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# Persistence and Activation of Right-Wing Political Ideology

Davide Cantoni Felix Hagemeister Mark Westcott\*

25 February 2019

#### Abstract

We argue that a long-run cultural persistence of right-wing ideology can explain the recent rise of right-wing populism. Shifts in the supply of party platforms can interact with this existing demand, and give rise to patterns of historical persistence. We study the context of Germany in the 2017 federal election, when the emergence of the AfD offered voters a populist right-wing option, with little social stigma attached. We show that municipalities that expressed strong support for the Nazi party in 1933 are more likely to vote for the AfD now, but not in 2013, when the AfD was a more moderate, fiscally conservative party. Using opinion surveys, we show that these dynamics are not generated by a concurrent demand shift: political attitudes do not shift sharply to the right in the municipalities with a history of Nazi support.

**Keywords:** Persistence, Culture, Right-wing ideology, Germany **JEL Classification:** D72, N44, P16

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# 1 Introduction

Throughout Western democracies, the recent rise of right-wing populism has been swift and remarkable — from Orbán to Salvini, from Le Pen to Wilders, from Trump to Bolsonaro. Social scientists have been trying to grapple with its causes since. Several explanatory factors have been brought forward and tested in different settings: from the rise in unemployment following the great recession, to "import competition" from China and increasing insecurity among manufacturing workers, to immigration and especially the refugee crisis of 2015.<sup>1</sup> And yet, each one of these, mostly economic, factors can only account for some of the variation in success of right-wing populists across countries and regions. We propose cultural persistence of right-wing political ideology as a further determinant of electoral outcomes. If such a persistent demand for right-wing ideology is combined with a shift in the supply of political platforms, sharp changes in electoral support may result.

In this paper, we study the rise of a new right-wing party, the "Alternative for Germany" (*Alternative für Deutschland*, henceforth AfD). Its emergence in the German political landscape in recent years has offered a new political platform on the far right: conservative, nationalistic, and at times outright xenophobic. We show that municipalities that expressed strong support for the Nazi party (the NSDAP) in 1933 now have a stronger vote base for the AfD. In our baseline specification, a one standard deviation increase in Nazi support is associated with 0.08 standard deviations more support for the AfD in the 2017 federal election. This result is robust to controlling for state fixed effects and for a host of plausible economic and social determinants of electoral outcomes. It is not confounded by other factors associated with the rise of right-wing populist parties, such as unemployment, exposure to trade shocks, or the presence of refugees. Furthermore, it is qualitatively different from the correlation obtained by other, more extreme right-wing parties before the emergence of the AfD.

We interpret our findings in the context of the literature on cultural persistence, which has shown how norms and values often have roots in the distant past and are transmitted across generations. Such norms and values — e.g., trust toward strangers, gender roles, or antisemitism — can have a first-order impact on a wide set of social and economic outcomes.<sup>2</sup> However, there is also a growing understanding that not all historical shocks that shape culture and values manifest themselves up to the present: cultural persistence may be mediated or dampened by intervening

<sup>&</sup>lt;sup>1</sup>Studying the rise of right-wing populism has given rise to a burgeoning literature: e.g., on unemployment, see Dehdari (2018). On the loss of manufacturing jobs, see Anelli, Colantone, and Stanig (2018). On the consequences of trade exposure, see Autor et al. (2016), Dippel, Gold, and Heblich (2016), Malgouyres (2017), Colantone and Stanig (2018). On immigration, see Halla, Wagner, and Zweimüller (2017) Dustmann, Vasiljeva, and Piil Damm (2016).

<sup>&</sup>lt;sup>2</sup>The recent literature in economics on deep roots and persistence of cultural values is large; see, e.g., Alesina and Fuchs-Schündeln (2007), Nunn and Wantchekon (2011), Jha (2013), Spolaore and Wacziarg (2013), Alesina, Giuliano, and Nunn (2013), Guiso, Sapienza, and Zingales (2016), Becker et al. (2016), Becker and Pascali (2016). On economic and social effects of cultural norms, see Tabellini (2010).

factors.<sup>3</sup>

Our research proposes an alternative interpretation to the presence or lack of cultural persistence: we distinguish between the persistence of cultural traits, such as xenophobia or antisemitism, and their activation, as they are turned into manifest actions. Cultural traits may be present but dormant, because they do not result in actions: antisemitism may be persistent but not result in pogroms, xenophobia may be persistent but not result in votes for extreme right-wing parties. These traits would only be visible to the researcher, if at all, through opinion surveys. The persistent, but latent demand for the expression of cultural attitudes will only result in actions once the manifestation becomes less costly.

Sharp shifts in the party landscape, such as the creation of a new political party or the rise of a new, charismatic leader, are examples in which the relative costs of manifesting existing attitudes change. We argue that the specific setting of Germany allows us to observe a case in which a change in the supply of political platforms is key in making a long-run persistence of ideological traits reemerge. After the catastrophic experience of Nazism and World War II, the postwar legal setting severely constrained the expression of right-wing ideology and put obstacles to the creation of parties on the extreme right fringe. The "Alternative for Germany" bypassed these constraints: it was founded in 2013 as a mono-thematic platform to promote fiscally conservative principles and oppose the Greek bailout. Two years later, in 2015, the initial leadership was narrowly ousted and the party veered strongly to the right, focusing on immigration and nationalism as main themes. As a consequence of this sudden shift, the party could avoid the intense legal scrutiny, and public stigma, that newly-founded right-wing parties are subject to in Germany.

This shift was a fundamental change to the German party landscape. In the wake of the federal election of 2017, electors had the option to vote for a party to the right of the Christian Democrats (the mainstream conservative party). The AfD was, compared to previously existing far-right parties, a relatively "cheap" option in terms of social image costs: it carefully eschewed the neo-Nazi associations that characterize other parties on the right fringe, cultivating instead a respectable, bourgeois image. Voting, mobilizing, canvassing for the AfD is not associated with strong social stigma. Moreover, voting for the AfD in 2017 represented a viable option (not a pure protest vote), since all polls put the party comfortably above the 5% threshold required to obtain seats in parliament.

Consistent with our hypothesis, we find only a small and insignificant correlation between the AfD's electoral fortunes and Nazi support in 2013, when the AfD espoused merely economic conservatism. The correlation is strong and significant in 2017, when the party had veered to the right. We show that, in contrast to the findings by Voigtländer and Voth (2012, 2015), antisemitism is not the reason for this persistence across time. Measures of antisemitism in the 1930s and before

<sup>&</sup>lt;sup>3</sup>Voigtländer and Voth (2012) show that in some German cities, e.g. those with a tradition of commerce, the transmission of antisemitism is lower. Giuliano and Nunn (2017) provide a broader framework to understand cultural transmission.

are not correlated with today's electoral success of the AfD, while proxies for conservative attitudes are. We control for a variety of historical and contemporary factors relating to demographic, religious, and economic characteristics of the municipalities in the analysis, and show that these factors are unlikely to be at the root of this persistence, and its reemergence in voting outcomes.

We also consider other major determinants of the rise right-wing populism proposed by the literature. While unemployment levels, changes in unemployment rates, exposure to import competition, and educational attainments are all determinants of the AfD's electoral success, their inclusion in the regressions does not affect the estimated historical persistence of Nazi voting. Moreover, these factors do not interact with the Nazi voting measures, suggesting that they are not activating factors. In line with theories of vertical transmission of values, we find that the influx of ethnic German refugees after WWII — in some communities, these "expellees" represented up to half of the post-war population – breaks the historical persistence and substantially reduces the correlation of voting between the 1930s and today.

Importantly, note that our argument does not rest on an assumption of the exogeneity of the *timing* of the emergence of the AfD. As shown in Figure 1, the AfD's rightward turn occurred in the spring of 2015, culminating in the party convention in July, and thus preceded the massive inflow of Syrian refugees that peaked in the following fall. Nevertheless, public sentiment against the perceived threat of immigration from Islamic countries might have been mounting even beforehand, or throughout the time period analyzed.<sup>4</sup> Yet such a general, overall rightward shift in attitudes would be accounted for by the comparison of elections in different years (2013 vs. 2017). For the single municipality, the new availability of the AfD as a "respectable" populist right-wing option in 2017 was exogenous. It represented an expansion of the political supply that affected all regions equally, as the AfD was on the ballot in all states.

Our interpretation of the findings as a supply-side shift meeting an existing, persistent ideology would be spurious if, instead, a sharp rightward move in attitudes had occurred over the same time period, *only* in the municipalities that had a history of past Nazi voting. Such a localized shift in attitudes could result in the specific electoral patterns observed: in that case, they would be the result of both a supply and a demand side shift. To exclude this possibility, we study political attitudes through the German General Social Survey (ALLBUS). We find that respondents in municipalities with higher support for the Nazi party in the past expressed more right-wing attitudes along a wide range of questions throughout all waves studied (1996–2016), consistent with our view of a persistent right-wing ideology in these areas. Importantly, however, we do not find a rightward shift in these municipalities between 2014 and 2016, suggesting that there was no shift in demand that could explain the geography of electoral support of the AfD.

Our analysis speaks to several research agendas in economics and political science. First, we contribute to the literature cited above on the long-term persistence of cultural traits and attitudes.

<sup>&</sup>lt;sup>4</sup>Figure 1 also shows a time series of attendance of "Pegida" (Patriotic Europeans Against the Islamisation of the Occident) demonstrations: these are nationalistic, decidedly islamophobic, anti-immigration protests.

As in, e.g., the papers by Voigtländer and Voth (2012), Guiso, Sapienza, and Zingales (2016), Becker et al. (2016), we show that cultural traits — in our specific case, political attitudes — have deep origins that may trace back to the distant past, and be transmitted across generations.

The AfD's electoral successes show, however, that the historical persistence of political attitudes is not always visible, and may need to be "activated" by changes in the institutional setting or the political marketplace. This activation of historical memories has also been evidenced by two recent papers. In Fisman, Hamao, and Wang (2014), anti-Japanese hatred is selectively stoked by Chinese leaders for domestic policy purposes, with consequences on stock market prices. Fouka and Voth (2016) show how sales of German cars declined, as the debt crisis of 2010–2015 mounted, in Greek localities that witnessed massacres perpetrated by German forces in WWII.

In these papers, incidental changes in the political background have economic consequences. Another literature has focused on the endogenous choice of politicians to selectively activate feelings in the electorate: Glaeser (2005) and, more recently, Guiso et al. (2018) discuss how the supply of political platforms, generated by politicians, interacts with voters' demand for policies such as hatred or populism. Enke (2018) studies the dynamics of supply and demand for moral values in voting in the context of the recent U.S. elections. Recent work by Ochsner and Roesel (2017) studies a context close to ours — the populist right-wing FPÖ party in Austria — showing that this party is successful in unearthing a resentment against Turkish immigrants that dates back to the Ottoman sieges of Vienna in the 16th and 17th century. While in Ochsner and Roesel (2017) memories of Turkish massacres are not present in the population any more and are strategically inculcated by politicians, in our setting we argue that right-wing leanings are present throughout, and emerge incidentally as a consequence of the change in political landscape.

Second, our work is a contribution to understanding the determinants of (radical) right-wing voting.<sup>5</sup> Economic insecurity, spurred by increasing globalization and the demise of traditional manufacturing, may explain part of this political shift. Increasing levels of immigrant population in (Western European) countries may also explain some part of the right's electoral successes. However, closer to the setting studied in our analysis, Steinmayr (2017) finds that the short-term effects of direct exposure to Syrian refugees are more favorable to parties supporting immigration, rather than to xenophobic movements.

Finally, political scientists have tried to understand the emergence of far right parties, especially in a comparative dimension.<sup>6</sup> Cultural, not just economic, factors have been proposed: for example, Inglehart and Norris (2016) argue that the recent rise of populism can best be understood as a reactionary response to a cultural change that is perceived as too fast and unsettling by some sectors of the population. To our knowledge, we are among the first to bring two new factors, and the interaction thereof, to the explanation of the electoral successes of right-wing parties. On

<sup>&</sup>lt;sup>5</sup>For an (admittedly less than comprehensive) literature review, cf. footnote 1.

<sup>&</sup>lt;sup>6</sup>See, e.g., the recent review by Golder (2016), as well as the earlier works by Norris (2005), Mudde (2007), and Arzheimer (2008).

the one hand, we shed light on the role of long-standing, deeply ingrained political beliefs — this is especially salient in Germany, a country that experienced a most destructive instance of fascism.<sup>7</sup> On the other hand, we emphasize the importance of political structures in facilitating the expression of right-wing ideology.

The paper proceeds as follows. Section 2 provides an introduction to the political context in Germany. We describe the entry of the AfD and explain why we interpret it as a consequential supply shock. In section 3, we describe the data used. In section 4, we present the empirical analysis linking historical support for the NSDAP with the AfD's electoral results. Next, in section 5, we study potential demand-side shifts through opinion surveys. Section 6 provides an interepretation of the combined results and of the underlying mechanisms. Finally, in section 7 we conclude. Supplementary Appendices provide further results.

# 2 Historical Context

#### 2.1 The Political Landscape in Germany

After the collapse of the Nazi regime and Germany's defeat in World War II, the reconstruction of the political party system in West Germany (the Federal Republic of Germany, founded in 1949) faced two major challenges. First, parties tried to rebuild a system that would supersede the structural weaknesses of parties during the Weimar era — a weakness that arguably resulted in the end of democracy and the Nazi's takeover of power. Second, parties struggled to integrate large swaths of the population who were actively involved in the Nazi dictatorship, among those an estimated 8.5 million former card-carrying NSDAP party members, into the new democratic system. These challenges were met both through the creation of new parties, and through special provisions in the post-war constitution.

On the right side of the political spectrum, the main actor was the Christian Democratic Union (CDU). Founded by several members of the Nazi resistance, it built on the previous experience of the Catholic "Zentrum" party, but explicitly tried to appeal also to Protestant voters, who before the war largely supported nationalist/conservative parties. The CDU (and its Bavarian sister party, the CSU) succeeded in the endeavor of becoming the main, "big tent" conservative party in Germany, channeling nationalists, economic liberals, and social conservatives into one party strongly supporting democratic values in the new Federal Republic of Germany.

Political parties emerging to the right of the CDU in later years were unsuccessful, enjoying at

<sup>&</sup>lt;sup>7</sup>Despite the availability of high-quality electoral data from the Weimar era, only few researchers have tried to correlate post-war political outcomes in the Federal Republic of Germany with early Nazi support: Liepelt (1967) showed that in 1966 there was a strong correlation between electoral successes of the NPD (a neo-Nazi party) and the NSDAP in 1932. See also the early contributions by Kaltefleiter (1966), Kühnl, Rilling, and Sager (1969), Sahner (1972), and Winkler (1994). Schwander and Manow (2017) point out how areas of AfD support voted for other, far-right parties in the years before 2017.

best very temporary support.<sup>8</sup> The NPD (National Democratic Party) was founded in 1964 and enjoyed some temporary popularity in the late 1960, and then again in the late 2000s in East Germany; the *Republikaner* (Republicans) were notable for their successes in the late 1980s and early 1990s. However, no party ever managed to break through the 5% threshold of votes required by the Basic Law (the post-war constitution of the Federal Republic of Germany) to gain representation in the *Bundestag*, the federal parliament.

The ability of the CDU/CSU to squeeze out all margins on the right end of the political spectrum, all the while remaining solidly grounded in democratic and liberal principles, is well summarized by the long-time leader of the CSU, Franz Josef Strauss, who quipped in 1986 that there "shall not be a democratically legitimate party to the right of the CSU."

Another factor constraining the emergence and success of far-right parties was a provision in the Basic Law that enabled the Constitutional Court to disband extremist parties on the left and the right. Article 21.2 of the Basic Law states that "[*p*]arties that, by reason of their aims or the behavior of their adherents, seek to undermine or abolish the free democratic basic order or to endanger the existence of the Federal Republic of Germany shall be unconstitutional." This article was invoked twice with success: in 1952, the Constitutional Court outlawed the SRP (*Sozialistische Reichspartei*, Socialist Reich Party), a party that had an openly neo-Fascist agenda and recruited former Nazi functionaries, and in 1956 the communist party (KPD). This provision in the Basic Law was successful in disciplining the extremeness of right-wing political platform even when it did not result in an explicit party ban — the mere threat of disbandment sufficed.<sup>9</sup>

#### 2.2 The "Alternative for Germany" (AfD)

In September 2012 three individuals — Bernd Lucke (an economics professor from Hamburg), a former CDU politician, and a journalist — launched a manifesto to oppose the policies pursued by the German government to fight the Euro crisis. The manifesto called for the foundation of a party, the "Alternative for Germany" (*Alternative für Deutschland*, or AfD), and explicitly ruled out that this party should take a stance on policy concerns other than the Euro crisis and the Greek bailout. Running on this platform, the AfD won 4.7% of the votes in the federal election of September 2013, only narrowly missing the 5% threshold to enter the *Bundestag*.

Following the federal election, the AfD gained further strength, obtaining 7.1% of the votes in the European Parliament election of May 2014. This expansion meant that the party increas-

<sup>&</sup>lt;sup>8</sup>Smaller parties on the right appealing to specific constituencies, such as the BHE (League of Expellees), targeting the expellees losing their ancestral homelands after WWII, and the DP (German Party), appealing especially to war veterans and northern German conservatives, quickly disappeared and were not represented in the federal parliament after 1957.

<sup>&</sup>lt;sup>9</sup>The NPD was twice brought to the Constitutional Court, once in the early 2000s, when the case was dismissed on formal grounds, and once in 2016-17, when the court ruled that, while the party's ideology is unconstitutional, its support is too small to undermine the democratic order and thus to justify its ban. For an introduction to the German political system, and especially the roles of the 5% threshold and the Constitutional court, see Conradt and Langenbacher (2013) and Collings (2015).

ingly attracted conservatives of all sorts. The tensions between the initial group of party members — economics professors and fiscal conservatives — and the newer, national-conservative, anti-immigration members became virulent in the spring of 2015 when two leading party functionaries published the "Erfurt Resolution," calling for a policy of opposition to the "social experiments of the past decades (gender mainstreaming, multiculturalism) [...]" and encouraged the party leadership to embrace the xenophobic, anti-immigrant PEGIDA ("Patriotic Europeans Against the Islamisation of the West") movement. At the following party congress in Essen, in July 2015, Frauke Petry, representing the conservative, anti-immigrant wing was unexpectedly elected party leader with 60% of the vote. The congress in Essen sanctioned the takeover of the party by its right-wing, nationalist faction; the fiscal conservatives rallying around Bernd Lucke left the party.

The "new" AfD quickly adopted a very different rhetoric, moving away from the fiscally conservative topics centering around the Euro and the Greek bailout, and focusing instead on mainstay themes of the European populist right: immigration, nationalism, and islamophobia.<sup>10</sup> As a consequence, the AfD enjoyed considerable successes in the state elections held in 2016, obtaining over 20% of the votes in some states. The party leadership also moved further to the right, ousting Frauke Petry in the 2017 national congress and replacing her with even more conservative members. At the federal election of September 2017 the AfD scored 12.6%, thus becoming the third largest force in the German Parliament, and thus representing the first time that a conservative party to the right of the CDU would gain representation in the *Bundestag*.

#### 2.3 Interpreting the entry of the AfD

We view the turn of the AfD from a monothematic, anti-Euro and anti-Greek bailout party to a more traditional xenophobic, anti-immigrant right-wing party as a suitable policy experiment in which an existing party changes its placement on the political spectrum, without changing the name, logo, or most of the party structures.<sup>11</sup>

Clearly, this change was also perceived by the voters. In surveys conducted for the German Longitudinal Election Study (GLES), potential voters are asked to place parties on an 11-point left-right scale.<sup>12</sup> As shown in Figure 2, left panel, in 2013 voters were not sure where to place the AfD on a left-right spectrum; the modal answer is the score of 6, right in the middle of the spectrum, and the median is 7, just to the right of the center. Over the course of the following years, the public perception of the party shifted radically, and in 2017 most respondents placed the party to the far right (the rightmost answer, 11, is also the modal answer).<sup>13</sup>

<sup>&</sup>lt;sup>10</sup>Appendix C documents this shift of the AfD, relative to all other German parties, through a semantic analysis of the language used in party manifestos, political speeches, tweets and Facebook posts.

<sup>&</sup>lt;sup>11</sup>Appendix Figure C.1 and Figure C.2 show, anecdotally, how this change was reflected in party billboards.

<sup>&</sup>lt;sup>12</sup>We use component 8 of the GLES (Long-term online tracking), studies ZA5720, ZA5726, ZA5728, ZA5732. All studies are available through the GESIS website (www.gesis.org).

<sup>&</sup>lt;sup>13</sup>Appendix Figure F.1 and Figure F.2 provide the full distribution of answers to this survey, for all years and all

A popular political interpretation is that the AfD filled the void left behind on the right side of the spectrum by the CDU, who, under the leadership of Angela Merkel, had adopted a more centrist stance. However, the survey evidence in Figure 2 shows that the CDU barely moved in the public's perception: the two kernel densities overlap almost perfectly. The right graph of Figure 2 shows, analogously, that the mean perception of the AfD shifted dramatically to the right between 2013 andd 2017, while most other mainstream parties either stayed stable or moved only slightly.<sup>14</sup>

Importantly, the AfD had two characteristics that made its entry in the political arena qualitatively different from other attempts to create a populist right-wing party in Germany. First, much more than any other right-wing party to the right of the CDU, the AfD could claim a certain aura of respectability. This was true even after its more moderate, fiscally conservative founders had left in 2015. As described by Arzheimer (2015, p. 540), its *"success was only possible because the party was formed by 'moderates' with very high SES, considerable civic skils, and some political experience."* 

This distinguishes the AfD from other right-wing parties such as the NPD or the *Republikaner*, who never managed to dismiss their extremist, even neo-Nazi image. Such parties were strongly stigmatized in the political discourse of post-war Germany and thus, lacking endorsement from "respectable" people, had difficulties in mobilizing any existing voter potential (Güllner, 2016). In its first years, the AfD was very careful not to accept members that had previously been active in organizations of the extreme right, and tried to avoid controversial statements on Germany's Nazi past or the Holocaust. Most newly-founded extreme right-wing parties in Germany are put under investigation by the German domestic intelligence agency. By developing out of an existing, "bourgeois" party, the present-day AfD managed to avoid this fate.

Second, the AfD had — prior to the federal election of September 2017 — a realistic chance of passing the 5% threshold and entering parliament. In all state elections in 2016 and 2017 the AfD had passed the threshold and obtained up to 24.1% of the vote. Voters could have the plausible expectation that the AfD would pass the threshold at the national level and be represented in the *Bundestag*. A vote for the AfD was thus not merely an act of protest/expressive voting, but could have instrumental motives (Fiorina, 1976). This, again, distinguishes the AfD from other parties to the right of the CDU, which never polled close to 5% nationally.

# **3** Data Description

#### 3.1 Electoral Data

Our electoral data are drawn from the official website of the Federal Returning Officer (*Bun-deswahlleiter*) for the federal elections to the *Bundestag* in September 2013 and 2017. The data are

parties.

<sup>&</sup>lt;sup>14</sup>The only exception is the CSU, the Bavarian sister party of the CDU. Its leftward move seems an aberration of the 2017 survey; in all other years, the CSU is stable and slightly to the right of the CDU, consistent with its law-and-order appeal (cf. Appendix Figure F.2).

provided at the municipality (*Gemeinde*) level. Data for the federal elections prior to 2013 are obtained from DESTATIS, the German federal statistical office. We purchased the municipality-level tabulations of all elections from 1998 until 2009. We harmonize all results to reflect the geography of municipalities in 2015; when municipalities are split and assigned to neighboring units, we assign the outcomes fractionally based on population weights.<sup>15</sup>

For the electoral results of right-wing parties during the Weimar Republic, we make use of the pathbreaking work of Jürgen Falter and Dirk Hänisch (Falter and Hänisch, 1990), who digitized the votes for the *Reichstag* elections from 1920 until 1933 as published in the series *Statistik des Deutschen Reiches*. In all years, except for the two elections of 1932 (July and November), electoral results were published at the level of counties as a whole (*Kreis* or *Stadtkreis*), and then separately for all municipalities above 2,000 inhabitants contained in a county.<sup>16</sup>

We match present-day electoral outcomes to the Weimar era party support through a geocoding algorithm, in two steps: in the first step, we geocode the Weimar-era electoral entities (counties and municipalities) listed in the Falter and Hänisch (1990) dataset, using a combination of historical county shapefiles,<sup>17</sup> current geodata from OpenStreetMap, and a variety of other online sources. In the second step, we match modern electoral geographies to these geocoded entities. Supplementary Appendix A.2 describes this algorithm in detail.<sup>18</sup>

#### 3.2 Other Variables

We complement our analysis of electoral results with a range of historical and contemporary control variables. For the Weimar era, we rely on the same dataset by Falter and Hänisch (1990), which also contains statistics on, among others, population, unemployment, employment structure, and religious composition in 1925 and 1933. Population and religion data are available at the municipal level (municipalities above 2,000 inhabitants), all other statistics are measured at the county level. We match those statistics to contemporary voting outcomes using the same algorithm as for electoral data.

We include a variety of contemporary control variables in our electoral data regressions. These

<sup>&</sup>lt;sup>15</sup>This algorithm is explained in Supplementary Appendix A.3

<sup>&</sup>lt;sup>16</sup>From this disaggregation, we can easily reconstruct the aggregate votes for all municipalities contained in a county, but below the 2,000 inhabitants threshold (the "remainder of the county"). For the elections of 1932, no data at a level of disaggregation below the county were published. After 1933, the new regime did not consider the publication of disaggregated electoral results from past democratic elections a priority. We therefore cannot use the 1932 electoral results in our analysis.

<sup>&</sup>lt;sup>17</sup>Provided through the Census Mosaic project, http://www.censusmosaic.org.

<sup>&</sup>lt;sup>18</sup>Based on the geographic location, a current municipality is either matched to a city-county (*Stadtkreis*) of the Weimar era, or to one of the municipalities whose electoral data is known because it had more than 2,000 inhabitants. We call these municipalities "exact matches". The remaining municipalities are then assigned, based on their location, to the entity "remainder of the county", i.e. to the aggregate electoral results in a historical county, *outside* the municipalities with more than 2,000 inhabitants. Typically, for any Weimar-era observation relating to the "remainder of the county", there will be several present-day municipalities matched. We account for this by clustering our regression analysis at the level of observation in the Weimar era (*Stadtkreis*, municipality above 2,000 inhabitants, or "remainder of the county").

comprise the total population of the municipality, unemployment rate, change of unemployment rates between 2007 and 2017, and a full set of indicators characterizing the degree of urbanization of a municipality.<sup>19</sup> These data are obtained from DESTATIS. Moreover, we use data on educational attainment at the county level (share of workforce with tertiary degrees); the source of these data is the INKAR database.

The most salient political event happening in this time frame is the "(Syrian) refugee crisis", which peaked in the fall of 2015 after Germany's decision to suspend the Dublin agreement and not to deport asylum seekers back to the first EU member state they entered. While most asylum seekers enter Germany through the German-Austrian border in the south-east of the country, they are supposed to be reallocated to the single federal states, and then again to counties, according to a quota system which takes into account population and GDP. Within counties, asylum seekers are further assigned to municipalities according to a variety of criteria. From the Federal Employment Agency (*Bundesagentur für Arbeit*), we obtain the number of asylum seekers in each municipality, as of December 31, 2016.<sup>20</sup>

Finally, another major shock often blamed for the rise of right-wing populism is the loss of qualified manufacturing jobs over the last decades, due to import competition from China or other low-wage countries. We capture these forces through the "trade exposure" variable (import competition minus export competition), measured at the county level, from Dauth, Findeisen, and Südekum (2014).

# 4 Electoral Results

#### 4.1 Empirical Setup

How did the emergence of the AfD as a new, relatively cheap (in terms of social image costs) and viable political option to the right of the CDU result in a realignment of the electoral geography of Germany, reflecting older patterns of Nazi party support? In our first, baseline research design we compare electoral results for the AfD in the elections to the federal parliament in September 2013 and 2017: i.e., before and after 2015, the watershed year in which fiscal conservatives were replaced by right-wing populists in the party leadership. In 2013, running on a strict anti-Euro platform, the AfD barely missed passing the 5% threshold to enter the federal parliament; in 2017, the AfD became the third largest force in the German Parliament, scoring 12.6%.<sup>21</sup>

<sup>&</sup>lt;sup>19</sup>Following EUROSTAT guidelines, DESTATIS classifies municipalities according to its urbanization density as follows: "densely populated" if at least 50% of the population lives in high-density clusters, "thinly populated" if more than 50% of the population lives in rural grid cells, and "intermediate density" (all other municipalities).

<sup>&</sup>lt;sup>20</sup>To be precise, the data from the Federal Employment Agency refer to *Erwerbsfähige Leistungsberechtigte im Kontext von Fluchtmigration*, i.e. potential transfer recipients, able to work, in the context of escape migration. This includes, roughly, all asylum applicants who are above age 15, not disabled, excluding family members who joint first emigrants at a later stage.

<sup>&</sup>lt;sup>21</sup>Note that we ignore the elections in the Saarland as the Saar region did not vote for the *Reichstag* in the Weimar era, being under French occupation).

Our baseline regression specification is as follows:

ShareAfD<sub>*it*</sub> = 
$$\theta_s + \beta \cdot \text{NSDAP}_i + x_{1i}' \gamma + \varepsilon_{it}$$
, (1)

where ShareAfD<sub>*it*</sub> is the share of votes cast for the AfD in municipality *i* in year *t*. Note that, in our baseline setting, we calculate the share of votes relative to *all* eligible voters, not just relative to votes cast. We do this in order to incorporate two margins of voter mobilization towards the AfD: switching from non-voting to the AfD, or from other parties to the AfD. The dependent variable is regressed on a full set of state fixed effects,  $\theta_s$ , the (standardized) vote share of the NSDAP party in 1933, NSDAP<sub>*i*</sub>, and in some specifications also a set of municipal-level covariates,  $x_{1i}$ , such as population or unemployment rates. To facilitate the interpretation of the coefficients, all variables, dependent and explanatory, are standardized.

To take care of municipal-level, time-invariant omitted factors that may determine a constant inclination to vote for the AfD, the following specification takes advantage of the fact that each municipality is observed twice and focuses on the *change* in vote share from 2013 to 2017:

$$\Delta(\text{ShareAfD}_{i,2017-2013}) = \theta_s + \beta \cdot \text{NSDAP}_i + x_{2i}'\gamma + \varepsilon_{it}$$
(2)

Even though the effect of time-invariant municipality characteristics are "differenced out" in such a first-differences specification, one may still want to allow for time-varying effects of covariates, or investigate *changes* in municipal-level covariates occurring between 2013 and 2017. For these reasons, we may also include a vector of covariates  $x_{2i}$ , potentially different from the covariates included in Equation 1.

Of the 10,963 municipalities in the sample, 2,466 are exactly matched to the same municipality in the Weimar era; the remaining municipalities are assigned one of 259 Weimar-era "remainders of a county".<sup>22</sup> To account for potential correlation between these multiple observations assigned to a single historical electoral result, we cluster all error terms  $\varepsilon_{it}$  at the Weimar-era unit of observation (exactly matched municipality, or "remainder of the county").

#### 4.2 **Baseline Electoral Results**

Table 2 report our first results. The first column shows that the historical relationship between NSDAP votes and AfD support in 2013 is positive, but small and insignificant. However, looking at support for the AfD in the federal election of 2017, the results are very different. The correlation between past Nazi support and contemporary AfD support, in 2017, when the AfD represented a populist right, xenophobic platform, is strong and significant. In the baseline result of column 2, a

<sup>&</sup>lt;sup>22</sup>More precisely: 2,466 municipalities are either matched to a *Stadtkreis* (city-county) of the Weimar era, or to a municipality contained in a larger county, but which had more than 2,000 inhabitants in the Weimar era, thus with exact electoral returns in the 1920s and 30s. The remaining present-day municipalities cover regions for which the Weimar-era records report only aggregates at the level of "remainder of a county".

one standard deviation increase in NSDAP votes in the Weimar era corresponds to a 0.08 standard deviations higher vote share for the AfD.

The effect is very similar when the dependent variable is defined as the 2013 to 2017 *change* vote share going to the AfD (column 3). To address further concerns about small municipalities today being matched across time to a large unit representing the "remainder of a county" in 1933, we show that results are also robust to aggregating municipal-level data to the county level (column 4).

Finally, in column 5 we investigate whether the persistence effect is stronger in certain areas than in others. Level effects, such as the much higher electoral success of the AfD in former East Germany, are largely captured by the full set of state (*Bundesland*) fixed effects included in all regressions, yet there may still be differences between states in the gradient of historical correlation between the 1930s and today. As a first take, we divide Germany into four regions, corresponding to the post-war Allied occupation zones. The regression in column 5 shows that persistence was lowest in the US occupation zone (the omitted category) and in the UK zone, that is, in the north and in the south of (former) West Germany; the standardized beta coefficient is slightly above 3% in both cases. At the other extreme, persistence is highest in the former Soviet occupation zone ("East Germany", or the former German Democratic Republic), and is also high in the French occupation zone (in the south-west). These correlations are consistent with historians' take on the effectiveness of Denazification (Biddiscombe, 2007; Taylor, 2011).

Figure 3 provides an exemplary geographic depiction of the electoral patterns studies here, focusing on a region in North/Central Germany, between Bremen, Hanover, Dortmund, and Kassel, at the intersection of four states (Lower Saxony, North Rhine-Westphalia, Hesse, and Thuringia).<sup>23</sup> In these maps, every hexagon corresponds to one municipality.

Panel A shows the outcome (NSDAP vote shares) of the 1933 election; Panel B the outcome of the 2017 election (AfD vote shares). Some smooth, broad spatial gradients are evident, as well as apparently very idiosyncratic, highly localized patterns of variation in party support. Panel C then displays areas of historical continuity in voting patterns. To provide a visual comparison, we divide municipalities into terciles of NSDAP and of AfD vote shares (lower, middle and upper terciles), resulting in 9 possible combinations. Municipalities that conform to our hypothesis were in the lower (middle, upper) tercile of NSDAP support in 1933, and are in the lower (middle, upper) tercile of AfD support today. We color these municipalities in shades of blue. The remaining municipalities are those in which NSDAP results in 1933 do not map into current outcomes for the AfD today. They are colored in grey. As Panel C shows, a large number of municipalities are conforming to our hypothesis: at the high, middle, and low end of the range of right-wing

<sup>&</sup>lt;sup>23</sup>We provide full maps of Germany with the electoral results in 1933, 2017, and a comparison of the two — for all 10,963 German municipalities — in Appendix B.

support.<sup>24</sup>

A natural question concerns the explanatory power of our proposed determinant of rightwing voting. The baseline regressions suggest that this cultural channel, the historical persistence of right-wing thinking, amounts to about 7–8% in terms of standardized effect sizes. Table 3 compares this result to the effect of other plausible determinants of populist right-wing voting that have been extensively discussed in the literature. We compare our finding to the correlations between AfD vote shares in 2017 and four other variables: unemployment levels, the change in unemployment level from before the great recession until today, the increase in trade exposure (the difference between import competition and export competition), and the allocation of refugees in municipalities. These correlations are presented in columns 1–4 of Table 3 in terms of standardized beta coefficients; it is important to emphasize that these coefficients should not be seen as *causal* estimates of the effects, as clearly there is no claim to the exogeneity of the spatial variation of these variables with respect to AfD support.

For three variables — unemployment change, trade exposure, and allocation of refugees — we find a negative point estimate: surprisingly, AfD support is higher in regions where unemployment or trade exposure decreased in the last decade, or where there is a lower share of refugees. In the case of unemployment levels (column 1), the correlation is positive, as one would have plausibly expected. The beta coefficients in Table 3 are in a similar range of magnitude (2–12% in absolute terms) as the beta coefficient relating to the NSDAP vote share (7.77%, reported in column 5 for reference). Our magnitudes are similar to the effect of import competition on far right voting in France in 2007–2012, estimated at 8.98% as a standardized beta coefficient (Malgouyres, 2017).

A comparison of the partial  $R^2$  values of these explanatory factors (bottom of Table 3) leads to similar conclusions: the cultural persistence factor "explains" a comparable share of the variance of the outcome (about 1.5%) as the other factors (whose partial  $R^2$  vary between 0.6% and 1.6%). This simple variance decomposition thus suggests that, while historical persistence clearly is only one among many factors associated with the rise of populist right-wing parties, the magnitude of the correlation is comparable to other factors often mentioned in the literature.

#### 4.3 Persistence of Antisemitism?

The previous tables have shown how the pattern of historical Nazi vote shares is correlated with current AfD support. The focus of this paper is to show how, and under which circumstances, historical patterns can re-emerge giving rise to visible "persistence"; we explicitly refrain from giving a causal interpretation to this correlation. A relevant question is, nevertheless, how exactly one can define this historical legacy of right-wing thinking. What are the factors that shaped the

<sup>&</sup>lt;sup>24</sup>There are also a few notable areas that do not support our hypothesis; notably, the northeastern quadrant, and the area south of Hanover. We will discuss those exceptions further below.

electoral geography of the 1930s, and are these factors being activated and manifested again in voting after 2015?

A defining feature of the NSDAP was its antisemitism, and the seminal work by Voigtländer and Voth (2012, 2015) has shown how antisemitism is a persistent feature of certain regions in Germany. In Table 4 we argue, however, that antisemitism is not what explains the success of the AfD in more recent years. In each one of the columns, we vary the definition of the explanatory variable, while the dependent variable remains the electoral success of the AfD (change in gross vote share, 2017–2013). Again, all coefficients can be interpreted as standardized beta coefficients.

We first compare the correlation between AfD results and the vote shares of the NSDAP in two other elections, 1930 and 1928.<sup>25</sup> In 1928 the NSDAP was still a fringe party, virulently antisemitic, obtaining only 2.6% of the votes at the national level; in 1930, after having toned down its antisemitic rhetoric and with messages trying to appeal to a broader public, it obtained 18.3% of the votes. As the results in Table 4, columns 1 and 2, show, electoral support for the NSDAP in 1928 and in 1930 is also correlated with today's successes of the AfD. However, the largest correlation obtains with the results in 1933, when the NSDAP is less openly antisemitic than in 1928 and 1930, and is closer to a big-tent right-wing populist party appealing to varied constituencies, eager to take (absolute) power.

The *Reichstag* election of 1924 provides a convenient experiment to discriminate between persistent antisemitism and persistent right-wing ideology. Two right-wing parties were on the ballot: the *Deutschnationale Volkspartei* (DNVP) and the *Deutschvölkische Freiheitspartei* (DVFP). The DNVP was the main conservative party of the Weimar era, before the emergence of the NSDAP: nationalist, reactionary, monarchist. The DVFP was split off the DNVP, as some of its members thought it should be more explicitly antisemitic. The 1924 election thus pitted two far right parties against each other: a staunchly conservative one (the DNVP), and a clearly antisemitic one (the DVFP). As the results in columns 3 and 4 show, the electoral success of the AfD is highly correlated with the conservative party in the Weimar era, but not with its antisemitic spin-off.

Finally, in columns 5–7 of Table 4 we limit the analysis to the 796 cities that are featured both in our dataset and in the seminal work by Voigtländer and Voth (2012) on persistence of antisemitism. In column 5, we first confirm that our baseline estimate of Table 2 can be replicated, with broadly similar results, within those 796 cities. In column 6 we then regress the AfD's electoral fortunes on the composite measure created by Voigtländer and Voth (2012): a z-score index encompassing six measures of antisemitism in the 1920s and 30s.<sup>26</sup> There is only a small, positive, and marginally significant correlation between these expressions of early 20th-century antisemitism and AfD support. Finally, in column 7 we use the indicator variable for the occurrence of pogroms in the wake

<sup>&</sup>lt;sup>25</sup>In 1924, the NSDAP did not present a separate list for the *Reichstag* election, but supported the *Deutschvölkische Freiheitspartei* (DVFP). The electoral results of 1932 were not published at the disaggregate level.

<sup>&</sup>lt;sup>26</sup>This index included measures for: pogroms in the 1920s, the share of DVFP votes 1924, the share of NSDAP votes 1928, letters to the Stürmer (an antisemitic newspaper), deportations per 100 Jews in 1933, and an indicator variable for whether a synagogue was destroyed (or damaged).

of the Black Death of 1348. The correlation between medieval Jewish hatred —which has been shown to be a consistent predictor Nazi support — and AfD support is negative and insignificant.

These findings suggest that what persisted between the Weimar era and today, and determines the AfD's electoral success, is not antisemitism but rather a right-wing ideology. In fact, the AfD is successful at keeping antisemitism out of its official policy platforms and actually explicitly endorsing Israel;<sup>27</sup> its religious animus is clearly more directed against Islam. Rather, the common ground between the NSDAP and the AfD in its post-2015 incarnation is more likely to be found in nationalism, outgroup hatred, and xenophobia.

#### 4.4 Correlates of Historical (and Contemporary) Right-Wing Voting

The results presented so far were simple bivariate correlations, conditional only on state fixed effects. In the following, we examine how the results change with the inclusion of plausible determinants of electoral behavior: both historical (variables that may explain the predominance of NSDAP voters in the 1920s and 30s) and contemporary (present-day sociodemographics as correlates of electoral outcomes). In Table 5, we examine how our preferred specification of Table 2, Panel C, using the change in AfD votes from 2013 to 2017 as the dependent variable, is sensitive to the inclusion of these covariates. Column 1 of Table 5 first presents the baseline estimate (without controls) as a benchmark.

In the following columns, we add variables related to population, employment structures, and religion. In Panel A, we only include the controls relating to the Weimar era. In Panel B, we only include the controls relating to the present day. Finally, in Panel C we repeat each regression including both historical and contemporary controls. Starting in column 2, we consider the domain of "population": we control either for the (log) size of the municipality in the 1920s/30s, or for the current (log) size of the municipality and for an urbanization category dummy, or for all of these variables together. In neither case is the baseline estimate modified substantially.

Column 3 considers another major determinant of voting behavior: the economic/social structure, and the economic conditions (especially distress caused by unemployment). In Panel A, we control for the historical employment structure in municipalities or counties: shares of employed in industry/manufacturing, in commerce, and in administration (agriculture and other sectors being the omitted category). We also control for unemployment rates in 1933, at the peak of the Great Depression in Germany. In Panel B, we control for the official county-level unemployment rate in 2015. Across all panels, including controls for the employment structure does not affect the baseline correlation between historical Nazi support and contemporary votes for the AfD (if anything, the correlation becomes stronger).

When we consider the domain of "religion", in column 4, we control for the population shares of Catholics and Jews in 1925 in Panel A (the omitted category is Protestants and "others", the

<sup>&</sup>lt;sup>27</sup>At the same time, however, several elected officials of the AfD (especially in Baden-Württemberg's state legislature) have expressed antisemitic attitudes.

latter being negligible in 1925), and for the population shares of Catholics and "others" (including Muslims, other religions, and atheists) in Panel B (the omitted category is Protestants). The inclusion of this set of controls, no matter whether contemporary or historical, changes the magnitude (but not the precision) of the estimated coefficients: the estimated beta coefficient drops from roughly 0.08 to 0.04–0.06. The crucial explanatory factor here is the presence of Catholics: as pointed out by a large literature, most recently by Spenkuch and Tillmann (2018), Catholic regions were, ceteris paribus, less likely to vote for the NSDAP. Our analysis shows that this holds also for today's support for the AfD, even in a within-state setting. Nevertheless, albeit dampened, the correlation between Nazi support and AfD electorate today remains quite substantial and highly significant.

#### 4.5 Contextual and Mediating Factors

In the following table, we consider more closely other factors that may be potential confounding factors, giving rise to similar patterns of electoral support but with a different interpretation, or potential mediating factors, in the sense that they may interact with the historical legacy of rightwing leaning, either amplifying or dampening it.

In each of the columns of Table 6, we run a regression of this type

$$\Delta(\text{ShareAfD}_{i,2017-2013}) = \theta_s + \beta \cdot \text{NSDAP}_i + \gamma \cdot C_i + \delta \cdot \text{NSDAP}_i \cdot C_i + \varepsilon_{it} \quad , \tag{3}$$

where  $C_i$  is a control variable, measured at the municipal (or county) level.  $\gamma$  indicates whether this control variable has a direct effect (not necessarily with a causal interpretation) on the AfD's electoral success;  $\delta$  measures to what extent this factor interacts with the electoral geography of 1933. All variables are converted to z-scores, so that the coefficients can be interpreted as standardized beta coefficient, and  $\beta$  measures the effect of NSDAP support at average levels of  $C_i$ .

Arguably the most important political event in Germany in 2015 was the sudden and dramatic influx of refugees, mostly fleeing the Syrian civil war. Large numbers of them — hundreds of thousands — reached Germany on foot, via the Balkans and Austria, after Germany's decision, in September 2015, to suspend the Dublin agreement and not to limit their intake. The refugees were allocated to states and counties according to their size and GDP; however, within counties, the allocation of refugees to municipalities was idiosyncratic. The effect of the refugee inflow on votes for the far right is ambiguous. On the one hand, refugees are often perceived as a threat and a potential source of crime, moving voters to the right (Dustmann, Vasiljeva, and Piil Damm, 2016); on the other hand, in line with Allport's (1954) "contact hypothesis", direct acquaintance with refugees could actually increase empathy and support for moderate parties (Steinmayr, 2017).

After presenting the baseline result again in Table 6, column 1, in column 2 we control for the presence of refugees in each municipality (calculated as a share relative to total population, as of December 2016). The effect is negative, suggesting that more refugees lead to *fewer* votes for the

AfD; the standardized magnitude is about 3.6%. The coefficient for the direct effect of Nazi vote shares is, however, hardly affected, and the interaction term is very small and not significant. This is also consistent with the observation that the allocation of refugees across Germany was fairly orthogonal to patterns of NSDAP support: as reported at the bottom of the table, the partial correlation between the control variable and the NSDAP vote shares is negative and small (correlation coefficient, conditional on state fixed effects: -0.09).

Globalization, the decline of manufacturing, and a decrease in job security are often cited as a cause of the far right's recent electoral fortunes. Overall, Germany had a comparatively strong economy in the time frame considered, and among developed countries it remains among those with the highest shares of employment in (skilled) manufacturing, and the lowest rates of unemployment, also among youths. In fact, across the municipalities in our dataset, between 2007 (before the great recession) and 2017 the unemployment rate decreased by 1.52 percentage points on average.

Levels of unemployment are positively correlated with votes going to the AfD, as predicted. The interaction term in column 3 is positive, indicating that the effect of the Nazi past is exacerbated when a municipality is affected by high unemployment rates. However, the rows below the coefficient estimates show that the magnitude of the interaction term is not substantial. There, we evaluate the effect of a one standard deviation increase in NSDAP support at the 25th and 75th percentile of the control variable (in this case, unemployment levels). This "interquartile range" in the effects is rather narrow, from 6.7% to 9.5% (in terms of standardized beta coefficients).

In column 4, we control for the change in unemployment (between 2007-2017); in column 5, we control for a likely major determinant of changes in unemployment, the increase in trade exposure due to the opening of markets to products from Eastern Europe and the Far East.<sup>28</sup> In both cases, the results are somewhat surprising, as areas with *increases* in unemployment (or trade competition) are associated with higher AfD vote shares. Yet the interaction term is very small, and thus the effect of NSDAP voting largely unaffected.

Column 6 considers educational levels as a potential direct or mediating factor. We measure the share of college-educated workers (in a county). A more educated workforce is associated with lower vote shares for the AfD, yet here again there is no meaningful interaction with historical right-wing legacies. Column 7 considers population growth of municipalities, from the 1930s until today. Here, neither the direct effect, nor the interaction term are economically large or significant.

Finally, column 8 looks at one major historical event that had the potential of substantially altering the social structure of communities between the 1930s and today: the influx into postwar Germany of over 12 million ethnic German refugees (called *Heimatvertriebene*, or "expellees") from the areas ceded to other countries after 1945 (Poland, Soviet Union, Czechoslovakia). These

<sup>&</sup>lt;sup>28</sup>We follow the definition of our data source, Dauth, Findeisen, and Südekum (2014), and capture trade exposure as the difference between import competition and export competition. As an example, regions of Germany specializing in the garment industry score very high on this measure, whereas regions with car factories score low.

people, having left their homes and fleeing without possessions, were distributed across Germany following idiosyncratic patterns, based on their ports of entry, but also on the availability of housing stock. They brought their values and traditions from their home regions — Silesia, Pomerania, East Prussia, Sudeten — into present-day Germany, partly maintaining their identities but also integrating rapidly (Bauer, Braun, and Kvasnicka, 2013). As such, one would expect areas with a stronger influx of refugees to exhibit less historical persistence, as the vertical transmission of values will be affected by this massive reshuffling of populations. Moreover, the experience of having to integrate and give housing to expellees might have turned the local populations more sympathetic to the plight of refugees and more open to outsiders

In fact, the direct effect of the presence of expellees is positive and significant. This is consistent with the observation that there is a positive correlation (0.217) between areas of historical Nazi support and areas where expellees are allocated, but also that expellees have traditionally supported more conservative parties. However, we estimate also a large, negative and significant interaction term, suggesting that more expellees weaken the historical persistence of right-wing voting. This effect is also quantitatively important. Communities at the 75th percentile of the distribution of expellees presence witness almost no effect of NSDAP voting on AfD results (point estimate: 0.0257), and for communities with even higher shares (in some regions, 40%-50% of post-war population were expellees) the effect becomes zero or negative. Figure 4 displays the marginal effect of historical NSDAP support at different levels of expellees presence.

The presence of expellees also helps explaining the areas of the electoral map of Germany in which little or no persistence occurred. Areas with a very strong influx of expellees, especially the North (Schleswig-Holstein, Lower Saxony, Mecklenburg) and Bavaria, where many of the Sudeten Germans were relocated, display the lowest degree of persistence (see Appendix Figure B.3). This is also visible in Figure 3, Panel D: the areas northeast and south of Hanover, where electoral results are not correlated across time (grey hexagons in Panel C), are also the ones with the highes shares of expellees among post-war population.

#### 4.6 A Long-Term Perspective

Thus far, we have compared the electoral results of the AfD in 2013 vs. 2017. Our interpretation rested on the premise that the "reinvention" of the AfD as a populist right-wing party in 2015 represented a shift in the supply of political platforms in Germany: for the first time, a rather respectable and plausibly effective right-wing party was available in the electoral menu. Yet even before 2015, German voters had the option of choosing one of the other far-right parties on the ballot, such as the NPD or the *Republikaner*. These parties, however, had a more extreme image than the AfD, with clear neo-Nazi fringes. Moreover, none of these parties had a realistic chance of passing the 5% threshold required to enter the federal parliament, so that a vote for those parties was at best a protest act — purely expressive voting. Voting for these parties thus was very "costly:" in terms of social image, and in terms of an arguably lost vote.

We analyze the correlation between historical Nazi vote shares and the electoral results of these parties in all federal elections from 1998 until today.<sup>29</sup> For every election, we calculate the share of votes going to all parties explicitly to the right of the CDU: NPD, DVU, *Republikaner*, and *Die Rechte*. In 2017, we add the vote share of the AfD as well. We then study the correlation of this aggregate far-right vote share with the historical vote share of the NSDAP in 1933, following the baseline regression setup of equation (1), only replacing the dependent variable.

Figure 5 displays point estimates and 95% confidence intervals for these regressions, run separately for every election year. The upper graph uses absolute vote shares as the dependent variable. The correlation between NSDAP vote share and far-right vote shares is positive and significant in all years, but experiences a major jump in the election of 2017, when the AfD is included. In 2013 and prior years, one standard deviation higher NSDAP vote is associated with approximately 0.1 percentage points higher vote shares for far right parties, whereas this coefficient rises to 0.35 in 2017.

Part of this increased correlation may simply be mechanical, as the total number of votes going to far-right parties increases considerably once the AfD is added to the camp.<sup>30</sup> For this reason, the lower panel of Figure 5 uses standardized vote shares for every year. By doing this, we take care of the large level jump in absolute votes, and focus only on the spatial variation irrespective of levels. The results, however, are qualitatively identical. There is a small, positive, and significant correlation in all years, but the magnitude of the correlation increases fourfold once the AfD is in the choice set of voters.<sup>31</sup>

## **5** Survey Results

#### 5.1 Data and Empirical Setup

So far, we have documented that municipalities with stronger support for the Nazi party in 1933 now have a stronger vote base for the AfD. Our interpretation of this finding is that the AfD, by expanding the electoral platform and representing a respectable and viable political option, has "activated" an existing demand for right-wing ideology and channeled it into manifest voting actions. An alternative to this supply-side interpretation would be that an overall rightward shift in public sentiment, i.e. a shift in attitudes, led to the persistence we find.

To generate the same patterns that we have observed so far — little or no correlation between Nazi voting and AfD/right-wing support in 2013 and before, and a positive correlation in 2017 — a demand-side interpretation would require that municipalities with a past history of Nazi sup-

<sup>&</sup>lt;sup>29</sup>Electoral data for all elections back to 1980 are available from DESTATIS, however no digital maps of municipal borders and electoral constituencies for the years before 1998 exist.

<sup>&</sup>lt;sup>30</sup>The highest vote shares obtained by far-right parties prior to 2017 were 1.8% for the *Republikaner* in 1998, and 1.6% for the NPD in 2005, much less than the 12.6% of votes going to the AfD in 2017.

<sup>&</sup>lt;sup>31</sup>Appendix Table D.3 shows the results of running the analysis in a panel setting, pooling all electoral years and testing for a change of the effect of past NSDAP votes in 2017.

port have turned more righ-wing between 2013 and 2017. For example, it could be that these municipalities are "bellwether" regions, turning to the extreme earlier or more strongly than others when confronted with shocks such as the Great Depression in the 1930s, or the influx of refugees in 2015. In other words: in addition to nation-wide trends between 2013 and 2017, did a simultaneous change in attitudes occur in areas with historically strong Nazi support?

We analyze this question using the German General Social Survey (ALLBUS) from the Leibniz Institute for the Social Sciences (GESIS). The ALLBUS survey provides rich data on attitudes and political opinions in Germany, and is conducted every two years as a repeated cross-section. To link our historical electoral results with the ALLBUS data, we obtained access to the restriced-use ALLBUS with municipality indicators. We successfully matched 1,273 municipalities in the survey sample, with a total of 39,449 individual observations (across all waves from 1996 until 2006).

The ALLBUS is a very extensive survey with scores of different questions. At the same time, right-wing ideology might comprise a large spectrum of different attitudes. We therefore want to capture broad changes in attitudes that are only imperfectly measured by any single survey question, while addressing concerns about multiple hypothesis testing. For this purpose, we construct standardized indices for different categories of attitudes pertaining broadly to right-wing ideology.

We first identify all pertinent questions and categorize them into seven broad categories: *(i)* xenophobia, *(ii)* attitudes toward Islam, *(iii)* antisemitism, *(iv)* disenchantment with politicians, *(v)* gender attitudes, *(vi)* pride to be German, and *(vii)* left-right self-evaluation question. As not every question in the ALLBUS is asked in every wave and to every participant, we split up the categories xenophobic attitudes and gender attitudes into subcategories, based on the survey cycle.<sup>32</sup>

In a second step, we recode all questions into variables between 0 and 1, with higher values indicating more right-wing attitudes. Within every (sub)category, we create an index following Anderson (2008): each component is standardized, and then all z-scores are added up to a summary index (which is, in turn, standardized), weighting each component by the inverse of the covariance matrix of the standardized components.<sup>33</sup> When a category consists of only one survey question (disenchantment with politicians, pride to be German, and left-right self-evaluation) we simply standardize the outcome. Finally, we also construct a summary index of all our outcome indices, again following the procedure by Anderson (2008).<sup>34</sup>

We analyze changes in attitudes through a simple regression setup:

$$Attitude_{ijt} = \theta_t + \varphi_{s(i)} + \beta \cdot \text{NSDAP}_j + \gamma \cdot \text{NSDAP}_j \cdot \mathbb{1}_{t=2016} + x'_{it}\xi + \varepsilon_{ijt}, \tag{4}$$

<sup>&</sup>lt;sup>32</sup>Appendix E.1 provides a detailed overview of the questions used for the indices.

<sup>&</sup>lt;sup>33</sup>Since the resulting index is standardized as well, it allows for easy comparison of the estimated magnitudes. This weighting maximizes the amount of information captured by the z-score index. We show that our results are robust to using an equally-weighted index in Appendix Table E.3 and Table E.4.

<sup>&</sup>lt;sup>34</sup>Appendix Table E.5 shows that these indices are correlated with stated voting intentions for the AfD. In Table E.6, we focus on the question about left-right self-evaluation (which is asked regularly in every wave), and show that a more right-wing self-evaluation in the ALLBUS is predictive of AfD voting intentions in 2016, but *not* in 2014.

where Attitude<sub>*ijt*</sub> are index values (or standardized responses) as described above, pertaining to individual *i* in municipality *j*, in wave *t*. NSDAP<sub>*j*</sub> is the municipal-level Nazi vote share in 1933,  $\theta_t$  are year fixed effects and  $\mathbb{1}_{t=2016}$  is an indicator for the year 2016. To account for the differences between states, all regressions include a full set of state fixed effects  $\varphi_{s(i)}$ . Standard errors are clustered at the level of variation of NSDAP<sub>*j*</sub>.<sup>35</sup>

If municipalities that supported the Nazi party in 1933 exhibit persistent right-wing ideology, this will be reflected by a positive point estimate on  $\beta$ .<sup>36</sup> Crucially for our hypothesis, we expect the interaction coefficient  $\gamma$  to be indistinguishable from zero, suggesting that no significant shift in attitudes occurred between 2014 and 2016 in those municipalities with a history of Nazi support.

#### 5.2 Results: Right-Wing Attitudes

Table 7 summarizes our results. First, we focus on the estimates of  $\beta$ , i.e. the time-invariant effect of past NSDAP support. Throughout the (sub)categories, we find that a history of Nazi support is positively, sometimes significantly, correlated with more right-wing attitudes today, after more than half a century. The effect is particularly pronounced for attitudes towards immigration, towards islamic religious teaching in public schools, and disenchantment with politicians. Consistently with the evidence in Section 4.3, we find a positive but small and insignificant effect on antisemitic attitudes (column 5).<sup>37</sup> Higher levels of Nazi support are also only weakly correlated with attitudes towards women, national pride, or a generic left-right self-evaluation (columns 7–10).

Our summary index of the indices (column 11) captures the broad thrust of findings: people living in historically Nazi supporting areas have more right-wing attitudes today. In panel B, we introduce individual-level controls such as age, gender, education, income levels, or citizenship. The inclusion of controls reduces magnitude and significance of most estimates; yet all cases,  $\beta$ remains non-negative. The estimate on the global index of column 11 suggests that an increase in historical NSDAP support by one standard deviation is associated with slightly less than 6% of a standard deviation more right-wing attitudes.

We now consider the estimates of  $\gamma$ , i.e. the interaction term between NSDAP voting and a 2016 indicator, to investigate whether there is a *shift* in attitudes in 2016 for those municipalities with strong Nazi support in 1933. Our evidence in Table 7 shows that all interaction terms are insignificant and often negative. There is a positive, marginally significant effect in the case of disenchantment with politicians (column 6), which however is not robust to the inclusion of controls. The only consistent effect is a negative estimate in column 3, suggesting that individuals in for-

 $<sup>^{35}</sup>$ Alternatively, one can aggregate responses to the municipal level, *j*. We show the corresponding analysis in Appendix Table E.1.

<sup>&</sup>lt;sup>36</sup>To the extent that some sensitive questions, such as those about antisemitic attitudes, will be affected by social desirability bias, our estimates will be biased downward.

<sup>&</sup>lt;sup>37</sup>Note that our finding complements Voigtländer and Voth (2015), who find that anti-Semitic attitudes are particularly pronounced only for ALLBUS respondents who grew up under the Nazi regime.

mer NSDAP-supporting municipalities became more open to foreigners as neighbors or relatives in 2016. The global index in column 11 suggests, too, that if anything those municipalities turned less right-wing in recent years, although the estimate is not significant.

To conclude, we find no evidence of a sharp and localized demand-side shift that could explain our findings on electoral outcomes. Historical Nazi support is positively associated with all categories of far-right attitudes which we capture in the ALLBUS data, yet not with a rightward shift in 2016.

## 6 Mechanisms and Interpretation

Our findings have two relevant implications for the interpretation. First, our results speak to the existing literature on cultural persistence. To explain cultural persistence, social scientists have often relied on models of from evolutionary biology, studying the vertical transmission of traits from parents to children (Bisin and Verdier, 2001).

We add to this literature by showing an instance in which political inclinations are persistent across generations. An important literature in political science has studied the intergenerational transmission of political preferences (Beck and Jennings, 1991; Jennings, Stoker, and Bowers, 2009), also specifically for the context of right-wing ideology (Avdeenko and Siedler, 2017).<sup>38</sup> In our context, we find that places that voted for the Nazi party in 1933 tend to vote more for the AfD in 2017, and exhibit more right-wing attitudes in survey questions. This raises the question whether this inclination was transmitted vertically from parents to children, over 80 years. Appendix Table F.1 provides evidence in support of this hypothesis: using the German Longitudinal Election Study (GLES), we show that in Germany the left-right self-evaluation of children is highly correlated with that one of their parents. This correlation is even stronger in small communities, consistent with our results in Table 6.

Second, our results suggest that, even as attitudes are stable or move only slowly, electoral results can change suddenly and sharply when the political landscape experiences idiosyncratic shocks, such as the creation of a new party or the emergence of a new, charismatic leader. This finding rationalizes the observation by political scientists that it is hard to square the recent "wave" of right-wing populism with a concurrent shift in attitudes (Bartels, 2017; Bonikowski, 2017).<sup>39</sup>

We corroborate this observation by expanding our attention to five Western European countries that have witnessed the success of populist right-wing movements in recent years: Germany, France, the United Kingdom, Netherlands, and Sweden. For each of these countries, we calculate the vote shares going to far-right parties in national elections, from 1997 until today. From Eurobarometer surveys, we calculate the average left-right self-placement of individuals. We then add

<sup>&</sup>lt;sup>38</sup>Another literature considers the genetic origins of political ideology: see Alford, Funk, and Hibbing (2005), Hatemi and McDermott (2012).

<sup>&</sup>lt;sup>39</sup>See also Hatton (2016). In emphasizing the interaction between demand and supply factors explaining the rise of right-wing populism, our research is in line with the theoretical framework by Mudde (2007) and Arzheimer (2009).

up results across five countries, weighting by population. The results in Figure 6 show how the aggregate share of votes going to far-right parties picks up in 2010 and rises continuously, with every national election, until 2017. However, the time series of the average left-right self-placement of the population is remarkably stable, and jumps upwards only towards the end of the time period observed.

# 7 Conclusion

We have argued that a hitherto unexplored historical persistence of right-wing ideology is a determinant of electoral outcomes in Germany. As an existing party, the Alternative for Germany, moved to the right end of the political spectrum and espoused a nationalist, xenophobic platform, a historical pattern emerged: municipalities that supported the NSDAP during the Weimar republic voted proportionally more for the AfD. This historical correlation is positive, significant, and large: in our baseline specification, a one standard deviation increase in Nazi support during the Weimar era is associated with 0.08 standard deviations more support for the AfD in recent elections.

We show that this cultural persistence factor is not confounded by other factors associated with the rise of right-wing populist parties, such as unemployment, exposure to trade shocks, or the presence of refugees. Whereas cultural persistence in other domains has been extensively studied in the economics literature, ours is the first study, to the best of our knowledge, to link historical far-right voting from before 1945 to present-day electoral outcomes.

Cultural persistence of far-right voting in Germany, in our view, has been "activated" by an expansion of the supply of (respectable) political platforms. We rule out an alternative interpretation of our findings as stemming from a demand-side shift, i.e. a shift in attitudes, occurring at the same time in municipalities with higher support for the Nazis in 1933. The experience of Germany — we argue —is representative for many other European countries, where populist right-wing parties have emerged successfully in the last decades, while attitudes have remained broadly constant.

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# **Figures and Tables**

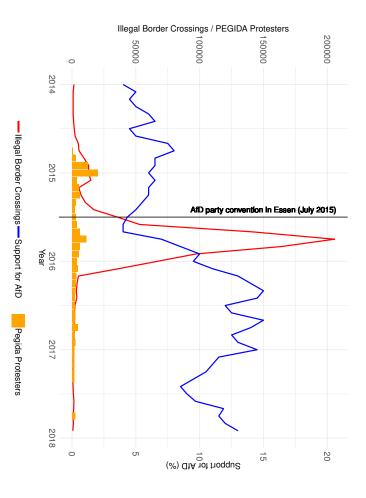
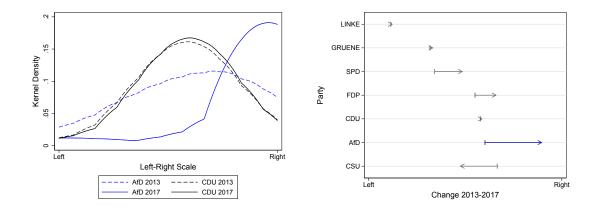


FIGURE 1: TIMELINE OF EVENTS

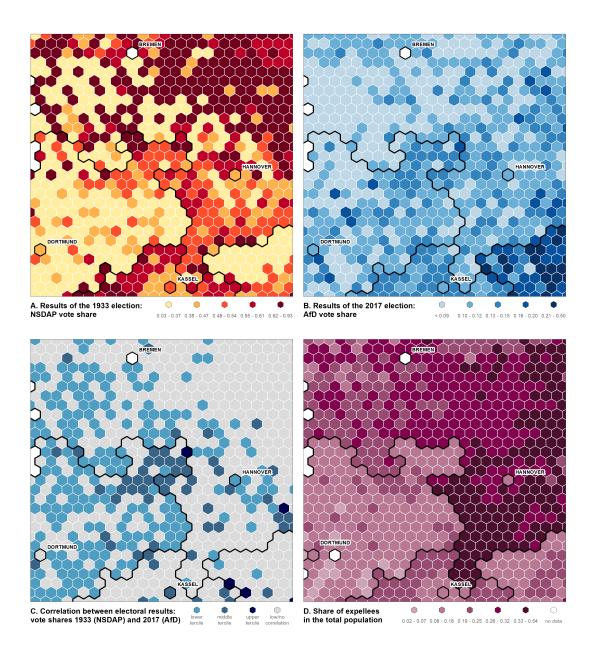
*Notes:* The graph shows voting intentions for the AfD (source: Infratest dimap), illegal border crossing by refugees along the Western Balkan route (source: European Border and Coast Guard Agency — Frontex), and attendance of "Pegida" demonstrations (source: https://durchgezaehlt.org).

#### FIGURE 2: PERCEPTION OF POLITICAL PARTIES



*Notes:* The graphs show where GLES survey respondents placed different political parties on the left-right spectrum. The graph on the left plots the kernel density histogram for the CDU (the mainstream conservative party) and the AfD in both 2013 and 2017 (bandwidth=1.5). The graph on the right plots means and differences in means between 2013 and 2017 for all major German political parties. See Appendix Figure F.2 for more detailed results.

#### FIGURE 3: ELECTORAL PERSISTENCE



*Notes:* The map shows electoral results, at the municipal level, for a subset of Germany. The area covers a region in the North/Center. Major cities are indicated. Every hexagon corresponds to one municipality. Panel A shows vote shares obtained by the NSDAP in the 1933 election; Panel B shows vote shares obtained by the AfD in 2017. The color scale corresponds to quintiles. Panel C evidences areas of historical persistence. Blue hexagons (of different shades) indicate municipalities that were in the upper, middle, or lower tercile of both NSDAP votes in 1933, and AfD votes in 2017. Grey hexagons are municipalities in which NSDAP support is not correlated with current AfD support. Panel D displays the spatial distribution of post-WWII expellees as a fraction of resident population in ca. 1950.

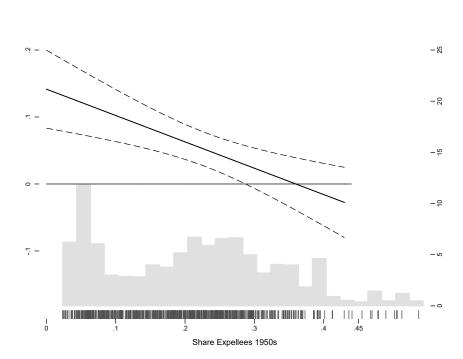
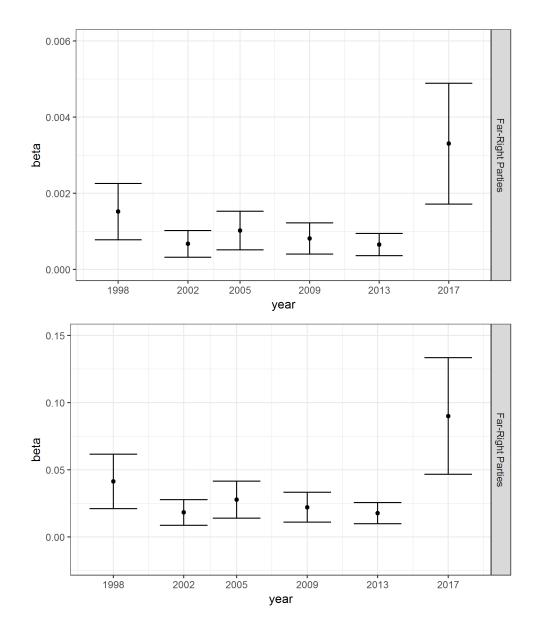
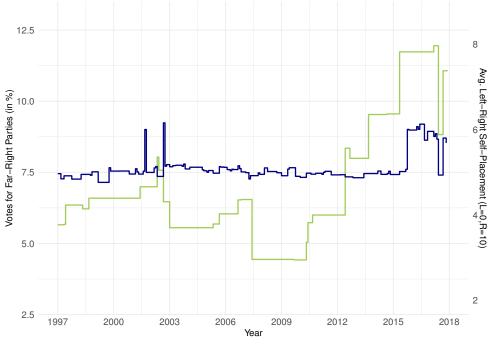


Figure 4: Relationship NSDAP 1933 [Std.] and  $\Delta$  AfD 17-13 [Std.] for different shares of 1950s Expellees

*Notes:* The graph shows a marginal effect plot of the (standardized) NSDAP 1933 vote share on the (standardized) 2017–13 difference in AfD gross vote shares for different shares of 1950s expellees. Code courtesy of Matt Golder.



*Notes:* The graphs show coefficients and confidence intervals of regressions of (in second graph standardized) far right vote shares (NPD, DVU, Republikaner, Die Rechte, and AfD in 2017) on the standardized NSDAP vote share in March 1933. The sample includes modern municipalities in all German states apart from city states (Berlin, Hamburg, and Bremen), and the Saarland. Municipalities are projected to 2015 borders using population-weighted raster techniques (see A.3 for more detail). Standard errors are clustered at the level of the historical vote shares.



#### FIGURE 6: LEFT-RIGHT SELF-EVALUATION AND VOTES FOR THE FAR RIGHT

*Notes:* The graph shows average left-right self-evaluation and votes for far right parties, 1997–2018, for five European countries: Germany, France, the United Kingdom, Sweden, and the Netherlands (population-weighted average). Left-right self-evaluation is from Eurobarometer. Electoral data data are from the Parlgov database, http://www.parlgov. org/. We classified parties with a score of 7.8 or above as "far-right". This includes, among others, UKIP, AfD, Front National, Sweden Democrats, and the Dutch Party for Freedom (Geert Wilders), in the category.

	(1) Mean	(2) Std.Dev.	(3) Min	(4) Max	(5) Obs.
PANEL A: Voting outcomes					
AfD vote share, 2017 (gross)	0.08	0.05	0.00	0.51	10963
AfD vote share, 2013 (gross)	0.03	0.01	0.00	0.17	10963
AfD vote share, $\Delta$ 2017-2013 (gross)	0.05	0.05	-0.09	0.45	10963
NSDAP vote share, March 1933	0.50	0.14	0.03	0.93	10963
NSDAP vote share, Sept. 1930	0.19	0.11	0.01	0.78	10961
NSDAP vote share, May 1928	0.03	0.04	0.00	0.63	10955
DVFP vote share, April 1925	0.07	0.07	0.00	0.59	10941
DNVP vote share, April 1925	0.19	0.17	0.00	0.81	10941
PANEL B: Control Variables					
Log population, 1933	10.04	1.03	7.41	13.91	10945
Log population, 2015	7.52	1.51	2.83	14.19	10963
Share employed in industry and manufacturing, 1925	0.30	0.13	0.04	0.90	8882
Share employed in trade and commerce, 1925	0.10	0.05	0.02	0.52	8882
Share employed in administration, 1925	0.03	0.01	0.01	0.34	8882
Share unemployed, 1925	0.05	0.03	0.01	0.22	9253
Share unemployed, 2016 (gross)	0.02	0.01	0.00	0.14	10861
Share Catholic, 1925	0.41	0.41	0.00	1.00	10171
Share Jewish, 1925	0.00	0.01	0.00	0.14	10171
Share Catholic, 2011	0.34	0.31	0.00	1.00	10158
Share other/no religion, 2011	0.30	0.21	0.00	0.95	10147
Share refugees, 2016	0.00	0.00	0.00	0.05	10885
Share unemployed, $\Delta$ 2017-2007	-1.52	2.34	-16.67	6.93	10963
Trade exposure, $\Delta$ 2008-1998	-0.95	1.75	-16.11	12.94	10936
Population growth rate, 2015-1930	3.00	11.07	-1.00	55.76	10917
Share expellees, 1940-50s	0.21	0.12	0.02	0.54	10942
Share workers with tertiary education, 2015	0.10	0.03	0.05	0.40	10963

*Notes:* Sample includes German municipalities in 2015, except city states and the Saarland. Gross vote shares are votes cast divided by the total of eligible voters. See A.1 for more detail on sources and definitions of the variables.

	(1)	(2)	(3)	(4)	(5)
	AfD	AfD	$\Delta$	$\Delta$	$\Delta$
	2013	2017	17-13	17-13	17-13
NSDAP 1933 [std.]	0.0125	0.0777***	0.0795***	0.0692***	0.0328***
	(0.0229)	(0.0149)	(0.0148)	(0.0253)	(0.0125)
NSDAP 1933 [std.]					
imes Soviet Zone					0.2204***
					(0.0549)
NSDAP 1933 [std.]					
imes UK Zone					-0.0154
					(0.0219)
NSDAP 1933 [std.]					
× French Zone					0.0771**
					(0.0300)
Observations	10963	10963	10963	390	10963
$R^2$	0.195	0.700	0.663	0.788	0.667

#### **TABLE 2:** FIRST RESULTS

*Notes:* The dependent variable is the standardized gross vote share of the AfD, i.e. the number of valid votes relative to eligible voters. The explanatory variable is the NSDAP vote share in March 1933. All variables (explanatory and dependent) are standardized. Columns 1-3 and 5 include all municipalities in all German states apart from city states (Berlin, Hamburg, and Bremen), and the Saarland. Column 4 provides a regression on the county level. All regressions include state fixed effects. Standard errors are clustered at the level of historic municipalities/counties. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

TABLE 3: ECONOMIC VS. I	ISTORIC DETERMINANTS OF	F AFD 2017 VOTE SHARE

	(1)	(2)	(3)	(4)	(5)	(6)
Unemployment, 2016 [std.]	0.0217** (0.0100)					0.0109 (0.0101)
Unemployment, $\Delta$ 2017-2007 [std.]		-0.1211*** (0.0151)				-0.1051*** (0.0149)
Trade Exposure, $\Delta$ 2008-1998 [std.]			-0.0212*** (0.0041)			-0.0305*** (0.0041)
Share Refugees, 2016 [std.]				-0.0380*** (0.0062)		-0.0317*** (0.0061)
NSDAP 1933 [std.]					0.0777*** (0.0062)	0.0719*** (0.0059)
Partial R <sup>2</sup> R <sup>2</sup> Observations	0.011 0.697 10861	0.016 0.700 10963	0.0091 0.696 10936	0.0061 0.696 10885	0.015 0.700 10963	0.707 10831

*Notes:* The dependent variable is the (standarized) vote share for the AfD in 2017, relative to all eligible voters. All reported explanatory variables are also standardized. All regressions include state fixed effects. Sample consists of German municipalities, excluding the Saarland and city states. Standard errors are clustered at the standardized 2017 AfD gross vote shares. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	0.0332**	0.0200*	-0.0212	0.0946***	0.0582***	0.0291*	-0.0288
	(0.0152)	(0.0104)	(0.0160)	(0.0162)	(0.0148)	(0.0162)	(0.0372)
Explanatory	NSDAP	NSDAP	DVFP	DNVP	NSDAP	Anti-	Black Death
Variable	1930	1928	1924	1924	1933	semitism	Pogroms
Cities Sample					$\checkmark$	$\checkmark$	$\checkmark$
Observations $R^2$	10961	10955	10941	10941	796	796	796
	0.659	0.658	0.659	0.663	0.472	0.468	0.461

TABLE 4: RIGHT-WING IDEOLOGY VS. ANTISEMITISM

*Notes:* The dependent variable is the standardized 2017-2013 difference in gross vote shares of the AfD, i.e. the number of valid votes relative to eligible voters. The column header indicates the respective explanatory variable used. All variables (explanatory and dependent) are standardized, except the indicator variable for Black Death Pogroms in column (7), which has a mean of 0.251. The explanatory variable in column (6) is the standardized first principal component of six measures of 1920s/30s antisemitism, as in Voigtländer and Voth (2012). Sample includes municipalities in all German states apart from city states (Berlin, Hamburg, and Bremen), and the Saarland. Columns (5) to (7) restrict the sample to those towns used in Voigtländer and Voth (2012). All regressions include state fixed effects. Standard errors are clustered at the level of historic municipalities/counties. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

	(1)	(2)	(3)	(4)				
	Baseline	Population	Employment	Religion				
PANEL A: With historical controls								
NSDAP 1933 [std.]	0.0795***	0.0692***	0.0802***	0.0604***				
	(0.0148)	(0.0157)	(0.0216)	(0.0144)				
Observations	10963	10917	8527	10171				
PANEL B: With contemporary controls								
NSDAP 1933 [std.]	0.0795***	0.0523***	0.0804***	0.0464***				
	(0.0148)	(0.0176)	(0.0146)	(0.0153)				
Observations	10963	10963	10861	10147				
PANEL C: With historical and contemporary controls								
NSDAP 1933 [std.]	0.0795***	0.0504***	0.0739***	0.0437***				
	(0.0148)	(0.0179)	(0.0211)	(0.0167)				
Observations	10963	10917	8437	9726				

#### **TABLE 5:** RESULTS INCLUDING CONTROLS

*Notes:* The dependent variable is the (standardized) change in vote share for the AfD (relative to eligible voters) from 2013 to 2017. Each column adds a different set of control variables. The explanatory variable across all columns is the 1933 NSDAP vote share (standardized). Population controls are: [historical] log population size (1933); [contemporary] log population size in 2015 and urbanization code dummies (3 categories). Employment controls are: [historical] shares of employed in industry and manufacturing, employed in trade and commerce, and employed in administration (agriculture and "other sectors" is the omitted category), all measured in 1925, as well as the unemployment share in 1933; [contemporary] the unemployment rate in 2015. Religion controls are: [historical] the share of Catholics and Jews; [contemporary] the share of Catholics and "Others" (i.e., Muslims, other religions, and no religion). Sample includes municipalities in all German states apart from city states (Berlin, Hamburg, and Bremen), and the Saarland. All regressions include state fixed effects. Standard errors are clustered at the level of historic municipalities/counties. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Baseline	Refugees	Unempl.	Unempl.	Trade	Human	Population	Expellees
	Daseinte	2016	Level	Change	Shocks	Capital	Growth Rate	1940-50s
NSDAP 1933 [std.]	0.0795***	0.0771***	0.0854***	0.0749***	0.0812***	0.0780***	0.0804***	0.0586***
	(0.0148)	(0.0154)	(0.0146)	(0.0155)	(0.0144)	(0.0150)	(0.0149)	(0.0131)
Control [std.]		-0.0363***	0.0448***	-0.1475***	-0.0246***	-0.0417***	0.0102	0.1389***
		(0.0069)	(0.0144)	(0.0166)	(0.0095)	(0.0113)	(0.0098)	(0.0302)
NSDAP 1933 [std.]								
× Control [std.]		-0.0072	0.0273**	-0.0169	0.0044	0.0160	-0.0114	-0.0485***
		(0.0088)	(0.0119)	(0.0215)	(0.0100)	(0.0113)	(0.0083)	(0.0145)
NSDAP 1933 [std.]								
at 25th Percentile		0.0821	0.0673	0.0784	0.0792	0.0676	0.0836	0.106
at 75th Percentile		0.0744	0.0953	0.0665	0.0827	0.0861	0.0823	0.0257
Partial Correlation								
conditional on FEs		-0.0966	-0.00314	-0.0681	0.0869	-0.0956	0.0644	0.217
<i>R</i> <sup>2</sup>	0.66	0.66	0.67	0.67	0.66	0.66	0.66	0.67
Observations	10963	10885	10861	10963	10936	10963	10917	10942
		0.66	0.67	0.67	0.66	0.66	0.66	0.67

*Notes:* The dependent variable is the (standardized) change in vote share for the AfD (relative to eligible voters) from 2013 to 2017. All reported variables are standardized. Sample includes municipalities in all German states apart from city states (Berlin, Hamburg, and Bremen), and the Saarland. Unemployment Level in column 3 is calculated as the number of unemployed people in 2016 projected onto 2015 municipality borders and divided by the 2015 population. Unemployment Change in column 4 is calculated by projecting the number of unemployed people in 2007 and 2017 onto 2015 municipalities, subtracting and dividing by 2015 population. The Trade Shocks in column 5 are defined as in Dauth, Findeisen, and Südekum (2014) and are calculated by subtracting a measure of export competition from import competition, both over the periods 2008-1998. Human Capital in column 6 represents the share of college-educated workers the county. The population growth rate for column 7 is calculated by subtracting the log population in 1933 from the log population in 2015, whereby remainders of the county are assigned the mean population values of the total of the remainder of the county's respective population in 1933 or 2015. The average share of expellees in 1940-50s is 21.2%, with minimum 2.36% and maximum 53.7%. All regressions include state fixed effects. Standard errors are clustered at the level of historic municipalities/counties. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

### TABLE 7: SURVEY RESULTS: ATTITUDES

Dependent variable:	Xenophobia (Immigration)	Xenophobia (Equal Rights)	Xenophobia (Marriage/ Neighbour)	Islam at School	Antisemitism	Disenchantment with politicians	Gender Attitudes Index 1	Gender Attitudes Index 2	Left-Right Self-Evaluation	Pride to be German	Summary Index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Panel A: individual lea	vel, without	controls									
NSDAP 1933 [std.]	0.0602** (0.0236)	0.0703*** (0.027)	0.0361 (0.0265)	0.0439*** (0.0121)	0.0359 (0.0333)	0.0108*** (0.0041)	0.009 (0.0249)	0.0014 (0.0161)	0.002 (0.002)	0.0109 (0.0106)	0.0874*** (0.0273)
NSDAP $\times$ 2016	-0.0417 (0.0542)	-0.0722 (0.0445)	-0.1040** (0.0506)	-0.0132 (0.0173)	0.0036 (0.0527)	0.0203* (0.012)	0.0641 (0.0395)	0.046 (0.035)	0.0022 (0.0064)	-0.0281* (0.0155)	-0.025 (0.0572)
Observations	6632	8290	8305	10100	7305	28255	3411	16036	36957	9434	6227
Panel B: with individu	Panel B: with individual-level controls										
NSDAP 1933 [std.]	0.0355 (0.0218)	0.0426* (0.0254)	0.0168 (0.0279)	0.0380*** (0.0124)	0.0045 (0.0334)	0.0046 (0.0038)	0.0185 (0.0276)	0.0006 (0.0148)	0.0005 (0.002)	0.0053 (0.011)	0.0582** (0.0232)
NSDAP $\times$ 2016	-0.0301 (0.0485)	-0.053 (0.0459)	-0.0910* (0.0538)	-0.0149 (0.0173)	0.0172 (0.0522)	0.0194 (0.012)	0.0554 (0.0431)	0.0397 (0.0333)	0.0037 (0.0067)	-0.0261 (0.0164)	-0.0127 (0.0531)
Observations	5714	7149	7122	8701	6344	24873	3065	14086	32625	8152	5463

*Notes:* Data is individual survey data from Allbus. Indices in columns 1-3, 5, 7-8, and 11 are summary indices as described in Anderson (2008). All regressions contain state fixed effects. Controls include age, gender, marriage status, education, party membership, income, Germany citizenship, and whether the respondent lives in former Eastern Germany. Standard errors are clustered at the level of historical vote shares. See E.1 for the wording of the questions used for the indices. See E.1, E.2, E.3, and E.4 for alternative specifications. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

# Supplementary Appendix: Not for Publication

# A Data Description

## A.1 Sources and definitions of Variables

Variable	Description and source
AfD vote share, 2017 (gross)	AfD vote share in 2017 federal election, relative to eligible voters. Municipalities of 2017 matched to borders of 2015. Source: DESTATIS (German Federal Statistical Office).
AfD vote share, 2013 (gross)	AfD vote share in 2013 federal election, relative to eligible voters. Municipalities of 2013 matched to borders of 2015. Source: DESTATIS.
AfD vote share, $\Delta$ 2017-2013 (gross)	Difference in AfD vote shares in 2013 and 2017 federal elections (matched to 2015 municipality borders), relative to eligible voters. Source: DESTATIS.
NSDAP vote share, March 1933	NSDAP vote share, March 1933. Data matched to mu- nicipality borders of 2015. Source: Falter and Hänisch (1990)
NSDAP vote share, Sept. 1930	NSDAP vote share, September 1930. Data matched to municipality borders of 2015. Source: Falter and Hänisch (1990)
NSDAP vote share, May 1928	NSDAP vote share, May 1928. Data matched to municipality borders of 2015. Source: Falter and Hänisch (1990)
DVFP vote share, April 1925	DVFP vote share, April 1925. Data matched to municipality borders of 2015. Source: Falter and Hänisch (1990)
DNVP vote share, April 1925	DNVP vote share, April 1925. Data matched to munici-
Log population, 1933	pality borders of 2015. Source: Falter and Hänisch (1990) Logarithm of population in 1933, if missing 1925. Munic- ipalities in the "remainder of the county" are assigned the population count of that remainder divided by the number of modern municipalities assigned to it. Data matched to municipality borders of 2015. Source: Falter and Hänisch (1990) and DESTATIS.
Log population, 2015	Logarithm of the 2015 population count. Source: DESTATIS.
Share employed in industry and manufacturing, 1925	Share employed in industry and manufacturing, 1925. Data matched to municipality borders of 2015. Source: Falter and Hänisch (1990)
Share employed in trade and com- merce, 1925	Share employed in trade and commerce, 1925. Data matched to municipality borders of 2015. Source: Falter and Hänisch (1990)

Variable	Description and source
Share employed in administration, 1925	Share employed in administration, 1925. Data matched to municipality borders of 2015. Source: Falter and Hänisch (1990)
Share unemployed, 1925	Share unemployed, 1925. Data matched to municipality borders of 2015. Source: Falter and Hänisch (1990)
Share unemployed, 2016 (gross)	Total of unemployed people in 2016 projected on 2015 municipalities, and divided by 2015 population. Data matched to municipality borders of 2015. Source: DESTATIS.
Share Catholic, 1925	Share Catholic, 1925. Data matched to municipality bor- ders of 2015. Source: Falter and Hänisch (1990)
Share Jewish, 1925	Share Jewish, 1925. Data matched to municipality bor- ders of 2015. Source: Falter and Hänisch (1990)
Share Catholic, 2011	Share Catholic, 2011. Data matched to municipality bor- ders of 2015. Source: DESTATIS.
Share other/no religion, 2011	Share other/no religion, 2011. Data matched to municipality borders of 2015. Source: DESTATIS.
Share refugees, 2016	Share of people eligible to benefits in the context of flight and migration ( <i>"Erwerbsfähige Leistungsberechtigte im Kon-</i> <i>text von Flucht und Migration"</i> ), 2016. Source: Federal Em- ployment Agency.
Share unemployed, $\Delta$ 2017-2007	Total of people unemployed in 2017 and 2007 matched on 2015 municipality borders, and divided by 2015 pop- ulation. Source: Federal Employment Agency.
Trade exposure, $\Delta$ 2008-1998	Import Competition minus export competition. Variable defined at <i>Kreis</i> (county) level. Data matched to municipality borders of 2015. Source: Dauth, Findeisen, and Südekum (2014)
Population growth rate, 2015-1930	Growth rate of population 2015 - 1933 (1925 if miss- ing), both periods matched to 2015 municipality borders. Source: Falter and Hänisch (1990) and DESTATIS.
Share expellees, 1940-50s	Share of expellees in 1940-50s. Variable defined at <i>Kreis</i> (county) level. Data matched to municipality borders of 2015. Source: Data for Eastern Germany stems from: Seraphim (1954); Western Germany: Braun and Kvasnicka (2014)

## A.2 Matching contemporary and historical election data

We match present-day electoral outcomes to the Weimar era party support in two steps:

**Step 1:** First, we identify the boundary of each county with electoral data in the Falter and Hänisch (1990) dataset, using the county name to match counties to polygons in the shapefile provided by the Census Mosaic project<sup>1</sup>. We then identify coordinates for each Weimar era municipality (to the best of our knowledge, no shapefiles of municipalities in the period are available): for each municipality, we first use OpenStreetMap's Nominatim API to search for modern administrative centers, villages, towns, cities or suburbs sharing a name with the historic municipality. We overlay the returned coordinates on the county map and discard any results which lie outside the boundary of the county to which the historic municipality belongs, according to the Falter and Hänisch (1990) data. In this way, we obtain valid latitude and longitude coordinates for around two thirds of the Weimar era municipalities. For municipalities which return no valid matches, for example because of name changes between the Weimar era and today, we manually search for coordinates. To do so, we use a combination of sources including gov.genealogy.net, a database of historic geographies, and Wikipedia. We check the manual lookups for validity by ensuring that the coordinates lie within the boundaries of the county to which the municipality belongs, again according to the Falter and Hänisch (1990) data.

**Step 2:** In this step, we match contemporary municipalities to a Weimar era geography for which the Falter and Hänisch (1990) dataset provides electoral data. If a modern municipality's coordinates (provided by DESTATIS) are within 2.5 kilometers of the coordinates of a municipality identified in Step 1, we match the contemporary district to the electoral data from that historical municipality. Otherwise, we overlay the coordinates of the modern municipality on top of the shapefile of counties and assign the electoral results for the "remainder of the county" to the modern municipality. Because electoral geography is not constant between 1924 and 1932, a modern municipality can be matched to different entities for different election years.

<sup>&</sup>lt;sup>1</sup>Electoral geography changes between the years 1924 and 1932, the result of counties being merged or split and other boundary changes. We thus match counties to boundaries separately for each of the 1924, 1928, 1930 and 1932 elections. In a very small number of cases, we make changes to the county shapefiles in order to better match the county/municipality hierarchy provided by the Falter and Hänisch (1990) dataset

## A.3 Matching electoral data to 2015 municipality borders

We generate transition matrices to trace population share within changing municipalities borders for a given year and a reference year of 2015.

**Step 1:** First, we approximate the spatial distribution of the population in municipalities based on a raster dataset from the 2011 Census (100m grid)<sup>2</sup>, using shapefiles for German municipalities between 1998 and 2017 from the Service Center of the Federal Government for Geo-Information and Geodesy (*Dienstleistungszentrum des Bundes für Geoinformation und Geodäsie*).<sup>3</sup>

**Step 2:** In the next step, we overlay administrative borders for both timestamps and calculate population in areas which changed municipalities. Based on those values we generate a transition matrix, which indicates to what degree the population from a given municipality in the first comparison year contributes to the population residing in municipalities in 2015.

**Step 3:** Finally, we multiply the (transposed) transition matrix with the respective data for the comparison year to project values on the 2015 municipality borders.

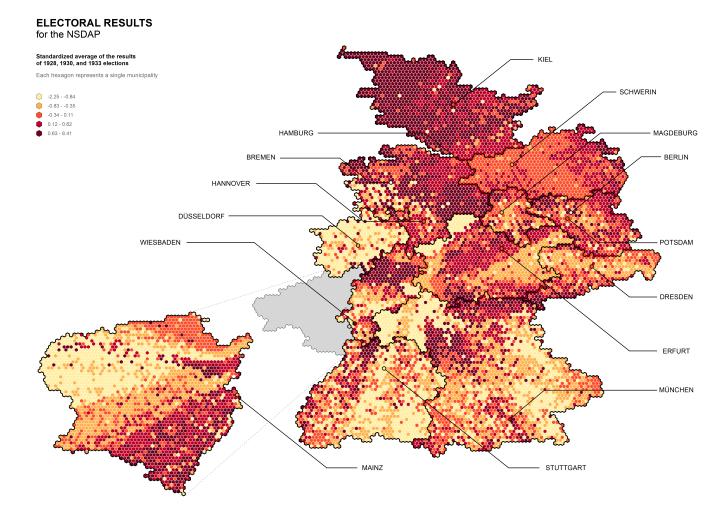
<sup>&</sup>lt;sup>2</sup>https://www.zensus2011.de/DE/Home/Aktuelles/DemografischeGrunddaten.html

<sup>&</sup>lt;sup>3</sup>http://www.geodatenzentrum.de/geodaten/gdz\_rahmen.gdz\_div

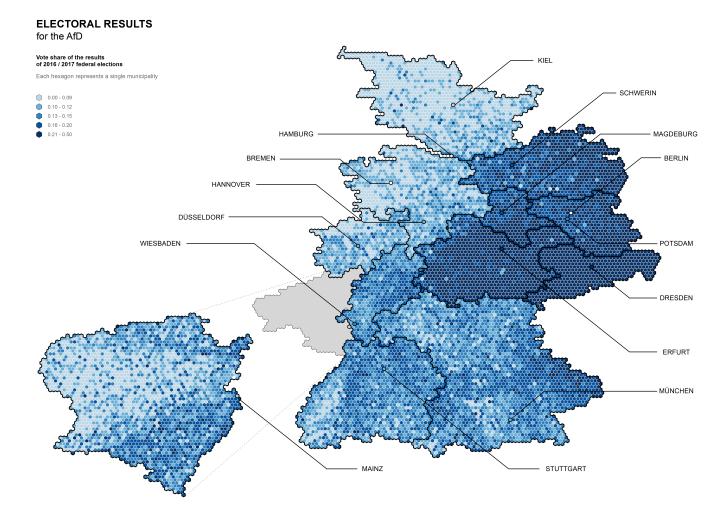
# **B** Electoral maps

The following three maps show electoral results in 1933, in 2017, and a visual representation of persistence patterns for all 10,963 municipalities in our analysis. Cf. the description of Figure 3 for further detail. Note that the state of Rhineland-Palatinate (in the far West of Germany) is "exploded" in the maps and presented separately because of its large number of municipalities.

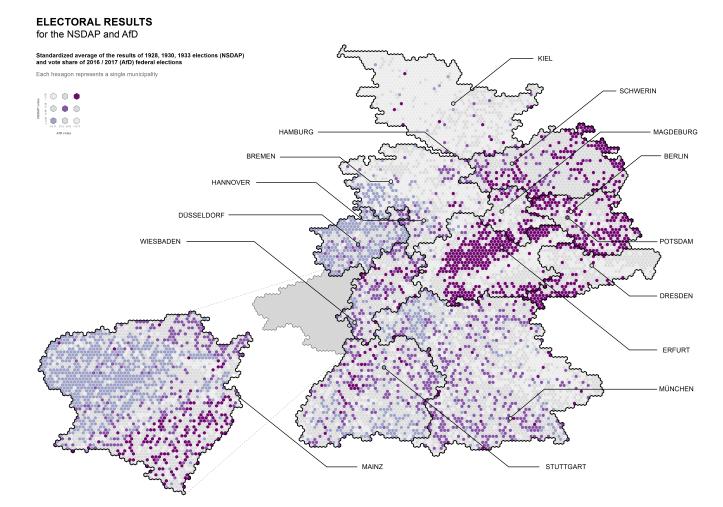
## FIGURE B.1: NSDAP 1933



#### **FIGURE B.2:** AFD 2017



#### FIGURE B.3: PERSISTENCE



## C Evidence on Semantic Change

#### C.1 Language data sources

We analyze the language used by the AfD and other major German parties by considering a variety of sources. Besides the AfD, we consider the following parties: CDU/CSU<sup>4</sup> (Christian democratic, moderately conservative), SPD (social democratic, moderately left-wing), Grüne (green party), FDP (free democrats, economic/socially liberal), and the NPD (nationalistic, starkly rightwing, only represented in a few state legislatures).

First, we look at all party manifestos, official documents setting out the parties political platforms in advance of major elections (federal, state, and European Parliament elections), published from 2013 onwards. These manifestos are usually published a few months ahead of the election, and contain variously detailed statements of political objectives and policy proposals. We obtained the full text (as PDF) of 74 manifestos from the respective party websites; the median manifesto is 56 pages long and encompasses approximately 19,500 words. Table C.4 provides an overview of the manifestos used.

Second, we consider the content of major political speeches held at party congresses, at nationallevel party meetings (e.g., the traditional Epiphany meeting of the FDP on 6 January), or so-called "Ash Wednesday" speeches<sup>5</sup> by major political leaders (usually the party secretaries or the main candidates), from 2013 until today. If the speeches are not available in a transcribed version, we resort to online videos of these speeches and transcribe them with speech recognition software or manually. Our final dataset contains 112 speeches; the median length of a speech is 27 minutes.

Third, we analyze tweets posted from the official Twitter accounts of those six major parties (we restrict ourselves to the main/national account of the party, not of its regional branches and candidates). We scrape all tweets from April 2008 (when the first party, the CDU, opened a twitter account) until the end of June 2017, obtaining a total of 66,422 tweets (the most prolific party is the NPD, with 18,057 tweets, followed by the SPD, with 10,580 tweets; the AFD posted 4,119 tweets). Table C.5 provides an overview of timing and quantity of tweets for each party.

Finally, we also scrape posts from the official Facebook pages of the major parties (again restricting ourselves to the federal-level party organization, not to its local branches). We obtain 36,089 posts from November 2008 until May 2017; 12,794 of these posts pertain to the NPD page, 2,881 to the AFD. Table C.6 provides an overview of the Facebook posts included.

#### C.2 Analysis

Figure C.3 gives a first quantitative impression of the nationalistic turn imparted on the AfD starting in mid-2015. We classify Facebook posts (looking at trimmed word stems) depending on whether they contain a word that is related to the Euro, to Greece (likely in the context of the bailout talks), to Islam/Muslims, or to Germany/the nation. Up until 2015, about 20% of posts refer, on average, to the Euro, and approximately the same amount refer to Germany/the nation. There is, however, already a slight downward trend in references to the Euro before 2015, which suggests that, as the base expanded, the party's outlook widened beyond its initial narrow focus

<sup>&</sup>lt;sup>4</sup>For speeches and party manifestos, we consider the CDU and the CSU as one party (among other reasons, because of the low number of observations). For tweets and Facebook posts, we look at the CDU and the CSU accounts separately.

<sup>&</sup>lt;sup>5</sup>On Ash Wednesday, all major political parties in Germany hold speeches, often in beer halls, which are typically more polemical and more directly targeted against opponents.

on economic topics. 2015 witnesses two major changes. First, as the Greek crisis approached a new zenith (the infamous "bailout" referendum was held on July 5), Greece and the Euro reach a short-lived peak in frequencies. At the same time, after the party congress in Essen, the AfD turns rightward: posts referring to Germany or the nation steadily increase in frequency, and so do posts referring to Islam or the Muslim world. Note that the latter change only occurs in mid-2016, well after the peak of the refugee crisis in September 2015.

However, these suggestive trends may also be misleading, and merely capture an overall change in topics relevant to German politics. It is plausible that other parties in Germany, in the context of the dramatic political and economic crises of the past years, have readjusted their rhetoric and the focus of their policy proposals. For this purpose, in Table C.1 we look at the overall text body that we collected in manifestos, speeches, tweets, and Facebook posts, for seven major parties in Germany: the AfD, as well as the CDU/CSU, SPD, Greens, FDP, Linke, and (as a benchmark of a more radical, right-wing party) the ultra-nationalist NPD. With this body of data we can estimate a full differences-in-differences specification as follows:

$$f(\text{stem} = s)_{ipt} = \gamma_p + \delta_t + \beta \cdot \mathbb{1}\{\text{party} = \text{AfD}\} \cdot \text{Post}_t + \varepsilon_{ipt},\tag{5}$$

where the dependent variable f(stem = s) is the frequency (mention per 100 words) of stem s in document i (party manifesto, speech), of party p at time t. For shorter pieces of text (tweets, Facebook post), we use the following variant specification:

$$\mathbb{1}\{(\mathsf{stem} = s) \in i\}_{ipt} = \gamma_p + \delta_t + \beta \cdot \mathbb{1}\{\mathsf{party} = \mathsf{AfD}\} \cdot \mathsf{Post}_t + \varepsilon_{ipt},\tag{6}$$

where  $\mathbb{1}\{(\text{stem} = s) \in i\}$  is a dummy indicating whether stem *s* is contained in document *i* (tweet, post) of party *p* at time *t*. In all specifications, we include a full set of party fixed effects ( $\gamma_p$ ) and time fixed effects ( $\delta_t$ ): these are year fixed effects for speeches and manifestos, and month×year fixed effects for tweets and Facebook posts. Post<sub>t</sub> is a dummy for all periods after the Erfurt Resolution (March 2015). Standard errors  $\varepsilon_{ipt}$  are clustered at the party×year cell level (for manifestos and speeches) or at the party×year×month level (for tweets and Facebook posts).

The crucial difference-in-differences parameter of interest is  $\beta$ , indicating the increase in frequency (or mentions) of a given stem in documents of the AfD, after the Erfurt Resolution, conditional on state and time fixed effects. Table C.1 reports the estimates of  $\beta$  across four media (manifestos, speeches, tweets, and Facebook posts, in Panels A through D, respectively), and for five outcome stems of interest: Greece, the Euro, Islam, migration, and nation.<sup>6</sup> Every cell in that table reports the estimate of the difference-in-differences parameter for one regression, defined by a dyad of medium and stem.

Across all text media, we see consistent results. Even when viewed in relation to the language used by the other political parties in Germany, the AfD notably reduces the mentions of Greece and the Euro in its rhetoric, and increases the usage of words related to Islam, to migration, and to Germany/the nation. For example, the estimate in panel B, column 2, suggests that after 2015, the reduction of mentions of stems relating to the Euro in speeches by AfD members is 0.546 per 100 words (significant at <1% level). This compares to a mean of the dependent variable of 0.703

<sup>&</sup>lt;sup>6</sup>More precisely, the stem "Greece" encompasses all German words including *\*griech\**; "Euro" all words that start with *euro\**, but not *europ\**, and also the acronym *EZB* (European Central Bank, in German); the stem "Islam" all words including *\*islam\** and *\*muslim\**; the stem "migration" all words including *\*migration\**, *\*wander\**, *\*flüchtling\**, and *\*asyl\**; the stem "nation" all words including *\*nation\** and *\*deutsch\**. Table C.3 reports the 10 most frequent words identified by this algorithm for each stem.

(for AfD speeches, before 2015); it is thus a very sizable decrease.<sup>7</sup>

By converse, the estimate in panel D, column 4, suggests that after March 2015, the share of Facebook posts mentioning a stem related to the migration context increases by 11.2 percentage points (significant at <1% level). Again, this is sizable if compared to a pre-March 2015 mean of the outcome variable of 5.8 percent (for the AfD).

Arguably, the five word stems shown in Table C.1 have been arbitrarily chosen, based on our priors regarding which words should witness the starkest changes following the rightward turn imparted on the AfD after the Erfurt Resolution. To avoid our subjective bias, and to validate the stems chosen in Table C.1, in Figure C.4 we follow a different approach. Here, we repeat the standard differences-in-differences estimations of Equation 5 above, applying this regression setup to each of the 645 most frequent word stems that we identified in our entire body of Facebook posts.<sup>8</sup>

Figure C.4 presents the distribution of the  $\beta$  coefficients estimated from Equation 5, across 645 stems. First, it is noticeable that the distribution of point estimates is skewed to the right of zero: this indicates that the language used by the AfD, after March 2015, becomes more varied. Second, vertical dashed lines in the figure show the positioning of the point estimates relating to key words used so far. Confirming the results of Table C.1, we see that "Euro" and "Greece" are to the left of zero, whereas the usage of words such as "Islam", "asylum", and especially "Germany" increases dramatically for the AfD after March 2015, relative to other parties. Third, it is also noticeable that a traditional mainstay of conservative political ideology, the "family", does not move into the focus of the AfD's rhetoric: the point estimate is very close to zero. We see this as suggestive of the fact that the post-March 2015 turn experienced by the AfD was explicitly nationalistic and xenophobic (anti-Muslim), not merely conservative.

<sup>&</sup>lt;sup>7</sup>Table C.2 provides (conditional) means for all dependent variables.

<sup>&</sup>lt;sup>8</sup>To be more precise, we consider the universe of words in the body of Facebook posts we collected. We remove numbers, punctuation, and stopwords, and then stem the resulting words using the *tm* package for R. We keep all stems that are used at least 200 times. This results in 645 word stems.

FIGURE C.1: AFD ELECTORAL POSTER, 2013

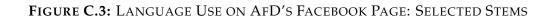


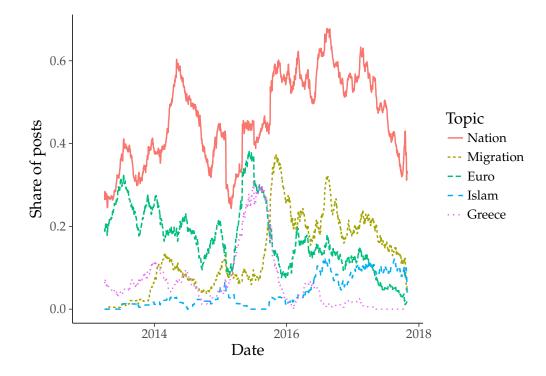
*Notes:* Electoral poster for the federal election of September 2013. It reads: "Greeks are desperate. Germans are paying. Banks are cashing in. Stop this."



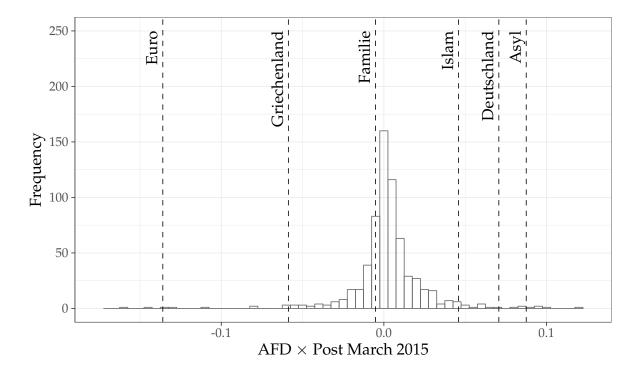
FIGURE C.2: AFD ELECTORAL POSTER, 2016

*Notes:* Electoral poster for the state election in Baden-Württemberg in March 2016. It reads: "For our state – for our values. Immigration needs clear rules."





*Notes:* The graph shows the frequency of Facebook posts containing one of four, selected word stems/families. 90-day moving averages displayed.



### FIGURE C.4: LANGUAGE USE ON AFD'S FACEBOOK PAGE: ALL STEMS

*Notes:* The graph shows the empirical distribution of estimated difference-in-difference coefficients, resulting from the empirical setup in equation (6), relating to 645 frequent word stems on Facebook, together with the location of six selected word stems.

	(1)	(2)	(3)	(4)	(5)				
	Greece	Euro	Islam	Migration	Nation				
PANEL A: Mentions per 100 words in manifestos									
AfD $\times$ After March 2015	-0.011	-0.780***	0.052***	0.269***	-0.041				
	(0.021)	(0.193)	(0.013)	(0.050)	(0.237)				
PANEL B: Mentions per 100	) words in sj	peeches							
AfD $\times$ After March 2015	-0.183**	-0.546***	0.063*	-0.028	0.112				
	(0.070)	(0.099)	(0.034)	(0.097)	(0.100)				
PANEL C: Mentioned in Tu	vitter posts								
AfD $\times$ After March 2015	-0.059***	-0.157***	0.020**	0.023**	-0.098***				
	(0.009)	(0.011)	(0.009)	(0.012)	(0.018)				
PANEL D: Mentioned in Facebook posts									
AfD $\times$ After March 2015	-0.017	-0.055***	0.042***	0.112***	0.209***				
	(0.016)	(0.021)	(0.011)	(0.023)	(0.030)				

## TABLE C.1: AFD'S LANGUAGE CHANGE: DIFF-IN-DIFF ESTIMATES

*Notes:* Coefficients and standard errors (in brackets) from OLS regressions. In panel A the unit of observation is a manifesto, in panel B a speech, in panel C a Twitter post and in panel D a Facebook post. All regressions include party (AFD, CDU, CSU, FDP, Grüne, Die Linke, NPD, SPD) fixed effects. Panels A and B include year fixed effects, panels C and D month fixed effects. Number of observations: 70 (panel A), 113 (panel B), 66,422 (panel C) and 40,118 (panel D). One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

	(1) Greece	(2) Euro	(3) Islam	(4) Migration	(5) Nation
PANEL A: Mentions per 100 words in	manifesto	S			
Mean (overall)	0.005	0.140	0.030	0.264	0.610
Mean (all parties, pre-March 2015)	0.013	0.292	0.013	0.170	1.028
Mean (AfD)	0.015	0.401	0.046	0.405	0.963
Mean (AfD, pre-March 2015)	0.031	1.043	0.000	0.199	1.406
PANEL B: Mentions per 100 words in	speeches				
Mean (overall)	0.055	0.145	0.033	0.126	0.556
Mean (all parties, pre-March 2015)	0.088	0.235	0.023	0.074	0.498
Mean (AfD)	0.102	0.367	0.028	0.128	0.789
Mean (AfD, pre-March 2015)	0.216	0.703	0.000	0.105	0.697
PANEL C: Mentioned in Twitter posts					
Mean (overall)	0.011	0.021	0.010	0.043	0.086
Mean (all parties, pre-March 2015)	0.012	0.027	0.009	0.022	0.089
Mean (AfD)	0.053	0.133	0.009	0.027	0.113
Mean (AfD, pre-March 2015)	0.069	0.175	0.002	0.016	0.133
PANEL D: Mentioned in Facebook pos	ts				
Mean (overall)	0.019	0.055	0.024	0.088	0.230
Mean (all parties, pre-March 2015)	0.017	0.059	0.017	0.040	0.200
Mean (AfD)	0.064	0.184	0.044	0.166	0.371
Mean (AfD, pre-March 2015)	0.068	0.214	0.015	0.058	0.231

TABLE C.2: AFD'S LANGUAGE CHANGE: MEANS OF DEPENDENT VARIABLES (TABLE C.1)

*Notes:* Table reports means for five groups of words. These are the dependent variables in the diff-indiff regressions of Table C.1. Overall means (first row in each panel) and conditional means reported.

Greece	Euro	Islam	Migration	Nation
griechenland griechische griechischen griechenlands grieche griechesch griechenlandanleihen griechenlandanleihen	euro eurokrise euroraum ezb eurostaaten eurozone eurorettung euros eurobonds	islamischen muslime islam islamistische islamistischen islamische islamischer muslimen	zuwanderung flüchtlingen asyl migration einwanderung flüchtlingspolitik asylverfahren zuwanderer asylsuchende	deutschlands deutsche deutscher deutsch nationale national nationalen deutschen deutsches
griechenlandkrise	eurojust	muslimischen	einwanderer	nationaler

TABLE C.3: MOST FREQUENT WORDS (STEMS IN TABLE C.1)

Year	Manifesto type	Party	# of words	# of pages
2013	Federal election	AfD	3923	12
2013	Federal election	CDU/CSU	41367	81
2013	Federal election	FDP	38040	104
2013	Federal election	Grüne	86557	337
2013	Federal election	Linke	39011	100
2013	Federal election	NPD	3585	52
2013	Federal election	SPD	41003	120
2014	European Parliament election	AfD	8974	25
2014	European Parliament election	CDU/CSU	22020	84
2014	European Parliament election	FDP	10778	28
2014	European Parliament election	Grüne	22223	57
2014	European Parliament election	Linke	12971	76
2014	European Parliament election	SPD	6383	14
2014	Party platform	AfD	3143	14
2015	Resolution	FDP	6520	13
2015	Erfurter Resolution	AfD	630	3
2016	State election, Baden-Württemberg	AfD	19474	64
2016	State election, Baden-Württemberg	CDU/CSU	33658	156
2016	State election, Baden-Württemberg	FDP	20213	63
2016	State election, Baden-Württemberg	Grüne	50632	249
2016	State election, Baden-Württemberg	Linke	25084	44
2016	State election, Baden-Württemberg	NPD	6310	26
2016	State election, Baden-Württemberg	SPD	25232	41
2016	Guidelines	CDU/CSU	18117	47
2016	Guidelines	AfD	23846	96
2016	Guidelines	AfD	21892	78
2016	State election, Mecklenburg-A. Pomerania	AfD	6744	22
2016	State election, Mecklenburg-A. Pomerania	CDU/CSU	8464	27
2016	State election, Mecklenburg-A. Pomerania	FDP	21439	86
2016	State election, Mecklenburg-A. Pomerania	Grüne	21702	28
2016	State election, Mecklenburg-A. Pomerania	Linke	22124	54
2016	State election, Mecklenburg-A. Pomerania	NPD	2978	7
2016	State election, Mecklenburg-A. Pomerania	SPD	17426	48
2016	State election, Rhineland-Palatinate	AfD	7784	17
2016	State election, Rhineland-Palatinate	CDU/CSU	1815	8
2016	State election, Rhineland-Palatinate	FDP	31497	83
2016	State election, Rhineland-Palatinate	Grüne	39389	57
2016	State election, Rhineland-Palatinate	Linke	18830	57
2016	State election, Rhineland-Palatinate	NPD	1506	3
2016	State election, Rhineland-Palatinate	SPD	16737	56
2016	State election, Saxony-Anhalt	AfD	4867	68

### TABLE C.4: LIST OF POLITICAL MANIFESTOS

(Continued from previous page)

Year	Manifesto type	Party	# of words	# of pages
2016	State election, Saxony-Anhalt	CDU/CSU	19715	64
2016	State election, Saxony-Anhalt	FDP	2705	12
2016	State election, Saxony-Anhalt	Grüne	27260	76
2016	State election, Saxony-Anhalt	Linke	19222	44
2016	State election, Saxony-Anhalt	NPD	1750	6
2016	State election, Saxony-Anhalt	SPD	19070	53
2017	State election, North Rhine-Westfalia	AfD	12091	39
2017	State election, North Rhine-Westfalia	CDU/CSU	38115	120
2017	State election, North Rhine-Westfalia	FDP	24188	49
2017	State election, North Rhine-Westfalia	Grüne	82836	131
2017	State election, North Rhine-Westfalia	Linke	44709	132
2017	State election, North Rhine-Westfalia	NPD	8182	52
2017	State election, North Rhine-Westfalia	SPD	38163	116
2017	State election, Schleswig-Holstein	AfD	18053	56
2017	State election, Schleswig-Holstein	FDP	28952	117
2017	State election, Schleswig-Holstein	Grüne	34612	94
2017	State election, Schleswig-Holstein	CDU/CSU	23827	96
2017	State election, Schleswig-Holstein	Linke	24669	70
2017	State election, Schleswig-Holstein	SPD	21670	66
2017	State election, Saarland	AfD	9654	43
2017	State election, Saarland	CDU/CSU	25816	72
2017	State election, Saarland	FDP	6462	19
2017	State election, Saarland	Grüne	23263	70
2017	State election, Saarland	Linke	15468	34
2017	State election, Saarland	NPD	1895	8
2017	State election, Saarland	SPD	19303	52

TABLE C.5: NUMBER OF TWEETS

Month	AfD	CDU	CSU	FDP	Grüne	Linke	NPD	SPD
2008-04	3							
2008-05	28							
2008-06	29							
2008-07	12							
2008-08	77							
2008-09	52							
2008-10	47							
2008-11	102							
2008–12	27							

Month	AfD	CDU	CSU	FDP	Grüne	Linke	NPD	SPD
2009–01	139							
2009–02	14	51						
2009–03	38	30	48	22				
2009–04	25	79	54	18	78			
2009–05	53	74	1	150	86	105		
2009–06	84	72	307	191	47	94		
2009–07	30	88	129	28	77			
2009–08	27	49	88	32	168			
2009–09	118	69	329	373	34	201		
2009–10	21	22	53	18	25			
2009–11	23	17	36	21	60			
2009–12	13	15	21	1	11	32		
2010–01	25	17	27	1	20	47		
2010-02	26	26	36	12	45	55		
2010-03	27	23	50	10	63	46		
2010-04	20	19	53	1	46	52		
2010–05	25	23	35	56	156	66	38	
2010-06	34	28	61	77	11	67	55	
2010–07	30	19	45	27	10	56	44	
2010-08	23	27	44	26	3	98	22	
2010–09	38	17	71	56	7	110	130	
2010–10	36	42	70	49	10	140	153	
2010–11	63	22	54	75	21	153	173	
2010–12	25	17	43	29	4	136	151	
2011–01	46	29	90	43	28	199	123	
2011–02	35	42	111	70	16	179	146	
2011–03	50	69	52	77	26	200	155	
2011–04	25	28	39	34	151	73		
2011–05	50	67	133	63	1	154	171	
2011–06	36	42	26	78	3	163	118	
2011–07	26	31	27	41	170	118		
2011–08	31	30	24	27	208	128		
2011-09	45	58	22	57	5	222	179	
2011–10	43	46	22	58	271	222	133	
2011–11	154	23	50	67	18	235	91	
2011–12	27	26	17	21	16	309	205	
2012-01	39	52	10	31	38	398	137	
2012-02	28	77	3	49	37	461	103	
2012-03	32	93	16	71	48	346	171	
2012-04	24	27	18	54	29	268	101	
2012-05	71	102	12	108	34	274	99	
2012-06	40	93	8	118	286	232	81	

(Continued from previous page)

Month		CDU		FDP	Grüne	Linke	NPD	SPD
2012-07	31	54	6	72	22	313	71	
2012-08	33	33	12	33	39	167	78	
2012-09	86	40	17	137	27	270	83	
2012-10	137	37	150	24	61	13	184	171
2012-11	263	21	36	21	140	92	176	147
2012-12	159	108	32	8	18	18	243	125
2013-01	109	82	23	16	68	65	237	116
2013-02	105	21	43	14	60	139	184	45
2013-03	266	18	59	53	88	46	275	72
2013-04	133	15	29	28	444	19	273	93
2013-05	200	74	49	56	96	30	260	132
2013-06	73	115	30	15	148	281	222	123
2013-07	76	48	50	21	144	46	174	37
2013-08	172	42	30	43	158	92	311	173
2013-09	189	305	127	95	494	187	406	306
2013-10	111	17	1	9	222	21	239	42
2013–11	126	20	10	19	58	2	212	73
2013–12	84	50	1	126	25	223	40	
2014-01	86	37	2	98	90	2	263	55
2014-02	73	29	1	9	247	365	207	32
2014-03	76	70	32	4	53	47	283	84
2014-04	90	113	33	3	59	44	269	37
2014-05	94	206	36	127	193	234	273	184
2014-06	80	29	20	2	23	29	165	48
2014-07	67	44	33	10	14	24	235	45
2014-08	78	47	28	16	22	115	211	33
2014-09	66	140	83	4	30	100	194	108
2014-10	49	155	143	6	29	18	171	163
2014–11	29	139	121	10	129	9	220	117
2014–12	12	230	162	20	24	6	187	97
2015–01	14	67	131	26	19	47	246	107
2015-02	10	40	124	35	39	19	184	210
2015-03	23	36	148	38	23	54	174	105
2015-04	1	21	134	39	56	212	163	108
2015-05	4	44	103	249	37	79	138	109
2015-06	5	107	119	74	71	507	206	108
2015-07	3	91	177	30	35	156	151	41
2015-08	6	51	73	56	16	40	149	79
2015-09	12	125	119	53	42	52	206	107
2015-10	13	99	172	44	56	54	230	164
2015–11	5	53	184	62	135	56	263	72
2015–12	2	211	85	46	15	42	151	94

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Month	AfD	CDU	CSU	FDP	Grüne	Linke	NPD	SPD
2016-01	3	48	121	55	22	86	175	63
2016-02	5	70	105	47	21	133	217	84
2016-03	4	109	89	83	38	263	227	131
2016-04	4	36	127	252	17	98	228	71
2016-05	2	56	128	63	24	331	164	125
2016-06	1	99	95	53	52	134	180	134
2016-07	1	65	161	32	33	83	198	92
2016-08	14	63	50	20	12	51	191	83
2016-09	9	114	148	52	53	104	138	237
2016-10	7	60	174	99	87	46	129	126
2016-11	13	90	249	85	108	81	145	140
2016-12	11	99	99	84	17	107	160	142
2017-01	6	94	115	86	60	127	215	169
2017-02	13	86	104	66	34	77	142	124
2017-03	7	149	179	60	88	168	183	156
2017-04	120	115	94	144	64	53	144	84
2017-05	508	224	190	80	77	163	150	147
2017–06	295	108	88	66	162	394	133	173
2017-07	340	121	218	101	80	105	161	125
2017-08	329	382	210	162	174	184	139	276
2017-09	302	963	445	760	484	468	182	700
2017-10	89	202	63	82	73	58	143	27
2017–11	148	91	51	74	159	88	133	70
2017–12	168	79	138	66	12	64	87	206
2018-01	94	84	98	69	143	172	142	91
2018-02	95	235	133	60	34	80	120	61
2018-03	120	175	106	45	32	119	162	50
2018-04	106	106	75	33	48	98	128	81
2018-05	98	207	49	159	28	61	130	51
2018-06	110	364	54	65	33	386	122	50
2018-07	114	192	40	59	32	67	116	25
2018-08	66	83	132	45	11	33	91	36

 TABLE C.6: NUMBER OF FACEBOOK POSTS

Month	AfD	CDU	CSU	FDP	Grüne	Linke	NPD	SPD
2008–11					2			
2008-12					1			
2009–01					1	26		

Month	AfD	CDU	CSU	FDP	Grüne	Linke	NPD	SPD
2009–02					4	14		4
2009-03				16		11		12
2009-04				14	15	12		24
2009-05			4	30	42	18		19
2009-06			1	12	33	14		15
2009-07			2	6	22	8		12
2009-08			4	22	23	9		55
2009–09		26	10	34	56	105		46
2009-10		21	1	22	13			8
2009-11		25	5	7	12	2		36
2009–12		20	2	3	9	5		31
2010-01		21	2	10	13	5		48
2010-02		16	25	10	8	29	9	61
2010-03		12	12	14	26	18	50	69
2010-04		10	13	8	26	6	27	72
2010-05		11	12	13	27	164	51	53
2010-06		15	10	18	32	19	53	60
2010-07		15	11	15	11	10	47	49
2010-08		24	12	12	9	8	69	26
2010-09		35	9	13	31	23	92	44
2010-10		36	37	19	29	14	124	66
2010-11		65	10	16	32	23	145	61
2010-12		24	12	13	16	3	123	51
2011-01		55	12	19	25	25	177	48
2011-02		39	18	21	51	21	158	64
2011-03		57	28	17	77	39	174	102
2011-04		25	3	24	37	9	124	53
2011-05		52	16	42	63	18	112	121
2011-06		40	11	16	63	14	132	86
2011-07		29	6	18	42	35	146	82
2011-08		23	7	19	27	62	152	81
2011-09		53	28	22	54	14	163	98
2011-10		47	32	32	45	61	182	124
2011-11		64	41	42	59	26	164	69
2011-12		26	32	40	24	24	182	95
2012-01		30	23	46	33	34	263	103
2012-02		28	29	39	34	34	293	99
2012-03		35	55	47	54	46	197	124
2012–04		32	18	40	31	20	195	85
2012-05		40	19	29	51	32	231	95
2012-06		38	34	32	52	242	165	82
2012–07		27	43	31	44	30	202	68

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Month	AfD	CDU		FDP	Grüne	Linke	NPD	SPD
2012-08		32	6	29	37	23	108	77
2012-09		39	12	33	55	19	177	83
2012-10		41	21	38	57	14	155	138
2012-11		29	18	35	66	30	102	146
2012-12		42	18	24	26	19	170	77
2013-01		43	39	43	46	33	177	109
2013-02		18	35	30	47	28	139	63
2013-03	91	23	20	56	68	32	180	43
2013-04	89	19	22	32	70	29	197	37
2013-05	66	51	12	49	74	27	168	63
2013-06	83	50	33	36	81	168	139	68
2013-07	88	45	40	50	82	36	113	48
2013-08	74	49	34	60	95	49	222	85
2013-09	78	129	41	76	146	70	265	204
2013-10	60	16	2	39	39	15	154	27
2013–11	62	26	10	39	58	18	129	52
2013–12	57	38	2	59	30	14	132	45
2014-01	63	30	3	66	67	12	156	23
2014-02	67	29	6	49	35	80	133	48
2014-03	57	39	43	61	38	18	186	101
2014-04	59	52	29	46	22	22	169	80
2014-05	76	88	43	71	32	66	182	150
2014-06	62	27	12	44	14	13	131	31
2014-07	51	30	21	55	9	21	177	39
2014-08	61	36	18	65	14	23	202	52
2014-09	52	59	46	56	16	52	141	71
2014–10	46	55	45	56	14	26	131	76
2014–11	38	48	47	50	18	23	163	81
2014–12	36	65	55	50	14	18	153	68
2015-01	68	54	56	54	17	47	174	70
2015-02	43	31	61	52	16	19	130	93
2015-03	39	29	62	61	20	38	139	69
2015-04	43	23	60	70	19	34	132	71
2015-05	43	21	60	79	18	27	115	68
2015-06	53	46	74	54	20	59	153	63
2015-07	65	36	69	57	10	31	117	52
2015-08	37	21	56	59	7	20	113	58
2015-09	39	33	75	68	13	38	179	70
2015–10	55	46	66	53	12	26	185	69
2015–11	48	29	66	57	20	23	220	41
2015–12	26	39	50	59	14	15	121	44
2016-01	43	28	59	67	16	25	145	39

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(Continued	trom	11207110110	naagl
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Month	AfD	CDU	CSU	FDP	Grüne	Linke	NPD	SPD
2016-02	44	30	53	61	11	30	163	63
2016-03	57	34	55	68	21	39	165	77
2016-04	47	35	48	90	7	27	184	48
2016-05	45	28	59	59	14	40	109	59
2016-06	50	54	55	57	18	34	117	56
2016-07	57	27	72	68	10	28	127	55
2016-08	59	30	48	68	11	29	125	45
2016-09	67	38	64	66	26	31	88	54
2016-10	74	30	52	65	23	21	97	49
2016-11	65	27	74	69	28	23	101	46
2016-12	50	29	71	70	25	27	111	48
2017-01	48	43	60	64	32	27	188	64
2017-02	58	44	59	72	35	34	126	39
2017-03	73	55	73	79	44	41	155	54
2017-04	74	47	59	80	32	26	106	47
2017-05	87	53	78	79	37	32	109	53
2017–06	79	50	61	67	54	44	118	64
2017–06	1							
2017-07	4	2	1	3	2			
2017-08	12	14	6	11	8	6	4	12
2017-09	21	18	9	16	18	13	3	21
2017-10	4	1	4	1	1			
2017–12	4							

*Notes:* After 2017–06, the number of facebook posts goes down because Facebook limited ability to scrape page histories.

## D Additional Results, Electoral Analysis

In this section we conduct additional analyses regarding our electoral results. In Table D.1 we show that our argument about cultural persistence explaining the recent success of the AfD also holds for the differenced dependent variable, AfD vote shares  $\Delta$  2017-2013. In Table D.2 we show that results from including controls carry through when the number of observations is held constant throughout all specifications. In Table D.3 we show that the patterns investigated through the simple cross-sectional regressions of Figure 5 also hold when aggregating the data to a municipality-level panel. We regress far-right electoral shares for all federal election years on the standardized measure of 1933 NSDAP votes, and on the 1933 NSDAP votes interacted with an indicator for the 2017 elections. Note that the inclusion of municipality fixed effects in even-numbered columns is irrelevant, as the interaction term of interest is orthogonal to municipalities.

	(1)	(2)	(3)	(4)	(5)	(6)
Unemployment, 2016 [std.]	0.0477*** (0.0104)					0.0340*** (0.0110)
Unemployment, $\Delta$ 2017-2007 [std.]		-0.1597*** (0.0142)				-0.1364*** (0.0151)
Trade Exposure, $\Delta$ 2008-1998 [std.]			-0.0185*** (0.0044)			-0.0290*** (0.0044)
Share Refugees, 2016 [std.]				-0.0427*** (0.0063)		-0.0396*** (0.0066)
NSDAP 1933 [std.]					0.0795*** (0.0058)	0.0725*** (0.0058)
Partial R <sup>2</sup> R <sup>2</sup>	0.013 0.661	0.025 0.666	0.0091 0.659	0.0072 0.660	0.014 0.663	0.675
Observations	10861	10963	10936	10885	10963	10831

### Table D.1: Economic VS. Historic Determinants of $\Delta$ 2017-13 AfD Vote Share

*Notes:* The dependent variable is the (standardized) difference of vote share for the AfD between 2017 and 2013, relative to all eligible voters. All reported explanatory variables are also standardized. All regressions contain a full set of state fixed effects. Sample consists of German municipalities, excluding the Saarland and city states. Standard errors are clustered at the standardized 2017 AfD gross vote shares. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

# **TABLE D.2:** RESULTS INCLUDING CONTROLS- IDENTICAL NUMBER OF OBSERVATIONS

	(1) Baseline	(2) Population	(3) Employment	(4) Religion				
PANEL A: With historical controls								
NSDAP 1933 [std.]	0.0830*** (0.0210)	0.0881*** (0.0209)	0.0773*** (0.0213)	0.0505** (0.0200)				
Observations	7873	7873	7873	7873				
PANEL B: With contemporary controls								
NSDAP 1933 [std.]	0.0830*** (0.0210)	0.0685*** (0.0232)	0.0818*** (0.0206)	0.0456** (0.0216)				
Observations	7873	7873	7873	7873				
PANEL C: With historical and contemporary controls								
NSDAP 1933 [std.]	0.0830*** (0.0210)	0.0733*** (0.0230)	0.0726*** (0.0206)	0.0397* (0.0224)				
Observations	7873	7873	7873	7873				

Notes: The dependent variable is the (standardized) change in vote share for the AfD (relative to eligible voters) from 2013 to 2017. Each column adds a different set of control variables. However, sample is restricted to observations where all control variables are non-missing. The explanatory variable across all columns is the 1933 NSDAP vote share (standardized). Population controls are: [historical] log population size (1933); [contemporary] log population size in 2015 and urbanization code dummies (3 categories). Employment controls are: [historical] shares of employed in industry and manufacturing, employed in trade and commerce, and employed in administration (agriculture and "other sectors" is the omitted category), all measured in 1925, as well as the unemployment share in 1933; [contemporary] the unemployment rate in 2015. Religion controls are: [historical] the share of Catholics and Jews; [contemporary] the share of Catholics and "Others" (i.e., Muslims, other religions, and no religion). Sample includes municipalities in all German states apart from city states (Berlin, Hamburg, and Bremen), and the Saarland. All regressions contain a full set of state fixed effects. Standard errors are clustered at the level of historic municipalities/counties. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

	(1)	(2)	(3)	(4)	
		olute vote share	Standardised far-right vote share		
NSDAP 1933 [std.]	0.0009*** (0.0002)		0.0254*** (0.0046)		
NSDAP 1933 [std.] × 2017	0.0024*** (0.0008)	0.0024*** (0.0007)	0.0646*** (0.0215)	0.0646*** (0.0197)	
<i>R</i> <sup>2</sup>	0.850	0.916	0.850	0.916	
Observations	65906	65906	65906	65906	
State-Year FEs	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Municipal FEs		$\checkmark$		$\checkmark$	

#### TABLE D.3: PERSISTENCE OF FAR RIGHT VOTE SHARE

*Notes:* The dependent variables are vote shares for far-right parties (NPD, DVU, Republikaner, Die Rechte, and AfD in 2017). The sample includes modern municipalities in all German states apart from city states (Berlin, Hamburg, and Bremen), and the Saarland. Municipalities are projected to 2015 borders using population-weighted raster techniques (cf. Appendix Section A.3 for more detail). Standard errors are clustered at the level of the historical vote shares. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

# E Additional Results, Survey Evidence from ALLBUS

In this section we conduct additional analyses regarding our survey results from the Allbus data. In Table E.1 we show that results are robust to collapsing the individual-level data on the municipality level and using residualized on individual-level controls. Table E.2 adds the share of expellees to show robustness. Table E.3 uses equal weights for the indices. Table E.4 both uses municipalities as unit of observation and equal weights in indices. Table E.5 shows the relationship between indices and voting intention for the AfD in 2016. In Table E.6 we show that left-right self-evaluation predicts AfD voting intention positively and significantly in 2016, but negatively in 2014. This change does not occur for the NPD, a more extreme far-right party. Finally, subsection E.1 provides a detailed overview of the questions used for the indices.

Dependent variable:	Xenophobia (Immigration)	Xenophobia (Equal Rights)	Xenophobia (Marriage/ Neighbour)	Islam at School	Antisemitism	Disenchantment with politicians	Gender Attitudes Index 1	Gender Attitudes Index 2	Left-Right Self-Evaluation	Pride to be German	Summary Index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Panel A: municipal lev	el, without	controls									
NSDAP 1933 [std.]	0.0539** (0.0248)	0.0653** (0.0283)	0.0325 (0.0288)	0.0481*** (0.0126)	0.0128 (0.0365)	0.0104** (0.00445)	0.031 (0.0326)	0.0058 (0.0159)	0.0025 (0.00201)	0.0107 (0.0117)	0.0772** (0.0336)
NSDAP $\times$ 2016	-0.0428 (0.0597)	-0.0663 (0.0466)	-0.1277** (0.0559)	-0.017 (0.0186)	0.0427 (0.0559)	0.0245* (0.0127)	0.0472 (0.0446)	0.0298 (0.0364)	0.0014 (0.00583)	-0.0246 (0.0153)	0.0505 (0.0584)
Observations	437	437	437	437	437	1315	293	878	2049	437	436
Panel B: residualized of	n individual	l-level contr	ols								
NSDAP 1933 [std.]	0.0251 (0.0232)	0.0351 (0.0261)	0.0117 (0.0287)	0.0434*** (0.0121)	-0.0226 (0.0374)	0.0026 (0.0041)	0.041 (0.0357)	0.0031 (0.0161)	0.0017 (0.0022)	0.0043 (0.0118)	0.0461* (0.0276)
NSDAP $\times$ 2016	-0.0112 (0.0536)	-0.0379 (0.0492)	-0.1085* (0.0578)	-0.0203 (0.0178)	0.0635 (0.0558)	0.0253** (0.012)	0.0483 (0.0503)	0.0246 (0.0402)	0.0018 (0.0062)	-0.0189 (0.0158)	0.0682 (0.0539)
Observations	436	436	437	437	436	1315	292	878	2040	437	435

# TABLE E.1: SURVEY RESULTS: ATTITUDES REMAIN CONSTANT

*Notes:* Individual survey data from Allbus. Indices in columns 1-3, 5, 7-8, and 11 are weighted indices. All regressions contain a full set of state fixed effects. Standard errors are clustered at the level of historical vote shares. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

Dependent variable:	Xenophobia (Immigration)	Zerophobia (Equal Rights)	Xenophobia (Marriage/ Neighbour)	Islam at School	Antisemitism	Disenchantment with politicians	Gender Attitudes Index 1	Gender Attitudes Index 2	Elf-Evaluation	Pride to be German	E Summary Index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Panel A: individual-level, with	controls ar	id interactio	on with exp	ellees							
NSDAP 1933 [std.]	0.0404*	0.0345	0.0115	0.0367***	-0.0025	0.0049	0.0181	-0.0115	-0.002	0.0021	0.0479*
	(0.0235)	(0.0268)	(0.0281)	(0.0131)	(0.0349)	(0.0039)	(0.0308)	(0.0149)	(0.0021)	(0.0112)	(0.0252)
NSDAP $\times$ 2016	-0.0251	-0.0514	-0.0926*	-0.0135	0.0226	0.0197	0.0608	0.043	0.0022	-0.0191	-0.0063
	(0.0484)	(0.0475)	(0.0551)	(0.0177)	(0.0545)	(0.0123)	(0.0442)	(0.0333)	(0.0067)	(0.0152)	(0.0532)
Share Expellees 1950s [std.]	-0.0236	0.0564	0.0524	0.0102	0.0563	-0.0026	-0.0065	0.0868***	0.0236***	0.0088	0.0681
	(0.0574)	(0.0479)	(0.0489)	(0.0198)	(0.0578)	(0.0067)	(0.0619)	(0.0261)	(0.004)	(0.0212)	(0.0473)
NSDAP $\times$ Expellees	-0.0446*	0.0027	-0.0196	-0.0035	-0.0155	-0.0013	-0.0173	-0.0098	-0.001	-0.0013	0.0079
	(0.0243)	(0.0258)	(0.0288)	(0.0108)	(0.0273)	(0.0038)	(0.0289)	(0.0145)	(0.0023)	(0.011)	(0.0236)
Observations	5446	6825	6798	8301	6043	23793	2913	13476	31182	7791	5201

## TABLE E.2: SURVEY RESULTS: ATTITUDES REMAIN CONSTANT

*Notes:* Individual survey data from Allbus. Indices in columns 1-3, 5, 7-8, and 11 are weighted indices. All regressions contain a full set of state fixed effects. Standard errors are clustered at the level of historical vote shares. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

Dependent variable:	Xenophobia (Immigration)	Xenophobia (Equal Rights)	Xenophobia (Marriage/ Neighbour)	Islam at School	Antisemitism	Disenchantment with politicians	Gender Attitudes Index 1	Gender Attitudes Index 2	Left-Right Self-Evaluation	Pride to be German	Summary Index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Panel A: individual lex	vel, without	controls, eq	ual weights	in indices							
NSDAP 1933 [std.]	0.0108** (0.0042)	0.0169** (0.074)	0.0064 (0.0050)	0.0439*** (0.0121)	0.0100 (0.0072)	0.0108*** (0.0041)	0.0011 (0.0078)	0.0002 (0.005)	0.002 (0.002)	0.0109 (0.0106)	0.0162*** (0.005)
NSDAP $\times$ 2016	-0.0059 (0.0088)	-0.0185 (0.0119)	-0.0184* (0.0095)	-0.0132 (0.0173)	0.0009 (0.0108)	0.0203* (0.012)	0.021* (0.0124)	0.013 (0.0102)	0.0022 (0.0064)	-0.0281* (0.0155)	-0.0070 (0.0099)
Observations	6632	8290	8305	10100	7305	28255	3411	16036	36957	9434	6227
Panel B: with individu	al-level cont	rols, equal a	weights in i	ndices							
NSDAP 1933 [std.]	0.0062 (0.0038)	0.0096 (0.0072)	0.0025 (0.0053)	0.0380*** (0.0124)	0.0031 (0.0071)	0.0046 (0.0038)	0.0047 (0.0087)	-0.0003 (0.0045)	0.0005 (0.002)	0.0053 (0.011)	0.0111*** (0.0043)
NSDAP $\times$ 2016	-0.0032 (0.0079)	-0.0129 (0.0124)	-0.0161 (0.01)	-0.0149 (0.0173)	0.0024 (0.0107)	0.0194 (0.012)	0.0178 (0.0135)	0.0111 (0.0097)	0.0037 (0.0067)	-0.0261 (0.0164)	-0.0053 (0.0092)
Observations	5714	7149	7122	8701	6344	24873	3065	14086	32625	8152	5463

TABLE E.3: SURVEY RESULTS: ATTITUDES REMAIN CONSTANT

*Notes:* Individual survey data from Allbus. Indices in columns 1-3, 5, 7-8, and 11 are equally weighted. All regressions contain a full set of state fixed effects. Standard errors are clustered at the level of historical vote shares. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

TABLE F 4. SURVEY RESULTS.	ATTITUDES REMAIN CONSTANT
TABLE L.4. JUNVET RESULTS.	ATTTUDES REMAIN CONSTANT

Dependent variable:	Xenophobia (Immigration)	Xenophobia (Equal Rights)	Xenophobia (Marriage/ Neighbour)	Islam at School	Antisemitism	Disenchantment with politicians	Gender Attitudes Index 1	Gender Attitudes Index 2	Left-Right Self-Evaluation	Pride to be German	Summary Index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Panel A: municipal lev	vel, without c	ontrols, equi	ıl weights in	indices							
NSDAP 1933 [std.]	0.0109** (0.00428)	0.0156** (0.00772)	0.00596 (0.00544)	0.0481*** (0.0126)	0.00483 (0.00773)	0.0104** (0.00445)	0.00838 (0.0101)	0.00121 (0.00484)	0.0025 (0.00201)	0.0107 (0.0117)	0.0146** (0.00602)
NSDAP $\times$ 2016	-0.00647 (0.00969)	-0.0170 (0.0123)	-0.0226** (0.0104)	-0.017 (0.0186)	0.00947 (0.0113)	0.0245* (0.0127)	0.0157 (0.0140)	0.00831 (0.0106)	0.0014 (0.00583)	-0.0246 (0.0153)	0.00545 (0.0101)
Observations	437	437	437	437	437	1315	293	878	2049	437	436
Panel B: residualized o	n individual-	level control	ls, equal weig	ghts in indice	 ?S						
NSDAP 1933 [std.]	0.0056 (0.0038)	0.0079 (0.0074)	0.0020 (0.0054)	0.0434*** (0.0121)	-0.0033 (0.0079)	0.0026 (0.0041)	0.0122 (0.0111)	0.0000 (0.0048)	0.0017 (0.0022)	0.0043 (0.0118)	0.0092* (0.0050)
NSDAP $\times$ 2016	0.0007 (0.0084)	-0.0101 (0.0130)	-0.0193* (0.0107)	-0.0203 (0.0178)	0.0116 (0.115)	0.0253** (0.012)	0.0152 (0.0157)	0.0069 (0.0115)	0.0018 (0.0062)	-0.0189 (0.0158)	0.0083 (0.0093)
Observations	436	436	437	437	436	1315	292	878	2040	437	435

*Notes:* Individual survey data from Allbus. Indices in columns 1-3, 5, 7-8, and 11 are equally weighted indices. All regressions contain a full set of state fixed effects. Standard errors are clustered at the level of historical vote shares. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Xenophobia (Immigration)	0.0571*** (0.0147)							
Xenophobia (Marriage/ Neighbour)		0.0399*** (0.0069)						
Islam at School			0.0697*** (0.0139)					
Antisemitism				0.0620*** (0.0099)				
Disenchantment with politicians					0.0771*** (0.0084)			
Gender Attitudes Index 1						-0.0010 (0.0044)		
Gender Attitudes Index 2							0.0012 (0.0028)	
Left-Right Self-Evaluation								0.0928*** (0.0128)
Observations	755	1652	3410	1445	3360	3490	3490	3490

### TABLE E.5: INDICES AND AFD VOTING INTENTION, 2016

*Notes:* The dependent variable is an indicator of voting intention for the AfD in 2016. Individual survey data from Allbus (2016 cross-section). All regressions contain a full set of state fixed effects. Controls include a dummy for former East Germany, age, marriage status, gender, and income categories. Robust standard errors are used in all specifications. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

	(1) AfD	(2) NPD
Left-Right Self-Evaluation	-0.0094*** (0.0028)	0.0228*** (0.0025)
Left-right self-evaluation $\times$ 2016	0.1516*** (0.0104)	0.0021 (0.0039)
Observations	41445	41445

#### TABLE E.6: LEFT-RIGHT SELF-EVALUATION AND AFD VOTING INTENTION, 2014-2016

*Notes:* The dependent variable is an indicator of voting intention for the AfD (column 1) and the NPD (column 2). Individual survey data from Allbus (panel for 2014 and 2016). All regressions contain a full set of state fixed effects. Controls include a dummy for former East Germany, age, marriage status, gender, and income categories. Robust standard errors are used in all specifications. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.

# E.1 Questions in Indices from Allbus Survey

	A: XENOPHOBIA (IMMIGRATION)
Question set 1: Opi	nions on Immigration
Preamble:	The next question is about the immigration of various groups of people to
D 11.1	Germany. What is your opinion about this?
Possible Answers:	Immigration should be unrestricted; Immigration should be restricted; Im-
A.1.1	migration should be stopped completely What about ethnic Germans from Eastern Europe?
A.1.2	Asylum Seekers?
A.1.3	People from EU countries coming to work here?
A.1.4	People from non-EU countries, e.g. Turkey, coming to work here?
Question set 2: Ger	man citizenship
Preamble:	I will tell you a few things which may play a role in the decision whether or
	not to grant German citizenship. Using the scale, please tell me how impor-
	tant these things should be in your opinion.
Possible Answers:	Scale (1 to 7): not at all important – very important
A.2.1	Whether the person was born in Germany
A.2.2	Whether the person is of German origin
A.2.3	Whether the person is fluent in German
A.2.4	Whether the person has lived in Germany a long time
A.2.5	Whether the person is prepared to adapt to the German way of life
A.2.6	Whether the person belongs to a Christian denomination
A.2.7	Whether the person has committed any crimes
A.2.8	Whether the person can support himself or herself
Question 3: Strange	er in one's own country
Preamble:	To what extent do you agree with the following statements?
Possible Answers:	Scale (1 to 7): completely disagree – completely agree
A.3.1	With so many foreigners in Germany, one feels increasingly like a stranger in one's own country
	B: XENOPHOBIA (EQUAL RIGHTS)
Question set 1: Opi	nions on foreigners' rights
Preamble:	This question is about foreigners who live in Germany. Please tell me for each
	statement to what extent you agree with it.
Possible Answers:	Scale (1 to 7): Completely disagree – completely agree
B.1.1	Foreigners living in Germany should be able to acquire German citizenship
	without having to give up their own citizenship, i.e. dual citizenship should
	be possible
B.1.2	Foreigners living in Germany should be entitled to the same welfare benefits
	and other social entitlements as Germans.
	Continued on next page

<b>D</b> .1.5	international international structure function and fights as Germanis intervery
	respect.
B.1.4	Ethnic Germans from Eastern Europe living in Germany should have the
	same rights as Germans in every respect
B.1.5	Asylum-seekers living in Germany should have the same rights as Germans
	in every respect.
B.1.6	Turkish people living in Germany should have the same rights as Germans
	in every respect.
	C: XENOPHOBIA (MARRIAGE/ NEIGHBOUR)
Ouestion set 1: Oni	inions on foreigners as neighbours
Question set 1. Opi	
Preamble:	How pleasant or unpleasant would it be for you to have members of these groups as neighbours?
Possible Answers:	Scale (-3 to +3): would be very unpleasant for me – would be very pleasant for me
C.1.1	an Italian person as a neighbour?
C.1.2	an ethnic German from Eastern Europe as a neighbour?
C.1.2 C.1.3	1 0
	an asylum-seeker as a neighbour?
C.1.4	a Turkish person as a neighbour?
Question set 2: Opi	inions on foreigners marrying into family
Preamble:	And what if a member of one of these groups married into your family? To
	what extent would it be pleasant or unpleasant for you
Possible Answers:	Scale (-3 to +3): would be very unpleasant – would be very pleasant
C.2.1	if an Italian person married into your family?
C.2.2	if an ethnic German from Eastern Europe married into your family?
C.2.2 C.2.3	if an asylum-seeker married into your family?
C.2.4	if a Turkish person married into your family?
	D: ISLAM AT SCHOOL
Preamble:	It is being debated whether there should be Islamic religious instruction for
	Muslim children in state schools.
Possible Answers:	Islamic religious instruction too; Only Christian religious instruction; No re-
	ligious instruction at all
1 ת	0
D.1	What is your opinion about this: In state schools in Germany, there should be
	E: ANTISEMITISM
Question set 1: Opi	inions on Jewish people
Preamble:	Every now and then, one hears different opinions about Jewish people. Would you please tell me to what extent you agree or disagree with these statements?
	Continued on next page

B.1.3 Italians living in Germany should have the same rights as Germans in every

Continued on next page

Possible Answers:	Scale (1 to 7): completely disagree - completely agree
E.1.1	As a result of their behaviour, Jewish people are not entirely without blame for being persecuted?
E.1.2	Jewish people have too much influence in the world?
E.1.3	Many Jewish people try to take personal advantage today of what happened during the Nazi era and make Germans pay for it.?
E.1.4	Jewish people living in Germany should have the same rights as other Germans in every respect.?
E.1.5	I'm ashamed that Germans have committed so many crimes against Jewish people.
Question 2: Opinio	ns on Jewish people as neighbours
Preamble:	How pleasant or unpleasant would it be for you to have members of these groups as neighbours?
Possible Answers:	Scale (-3 to +3): would be very unpleasant for me – would be very pleasant for me
D.2.1	A Jewish person as a neighbour?
	F: DISENCHANTMENT WITH POLITICIANS
Preamble:	I'm going to read you some statements now. Please tell me after each one whether you have the same or a different opinion.
Possible Answers:	Have the same opinion; have a different opinion; don't know
F.1	Most politicians are not really interested at all in the problems of ordinary people
	G: GENDER ATTITUDES INDEX 1
Preamble:	People have different opinions about the role of mothers and fathers. For each of the following statements please tell me whether you -
Possible Answers:	completely agree; tend to agree; tend to disagree; completely disagree
G.1	Even if both parents work, it is still better if the mother has main responsibil- ity for looking after the home and children
G.2	The best way to organise family and work life is for both partners to work full-time and to look after the home and children equally.
G.3	A full-time working mother can normally establish just as close a relationship
	with her small child as a mother who doesn't work.
	H: GENDER ATTITUDES INDEX 2
Preamble:	People have different opinions about the role of women in the family and in bringing up children. For each of the statements on the card, please tell me
Possible Answers: H.1	whether you - completely agree; tend to agree; end to disagree; completely disagree A working mother can establish just as loving and secure a relationship with her children as a mother who doesnt work.
	Continued on next page

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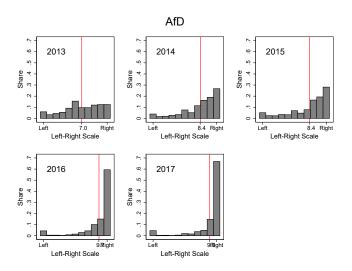
H.2 H.3	Its more important for a wife to help her husband with his career than to pursue her own career. A married woman should not work if there are not enough jobs to go round and her husband is also in a position to support the family.
	I: LEFT-RIGHT SELF-EVALUATION
Preamble:	Many people use the terms left and right when they want to describe different political views. Here we have a scale which runs from left to right.
Possible Answers:	Scale (1 to 10)
I.1	Thinking of your own political views, where would you place these on this scale?
	J: PRIDE TO BE GERMAN
Possible Answers: J.1	very proud; fairly proud; not very proud; not at all proud Would you say you are very proud, fairly proud, not very proud or not at all proud to be German?

*Notes:* We coded answers into variables ranging from 0 to 1, with 1 corresponding to more right-wing/conservative responses.

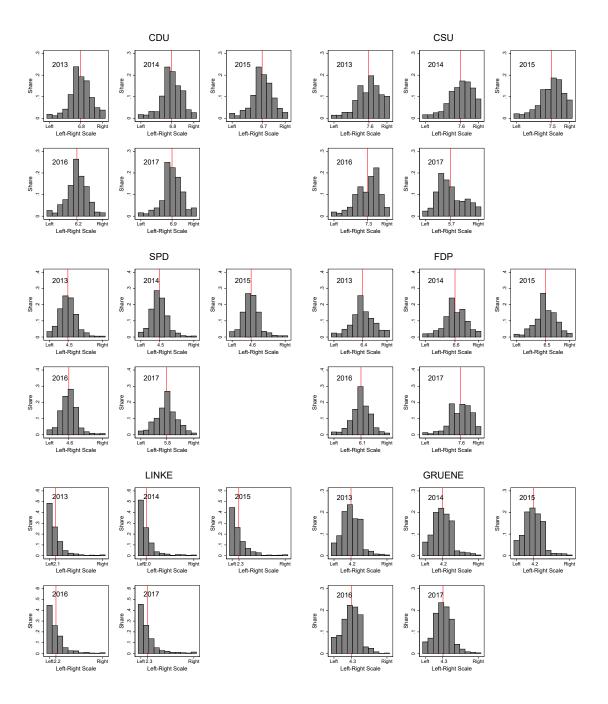
# F Additional Results, Survey Evidence from GLES

In this section we provide detail on our analyses based on survey data from GLES. Figure F.1 shows histograms for the evaluation of the AfD on a left-right scale for all years between 2013-2017. Figure F.2 shows similar histograms for all other main German parties for comparison. Table F.1 shows that left-right self-evaluation of children is highly correlated to that of their parents. This correlation is even higher in small communities.





*Notes:* The graphs show where GLES survey respondents placed the AfD on the left-right spectrum. The graphs plot histograms for all years during 2013-2017. Red lines in the graph represent means.



## FIGURE F.2: SURVEY EVIDENCE ON PARTY ORIENTATION - OTHER PARTIES

*Notes:* The graphs show where GLES survey respondents placed different political parties on the left-right spectrum. The graphs plot histograms for all main German political parties during 2013-2017. Red lines in the graph represent means.

	Both		Moth	er	Fathe	er
—	(1)	(2)	(3)	(4)	(5)	(6)
Parent(s)	0.612***	0.539***	0.556***	0.458***	0.507***	0.480***
Parent(s) x <i>I</i> <sub>small</sub>	(0.020)	$(0.054) \\ 0.124^* \\ (0.065)$	(0.018)	(0.051) $0.137^{**}$ (0.060)	(0.019)	(0.049) 0.039 (0.059)
I <sub>small</sub>		(0.003) -0.389 (0.340)		(0.000) -0.415 (0.311)		(0.039) 0.146 (0.305)
Observations Adjusted R <sup>2</sup>	2,893 0.265	1,351 0.275	3,270 0.246	1,514 0.249	3,410 0.207	1,613 0.211

TABLE F.1: CORRELATIONS BETWEEN THE POLITICAL ATTITUDES OF CHILDREN AND PARENTS

*Notes:* The table shows the results of regressing an individual's political attitude on the political attitude of her parent(s), interacted with an indicator for neighbourhood size. Political attitude is measured as imputed value on a left-right scale: based on the underlying party identification as indicated by the interviewee in the GLES, the party's corresponding left-right value (taken from Parlgov.org) is assigned. In columns (1) and (2), the independent variable is the mean value of the political attitudes of the mother and the father; in columns (3) and (4), the independent variable is the mother's political attitude; in columns (5) and (6), it is the father's political attitude.  $I_{small}$  is an indicator variable for whether the individual lives in a rural area, village, or small or medium-sized town. All regressions include an intercept (not shown). Robust White standard errors are in parentheses. One, two and three stars represent significance at the 10%, 5%, and 1% levels respectively.