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Alkis Henri Otto, Max Friedrich Steinhardt

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Alkis Henri Otto  
HWWI and HSBA  
Heimhuder Str. 71 | 20148 Hamburg | Germany  
Phone +49 (0)40 34 05 76 - 332 | Fax +49 (0)40 34 05 76 - 776  
otto@hwwi.org

Max Friedrich Steinhardt  
HWWI  
Heimhuder Str. 71 | 20148 Hamburg | Germany  
Phone +49 (0)40 34 05 76 - 662 | Fax +49 (0)40 34 05 76 - 776  
steinhardt@hwwi.org

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Hamburg Institute of International Economics (HWWI)  
Heimhuder Str. 71 | 20148 Hamburg | Germany  
Phone: +49 (0)40 34 05 76 - 0 | Fax: +49 (0)40 34 05 76 - 776  
info@hwwi.org | [www.hwwi.org](http://www.hwwi.org)  
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# Immigration and Election Outcomes - Evidence from City Districts in Hamburg\*

Alkis Henri Otto<sup>†</sup>

Max Friedrich Steinhardt<sup>‡</sup>

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## Abstract

This paper provides new evidence on the effect of immigration on election outcomes. Our analysis makes use of data on city districts in Hamburg, Germany, during a period of substantial inflows of immigrants and asylum seekers. We find significant and robust effects for changes in foreigner shares on the electoral success of parties that built up a distinctive reputation in immigration politics. In particular, our fixed-effects estimates indicate a positive effect for xenophobic, extreme right-wing parties and an adverse effect for the Green party that actively campaigned for liberal immigration policies and minority rights. Overall, our results support the hypothesis that changes in local compositional amenities shape individual attitudes towards immigration.

*JEL Classification:* D72, J15, R23.

*Keywords:* immigration, elections, xenophobia.

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<sup>†</sup>Hamburg Institute of International Economics (HWWI), Hamburg School of Business Administration (HSBA), email: [alkis.otto@hsba.de](mailto:alkis.otto@hsba.de)

<sup>‡</sup>HWWI, Centro Studi Luca d’Agliano (LdA), email: [steinhardt@hwwi.org](mailto:steinhardt@hwwi.org)

# 1 Introduction

Recent elections campaigns in European countries have demonstrated that immigration is still a major topic which generates strong emotional reactions in broad sections of the population. In many countries the electorate has increasingly supported anti-immigration parties. For example, in Denmark the Danish People Party came into political power advocating restrictive immigration policies and campaigning against multiculturalism. Similar developments took place in the Netherlands and Hungary, where anti-immigrant parties have gained strong political support. The growing literature on individual attitudes and immigration has stressed the role of economic interests in shaping individual preferences on immigration (among others Hanson, Scheve & Slaughter (2007), Gang, Rivera-Batiz & Yun (2010), Facchini & Mayda (2009)). In particular, these studies highlight that attitudes towards immigration are shaped both by labour market and welfare state conditions. Through the first channel, individual attitudes depend on the actual and potential wage effects of immigration. Natives who are substitutes for immigrants expect a negative wage effect and therefore are likely to oppose immigration. In contrast, natives who enjoy a complementary relationship to immigrants are likely to support liberal immigration policies due to potential wage benefits. As for the welfare state channel, attitudes depend on the distributional effect of immigration through transfers and taxes. For example, in countries characterized by unskilled immigration, a redistributive tax system and adjustable tax rates support for immigration tends to decrease with individual income (Facchini & Mayda (2009)).

In addition, the literature highlights the importance of non-economic determinants of individual attitudes on immigration. This third channel takes into account that public opinions on immigration also might be shaped by social and cultural considerations of the native population. For example, Mayda (2006) finds in a cross-country comparison that having a strong national identity is negatively associated with pro-immigration attitudes. Recent findings of Dustmann & Preston (2007) for

the UK underscore that racial prejudices are an important determinant of attitudes on immigration. Moreover, inflows of foreigners into a region are likely to imply non-economic externalities for the native population shaping public opinions on immigration (Card, Dustmann & Preston (2012)). In principle, rising concentrations of immigrants within an area can affect native attitudes on immigration in two ways: they could either help to reduce existing prejudices towards foreigners through intercultural exchange and communication (contact hypothesis) or they could be perceived as a threat to the culture and identity of the native population (group conflict theory) (Dustmann & Preston (2001)). It is reasonable to assume that both effects matter, however, a priori the overall effect on native attitudes towards immigration is not obvious. Findings from the British Social Attitudes Survey indicate that the negative identity effect outweighs positive effects of interethnic contacts. This holds particularly true, if one considers the endogenous nature of location decisions (Dustmann & Preston (2001)). Recent results based on data from the European Social Survey show that concerns about migration induced changes in local compositional amenities explain most of the differences in attitudes towards immigration policy across natives (Card et al. (2012)). In line with this, Lubbers & Scheepers (2001) in their study on voting intentions in Germany find that regional concentrations of immigrants are likely to influence support for right-wing parties.

The aim of this paper is to provide evidence on how far the relationship between ethnic concentration and attitudes on immigration does transfer into policy outcomes. For this purpose, we make use of a unique data set on city districts in Hamburg covering the period 1987 to 1998. During this time, Germany experienced a strong change in its ethnic composition due to large inflows of immigrants and asylum seekers. In particular, German cities, including Hamburg, have seen ethnic diversity in their populations increase substantially. As a consequence, immigration issues gained importance in the political sphere. In our analysis, we focus on the local outcomes of federal and national elections in 103 city districts. Our data set covers a wide range of aggregate socio-demographic characteristics collected on a yearly basis including

information on the local concentration of foreigners. In line with the group conflict theory, we find a positive relationship between growing concentration of foreigners and share of votes for the extreme right wing. Results similar to ours are found by Gerdes & Wadensjö (2010) and Harmon (2012) looking at municipal elections in Denmark. Furthermore, our analysis suggests that an increasing concentration of foreigners within a district reduces support for parties that campaign for liberal immigration policies and minority rights. Our findings continue to hold if we instrument immigrant shares with previous concentrations of foreigners to control for possible endogeneity of immigrants' location choices, i.e. that immigrants are likely to choose locations with minority friendly environments.

The paper is organized as follows: Section 2 gives a short summary of the political landscape and immigration history in Germany and Hamburg. Section 3 contains a description of the data used as well as descriptive statistics. In Section 4, the results of the empirical analysis are presented. Section 5 concludes the paper.

## 2 Political Parties, Immigration, and Elections

With the exception of the founding period of the Federal Republic of Germany's representative democracy, the political landscape in West Germany as well as in Hamburg for many decades was dominated by three parties: The conservative, center-right *Christian Democratic Union* (CDU)<sup>1</sup>, the center-left *Social Democratic Party* of Germany (SPD), and the *Liberal Democratic Party* (FDP). In 1982, the *Greens*, which campaigned in Hamburg under the name *Green Alternative List* (GAL), surmounted the 5-percent electoral threshold in Hamburg's federal state elections and joined the SPD and the CDU in the *Bürgerschaft*, Hamburg's legislative assembly. One year later the Greens received 5.6% of the national vote and established as the new, fourth political party in the national parliament. The Greens emerged from the

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<sup>1</sup>In national elections the CDU teams up with its Bavarian sister party, the *Christian Social Union* (CSU).

peace and the anti-nuclear movements and attracted mainly support from voters on the political left and the *new social movements*, a group of activists who tried to push forward new policy issues, like environmental politics, civil rights, and women's participation rights (see Müller-Rommel (1985)). The end of the cold war and the German reunification had a notable impact on the German party system. While the West German parties CDU, SPD, and FDP merged with their East German sister parties, the Greens and *Alliance 90*, a group of East German civil rights activists, teamed up and formed *Alliance 90/The Greens* in 1993. Parties on the extreme left were rather unsuccessful in the founding period of unified Germany. The Party of Democratic Socialism (PDS), the successor of the German Democratic Republic's reigning *Socialist Unity Party of Germany* (SED), only canvassed successfully in federal state elections in East Germany. On the other side of the political spectrum, extreme right-wing parties until the end of the 1980s played a minor role in German politics due to their dispersed structure and their failure to gather together in one party<sup>2</sup>. However, in the late 1980ties and the beginning of the 1990ties extreme right-wing parties gathered increasing support from the electorate and especially the *Republicans*(REP) and the *German People's Union* (DVU) managed to take seats in a number of federal state parliaments.

Despite notable influxes of immigrants (guest workers) in the 1960s and 1970s, large parts of the German society and political parties – mainly the CDU/CSU – rejected the notion of Germany as an immigration country. Naturalization procedures in the 1980s and 1990s were rather restrictive and citizenship was determined by *Ius Sanguinis*. Immigration policy significantly gained importance in the political sphere and in election campaigns during the 1980s (see Thränhardt (2000)). The political debate on immigration centered around family reunions of Turkish immigrants and

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<sup>2</sup>In Germany as well as in Hamburg the extreme right wing is rather fragmented and characterized by a number of small parties. A common characteristic of these parties is their fundamental opposition against immigration and multiculturalism. For the empirical analysis we aggregate the voter turnout of the different extreme right-wing parties. Table 7 in the appendix gives an overview.

growing inflows of ethnic Germans (*Aussiedler*) and asylum seekers.

In 1992, the debate on immigration climaxed on the issue of asylum politics. Rising numbers of asylum requests (more than 400.000 in 1992) lead to the so called '*asylum compromise*' (*Asylkompromiss*) where the christian democratic, liberal, and social democratic fractions in the German parliament voted for a change of the German *Basic Law* (constitution) to curtail asylum seekers' rights and to cut down immigration. Parallel to this policy change, extreme right-wing parties massively agitated against refugees and immigrants using the motto "Das Boot ist voll!" ("The boat is brimful!"). During this period, Germany experienced a number of xenophobic attacks against Turkish immigrants and refugees. In the asylum debate the Green Party took a clear stance for open borders and permissive asylum procedures.<sup>3</sup> Furthermore, in its national election programs in the nineties (Die Grünen (1990), Bündnis 90/Die Grünen (1994), and Bündnis 90/Die Grünen (1998)) it actively advocated the concept of a multicultural society and liberal immigration politics. In 1998, a coalition of Social Democrats and Greens formed the German government. In 2000, the coalition introduced a new citizenship law easing naturalization proceedings and implementing the principle of *Ius Soli*.

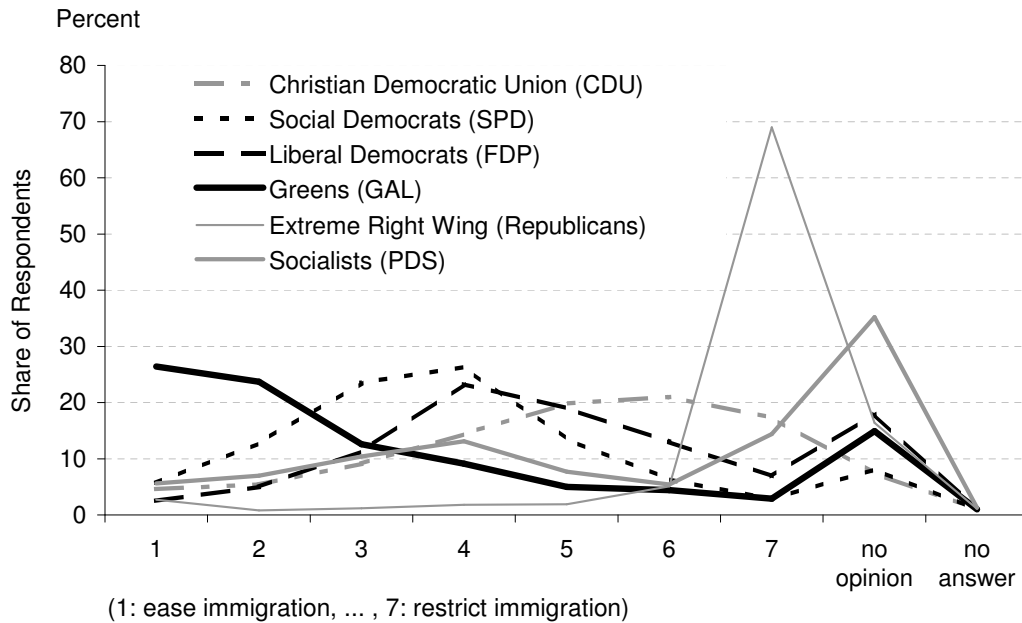
Many polls and election surveys confirm the view that immigration policy was an important topic in the political discourse and in election campaigns (see Falter, Gabriel, Rattinger & Schmitt (1998) and infas (1986)). Voter perception of party positions in the field of immigration policy is provided in the German National Election Studies 1998, the leading representative election survey in Germany (Falter et al. (1998)). Figure 1 depicts the answers of a representative sample of voters to the question of how they perceived parties' attitudes towards immigration policy. Respondents were asked to classify parties' positions on a scale ranging from 1 (ease immigration) to 7 (restrict immigration). As the diagram shows, easing immigration is undoubtedly a unique selling proposition of the Greens. Contrary to that restricting

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<sup>3</sup>For a detailed overview on the immigration and multiculturalism debate and party positions in the 1980s and 1990s see von Dirke (1994) and Thränhardt (2000).



Figure 1: Voter perception of parties' attitudes towards immigration



Sources: Falter et al. (1998), authors' illustration.

immigration is a unique feature of the extreme right wing. For other parties voter perception is mixed. The social democrats (SPD) were considered to be more pro immigration, conservatives (CDU) to be more against immigration, and liberals (FDP) as well as Socialists (PDS) were considered to be rather neutral or undecided.

Another piece of evidence for the exceptional role of the Greens regarding immigration policy is provided by the Hamburg's 1986 federal state election survey conducted by infas (1986). Voters were asked about party preferences and about their opinion on the xenophobic motto "Foreigners out!". Table 1 shows that Green party supporters, in contrast to voters of other parties in Hamburg, overwhelmingly rejected this statement.

Federal state elections in Hamburg as well as national elections are held every four years. However, between 1986 and 1998 there were three departures from this rule. The last national election in the Federal Republic of Germany was held in 1987.

Table 1: Hamburg voters' comment on the parole "Foreigners out!"

Voters of	Reject	Agree in some cases	Agree in many cases	Agree absolutely
			in percent	
SPD	36	43	17	2
CDU	24	47	23	5
Greens	80	15	4	0
FDP	44	44	5	3
Other	34	42	17	1
Average	37	42	17	2

Respondents were asked to comment on the following statement:  
 "There are too many foreigners, guest workers, asylum seekers in Germany.  
 They steal jobs from Germans, alienate German culture, and live on aid.  
 Therefore one has to claim: Foreigners out!"

Source: infas (1986).

According to the schedule, the next election was supposed to take place in 1991. However, the German Unification lead to the first election in unified Germany in 1990. Here the Greens lost voter support as a consequence of their openly stated critique of the unification process. The 1986 federal state election in Hamburg ended with a political tie and a re-election was held in 1987. The next election in 1991 took place on schedule but in 1993 federal state elections in Hamburg were held prematurely because the constitutional court ruled for re-elections due to undemocratic procedures within the conservative party (CDU) in the run-up to the 1991 elections. Table 2 gives the election results in Hamburg for federal state and national elections.

### 3 Data

Our dataset draws from two sources. First, we use data from the *District database* ("*Stadtteildatenbank*"), a database for the 103 districts of the city of Hamburg which covers a range of aggregate socio-demographic characteristics collected on a yearly basis. This includes information on the share of foreigners, defined by citizenship. In addition, we use federal state and national election data from the *Historical election database* ("*Historische Wahldatenbank*"). Both databases are maintained by the Statistical Office of Hamburg and Schleswig-Holstein and cover the period 1987

Table 2: Election outcomes in Hamburg

<b>Federal State Elections, Share of Votes (Percent)</b>						
Year	Greens	Extreme Right Wing	SPD	CDU	FDP	
1987	7.0	0.5	45.0	40.5	6.5	
1991	7.2	1.9	48.0	35.1	5.4	
1993	13.5	7.6	40.4	25.1	4.2	
1997	13.9	6.9	36.2	30.7	3.5	

<b>National Elections, Share of Second Votes (Percent)</b>						
Year	Greens	Extreme Right Wing	SPD	CDU	FDP	
1987	11.0	0.4	41.2	37.4	9.6	
1990	5.8	2.0	41.0	36.6	12.0	
1994	12.6	1.7	39.7	34.9	7.2	
1998	10.8	2.8	45.7	30.0	6.5	

Source: Statistical Office of Hamburg and Schleswig-Holstein (Historical election database).

to 2009. We decided not to take borough elections and elections of the European Parliament into consideration, because foreigners from EU member countries are allowed to vote in these elections. Since there is no data on the number or share of EU foreigners for the district level we cannot control for changes in ethnic composition and the implications for the district's electorate. Furthermore, we restrict our sample to the period 1987 to 2000. As mentioned before, in 2000 Germany implemented a new citizenship law which restructured and liberalized access to citizenship. As a reaction, the number of naturalizations increased strongly. Furthermore, the new law introduced the principle of *Ius Soli*, whereby immigrants receive the German citizenship by birth if they are born in Germany (Steinhardt (2008)). Both effects led to a structural break in the series on the share of foreigners. More important, since the reform in 2000 concentration measures based on citizenship can no longer be considered as proxies of ethnic heterogeneity, because they treat naturalized immigrants and native born children of immigrants as Germans. Therefore, we decided to focus on elections, which took place before 2000. Furthermore, we have to exclude four districts, which are mainly used for industrial and commercial activities, due to data restrictions. Overall, after matching both data sources we obtain a panel data set with 99 districts (cross sections) and 7 elections (years).

Our dependent variable is the local voting outcome of parties ( $E_{it}$ ) which promoted a clear and distinctive position on immigration. On the one hand, we consider the aggregate share of voters of extreme right-wing parties which agitated against immigrants and refugees. On the other hand, we focus on election outcomes of the Green party. As described in Section 2, the Green party was the only party in the German political spectrum which promoted liberal immigration and integration policies unconditionally and campaigned for the rights of minorities. We further outlined that the unique position of the Greens towards immigration is supported by the voters' perception.

The main explanatory variable in our analysis is the district's foreigner share, *ForShare*. It might change over time as a result of migration movements or through demographic developments. The latter will happen if the immigrant population within a district is characterized by a younger age structure or higher fertility rates than the native population, or both. In any case, our main explanatory variable captures changes in the ethnic composition of a district, respectively, in the size of the minority population. Based on recent evidence from the literature highlighting the role of non-economic externalities of immigration (Card et al. (2012)), we expect increases in a district's share of foreigners to have an effect on the district's election outcomes of parties which promote liberal or restrictive immigration policies. According to the group conflict theory, we would expect a positive effect for extreme right-wing parties and an adverse effect for the success of the Green party.

To capture changes in the composition of voters and socio-demographic characteristics of districts we include controls for population size (*Population*), share of pensioners (*PenShare*), and share of children (*KidsShare*). Information on average income levels is not available for all election years. We therefore decided to use our income measure (*Income*) only as a sensitivity check.<sup>4</sup> Instead, to proxy for the economic status of households we use the average endowment of housing services,

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<sup>4</sup>Here we substitute missing income data in election years with income data one year before or after the election.

Table 3: Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Extreme Right Wing	693	3.6	3.3	0.0	19.7
Greens	693	9.9	6.0	1.6	35.9
ForShare	693	14.7	12.6	0.7	70.8
Population	693	17100.6	15477.5	405.0	82199.0
PenShare	693	16.5	4.5	3.6	28.3
KidsShare	693	16.2	4.1	7.9	32.4
SqmCapita	693	34.5	6.1	11.3	64.9
Violence	693	5.8	14.6	0.0	158.0
Turnout	693	75.5	8.9	44.4	91.5
Income	665	62345.9	28064.3	29333.0	316250.0
UnempShare	297	7.3	3.4	2.0	30.2

*Extreme Right Wing* and *Greens*: voter share in percent, *ForShare*: share of foreigners in overall population (percent), *PenShare*: share of pensioners in overall population (percent), *KidsShare*: Share of minors in overall population (percent), *Turnout*: voter turnout (percent), *Crime*: theft and violent crime per 1000 inhabitants, *Income*: average income in Deutsche Mark, *UnempShare*: Unemployed as a percentage of population ages 18 to 64 years.

measured in square meters per capita (*SqmCapita*), as a proxy for the economic situation of households. Unfortunately, our data set does not contain information on education background. Furthermore, data on unemployment on the district level is available only for the last two elections in the period of interest. To control for longitudinal changes in unemployment we constructed a measure of unemployment rates (*UnempShare*) using both claimant count data for the years 1997 and 1998 as well as ILO unemployment data from the census in 1987. Since these measures are based on different definitions of unemployment this is just a rough measure to be used with caution.<sup>5</sup> In addition to this, we control for crime by using the number of violent crimes per thousand inhabitants (*Violence*). Finally, we also consider voter turnout (*Turnout*) which often affects election outcomes significantly because it benefits party outcomes asymmetrically. Table 3 provides summary statistics for the variables mentioned above.

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<sup>5</sup>However, to some extent this caveat would even hold in the case of claimant count numbers whose underlying definition has also been changed several times due to the implementation of new labour market policies, fiscal constraints, and other political reasons.

## 4 Empirical analysis

To test the relation between the success of political parties and immigration we estimate the following model:

$$E_{it} = \alpha_0 + \alpha_1 ForShare_{it} + \beta X_{it} + I_t + \mu_i + \epsilon_{it}, \quad (1)$$

where  $E_{it}$  is the vote share of the the extreme right-wing parties, respectively of the Green party, in district  $i$  at time  $t$ . Our main explanatory variable  $ForShare_{it}$  measures the share of immigrants in the population within a district at time  $t$ .  $X_{it}$  is a vector of district-specific controls like population and average housing size. The inclusion of time dummies,  $I_t$ , ensures that we control for cyclical effects and potential time trends. Finally,  $\mu_i$  and  $\epsilon_{it}$  describe the district specific and idiosyncratic components of the error term. We therefore capture all unobserved differences between city districts which are constant over time. The corresponding results, with standard errors clustered at the district level, are presented in table 4.

The results in column 1 of table 4 highlight that an increase in the share of foreigners within a district is associated with an increase in electoral support for extreme right-wing parties. In other words, a growing immigrant population within a district increases the support for parties, which campaign against immigration. This result is in line with the findings of Lubbers & Scheepers (2001) for Germany and Arzheimer (2009) for European countries who find a positive association between regional foreigner concentrations and voting intentions for extreme right-wing parties. Results similar to ours are found by Gerdes & Wadensjö (2010) and Harmon (2012) in Danish municipal elections. The same holds true for Steininger & Rotte (2009) who also analyze the impact of immigration on election results of the extreme right wing in Hamburg. However, their analysis differ from ours in several key dimensions, involving both the data used and the methodology. Among others, they include elections of the European Parliament as well as borough elections in Hamburg and incorporate observations after 2000.<sup>6</sup>

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<sup>6</sup>See section 2 for a discussion of both aspects.

Table 4: Benchmark results

	(1)	(2)
	Extreme Right Wing	Greens
ForShare	0.228*** (0.036)	-0.230*** (0.036)
Population	-1.291 (1.331)	0.436 (1.625)
PenShare	0.168*** (0.049)	-0.574*** (0.101)
KidsShare	0.225*** (0.055)	-0.298*** (0.095)
SqmCapita	2.435 (2.202)	-5.190 (3.196)
Turnout	-0.029 (0.053)	0.220** (0.091)
Violence	0.214 (0.190)	0.120 (0.241)
Obs	693	693
R <sup>2</sup>	0.857	0.814
F <sub>(13,98)</sub>	157.23	135.54

Significance levels :    \* : 10%    \*\* : 5%    \*\*\* : 1%

Standard errors are clustered at the district level.

Furthermore, our estimates in column 2 indicate that the Greens which are the only party, which promotes liberal immigration policies, suffered from rising foreigner shares. Both results of our analysis are in line with a study on individual attitudes in the UK which suggest that high concentrations of ethnic minorities within a local district could increase the hostility of natives towards immigrants (Dustmann & Preston (2001)). Overall, our findings support the group conflict theory stating that immigration is likely to be perceived as a threat to natives' identity and culture. However, we have to consider that our results might reflect the particular situation during the early nineties in Germany, which was characterized by large inflows of refugees and contentious public debates about asylum abuse.

Our results further suggest that an increase in the share of pensioners and households with children is associated with gains in the electoral support of extreme right-wing parties. On the other hand, growing shares of children and retired persons within a district are likely to reduce the success of the Green party. This implies that young and middle-aged singles vote for the Green party. A significantly negative relationship between age and electoral support for the Greens has also been found by Klein (2009). Changes in the living space and voter participation seem to have no influence on the success of anti-immigration parties. However, the negative and significant coefficient of square meter per capita in column 2 indicates that increases in wealth reduce the support for the Green party. Finally, our results show that the Green party is likely to gain from growing voter participation rates.

Table 5 presents results from different specifications and subsamples. To assess the robustness of our results in column 1, we add average income in a district to our benchmark specification. Our estimates indicate that our main results continue to hold if we allow for changes in district income over time. Furthermore, the results suggest that anti-immigrant parties profit from growing income within districts. This is in line with findings from the attitudes literature about the role of the welfare channel. Growing income is likely to reduce support for unskilled immigrants since the latter are likely to be net receivers of public benefits from the welfare state.



Table 5: Robustness

	(1) Income		(2) Unemployment		(3) Federal State Elections		(4) National Elections		(5) Weighted Regression	
	Extreme Right Wing	Greens	Extreme Right Wing	Greens	Extreme Right Wing	Greens	Extreme Right Wing	Greens	Extreme Right Wing	Greens
ForShare	0.231*** ( 0.030 )	-0.259*** ( 0.039 )	0.248*** ( 0.072 )	-0.244*** ( 0.060 )	0.405*** ( 0.046 )	-0.281*** ( 0.040 )	0.141*** ( 0.035 )	-0.158*** ( 0.045 )	0.341*** ( 0.061 )	-0.279*** ( 0.060 )
Population	-2.363* ( 1.432 )	-0.239 ( 1.413 )	-3.288** ( 1.594 )	0.326 ( 1.954 )	-2.330 ( 1.812 )	-1.319 ( 1.282 )	-0.457 ( 0.787 )	1.900 ( 2.634 )	-0.749 ( 0.941 )	0.980 ( 1.141 )
PenShare	0.174*** ( 0.050 )	-0.566*** ( 0.090 )	0.215*** ( 0.062 )	-0.632*** ( 0.104 )	0.320*** ( 0.083 )	-0.575*** ( 0.118 )	0.069** ( 0.030 )	-0.442*** ( 0.089 )	0.201*** ( 0.067 )	-0.636*** ( 0.075 )
KidsShare	0.219*** ( 0.071 )	-0.272*** ( 0.101 )	0.162* ( 0.097 )	-0.167 ( 0.115 )	0.358*** ( 0.075 )	-0.178* ( 0.094 )	0.025 ( 0.037 )	-0.190* ( 0.113 )	0.122 ( 0.102 )	-0.444*** ( 0.104 )
SqmCapita	0.587 ( 2.008 )	-8.328*** ( 3.107 )	-2.704 ( 3.498 )	-0.411 ( 5.302 )	5.111 ( 3.190 )	-9.758*** ( 2.601 )	1.388 ( 1.296 )	1.534 ( 5.480 )	3.270 ( 2.167 )	-6.991** ( 3.134 )
Turnout	-0.070 ( 0.043 )	0.299*** ( 0.072 )	-0.227*** ( 0.072 )	0.200* ( 0.116 )	-0.091 ( 0.058 )	0.327*** ( 0.062 )	-0.065 ( 0.048 )	0.188*** ( 0.078 )	-0.060 ( 0.060 )	0.332*** ( 0.081 )
Violence	0.239 ( 0.172 )	0.223 ( 0.234 )	0.391 ( 0.288 )	0.278 ( 0.375 )	0.325 ( 0.305 )	0.319 ( 0.382 )	0.034 ( 0.113 )	-0.271 ( 0.317 )	0.292 ( 0.220 )	-0.107 ( 0.217 )
Income	1.841*** ( 0.626 )	-0.846 ( 0.858 )								
UnempShare			-0.045 ( 0.076 )	0.120 ( 0.150 )						
Obs	665	665	297	297	396	396	396	396	693	693
R <sup>2</sup>	0.869	0.858	0.861	0.812	0.892	0.872	0.799	0.81	0.882	0.903

Significance levels : \* : 10% \*\* : 5% \*\*\* : 1%

Standard errors are clustered at the district level.

However, due to the rough nature of our income measure, this result should be treated with caution. In Column 2, we further explore the role of unemployment. Notice that the number of observations falls substantially, as we only have measures on unemployment for three election years (1987, 1997, 1998). Including unemployment, which is positively correlated with the level of immigrants, does neither affect the sign or significance of our main results. Columns 3 and 4 show that our main findings also hold if we run separate regressions for local and national elections. Interestingly, we find that the relationship between a district's ethnic composition and the electoral success of pro- and anti-immigration parties is stronger in regional elections than in national ballots. The estimates for extreme right-wing parties suggest that negative reactions towards rising numbers of immigrants within an urban district particularly influence voting behavior in regional elections. Results in column 5 show that our main findings are not affected if we weight our estimates by the population size of districts.

Finally, we have to consider that the location choice of immigrants within a city is not random. On the one hand, immigrants are likely to move to districts which are characterized by an immigrant friendly environment, whereas they tend to avoid areas with anti-immigrant sentiments. On the other hand, immigrants might be forced to cluster in poor city districts where precarious social conditions probably serve as a hotbed for xenophobic sentiments. In principle, both effects could offset each other. However, both cases could lead to a bias of our estimates. We therefore decided to use the previous concentration of immigrants as an instrument for the actual immigrant share within a district. This approach is based on the idea that immigrants are likely to move to locations which already exhibit high shares of co-ethnics (see for example Dustmann, Fabbri & Preston (2005)). In particular, we rely on lags of 6 years. For the construction of our instrument we make use of additional data from population registers. The corresponding results are provided in table 6.

The first stage-results support the use of our instrument by showing that the

location decision of foreigners at time  $t$  is highly correlated with the settlement structures of immigrants in  $t - 6$ . The second stage results strengthen the results from our benchmark specification. Rising immigrant shares lead to increased success of anti-immigrant parties, while the Greens loose political support from voters. In addition to this, the results indicate that we underestimate the positive impact for the extreme right-wing parties if we do not incorporate endogenous location decisions of immigrants.

Table 6: (2SLS) Regression with fixed effects

	Extreme Right Wing	Greens
1st stage, independent variable <i>ForeignLag</i>	0.334***	0.334***
	(0.082)	(0.082)
2nd stage, <i>ForShare</i> instrumented with <i>ForeignLag</i>	0.342***	-0.245*
	(0.130)	(0.125)
F Statistic (for instrument)	F(1,98)=16.58	F(1,98)=16.58
	Prob>F =0.000	Prob>F = 0.000

*ForeignLag* (lag length: 6 years)

Significance levels :    \* : 10%    \*\* : 5%    \*\*\* : 1%

Standard errors are clustered at the district level.

## 5 Conclusion

Within the last years a number of European countries experienced growing electoral support for parties, which campaigned for restrictive immigration policies. While the literature has traditionally focused on economic interests in explaining individual preferences on immigration, economists recently highlighted the role of non-economic effects of immigration in shaping public opinion towards migration policies. Latest findings suggest that concerns about migration driven changes in compositional amenities explain most of the differences in attitudes towards immigration policy across natives (Card et al. (2012)). These non-economic effects are local in nature and relate to compositional changes in neighborhoods, workplaces and schools. The

present paper addresses this potential channel of influence and presents new insights about the relationship between local ethnic concentrations and the success of pro and anti-immigrant parties. The analysis focuses on local districts in Hamburg in the period 1987 to 1998 in which the city experienced substantial inflows of immigrants and asylum seekers.

Our results indicate a positive association between growing shares of foreigners and the political success of extreme right-wing parties. In addition, we find a negative association between rising ethnic concentrations and electoral support of the Green party, which was the only major party promoting liberal immigration and asylum policies during this time. Our results hold both for regional as well as national elections. Furthermore, we show that our findings are not affected if we consider endogenous location decisions of immigrants by instrumenting local foreigner shares with previous settlement patterns of immigrants. A caveat of our data set is that we were not able to control for changes in skill levels over time, which are likely to be correlated with changes in the stock of immigrants.

Overall, our results are in line with recent evidence on the role of compositional amenities shaping individual attitudes towards immigration. Anti-immigration parties gain support if local concentrations of foreigners rise, while parties campaigning for liberal asylum and minority rights lose power. This relationship might reflect the particular situation during the early nineties in Germany, which was characterized by strong inflows of refugees and contentious public debates about asylum abuse. Therefore, future research is needed to test the generality of our results.

## Appendix

Table 7: Composition of the *Extreme Right Wing*

Federal State Elections					
Year	The Conservatives	DVU	HLA	NPD	Republicans
1987	•		•		
1991			•		•
1993		•			•
1997		•		•	•

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National Elections					
Year	The Conservatives	DVU	HLA	NPD	Republicans
1987				•	
1990				•	•
1994					•
1998		•		•	•

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Extreme right-wing parties (German name in italics):  
 The (German) Conservatives: (*Die Konservativen*),  
 DVU: German People's Union (*Deutsche Volksunion*),  
 HLA: Hamburg's List for stopping foreigners  
       (*Hamburger Liste für Ausländerstopp*),  
 NPD: National Democratic Party of Germany  
       (*Nationaldemokratische Partei Deutschlands*),  
 Republicans: (*Die Republikaner*)

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Hamburg Institute of International Economics (HWWI)

Heimhuder Str. 71 | 20148 Hamburg | Germany

Phone: +49 (0)40 34 05 76 - 0 | Fax: +49 (0)40 34 05 76 - 776

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