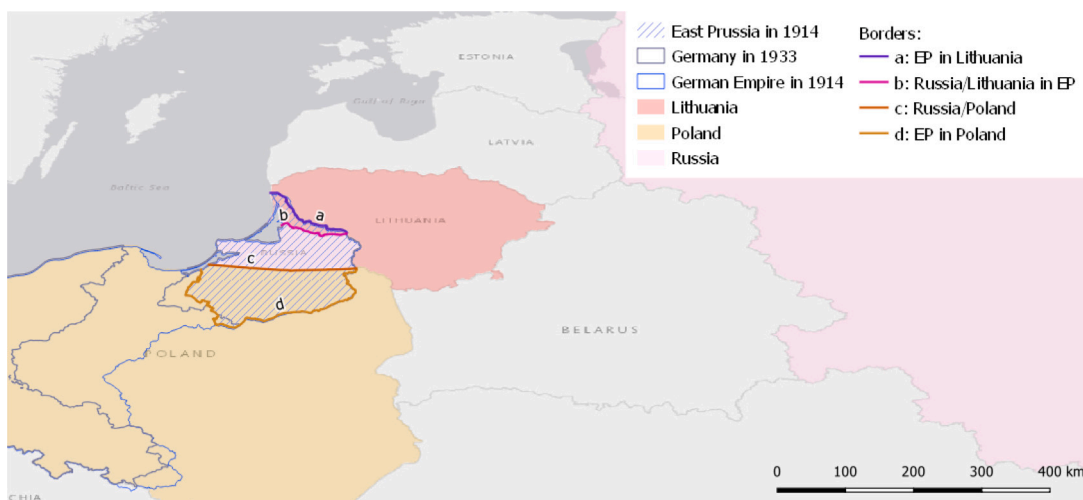


Fig. 1. East Prussia before World War II and the modern states.
 Source: Authors' work. Base map: GADM, HGIS Germany & ESRI Gray

East Prussia are different from those located outside it. For Lithuania and Poland, we do so using the regression discontinuity design. In the case of Russia, as the region of Kaliningrad (formerly Königsberg) is geographically detached from the “mainland”, we employ what is a method rarely used in economic history: coarsened exact matching, an automated algorithm that stratifies covariates and offers the degree of post-matching covariate imbalance. Second, we also test for the similarities between the regions of the three countries in former East Prussia. Third, we explore the mediating channel of comparative human capital, proxied by settler literacy, to identify patterns of political persistence under conditions of forced migration.

We indeed observe differential patterns of East Prussian persistence across the Polish, Lithuanian and Russian partitions of former East Prussia. Nationalism and political conservatism are lower on the East Prussian side of the internal Polish border. In Lithuania and Russia, in contrast, we find that the East Prussian political legacies of nationalism and conservatism seem to persist.

The literacy rates of incoming settlers in the Russian and Polish partitions play a significant role in explaining persistence of conservative and nationalist political preferences. In the Russian partition of former East Prussia (Kaliningrad) higher literacy rates of Soviet settlers are conducive to higher conservative and nationalist vote shares. Furthermore, the lower literacy rates of Polish settlers in the Polish partition (Warmia and Masuria) are linked to lower conservative and nationalist vote shares.

These findings highlight locational political persistence in the form of comparative human capital under conditions of forced migration. We corroborate this argument in regions that were most ethnically homogeneous and where an almost complete population exchange took place after World War II. In contrast, we find evidence for persistence in Lithuania, where the Memel region was annexed as early as shortly after World War I and the German share of the population gradually decreased in the next 25 years. Comparing the literacy levels of incoming settlers and outgoing refugees in the Russian and Polish partitions allows for a transmission channel beyond the benchmark of intergenerational transmission (Lithuanian partition).

The rest of the paper is structured as follows. In Section 2, we survey the related empirical literature on the role of culture in economics, border persistence, and the role of refugees on political polarization and economic development. In Section 3, we provide an overview of the historical development of East Prussia. In Section 4, we discuss our data and empirical strategy. Section 5 reports persistence results from the constituent territories of East Prussia. Section 6 explores the role of settler literacy as mediating channel of persistence. Section 7 concludes.

2. Related literature

The role of non-economic forces in economic behavior is gaining growing attention in the scholarly literature. In the context of our current investigation, relevant research refers primarily to the significant persistent impact of the institutional legacy of the former pre-WWI empires on economic, political and social development. Grosjean (2011a,b) has found negative and persistent effects of Ottoman rule in South-Eastern Europe on financial development and social norms of trust. Becker et al. (2016) identify a positive legacy of Habsburg rule on the lack of corruption and on the levels of trust in state institutions in East European countries. Šimon (2015) points out the importance of demographic discontinuity, with its negative effect on civic engagement. His findings on electoral turnout in the Czech Republic are in line with research of Urbatsch (2017) on effects of ethnic cleansing in Poland. We will show, however, that demographic discontinuity also produces patterns of locational persistence through the lens of comparative human capital.

In the case of Poland, research on the differences between three regions — former partitions by neighboring empires — is numerous. Charnysh (2019) suggests that heterogeneous communities are more successful in developing bottom-up state capacity

and the provision of local public goods compared to homogeneous ones; drawing evidence from the post-WWII population transfers in Poland, she argues that diversity has a positive impact on long-run socio-economic development. [Becker et al. \(2020\)](#) observe that descendants of Polish refugees from former Kresy territories exhibit higher levels of educational attainment than the Polish natives of the new Western territories. Their findings confirm the uprootedness hypothesis; refugees tend to invest disproportionately more in human rather than in physical capital. [Becker and Ferrara \(2019\)](#) review the literature on forced migration and they find that while the political effects of forced migration are relatively developed there is still need for more focus on the study of its economic dimensions; this is particularly the case for the comparative human capital changes and their political effects, when one compares outgoing refugees and incoming settlers, as it is the case in our study.

3. Historical background

The borders of Prussia changed significantly around the turn of the nineteenth century. Through the partition of Poland, it regained the territories lost through the treaty of Thorn, while also receiving substantial lands in the east and south. Some of these were, however, lost to the Russian Empire during the Napoleonic wars. The borders set in the Congress of Vienna would remain unchanged for a century, until the end of World War I.¹

Border re-drawing in the 1919 Paris Conference in the aftermath of World War I was primarily based on the ethnicity principle, which resulted in huge territorial losses in West Prussia, Posen and Silesia and, later, in silent acceptance of the separation of the Memel region from East Prussia (compare also the borders of 1914 and 1933 in [Fig. 1](#)). The very mixed demographic structure in the south of East Prussia, however, made use of ethnicity principle there virtually impossible, so the peacemakers had to take the will of the majority of the population into account ([Eberhardt, 2002](#)). While the results of the plebiscite raised discontent in the reborn Polish state ([Wrzesinski, 1985](#)), the outcome was an almost unchanged southern and western border of East Prussia for a further thirty years to come.² During the interwar time, the German share of the population in the Memel region gradually decreased, but, with generally good German-Lithuanian relations, no massive outflows occurred ([Eberhardt, 2002](#); [Nikzentaitis, 2002](#)).

The integration of the Memel region into Lithuania in 1923 did not trigger the drastic expulsion of the local German population. As [Figs. D.1 and D.2](#) (public announcement in German and Lithuanian respectively) indicate, the replacement of the Allied forces administration by Lithuanian authorities was part of a peaceful power transition that preserved the main state bodies of security and civil service, while offering general amnesty and respect of diversity. Furthermore, [Table A.1](#) shows that German businesses remained predominant in the Memel region in the aftermath of its annexation by Lithuania and until the outbreak of WWII. Wholesale and retail trade constituted the main type of business in the Memel region, both among Germans and non-Germans.

The German territorial losses in the East were drastic after World War II. The rest of East Prussia first became a Soviet occupation zone and then was divided between Poland (constituting the Warmińsko-Mazurskie voivodship) and the Soviet Union (with the city of Königsberg, renamed Kaliningrad). As the Soviet army advanced into East Prussia in early 1945, the inhabitants massively fled from their homes. Those who had remained in the occupied areas east of the Oder-Neisse line until the end of the war were expelled in the next few years. The majority of Germans left East Prussia by the end of 1945 (see also [Table E.1](#) in [Online Appendix III](#)).³ Especially before their expulsion by the Polish and the Soviet governments, the easiest way for people to leave East Prussia was by way of the Baltic Sea. Thus the entry points for the East Prussian expellees in the West were mostly in the north of West Germany (Bremen, Hamburg, and the states of Schleswig-Holstein and Lower Saxony).

Back in East Prussia, of some 1.2 million of its former German inhabitants, a total of a few thousand remained in the three new states throughout the Cold War period ([Eberhardt, 2002](#); [Zyromski, 1985](#)). The demographic shock was somewhat less severe in Lithuania, since as early as 1925 only 43.5% of the population in the Memel region was German, and this share decreased even further during the interwar period ([Eberhardt, 2002](#), p. 40). Also, unlike Latvia and Estonia, Lithuania was little affected by Soviet internal migration. Some Russian population came to the republic throughout the Soviet period, mainly as employees in the bureaucracy, military staff and technical staff working on industrialization plans. These migrants, however, remained quite dispersed across towns and in the countryside, and their total share was kept very low by the fast natural growth of the Lithuanian population ([Eberhardt, 2002](#)).

In Poland and the Kaliningrad region, on the other hand, the aftermath of the war meant an almost complete exchange of population. In the new Polish Warmińsko-Mazurskie voivodship, no more than 25% of the population were pre-war residents.⁴ The huge loss was recovered mainly through in-migration from the Warsaw region and former eastern Poland (which was ceded to the Soviet Belarus, Ukraine and Lithuania after the Second World War) and largely comprised a younger population ([Zyromski, 1985](#)).

¹ For an overview of the German presence in East Prussia from the Middle Ages and up to World War I, see [Online Appendix](#).

² In fact, the western border of East Prussia was moved further west to accommodate a small part left in the east of the former West Prussia into the province.

³ Interviews with first Soviet settlers into the Kaliningrad region in the late 1980s, 1990s and early 2000s (see [Table A.2](#) in [Online Appendix](#)) suggest that the evacuation of the German population was a process that lasted until 1948. In this transitory period, there was no direct conflict between outgoing Germans and incoming Soviets; the forced replacement of the former by the latter did not occur under contentious conditions. When describing their arrival to Königsberg, several interviewees confirm that their own houses had been destroyed because of the war or saw this transfer as a career opportunity under conditions of postwar reconstruction and expansion of Soviet administrative boundaries.

⁴ [Figs. D.3 and D.4](#) ([Online Appendix](#)) designate the repatriation policy of socialist Poland in the newly acquired territories of Warmia and Masuria. It is obvious that the districts with the highest shares of local German population were the least populated ones after the war ([Fig. D.3](#)). Furthermore, exactly those districts became the main destinations for the resettlement of Polish refugees from the territories of Kresy Poland that were annexed by the Soviet Union after WWII ([Fig. A.4](#)).

In the Kaliningrad region, the effect was even more devastating, as the north of East Prussia was a predominantly German region before the war. Population replacement there was complete. While loyalty to the regime of course played a role in the choice of the settlers, the choice of source regions for resettlement tended to be driven by convenience: the Russian-speaking population mostly came in from the regions of Pskov and Smolensk, and in rural areas also from the “black earth” region in Central Russia and Ukraine, which combined proximity to Kaliningrad and a relatively high population density (Diener and Hagen, 2011; Eberhardt, 2002).

4. Data and methodology

4.1. Hypotheses

Figs. B.1 and B.2 provide evidence for the prevalence of conservative and nationalist political preferences in pre-WWI East Prussia. As the literature discussed in Section 2 suggests, not only does it take decades to level out the differences created by varying institutional settings, but it also takes a similarly long time to create such differences by installing varying institutional settings in the first place. More specifically, we might expect that the legacies of East Prussia are persistent and still traceable in all three states under consideration. Some features of East Prussia apply more to this particular province and less to the German Empire as a whole (and even less so to the diverse regions of the Russian Empire). Thus, we may expect that the regions located in former East Prussia are more similar across the modern state borders, while also showing differences in political preferences relative to those located outside former East Prussia.

The intuition behind this persistence argument is that, even though the population structure was mixed in some areas of East Prussia, cultural assimilation between the Germans and the Poles or Lithuanians, respectively, provided for a certain level of homogeneity in values. Grosfeld et al. (2013), studying the long-term effects of Jewish presence in Eastern Europe, identify antisemitic sentiments of the non-Jewish majorities as the impact channel, our argument for East Prussia is the opposite. The inter-ethnic relations in East Prussia were less shaped by the conflict (though it was present) and more by the process of cultural transnationalism (Tilse, 2011). At the same time, by simple historical predominance of the German population in East Prussia and through the effects of German schooling, the relations developed more in direction of Germanization of the Polish and Lithuanian population than vice versa. Thus, even if the German population moved out of the region, the remaining Germanized Poles and Lithuanians would transmit the attitudes to their descendants, and also possibly to the migrants coming into the region. In addition, the political and ideological systems were quite similar in all three states between 1945 and 1989, as Lithuania was directly a part of the Soviet Union and Poland was largely under Soviet control. Thus, for more than a half of the partitioning period, the possibilities for the three states to drift apart were limited. The divergence was more likely to unfold during the transition period.

The major argument against any persistence based on inter-generational transmission is, of course, the scale of the after-war demographic shock. With most of the population decimated in the regions ceded to Poland and the Soviet Union, remaining inhabitants could have been too few to transfer any values to the migrants coming to fill the demographic vacuum. If anything, they might have been more likely to assimilate with the migrants if these had any unifying value sets or to contribute to higher diversity as discussed by Bisin and Verdier (2001).⁵

Our contribution to theories of persistence lies in proposing an analytical framework beyond intergenerational transmission within a group of people that share the same ethnicity, language, religion, or nationality. We suggest that persistence may also occur across different groups of people who do not necessarily share the same cultural traits, but who have similar socio-economic characteristics, and, therefore, become the agents of cross-generational preference transmission. This approach is particularly crucial within the context of forced migration, where the abrupt replacement of the local population creates challenges for the continuation of the local economic structure. The example of the 1923 population exchange (see the paper by Arbatlı and Gokmen, 2023) constitutes a unique historical laboratory, where Turkish refugees with similar human capital were allocated in districts with a strong prior Greek or Armenian presence in the territories of the newly established Turkish Republic. Similarly, Grigoriadis and Moschos (2023) using the distribution of Ottoman Greek refugees across Greek provinces as a natural experiment suggest that their settlement has produced a positive persistent impact on left-wing vote shares in the interwar and postwar periods. While (Arbatlı and Gokmen, 2023) argue that the presence of highly educated Greeks and Armenians in Ottoman districts exerted competitive pressure on the local Muslim population, we argue in a different direction. We suggest that comparative human capital of incomings and outgoings may explain *longue-durée* political development across the boundaries of modern states. The historical episode of the dissolution of East Prussia offers a unique setting to explore the empirical relationship between migrant human capital and long-run political outcomes.

Given the scale of the demographic shock in the Polish and Soviet parts of East Prussia, it is likely that the patterns of persistence will not be present to the same degree in all three countries under investigation. We, therefore, expect that persistence is more likely to be present in the areas with lower population replacement, that is in areas with higher pre-war diversity and/or slower after-war retreat of the German population:

⁵ Another argument specifically for Kaliningrad might be that the development during the Soviet era was shaped by military interests, with Kaliningrad being the main Soviet naval base in the Baltic Sea. While this role of Kaliningrad definitely had an impact on economic development in the region and the city of Kaliningrad was essentially a closed military area until the 1980s (Diener and Hagen, 2011), the hinterland resembled the countryside in other Soviet regions, and the focus on military manufacturing can well be considered a mirror to the general disequilibrium in the Soviet economy, with excessive attention to heavy industry. Structural and regional imbalances were characteristic for all of the Soviet Union (Escocoe, 1995). Thus, while the military importance of Kaliningrad might have contributed to the creation of new identities and values in the region, it is unlikely to be the only most important factor.

Hypothesis 1. In modern Lithuania, Poland and Russia, the regions located in former East Prussia and those located outside former East Prussia show differences in political preferences.

The same way, given the relative homogeneity within East Prussia, we can also expect that the regions formerly located in East Prussia are even more similar across the modern state borders *if inter-generational transmission took place*:

Hypothesis 2. In modern Lithuania, Poland and Russia, the regions located in former East Prussia are less different across the modern borders than regions located outside former East Prussia.

We expect to find most evidence for persistence in Lithuanian East Prussia, where only a slight pre-WWI Lithuanian majority was present and the departure of the German population was taking place over a period of almost three decades. On the contrary, we are likely to find very little evidence of intergenerational persistence in modern Kaliningrad, as that part of East Prussia was predominantly German before World War II and the population replacement after the war happened in a matter of few years.

The literacy rates as a proxy for human capital of Soviet and Polish settlers provide an alternative explanatory basis of post-imperial persistence in political development. Although the demographic profile of Kaliningrad as well as Warmia and Mazuria changed completely after World War II, it is possible to compare the human capital of incoming settlers and outgoing refugees. That way, we expect to find higher levels of post-imperial locational persistence in cases where the literacy rates of incomings approximate those of outgoings.

Hypothesis 3. Higher rates of settler literacy in the Russian and Polish partitions of former East Prussia predict stronger support for conservative and nationalist political parties.

Congruence in political preferences may be the outcome of convergence in literacy rates between outgoing refugees and incoming settlers as the latter are likely to be driven by values such as individual effort and the perspective of economic opportunities; this observation delineates a self-selection mechanism for the settlers that explains their migration to the newly acquired lands of the Soviet Union and Poland (see also [Dancygier and Saunders, 2006](#); [Lim, 2013](#)). Hence, post-imperial political persistence occurs when incoming settlers with relatively comparable human capital also exhibit expectations of individual advancement and profit accumulation.

4.2. Data

For our investigation, we have collected statistical data on political outcomes in Lithuania, Poland and Russia. The data are compiled from official statistics and are treated as cross-section datasets, even though the elections do not coincide in all three countries. We, however, chose elections whose timing was closest to each other, and focused on the period before 2014, so that the outcomes are not influenced by the deteriorating East-West relations or entry of openly populist parties and candidates into governmental bodies. We consider parliamentary elections of 2011 (Poland, Russia) and 2012 (Lithuania) as a cross-sectional dataset. The data include the turnout and the number of votes for each of the parties, which we coded along the political spectrum (left–right position) and ideology (liberal, conservative, nationalist, etc.). We provide a party categorization for Poland and Lithuania based on the European Election Database ([Registry of Research Data Repositories, re3data.org, 2018](#)). For Russia, we perform a categorization analogous to the European Election Database and we are aligned with the V-Party dataset ([Pemstein et al., 2018](#); [Lindberg et al., 2022](#)). The derivation of conservative and nationalist vote shares is based on the summation of the vote shares of all parties that were classified as conservative/nationalist. If a party is classified as nationalist-conservative, then it is included in both groups.

To test the validity and continuity of our findings, we also used the available later election data, which, however, no longer coincide in time. These include the 2015 and 2019 elections in Poland and the 2016 and 2021 elections in Russia.⁶ We can, thus, calculate the share of votes that conservative or nationalist parties received in respective elections. While we admit that survey data on political preferences would reflect the attitudes better than the political outcomes, we are limited by the geographical representation of such surveys, which is critical for an analysis of the attitude differences in this relatively small region. The election data on very low levels of administrative division are, however, readily available.

The dataset for Russia is compiled at the district (*raion*) level, which is the second level of administrative division. In addition, due to the country size, we only look at the districts within former East Prussia and in the neighboring regions of the western mainland of Russia (regions of Leningrad, Smolensk, Bryansk, Pskov and Kursk). For Lithuania and Poland, the data are available at the third level of administrative division (*gmina*) in Poland and for polling districts in Lithuania. As a result, we analyze a total of 158 districts in Russia, 2480 *gminas* in Poland and 2000 polling districts in Lithuania. [Fig. 2](#) offers a visualization of our political dataset for Lithuania, Poland and Russia with respect to conservative political preferences and in relation to the former East Prussian region (for electoral turnout and nationalist political preferences see the respective [Figs. B.3](#) and [B.4](#) in Appendix).

⁶ The difference in the boundaries of electoral constituencies as well as in the number of polling districts within each electoral constituency between 2012 and 2020 Lithuanian elections has not facilitated the same robustness check for Lithuania.

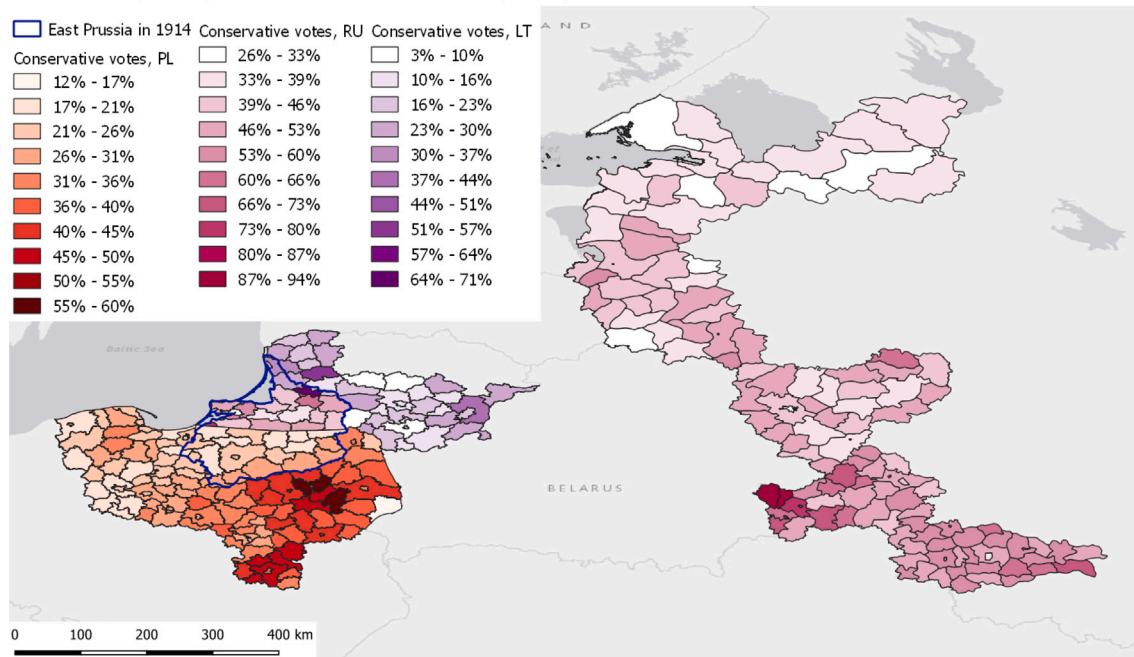


Fig. 2. Share of votes for conservative parties in parliament elections in Lithuania (2012), Poland, and Russia (2011): East Prussia and neighboring regions. Source: Authors' work. Base map: GADM & ESRI Gray, election data: see Table A.3. Registry of Research Data Repositories, re3data.org (2018), Lindberg et al. (2022) and Penstein et al. (2018)

4.3. Methodology

Our approach is mainly based on a regression discontinuity design. The underlying assumption is that the border of former East Prussia is exogenous. Throughout the formation of the Prussian state, the borders were determined by warfare and negotiations with Poland, Lithuania and later the new neighbor, Russia, and often cut through historical ethnic areas. After World War II, the border between Poland and the Soviet Union did not follow any ethnic or economic criteria either, but rather was determined by the balance of power and strategic military considerations. The only case where a border was more or less determined by ethnic composition of the area's population, was the separation of the Memel region through quiet acceptance of Lithuanian annexation. However, as we showed in the previous section, the German population in the region was quite substantial, and the Lithuanian population was Germanized. The argument of inherent national unity with Lithuania Major was thus questionable. Lithuanian influence in the Memel region was indeed weaker than the German in the interwar period (Vareikis, 2002). In addition, the new border quite conveniently followed the course of the Neman River, although there were also some predominantly Lithuanian areas south of the river, which remained in East Prussia (see also Fig. E.1 in Online Appendix).

Evidence from the Lithuanian Central Archives also corroborates the exogeneity argument regarding the annexation of the Memel region by the nascent Lithuanian state (1923). As occupation plans for the city of Memel by the 1st Regiment of Volunteers on the Klaipeda Coast (Figs. D.5 and D.6 in Online Appendix) indicate, the annexation of the Memel region was the outcome of a successful military takeover rather than of endogenously defined ethnic or economic characteristics (Lithuanian Central Archives, 1923: Fond 523). Furthermore, the new borders between Poland and the Soviet Union (1945/1946), which also led to the consolidation of East Galicia and Volhynia as part of Soviet Ukraine and to the annexation of Kresy Poland as part of Soviet Belarus, were drawn as a revision of the Curzon line. This demarcation line was proposed by British Lord Curzon in the aftermath of World War I as a compromise between the Second Polish Republic and Soviet Russia; while this line intended to divide Polish-majority regions in the West from non-Polish majority regions in the East, both its initial logic and its revised adoption in the aftermath of World War II offer support for the exogenous character of the Soviet-Polish border in former East Prussia. Therefore, we can safely assume that the borders of both East Prussia and the successor states were drawn exogenously.

4.3.1. Robust RDD in Poland & Lithuania

The absence of territorial continuity between the Kaliningrad region and Russia does not allow us to perform the robust regression discontinuity design as introduced by Calonico et al. (2017). We use (Calonico et al., 2014, 2015) only for the Polish and Lithuanian data. Thus, our baseline regression is:

$$Y_i = \alpha_i EastPrussia_i + \beta_1 Distance + \beta_2 EastPrussia_i Distance_i + \beta_3 X_i + \epsilon_i, \tag{1}$$

where Y_i is the electoral outcome: turnout, share of votes for conservatives and share of votes for nationalists. X_i is the set of additional controls such as city dummy, altitude, latitude and longitude. *Distance* denotes the distance from the centroid of the territorial unit to the East Prussian border, which is the forcing variable in our model. The interaction term *EastPrussia*Distance* shows that the effect of distance of each territorial unit to the East Prussian border varies with its historical attachment to East Prussia.

Our baseline covariates for the RDD estimations in Poland and Lithuania include only city dummy, latitude and longitude given the significant heterogeneity between Polish gminas and Lithuanian polling districts. Bandwidth selection is driven by the tradeoff between bias (sample size) and variance. Nevertheless, we rerun our baseline estimations for Poland and Lithuania with baseline covariates while computing the optimal bandwidth on both sides of the respective borders. Our results do not change (see Tables A.7–A.8 in Appendix). Furthermore, we opt for a local linear regression following Gelman and Imbens (2019).

While considering (Kitamura and Lagerlöf, 2020), who argue that geography explains a large share of Europe’s historical state fragmentation, we report (McCrary, 2008) RD density tests and RD density manipulation testing results (Cattaneo et al., 2018) with an optimal bandwidth (Figs. D.7 and D.8 in Online Appendix). We find out that the RD density manipulation tests for the historical Polish-East Prussian and the historical Lithuanian-East Prussian borders do not support the systematic manipulation of the forcing variable (for the historical Polish-East Prussian border there is a robust T-statistic of -1.562 with a p -value of 0.118 and for the historical Lithuanian-East Prussian border there is a robust T-statistic of -1.347 with a p -value of 0.178). These observations suggest the balance of covariates and the absence of any discontinuities across the two tested borders (cutoff points) due to confounding factors. Therefore, our identification strategy holds.

4.3.2. CEM in Russia

We correct for the territorial discontinuity between the Kaliningrad region and the rest of Russia by introducing Coarsened Exact Matching (CEM) to compare political outcomes between Kaliningrad, on the one hand, and neighboring Russian regions such as Pskov, Leningrad, Smolensk, Bryansk and Kursk, on the other (Datta, 2015; Iacus et al., 2009). Thus, the proposed baseline model is the following:

$$L_1(f, g) = \frac{1}{2} \sum_{l_1, \dots, l_k} |f_{l_1, \dots, l_k} - g_{l_1, \dots, l_k}|$$

where $L_1 \in [0, 1]$ is the measure of multivariate imbalance, $f_{(l_1, \dots, l_k)}$ denotes the relative multivariate frequency distributions of treatment units and $g_{(l_1, \dots, l_k)}$ denotes the relative multivariate frequency distributions of control units in k -dimensional space. Furthermore, if $TE_i = Y_i(T_i = 1) - Y_i(T_i = 0) | X_i$, where TE_i is the treatment effect, Y_i the outcome variable, T_i the treatment variable and X_i the set of pre-treatment covariates, then we compute the local sample average treatment effect such that

$$LSATT = \frac{1}{m_T} \sum_{i \in T^m} TE_i \tag{2}$$

where m_T is the number of matched treated units and T^m the subset of matched treated units (ibid.). The main advantage of the CEM method is that it does not require the common pre-treatment trends for both treatment and control observations, and there is no data extrapolation (Datta, 2015). Balance testing is integrated into the CEM estimations, as the minimization of covariate imbalance lies in the core of this method (Iacus et al., 2012).

The control group of Russian regions used in our CEM estimations is also part of Russia’s Western military district such as Kaliningrad. While dominant presence of the Russian military has not been part of our identification strategy, it is important to point out that in all regions that we compare Kaliningrad to (Smolensk, Kursk, Bryansk, Pskov and Leningrad) there are significant war installations and high shares of operational military forces in the army, navy and air force (Russian Ministry of Defense, 2022).

The CEM matching algorithm is introduced to reduce the endogeneity problem of the benchmark OLS estimation. Furthermore, it provides an efficient solution to the problem of selection on observables, because it coarsens the values of the covariates and therefore it minimizes the imbalance between treated and control units across covariates (Datta, 2015; Iacus et al., 2009). Gao et al. (2014) compare the CEM algorithm with the PSM (Propensity Score Matching) algorithm and discuss their complementarities. Chaudoin et al. (2018) appraise the validity of both methods, while they argue that both of them have their limitations, when it comes to causal inference, due to omitted variables, which may artificially manipulate the probability of assignment into the treatment group.

4.3.3. Similarities in East Prussia

To investigate Hypothesis 2, we use an approach similar to the regression discontinuity design for a pooled dataset on Lithuania, Poland and Russia. Because of this pooling, however, we have to account for the differences between the countries. We do so by introducing the country dummies and differentiating between the effects of East Prussia in the three countries:

$$Y_i = \alpha + \beta_1 LT_i + \beta_2 PL_i + \beta_3 LTEP_i + \beta_4 PLEP_i + \beta_5 RUEP_i + \gamma_1 Distance + \gamma_2 EP_i^* Distance_i + \delta X_i + \epsilon_i, \tag{3}$$

where Y_i is the electoral outcome: turnout, share of votes for conservatives and share of votes for nationalist parties. LT_i and PL_i are 1 for Lithuania and Poland, respectively, and 0 otherwise (Russia serves as a base), $LTEP_i$, $PLEP_i$ and $RUEP_i$ are 1 for regions in Lithuania, Poland and Russia, respectively, located in former East Prussia and 0 otherwise. Note that they are additive to the overall country effects, meaning the cumulative effect of being, for example, in Lithuania in former East Prussia is $\alpha + \beta_1 + \beta_3$. Similarly,

Table 1
RD results with robust bias-corrected CIs: Political outcomes in Poland vs. East Prussia.

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence interval		N	Mean
Prawo i Sprawiedliwość	Conventional	-0.061***	0.018	-3.42	-0.096	-0.026	2479	0.332
	Bias-corrected	-0.046**	0.018	-2.59	-0.081	-0.011	2479	
	Robust	-0.046*	0.028	-1.68	-0.100	0.008	2479	
Prawica	Conventional	0.001	0.001	1.38	0.000	0.002	2479	0.003
	Bias-corrected	0.001	0.001	1.19	-0.001	0.002	2479	
	Robust	0.001	0.001	0.72	-0.002	0.003	2479	
Nowa Prawica	Conventional	-0.004***	0.001	-3.43	-0.007	-0.002	2479	0.008
	Bias-corrected	-0.006***	0.001	-4.66	-0.008	-0.003	2479	
	Robust	-0.006***	0.002	-3.04	-0.010	-0.002	2479	
Turnout	Conventional	-0.038**	0.016	-2.37	-0.069	-0.006	2479	0.425
	Bias-corrected	-0.035**	0.016	-2.22	-0.066	-0.004	2479	
	Robust	-0.035	0.022	-1.62	-0.078	0.007	2479	
Conservative share total	Conventional	-0.060***	0.018	-3.32	-0.096	-0.025	2479	0.335
	Bias-corrected	-0.045**	0.018	-2.51	-0.081	-0.010	2479	
	Robust	-0.045	0.028	-1.63	-0.100	0.009	2479	
Nationalist share total	Conventional	-0.061***	0.018	-3.42	-0.096	-0.026	2479	0.333
	Bias-corrected	-0.046**	0.018	-2.59	-0.081	-0.011	2479	
	Robust	-0.046*	0.028	-1.68	-0.100	0.008	2479	

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Bandwidth is 60 km.

one can also calculate the effects for the other two countries. X_i is the set of additional controls, such as city dummy, latitude and longitude. *Distance* denotes the distance from the centroid of the territorial unit to the East Prussian border, and the interaction term $EP*Distance$ shows that the distance of each territorial unit to the East Prussian border varies with its historical attachment to East Prussia.

In terms of [Hypothesis 1](#), such a regression should deliver results similar to the RDD and CEM approaches discussed above. Its advantage, however, is that such pooling and the use of interaction terms allows us to test statistically if the effects we observe for particular groups (e.g. regions in former East Prussia) are different.

We also control for state borders within East Prussia with RD estimations (Russia vs. Poland and Russia vs. Lithuania). [Hypothesis 3](#) is tested with the CEM approach for the Russian partition (Kaliningrad) and with RD estimations for the Polish partition (Warmia and Mazuria).

5. Persistence in former east prussia

This section will first discuss [Hypothesis 1](#). The first three subsections will, thus, concentrate on political outcomes at the historical borders of East Prussia within modern-day Poland, Lithuania and Russia, respectively. We will then turn to [Hypothesis 2](#) and look at all three countries together in Section 5.4.

5.1. Poland

We first concentrate on political outcomes at the historical borders of East Prussia within modern-day Poland. The political outcomes in the Polish partition of East Prussia differ significantly from respective political outcomes on the Polish side of the East Prussian–Polish border. [Table 1](#) and [Fig. B.5](#) (in Appendix) show the estimation results for conservative and nationalist parties (the results for all parties can be viewed in [Table A.9](#) in Appendix and [Fig. D.9](#) in Online Appendix). Firstly, the electoral turnout is higher in pre-war Poland, an indication of a politically active and mobilized society. Moreover, aggregated conservative and nationalist vote shares in the territories of pre-war Poland are higher than those in former East Prussia by an average difference of 4.5 and 4.6 percentage points, respectively, which is statistically significant at the 5% level with a bias-corrected confidence interval (CI). The absolute values of the average differences for the conservative and nationalist shares in the Polish partition are much lower than the average values of those outcomes in our Polish sample (0.335 and 0.333 respectively). The negative sign of the mean difference coefficients suggests that there is no persistence of conservative and nationalist political preferences in the Polish partition of former East Prussia. This result is mainly driven by the largest conservative-nationalist party of Poland, *Prawo i Sprawiedliwość* (Law and Justice), whose vote share is higher by the same average difference of 4.6 percentage points. The vote share of the right-wing party *Nowa Prawica* (Congress of the New Right) is also higher in the pre-war territories of Poland. Mirroring this, the vote shares of liberal parties, such as *Ruch Palikota*, are higher in former East Prussia, and this difference is statistically significant (see Online Appendix). Hence, there is no locational persistence of political conservatism or nationalism in the Polish partition of East Prussia.

We conduct several robustness checks including baseline covariates such as city dummy, latitude and longitude or an increase of the border bandwidth from 60 km to 100 km or the addition of income to the list of covariates. They do not change the baseline findings for political outcomes (see [Tables A.11](#) in Appendix and [C.8–C.9](#) as well as [C.25](#) in Online Appendix). Our results also do not

Table 2
RD results with robust bias-corrected CIs: Political outcomes in Lithuania vs. East Prussia.

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval		N	Mean
Homeland union	Conventional	-0.028***	0.011	-2.65	-0.049	-0.007	2000	0.131
	Bias-corrected	-0.039***	0.011	-3.68	-0.060	-0.018	2000	
	Robust	-0.039***	0.013	-2.91	-0.067	-0.013	2000	
Order & Justice	Conventional	-0.104***	0.037	2.79	0.031	0.177	2000	0.089
	Bias-corrected	-0.128***	0.037	3.42	0.055	0.201	2000	
	Robust	-0.128***	0.044	2.87	0.040	0.214	2000	
Poles' electoral action	Conventional	-0.004***	0.002	-2.54	-0.007	-0.001	2000	0.050
	Bias-corrected	-0.027***	0.002	-17.45	-0.030	-0.024	2000	
	Robust	-0.027***	0.002	-11.70	-0.032	-0.023	2000	
Christian party	Conventional	-0.006**	0.003	-2.06	-0.011	0.000	2000	0.014
	Bias-corrected	-0.005*	0.003	-1.86	-0.010	0.000	2000	
	Robust	-0.005	0.003	-1.47	-0.012	0.002	2000	
National association	Conventional	-0.003	0.002	-1.52	-0.006	0.001	2000	0.008
	Bias-corrected	-0.004**	0.002	-2.35	-0.008	-0.001	2000	
	Robust	-0.004*	0.002	-1.78	-0.009	0.000	2000	
Turnout	Conventional	-0.011	0.019	-0.59	-0.049	0.026	2000	0.517
	Bias-corrected	-0.013	0.019	-0.67	-0.051	0.025	2000	
	Robust	-0.013	0.024	-0.54	-0.060	0.034	2000	
Conservative share total	Conventional	0.093**	0.036	2.58	0.023	0.164	2000	0.221
	Bias-corrected	0.106***	0.036	2.94	0.036	0.177	2000	
	Robust	0.106**	0.042	2.53	0.024	0.189	2000	
Nationalist share Total	Conventional	0.073**	0.034	2.13	0.006	0.140	2000	0.234
	Bias-corrected	0.084***	0.034	2.45	0.017	0.151	2000	
	Robust	0.084**	0.042	2.01	0.002	0.166	2000	

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Bandwidth is 60 km.

change, when we run regression discontinuity estimations for the 2015 and 2019 electoral results in Poland (see Tables C.12–C.19 in Online Appendix).

Overall, the East Prussian lands of modern Poland reveal lower levels of support for conservative and nationalist parties compared to the pre-war Polish territories on the other side of the border. This is in line with the findings of Grosfeld and Zhuravskaya (2015), who attribute this pattern along the whole former German-Russian border to the legacy of the German empire, which was supposed to be more progressive than the Russian empire. What we identify as the main driver of political development is the massive population replacement that occurred in the region in the aftermath of World War II. Indeed, it very well fits the literature suggesting that migrating population tends to be more educated than those who are left behind (Bauernschuster et al., 2012; Becker et al., 2020).

5.2. Lithuania

With respect to political outcomes in Lithuania, the results are presented in Table 2 and Fig. 3 for selected conservative and nationalist parties; in Table A.10 in Appendix and Fig. D.10 in Online Appendix we report all parties in the sample. Firstly, unlike in Poland, there is no statistically significant difference in electoral turnout between pre-war Lithuania and former East Prussia. Given the lower scale of demographic transformation, this is an interesting inverse application of findings by Šimon (2015) and Urbatsch (2017).

In terms of voting outcomes, we find that the conservative vote share is higher in the former East Prussian territories of Lithuania by a mean difference of 10.6 percentage points, statistically significant with a bias-corrected CI at the 1% level and with a robust CI at the 5% level. The nationalist vote share is also higher in the same direction by an average difference of 8.4 percentage points, statistically significant at the 1% level with a bias-corrected CI and at the 5% level with a robust CI. In the Lithuanian partition of former East Prussia, the absolute values of the average differences for the conservative and nationalist shares are largely higher than their respective average values in the Lithuanian sample (0.221 and 0.234). For example, the coefficient of 0.106 for the conservative share in Lithuanian partition, when compared to the respective mean of 0.221, suggests that being in the former East Prussia leads to an increase of the conservative share by approximately 50 percent. The positive sign of the mean difference coefficients underscores the persistence of the East Prussian legacy of conservatism and nationalism in political preferences. As Fig. 3 reveals, however, there is substantial variation across parties. For example, *Homeland Union* and *National Association* receive significantly higher votes on the pre-war Lithuanian side at the border, but their shares rise in former East Prussia as we move away from this internal border. At the same time, some liberal parties also have a higher vote share in pre-war Lithuania: for instance, for the *Liberals Movement*, the mean difference is 3.4 percentage points and is statistically significant at the 5% level (see Online Appendix). The substantial kinks in Fig. 3 for the conservative and nationalist vote shares as well as for the individual party shares of Order and Justice, Poles' Electoral Action, and Homeland Union, underscore the magnitude and statistical significance of the respective RD coefficients. It is important to keep in mind that RD estimations measure differences around the cutoff point (in our case, the historical Lithuanian-East Prussian

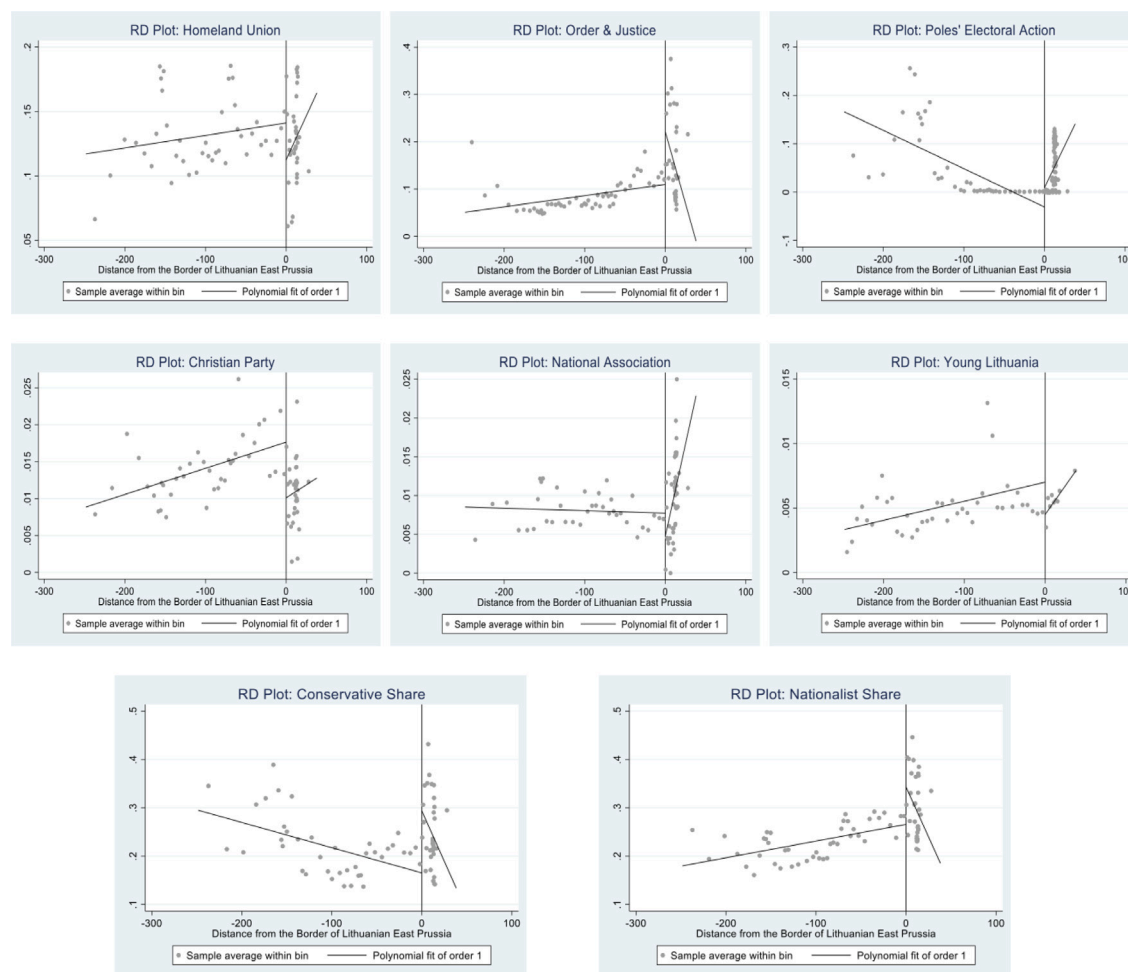


Fig. 3. RD results with robust bias-corrected CIs: Political outcomes in Lithuania vs. East Prussia.

border), and not beyond that. This involves a tradeoff in favor of a robust identification strategy, which becomes more obvious in the Lithuanian case and may be taken into account.

We introduce several robustness checks here as well by changing the border bandwidth from 60 km to 100 km and by introducing covariates in the robust RDD such as city dummy, city distance, latitude and longitude, and income (see Tables A.12 in Appendix and C.10–C.11 as well as C.25 in Online Appendix). Our initial results (Tables 2 and B.4 as well as Figs. 3 and A.14) are reinforced.

These results stand in contrast with the previous findings on voting patterns across the former German-Russian border (Bartkowski, 2003; Grosfeld and Zhuravskaya, 2015). The Lithuanian border confirms our first hypothesis in terms of the dynamics of East Prussian persistence. Our outcomes suggest the presence of a legacy that favors higher levels of support for conservative and nationalist parties in the Lithuanian partition of East Prussia. Rather than offering a linear narrative of post-imperial persistence, what we find is that the magnitude of the demographic shock may be a powerful predictor of long-run persistence. While populations usually follow the path of a defeated army and evacuate territories that are conceded to the rival military adversary as a result of an international truce or treaty, what is crucial is the prior ethnic and linguistic diversity in the province or territory conceded, its prior sectoral and resource structure, and the replacement rate of the outgoing refugee population with incoming settlers. The gradual replacement rate of the local German population and the *ex-post* maintenance of a similar sectoral and resource structure have constituted the key characteristics of the 1923 annexation of the East Prussian *Memelgebiet* by Lithuania. This is why Lithuania corroborates the hypothesis of East Prussian persistence *in situ* while than Poland does not. We perform placebo experiments by shifting the Polish-East Prussian border by 30 km and the Lithuanian-East Prussian border by 15 km, and we estimate discontinuities across these two hypothetical borders (Tables C.23 and C.24). Our results produce no significant differences across the two sides of the placebo border (Polish case in Table C.23) or the pattern of significance is reversed (Lithuanian case in Table C.24). Hence, Hypothesis 1 holds.

Table 3
Political estimates of East Prussian impact in Russia (Kaliningrad).

Outcome	Matching Model	Coefficient	Std. Err.	t	N	R-squared	Mean
United Russia	Match I	0.077***	0.021	3.74	57	0.202	0.475
	Match II	0.054*	0.031	1.78	29	0.105	
LDPR	Match I	0.004	0.006	0.62	57	0.007	0.131
	Match II	0.001	0.010	0.09	29	0.000	
CPRF	Match I	0.027**	0.012	2.32	57	0.089	0.204
	Match II	0.012	0.014	0.88	29	0.028	
Just Russia	Match I	-0.098***	0.014	-7.17	57	0.483	0.150
	Match II	-0.059***	0.019	-3.19	29	0.274	
Yabloko	Match I	-0.016***	0.006	-2.75	57	0.121	0.025
	Match II	-0.013**	0.005	-2.65	29	0.207	
Patriots of Russia	Match I	0.005***	0.001	5.49	57	0.354	0.011
	Match II	0.005***	0.001	3.60	29	0.324	
Right Cause	Match I	-0.0002	0.000	-0.54	57	0.005	0.004
	Match II	0.0001	0.001	0.17	29	0.001	
Turnout	Match I	0.020	0.015	1.36	57	0.032	0.565
	Match II	-0.002*	0.022	-0.08	29	0.000	
Liberal-conservative share	Match I	0.077***	0.020	3.77	57	0.206	0.479
	Match II	0.054*	0.030	1.81	29	0.108	
Nationalist share	Match I	0.081***	0.018	4.50	57	0.269	0.606
	Match II	0.055**	0.024	2.26	29	0.159	
Conservative share	Match I	0.077***	0.021	3.74	57	0.202	0.475
	Match II	0.054*	0.031	1.78	29	0.105	

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively.

5.3. Russia

We now turn to the case of Russia. As already mentioned above, the matching algorithm CEM allows us to coarsen the values of the covariates with the purpose of equalizing the number of treated and control units within each stratum of the covariates (Datta, 2015; Iacus et al., 2009). We run two different matching exercises, one with city dummy and altitude as the set of covariates (Match I) and another one with an augmented set of covariates including the distance to the Russian border (Match II). The summaries are presented in Online Appendix, in Tables C.2–C.3. Coarsening includes many more strata in the second rather than in the first matching model (see Fig. D.11 in Online Appendix). When it comes to political outcomes compared between Kaliningrad and the neighboring – and territorially non-contiguous – Russian regions, the first match has 17 treated units matched to 40 control units with a post-matching multivariate imbalance of 1.874×10^{-16} . The second match has 13 treated units matched to 19 control units with a post-matching imbalance of 0.25. Table 3 and Fig. 4 summarize the political effects of East Prussia for two different matching models. Assuming constant treatment across strata, we estimate the local sample average treatment effect on the treated units (LSATT) both for Match I and Match II. We find that, for *United Russia*, there is an increase of 7.7 percentage points in Match I, statistically significant at the 1% level, while there is an increase of 5.4 percentage points in Match II, statistically significant at the 10% level. In other words, the share of votes given to the *United Russia* party is higher in former East Prussia (the Kaliningrad region). As *United Russia* is the ruling and by far the largest party in Russia and is both conservative and nationalist, it also drives the overall conservative and nationalist vote shares. For conservative vote share, there is an increase of 7.7 percentage points in the Kaliningrad region relative to the neighboring regions of Russia in Match I, statistically significant at the 1% level, and an increase of 5.4 percentage points in Match II, statistically significant at the 10% level. The nationalist vote share is higher in Kaliningrad as well, producing an increase of 8.1 percentage points in Match I, statistically significant at the 1% level, and an increase of 5.5 percentage points in Match II, statistically significant at the 5% level.

If we look at another nationalist party, *LDPR*, however, there is no statistically significant difference between Kaliningrad and the non-contiguous neighboring regions of Russia. Furthermore, for the social-democratic party *Patriots of Russia*, there is also a statistically significant increase of 0.5 percentage points in vote share in Kaliningrad. At the same time, more progressive and left-wing parties tend to receive higher vote shares in the regions in the West of “mainland” Russia. The vote shares of *Just Russia* and *Yabloko* exhibit a decrease of 9.8 percentage points and 1.6 percentage points, respectively, in Match I, statistically significant at the 1% level for both parties. In Match II, we observe a decrease of 5.9 percentage points for *Just Russia* and of 1.3 percentage points for *Yabloko*, statistically significant at the 1% and 5% levels, respectively.

Overall, we observe that the political legacy of East Prussia persists in Kaliningrad in the form of conservative politics and with a significant role for nationalist politics. This pattern, however, must be treated with caution, as it is mainly driven by the ruling party and can in part be the result of the special location of Kaliningrad.

The inclination of the “Western” Russian districts in our control group toward more open and progressive political agendas is confirmed, when we perform our CEM estimations for the 2016 and 2021 electoral results (see Tables C.20–C.21 in Online

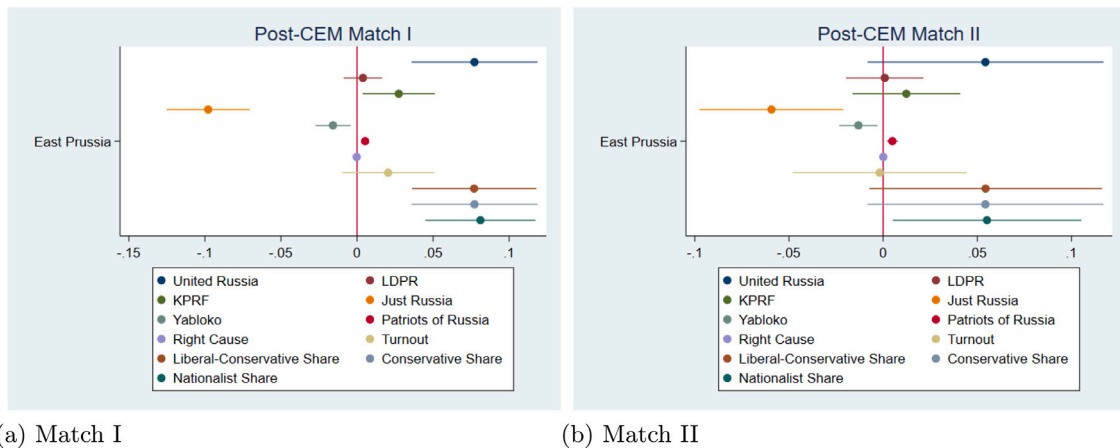


Fig. 4. Post-CEM regression (political outcomes).

Appendix).⁷ While the conservative vote share appears insignificant in these two latter elections, the role of LDPR and the nationalist vote share are corroborated by our findings.

5.4. Lithuania, Poland and Russia compared

Turning to our analysis of the pooled sample (as in specification (3) in Section 4.3.3), the results are presented in Table 4 for the full sample and a sample in which Russia is excluded (denoted LTPL). We experiment with the exclusion of Russia due to a possible objection that the Russian (“hybrid-democratic”) political system is not comparable to that of Lithuania and Poland. Exclusion of Russia, however, has no significant effect on the other results. Similar to the RDD and the CEM results, regions in East Prussia tend to vote less conservatively and nationalistically in Poland and more conservatively and nationalistically in Lithuania and Russia. All these effects are highly significant, except for nationalist voting in Russia. Interestingly, Lithuania and Poland in general tend to vote more conservatively than Russia. Lithuanian regions also tend to lend less support to nationalist parties than Russia and less support to both conservative and nationalist parties than Poland.

At the bottom of Table 4, we also measure pairwise whether Lithuania, Russia and Poland are statistically distinguishable inside East Prussia and, for the full sample, whether Lithuania and Poland are distinguishable outside East Prussia. The latter measure is also repeated through the Lithuanian country effect in the smaller sample, and the coefficients are quite close. As could be expected, all three countries are significantly different from each other both inside and outside former East Prussia. An interesting result, however, is that the difference between Lithuania and Poland in East Prussia seems to be lower in absolute terms than that outside East Prussia. The last three lines of Table 4, therefore, also report pairwise the difference in absolute disparities between the modern countries within versus outside East Prussia. It is important to note that we only compare the *magnitude* of the disparity in this case, even if East Prussian and non-East Prussian effects go in different directions. The negative coefficient means that the country difference within East Prussia is smaller than outside it, whereas the positive coefficient indicates a larger difference within East Prussia. Indeed, we find that Lithuania and Poland are more similar within East Prussia than outside it with respect to conservative and nationalist voting. They are, however, indistinguishable in this regard with respect to electoral turnout. At the same time, both Lithuania and Poland seem to be more different from Russia within East Prussia than they are outside it. Thus, our results support Hypothesis 2 and, given the history of the region, reflect how the scale of the demographic shock, together with pre-shock diversity, shapes persistence.

For Lithuania and Poland, we also repeat the exercise limiting the sample to a bandwidth of 60 km and 100 km from the East Prussian border, which brings the specifications even closer to the RD design. The results are reported in Table A.13 in Appendix and are fully in line with the results reported above. Moreover, within these smaller bands, Lithuania and Poland become statistically indistinguishable from each other within East Prussia with respect to conservative voting and, for the bandwidth of 100 km, also with regard to nationalist voting. This lends more support for Hypothesis 2 in the region with more geographic proximity, more initial diversity and a (somewhat) lower scale of the demographic shock.

Voigtländer and Voth (2012) suggest that the persistence of anti-Semitism is stronger under conditions of low population mobility. While we do not directly challenge this finding, we propose that persistence of values and preferences may occur under conditions of high population mobility, when the skills of the incoming and outgoing populations are comparable.

⁷ There is only province-level (not district-level) data on average earnings in 2011, which does not allow us to report CEM matching results by adding this covariate.

Table 4
Estimation results for East Prussia, pooled sample.

Sample Dependent variable	Full turnout (1)	Full cons. (2)	Full national. (3)	LTPL turnout (4)	LTPL cons. (5)	LTPL national. (6)
LT	0.004 (0.014)	0.052** (0.027)	-0.283*** (0.019)	0.070*** (0.006)	-0.253*** (0.010)	-0.171*** (0.010)
PL	-0.077*** (0.017)	0.266*** (0.034)	-0.134 (0.025)			
LTEP	-0.053*** (0.009)	0.110*** (0.015)	0.099*** (0.013)	-0.052*** (0.009)	0.125*** (0.015)	0.103*** (0.013)
PLEP	-0.054*** (0.012)	-0.070*** (0.012)	-0.088*** (0.011)	-0.061*** (0.012)	-0.083*** (0.012)	-0.101*** (0.011)
RUEP	0.052* (0.031)	0.443*** (0.044)	0.180 (0.032)			
City	0.053*** (0.004)	-0.021*** (0.008)	-0.002 (0.004)	0.057*** (0.004)	-0.020*** (0.008)	0.001 (0.005)
Dist. to EP border (tkm)	0.071*** (0.012)	0.285*** (0.024)	0.065*** (0.020)	0.083*** (0.013)	0.348*** (0.024)	0.082*** (0.021)
Dist. to EP border (EP) (tkm)	-0.032 (0.092)	-1.493*** (0.290)	-1.187*** (0.248)	0.106 (0.311)	-1.358*** (0.256)	-1.004*** (0.240)
Location	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4637	4637	4637	4479	4479	4479
R-squared	0.366	0.244	0.341	0.354	0.221	0.200
Prob > F	0.000	0.000	0.000	0.000	0.000	0.000
LT vs RU in EP	-0.100***	-0.280***	-0.364***			
PL vs. RU in EP	-0.182***	-0.247***	-0.401***			
LT vs. PL in EP	0.082***	-0.033*	0.037***	0.079***	-0.045***	0.033***
LT vs. PL outside EP	0.081***	-0.214***	-0.150***			
Δ LT vs. RU in EP/outside EP	0.096***	0.227***	0.081***			
Δ PL vs. RU in EP/outside EP	0.105***	-0.020	0.268***			
Δ LT vs. PL in EP/outside EP	0.001	-0.180***	-0.112***	0.009	-0.208***	-0.138***

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Standard errors in parentheses. LT = Lithuania, PL = Poland, RU = Russia, EP = East Prussia, LTEP = Lithuania in East Prussia, PLEP = Poland in East Prussia, RUEP = Russia in East Prussia.

Furthermore, we perform regression discontinuity estimations for the borders between East Prussian territories in Russia and Poland as well as in Russia and Lithuania (see Tables A.1–A.4 in the Appendix and Fig. D.12 in Online Appendix). We find that there is no significant discontinuity across the Russian–Lithuanian border within East Prussia, which corroborates our [Hypothesis 2](#), when one compares these findings with the significant discontinuities observed across the historical Lithuanian–East Prussian borders. At the same time, the Russian–Polish border within East Prussia exhibits significant differences, which also confirm the logic of [Hypothesis 2](#). As will be discussed in the next Section, the massive scale of demographic shock and differential human capital replacement across the Russian–Polish border has undermined persistence patterns compared to the Russian–Lithuanian border, where the human capital of populations was more homogeneous.

6. Settler literacy

The violent population replacement in the Polish and Russian partitions of East Prussia with settlers from Kresy and Central Poland (Polish partition) or from the Russian (Federal) and Belarusian Soviet Socialist Republics (Russian partition) does not provide any basis for intergenerational transmission, as it has been the case in the Lithuanian partition (Memel region), where population replacement has been gradual and much smoother.⁸ Furthermore, statistical information from the 1871 census of the German Empire (both at the district and the county level) shows that the East Prussian population in 1871 was more literate than the respective Polish and Soviet settlers in 1930–39 (Prussian Royal Statistical Office, 1874a, 1874b). It seems that literacy in East Prussia reached almost 100 percent by 1900, this is why it is not to be traced in 20th century censuses of Wilhelmine or Weimar Germany. Therefore, after performing extensive data collection in Kaliningrad, Olsztyn and Warsaw, we utilize settler literacy as a mediating mechanism to explain the logic of locational persistence, i.e. persistence that is not linked to the same populations but to approximating levels of incoming human capital, when it comes to the new populations that entered East Prussia after 1945.

[Coenders and Scheepers \(2003\)](#) find a positive empirical relationship between education and nationalism, which is stronger in interrupted or older democracies than recently established ones. [Hjerm \(2001\)](#), however, finds a negative correlation between levels of educational attainment and levels of nationalist sentiment. When it comes to types of political regimes, [Österman and](#)

⁸ [Charnysh \(2019\)](#) indicates that in the measurement of Polish repatriates in the Polish partition of former East Prussia it is not possible to account for all cultural cleavages and dimensions of religious heterogeneity. This has been particularly the case for Central Poland, where many repatriates in Warmia and Masuria originated from.

Robinson (2022) find that citizens educated under a democratic regime are inclined to be more satisfied with democracy than citizens educated under an authoritarian regime. While the general empirical relationship between education and nationalism appears to be ambiguous and rather in the negative direction, we argue that in the context of forced migration higher levels of prior settler literacy can consolidate long-run support for conservative and nationalist political parties, when the outgoing population had also achieved strong literacy rates. A continuation in literacy levels between old and new populations facilitates the preservation of local economic structure, and therefore the inter-imperial locational persistence of political preferences.

Our findings suggest that a low human capital differential between outgoing refugees and incoming settlers predicts long-run political development. While market structures in the Russian and the Polish partitions have been significantly different in the aftermath of 1945 (central planning) and of 1989–1991 (capitalist transition), qualitative evidence from interviews with first Soviet settlers in Kaliningrad (anonymized interview transcripts have been collected from the State Archive of the Kaliningrad region; see footnote 3 in Section 3 of the study, and Table A.2) points out that the high literacy rates of Soviet settlers in the Russian partition of former East Prussia were coupled with the strong prevalence of individualist values, which underscore the existence of a self-selection mechanism for career opportunity-seeking and profit-maximizing migrants. These migrants and their descendants are, therefore, more likely to prefer conservative and nationalist political parties with an economic policy agenda that is against redistribution and social spending (see also Dancygier and Saunders, 2006). Intertemporal (in)congruence of conservative and nationalist political preferences in the Russian and Polish partitions may, therefore, be explained through the mediating channel of settler literacy, when those settlers are oriented toward material self-advancement and personal survival independently of the superimposed economic system (socialism or capitalism).

Settler literacy does not alter the post-WWII border significance between the Russian and Polish partitions of former East Prussia (see Table A.14 in Appendix), as both regions received large incoming settler flows that discontinued the prior demographic profile of the region. Nevertheless, when we control for settler literacy and we compare Kaliningrad with the control group of the Russian mainland, the significance of the East Prussian impact disappears when it comes to conservative and nationalist vote shares (Table C.22 in Online Appendix and Table A.5 in the Appendix). This corroborates Hypothesis 3 and the role of higher settler literacy rates as a driver for higher conservative and nationalist political preferences in the Russian partition of East Prussia.

The inclusion of settler literacy in our powiat-level-RD estimations also leads to the disappearance of the historical Polish-East Prussian border when it comes to conservative and nationalist political preferences (Table A.6 in the Appendix). Unlike Kaliningrad (Russian partition), Warmia and Masuria (Polish partition) had exhibited less conservative and nationalist political preferences compared to central Poland. This implies that lower settler literacy rates in the Polish partition have become a transmission channel for lower conservative and nationalist vote shares.

These differences in settler literacy rates not only corroborate Hypothesis 3, but also enlighten our findings related to Hypotheses 1 and 2. The literacy levels of the incoming populations provide an alternative evidence to classical notions of persistence, while indicating that comparative human capital both across the partitions of former East Prussia and with respect to the outgoing German population is a powerful tool for analyzing persistence under conditions of forced migration.

7. Conclusion

We find that the political legacies of former East Prussia persist in the Russian and Lithuanian partitions, whereas they do not persist in the Polish partition. Persistence in the Lithuanian partition is explained by the gradual departure of the German population, stretching over 25 years. To explain (the presence or absence of) persistence in the Russian and Polish partitions we introduce the literacy rates of incoming Soviet and Polish settlers as a mediating mechanism approximating for the basic human capital of population. We find most evidence for persistence in Russia, where the literacy rates of Soviet settlers approximated the high literacy rates of the outgoing German population. Lower literacy rates of incoming settlers into Warmia and Mazuria explain the rejection of persistence hypothesis for Polish East Prussia. With the massive population movements in the mid-twentieth century, it might be tempting to attribute persistence to intergenerational transmission, where it is actually more likely to be determined by the human capital of incoming migrants.

Data availability

Data will be made available on request.

Appendix A. Tables

See Tables A.1–A.14.

Appendix B. Figures

See Figs. B.1–B.5.

Appendices C–E. Supplementary data

Supplementary material related to this article can be found online at <https://doi.org/10.1016/j.euroecorev.2024.104790>.

Table A.1

RD results with robust bias-corrected CIs: Political outcomes within East Prussia.

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval	N
Panel A: Russia. vs. Poland						
Turnout	Conventional	-0.315***	0.137	-2.30	-0.582 -0.047	281
	Bias-corrected	-0.393***	0.137	-2.87	-0.660 -0.125	281
	Robust	-0.393	0.244	-1.61	-0.870 0.085	281
Conservative share	Conventional	-0.432***	0.114	-3.80	-0.654 -0.209	281
	Bias-corrected	-0.598***	0.114	-5.26	-0.821 -0.375	281
	Robust	-0.598***	0.211	-2.83	-1.012 -0.184	281
Nationalist share	Conventional	-0.556***	0.074	-7.49	-0.702 -0.411	281
	Bias-corrected	-0.670***	0.074	-9.02	-0.815 -0.525	281
	Robust	-0.670***	0.138	-4.87	-0.939 -0.400	281
Panel B: Russia. vs. Lithuania						
Turnout	Conventional	-0.065	0.079	-0.82	-0.220 0.090	199
	Bias-corrected	-0.091	0.079	-1.16	-0.246 0.063	199
	Robust	-0.091	0.126	-0.72	-0.339 0.156	199
Conservative share	Conventional	-0.105	0.275	-0.38	-0.643 0.434	199
	Bias-corrected	0.088	0.275	0.32	-0.451 0.626	199
	Robust	0.088	0.446	0.20	-0.786 0.961	199
Nationalist share	Conventional	-0.200	0.231	-0.87	-0.652 0.252	199
	Bias-corrected	-0.008	0.231	-0.03	-0.460 0.445	199
	Robust	-0.008	0.369	-0.02	-0.732 0.716	199

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Distance to the Russian side of the border is multiplied by -1, whereas distance to the Polish side of the border is multiplied by 1. Similarly, distance to the Russian side of the border is multiplied by -1, whereas distance to the Lithuanian side of the border is multiplied by 1. Bandwidth is 60 km.

Table A.2

RD results with robust bias-corrected CIs: Political outcomes within East Prussia – Bandwidth of 100 km.

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval	N
Panel A: Russia. vs. Poland						
Turnout	Conventional	-0.277***	0.088	-3.14	-0.449 -0.104	281
	Bias-corrected	-0.337***	0.088	-3.83	-0.510 -0.164	281
	Robust	-0.337**	0.170	-1.98	-0.671 -0.003	281
Conservative share	Conventional	-0.294***	0.070	-4.19	-0.432 -0.157	281
	Bias-corrected	-0.516***	0.070	-7.35	-0.654 -0.379	281
	Robust	-0.516***	0.144	-3.58	-0.799 -0.234	281
Nationalist share	Conventional	-0.444***	0.047	-9.49	-0.536 -0.353	281
	Bias-corrected	-0.623***	0.047	-13.31	-0.715 -0.532	281
	Robust	-0.623***	0.095	-6.58	-0.809 -0.438	281
Panel B: Russia. vs. Lithuania						
Turnout	Conventional	-0.057	0.060	-0.95	-0.174 0.061	199
	Bias-corrected	-0.061	0.060	-1.00	-0.178 0.058	199
	Robust	-0.061	0.087	-0.69	-0.231 0.111	199
Conservative share	Conventional	-0.173	0.172	-1.01	-0.509 0.164	199
	Bias-corrected	-0.060	0.172	-0.35	-0.397 0.277	199
	Robust	-0.060	0.309	-0.19	-0.666 0.546	199
Nationalist share	Conventional	-0.253*	0.143	-1.77	-0.533 0.027	199
	Bias-corrected	-0.175	0.143	-1.23	-0.455 0.105	199
	Robust	-0.175	0.261	-0.67	-0.686 0.336	199

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Distance to the Russian side of the border is multiplied by -1, whereas distance to the Polish side of the border is multiplied by 1. Similarly, distance to the Russian side of the border is multiplied by -1, whereas distance to the Lithuanian side of the border is multiplied by 1. Bandwidth is 100 km.

Table A.3

Covariate-Adjusted RD results with robust bias-corrected CIs: Political outcomes within East Prussia.

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval	N
Panel A: Russia. vs. Poland						
Turnout	Conventional	-0.240***	0.077	-3.14	-0.390 -0.090	281
	Bias-corrected	-0.264***	0.077	-3.46	-0.414 -0.115	281
	Robust	-0.264*	0.136	-1.95	-0.530 0.001	281
Conservative share	Conventional	-0.404***	0.092	-4.41	-0.584 -0.225	281
	Bias-corrected	-0.540***	0.092	-5.89	-0.720 -0.360	281
	Robust	-0.540***	0.169	-3.20	-0.871 -0.209	281
Nationalist share	Conventional	-0.546***	0.069	-7.87	-0.683 -0.410	281
	Bias-corrected	-0.647***	0.069	-9.32	-0.783 -0.511	281
	Robust	-0.647***	0.127	-5.10	-0.896 -0.399	281
Panel B: Russia. vs. Lithuania						
Turnout	Conventional	-0.012	0.060	-0.20	-0.131 0.106	199
	Bias-corrected	0.024	0.060	0.40	-0.094 0.142	199
	Robust	0.024	0.077	0.31	-0.126 0.174	199
Conservative share	Conventional	-0.032	0.222	-0.14	-0.467 0.403	199
	Bias-corrected	0.221	0.222	1.00	-0.214 0.656	199
	Robust	0.221	0.353	0.63	-0.471 0.913	199
Nationalist share	Conventional	-0.176	0.202	-0.87	-0.572 0.221	199
	Bias-corrected	0.023	0.202	0.12	-0.373 0.420	199
	Robust	0.023	0.319	0.07	-0.602 0.648	199

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Covariates include latitude, longitude, city distance and city dummy. Distance to the Russian side of the border is multiplied by -1, whereas distance to the Polish side of the border is multiplied by 1. Similarly, distance to the Russian side of the border is multiplied by -1, whereas distance to the Lithuanian side of the border is multiplied by 1. Bandwidth is 60 km.

Table A.4

Covariate-Adjusted RD results with robust bias-corrected CIs: Political outcomes within East Prussia – Bandwidth of 100 km.

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval	N
Panel A: Russia. vs. Poland						
Turnout	Conventional	-0.211***	0.056	-3.77	-0.320 -0.101	281
	Bias-corrected	-0.265***	0.056	-4.75	-0.375 -0.156	281
	Robust	-0.265**	0.109	-2.43	-0.480 -0.051	281
Conservative share	Conventional	-0.301***	0.064	-4.71	-0.426 -0.176	281
	Bias-corrected	-0.494***	0.064	-7.75	-0.619 -0.369	281
	Robust	-0.494***	0.135	-3.67	-0.758 -0.231	281
Nationalist share	Conventional	-0.461***	0.048	-9.69	-0.554 -0.368	281
	Bias-corrected	-0.617***	0.048	-12.98	-0.711 -0.524	281
	Robust	-0.617***	0.100	-6.20	-0.812 -0.422	281
Panel B: Russia. vs. Lithuania						
Turnout	Conventional	-0.040	0.055	-0.73	-0.148 0.067	199
	Bias-corrected	-0.036	0.055	-0.66	-0.144 0.072	199
	Robust	-0.036	0.081	-0.45	-0.196 0.123	199
Conservative share	Conventional	-0.170	0.166	-1.02	-0.496 0.155	199
	Bias-corrected	-0.048	0.166	-0.29	-0.374 0.277	199
	Robust	-0.048	0.298	-0.16	-0.633 0.536	199
Nationalist share	Conventional	-0.282*	0.142	-1.98	-0.561 -0.003	199
	Bias-corrected	-0.191	0.142	-1.34	-0.470 0.088	199
	Robust	-0.191	0.257	-0.74	-0.694 0.313	199

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Distance to the Russian side of the border is multiplied by -1, whereas distance to the Polish side of the border is multiplied by 1. Similarly, distance to the Russian side of the border is multiplied by -1, whereas distance to the Lithuanian side of the border is multiplied by 1. Covariates include latitude, longitude, city distance and city dummy. Bandwidth is 100 km.

Table A.5
Political Estimates of East Prussian Impact in Russia vs. East Prussia (2011) – Settler Literacy.

Outcome variable	Election	Coefficient	Std. Err.	t	N	R-squared
Turnout	2011	0.051*	0.024	2.11	25	0.163
Conservative share	2011	0.015	0.034	0.45	25	0.009
Liberal-conservativeshare	2011	0.016	0.033	0.47	25	0.010
Nationalist share	2011	0.021	0.032	0.66	25	0.018
Turnout	2016	0.075**	0.028	2.67	22	0.260
Conservative share	2016	0.003	0.038	0.08	22	0.000
Liberal-conservativeshare	2016	0.003	0.038	0.07	22	0.000
Nationalist share	2016	0.028	0.034	0.81	22	0.031
Turnout	2021	0.033	0.034	0.97	22	0.044
Conservative share	2021	-0.067*	0.038	-1.78	22	0.135
Liberal-conservativeshare	2021	-0.067*	0.038	-1.78	22	0.134
Nationalist share	2021	-0.041	0.037	-1.09	22	0.055

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively.

Table A.6
RD results with robust bias-corrected CIs: Political outcomes in Poland vs. East Prussia (2011) – Settler Literacy.

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval	N
Panel A: Bandwidth of 60 km						
Turnout	Conventional	-0.050***	0.013	-3.71	-0.076 -0.023	48
	Bias-corrected	-0.072***	0.013	-5.39	-0.098 -0.046	48
	Robust	-0.072*	0.039	-1.84	-0.149 0.005	48
Conservative share	Conventional	0.007	0.034	0.20	-0.061 0.074	48
	Bias-corrected	-0.043	0.034	-1.24	-0.110 0.025	48
	Robust	-0.043	0.059	-0.72	-0.159 0.074	48
Liberal-conservative Share	Conventional	0.005	0.035	0.16	-0.063 0.074	48
	Bias-corrected	0.140***	0.035	3.97	0.071 0.209	48
	Robust	0.140*	0.072	1.93	-0.002 0.281	48
Nationalist share	Conventional	0.007	0.034	0.20	-0.061 0.074	48
	Bias-corrected	-0.043	0.034	-1.24	-0.110 0.025	48
	Robust	-0.043	0.059	-0.72	-0.159 0.074	48
Panel B: Bandwidth of 100 km						
Turnout	Conventional	-0.023*	0.013	-1.74	-0.049 0.003	48
	Bias-corrected	-0.080***	0.013	-6.01	-0.106 -0.054	48
	Robust	-0.080***	0.021	-3.90	-0.120 -0.040	48
Conservative share	Conventional	-0.035	0.032	-1.09	-0.097 0.027	48
	Bias-corrected	0.011	0.032	0.35	-0.051 0.073	48
	Robust	0.011	0.039	0.28	-0.066 0.088	48
Liberal-conservative Share	Conventional	0.001	0.029	0.03	-0.056 0.058	48
	Bias-corrected	0.005	0.029	0.17	-0.052 0.061	48
	Robust	0.005	0.041	0.12	-0.075 0.085	48
Nationalist share	Conventional	-0.035	0.032	-1.09	-0.097 0.027	48
	Bias-corrected	0.011	0.032	0.35	-0.051 0.073	48
	Robust	0.011	0.039	0.28	-0.066 0.088	48
Panel C: Baseline Covariates & Bandwidth of 100 km						
Turnout	Conventional	-0.036**	0.015	-2.46	-0.065 -0.007	48
	Bias-corrected	-0.094***	0.015	-6.42	-0.123 -0.066	48
	Robust	-0.094***	0.026	-3.70	-0.145 -0.044	48
Conservative share	Conventional	-0.026	0.020	-1.25	-0.066 0.014	48
	Bias-corrected	0.026	0.020	1.27	-0.014 0.066	48
	Robust	0.026	0.034	0.77	-0.040 0.092	48
Liberal-conservative Share	Conventional	-0.017	0.030	-0.55	-0.076 0.042	48
	Bias-corrected	-0.024	0.030	-0.80	-0.083 0.035	48
	Robust	-0.024	0.037	-0.64	-0.097 0.049	48
Nationalist share	Conventional	-0.026	0.020	-1.25	-0.066 0.014	48
	Bias-corrected	-0.026	0.020	1.27	-0.014 0.066	48
	Robust	-0.026	0.034	0.77	-0.040 0.092	48

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Distance to the Russian side of the border is multiplied by -1, whereas distance to the Polish side of the border is multiplied by 1. There are no sufficient observation for RD estimations with bandwidth of 60 km.

Table A.7

Covariate-adjusted RD results with robust bias-corrected CIs and Optimal Bandwidth Selection: Political outcomes in Poland vs. East Prussia (2011)

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval		N	Mean
Prawo i Sprawiedliwość	Conventional	-0.054**	0.022	-2.49	-0.097	-0.011	2479	0.332
	Bias-corrected	-0.053**	0.022	-2.43	-0.095	-0.010	2479	
	Robust	-0.053**	0.027	-1.98	-0.105	-0.001	2479	
Polska Jest Najważniejsza	Conventional	-0.013	0.013	-1.06	-0.038	0.011	2479	0.020
	Bias-corrected	-0.015	0.015	-1.17	-0.040	0.010	2479	
	Robust	-0.015	0.015	-1.00	-0.044	0.014	2479	
Sojusz Lewicy Demokratycznej	Conventional	0.023***	0.007	3.24	0.009	0.037	2479	0.082
	Bias-corrected	0.025***	0.007	3.49	0.011	0.038	2479	
	Robust	0.025***	0.009	2.89	0.008	0.041	2479	
Ruch Palikota	Conventional	0.023***	0.009	2.61	0.006	0.041	2479	0.089
	Bias-corrected	0.021**	0.009	2.35	0.003	0.039	2479	
	Robust	0.021*	0.011	1.91	-0.001	0.043	2479	
Polskie Stronnictwo Ludowe	Conventional	-0.036	0.030	-1.22	-0.094	0.022	2479	0.163
	Bias-corrected	-0.037	0.030	-1.24	-0.095	0.021	2479	
	Robust	-0.037	0.037	-0.99	-0.109	0.036	2479	
Polska Partia Pracy - Sierpień 80	Conventional	-0.002	0.003	-0.60	-0.007	0.004	2479	0.006
	Bias-corrected	-0.000	0.003	-0.03	-0.005	0.005	2479	
	Robust	-0.000	0.003	-0.02	-0.006	0.006	2479	
Platforma Obywatelska RP	Conventional	0.060*	0.034	1.79	-0.006	0.126	2479	0.290
	Bias-corrected	0.058*	0.034	1.74	-0.007	0.124	2479	
	Robust	0.058	0.041	1.41	-0.023	0.139	2479	
Nasz Dom Polska	Conventional	0.000	0.002	0.04	-0.004	0.004	2479	0.001
	Bias-corrected	0.000	0.002	0.46	-0.003	0.005	2479	
	Robust	0.000	0.002	0.39	-0.004	0.005	2479	
Prawica	Conventional	0.001	0.001	1.18	-0.001	0.004	2479	0.003
	Bias-corrected	0.001	0.001	1.22	-0.001	0.004	2479	
	Robust	0.001	0.001	0.94	-0.001	0.004	2479	
Nowa Prawica	Conventional	-0.004***	0.001	-3.73	-0.006	-0.002	2479	0.008
	Bias-corrected	-0.004***	0.001	-3.74	-0.006	-0.002	2479	
	Robust	-0.004***	0.001	-3.06	-0.006	-0.001	2479	
Turnout	Conventional	-0.044*	0.024	-1.87	-0.090	0.002	2479	0.425
	Bias-corrected	-0.054**	0.024	-2.28	-0.100	-0.007	2479	
	Robust	-0.054*	0.029	-1.84	-0.111	0.004	2479	
Conservative share	Conventional	-0.053**	0.023	-2.34	-0.097	-0.009	2479	0.335
	Bias-corrected	-0.051**	0.023	-2.26	-0.095	-0.007	2479	
	Robust	-0.051*	0.028	-1.85	-0.105	-0.003	2479	
Liberal-Conservative Share	Conventional	-0.005	0.024	-0.19	-0.052	0.043	2479	0.653
	Bias-corrected	-0.005	0.024	-0.19	-0.052	0.043	2479	
	Robust	-0.005	0.031	-0.15	-0.064	0.055	2479	
Nationalist share	Conventional	-0.054**	0.022	-2.49	-0.097	-0.011	2479	0.333
	Bias-corrected	-0.053**	0.022	-2.43	-0.095	-0.010	2479	
	Robust	-0.053**	0.027	-1.98	-0.105	-0.001	2479	

Note: ***, **, * - significance at 1%, 5% and 10%, respectively. Covariates include latitude, longitude and city dummy.

Table A.8

Covariate-adjusted RD results with robust bias-corrected CIs and Optimal Bandwidth Selection: Political outcomes in Lithuania vs. East Prussia (2012).

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval		N	Mean
Labor party	Conventional	0.071**	0.032	2.21	0.008	0.133	2000	0.248
	Bias-corrected	0.057*	0.032	1.78	-0.006	0.119	2000	
	Robust	0.057	0.050	1.14	-0.041	0.155	2000	
Social democratic	Conventional	-0.098***	0.028	-3.54	-0.152	-0.043	2000	0.201
	Bias-corrected	-0.092***	0.028	-3.34	-0.146	-0.038	2000	
	Robust Party	-0.092**	0.038	-2.42	-0.167	-0.018	2000	
Homeland union	Conventional	-0.029**	0.013	-2.29	-0.055	-0.004	2000	0.131
	Bias-corrected	-0.014	0.013	-1.10	-0.039	-0.011	2000	
	Robust	-0.014	0.018	-0.77	-0.050	0.022	2000	

(continued on next page)

Table A.8 (continued).

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval		N	Mean
Liberals movement	Conventional	-0.011	0.013	-0.82	-0.036	0.015	2000	0.066
	Bias-corrected	-0.000	0.013	-0.04	-0.026	0.025	2000	
	Robust	-0.000	0.021	-0.02	-0.041	0.040	2000	
The way of courage	Conventional	-0.025***	0.009	-2.67	-0.043	-0.007	2000	0.067
	Bias-corrected	-0.034***	0.009	-3.65	-0.052	-0.016	2000	
	Robust	-0.034**	0.014	-2.48	-0.061	-0.007	2000	
Order & Justice	Conventional	-0.093**	0.040	2.32	0.014	0.172	2000	0.089
	Bias-corrected	-0.072*	0.040	1.78	-0.007	0.150	2000	
	Robust	-0.072	0.053	1.36	-0.032	0.175	2000	
Poles' electoral Action	Conventional	-0.013***	0.003	-4.04	-0.019	-0.007	2000	0.050
	Bias-corrected	-0.019***	0.003	-5.77	-0.025	-0.012	2000	
	Robust	-0.019***	0.003	-5.40	-0.025	-0.012	2000	
Peasant & Greens Union	Conventional	0.017	0.015	1.07	-0.014	0.047	2000	0.062
	Bias-corrected	0.025	0.015	1.62	-0.005	0.055	2000	
	Robust	0.025	0.023	1.07	-0.021	0.071	2000	
Liberal & Centre Union	Conventional	-0.002	0.006	-0.31	-0.013	0.009	2000	0.023
	Bias-corrected	0.002	0.006	0.41	-0.009	0.014	2000	
	Robust	0.002	0.007	0.33	-0.012	0.017	2000	
Union YES	Conventional	0.007	0.006	1.18	-0.005	0.019	2000	0.012
	Bias-corrected	0.007	0.006	1.20	-0.005	0.019	2000	
	Robust	0.007	0.011	0.68	-0.013	0.028	2000	
Socialist people's Front	Conventional	-0.005***	0.002	-3.28	-0.008	-0.002	2000	0.011
	Bias-corrected	-0.003**	0.002	-2.01	-0.006	-0.000	2000	
	Robust	-0.003	0.002	-1.39	-0.007	-0.001	2000	
Christian party	Conventional	0.008	0.004	0.32	-0.006	-0.009	2000	0.014
	Bias-corrected	0.006	0.004	1.47	-0.002	0.013	2000	
	Robust	0.006	0.005	1.17	-0.004	0.015	2000	
National association	Conventional	-0.001	0.002	-0.26	-0.005	0.004	2000	0.008
	Bias-corrected	0.001	0.002	0.52	-0.003	0.006	2000	
	Robust	0.001	0.004	0.34	-0.006	0.008	2000	
Young Lithuania	Conventional	-0.000	0.001	-0.09	-0.003	0.002	2000	0.005
	Bias-corrected	-0.001	0.001	-0.68	-0.003	0.002	2000	
	Robust	-0.001	0.002	-0.52	-0.004	0.002	2000	
Democratic labor & Unity Party	Conventional	0.001	0.001	0.99	-0.001	0.003	2000	0.004
	Bias-corrected	0.002*	0.001	1.75	-0.000	0.004	2000	
	Robust	0.002	0.001	1.54	-0.001	0.004	2000	
Emigrants' party	Conventional	-0.000	0.001	-0.47	-0.002	0.001	2000	0.002
	Bias-corrected	-0.001	0.001	-1.12	-0.002	0.001	2000	
	Robust	-0.001	0.001	-0.88	-0.002	0.001	2000	
Republican party	Conventional	-0.000	0.001	-0.13	-0.002	0.002	2000	0.003
	Bias-corrected	0.000	0.001	0.20	-0.002	0.002	2000	
	Robust	0.000	0.001	0.15	-0.002	0.003	2000	
People's party	Conventional	0.001	0.001	0.67	-0.001	0.002	2000	0.003
	Bias-corrected	0.000	0.001	0.16	-0.001	0.002	2000	
	Robust	0.000	0.001	0.13	-0.002	0.002	2000	
Turnout	Conventional	-0.015	0.023	-0.64	-0.060	0.030	2000	0.517
	Bias-corrected	-0.009	0.023	-0.37	-0.054	0.037	2000	
	Robust	-0.009	0.032	-0.27	-0.071	0.054	2000	
Conservative share	Conventional	0.092**	0.038	2.43	0.018	0.167	2000	0.221
	Bias-corrected	0.081**	0.038	2.13	0.006	0.155	2000	
	Robust	0.081*	0.048	1.67	-0.014	0.176	2000	
Liberal-conservative Share	Conventional	0.051	0.031	1.61	-0.011	0.110	2000	0.441
	Bias-corrected	0.065**	0.031	2.09	0.004	0.125	2000	
	Robust	0.065*	0.039	1.66	-0.012	0.141	2000	
Nationalist share	Conventional	0.061*	0.039	1.58	-0.015	0.137	2000	0.234
	Bias-corrected	0.058	0.039	1.51	-0.017	0.134	2000	
	Robust	0.058	0.054	1.09	-0.047	0.163	2000	

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Covariates include latitude, longitude, city distance and city dummy.

Table A.9

RD results with robust bias-corrected CIs: Political outcomes in Poland vs. East Prussia (all parties) (2011).

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval		N	Mean
Prawo i Sprawiedliwość	Conventional	-0.061***	0.018	-3.42	-0.096	-0.026	2479	0.332
	Bias-corrected	-0.046**	0.018	-2.59	-0.081	-0.011	2479	
	Robust	-0.046*	0.028	-1.68	-0.100	0.008	2479	
Polska Jest Najważniejsza	Conventional	-0.009*	0.005	-1.71	-0.018	0.001	2479	0.020
	Bias-corrected	-0.014***	0.005	-2.72	-0.023	-0.004	2479	
	Robust	-0.014	0.009	-1.46	-0.032	0.005	2479	
Sojusz Lewicy Demokratycznej	Conventional	0.021***	0.007	3.06	0.008	0.035	2479	0.082
	Bias-corrected	0.026***	0.007	3.82	0.013	0.040	2479	
	Robust	0.026***	0.009	3.04	0.009	0.044	2479	
Ruch Palikota	Conventional	0.029***	0.007	4.23	0.016	0.043	2479	0.089
	Bias-corrected	0.019***	0.007	2.66	0.005	0.032	2479	
	Robust	0.019*	0.010	1.92	0.000	0.037	2479	
Polskie Stronnictwo Ludowe	Conventional	-0.039	0.025	-1.59	-0.088	0.009	2479	0.163
	Bias-corrected	-0.032	0.025	-1.31	-0.081	0.016	2479	
	Robust	-0.032	0.036	-0.91	-0.103	0.038	2479	
Polska Partia Pracy – Sierpień 80	Conventional	-0.004*	0.002	-1.90	-0.007	0.000	2479	0.006
	Bias-corrected	-0.004**	0.002	-2.06	-0.008	0.000	2479	
	Robust	-0.004	0.003	-1.55	-0.009	0.001	2479	
Platforma Obywatelska RP	Conventional	0.068***	0.026	2.60	0.017	0.119	2479	0.290
	Bias-corrected	0.058**	0.026	2.22	0.007	0.109	2479	
	Robust	0.058	0.040	1.47	-0.019	0.136	2479	
Nasz Dom Polska	Conventional	-0.003***	0.001	-2.79	-0.005	-0.001	2479	0.001
	Bias-corrected	-0.002**	0.001	-2.03	-0.004	0.000	2479	
	Robust	-0.002	0.001	-1.39	-0.005	0.001	2479	
Prawica	Conventional	0.001	0.001	1.38	0.000	0.002	2479	0.003
	Bias-corrected	0.001	0.001	1.19	-0.001	0.002	2479	
	Robust	0.001	0.001	0.72	-0.002	0.003	2479	
Nowa Prawica	Conventional	-0.004***	0.001	-3.43	-0.007	-0.002	2479	0.008
	Bias-corrected	-0.006***	0.001	-4.66	-0.008	-0.003	2479	
	Robust	-0.006***	0.002	-3.04	-0.010	-0.002	2479	
Turnout	Conventional	-0.038**	0.016	-2.37	-0.069	-0.006	2479	0.425
	Bias-corrected	-0.035**	0.016	-2.22	-0.066	-0.004	2479	
	Robust	-0.035	0.022	-1.62	-0.078	0.007	2479	
Conservative share	Conventional	-0.060***	0.018	-3.32	-0.096	-0.025	2479	0.335
	Bias-corrected	-0.045**	0.018	-2.51	-0.081	-0.010	2479	
	Robust	-0.045	0.028	-1.63	-0.100	-0.009	2479	
Liberal-conservative share	Conventional	-0.005	0.020	-0.25	-0.043	0.033	2479	0.653
	Bias-corrected	-0.007	0.020	-0.34	-0.045	0.032	2479	
	Robust	-0.007	0.029	-0.23	-0.063	0.050	2479	
Nationalist share	Conventional	-0.061***	0.018	-3.42	-0.096	-0.026	2479	0.333
	Bias-corrected	-0.046**	0.018	-2.59	-0.081	-0.011	2479	
	Robust	-0.046*	0.028	-1.68	-0.100	0.008	2479	

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Bandwidth is 60 km.

Table A.10

RD results with robust bias-corrected CIs: Political outcomes in Lithuania vs. East Prussia (all parties) (2012).

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval		N	Mean
Labor party	Conventional	0.059**	0.026	2.27	0.008	0.110	2000	0.248
	Bias-corrected	0.061**	0.026	2.36	0.010	0.112	2000	
	Robust	0.061*	0.033	1.84	-0.004	0.127	2000	
Social democratic Party	Conventional	-0.105***	0.024	-4.29	-0.153	-0.057	2000	0.201
	Bias-corrected	-0.062**	0.024	-2.55	-0.110	-0.014	2000	
	Robust	-0.062**	0.032	-1.97	-0.125	0.000	2000	
Homeland union	Conventional	-0.028***	0.011	-2.65	-0.049	-0.007	2000	0.131
	Bias-corrected	-0.039***	0.011	-3.68	-0.060	-0.018	2000	
	Robust	-0.039***	0.013	-2.91	-0.067	-0.013	2000	
Liberals movement	Conventional	-0.0004	0.013	-0.04	-0.027	0.026	2000	0.066
	Bias-corrected	-0.034**	0.013	-2.57	-0.060	-0.008	2000	
	Robust	-0.034**	0.017	-2.03	-0.067	-0.001	2000	
The way of courage	Conventional	-0.010	0.007	-1.30	-0.024	0.005	2000	0.067
	Bias-corrected	-0.023***	0.007	-3.13	-0.038	-0.009	2000	
	Robust	-0.023**	0.010	-2.39	-0.042	-0.004	2000	
Order & Justice	Conventional	-0.104***	0.037	2.79	0.031	0.177	2000	0.089
	Bias-corrected	-0.128***	0.037	3.42	0.055	0.201	2000	
	Robust	-0.128***	0.044	2.87	0.040	0.214	2000	
Poles' electoralAction	Conventional	-0.004***	0.002	-2.54	-0.007	-0.001	2000	0.050
	Bias-corrected	-0.027***	0.002	-17.45	-0.030	-0.024	2000	
	Robust	-0.027***	0.002	-11.70	-0.032	-0.023	2000	
Peasant & Greens Union	Conventional	-0.001	0.012	-0.10	-0.025	0.023	2000	0.062
	Bias-corrected	0.011	0.012	0.91	-0.013	0.035	2000	
	Robust	0.011	0.016	0.70	-0.020	0.042	2000	
Liberal & Centre Union	Conventional	-0.008	0.005	-1.59	-0.017	0.002	2000	0.023
	Bias-corrected	-0.007	0.005	-1.37	-0.016	0.003	2000	
	Robust	-0.007	0.006	-1.15	-0.018	0.005	2000	
Union YES	Conventional	0.007	0.005	1.45	-0.002	0.016	2000	0.012
	Bias-corrected	0.010**	0.005	2.02	0.000	0.019	2000	
	Robust	0.010	0.006	1.49	-0.003	0.022	2000	
Socialist people'sFront	Conventional	-0.004***	0.001	-3.57	-0.007	-0.002	2000	0.011
	Bias-corrected	-0.007***	0.001	-5.63	-0.009	-0.004	2000	
	Robust	-0.007***	0.002	-4.25	-0.010	-0.004	2000	
Christian party	Conventional	-0.006**	0.003	-2.06	-0.011	0.000	2000	0.014
	Bias-corrected	-0.005*	0.003	-1.86	-0.010	0.000	2000	
	Robust	-0.005	0.003	-1.47	-0.012	0.002	2000	
National association	Conventional	-0.003	0.002	-1.52	-0.006	0.001	2000	0.008
	Bias-corrected	-0.004**	0.002	-2.35	-0.008	-0.001	2000	
	Robust	-0.004*	0.002	-1.78	-0.009	0.000	2000	
Young Lithuania	Conventional	-0.000	0.001	-0.01	-0.002	0.002	2000	0.005
	Bias-corrected	0.000	0.001	0.04	-0.002	0.002	2000	
	Robust	0.000	0.001	0.03	-0.002	0.003	2000	
Democratic labor& Unity Party	Conventional	-0.001	0.001	-0.73	-0.003	0.001	2000	0.004
	Bias-corrected	0.0003	0.001	0.32	-0.002	0.002	2000	
	Robust	0.0003	0.001	0.28	-0.002	0.003	2000	
Emigrants' party	Conventional	-0.0003	0.001	-0.53	-0.001	0.001	2000	0.002
	Bias-corrected	-0.001*	0.001	-1.74	-0.002	0.000	2000	
	Robust	-0.001	0.001	-1.49	-0.002	0.000	2000	
Republican party	Conventional	-0.0002	0.001	-0.39	-0.001	0.001	2000	0.003
	Bias-corrected	-0.0002	0.001	-0.37	-0.001	0.001	2000	
	Robust	-0.0002	0.001	-0.29	-0.002	0.001	2000	
People's party	Conventional	0.0003	0.001	0.39	-0.001	0.002	2000	0.003
	Bias-corrected	0.0005	0.001	0.68	-0.001	0.002	2000	
	Robust	0.0005	0.001	0.56	-0.001	0.002	2000	
Turnout	Conventional	-0.011	0.019	-0.59	-0.049	0.026	2000	0.517
	Bias-corrected	-0.013	0.019	-0.67	-0.051	0.025	2000	
	Robust	-0.013	0.024	-0.54	-0.060	0.034	2000	

(continued on next page)

Table A.10 (continued).

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval		N	Mean
Conservative share	Conventional	0.093**	0.036	2.58	0.023	0.164	2000	0.221
	Bias-corrected	0.106***	0.036	2.94	0.036	0.177	2000	
	Robust	0.106**	0.042	2.53	0.024	0.189	2000	
Liberal-conservative share	Conventional	0.057*	0.030	1.88	-0.002	0.116	2000	0.441
	Bias-corrected	0.026	0.030	0.87	-0.033	0.085	2000	
	Robust	0.026	0.037	0.72	-0.046	0.098	2000	
Nationalist share	Conventional	0.073**	0.034	2.13	0.006	0.140	2000	0.234
	Bias-corrected	0.084***	0.034	2.45	0.017	0.151	2000	
	Robust	0.084**	0.042	2.01	0.002	0.166	2000	

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Bandwidth is 60 km.

Table A.11

Covariate-adjusted RD results with robust bias-corrected CIs: Political outcomes in Poland vs. East Prussia (2011).

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval		N	Mean
Prawo i Sprawiedliwość	Conventional	-0.055***	0.014	-3.99	-0.083	-0.028	2479	0.332
	Bias-corrected	-0.052***	0.014	-3.76	-0.080	-0.025	2479	
	Robust	-0.052**	0.023	-2.29	-0.097	-0.008	2479	
Polska Jest Najważniejsza	Conventional	-0.008	0.005	-1.61	-0.017	0.002	2479	0.020
	Bias-corrected	-0.013***	0.005	-2.64	-0.022	-0.003	2479	
	Robust	-0.013	0.009	-1.42	-0.030	0.005	2479	
Sojusz Lewicy Demokratycznej	Conventional	0.018***	0.006	2.88	0.006	0.030	2479	0.082
	Bias-corrected	0.024***	0.006	3.82	0.012	0.036	2479	
	Robust	0.024***	0.008	3.16	0.009	0.039	2479	
Ruch Palikota	Conventional	0.030***	0.005	5.45	0.019	0.041	2479	0.089
	Bias-corrected	0.022***	0.005	4.07	0.012	0.033	2479	
	Robust	0.022***	0.008	2.75	0.006	0.038	2479	
Polskie Stronnictwo Ludowe	Conventional	-0.039*	0.023	-1.66	-0.085	0.007	2479	0.163
	Bias-corrected	-0.038	0.023	-1.61	-0.084	0.008	2479	
	Robust	-0.038	0.035	-1.09	-0.106	0.030	2479	
Polska Partia Pracy – Sierpień 80	Conventional	-0.004**	0.002	-1.99	-0.007	0.000	2479	0.006
	Bias-corrected	-0.004**	0.002	-2.07	-0.008	0.000	2479	
	Robust	-0.004	0.003	-1.55	-0.009	0.001	2479	
Platforma Obywatelska RP	Conventional	0.063***	0.022	2.87	0.020	0.106	2479	0.290
	Bias-corrected	0.066***	0.022	3.02	0.023	0.109	2479	
	Robust	0.066*	0.036	1.86	-0.003	0.136	2479	
Nasz Dom Polska	Conventional	-0.003***	0.001	-2.77	-0.005	-0.001	2479	0.001
	Bias-corrected	-0.001	0.001	-1.50	-0.003	0.000	2479	
	Robust	-0.001	0.002	-0.94	-0.005	0.002	2479	
Prawica	Conventional	0.001**	0.001	2.15	0.000	0.003	2479	0.003
	Bias-corrected	0.001*	0.001	1.77	0.000	0.002	2479	
	Robust	0.001	0.001	1.06	-0.001	0.003	2479	
Nowa Prawica	Conventional	-0.004***	0.001	-3.10	-0.006	-0.001	2479	0.008
	Bias-corrected	-0.005***	0.001	-4.57	-0.008	-0.003	2479	
	Robust	-0.005***	0.002	-3.01	-0.009	-0.002	2479	
Turnout	Conventional	-0.034**	0.016	-2.19	-0.065	-0.004	2479	0.425
	Bias-corrected	-0.034**	0.016	-2.19	-0.065	-0.004	2479	
	Robust	-0.034	0.022	-1.59	-0.077	0.008	2479	
Conservative share	Conventional	-0.054***	0.014	-3.87	-0.082	-0.027	2479	0.335
	Bias-corrected	-0.051***	0.014	-3.66	-0.079	-0.024	2479	
	Robust	-0.051**	0.023	-2.22	-0.097	-0.006	2479	
Liberal-c share	Conventional	-0.002	0.020	-0.12	-0.041	0.036	2479	0.653
	Bias-corrected	-0.003	0.020	-0.15	-0.041	0.035	2479	
	Robust	-0.003	0.029	-0.10	-0.060	0.054	2479	
Nationalist share	Conventional	-0.056***	0.014	-3.99	-0.083	-0.028	2479	0.333
	Bias-corrected	-0.052***	0.014	-3.76	-0.080	-0.025	2479	
	Robust	-0.052**	0.023	-2.29	-0.097	-0.008	2479	

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Bandwidth is 60 km. Covariates include latitude, longitude and city dummy.

Table A.12

Covariate-adjusted RD results with robust bias-corrected CIs: Political outcomes in Lithuania vs. East Prussia (2012).

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval		N	Mean
Labor party	Conventional	0.068**	0.026	2.59	0.017	0.119	2000	0.248
	Bias-corrected	0.068**	0.026	2.59	0.016	0.119	2000	
	Robust	0.068**	0.034	2.00	0.001	0.134	2000	
Social democratic Party	Conventional	-0.085***	0.021	-3.99	-0.126	-0.043	2000	0.201
	Bias-corrected	-0.069***	0.021	-3.25	-0.111	-0.027	2000	
	Robust	-0.069***	0.026	-2.66	-0.120	-0.018	2000	
Homeland union	Conventional	-0.039***	0.010	-3.70	-0.059	-0.018	2000	0.131
	Bias-corrected	-0.034***	0.010	-3.23	-0.054	-0.013	2000	
	Robust	-0.034**	0.014	-2.48	-0.060	-0.007	2000	
Liberals movement	Conventional	-0.016	0.011	-1.39	-0.037	0.006	2000	0.066
	Bias-corrected	-0.014	0.011	-1.30	-0.036	0.007	2000	
	Robust	-0.014	0.014	-1.00	-0.043	0.014	2000	
The way of courage	Conventional	-0.014**	0.007	-2.01	-0.028	0.000	2000	0.067
	Bias-corrected	-0.018**	0.007	-2.58	-0.031	-0.004	2000	
	Robust	-0.018**	0.009	-1.98	-0.036	0.000	2000	
Order & Justice	Conventional	-0.099***	0.037	2.64	0.025	0.173	2000	0.089
	Bias-corrected	-0.083**	0.037	2.20	0.009	0.157	2000	
	Robust	-0.083*	0.044	1.87	-0.004	0.170	2000	
Poles' electoralAction	Conventional	-0.007**	0.003	-2.20	-0.014	-0.001	2000	0.050
	Bias-corrected	-0.016***	0.003	-4.65	-0.022	-0.009	2000	
	Robust	-0.016***	0.004	-3.73	-0.024	-0.074	2000	
Peasant & Greens Union	Conventional	0.008	0.012	0.66	-0.016	0.032	2000	0.062
	Bias-corrected	0.011	0.012	0.90	-0.013	0.035	2000	
	Robust	0.011	0.016	0.69	-0.020	0.042	2000	
Liberal & Centre Union	Conventional	-0.007	0.005	-1.34	-0.017	0.003	2000	0.023
	Bias-corrected	-0.006	0.005	-1.14	-0.016	0.004	2000	
	Robust	-0.006	0.006	-0.96	-0.018	0.006	2000	
Union YES	Conventional	0.007	0.005	1.46	-0.002	0.016	2000	0.012
	Bias-corrected	0.008*	0.005	1.75	-0.001	0.017	2000	
	Robust	0.008	0.006	1.29	-0.004	0.021	2000	
Socialist people'sFront	Conventional	-0.004***	0.001	-3.74	-0.007	-0.002	2000	.011
	Bias-corrected	-0.005***	0.001	-4.58	-0.008	-0.003	2000	
	Robust	-0.005***	0.002	-3.48	-0.009	-0.002	2000	
Christian party	Conventional	-0.008***	0.003	-2.91	-0.013	-0.002	2000	0.014
	Bias-corrected	-0.006**	0.003	-2.22	-0.011	-0.001	2000	
	Robust	-0.006*	0.003	-1.74	-0.012	0.001	2000	
National association	Conventional	-0.003	0.002	-1.47	-0.006	0.001	2000	0.008
	Bias-corrected	-0.003	0.002	-1.54	-0.006	0.001	2000	
	Robust	-0.003	0.002	-1.17	-0.007	0.002	2000	
Young Lithuania	Conventional	0.0001	0.001	0.06	-0.002	0.002	2000	.005
	Bias-corrected	0.001	0.001	0.50	-0.001	0.003	2000	
	Robust	0.001	0.001	0.40	-0.002	0.003	2000	
Democratic labor& Unity Party	Conventional	-0.0004	0.001	-0.41	-0.003	0.002	2000	0.004
	Bias-corrected	0.0003	0.001	0.31	-0.002	0.002	2000	
	Robust	0.0003	0.001	0.28	-0.002	0.003	2000	
Emigrants' party	Conventional	0.000	0.001	-0.69	-0.001	0.001	2000	0.002
	Bias-corrected	-0.001	0.001	-1.42	-0.002	0.000	2000	
	Robust	-0.001	0.001	-1.22	-0.002	0.001	2000	
Republican party	Conventional	-0.0001	0.001	-0.20	-0.001	0.001	2000	0.003
	Bias-corrected	-0.0001	0.001	-0.19	-0.001	0.001	2000	
	Robust	-0.0001	0.001	-0.15	-0.002	0.001	2000	
People's party	Conventional	0.0002	0.001	0.39	-0.001	0.002	2000	0.003
	Bias-corrected	0.001	0.001	1.11	-0.001	0.002	2000	
	Robust	0.001	0.001	0.93	-0.001	0.002	2000	
Turnout	Conventional	-0.006	0.020	-0.33	-0.045	0.032	2000	0.517
	Bias-corrected	-0.012	0.020	-0.60	-0.050	0.027	2000	
	Robust	-0.012	0.025	-0.48	-0.060	0.036	2000	

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Table A.12 (continued).

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval		N	Mean
Conservative share	Conventional	0.093**	0.036	2.55	0.021	0.164	2000	
	Bias-corrected	0.073**	0.036	2.01	0.002	0.144	2000	0.221
	Robust	0.073*	0.042	1.74	-0.009	0.155	2000	
Liberal-conservative share	Conventional	0.032	0.029	1.10	-0.025	0.088	2000	
	Bias-corrected	0.019	0.029	0.66	-0.038	0.076	2000	0.441
	Robust	0.019	0.034	0.57	-0.047	0.085	2000	
Nationalist share	Conventional	0.058*	0.035	1.65	-0.011	0.128	2000	
	Bias-corrected	0.047	0.035	1.33	-0.022	0.116	2000	0.234
	Robust	0.047	0.042	1.11	-0.036	0.130	2000	

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Bandwidth is 60 km. Covariates include latitude, longitude, city distance and city dummy.

Table A.13

Estimation results for the similarities with East Prussia, Lithuania and Poland – Bandwidth of 60 km & 100 km.

Bandwidth	60 km	60 km	60 km	100 km	100 km	100 km
Dep. variable	turnout (1)	cons. (2)	national. (3)	turnout (4)	cons. (5)	national. (6)
LT	0.089*** (0.010)	-0.209*** (0.021)	-0.136*** (0.020)	0.088*** (0.009)	-0.260*** (0.019)	-0.141*** (0.018)
LTEP	-0.017 (0.012)	0.128*** (0.023)	0.091*** (0.021)	-0.024** (0.010)	0.111*** (0.016)	0.033** (0.015)
PLEP	-0.035*** (0.013)	-0.089*** (0.016)	-0.099*** (0.015)	-0.034*** (0.012)	-0.143*** (0.014)	-0.135*** (0.013)
City	0.011 (0.012)	-0.094*** (0.019)	-0.062*** (0.017)	0.038*** (0.005)	-0.086*** (0.006)	0.009 (0.006)
Dist. to EP border (tkm)	0.604*** (0.143)	0.396** (0.193)	-0.022 (0.204)	0.475*** (0.061)	-0.390* (0.104)	-0.555*** (0.097)
Dist. to EP border (EP) (tkm)	0.458 (0.420)	-1.673*** (0.438)	-1.388*** (0.397)	-0.219 (0.317)	-0.503*** (0.277)	-0.386 (0.260)
Location	Yes	Yes	Yes	Yes	Yes	Yes
Observations	894	894	894	1611	1611	1611
R-squared	0.406	0.280	0.150	0.369	0.358	0.180
Prob > F	0.000	0.000	0.000	0.000	0.000	0.000
Lithuania vs. Poland in EP	0.106***	0.008	0.054**	0.099***	-0.006	0.027
Δ LT vs. PL in EP/outside EP	0.018	-0.201***	-0.082***	0.011	-0.254***	-0.114***

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Standard errors in parentheses.

Table A.14

RD results with robust bias-corrected CIs: Political outcomes in Russia vs. Poland within East Prussia – Settler Literacy.

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval		N
Panel A: Bandwidth of 60 km							
Turnout	Conventional	-0.190**	0.097	-1.97	-0.380	-0.001	62
	Bias-corrected	-0.089	0.097	-0.92	-0.278	0.101	62
	Robust	-0.089	0.135	-0.66	-0.353	0.175	62
Conservative share	Conventional	-0.331***	0.066	-5.02	-0.460	-0.202	62
	Bias-corrected	-0.447***	0.066	-6.79	-0.577	-0.318	62
	Robust	-0.447***	0.099	-4.51	-0.642	-0.253	62
Liberal-conservativeshare	Conventional	0.138**	0.054	2.55	0.032	0.245	62
	Bias-corrected	0.069	0.054	1.26	-0.038	0.175	62
	Robust	0.069	0.073	0.94	-0.075	0.212	62

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Table A.14 (continued).

Outcome variable	Method	Coefficient	Std. Err.	z	95% Confidence Interval	N
Nationalist share	Conventional	-0.494***	0.056	-8.83	-0.604 -0.385	62
	Bias-corrected	-0.594***	0.056	-10.62	-0.704 -0.484	62
	Robust	-0.594***	0.095	-6.28	-0.779 -0.409	62
Panel B: Bandwidth of 100 km						
Turnout	Conventional	-0.220***	0.076	-2.88	-0.370 -0.071	62
	Bias-corrected	-0.143*	0.076	-1.87	-0.293 0.007	62
	Robust	-0.143	0.114	-1.26	-0.366 0.080	62
Conservative share	Conventional	-0.268***	0.045	-5.94	-0.357 -0.180	62
	Bias-corrected	-0.371***	0.045	-8.20	-0.459 -0.282	62
	Robust	-0.371***	0.080	-4.65	-0.527 -0.214	62
Liberal-conservativeshare	Conventional	0.185***	0.042	4.43	0.103 0.266	62
	Bias-corrected	0.094	0.042	2.24	0.012 0.175	62
	Robust	0.094	0.068	1.37	-0.040 0.227	62
Nationalist share	Conventional	-0.437***	0.037	-11.95	-0.509 -0.365	62
	Bias-corrected	-0.531***	0.037	-14.52	-0.603 -0.459	62
	Robust	-0.531***	0.069	-7.75	-0.665 -0.397	62
Panel C: Baseline Covariates & Bandwidth of 60 km						
Turnout	Conventional	-0.088***	0.022	-4.05	-0.131 -0.046	62
	Bias-corrected	-0.077***	0.022	-3.54	-0.120 -0.034	62
	Robust	-0.077	0.059	-1.32	-0.192 0.038	62
Conservative share	Conventional	-0.254***	0.050	-5.12	-0.351 -0.157	62
	Bias-corrected	-0.385***	0.050	-7.67	-0.483 -0.288	62
	Robust	-0.385***	0.087	-4.43	-0.556 -0.215	62
Liberal-conservativeshare	Conventional	0.192**	0.065	2.95	0.064 0.319	62
	Bias-corrected	0.077	0.065	1.18	-0.051 0.204	62
	Robust	0.077	0.120	0.64	-0.159 0.312	62
Nationalist share	Conventional	-0.428***	0.053	-8.07	-0.532 -0.324	62
	Bias-corrected	-0.528***	0.053	-9.95	-0.632 -0.424	62
	Robust	-0.528***	0.093	-5.67	-0.710 -0.345	62
Panel D: Baseline Covariates & Bandwidth of 100 km						
Turnout	Conventional	-0.141***	0.024	-5.92	-0.187 -0.094	62
	Bias-corrected	-0.084***	0.024	-3.54	-0.131 -0.037	62
	Robust	-0.084**	0.041	-2.05	-0.164 -0.004	62
Conservative share	Conventional	-0.238***	0.025	-9.40	-0.287 -0.188	62
	Bias-corrected	-0.308***	0.025	-12.18	-0.358 -0.259	62
	Robust	-0.308***	0.056	-5.47	-0.419 -0.198	62
Liberal-conservativeshare	Conventional	0.225***	0.036	6.23	0.154 0.296	62
	Bias-corrected	0.118***	0.036	3.25	0.047 0.189	62
	Robust	0.118	0.072	1.63	-0.024 0.259	62
Nationalist share	Conventional	-0.414***	0.021	-19.53	-0.455 -0.372	62
	Bias-corrected	-0.476***	0.021	-22.50	-0.518 -0.435	62
	Robust	-0.476***	0.045	-10.56	-0.565 -0.388	62

Notes: ***, **, * - significance at 1%, 5% and 10%, respectively. Distance to the Russian side of the border is multiplied by -1, whereas distance to the Polish side of the border is multiplied by 1.

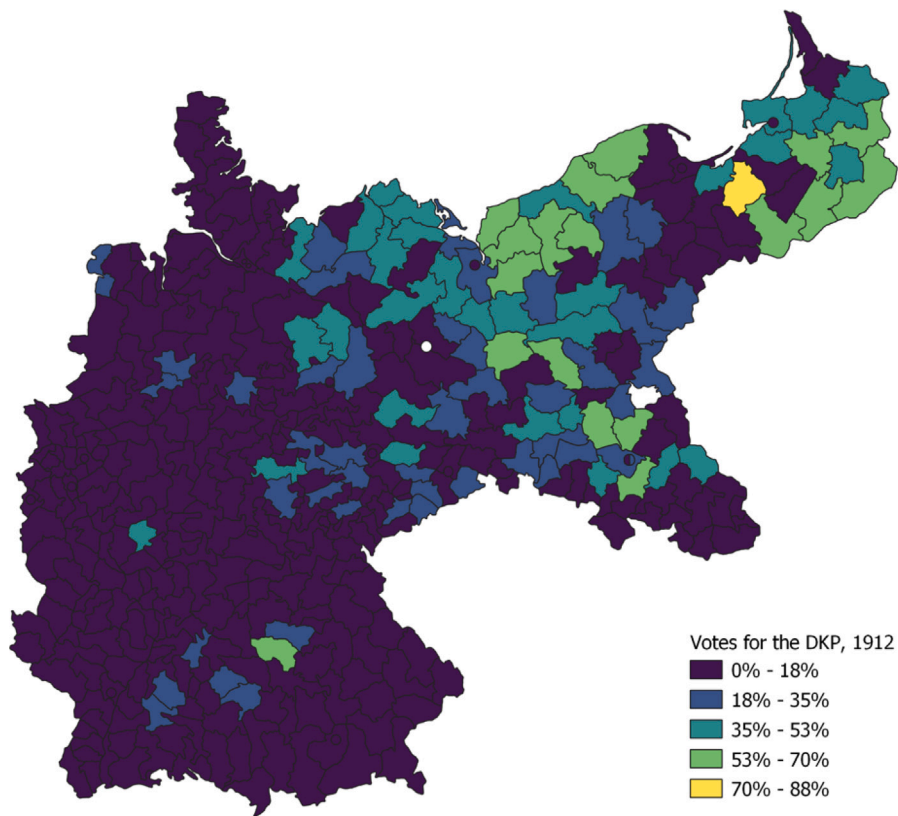


Fig. B.1. Votes for the German Conservative Party, 1912.
Source: Authors' work. *Data:* Schmäddeke, Jürgen (2001). *Voter Movement in Wilhelminian Germany. The Reichstag Elections of 1890 to 1912. GESIS Data Archive, Cologne. ZA8145 Data file Version 1.0.0.*

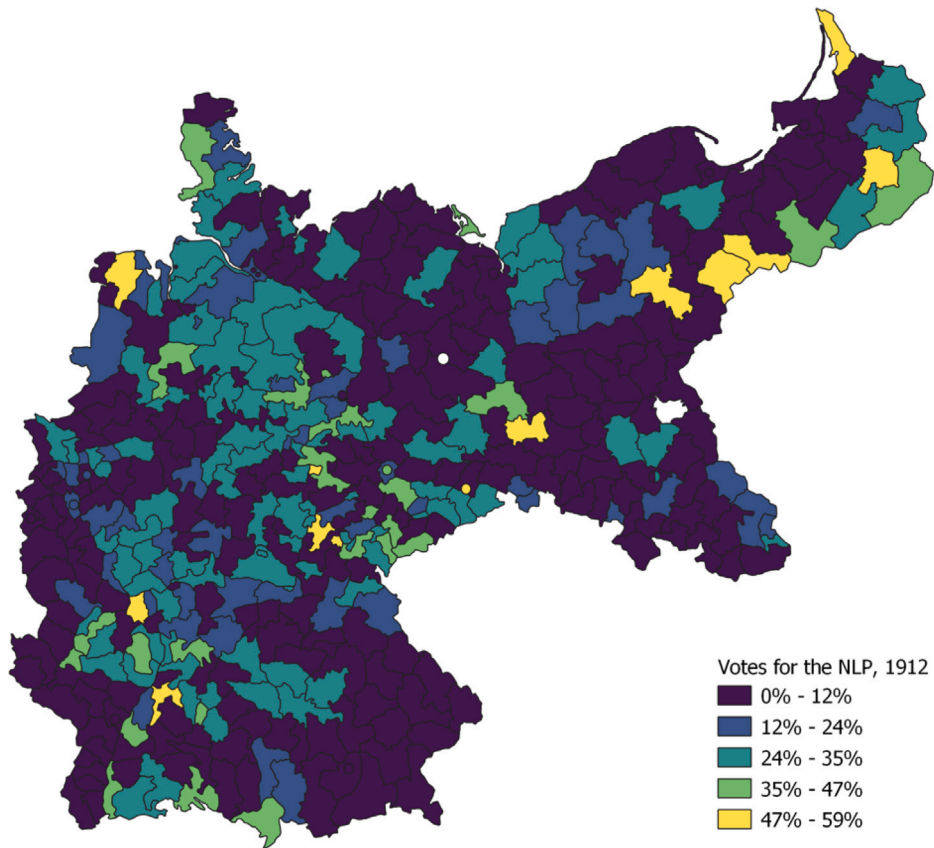


Fig. B.2. Votes for the National Liberal Party, 1912.
Source: Authors' work. Data: Schmädeke, Jürgen (2001). Voter Movement in Wilhelminian Germany. The Reichstag Elections of 1890 to 1912. *GESIS Data Archive, Cologne. ZA8145 Data file Version 1.0.0.*

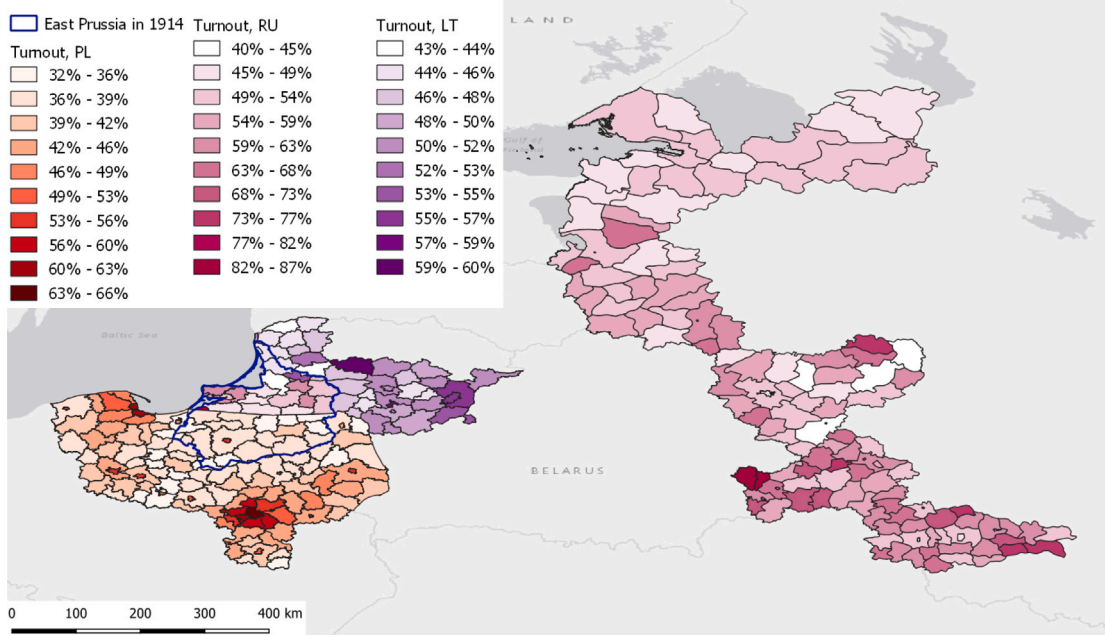


Fig. B.3. Turnout in parliament elections in Lithuania (2012), Poland and Russia (2011): East Prussia and neighboring regions. Source: Authors' work. Base map: GADM & ESRI Gray, election data: see Table A.3.

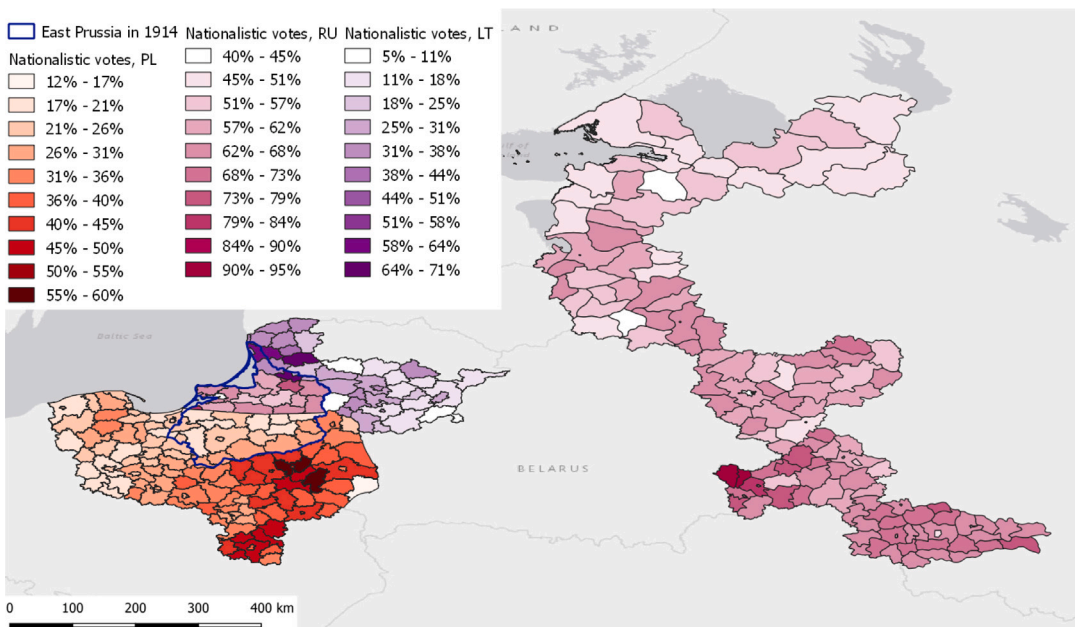


Fig. B.4. Share of votes for nationalist parties in parliament elections in Lithuania (2012), Poland and Russia (2011): East Prussia and neighboring regions. Source: Authors' work. Base map: GADM & ESRI Gray, election data: see Table A.3

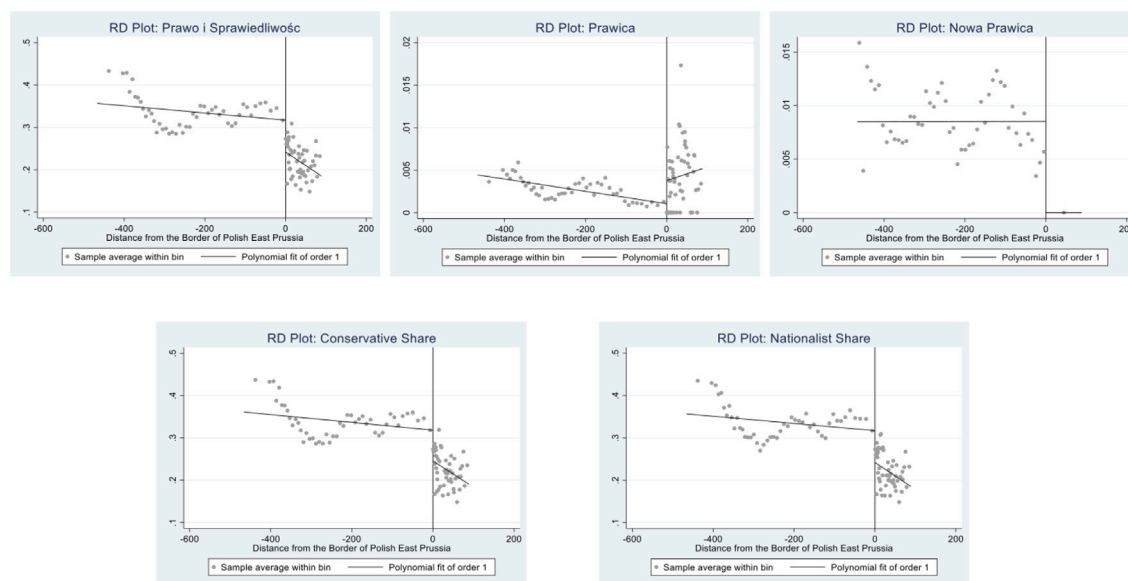


Fig. B.5. RD results with robust bias-corrected CIs: Political outcomes in Poland vs. East Prussia.

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