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Discussion Paper Series

CPD 19/16

▶ **Refugee Migration and Electoral Outcomes**

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Refugee Migration and Electoral Outcomes[§]

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Abstract: To estimate the *causal* effect of refugee migration on voting outcomes in parliamentary and municipal elections in Denmark, our study is the first that addresses the key problem of immigrant sorting by exploiting a policy that assigned refugee immigrants to municipalities on a quasi-random basis. We find that – in all but the most urban municipalities - allocation of larger refugee shares between electoral cycles leads to an increase in the vote share not only for parties with an anti-immigration agenda but also for centre-right parties, while the vote share for centre-left parties decreases. However, in the largest and most urban municipalities refugee allocation has – if anything – the opposite effect on vote shares for anti-immigration parties. We demonstrate response heterogeneity according to municipal characteristics, with a more pronounced response in less urban municipalities in which the pre-policy shares of both immigrants and the more affluent is high, and in urban municipalities with high unemployment. At the same time, higher pre-policy crime rates are associated with more support for anti-immigration parties in response to refugee allocation in both urban and non-urban municipalities. We also find some evidence that refugee allocation influences voter turnout. Moreover, it has a large impact on the decision of anti-immigration parties’ choice of where to stand for municipal election.

Keywords: immigration, political preferences, re-distribution, welfare, random allocation

JEL codes: H53, I38

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1. Introduction

Over recent years, an unprecedented number of individuals seeking refuge from war and political persecution have migrated to Northern Europe, with 1.12 million refugees seeking asylum in EU countries in 2015 alone.¹ It is also predicted that industrialized countries will have to manage large immigrations of individuals with different ethnic and cultural backgrounds for decades to come.² Yet recent events have caused considerable concern among centrist politicians, who fear they may play into the hands of populist parties. Two key questions in this debate are whether large migrations of the type witnessed over the past year will favour populist right-wing parties and which parties along the political spectrum will lose votes. Also of interest is whether immigration-induced changes in voting behaviour are mediated by particular circumstances such as economic conditions, crime, or past immigration. For instance, are citizens more likely to respond to immigration by voting for radical parties in constituencies with historically high unemployment or crime?

One way to answer these questions empirically is to relate variation in voting outcomes to variation in immigrant settlement. This strategy, however, is problematic because immigrants sort into areas in which they want to live and work and such location choices may be related to the same factors that affect voting behaviour and/or are directly caused by the political preferences of populations in the receiving regions. In this paper, therefore, we take advantage of a Danish policy that quasi-randomly allocated refugees across 275 municipalities in Denmark over a 13-year period (1986–1998), allowing us to estimate the impact of refugee allocation on voting outcomes by exploiting random variations in

¹ Eurostat database\migr_asyappctza. See Dustmann et al. (2016) for details of recent refugee movements.

² UNCHR predicts that in 2016, 1 million migrants will cross from Turkey to Greece, along only one of several migration routes to Northern Europe (see http://rmrp-europe.unhcr.org/2016_RMRP_Europe.pdf). The EU commission estimates 1.5 million refugees for 2016 and 0.5 million for 2017 (see p. 51 of http://ec.europa.eu/economy_finance/publications/eeip/pdf/ip011_en.pdf).

the timing of immigrant allocation to various municipalities. We demonstrate that municipalities were unable to manipulate allocations, and we provide evidence that refugee assignment was in no way associated with past election outcomes. In particular, our paper is the first that uses a random allocation design to pinpoint the *causal* impacts of refugee allocation on voting, and the extensive variation available due to the many municipalities to which refugees were allocated allows us to assess how these effects were influenced by municipality-specific characteristics.

We find that refugee allocation has a considerable effect on voting outcomes. In all municipalities except those with a population above the 95th size percentile, a one percentage point increase in the refugee share of the municipal population between electoral cycles increases the vote share for anti-immigration parties by 1.23 and 1.98 percentage points in parliamentary and municipal elections, respectively. Given these parties' overall 8.47 and 4.93 percent respective vote shares in parliamentary and municipality elections, these are sizeable responses. Nor are the far right parties the only ones to gain: the centre-right parties similarly increase their vote share in response to refugee allocation, although to a lesser extent, while parties on the left side of the political spectrum lose. Overall, refugee allocation leads to a clear shift in the vote distribution towards the right of the political spectrum. On the other hand, voter responses to refugee allocation in the 5 percent largest municipalities, which are also Denmark's urban centres, point in the opposite direction, with increased refugee allocation causing a *decrease* in the vote share for anti-immigration parties.³ This contrast signals a divide between urban and rural populations in their political responses to refugee allocation.

To shed light on why the anti-immigrant and liberal parties gained support following local settlement of assigned refugees in less urban municipalities, we analyse the heterogeneity in responses

³ Municipalities in Denmark differ in magnitude: whereas in 1986, the largest municipality (Copenhagen) was home to nearly 500,000 individuals, the medium municipality population size was 9,730, with a mean of 18,604.

across municipalities based on observable pre-policy characteristics. Our research design, in conjunction with information on the entire population of potential voters, provides us with sufficient variation to identify how particular characteristics of this population augment or diminish the effects of refugee allocation on electoral outcomes. In particular, we distinguish municipality characteristics that capture factors that may shape how individuals form opinions on refugee immigration, such as previous exposure to immigrants, crime, and/or unemployment; the share of rich individuals; or the share of residents who actively support the church. Focusing first on the smaller and less urban municipalities, we find that given a specific increase in refugee share, the larger the share of previous immigrants in the municipality, the greater the effect on votes for anti-immigration parties. On the other end of the political spectrum, centre-left parties lose more votes given the same refugee allocation if the share of pre-policy immigrants is larger. We further show that the effect of refugee allocation on voting for the extreme right is exacerbated by pre-policy crime in the municipality, and is stronger in areas with larger shares of more affluent individuals. On the other hand, the higher the share of the municipality population that pays church taxes (which we interpret as a measure of altruistic beliefs in the area), the lower the shift in votes to anti-immigration parties in response to refugee allocation.⁴ We also find evidence for voters' responses to the degree to which existing immigrant populations are welfare dependent, with higher dependency rates leading to a stronger shift of votes to the anti-immigration parties as a result of refugee allocation.

Our findings for large and more urban municipalities are very different. Not only is the overall effect of refugee allocation on anti-immigration party vote shares negative, but the effect given the

⁴ "Church tax", which like income tax is deducted from all taxable income, varies across municipalities, and in 1985, amounted to between 0.4 and 1.6 percent of income. Paid on a voluntary basis by members of the Danish National (Lutheran) Church, the money is used to fund the church and its activities (renovation of churches and graveyards, education for children and youth, social assistance for the needy, and cultural events). In 2007 83 percent of the Danish population were church members.

same refugee share becomes larger with the share of rich individuals, is unaffected by the share of previous immigrants and becomes smaller with the share of unemployed. Overall, therefore, we find considerable heterogeneity in municipal populations' responses to refugee allocation in terms of pre-policy characteristics, and different responses in large and urban municipalities versus small and more rural municipalities. These findings are highly relevant for the current debate on how best to allocate refugees across regions in recipient countries.

We also investigate the refugee allocations effect on voter turnout. While we do not find any effects for parliamentary elections, we do find some evidence for such changes for municipality elections. This is not surprising as local concerns are unlikely to be taken into account by parliamentary parties, but may be addressed on local political level.

In addition, because not all parties run in municipal elections, we analyse the extensive margins of parties standing for election in response to refugee allocation. We find that anti-immigration parties respond strongly to refugee allocations when deciding in which municipality to stand. These effects are exacerbated by the share of pre-policy immigrants who live in the municipality. We find little evidence, however, that other municipal characteristics influence the magnitude of the refugee allocations effect on the probability of anti-immigration parties standing for election.

Our paper is not the first to explore the effect of immigrant population density on attitudes or voting behaviour. For example, Dustmann and Preston (2001) examine the effect of resident immigrant share on xenophobic attitudes, hypothesizing that it could either intensify negative attitudes as predicted by context theory (see e.g., Levine and Campbell, 1972) or alleviate them as suggested by the contact hypothesis. Using an IV strategy to deal with sorting, they find that attitudes towards immigrants are more negative when the share of immigrants in the area is larger. This observation is in line with our finding that the share of resident immigrants exacerbates the impact of refugee

allocation on voting for anti-immigration parties in the non-urban municipalities. As regards voting behaviour, although a number of earlier studies⁵ investigate the more direct effect of immigrant share on voting for populist and anti-immigration parties, most fail to address the sorting problem. More recent papers, on the other hand, use IV type strategies to investigate the link between immigration and voting for radical parties. For example, Barone et al. (2014) and Otto and Steinhardt (2014) examine voting outcomes in Hamburg (Germany) and Italy, respectively, using an IV estimator similar to that employed by Altonji and Card (1991) to predict current immigrant stocks based on historical settlement. Harmon (2015), like us, investigates voting behaviour among Danes, but with a focus on immigrants and an IV strategy that uses availability of living space as a predictor of immigrant settlement. A recent analysis by Halla, Wagner and Zweimüller (2014) of the right-wing Freedom Party's rise in Austria instruments current immigrant stocks using a share shift based on past immigrant settlements, similar to Barone et al. (2014). Steinmayr (2016) also focuses on this party but uses the availability of appropriate housing as an instrument (cf. Harmon 2015) to assess the response of voter shares in the 2016 state elections to whether a municipality received any refugees.⁶ Whereas Barone et al. (2014), Harmon (2015), Otto and Steinhardt (2015) and Halla, Wagner and Zweimüller (2014) find evidence that immigration increases the vote share for right-wing parties, Steinmayr (2016) shows that hosting refugees *decreases* this vote share. Our paper is also somewhat related to recent work by Dahlberg, Edmark and Lundqvist (2012) on the impact of refugee placement in Sweden on popular

⁵ See, for example, Lubbers, Gijsberts and Scheepers (2002), Campbell, Citrin and Wong (2006), Gerdes and Wadensjö (2010), and Jensen and Thomsen (2013). For additional factors that contribute to the growth of anti-immigration parties unrelated to their stance on immigration, see Andersen and Bjørklund (1990), Betz and Johnson (2004), Norris (2005), Simonsen (2007), Rydgren (2010), and Givens (2012).

⁶ By focusing on how immigration affects voting on immigration issues in Switzerland and instrumenting the share of immigrants in a community with the share of foreigners in the local labour market, Brunner and Kuhn (2014) further show that anti-immigration votes are larger in communities with more culturally different immigrants.

support for redistribution, although these authors focus not on political outcomes but on whether Swedish residents are willing to preserve the existing social benefit level.

We contribute to this literature in several ways. One major innovative advantage of our study is that instead of the IV approach used in previous literature, we employ a design that exploits the random variation in refugee allocation to different municipalities over a sustained period that encompasses three electoral cycles. We also focus on *changes* in voting outcomes between two electoral cycles as a response to *changes* in refugee allocation, which allows us to eliminate municipal constant factors and tighten our design even further.⁷ The large variation due to random assignment enables further exploration of channels that mediate immigration's possible effect(s) on voting behaviour by interacting changes in refugee shares with municipal characteristics measured in the year preceding policy implementation. Rather than focusing like most papers on right-wing populist parties, we examine the entire spectrum of electoral outcomes. By showing that not only anti-immigration but also centre-right parties gain from immigration-induced changes in voter behaviour while centre-left parties lose, we contribute additional important evidence to the debate on political radicalization through immigration and refugee allocation.

A main finding of our analysis is that, in line with the observational evidence of a stark urban/rural divide in populist party support, voting behaviour in Denmark's urban centres responds differently to refugee allocation than does that in the rest of the country.⁸ This revelation underscores Barone et al.'s (2014) findings for Italy and reconciles the majority research conclusion that immigrant

⁷ Harmon (2015) also uses changes, while Halla, Wagner and Zweimüller (2014) use a change specification as a robustness test.

⁸ One example is the stark divide between London and the rest of the UK in the popular vote for the UK Independence Party (UKIP) in the European (2014) and general (2015) elections. Similarly, in the Finnish 2015 parliamentary elections, the anti-immigrant (True) Finns party (*Perussuomalaiset*) had the lowest support in Helsinki, while in the Belgian regional and federal elections of 2014, the anti-immigrant Flemish Interest party (*Vlaams Belang*) had the lowest share of supporters in the region around Brussels.

shares unanimously strengthen the vote share of the extreme right with Steinmayr's (2016) finding of the opposite. We also contribute new evidence on two aspects that, to the best of our knowledge, have not yet been investigated: voter turnout in response to immigration, and how past refugee allocations affect anti-immigration party decisions on whether to run in municipal elections. We find evidence that voter turnout responds to refugee allocation in municipality elections. We further show that refugee allocations have a large effect on the decision of anti-immigrant parties to stand in municipal elections.

We develop the remaining discussion as follows: Section 2 describes Denmark's voting system, its political parties, and the data used in the analysis; Section 3 outlines the conceptual framework and empirical methodology; Section 4 reports our findings, and Section 5 concludes the paper.

2. Background

2.1 Political parties in Denmark

Denmark is a representative democracy with parliamentary elections typically held once every four years and a multi-party political system comprising two large mainstream groups: the centre-left wing and the centre-right wing. Whereas the former is typically led by Social Democrats and the Social Liberal Party, the latter is led by Denmark's Liberal Party and the Conservative People's Party. In parliamentary elections, the electoral threshold (i.e., the total votes a party must receive to enter parliament) is 2 percent (Folketinget 2009).⁹ Two other parties are positioned to the right of the centre-right: the Progress Party (PP, *Fremskridtspartiet*), and the Danish People's Party (DPP). The first, founded in 1972 on a libertarian platform, advocates the abolishment of income tax and large cuts in government spending. In the mid-1980s, the PP, capitalizing on growing anti-immigration sentiments

⁹ Furthermore, a party which is not represented in parliament must collect 1/175 of the total number of valid votes casted at the previous election (around 20,000 signatures) in order to stand for the next parliament election (<http://valg.sim.dk/partier-og-kandidater.aspx>).

that coincided with a stark increase in the number of asylum seekers, developed an anti-immigration agenda and established itself as the first Danish anti-immigration party (Rasmussen 2004). In 1995, the party split, leading to the foundation of the DPP (Rydgren 2010), which like the PP positioned itself as an anti-immigration party, but one closer to the political centre. In addition to advocating lower income taxes without progressive redistributive elements in the tax system and reform of the public sector, the DPP supported publicly provided health care, care for the elderly, publicly financed education, and an increase in the tax-free earnings threshold (Dansk Folkeparti 1997; Simonsen 2007). It also maintained a strong economic program and used less extremist rhetoric to appeal to more central voters (Rydgren 2004). The DPP gained an increasing share of votes partly at the expense of the PP, and also earned support among working-class voters. In 2001, the PP's share of votes fell below the electoral threshold of 2 percent, and it has been unable to return to parliament since, whereas by 2015, the DPP had become the second largest party in the Danish parliament, with stronger support in rural than in urban areas.¹⁰

Like parliamentary elections, municipal elections are held every four years, but the dates do not usually overlap with national elections. Moreover, whereas the right to vote in parliamentary elections is reserved for Danish citizens, European citizens and immigrants who have resided in Denmark for at least three years are eligible to vote in municipal elections. The same parties that are represented in parliamentary elections usually also run in municipal elections, although not necessarily in every municipality. In municipal elections, local parties also stand that focus on issues of particular concern for a certain municipality. Although there is no official electorate threshold for municipal elections, the party must receive enough votes to put at least one mandate on the municipal board.¹¹

¹⁰ See <https://www.information.dk/indland/2015/06/valget-delte-danmark>.

¹¹ See http://denstoredanske.dk/Samfund,_jura_og_politik/Samfund/Valgteorier_og_valgmetoder/kommunalvalg.

Our analysis focuses on the 1989–1998 period, which includes three parliamentary and three municipal elections and covers most of the 1986–1998 Danish Spatial Dispersal Policy. Figure 1 gives the dates of these elections and shows which parties were in government. From 1989 to 1994, only the PP was running as an anti-immigration party, but in the last year of the data set (1997/1998), the DPP also participated in both parliamentary and municipal elections for the first time.¹² Any growing concern during this period about refugees and immigrants was reflected by increased public debate about asylum issues. Figure A2 therefore graphs the number of articles in which the term “refugee(s)” appeared in the Danish national print media between 1991 and 1998. As the figure shows, usage peaked in the municipal election years of 1993 and 1997, but no such peaks are evident in the parliamentary election years of 1994 and 1998.

Table 1 then lists the vote shares of all parties in the parliamentary and municipal elections taking place during our 1986–1998 observation period, which are also broken down by election year in Table A1. Row 1 of Table 1 reports the vote shares for the two anti-immigration parties, the DPP and PP, which average 8.5 percent and 5 percent in parliamentary and municipal elections, respectively. Because only the PP ran in the first two elections, being joined by the DPP only in the last election, the PP vote share is reported separately in row 2. Over the study period, the centre-left parties received an average 47 (42) percent of overall votes at parliamentary (municipal) elections compared to the 37 (40) percent received by the two major centre-right parties. Row 3 summarizes the votes received by a number of smaller parties that either support right or left (about 7 percent on average) or stay centrist

¹² The voting statistics for all the political parties in parliamentary elections are from the Danish Ministry of Social Affairs and the Interior (<http://sim.dk/arbejdsmraader/kommuner-og-regioners-styrelse/publikationer.aspx>), while those for municipal elections are from Statistics Denmark’s municipal voting database (<http://www.statbank.dk/statbank5a/default.asp?w=1920>).

(around 13.5 percent; Folketinget 2012). The higher vote share in municipal elections is not surprising given that some of these parties are particularly concerned with local issues.

2.2 Refugee migration and the Danish Spatial Dispersal Policy

In 1956, following its 1952 ratification of the 1951 United Nations Convention on the Status of Refugees,¹³ Denmark established the Danish Refugee Council (DRC), tasked with supporting asylum seekers in their application for refugee status and residence permits. In response to a large inflow of refugees in the early 1980s, in 1986 the Danish Government, through the DRC, implemented a policy whose primary objective was to disperse refugees whose applications had been approved across counties and municipalities based on the number of existing inhabitants.¹⁴ Over the 1986–1998 period, 76,673 individuals were granted refugee status and allocated across municipalities (Statistics Denmark 1992, 1997, 2000).¹⁵ We display the allocated refugees as a share of the Danish population in 1986 in Figure A1. As the figure shows, this share approaches 1 percent in 1998.

The allocation process consisted of two stages: first, the DRC allocated refugees to temporary housing in one of Denmark’s 15 counties proportional to the number of county inhabitants (Danish Refugee Council, CIU 1996, pp. 8–9), and then, within each county, refugees were allocated to municipalities in which the DRC helped them find permanent housing.¹⁶ Although this latter was also proportional to the number of municipal inhabitants, proportionality on a municipal level took time to

¹³ The family members of any individual granted refugee status are also eligible for a residence permit on the grounds of family reunification (Danish Aliens Act, 1985-2015). These rules were made stricter in 2004, however, by the introduction of living space requirements and financial guarantees for the invited spouse (see <https://www.nyidanmark.dk/da-dk/Ophold/familiesammenfoering/aegtefaeller/flygtninge/flygtning.htm>).

¹⁴ Following the usual convention, we use the term “asylum seeker” for a person seeking asylum and the term “refugee” for a person whose asylum status has been approved.

¹⁵ The average total population of Denmark over the 1986–1998 period was 5.2 million.

¹⁶ According to the Danish Refugee Council’s 1986–1996 annual reports and 1992–1997 internal administrative statistics, only 0–4 percent of refugees failed to find permanent housing within the introductory 18-month period.

achieve: the DRC established mobile regional offices in the counties and settled refugees primarily in municipalities within commuting distance of these offices. These offices changed location every three years to ensure equal distribution of refugees across municipalities in the long term.¹⁷ This therefore created variation within municipalities in the short term. Within each county, across- municipality variation was augmented by varying the overall number of refugees arriving in Denmark in any one year, with annual numbers varying from 2,818 to 20,347 over our observation period.

Especially important for our research design is that the DRC only informed municipal authorities that they had assisted a refugee to find housing in the area after that individual had settled in the municipality, so the municipalities themselves had no influence over the number of refugees allocated in a certain year. Nor did the council take the refugees' location preferences into account during the assignment process. Rather, reassignment requests were considered but only *after* the individual had moved into the assigned municipality.¹⁸ Our identification strategy therefore relies on the share of refugees *assigned* to each municipality.

By two years after the introduction of this policy, refugees had been assigned to housing in 243 out of 275 Danish municipalities (Danish Refugee Council 1987, pp. 30–31) and their geographical distribution closely resembled that of the overall population. Figure 2a, which plots the 1985 population size against the number of refugees allocated in 1986–1998, reveals that counties with larger populations received larger numbers of refugees. The slope of the regression line is 0.0125, close to one refugee per 100 inhabitants, which corresponds to the overall share of refugees – about 1 percent of the total Danish population – allocated under the policy between 1986 and 1998 (see Figure A1).

¹⁷ Interview on March 7, 2008, with former placement officer Bente Bondebjerg.

¹⁸ Interview on June 8, 2001, with former placement officers Bente Bondebjerg and Morten Iversen. When interviewed again on March 7, 2008, Bondebjerg, by then the DRC's chief consultant, did not recall any refugee rejecting the council's offer of housing assistance.

Figure 2b then plots the same numbers for municipalities, revealing reciprocity between municipality size and refugee allocation on this level. The slope of the regression line is similar, at 0.0126. The figure also illustrates municipal size heterogeneity, with the urban centres of Copenhagen, Aarhus, Odense, Aalborg and Frederiksberg being the largest. Because initial findings suggest that these urban centres, which make up about 5 percent of the municipalities, exhibit a different response to refugee allocation than the majority of municipalities, much of our analysis concentrates on the 95 percent remainder.

Finally, Figure 2c illustrates the relation between the 1985 population size and refugee allocation over the time of the policy for these 95 percent smaller municipalities. Although the strong relation between allocated refugees and pre-policy population size is again apparent, there is also much variation in allocation number between similarly sized municipalities, particularly when the size of the refugee influx increases. This variation is a result of limited policy implementation time and the regional office rotation scheme in conjunction with large variation in yearly inflows (see discussion above), which left some municipalities with a lower proportion of refugees at the end of the policy period.

It is not this variation in refugee allocation between municipalities, however, that we use for identification in our analysis. Rather, we employ the within-municipality variation *between two electoral cycles*, as illustrated in Table A2. As the table shows, although the mean share of refugees allocated from 1986 up to each parliamentary election year is about 0.4 percent, there is substantial variation not only between but also within municipalities. Substantial within-municipality variation is also observable in the *changes* in refugee shares between the two electoral periods (row 2).

2.3 Data

We derive our data from two primary sources: Statistics Denmark's micro-level registers and its publicly available databases of municipal-level variables. To identify refugees who were granted asylum over the 1986–1998 period, we use micro-level data from the Danish population register. Specifically, we first identify the municipality of initial placement and then calculate the share of refugees *allocated* to each separate municipality from 1986 until the year preceding each election year. To avoid possible correlation between the refugees' re-allocation decisions and factors that influence voting behaviour, we use the cumulative share of *allocated* refugees rather than the number of refugees residing in the municipality. Likewise, when computing the share of allocated refugees in municipal populations, we avoid any influence on our explanatory variable of natives moving out of the municipality in response to the refugee influx by using the local population size at the beginning of 1986 rather than population sizes for each respective year.

We then use information from population, educational, income, labour and socio-economic registers to construct variables that characterize the municipality's electorate in 1985, the year before refugee dispersal began. These municipality characteristics include the share of immigrants, mean log gross earnings per capita, the share of rich,¹⁹ the share of working-age population, the share of immigrants, crime rates, the share of those who pay church taxes, local unemployment rate, and the welfare dependency of immigrants. To create these variables, we compile such demographic information as age, personal and family income, employment data and education level for each individual residing in a municipality in 1985 and then aggregate these data to municipality level and construct the shares corresponding to each municipality's population. Lastly, we standardize these

¹⁹ We define a rich individual as an adult whose disposable income as a household member is above 50 percent of the Danish median.

variables to have a mean of 0 and a standard deviation of 1 (see Table A3 for detailed variable definitions and data sources).

2.4 Descriptive statistics

Our analysis focuses on the overall pool of refugees received over the 1986–1998 random allocation period who initially received a permanent residence permit. The origin countries of these refugees are Lebanon, Iran, Iraq, Somalia, Sri Lanka, Vietnam, Afghanistan, and Ethiopia – not dissimilar than those of the recent refugee movements to Europe.²⁰ Between 1986 and 1998, the percentage of non-Balkan refugees in the Danish population increased from 0.12 percent (1986) to nearly 1 percent (1998) (see Figure A1). To identify the effect of different political parties on voting, our quasi-experimental design relies on within-municipality variation in the number of allocated refugees between elections. In other words, we estimate the effect of a change in the cumulative number of allocated refugees, expressed as a percentage of each municipality’s 1986 local population, on the change in vote shares for the different political parties. The key identifying assumption is that, given the dispersal policy’s random nature, refugee allocation is exogenous to the political process and voting outcomes within municipalities. We provide evidence for this assumption by demonstrating that past election outcomes do not predict future changes in the share of assigned refugees.

We profile the refugees and the municipalities to which they were allocated in Table A4 and Table 2, respectively. About 60 percent of the refugees were male, and one in two arrived with family. They also tended to be young, 23 on average, but also rather poorly educated, with only 25 percent having at least one professional qualification, compared to 45 percent of native Danes in the same

²⁰ We exclude refugees from the Balkan from our analysis because they were initially granted provisional asylum and therefore subject to a special refugee dispersal policy implemented in 1993.

period. Perhaps not surprisingly, therefore, they experienced remarkably high initial non-employment rates, with 96 percent remaining unemployed 2 years after approval of their asylum application,²¹ although this number decreased to about 68 percent after 10 years.

3. Theoretical Considerations, Empirical Methodology and Interpretation

3.1 Conceptual framework

According to contact theory (Allport 1954; Pettigrew 1998), interaction between ethnic groups leads to more understanding and harmony, implying that native voters with more exposure to immigrants should respond more positively to an exogenous inflow of refugees. Most hypotheses in the social sciences, however, emphasize negative responses to inflows of identifiable newcomers. Economists, for example, usually point out that individual attitudes towards and opinions on immigration are driven by concerns of economic self-interest (Downs 1957). Hence, in deciding whether to support or oppose increased immigration, individuals consider how an increase in immigration would affect their labour market opportunities, neighbourhood and quality of life. This line of argument has led economists to hypothesize that attitudes towards immigration may be determined by which groups it may harm and which groups it may benefit (see e.g., Scheve and Slaughter 2001; Mayda 2006). Dustmann and Preston (2005) emphasize that fiscal considerations may play an important role in immigration assessment, with those who contribute most to the tax system likely to oppose newcomers seen as drawing heavily on transfers (see also Facchini and Mayda 2009).

Attitudes towards minority groups may be determined not only by individual self-interest but by a wider sense of collective threat from groups competing against the majority's economic, social and

²¹ Non-employment is defined as being unemployed or not in the labour force at ages 18 to 65. In Denmark, both groups are entitled to some type of benefit.

cultural dominance (Blumer 1958; Blalock 1967; Bobo 1983). Thus, Campbell (1965) categorizes a variety of theories that link inter-group relations to inter-group competition for real resources under the rubric “realistic group conflict theories” (RGCT). Modern versions of this framework posit that competition between groups engenders the belief in a “group threat”, which in turn leads to prejudice and negative stereotyping by members of one group against the other while simultaneously bolstering within-group cohesion (Sidanius and Pratto, 1999). In line with this perspective, Quillian (1995) and Lahav (2004) argue that the larger the fraction of immigrants already in the country, the larger the threat natives perceive from additional immigrants. Similarly, Taylor (1998) suggests that increased exposure to the group posing the threat increases the threat’s salience, implying that natives living in high-immigrant areas will be more opposed to immigration. A further RGCT prediction is that “resource stress” (Esses et al. 2001) or “economic vulnerability” (Citrin et al. 1997) will enhance perceptions of the threat posed by competing groups, an assumption that is highly relevant when areas experiencing economic difficulty are the most exposed to refugee allocation.

If such considerations shape attitudes towards immigration, they may also translate into vote shares for parties explicitly running on an anti-immigration agenda. Our analysis thus relates changes in vote shares in parliamentary and municipal elections to the allocation of refugees between two electoral cycles (hereafter, inter-cycle allocation). To test the conjecture that such an influence exists, we interact the inter-cycle change in refugee allocation with the receiving municipality’s characteristics, measured as of 1985, the year preceding dispersal policy implementation. In particular, we investigate whether municipalities respond according to pre-policy immigrant shares, mean log income in the municipality, share of rich individuals, crime rates, local unemployment rates, share of church tax payers (as a measure of altruistic beliefs), and share of immigrant welfare recipients.

Prior to the analysis, we have no ex-ante expectations of how the share of pre-policy immigrants in the municipality will influence the effect of refugee allocation on the vote shares of anti-immigration parties. Whereas the contact hypothesis in principle allows this interaction to have a positive sign, group threat theories would certainly suggest the opposite. Such is also the case for local unemployment rates and the share of welfare recipients among immigrants. Nevertheless, additional factors such as crime rates might sensitize local populations to refugee allocation, whereas a higher commitment to the church, captured here by share of church taxpayers, may reflect a more altruistic attitude overall, one that could alleviate the impact of refugee allocation on anti-immigration party vote shares.²²

3.2 Estimation

Our estimation is based on the following empirical specification:

$$VS_{it}^p = \alpha_0^p + \alpha_1^p RS_{it} + \gamma_i + \tau_t + \epsilon_{it}^p, \quad (1)$$

where VS_{it}^p denotes the share of votes for political party p in municipality i in election year t , and RS_{it} is the total number of refugees allocated to municipality i between 1986 and election year t relative to the municipality's total population at the beginning of 1986. The symbols γ_i and τ_t denote municipality fixed effects and election year fixed effects, respectively. Our parameter of interest is α_1^p , the effect of the share of allocated refugees on the voting share for party group p .

²² Being part of a Christian church is deliberate, and those who opt out are not required to pay church taxes.

Denmark's random assignment policy for refugees implies that $E(\gamma_i + \epsilon_{it} | RS_{it}) = 0$, so that the estimated parameter α_1^p can be causally interpreted. In our empirical specification, we use a tighter design, eliminating municipality fixed effects by estimating (1) in differences:

$$\Delta VS_{it}^p = \alpha_1^p \Delta RS_{it} + \Delta \tau_t + \Delta \epsilon_{it}^p. \quad (2)$$

As a result of this tighter design, we now only require differences in inter-cycle region-specific shocks that affect vote shares not be correlated with refugee allocation over the same period ($E(\Delta \epsilon_{it}^p | \Delta RS_{it}) = 0$). Such is in fact the case because the random nature of the dispersal policy precludes any possibility that a policy shock, for example, in the past electoral cycle ($t - 1$) could increase the anti-immigration parties' vote share and lead to a lower share of allocated refugees in period t . We will test this assumption nevertheless below.

It should also be noted that because $\sum_{p=1}^4 \Delta VS_{it}^p = 0$, the α_1^p sum to zero and can be interpreted as the percentage point change in vote shares from election year $t - 1$ to election year t for party p induced by a one percentage point change in refugee allocation over the same period.

We are also interested in whether municipal characteristics affect changes in electoral outcomes in response to changes in refugee allocation, in the vector X_i . Therefore, we include any such characteristics that could be influenced by allocation, using their value in the pre-policy year of 1985.

We then estimate

$$\Delta VS_{it}^p = \beta_1^p \Delta RS_{it} + \Delta RS_{it} X_i' \beta_2^p + \tau_t + \Delta \epsilon_{it}^p, \quad (3)$$

where β_1 is the effect of changes in the inter-cycle allocation share on the share of votes for party p conditional on $\Delta RS_{it} X_i'$, and β_2^p is a vector of parameters measuring how differences in pre-allocation municipal characteristics X_i influence how a change in allocation share affects voting outcomes. These variables are normalized to have a mean of 0 and a standard deviation of 1 based on the 1985

distribution across 275 municipalities (or for the five percent largest and 95 percent smaller municipalities when separate estimation results are presented). Again, because ΔRS_{it} sum up to zero over all parties p , the estimated parameters for each element in X_i also sum to zero over all parties. Moreover, because the level variables in X_i are time constant, they are eliminated in a difference equation. We then estimate the two specifications separately for parliamentary and municipal elections.

4. Results

4.1 Balancing tests

A key assumption of our identification strategy is that electoral outcomes in any election year t do not affect refugee allocation to a particular municipality. The assignment policy in place over the study period excludes that possibility. Nevertheless, we first verify that refugee allocation is indeed independent of local concerns by testing its independence from local political constellations on a municipal level. To do so, we assess whether the composition of the municipal council and/or changes in it affect future refugee allocation. If council composition has an effect, then the composition produced by elections in year $t - 1$ should explain any variation in refugee allocation up until the next election (i.e., from election year $t - 1$ to election year t). Alternatively, we test if *changes* in the council's composition between election year $t - 2$ and election year $t - 1$ affect *changes* in the municipal share of allocated refugees between $t - 1$ and t . We estimate the following regression models:

$$\Delta RS_{it} = c_0 + c_1 VS_{it-1}^p + \gamma_i + \tau_t + u_{it} , \quad (4)$$

and

$$\Delta RS_{it} = d_1 \Delta VS_{it-1}^p + \tau_t + e_{it} , \quad (5)$$

where ΔRS_{it} is the change in the share of refugees allocated to municipality i between election year t and $t - 1$, VS_{it-1}^p (ΔVS_{it-1}^p) is the vote share in the previous municipal election in year $t - 1$ (change in the vote share between election year $t - 2$ and $t - 1$) of party p , and τ_t and γ_i are time and municipality fixed effects.

Seat and vote shares are very highly correlated in municipal elections – 98 percent for centre-left and small centre parties, 97 percent for centre-right parties and 88 percent for anti-immigration parties (based on 1989/1993 data). Although it is *seat shares*, not vote shares that matter for political intervention we present results for both vote shares and seats.

Table 3 therefore reports estimates of equations (4) and (5) in which the regressors are either lagged (changes in) vote shares (columns (1) and (2), respectively) or seat shares (columns (3) and (4), respectively) for any of the four party blocks as dependent variables.²³ The estimates for the two specifications point in opposite directions, and regressions suggest no systematic impact of vote share or parliamentary seat share for any of the four party blocks. Nor do they reveal any systematic association between lagged change in share and share of refugees allocated over the next four years to the respective municipality. In fact, the estimates are notably small in magnitude: in columns (1) and (2), a one percentage point increase in the vote share (lagged change in vote share) for anti-immigration parties leads to a 0.008 (0.009) percentage point decrease (increase) in refugee allocation over the next four years. Likewise, in column (3) a one percentage point increase in the anti-immigration parties' seat share on the municipal board corresponds to a 0.006 percentage point decrease in allocation share. The coefficients on refugee allocation for other party blocks are of similarly small magnitude and

²³ We focus on municipal elections as any such influence should be of less concern for parliamentary than for municipal elections because the national parliament is unlikely to implement a policy that addresses the concerns of a particular municipality.

always statistically insignificant, with the exception of the change in vote share for centre and small parties, which is significant at the 5 percent level. This evidence supports the independence of refugee allocation from past municipal election outcomes.

4.2 Main results

Table 4a summarizes the equation (2) results for parliamentary elections, separately listing the parameter α_1 estimates for centre-left, other small, centre-right and anti-immigration parties. Panels A and B, respectively, report the results with each municipality either given equal weight or weighted by population size. In panel A, the effect of refugee allocation for anti-immigration parties is considerable: a one percentage point (one standard deviation) increase in allocation share increases the anti-immigration party vote share by 1.38 (0.28) percentage points or, relative to the average 8.5 percent vote share, by 16 (3.2) percent. The centre-right parties also gain one percentage point in vote share for each percentage point increase in refugee allocation over the previous four years, although their vote share is so large that this increase translates into a smaller percentage change. On the other hand, smaller and mostly left-leaning centrist parties lose votes, as does the centre left.

Weighting the municipalities by population size (panel B) greatly reduces both the magnitude and the precision of the results. Given that the large urban municipalities are weighted more, any differences in findings must be the result of different voter responses to changes in the allocated refugee shares in urban municipalities. To investigate this supposition further, we allow the voting response to differ between the 10 largest municipalities (alternatively the 5 percent largest municipalities), and all other municipalities (see panels C and D). The estimates for all municipalities except the largest are now similar to the unweighted results in panel A. Voters in the 5 percent largest municipalities (in

contrast to those in the 95 percent smaller and less urban ones) tend to respond to refugee allocation by *reducing* their votes for far right-leaning parties and increasing their vote share for centre-left parties. Our estimates therefore point to different voter responses in urban areas whose voters tend to respond to refugee allocation by shifting away from anti-immigration parties towards parties at the left of the political spectrum.

We therefore identify a clear rightward shift of vote shares along the political spectrum, with anti-immigration parties gaining and centre-left parties losing most in response to refugee allocation, for all but the most urban municipalities in which responses tend to point in the opposite direction. For the non-urban areas, our estimates suggest that anti-immigration parties benefit considerably from refugee allocation, increasing their vote share by more in municipalities with greater inter-cycle allocation (Table 4a, panels C and D). Centre-right parties also seem to gain from increased allocation, although to a far lesser extent. These gains in vote shares on the right side of the political spectrum translate into losses on the left side, with both centre-left and smaller left-leaning parties losing vote shares.

Remarkable is the contrast to the urban areas, where refugee allocation leads to opposite voting behaviour for the anti-immigration parties. One possible explanation is that anti-immigration party rhetoric, although it may attract votes in smaller and more rural municipalities, may have a deterrent effect on voters in larger urban municipalities like Copenhagen.²⁴ Our findings, based on a clean identification design, therefore add to the evidence that the voting for populist parties responds differently to refugee allocation in urban and rural areas.²⁵

²⁴ According to Rydgren (2004), the rhetoric used made it difficult for the Progress Party to posit itself as an anti-political establishment party in cities. Our findings are remarkably in line with recent European election results for the United Kingdom Independence Party (UKIP), which ran on a blatant anti-immigrant agenda in 2014. While winning large vote shares in rural areas, vote shares were lower in urban areas, and particularly weak in London, where the share of foreign born (who could not vote) is close to 40 percent.

²⁵ This observation is in line with Barone et al.'s (2014) finding that an increase in immigrant share leads to an increase in votes for centre-right parties except in large cities. In the same vein, Steinmayr (2016) identifies a *reduction* in vote share

Table 4b reports the same estimates for municipal elections, which, like those for parliamentary elections, show refugee allocation inducing a vote share shift away from centre-left to centre-right parties. Although this pattern is visible in both unweighted and weighted regressions, as before voting share responses to refugee inflows in the largest municipalities seem different, with a voter tendency to reduce the vote share for anti-immigration parties and increase it for left-centre parties. In fact, because the anti-immigration party vote share on a municipal level is smaller overall (at 5 percent), the voter response in their favour appears large. For instance, the 2 percentage point increase in anti-immigration party votes induced by a one percentage point increase in refugee allocation translates into an almost 40 percent increase in vote share. Even evaluated against the 0.21 standard deviation in the change in inter-cycle allocation (see Table A2), it still translates into a notable 8.4 percent increase in anti-immigration vote shares attributable to refugee inflow, suggesting a far more significant effect in municipal than in parliamentary elections.

4.3 Electoral outcomes and municipality characteristics

In Table 5, we investigate whether municipal characteristics affect electoral outcomes by interacting changes in allocation share with pre-policy (1985) municipal characteristics. In addition to the share of immigrants, log gross income per capita, the share of rich and the share of working age in the local population (Panels A-D), these characteristics include crime and violent crime rates, measured as the number of reported crimes (violent crimes multiplied by 10,000) divided by the number of inhabitants (panels E and F). They also include support for the Christian church, measured as the percentage of

for the right wing FPÖ party as the immediate response to refugee allocation in Austria. He interprets his findings in light of the contact hypothesis that exposure to refugees changes individuals' beliefs and leads them to embrace the newcomers.

inhabitants who paid church taxes (panel G), municipal unemployment rate (H) and the share of welfare dependents among immigrants (panel I). We demean all these variables so that the coefficient of the change in allocation share (always reported in the first line) can be interpreted as the effect on electoral outcomes at the mean of the respective interacted variable. We report the means and standard deviations of all these variables in Table 2.

As shown in panel A, electoral outcome responses to the refugee allocation vary strongly with the 1985 share of immigrants (or their descendants). If that share increases by one standard deviation at the mean, then the effect of a one percentage point increase in the refugee allocation share increases from 1.1 to 3 percentage points. At the same time, although there is little response in favour of centre-right and other small parties, support for centre-left parties decreases by an additional 1.7 percentage points. Thus, the presence of immigrants in the municipality seems to exacerbate the impact of refugee allocation on the anti-immigration party vote share, a finding that, although very much in line with group threat theories, does not support contact theory.

Furthermore, the effect of refugee allocation on anti-immigration party vote shares increases with the percentage of rich in the population and increases with both log gross income per capita and the share of working age individuals, panels B-D. Yet again, these increases simultaneously translate into decreases for the centre-left parties, suggesting that more affluent areas and those with larger shares of working age individuals respond more strongly to refugee allocation, as reflected by a larger increase in anti-immigration party vote share. This observation is in line with the economic hypothesis of self-interest, which posits that individuals respond to immigration based on their own economic concerns. Accordingly, the high welfare dependency of immigrants illustrated in Table 2 may lead the more affluent to believe that it is they who are mainly financing refugees, while similar concerns may motivate those of working age. In line with this, the share of welfare dependent among immigrants

increases the impact of refugee allocation on the vote share for anti-immigrant parties (see Panel I). These results echo Dustmann and Preston's (2005) analysis of the effect of labour market and fiscal burden concerns on attitudes towards immigration, which shows that although both concerns matter, it is fiscal concerns that are clearly dominant. Similar responses are observable with respect to crime and violent crime (panels E and F): if the number of reported or violent crimes is higher in the pre-allocation year, the same increase in refugee share leads to higher gains in vote shares for anti-immigration and centre-right parties, while centre-left and smaller left-leaning parties lose out. These estimates therefore suggest increased sensitivity to refugee allocation in municipalities that were more exposed to crime before policy implementation. Panel G then reports the results of interacting these same estimates with the share of church tax payers, which suggest that an increased allocation share leads to weaker effects on the vote shares of anti-immigration parties and a smaller decrease in those of centre-left parties. One way to interpret these findings is a more emphatically altruistic attitude towards refugee allocation in municipalities where support for Christianity is greater, making voters less responsive to anti-immigration party rhetoric. This is in line with Card, Dustmann and Preston's (2012) suggestion that altruistic attitudes lead to a more liberal voter position towards immigration policies. Surprisingly, interacting refugee allocation with unemployment rate (panel H) reveals no significant vote share response.

To illustrate the heterogeneity of responses to refugee allocation across urban municipalities, Table 6 displays the results using the same set of municipal characteristics for only the 5 percent largest Danish municipalities. The estimates are based on a far smaller sample (26 observations) and are therefore far less precise. Nevertheless, these estimates consistently indicate that as urban municipalities receive more refugees, urban voters become *less* supportive of anti-immigration parties and shift their votes to the centre left. There are also striking differences in how pre-policy municipal

characteristics interact with refugee allocation in urban municipalities as compared to smaller and less urban municipalities. For instance, immigrant pre-policy welfare dependency and share of immigrants in the population play no role in how urban voters react to refugee allocation but matter in small or rural municipalities. Likewise, the share of more affluent urban voters, rather than augmenting the allocation effect on anti-immigration party vote shares, does the opposite. The one variable that seems to result in an allocation-induced increase in the far right vote share is municipal unemployment rate, which increases support for anti-immigration parties as refugee immigration increases. This finding could suggest that in urban areas, voters are more concerned that refugees will compete for jobs, whereas in less urban areas, more affluent voters are more concerned that they will become a welfare burden. The commonality in allocation response by urban and less urban municipalities is in the crime rate, with higher pre-policy crime rates prompting voters to respond to higher refugee allocation by voting for anti-immigration parties.²⁶

4.4 Refugee allocation and voter turnout

The results above suggest that the anti-immigration party vote share is indeed sensitive to inter-cycle allocation of refugees. This could be because voters respond to allocation by casting their votes for anti-immigration parties, or because voter composition itself changes through the activation of those who would otherwise not vote. Therefore, although we cannot directly test such an effect on voter *composition* (because we have no individual data on voting behaviour), we explore whether refugee allocation activates additional voter participation by investigating whether it affects voter turnout. Over

²⁶ Municipal characteristics affect voting in municipality elections similarly as in parliamentary elections. Exception are the responses in the 5 percent largest municipalities with a large a priori share of immigrants and more welfare dependent immigrants. In these the anti-immigration parties lose *less* votes in response to refugee allocation at municipal elections, while this is not so at parliamentary elections. Results are presented in Tables A8 and A9.

the three parliamentary and municipal electoral cycles considered here, an average 85 percent and 73 percent of eligible voters participated in the parliamentary ($SD = 2.47$) and municipal elections ($SD = 3.94$), respectively. The average change in turnout between two parliamentary (municipal) electoral cycles is 1.48 (0.95). In Table 7, we regress this turnout on the refugee share allocated to a specific municipality, showing the fixed effects estimates in panel A and the difference estimates (change in voter turnout regressed on change in refugee allocation between previous and current electoral cycles) in panel B. We report both weighted and unweighted estimates.

These findings lend little support for the hypothesis that refugee allocation has a noticeable impact on voters in *parliamentary* elections: the estimates in columns (1) and (2) are small and never statistically significant. For municipal elections, however, columns (3) and (4) show evidence that a higher share of allocated refugees leads to a higher share of individuals voting. More specifically, a one percentage point increase in the refugee allocation share increases voter participation by between 0.6 and 1.8 percentage points. Thus, there is some evidence that voter turnout is affected by refugee allocation, but this effect is restricted to municipal elections.

4.5 The decision to run in municipal elections

Because not every party stands for municipal election in every municipality, anti-immigration parties are often absent from such contests (see Table A5). Moreover, as previously explained, prior to the 1995 development of the DPP, the PP was the only party running with a strong anti-immigration agenda. Hence, in the 1997 municipal elections, the DPP ran alongside the PP in 116 municipalities, only the PP (80) or the DPP (26) stood in others, and neither ran in 53. The decision where to run is thus an interesting outcome variable in itself, which we now investigate.

In Table 8, we perform an initial assessment of how anti-immigration parties may decide whether and where to stand for municipal elections in response to inter-cycle allocation shares. Specifically, this table reports the marginal effects from simple probit models (evaluated at the mean), with the first column listing the effect of refugee allocation on the probability that either of the two parties stands in a given municipality in either the 1993 or 1997 municipal election. The average share of municipalities in which at least one anti-immigration party is running for election is 77 percent. The results in the table therefore suggest that a one standard deviation (0.21) increase in the change in refugee allocation increases the probability of an anti-immigration party running by 6.3 percentage points or 8.2 percent, which is a large response. The next two columns report the results of running the same regression for the 1997 election only, with the probability of at least one party or both parties running in a municipality as the dependent variable. The effects for that year are even larger: A one standard deviation increase in the allocation share increases the probability of at least one anti-immigration party running by 10.7 percentage points or 13.2 percent. Thus, these estimates suggest that refugee allocation is a major factor in the decision of anti-immigration parties to stand for municipal elections. Further, if unobservables affecting whether or not to stand for municipal elections and vote shares for the anti-immigrant parties are positively correlated, the estimates of α_1 for anti-immigrant parties at municipal elections as discussed in Section 4.2 (and reported in Table 4b) would be a lower bound for the overall effect.

Focussing on the 1997 election when both the PP and the DPP existed alongside each other, we now address the questions of what influenced each party's decision to stand, how important the refugee share was for each party, and whether the same share of allocated refugees led to different decisions dependent on observable (1985) municipality characteristics. To give a first descriptive impression, in Table A6 we tabulate the means of the municipal characteristics according to whether no anti-immigration parties, only one, or both were standing in the 1997 municipal election. This tabulation

reveals that the allocation share is 0.08 percent in municipalities in which neither party stands, but 0.11 percent and 0.19 percent, respectively, in those in which either only the PP or both the PP and DPP stand. Other than this difference, the municipalities are quite balanced with respect to all other characteristic except for the 1985 share of resident immigrants. This share is 1.5 percent in municipalities in which neither party stands, but increases to 1.64, 1.89 and 2.45 percent, respectively, in municipalities in which the PP, DPP, or both parties stand. A clear pattern also emerges with respect to the share of reported (violent) crimes, which is clearly higher in municipalities in which both parties run.

We explore this observation further by estimating simple multinomial logit models (Table 9) that distinguish four categories: neither party stands for election (base category), only the PP stands, only the DPP stands, or both parties stand. The first panel reports the coefficient estimates, while the second panel reports changes in the log odds ratios. These estimates show that the log odds ratio of “PP only” to “no party” is modestly affected by refugee inflow, while the log odds ratios of “DPP only” and “both parties” to “no party” are strongly affected by refugee allocation, with increases of 41 and 48 percent, respectively. Refugee allocation thus seems to be a powerful predictor of anti-immigration parties running in local elections.

In a last step, we assess whether these effects are exacerbated by municipal characteristics (the same set as in Table 5) and report the estimated coefficients in Table A7. As the numbers suggest, the only significant interaction is with immigrant share in the area, which significantly increases the probability that both parties run for municipal election, given the same refugee allocation. Thus, refugee allocation seems to be a major factor in the decision of anti-immigration parties where to stand for elections, an effect that is exacerbated by the stock of previous immigrants and their dependents that live in the area before the allocation policy was implemented.

5. Discussion and Conclusions

By exploiting data from the 13 years of Denmark's random refugee dispersal policy, which encompass three parliamentary and municipal electoral cycles, we show that an exogenous increase in refugee allocation strongly affects anti-immigration parties' vote shares in both parliamentary and municipal elections in all but the most urban municipalities. Although anti-immigration parties gain most from refugee allocation, we also find an increase in the vote shares of centre-right parties but a clear reduction in those of left-leaning parties. Interestingly, this response is not evident in Denmark's urban areas in which the impact of refugee allocation points in the opposite direction. One reason may be that the anti-immigration parties' rhetoric does not entice urban voters, an observation that supports anecdotal evidence from past elections.

We also find strong evidence for heterogeneous anti-immigrant party voting responses across municipalities to refugee allocation. In particular, the evidence for less urban municipalities is compatible with more affluent individuals being concerned about the fiscal effects of refugee allocation: richer municipalities, municipalities with a higher share of working age individuals, and less urban municipalities with high immigrant shares respond more strongly to increases in refugee share. Although this finding for smaller municipalities conforms to group threat theories, it clearly contradicts the contact hypothesis. Contrary to these findings, in urban municipalities, a higher share of more affluent individuals leads to a *reduction* in anti-immigration party support in response to refugee allocation, whereas higher unemployment has the opposite effect. Nor are urban voters' responses to immigration at parliament elections affected by a higher pre-policy immigrant share or immigrant welfare dependency.

We further establish that in municipal elections, the refugee share allocated to a municipality between electoral cycles slightly increases voter turnout. Refugee allocation is also strongly related to anti-immigration parties' decisions on where to stand in elections, an effect exacerbated by the share of immigrants living in the area before implementation of the allocation policy.

More generally, our paper contributes to a better understanding for the rise of populist parties and politicians and of the reasons for different voter responses. We provide strong evidence of response heterogeneity based on municipal characteristics, and that past immigration and current refugee settlement are major factors in determining the regional spread of anti-immigration parties. Our analysis also provides intriguing evidence that refugee allocation may lead to very different responses in urban versus rural areas.

All this has important implications for the current debate on refugee allocation in Europe. First, our study is the first that uses an assignment experiment to provide causal evidence that refugee migration leads not only to an increase in the share of votes for anti-immigrant parties, but may be the main factor for the emergence of these parties in elections. It uncovers a clear causal link between refugee allocation and the rise, and success of populist parties with strong anti-immigration agendas. Second, we find startling differences in responses of voters in urban and rural areas to refugee allocations, which suggests that refugee immigration and vote share increases of anti-immigrant parties are not inevitably linked. Analysis as to why urban populations respond so differently to the allocation of refugees is beyond the scope of our paper, but is certainly an important future research area. Finally, our findings have important implications for the allocation of refugees, and therefore immediate relevance for the current policy debate. They suggest that allocation practices that take municipal (or even country) characteristics into account, rather than random allocation based on equalizing the share relative to the resident population, may be preferable as they mitigate the emergence of radical parties.

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Figure 1. Danish Elections, Governments and Anti-immigration Parties in 1986-1998

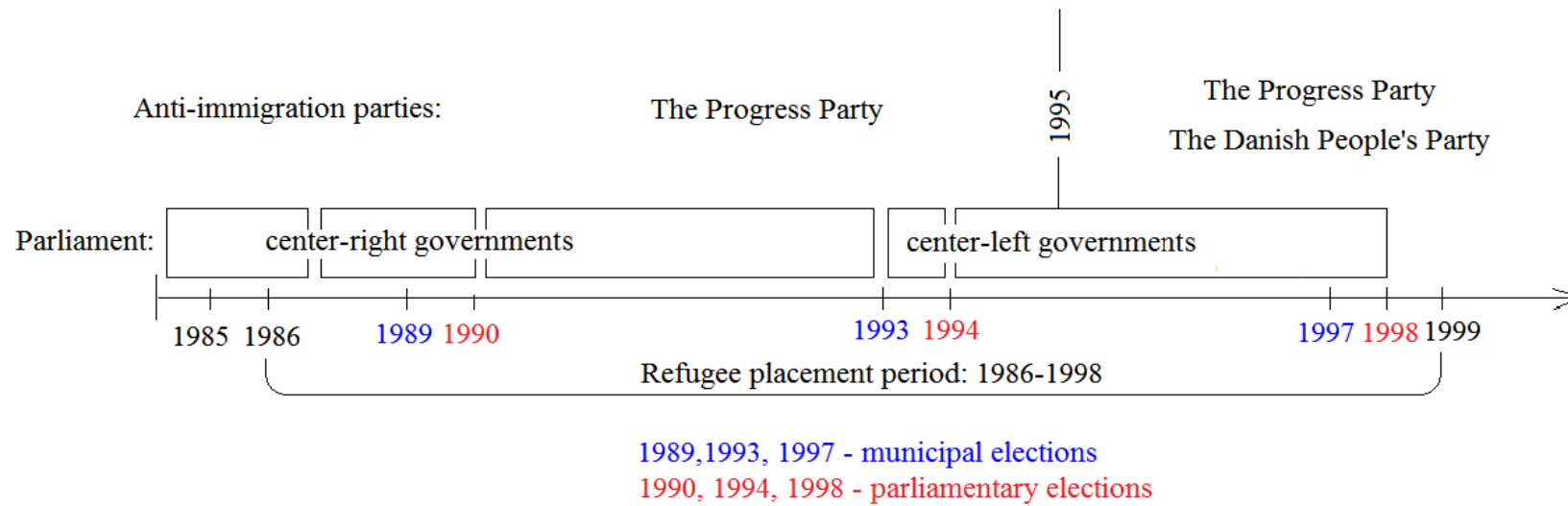
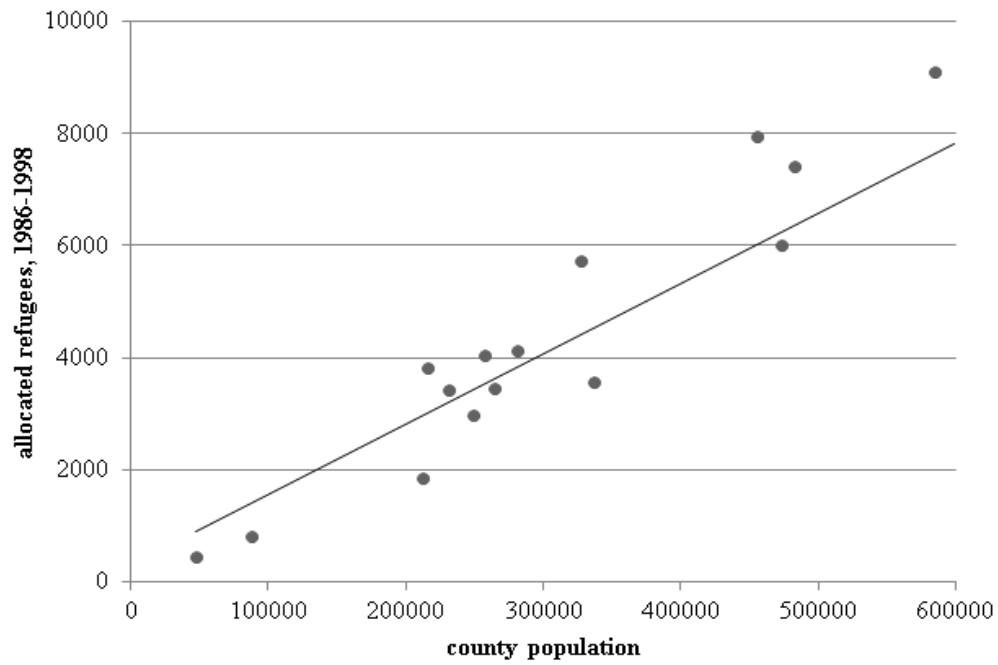


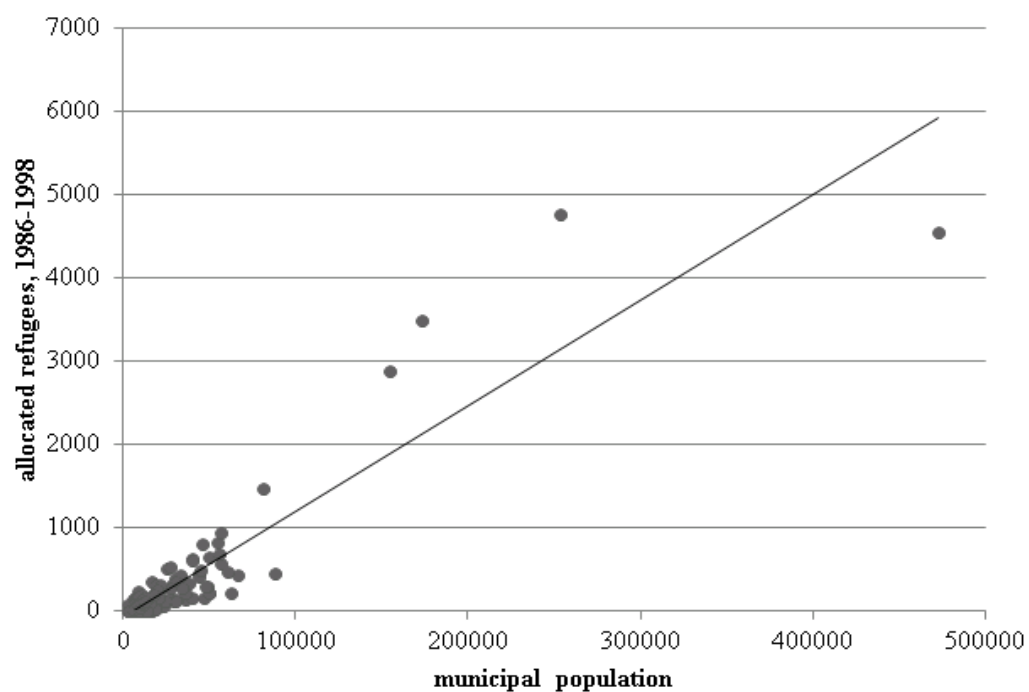
Figure 2a. Allocated Refugees versus Danish County Population



Source: Own calculations based on Statistics Denmark register data.

Note: Vertical axis: number of refugees allocated between 1986 and 1998. Horizontal axis: local population in 1986. Slope of the regression line: 0.0125.

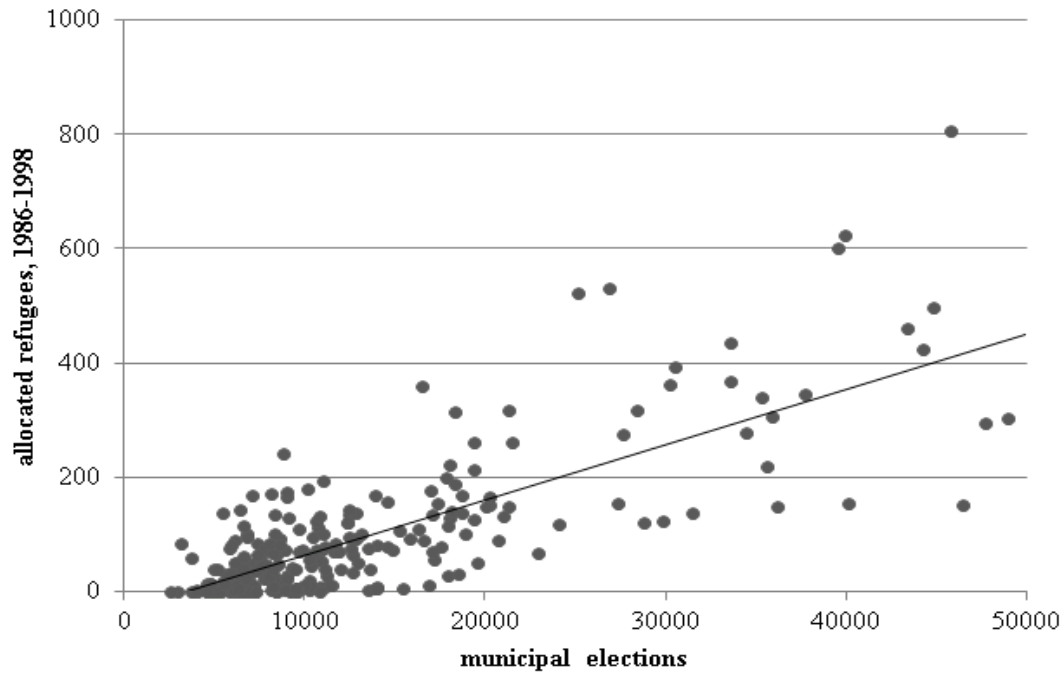
Figure 2b. Allocated Refugees versus Danish Municipal Population



Source: Own calculations based on Statistics Denmark register data.

Note: Vertical axis: number of refugees allocated between 1986 and 1998. Horizontal axis: local population in 1986. Slope of the regression line: 0.0126.

Figure 2c. Allocated Refugees versus Population, 95 pct Smallest Municipalities



Source: Own calculations based on Statistics Denmark register data.

Note: Vertical axis: number of refugees allocated between 1986 and 1998. Horizontal axis: local population in 1986. Slope of the regression line: 0.0097.

Table 1. Voting Outcomes

Variable	parliament		municipality	
	mean	std. dev.	mean	std. dev.
Vote share for: anti-immigration parties (PP and DPP)	8.47	2.70	4.92	3.75
the Progress Party	5.94	3.38	3.87	3.65
centre-right parties	37.39	7.35	39.73	12.26
centre-left parties	47.01	8.50	41.84	13.06
other (centre small) parties	7.13	2.67	13.50	13.77
Turnout at parliamentary elections	84.94	2.47		
Election cycle change in turnout between parliamentary elections	1.48	1.08		
Turnout at municipal elections			73.32	3.94
Election cycle change in turnout between parliamentary elections			0.95	2.79

Note: Danish Parliament elections 1990-1998. Danish Municipal elections 1989-1997. Voting statistics from the Danish Ministry of the Interior, the Statistics Denmark Database, Statistics Yearbooks for municipal elections, and the "Municipal elections in municipalities and counties on the 21st of November, 1989" statistical book. See Table A3 in the Appendix for the detailed description of data construction.

Table 2. Summary Statistics

	all municipalities		smallest 95 pct.		largest 5 pct.	
	mean	std. dev.	mean	std. dev.	mean	std. dev.
<i>Panel A: Allocated refugees, from 1986 till elections year</i>						
Average Cumulative Change in Share of allocated refugees over electoral cycle, in % of 1986 local population	0.16	0.21	0.15	0.21	0.37	0.19
<i>Panel B: Municipal population size per 01.01.1986</i>						
Population	18604	36200	13282	10244	125862	120657
<i>Panel C: Municipal characteristics: 1985. Weighted by population size per 01.01.1986. N=275</i>						
Mean log gross income per capita	11.44	0.12	11.43	0.13	11.45	0.12
Share of working-age population, %	61.99	2.70	61.43	2.94	63.17	1.57
Mean age	45.68	2.24	45.48	2.29	46.09	2.14
Share of rich (50% above Danish median income) in local population, %	14.48	6.19	15.26	6.50	12.84	5.29
Share of immigrants (1st and 2nd generation), %	3.27	2.55	2.40	1.86	5.12	2.91
Reported crime rate, %	9.36	3.97	7.73	2.19	12.83	4.80
Reported violent crime rate per 10000 inhabitants	0.17	0.06	0.15	0.05	0.21	0.06
Share of native population paying voluntary church tax, percent	83.22	3.90	84.70	2.66	80.07	4.38
Share of unemployed in labour force, percent	7.43	2.30	6.81	2.16	8.77	2.06
Share of welfare dependent among immigrants, percent	48.98	7.26	46.58	7.41	54.10	3.16

Note: Refugees allocated from 1986 until year prior to the election year as percentage of local population in Danish municipalities in 1986. Municipality variables measured in 1985. Municipal characteristics are constructed from Population, Income, Education, Labour force and Socioeconomic registers owned by Statistics Denmark. Voting statistics from the Danish Ministry of the Interior for parliament elections and Statistics Denmark Database for municipal elections. Parliament elections: 1990, 1994, 1998. Municipal elections: 1989, 1993, 1997. Please see Table A1 for voting statistics for each year and Table A3 for the detailed description of data construction.

Table 3. Balancing Tests

	(1)	(2)	(3)	(4)
Dependent variable	Δ Share of allocated refugees in % of local population, 4 years after elections			
Explanatory variable	share of votes	change in share of votes	share of seats	change in share of seats
Anti-immigration parties, lagged	-0.0080 (0.0056)	0.0088 (0.0061)	-0.0062 (0.0044)	0.0066 (0.0038)
Centre-left parties, lagged	0.0000 (0.0027)	0.0023 (0.0041)	-0.0001 (0.0024)	-0.0042 (0.0031)
Centre and small parties, lagged	0.0016 (0.0027)	-0.0070* (0.0032)	0.0017 (0.0021)	0.0013 (0.0029)
Centre-right parties, lagged	0.0002 (0.0019)	0.0039 (0.0031)	0.0003 (0.0019)	0.0012 (0.0018)
Municipality FE	YES	NO	YES	NO
Time FE		YES		
N	550	275	550	550
Number of municipalities		275		

Note: Danish Municipal elections 1989-1997. Estimates weighted by municipal population size. Mean in the change in the share of allocated refugees: 0.16% for (1), (3), (4) and 0.17% for (2). Specification (2) relates only to 1993-1997 election cycle as it is not possible to obtain vote shares at municipal elections for 1985. Voting statistics from the Statistics Denmark Database for municipal elections. Heteroscedasticity robust standard errors in parentheses. **

Table 4a. Allocation of Refugees and Voting Behaviour, Parliament Elections

	(1)	(2)	(3)	(4)
		Δ Share of votes for		
	centre-left	other	centre-right	anti-
		(centre small)		immigration
<i>Panel A: Unweighted</i>				
Δ Share of allocated refugees in % of local population	-1.326*** (0.393)	-1.002** (0.422)	0.946*** (0.333)	1.381*** (0.261)
R-squared	0.513	0.653	0.904	0.686
<i>Panel B: Weighted</i>				
Δ Share of allocated refugees in % of local population	-0.624 (0.936)	-0.493 (1.238)	0.497 (0.654)	0.619 (0.467)
R-squared	0.647	0.533	0.933	0.692
<i>Panel C: Weighted, indicator for 10 largest</i>				
Δ Share of allocated refugees in % of local population	-1.170** (0.468)	-0.569 (0.424)	0.641* (0.344)	1.098*** (0.333)
Δ Share of allocated refugees in % of local population *indicator for municipality being one of the 10 largest	3.956 (2.425)	0.141 (2.860)	0.093 (1.608)	-4.190*** (1.367)
R-squared	0.710	0.608	0.937	0.729
<i>Panel D: Weighted, indicator for 5 pct. largest</i>				
Δ Share of allocated refugees in % of local population	-1.381*** (0.470)	-0.598 (0.432)	0.751** (0.335)	1.228*** (0.337)
Δ Share of allocated refugees in % of local population *indicator for municipality being among the 5% largest	4.019** (2.359)	-0.027 (2.875)	0.024 (1.596)	-4.015*** (1.285)
R-squared	0.704	0.590	0.936	0.726
Time FE			YES	
N			550	
Number of municipalities			275	

Note: Danish Parliament elections 1990-1998. Share of allocated refugees is calculated as the total cumulative number of refugees allocated from 1986 until year prior to the election year as a percent of local population in 1986. Mean of the election cycle change in the share of allocated refugees: 0.16%. Voting statistics from the Danish Ministry of the Interior. Heteroscedasticity robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 4b. Allocation of Refugees and Voting Behaviour, Municipal Elections

	(1)	(2)	(3)	(4)
	centre-left	other (centre small)	centre-right	anti- immigration
<i>Panel A: Unweighted</i>				
Δ Share of allocated refugees in % of local population	-1.604 (1.164)	-2.727* (1.522)	2.130* (1.182)	2.201*** (0.638)
R-squared	0.125	0.021	0.290	0.170
<i>Panel B: Weighted</i>				
Δ Share of allocated refugees in % of local population	0.497 (1.724)	-3.012*** (1.101)	0.453 (1.274)	2.062*** (0.760)
R-squared	0.195	0.055	0.472	0.300
<i>Panel C: Weighted, indicator for 10 largest</i>				
Δ Share of allocated refugees in % of local population	-1.880 (1.557)	-0.621 (1.459)	0.550 (1.357)	1.951*** (0.693)
Δ Share of allocated refugees in % of local population *indicator for municipality being one of the 10 largest	8.943* (4.807)	-2.226 (2.693)	-3.043 (3.523)	-3.675** (1.733)
R-squared	0.225	0.075	0.486	0.326
<i>Panel D: Weighted, indicator for 5 pct. largest</i>				
Δ Share of allocated refugees in % of local population	-3.130** (1.301)	-0.125 (1.493)	1.285 (1.236)	1.971*** (0.691)
Δ Share of allocated refugees in % of local population *indicator for municipality being among the 5% largest	11.887*** (4.468)	-3.012 (2.556)	-5.452 (3.405)	-3.423** (1.607)
R-squared	0.235	0.081	0.487	0.327
Time FE	YES			
N	550			
Number of municipalities	275			

Note: Danish Municipal elections 1989-1997. Share of allocated refugees is calculated as the total cumulative number of refugees allocated from 1986 until year prior to the election year as a percent of local population in 1986. Mean of the election cycle change in the share of allocated refugees: 0.16%. Voting statistics from the Statistics Denmark Database for municipal elections. Heteroscedasticity robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

**Table 5. Response to Refugee Allocation, Municipal Characteristics,
95 pct Smallest Municipalities, Parliament Elections**

	(1)	(2)	(3)	(4)
		Δ Share of votes for		
	centre- left	other (centre small)	centre- right	anti- immigration
<i>Panel A: Immigrants</i>				
Δ Share of allocated refugees in % of local population	-1.260*** (0.458)	-0.601 (0.431)	0.764** (0.336)	1.097*** (0.321)
Δ Share of allocated refugees in % of local population *share of immigrants	-1.720*** (0.435)	0.0422 (0.308)	-0.190 (0.264)	1.868*** (0.340)
R-squared	0.618	0.676	0.928	0.722
<i>Panel B: Log gross income pc</i>				
Δ Share of allocated refugees in % of local population	-1.241*** (0.453)	-0.568 (0.432)	0.719** (0.333)	1.090*** (0.320)
Δ Share of allocated refugees in % of local population * log gross income pc	-1.378*** (0.519)	-0.300 (0.318)	0.314 (0.358)	1.365*** (0.498)
R-squared	0.605	0.677	0.928	0.703
<i>Panel C: Share of rich</i>				
Δ Share of allocated refugees in % of local population	-1.442*** (0.472)	-0.654 (0.436)	0.783** (0.335)	1.313*** (0.347)
Δ Share of allocated refugees in population * share of rich in % of local population	-0.617* (0.328)	-0.558* (0.321)	0.322 (0.282)	0.853** (0.359)
R-squared	0.595	0.679	0.928	0.696
<i>Panel D: Share of working age</i>				
Δ Share of allocated refugees in % of local population	-0.942* (0.487)	-0.531 (0.427)	0.760** (0.331)	0.713** (0.345)
Δ Share of allocated refugees in % of local population * share of working-age in population	-2.155*** (0.540)	-0.330 (0.360)	-0.0466 (0.246)	2.532*** (0.399)
R-squared	0.622	0.677	0.928	0.733
<i>Panel E: Crime rate</i>				
Δ Share of allocated refugees in % of local population	-1.029** (0.442)	-0.525 (0.410)	0.736** (0.326)	0.818** (0.318)
Δ Share of allocated refugees in % of local population *reported crime rate	-1.958*** (0.510)	-0.411 (0.416)	0.0835 (0.270)	2.285*** (0.308)
R-squared	0.622	0.678	0.928	0.731

**Table 5. Response to Refugee Allocation, Municipal Characteristics,
95 pct Smallest Municipalities, Parliament Elections (Cont.)**

<i>Panel F: Violence</i>				
Δ Share of allocated refugees in % of local population	-1.447*** (0.441)	-0.629 (0.436)	0.770** (0.323)	1.305*** (0.327)
Δ Share of allocated refugees in % of local population *reported violence crime rate	-1.435*** (0.393)	-0.654** (0.326)	0.422* (0.247)	1.667*** (0.289)
R-squared	0.610	0.680	0.928	0.715
<i>Panel G: Share of church tax payers</i>				
Δ Share of allocated refugees in % of local population	-1.308*** (0.447)	-0.634 (0.427)	0.763** (0.336)	1.179*** (0.331)
Δ Share of allocated refugees in % of local population * share church tax payers	1.470*** (0.474)	-0.718** (0.319)	0.250 (0.322)	-1.002*** (0.386)
R-squared	0.604	0.679	0.928	0.695
<i>Panel H: Unemployment</i>				
Δ Share of allocated refugees in % of local population	-1.306*** (0.473)	-0.725 (0.448)	0.821** (0.338)	1.209*** (0.349)
Δ Share of allocated refugees in % of local population * local unemployment rate	-0.391 (0.391)	0.660** (0.289)	-0.366 (0.381)	0.0979 (0.288)
R-squared	0.593	0.679	0.928	0.690
<i>Panel I: Share of welfare dependent among immigrants</i>				
Δ Share of allocated refugees in % of local population	-1.300*** (0.459)	-0.644 (0.436)	0.775** (0.332)	1.169*** (0.329)
Δ Share of allocated refugees in % of local population * share of welfare dependent among immigrants	-0.752** (0.360)	0.429 (0.297)	-0.225 (0.256)	0.548** (0.262)
R-squared	0.596	0.678	0.928	0.692
Time FE	YES			
Observations	524			
Municipalities	262			

Note: Danish Parliament elections 1990-1998. Share of allocated refugees is calculated as the total cumulative number of refugees allocated from 1986 till year prior to the election year as a percent of local population in 1986, 5 pct. largest municipalities excluded. Estimates weighted by municipal population size. Mean of the election cycle change in the share of allocated refugees: 0.16%. Mean values for municipality characteristics are reported in Table 2. Voting statistics from the Danish Ministry of the Interior. Heteroscedasticity robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

**Table 6. Response to Refugee Allocation, Municipal Characteristics,
5 pct Largest Municipalities, Parliament Elections**

	(1)	(2)	(3)	(4)
	centre- left	other (centre small) parties, parliament elections	centre- right	anti- immigration
<i>Panel A: Immigrants</i>				
Δ Share of allocated refugees in % of local population	0.302 (2.311)	0.526 (3.801)	0.938 (2.118)	-1.766 (1.154)
Δ Share of allocated refugees in % of local population *share of immigrants	-1.819* (1.008)	0.897 (0.896)	0.127 (0.645)	0.795 (0.900)
R-squared	0.839	0.276	0.957	0.828
<i>Panel B: Log gross income pc</i>				
Δ Share of allocated refugees in % of local population	4.239 (3.237)	-0.297 (4.044)	-0.143 (1.894)	-3.799** (1.533)
Δ Share of allocated refugees in % of local population * log gross income pc	2.134 (2.079)	0.438 (1.820)	-1.223 (0.833)	-1.349 (0.878)
R-squared	0.829	0.261	0.959	0.828
<i>Panel C: Share of rich</i>				
Δ Share of allocated refugees in % of local population	3.933 (2.774)	-0.664 (3.581)	0.289 (1.731)	-3.559** (1.353)
Δ Share of allocated refugees in population * share of rich in % of local population	2.756 (2.032)	-0.0818 (1.657)	-1.032 (0.678)	-1.642* (0.870)
R-squared	0.841	0.260	0.959	0.837
<i>Panel D: Share of working age</i>				
Δ Share of allocated refugees in % of local population	2.165 (2.422)	0.242 (1.996)	0.788 (1.548)	-3.195** (1.490)
Δ Share of allocated refugees in % of local population * share of working-age in population	0.416 (1.820)	-0.762 (2.478)	-0.0122 (1.151)	0.358 (0.561)
R-squared	0.821	0.269	0.957	0.821
<i>Panel E: Crime rate</i>				
Δ Share of allocated refugees in % of local population	0.199 (2.037)	0.120 (2.695)	1.026 (1.656)	-1.345 (1.251)
Δ Share of allocated refugees in % of local population *reported crime rate	-2.045* (1.081)	0.625 (1.084)	0.211 (0.586)	1.209* (0.625)
R-squared	0.848	0.269	0.957	0.844

**Table 6. Response to Refugee Allocation, Municipal Characteristics,
5 pct Largest Municipalities, Parliament Elections (Cont.)**

<i>Panel F: Violence</i>				
Δ Share of allocated refugees in % of local population	2.862 (2.508)	-0.727 (2.895)	0.632 (1.689)	-2.767* (1.519)
Δ Share of allocated refugees in % of local population *reported violence crime rate	-0.676 (1.047)	0.306 (0.730)	0.430 (0.614)	-0.060 (0.842)
R-squared	0.825	0.263	0.958	0.819
<i>Panel G: Share of church tax payers</i>				
Δ Share of allocated refugees in % of local population	0.850 (2.351)	0.0371 (3.737)	0.899 (2.044)	-1.786 (1.127)
Δ Share of allocated refugees in % of local population * share church tax payers	1.683* (0.877)	-0.624 (0.898)	-0.117 (0.576)	-0.942 (0.684)
R-squared	0.841	0.270	0.957	0.836
<i>Panel H: Unemployment</i>				
Δ Share of allocated refugees in % of local population	5.188* (2.871)	-0.948 (3.825)	0.241 (1.849)	-4.481*** (1.264)
Δ Share of allocated refugees in % of local population * local unemployment rate	-3.426** (1.272)	0.433 (1.517)	0.716 (1.007)	2.277*** (0.787)
R-squared	0.861	0.262	0.958	0.865
<i>Panel I: Share of welfare dependent among immigrants</i>				
Δ Share of allocated refugees in % of local population	3.333 (2.666)	-0.838 (2.626)	0.253 (1.665)	-2.747 (1.919)
Δ Share of allocated refugees in % of local population * share of welfare dependent among immigrants	-0.691 (1.216)	0.211 (0.996)	0.519 (0.694)	-0.039 (0.831)
R-squared	0.824	0.261	0.958	0.819
Time FE	YES			
Observations	26			
Municipalities	13			

Note: Danish Parliament elections 1990-1998. Share of allocated refugees is calculated as the total cumulative number of refugees allocated from 1986 till year prior to the election year as a percent of local population in 1986, 5 pct. largest municipalities included. Estimates weighted by municipal population size. Mean of the election cycle change in the share of allocated refugees: 0.16%. Mean values for municipality characteristics are reported in Table 2. Voting statistics from the Danish Ministry of the Interior. Heteroscedasticity robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 7. Allocation of Refugees and Voter Turnout

	(1)	(2)	(3)	(4)
	Turnout % at			
	parliamentary		municipal	
	elections			
Panel A: Estimates with municipality FE				
	unweighted	weighted	unweighted	weighted
Share of allocated refugees in % of local population	0.138	-0.233	0.825**	1.783*
	(0.160)	(0.193)	(0.390)	(0.944)
R-squared	0.821	0.862	0.487	0.581
Panel B: First-difference estimates				
	unweighted	weghted	unweighted	weghted
Δ Share of allocated refugees in % of local population	0.005	-0.286	0.568	1.355*
	(0.192)	(0.267)	(0.398)	(0.713)
R-squared	0.724	0.768	0.543	0.633
Time FE	YES			
N	550			
Number of municipalities	275			

Note: Danish Parliament elections 1990-1998. Danish municipal elections 1989-1997. Share of allocated refugees is calculated as the total cumulative number of refugees allocated from 1986 until year prior to the election year as a percent of local population in 1986. Mean of the election cycle change in the share of allocated refugees: 0.16%. Turnout statistics from the Danish Ministry of the Interior for parliament elections. Turnout statistics from the "Municipal elections in municipalities and counties on the 21st of November, 1989" statistical book and Statistics Denmark Statistical Yearbooks for municipal elections. Heteroscedasticity robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

**Table 8. Allocation of Refugees and Anti-immigration Parties Standing
in Municipal Elections**

	(1)	(2)	(3)
	At least one party running, both periods	At least one party running in 1997	Both Parties running in 1997
Δ Share of allocated refugees	0.298*** (0.098)	0.435*** (0.152)	0.508*** (0.168)
Mean change in refugee share for the period	0.16	0.15	0.15
Pseudo R-squared	0.02	0.03	0.03
N	550	275	275

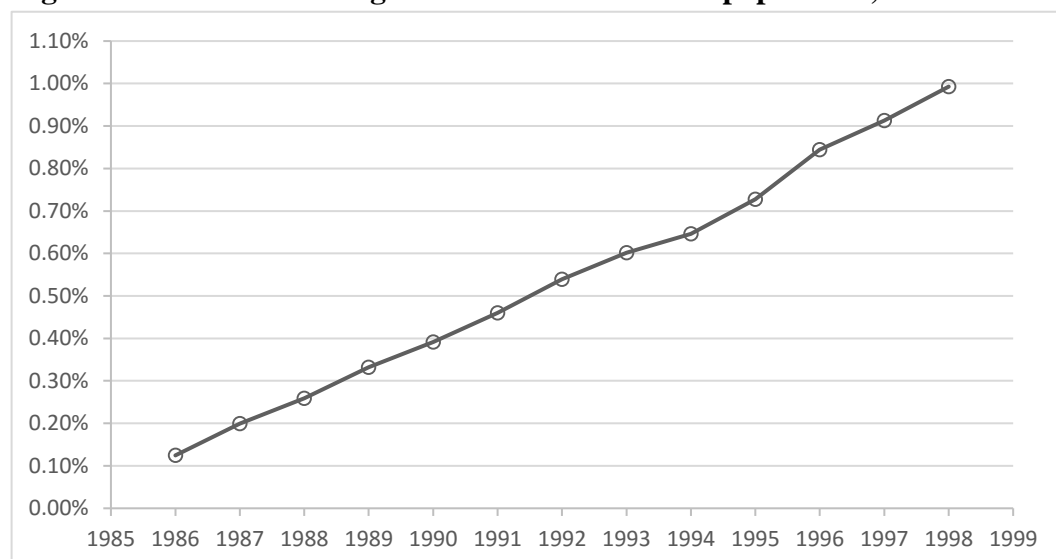
Note: Danish Municipal elections 1989-1997. Share of allocated refugees is calculated as the total cumulative number of refugees allocated from 1986 until year prior to the election year as a percent of local population in 1986. Estimates weighted by municipal population size. Voting statistics from the Statistics Denmark Database for municipal elections. Heteroscedasticity robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

**Table 9. Allocation of Refugees and Anti-immigration Parties Standing
in 1997 Municipal Elections**

Party(ies) present in the elections:	(1) none	(2) only PP	(3) only DPP	(4) both
<i>Panel A: Log-odds</i>				
Δ Share of allocated refugees	(base)	1.538 (1.429)	3.713** (1.569)	3.877*** (1.278)
Constant		0.272 (0.218)	-1.159*** (0.321)	0.305 (0.204)
<i>Panel B: Relative Risk Ratios</i>				
Δ Share of allocated refugees	(base)	4.653 (1.429)	40.969** (1.569)	48.272*** (1.278)
Constant		1.312 (0.285)	0.314 (0.101)	1.357 (0.277)
<i>Panel C: Change in predicted probabilities at mean</i>				
Δ Share of allocated refugees	-0.445*** (0.168)	-0.276 (0.189)	0.120 (0.093)	0.601*** (0.182)
Pseudo R-squared			0.027	
N			275	

Note: Danish Municipal elections 1997. Share of allocated refugees is calculated as the total cumulative number of refugees allocated from 1986 until year prior to the election year as a percent of local population in 1986. Estimates weighted by municipal population size. Mean of the election cycle change in the share of allocated refugees: 0.15%. Voting statistics from the Statistics Denmark Database for municipal elections. Heteroscedasticity robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

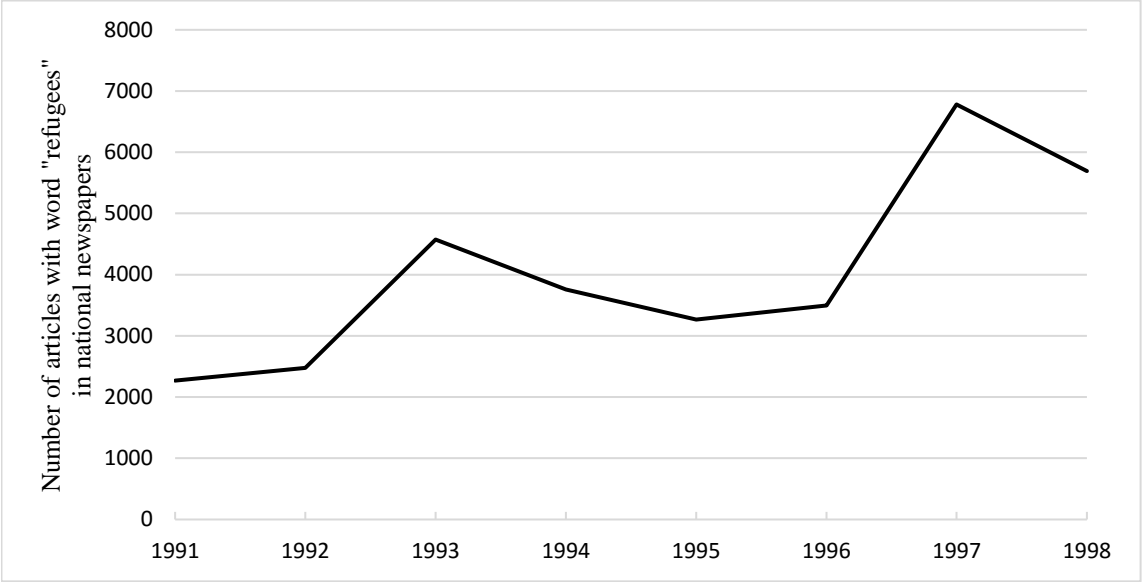
Figure A1. Allocated Refugees as Percent of Danish population, 1986



Source: Own calculations based on Statistics Denmark register data.

Note: Vertical axis: number of refugees allocated since 1986. Horizontal axis: year.

Figure A2. Number of Articles in Danish National Newspapers in Which the Word "Refugee" Appears



Source: Infomedia A/S

Note: Results of search for word "Refugee" in the online archive of Danish national newspapers.

Table A1. Summary Statistics for Voting by Year

Variable	mean	std. dev.	min	max
Vote share for: anti-immigration parties, %, parliament elections 1990	7.86	2.66	2.96	20.56
the Progress Party, %, parliament elections 1990	7.86	2.66	2.96	20.56
centre-left parties, %, parliament elections 1990	48.75	9.29	23.66	74.55
centre-right parties, %, parliament elections 1990	34.80	6.78	16.75	60.00
other (centre small) parties, %, parliament elections 1990	8.587	2.58	3.34	20.48
Vote share for: anti-immigration parties, %, parliament elections 1994	7.20	1.89	3.51	15.05
the Progress Party, %, parliament elections 1994	7.20	1.89	3.51	15.05
centre-left parties, %, parliament elections 1994	45.99	8.26	22.45	71.84
centre-right parties, %, parliament elections 1994	41.32	7.12	20.78	67.15
other (centre small) parties, %, parliament elections 1994	5.48	2.29	2.08	13.21
Vote share for: anti-immigration parties, %, parliament elections 1998	10.35	2.38	6.12	19.22
the Progress Party, %, parliament elections 1998	2.77	2.88	0.65	15.50
the Danish People's Party, %, parliament elections 1998	7.58	1.94	2.61	13.83
centre-left parties, %, parliament elections 1998	46.29	7.64	24.29	69.83
centre-right parties, %, parliament elections 1998	36.04	6.46	17.26	59.87
other (centre small) parties, %, parliament elections 1998	7.31	2.18	3.70	18.71
Vote share for: anti-immigration parties, %, municipal elections 1989	5.61	3.85	0	16.06
the Progress Party, %, municipal elections 1989	5.61	3.85	0	16.06
centre-left parties, %, municipal elections 1989	43.93	13.51	12.60	79.88
centre-right parties, %, municipal elections 1989	36.77	11.59	0	65.26
other (centre small) parties, %, municipal elections 1989	13.69	13.77	0	84.7
Vote share for: anti-immigration parties, %, municipal elections 1993	4.06	3.33	0	17.49
the Progress Party, %, municipal elections 1993	4.06	3.33	0	17.49
centre-left parties, %, municipal elections 1993	41.26	12.79	13.08	79.73
centre-right parties, %, municipal elections 1993	41.77	12.39	0	73.72
other (centre small) parties, %, municipal elections 1993	12.91	13.47	0	85.35
Vote share for: anti-immigration parties, %, municipal elections 1997	5.10	3.89	0	17.09
the Progress Party, %, municipal elections 1997	1.95	2.73	0	17.09
the Danish People's Party, %, municipal elections 1997	3.15	3.67	0	15.43
centre-left parties, %, municipal elections 1997	40.34	12.64	9.11	74.38
centre-right parties, %, municipal elections 1997	40.66	12.28	0	74.50
other (centre small) parties, %, municipal elections 1997	13.90	14.11	0	84.97

Note: Voting statistics from the Danish Ministry of the Interior for parliament elections and Statistics Denmark Database for municipal elections. 275 Danish municipalities. Parliament elections: 1990, 1994, 1998. Municipal elections: 1989, 1993, 1997. Please see Table A3 in the Appendix for the detailed description of data construction.

Table A2. Variation in Refugees Assigned to Danish Municipalities, 1986-1998

	mean	standard deviation	between	within	N
Share of allocated refugees	0.43%	0.45%	0.40%	0.20%	875
Change in share of allocated refugees	0.16%	0.21%	0.17%	0.13%	550

Note: Share of allocated refugees is calculated as the total cumulative number of refugees allocated from 1986 until year prior to the election year as a percent of local population in 1986.

Table A3. Data Sources

Variable	Definition	Source
<i>Panel A: Variables describing voting outcomes</i>		
Vote share for anti-immigration parties, % at parliament (municipal) elections	Share of votes in % given for the Progress Party and the Danish People's Party at parliament (municipal) elections	The Danish Ministry of the Interior, can be downloaded at www.sum.dk/ Statistics Denmark Database, table VALG2 and VALGK3X
Vote share for the Progress Party, % at parliament (municipal) elections	Share of votes in % given for the Progress Party at parliament (municipal) elections	The Danish Ministry of the Interior, can be downloaded at www.sum.dk/ Statistics Denmark Database, table VALG2 and VALGK3X
Vote share for the Danish People's Party, % at parliament (municipal) elections	Share of votes in % given for the Danish People's Party at parliament (municipal) elections	The Danish Ministry of the Interior, can be downloaded at www.sum.dk/ Statistics Denmark Database, table VALG2 and VALGK3X
Vote share for centre-left parties, % at parliament (municipal) elections	Share of votes in % given for the Social Democrats, the Danish Social Liberal Party, the Social People's Party, the Democratic Renewal, the Green Party, the Common Course and the Red-Green Alliance at parliament (municipal) elections	The Danish Ministry of the Interior, can be downloaded at www.sum.dk/ Statistics Denmark Database, table VALG2 and VALGK3X
Vote share for centre-right parties, % at parliament (municipal) elections	Share of votes in % given for the Conservative People's Party and the Denmark's Liberal Party at parliament (municipal) elections	The Danish Ministry of the Interior, can be downloaded at www.sum.dk/ Statistics Denmark Database, table VALG2 and VALGK3X
Vote share for other (centre small) parties, % at parliament (municipal) elections	Share of votes in % given for the Centre Democratic Party, the Christian People's Party, the Schleswig Party, the Justice Party of Denmark, the Humanist Movement and other unclassified small parties at parliament (municipal) elections	The Danish Ministry of the Interior, can be downloaded at www.sum.dk/ Statistics Denmark Database, table VALG2 and VALGK3X
<i>Panel B: Allocated refugees</i>		
Change in share of allocated refugees in % of local population	The cumulative number of refugees originating from Iran, Iraq, Vietnam, Sri Lanka, Afghanistan, Lebanon, Somalia, Ethiopia and stateless refugees who were assigned to a municipality from 1986 till year prior to elections divided by the population of that municipality as of the beginning of 1986. Change in between elections.	Population register, Statistics Denmark and table FOLK2 from Statistics Denmark Database

Table A3 (Cont.). Data Sources*Panel C: Municipal characteristics, 1985*

Population	Population per 01.01.1986	Statistics Denmark Database, table BEV1
Share of rich in local population, %	The share (%) of adults whose disposable income per household member is 50% above Danish median	Population, Income and Educational registers, Statistics Denmark
Mean log gross income per capita	Log of total gross income (in 1000 DKK) in a municipality divided by the number of municipality's inhabitants (only those liable to pay income tax are observed)	Statistics Denmark Database, table IF212 and table BEV1
Share of working-age population, %	The share of population 18-64 years old as % of municipality's total population	Population register, Statistics Denmark
Mean age	Average age of municipal population	Population register, Statistics Denmark
Local unemployment rate, %, November	The share of unemployed as % of those who are in labour force in November	Labour force and Socioeconomic registers, Statistics Denmark
Share of immigrants (1st and 2nd generation), %	Share of individuals born abroad or in Denmark for whom neither of parents is born in Denmark and has Danish citizenship	Population register, Statistics Denmark
Reported crime rate, %	Number of reported crimes divided by population size, %	Statistiske Efterretninger om Social Sikring og Retsvæsen, Statistics Denmark and Statistics Denmark Database, table BEV1
Reported violent crime rate per 10000 inhabitants	Number of reported violent crime divided by population size and multiplied by 10,000	Statistiske Efterretninger om Social Sikring og Retsvæsen, Statistics Denmark and Statistics Denmark Database, table BEV1
Share of native population paying voluntary church tax, %	Share of adults who payed church tax divided by the total number of adults paying income tax	Population and Income registers, Statistics Denmark
Share of welfare dependent among immigrants, %	Share of immigrants who are non-employed divided by total immigrant number, 18-64 years old	Populations and Socioeconomic registers, Statistics Denmark

Table A4. Characteristics of Allocated Refugees

number of allocated refugees	mean year of immigration	arrive with family (%)	women (%)	age	share high educated (%)	welfare dependent, 2nd year since immigration (%)	unemployment rate, 2nd year since immigration (%)	welfare dependent, 10th year since immigration (%)	unemployment rate, 10th year since immigration (%)
46962	1991	50.7	40.0	22.9	24.8	96.3	84.8	67.8	60.5

Source: Own calculations based on Statistics Denmark register data.

Note: Refugees allocated in period 1986-1998. Definitions: welfare dependent - share of unemployed and out of labour force among 18-64 years old. Unemployment rate - share of unemployment among those in labour force among 18-64 years old. Share high educated - share of adults holding at least a professional qualification.

Table A5. Anti-immigration Parties Standing in Municipal Elections

Progress Party	Danish People's Party	
	not running in nr. (%) mun.	running in nr. (%) mun.
<i>Panel A: Municipal elections 1993</i>		
Not running in nr. (%) municipalities	75 (27.3%)	0 (0%)
Running in nr. (%) municipalities	200 (72.7%)	0 (0%)
<i>Panel B: Municipal elections 1997</i>		
Not running in nr. (%) mun.	53 (19.3%)	26 (9.5%)
Running in nr. (%) mun.	80 (29.1%)	116 (42.2%)

Note: Danish Municipal elections 1993 and 1997. Voting statistics from the Statistics Denmark Database for municipal elections.

Table A6. Summary Statistics for Municipal Elections, 1997

	Municipalities in which							
	none		Progress Party		Danish People's Party		both	
	stood in municipal elections in 1997							
	mean	std. dev.	mean	std. dev.	mean	std. dev.	mean	std. dev.
<i>Panel A: Allocated refugees, from 1986 till elections year</i>								
Average Cumulative Share of allocated refugees over electoral cycle (change), in % of 1986 local population	0.08	0.13	0.11	0.17	0.19	0.28	0.19	0.22
<i>Panel B: Municipal characteristics</i>								
Population	7857	4742	10275	5599	12893	12326	30539	52962
Mean log gross income per capita	11.38	0.10	11.37	0.10	11.40	0.14	11.43	0.12
Share of working-age population, %	59.59	2.54	59.51	2.14	59.83	2.60	61.60	2.73
Mean age	46.36	2.57	46.21	2.18	46.22	2.66	45.42	2.09
Share of rich (50% above Danish median income) in local population, %	13.96	4.99	13.29	4.61	14.05	6.24	15.17	6.42
Share of immigrants (1st and 2nd generation), %	1.54	0.91	1.64	1.36	1.89	1.73	2.45	1.99
Reported Crime Rate, percent	7.26	1.74	6.64	1.54	7.72	2.24	8.12	2.45
Reported Violence Crime Rate, percent	0.15	0.05	0.13	0.05	0.16	0.05	0.16	0.05
Share of native population paying voluntary church tax, percent	85.06	2.95	85.08	3.04	83.97	2.79	84.98	2.68
Share of unemployed in labour force, percent	7.47	2.60	7.05	2.07	7.23	2.29	6.80	2.00
Share of welfare dependent among immigrants, percent	45.24	8.82	46.01	8.49	46.48	6.90	46.76	7.28
N	53		80		26		116	

Note: Refugees allocated from 1986 until 1997 as percentage of local population in Danish municipalities in 1986. Municipality variables measured in 1985. Municipal characteristics are constructed from Population, Income, Education, Labour force and Socioeconomic registers owned by Statistics Denmark. Voting statistics from the Danish Ministry of the Interior for parliament elections and Statistics Denmark Database for municipal elections. Parliament elections: 1990, 1994, 1998. Municipal elections: 1989, 1993, 1997. Please see Table A1 for voting statistics for each year and Table A3 for the detailed description of data construction.

**Table A7. Allocation of Refugees and Anti-immigration Parties
Standing in 1997 Municial Elections, Municipal Characteristics**

	(1)	(2)	(3)	(4)
Party(ies) present in the elections:	none	only PP	only DPP	both
Panel A: Share of immigrants				
Δ Share of allocated refugees	base	1.681 (1.399)	3.672** (1.538)	4.386*** (1.255)
Δ Share of allocated refugees in % of local population *		1.188 (1.621)	1.447 (1.689)	3.196** (1.329)
Share of immigrants				
Pseudo R-squared		0.044		
Panel B: Log gross income pc				
Δ Share of allocated refugees	base	1.462 (1.382)	3.648** (1.535)	3.836*** (1.239)
Δ Share of allocated refugees in % of local population *		-0.488 (1.567)	0.420 (1.272)	0.649 (0.856)
Log gross income pc				
Pseudo R-squared		0.03		
Panel C: Share of rich				
Δ Share of allocated refugees	base	1.517 (1.410)	3.694** (1.556)	3.902*** (1.254)
Δ Share of allocated refugees in population *		0.105 (1.102)	0.244 (1.250)	0.437 (0.893)
Share of rich in % of local population				
Pseudo R-squared		0.028		
Panel D: Share of working age				
Δ Share of allocated refugees	base	1.375 (1.389)	2.005 (1.649)	3.639*** (1.303)
Δ Share of allocated refugees in % of local population *		-0.246 (1.444)	-2.477 (2.197)	2.596* (1.335)
Share of working-age in population				
Pseudo R-squared		0.059		
Panel E: Crime rate				
Δ Share of allocated refugees	base	0.632 (1.417)	3.676** (1.594)	3.878*** (1.218)
Δ Share of allocated refugees in % of local population *		-1.519 (1.515)	1.772 (1.355)	1.718 (1.267)
Reported crime rate				
Pseudo R-squared		0.052		

**Table A7. Allocation of Refugees and Anti-immigration Parties
Standing in 1997 Municipal Elections, Municipal Characteristics (Cont.)**

<i>Panel F: Violence</i>				
Δ Share of allocated refugees	base	1.478 (1.410)	3.485** (1.605)	3.797*** (1.263)
Δ Share of allocated refugees in % of local population*		-0.095	1.212	0.797
Reported violent crime rate		(0.693)	(0.828)	(0.667)
Pseudo R-squared		0.031		
<i>Panel G: Share of church tax payers</i>				
Δ Share of allocated refugees	base	1.501 (1.378)	3.729** (1.527)	3.894*** (1.212)
Δ Share of allocated refugees in % of local population *		-0.250	-1.021	-1.003
Share church tax payers		(1.127)	(1.176)	(0.968)
Pseudo R-squared		0.029		
<i>Panel H: Unemployment</i>				
Δ Share of allocated refugees	base	1.785 (1.660)	3.928** (1.804)	4.185*** (1.556)
Δ Share of allocated refugees in % of local population *		-0.843	-0.728	-1.096
Local unemployment rate		(1.494)	(1.672)	(1.428)
Pseudo R-squared		0.029		
<i>Panel I: Share of welfare dependent among immigrants</i>				
Δ Share of allocated refugees	base	1.195 (1.397)	3.729** (1.550)	3.992*** (1.226)
Δ Share of allocated refugees in % of local population *		-0.348	0.602	0.945
Share of welfare dependent among immigrants		(0.990)	(0.998)	(0.932)
Pseudo R-squared		0.035		
N		275		

Note: Danish Municipal elections 1997. Share of allocated refugees is calculated as the total cumulative number of refugees allocated from 1986 till year prior to the election year as a percent of local population in 1986. Mean of the election cycle change in the share of allocated refugees: 0.15%. Mean values for municipality characteristics are reported in Table A6. Voting statistics from the Statistics Denmark Database for municipal elections. Constant included in the regressions, but unreported. Heteroscedasticity robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

**Table A8. Response to Refugee Allocation, Municipal Characteristics,
95 pct Smallest Municipalities, Municipal Elections**

	(1)	(2)	(3)	(4)
	centre- left	other (centre small) parties, municipal elections	centre- right	anti- immigration
<i>Panel A: Immigrants</i>				
Δ Share of allocated refugees in % of local population	-2.977** (1.313)	-0.105 (1.533)	1.537 (1.219)	1.545** (0.640)
Δ Share of allocated refugees in % of local population *share of immigrants	-0.762 (0.861)	-0.101 (0.835)	-1.259* (0.674)	2.123*** (0.602)
R-squared	0.197	0.017	0.388	0.268
<i>Panel B: Log gross income pc</i>				
Δ Share of allocated refugees in % of local population	-2.950** (1.314)	-0.214 (1.535)	1.355 (1.246)	1.809*** (0.666)
Δ Share of allocated refugees in % of local population *	-0.976 (0.909)	0.483 (1.015)	-0.383 (0.943)	0.876 (0.741)
Log gross income pc				
R-squared	0.197	0.017	0.386	0.240
<i>Panel C: Share of rich</i>				
Δ Share of allocated refugees in % of local population	-3.137** (1.294)	-0.121 (1.482)	1.289 (1.235)	1.969*** (0.691)
Δ Share of allocated refugees in population *	-0.319 (0.856)	0.186 (1.090)	0.200 (1.006)	-0.0674 (0.533)
Share of rich in % of local population				
R-squared	0.195	0.017	0.385	0.236
<i>Panel D: Share of working age</i>				
Δ Share of allocated refugees in % of local population	-2.329* (1.329)	-0.298 (1.600)	1.722 (1.286)	0.906 (0.626)
Δ Share of allocated refugees in % of local population *	-2.279** (0.935)	0.492 (1.125)	-1.244 (0.874)	3.030*** (0.649)
Share of working-age in population				
R-squared	0.205	0.017	0.387	0.280
<i>Panel E: Crime rate</i>				
Δ Share of allocated refugees in % of local population	-2.610** (1.272)	-0.139 (1.475)	1.383 (1.240)	1.366** (0.652)
Δ Share of allocated refugees in % of local population *reported crime rate	-2.052** (0.988)	0.0559 (0.957)	-0.390 (0.885)	2.386*** (0.673)
R-squared	0.205	0.017	0.386	0.270

**Table A8. Response to Refugee Allocation, Municipal Characteristics,
95 pct Smallest Municipalities, Municipal Elections (Cont.)**

<i>Panel F: Violence</i>				
Δ Share of allocated refugees in % of local population	-3.213** (1.301)	-0.116 (1.511)	1.265 (1.236)	2.064*** (0.663)
Δ Share of allocated refugees in % of local population *reported violence crime rate	-1.252 (0.874)	0.133 (0.801)	-0.296 (0.715)	1.415** (0.569)
R-squared	0.199	0.017	0.386	0.250
<i>Panel G: Share of church tax payers</i>				
Δ Share of allocated refugees in % of local population	-3.093** (1.282)	-0.179 (1.448)	1.378 (1.245)	1.894*** (0.699)
Δ Share of allocated refugees in % of local population * Share church tax payers	0.569 (1.072)	-0.825 (1.489)	1.447 (1.060)	-1.192 (0.727)
R-squared	0.196	0.017	0.388	0.242
<i>Panel H: Unemployment</i>				
Δ Share of allocated refugees in % of local population	-2.988** (1.264)	-0.168 (1.427)	1.142 (1.229)	2.014*** (0.697)
Δ Share of allocated refugees in % of local population * Local unemployment rate	-0.780 (1.052)	0.237 (1.180)	0.780 (0.964)	-0.237 (0.523)
R-squared	0.196	0.017	0.386	0.237
<i>Panel I: Share of welfare dependent among immigrants</i>				
Δ Share of allocated refugees in % of local population	-3.019** (1.277)	-0.163 (1.471)	1.372 (1.211)	1.810*** (0.683)
Δ Share of allocated refugees in % of local population * Share of welfare dependent among immigrants	-0.958 (0.979)	0.327 (0.958)	-0.754 (0.964)	1.385** (0.556)
R-squared	0.197	0.017	0.386	0.248
Time FE	YES			
Observations	524			
Municipalities	262			

Note: Danish Municipal elections 1989-1997. Share of allocated refugees is calculated as the total cumulative number of refugees allocated from 1986 till year prior to the election year as a percent of local population in 1986, 5 pct. largest municipalities excluded. Estimates weighted by municipal population size. Mean of the election cycle change in the share of allocated refugees: 0.16%. Mean values for municipality characteristics are reported in Table 2. Voting statistics from the Statistics Denmark Database for municipal elections. Heteroscedasticity robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

**Table A9. Response to Refugee Allocation, Municipal Characteristics,
5 pct Largest Municipalities, Municipal Elections**

	(1)	(2)	(3)	(4)
	centre- left	other (centre small) parties, municipal elections	centre- right	anti- immigration
<i>Panel A: Immigrants</i>				
Δ Share of allocated refugees in % of local population	7.204 (5.704)	-3.482 (2.776)	-5.584 (4.412)	1.862 (1.567)
Δ Share of allocated refugees in % of local population *share of immigrants	-1.315 (2.946)	-0.293 (1.433)	-1.200 (2.419)	2.808* (1.413)
R-squared	0.340	0.578	0.716	0.555
<i>Panel B: Log gross income pc</i>				
Δ Share of allocated refugees in % of local population	11.430* (6.248)	-6.281** (2.549)	-1.627 (4.617)	-3.520* (2.000)
Δ Share of allocated refugees in % of local population *	3.752 (3.386)	-4.416** (1.943)	3.568 (2.687)	-2.905** (1.223)
Log gross income pc				
R-squared	0.348	0.623	0.721	0.515
<i>Panel C: Share of rich</i>				
Δ Share of allocated refugees in % of local population	10.100* (5.570)	-4.643* (2.400)	-2.463 (4.106)	-2.999 (2.034)
Δ Share of allocated refugees in population *	2.974 (3.371)	-3.323* (1.836)	3.763 (2.673)	-3.414** (1.641)
Share of rich in % of local population				
R-squared	0.347	0.617	0.726	0.533
<i>Panel D: Share of working age</i>				
Δ Share of allocated refugees in % of local population	11.650** (5.194)	-4.854* (2.657)	-4.532 (4.207)	-2.260 (2.238)
Δ Share of allocated refugees in % of local population *	-2.591 (3.748)	1.540 (1.564)	0.327 (2.719)	0.724 (0.964)
Share of working-age in population				
R-squared	0.353	0.594	0.713	0.502
<i>Panel E: Crime rate</i>				
Δ Share of allocated refugees in % of local population	5.524 (4.952)	-2.007 (2.748)	-4.752 (4.319)	1.236 (3.013)
Δ Share of allocated refugees in % of local population *reported crime rate	-2.787 (3.278)	0.974 (1.383)	-0.504 (2.820)	2.317 (1.935)
R-squared	0.367	0.587	0.713	0.544

**Table A9. Response to Refugee Allocation, Municipal Characteristics,
5 pct Largest Municipalities, Municipal Elections (Cont.)**

<i>Panel F: Violence</i>				
Δ Share of allocated refugees in % of local population	9.725*	-3.263	-4.333	-2.129
	(4.748)	(2.303)	(3.460)	(1.416)
Δ Share of allocated refugees in % of local population	-2.502	0.326	0.428	1.748**
*reported violence crime rate	(2.305)	(0.939)	(1.906)	(0.637)
R-squared	0.375	0.579	0.713	0.539
<i>Panel G: Share of church tax payers</i>				
Δ Share of allocated refugees in % of local population	7.309	-2.824	-5.339	0.855
	(5.442)	(2.601)	(3.993)	(1.420)
Δ Share of allocated refugees in % of local population *	1.486	-0.321	1.202	-2.368
Share church tax payers	(2.854)	(1.339)	(2.285)	(1.666)
R-squared	0.344	0.579	0.717	0.551
<i>Panel H: Unemployment</i>				
Δ Share of allocated refugees in % of local population	13.160**	-5.115**	-5.244	-2.805*
	(5.688)	(2.421)	(4.621)	(1.585)
Δ Share of allocated refugees in % of local population *	-6.433	2.887*	1.571	1.975
Local unemployment rate	(3.795)	(1.481)	(3.943)	(1.261)
R-squared	0.431	0.624	0.716	0.517
<i>Panel I: Share of welfare dependent among immigrants</i>				
Δ Share of allocated refugees in % of local population	11.190*	-3.957	-4.166	-3.070
	(5.730)	(2.740)	(3.944)	(2.614)
Δ Share of allocated refugees in % of local population *	-2.355	0.793	-0.00179	1.564
Share of welfare dependent among immigrants	(2.886)	(1.257)	(2.357)	(1.394)
R-squared	0.359	0.584	0.712	0.521
<i>Panel L: Share of immigrants among welfare dependent</i>				
Δ Share of allocated refugees in % of local population	7.404	-3.416	-5.417	1.428
	(5.589)	(2.671)	(4.242)	(1.461)
Δ Share of allocated refugees in % of local population *	-1.258	-0.259	-1.162	2.680*
Share of immigrants among welfare dependent	(2.854)	(1.387)	(2.315)	(1.435)
R-squared	0.340	0.578	0.716	0.553
Time FE	YES			
Observations	26			
Municipalities	13			

Note: Danish Municipal elections 1989-1997. Share of allocated refugees is calculated as the total cumulative number of refugees allocated from 1986 till year prior to the election year as a percent of local population in 1986, 5 pct. largest municipalities included. Estimates weighted by municipal population size. Mean of the election cycle change in the share of allocated refugees: 0.16%. Mean values for municipality characteristics are reported in Table 2. Voting statistics from the Statistics Denmark Database for municipal elections. Heteroscedasticity robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.