The effect of residential concentration on turnout among ethnic minorities

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Abstract
Utilizing a unique public records dataset we study the effect of residential concentration on turnout. We find that non-Western immigrants are positively affected by the concentration of co-ethnic voters in their neighborhoods. The general concentration of non-Western immigrants has no effect at all. Furthermore, we look into the causal mechanism behind the effect by identifying the number and the residential location of co-ethnic candidatures. There is a positive effect of co-ethnic candidates running for office in the neighborhood as well as on the municipal level which, however, does not eliminate the effect of residential concentration per se. Finally, we find a reverse racial threat effect of non-Western residential concentration on ethnic Danes in their neighborhood. Turnout of the majority population is lower, when immigrant concentration is high.
Introduction

Due to immigration and different demographic development within ethnic groups, western societies are becoming increasingly more and more diverse. Furthermore, it is well known that ethnic minorities’ in most European countries on average turn out substantially less than the ethnic majority, but also that there is large variation within and across ethnic groups (Barreto 2005; van Londen et al. 2007; Fieldhouse & Cutts 2008). One of the most debated aspects of immigrants’ electoral participation in the academic literature as well as in the public debate is the effect of residential concentration. On the one hand, residential concentration of minorities may redirect political focus in the community towards the countries of origin. This could hamper electoral participation. On the other hand, a high concentration of ethnic groups could increase turnout by increasing local information flow about politics and by providing a critical mass for candidates to run on an ethnic platform.

The research in the field has provided conflicting empirical evidence. Studies from the U.S. have found a mostly negative relationship between residential concentration of ethnic minorities and the group’s turnout (e.g. Cho 1999; 2006). Studies from the UK have largely found the opposite results on religious groups. Muslim and Hindu immigrants seem to have a higher propensity of voting, when living among ethnic peers (Fieldhouse & Cutts 2008a; Fieldhouse & Cutts 2008b).

In this study we utilize a unique dataset to provide insights into the ongoing debate. Whereas previous studies uses name recognition to identify ethnicity or religion, we have the precise ethnicity from public records which allows for a precise and fine-grained distinction between ethnic groups. Furthermore, we are able to merge to identify candidates running for office in the file of individual voters, thereby allowing us to uncover whether a possible effect of residential
concentration is indirect by providing a critical mass for co-ethnic individuals to run for office which in turn mobilizes the ethnic group in question. The geographical identification of candidates furthermore allows us more generally to identify the effect of having a candidate in your neighborhood which has seldom been studied due to obvious data limitations. Finally, we consider the influence of the concentration of non-Western ethnic minorities on majority group voting in order to evaluate a possible ethnic threat effect (Keys 1949).

The remaining of the paper is structured as follows. In the next section we provide a short introduction to the context – the Danish municipal elections. This is followed by a section in which we discuss the theory and develop our hypotheses with departure in the existing literature. Next, we discuss the empirical strategy and the measures employed. Hereafter, the analysis is carried out. We start by presenting the bivariate results to get some intuition into the relationships. Second, the multivariate analysis is carried out. In the final section we discuss the results in the perspective of the existing literature.

**Danish municipal elections**

Our data is based on actual and validated turnout (full public records) and government issued individual level socio-demographical information and not self-reported data from. We have a total of 2.3 million voters. The data is from 44 different local elections held simultaneously across Denmark on November 17, 2009.

The turnout at the election was about 65 percent compared to a 70 percent average over the last 35 years (Bhatti & Hansen 2010b; Elklit et al. 2000). Voting is non-compulsory system at all Danish elections and the electoral system is proportional. The municipalities have multi-party electoral
systems dominated by the major national parties. Municipalities play an important role in the Danish welfare state and are responsible for most services (e.g., childcare, elementary schools, care for seniors, libraries etc). About 27 percent of the entire GDP or more than half of the public expenditures is thus spent at the municipal level.

In each of the municipalities the entire electoral register has been computerized and then merged with extensive lists of socio-demographic statistics on the individual level from Statistics Denmark\(^1\) including geographical information placing the individual in municipality, electoral districts, 1 km x 1 km squares, and 100 meter x 100 meter squares (all nested). Thus, all variables are public records data and not subject to social desirability bias or other common causes of survey misreporting. Most importantly for the present purpose, ethnical variables do not rely on name identification procedures as e.g. Cho et al. (2006) and Fieldhouse & Cutts (2007; 2008), but actual the ethnicity recorded when the immigrant entered the country. This should add to the precision of the estimates. The ethnic minorities in focus here is first and second generations of immigrants\(^2\) of non-Western country\(^3\) descend. These immigrants are eligible to vote at local elections after three years of permanent residence in Denmark, regardless of their citizenship. Finally, political candidates running in the election are identified in the dataset. It is thus possible to place candidates geographically as well as identify their ethnicity.

**Theory – two competing explanations**

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1 Statistics Denmark is official census bureau funded by the government and has the responsibility of compiling statistics from various Danish authorities on all levels.

2 We define first generations immigrants as eligible voters where none of their parents are born in Denmark. Second generation immigrants are born in Denmark, but both their parents are born outside Denmark and at do not have Danish citizenship.

3 We define western countries as EU15, the Nordic countries, Western Europe, North America, New Zealand and Australia.
The literature on residential concentration has been dominated by theories and empirical findings that run in opposing directions. The **first** sets of hypotheses suggest that as the residential concentration of co-ethnicity minorities in a neighborhood increases, turnout drops. Part of the reason is not residential concentration per se – neighborhoods with high residential concentration of ethnic minorities also have a high geographical concentration of lower educated, unemployed and people receiving various forms of social benefits. However, even when we control for these factors, residential concentration may also have a negative effect per se. The information flow in an area with high concentration of an ethnic minority may be focused toward the native country/countries rather than the country in which the ethnic minorities live. The information flow argument basically rest on a social network argument where the social network is defined as the local schools, neighbors, local churches and recreational activities etc. As the residential concentration increases, the information flow becomes less focused on the country of residence.

Related to the information flow, general participation norms may be negatively affected in areas with high proportion of immigrants, since individuals are less exposed to the norm of voting as a civic duty (Huckfeldt 1986; Cho 1999; Cho et al. 2006; 2006b). Furthermore, it has been argued that high concentration of ethnic minorities would lead to a general withdrawal from mainstream society which also would discourage voters to turn out at elections (Massey & Denton 1989; 1993).

**H1**: High residential concentration of co-ethnics results in lower turnout among non-Western immigrants.

The **second** sets of hypotheses, which run directly counter to the first, suggest that as the residential concentration of co-ethnics increase, so does the turnout. The reason being that higher co-ethnic
residential concentration increases the social connectedness, social cohesion and degree of community networks leading to higher level of group consciousness which again enhance the political mobilization (Laurence & Heath 2008). A stronger social ethnic network and specific ethnic opinion leaders might also encourage turnout and furthermore encourage residents to run for office, and facilitate the number of ethnic political organizations (Fieldhouse & Cutts 2007; 2008b; Schlichting et al., 1998). As the concentration reached a critical mass of a given ethnicity, it might encourage individuals of that origin to run for office as their chances for being elected increases with their electoral base which again encourage turnout as voters have ethnic candidates to identify themselves with.

**H2: High residential concentration of co-ethnics increase voter turnout among non-Western immigrants.**

It should be noted that H2 concerns co-ethnics – not immigrants in general - since non-Western immigrants is a very heterogeneous group. For instance, one would expect a Turk living in a Turkish dominated area to have a high propensity to turn out, whereas a Somali living in the same area would not be positively affect by the possibly strong Turkish network.

The first set of hypotheses that suggested that turnout is depressed as the residential concentration of co-ethnic minorities increase is empirically support by research on U.S. Asian minorities. Findings suggest that e.g. Chinese and Korean co-ethnic concentration diminish the participation of non-California Chinese and Korean registered voters substantially (Cho et al. 2006:162). However, in California, where the concentration is higher, the trend is not as strong and Japanese immigrants even experience the opposite trend (Cho et al. 2006). Contrary to Cho, Fieldhouse & Cutts (2007;
2008; 2008b), investigating a UK context, find that high concentration of ethnic minorities increase turnout, supporting the second sets of hypotheses. Muslim electoral registration increases by the proportion of the Muslims in the electorate, i.e. when density of a co-religious groups increase, so does their turnout. In conclusion, there are sound theoretical reasons to suggest both positive and negative effects of ethnic and religious residential concentration on turnout and the empirical findings run in opposing directions. Thus, the jury is still out on this important research question.

In addition to the two main opposing hypotheses, we examine the influence of co-ethnic candidates running in the election on the turnout of immigrants. A co-ethnic candidate may be easier to identify with and therefore increase the likelihood of turning out and may be the voters are encouraged to vote directly by the co-ethnic candidate through their social network. The hypothesis is interesting in itself and also because it may help us to unpack a possible positive effect of residential concentration, since more co-ethnic candidates may be one of the possible causal avenues for such an effect.

We consider the influence of co-ethnic candidates at two levels – the neighborhood and the municipality. Since all constituents in a municipality can vote for the same candidates, one would expect co-ethnic candidates at this level to be most important. However, co-ethnic candidates in neighborhoods may be more important than candidate co-ethnicity on average, since it may be even easier to identify with a candidate which resides physically proximate to you and whom you may know personally. One might also aspect a general effect of candidates residing in the neighborhood, regardless of ethnicity, since voters may simply identify more with a local candidate.

*H3: Co-ethnic candidates in the municipality increase the propensity of immigrants turning out.*
**H4:** Co-ethnic candidates in the neighborhood increase the propensity of turning out.

**H5:** Candidates in the neighborhood, regardless of ethnicity, increase the propensity of turning out.

Like in hypothesis 2 one would expect the identification with candidates to occur primarily between individuals of the same ethnicity. From this logic, one would not expect the number of immigrant candidates to have any impact on the turnout of specific immigrant groups. However, this is essentially an empirical question, why immigrant candidates in general is taken into account in the specification (see also the next section).

Finally, we explore the turnout of the ethnic majority, Danes, as a function of neighborhood composition of immigrants. In a U.S. context it has been suggested that white voters are motivated to turnout by the racial threat by black voters in their geographical surroundings (Key 1949). However, the empirical research within the area has provided very mixed results (for a short review, see Enos 2010: 4). Previous studies have naturally focused on the U.S. case. Even if an effect in fact is present in the U.S. case, it is unclear whether a similar effect exists in other contexts with a different historical background and where the main divisions are based on ethnicity rather than race.

**H6:** The turnout of the ethnic majority group, Danes, increases with the share of immigrants in a neighborhood.

**Measures and estimation strategy**

The dependent variable in the models is whether or not an individual votes. To capture H1 and H2 we, for each individual, calculate the proportion of other residents in her neighborhood with the same ethnicity as herself. For instance, for a Turk, the variable would denote the proportion of
Turks in the neighborhood. We control for the number of non-Western immigrants in general to distinguish between the effect of co-ethnicity and living in immigrant communities in general. Furthermore, we control for a range of other neighborhood composition variables – the age of other inhabitants, the educational level and the income.

H3-H5 are evaluated by including the number of co-ethnic candidates at the neighborhood and the municipal level. This is possible, because our dataset contains a variable identifying whether or not each individual is a candidate. We control for the number of immigrant candidates in general as well as the number of Danish candidates at both levels in order to test whether a possible effect is due to the number of candidates in general or due to co-ethnic candidates specifically.

Finally, in order to test the racial threat hypothesis, we re-run the models on ethnic Danes only. The only difference from the above mentioned specifications is that we omit all co-ethnicity variables since there would be perfectly co-linear with the immigrant variables, since all non-immigrants are defined as Danes. In addition to the macro variables, we control for individual level characteristics that have in the existing literature been found to be associated with turnout (e.g. Wolfinger & Rosenstone 1980; Bhatti & Hansen 2010b; 2010c; 2010d).

Since the data is clustered at three levels and the dependent variable is dichotomous, we use a three level multilevel model – the levels being individuals, neighborhoods and municipalities. For neighborhoods we both apply 100 x 100 meter. The (preliminary) results are robust toward specifying a fourth level for ethnicities within each neighborhood field.
Non-Western immigrants and turnout – a descriptive overview

Before we turn to the main analysis, let us have a descriptive look at immigrant voting. Throughout most of Europe, immigrants and ethnic minorities have lower turnout propensity than the majority population. Denmark is no exception. At the 2009 municipal elections, the object of this study, non-Western immigrant turnout was 37 percent compared to 68 percent for ethnic Danes. Furthermore, immigrant turnout has sharply declined of the course of the last 12 years – about 11 percentage points in the capital of Copenhagen and 17 percentage points in the second largest municipality, Aarhus (Bhatti & Hansen 2010). Though on average low, turnout varies substantially across immigrant groups and across context. The figure 1 describe the average turnout of immigrants and Danes as a function of co-ethnic concentration in 100 meters x 100 meters fields.

Figure 1: Turnout as a function of co-ethnic density for different groups in 100 x 100 meters fields
Interestingly, for all the groups in figure 1, there is a positive slope of co-ethnic density. This implies that the more residentially concentrated the neighborhood is, the higher is the average turnout of that group. This would seem to support H2 rather than H1. The fact that ethnic Danish turnout increases as a function of Danish concentration runs counter to H5 which would suggest an opposite effect due to racial threat. The effect is the strongest for Turks and Pakistanis implying that co-ethnic density is more important than simply immigrants density in general.

**Multivariate analysis**

[Readers: Please note that the analysis below is only preliminary. To save estimation time, ordinary logit models with clustering at neighborhood level are applied. Results from full-fledged multilevel analysis are substantially similar – however, standard errors on estimates for municipality level variables will be higher, since a three-level model would take clustering at this level into account. To estimate the proximate effect, we re-ran the models with clustering at municipal level. We report in notes if significant variables become insignificant when this is done. Substantive effects are approximately the same as population averaged effects based on a multilevel logit]

*The effect of residential concentration on immigrant voting:*

We start by considering immigrant voters only to test H3-H5. The below table present the results on 100 x 100 meters fields.
Table 1: Immigrant voting in 100 x 100 meters fields

<table>
<thead>
<tr>
<th>Individual level variables</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current, ongoing education (base=none):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School</td>
<td>0.70***</td>
<td>0.75***</td>
<td>0.66***</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.08)</td>
<td>(0.08)</td>
</tr>
<tr>
<td>High School</td>
<td>0.75***</td>
<td>0.78***</td>
<td>0.77***</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Technical education</td>
<td>0.23***</td>
<td>0.26***</td>
<td>0.24***</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Higher education (4 years or below)</td>
<td>0.43***</td>
<td>0.41**</td>
<td>0.40***</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Higher education (5 years or above)</td>
<td>0.38***</td>
<td>0.39**</td>
<td>0.42***</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Residential mobility (in 1,000 days on address)</td>
<td>0.03***</td>
<td>0.03**</td>
<td>0.04***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Municipal mobility (in 1,000 days in municipality)</td>
<td>0.02***</td>
<td>0.02**</td>
<td>0.03***</td>
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<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Sex (male)</td>
<td>-0.03**</td>
<td>-0.04***</td>
<td>-0.05***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Age in 1,000 days</td>
<td>0.08***</td>
<td>0.10***</td>
<td>0.10***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Age in 1,000 days^2</td>
<td>-0.00***</td>
<td>-0.00***</td>
<td>-0.00***</td>
</tr>
<tr>
<td>Education, completed (base=school):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>0.11***</td>
<td>0.15***</td>
<td>0.16***</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Technical education</td>
<td>0.03</td>
<td>0.07***</td>
<td>0.10**</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Higher education (4 years or below)</td>
<td>0.19***</td>
<td>0.24***</td>
<td>0.26***</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Higher education (5 years or above)</td>
<td>0.16***</td>
<td>0.23**</td>
<td>0.26***</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Income in 100,000 DKK</td>
<td>0.05***</td>
<td>0.05***</td>
<td>0.05***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>In work</td>
<td>0.21***</td>
<td>0.22***</td>
<td>0.22***</td>
</tr>
<tr>
<td>Civil status (base=not married):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married to a Dane</td>
<td>0.46***</td>
<td>0.45***</td>
<td>0.41***</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Married an another immigrant</td>
<td>0.39***</td>
<td>0.32***</td>
<td>0.32***</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Danish citizenship</td>
<td>0.25***</td>
<td>0.27**</td>
<td>0.30***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Neighborhood level variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion co-ethnic</td>
<td>1.41***</td>
<td>0.51***</td>
<td>0.47***</td>
</tr>
<tr>
<td></td>
<td>(0.12)</td>
<td>(0.11)</td>
<td>(0.11)</td>
</tr>
<tr>
<td>Proportion immigrant</td>
<td>-0.22***</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
<td>(0.05)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Average age in 1000 days</td>
<td>0.04**</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Average age in 1000 days^2</td>
<td>-0.00</td>
<td>-0.00</td>
<td>-0.00</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Proportion with a higher education</td>
<td>-0.36***</td>
<td>0.15**</td>
<td>0.18**</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.07)</td>
</tr>
<tr>
<td>Average income in 100,000 DKK</td>
<td>-0.01</td>
<td>-0.03</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Number of inhabitants</td>
<td>-0.09***</td>
<td>-0.00</td>
<td>-0.00</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Number of candidates</td>
<td>0.06*</td>
<td>0.06*</td>
<td>0.06*</td>
</tr>
<tr>
<td>Model</td>
<td>Number of co-ethnic candidates</td>
<td>Number of immigrant candidates</td>
<td>Constant</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------</td>
<td>--------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Model 1</td>
<td>0.60*** (0.03)</td>
<td>-0.11 (0.08)</td>
<td>-1.99*** (0.08)</td>
</tr>
<tr>
<td>Model 2</td>
<td>0.60*** (0.17)</td>
<td>-0.10 (0.07)</td>
<td>-2.59*** (0.10)</td>
</tr>
<tr>
<td>Model 3</td>
<td>0.60*** (0.15)</td>
<td>-0.10* (0.07)</td>
<td>-1.61* (0.07)</td>
</tr>
</tbody>
</table>

**Municipal level variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of candidates</td>
<td>0.16*** (0.01)</td>
<td>0.13*** (0.01)</td>
</tr>
<tr>
<td>Number of immigrant candidates</td>
<td>-0.01*** (0.00)</td>
<td>-0.01** (0.00)</td>
</tr>
<tr>
<td>Number of candidates</td>
<td>0.01*** (0.00)</td>
<td>0.01*** (0.00)</td>
</tr>
<tr>
<td>Number of inhabitants</td>
<td>-0.00*** (0.00)</td>
<td>-0.00*** (0.00)</td>
</tr>
</tbody>
</table>

- Constant: -1.99***, -2.59***, -1.61*

Ethnicity fixed effects: NO, NO, YES

N: 126,847, 126,847, 126,830
McFadden pseudo R²: 0.04, 0.06, 0.07
Log likelihood: -80.342, -79.064, -77.948
Chi²: 4,993, 6,582, 8,126

*p<0.05, **p<0.01, ***p<0.001. Coefficients are the unstandardized logistic coefficients. Standard errors in parentheses are clustered by 100 x 100 meters field.

All 3 models support H2 over H1. The higher the proportion of co-ethnic individuals in a neighborhood, the higher is the groups’ propensity of voting. The effect holds when we control for the number of co-ethnic candidates in the neighborhood as well as at the municipal level, but the marginal effect declines somewhat. Thus, the effect is partly – but certainly not exclusively - driven by mobilization due to candidates that are easier to identify with. The effect is furthermore practically unchanged when ethnicity fixed effects are included, indicating that it cannot be explained by unobserved characteristics of the individual ethnicities that are constant across neighborhoods. Note that immigrants are only being mobilized by a high concentration of their own ethnicity; concentration of immigrants in general has a zero or negative impact in the models.

Interestingly, local candidates are also important. Having a candidate in your neighborhood increases turnout (H5) – however, a co-ethnic candidate increases turnout substantially more than candidates in general (H4). There is no added effect of an immigrant candidate, unless she is of the same ethnicity as the voter. The same tendency is apparent at the municipal level (H3). It makes
fine sense that the distribution of municipal level candidates matter, since all individuals in a municipality can vote for the same candidates. Thus, there is a general affect of having particular candidates on the ballot and a separate effect of having particular candidates in the neighborhood.

The controls, many of which are interesting in their own right, are in the expected direction. Ongoing education, completed education, being a woman, being in work, having a high income, being married, and having Danish citizenship all contributes positively to the propensity of voting. Most interesting, being residentially stable at a specific address and in a municipality yields separate effects. This implies that part of the effect of residential stability may be due to unfamiliarity with local politics when changing municipalities. Part of the effect is due to factors that affect the individual when she moves within the municipality – for instance, disruption of neighborhood ties and less familiarity with the location of the polling station.

The effect of residentially concentrated immigrants on Danes:
We now turn to the ethnic Danes only in order to investigate H6 – whether the majority population is mobilized by racial threat in their neighborhoods.
Table 2: Ethnic Danish voting in 100 x 100 meters fields.

<table>
<thead>
<tr>
<th>Individual level variables</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current, ongoing education (base=none):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School</td>
<td>0.94***</td>
<td>0.93***</td>
<td>0.94***</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>High School</td>
<td>1.45***</td>
<td>1.45***</td>
<td>1.45***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Technical education</td>
<td>0.20***</td>
<td>0.19***</td>
<td>0.19***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Higher education (4 years or below)</td>
<td>0.65***</td>
<td>0.65***</td>
<td>0.65***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Higher education (5 years or above)</td>
<td>0.58***</td>
<td>0.59***</td>
<td>0.59***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Residential mobility (in 1,000 days on address)</td>
<td>0.03***</td>
<td>0.03***</td>
<td>0.03***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Municipal mobility (in 1,000 days in municipality)</td>
<td>0.01***</td>
<td>0.01***</td>
<td>0.01***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Sex (male)</td>
<td>-0.05***</td>
<td>-0.05***</td>
<td>-0.05***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Age in 1,000 days</td>
<td>0.14***</td>
<td>0.14***</td>
<td>0.14***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Age in 1,000 days²</td>
<td>-0.00***</td>
<td>-0.00***</td>
<td>-0.00***</td>
</tr>
<tr>
<td><strong>Education, completed (base=school):</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>High School</td>
<td>0.71***</td>
<td>0.72***</td>
<td>0.72***</td>
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<tr>
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<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Technical education</td>
<td>0.33***</td>
<td>0.33***</td>
<td>0.33***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Higher education (4 years or below)</td>
<td>0.89***</td>
<td>0.90***</td>
<td>0.90***</td>
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<tr>
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<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Higher education (5 years or above)</td>
<td>1.10***</td>
<td>1.12***</td>
<td>1.13***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Income in 100,000 DKK</td>
<td>-0.00</td>
<td>-0.00</td>
<td>-0.00</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>In work</td>
<td>0.22***</td>
<td>0.22***</td>
<td>0.22***</td>
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<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Civil status (base=not married):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married to a Dane</td>
<td>0.57***</td>
<td>0.56***</td>
<td>0.56***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Married an another immigrant</td>
<td>-0.05</td>
<td>-0.05</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Danish citizenship</td>
<td>1.17***</td>
<td>1.16***</td>
<td>0.69***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td><strong>Neighborhood level variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion immigrant</td>
<td>-0.75***</td>
<td>-0.69***</td>
<td>-0.67***</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Average age in 1000 days</td>
<td>0.05***</td>
<td>0.05***</td>
<td>0.05***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Average age in 1000 days²</td>
<td>-0.00***</td>
<td>-0.00***</td>
<td>-0.00***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Proportion with a higher education</td>
<td>0.35***</td>
<td>0.42***</td>
<td>0.42***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Average income in 100,000 DKK</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Number of inhabitants</td>
<td>-0.00***</td>
<td>-0.00***</td>
<td>-0.00***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Number of candidates</td>
<td>0.05***</td>
<td>0.05***</td>
<td>0.05***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Number of immigrant candidates</td>
<td>0.03</td>
<td>0.04</td>
<td></td>
</tr>
</tbody>
</table>
The results of models (4)-(6) run directly counter to H6. There is no evidence of a positive racial threat effect on ethnic Danish turnout – in fact majority group turnout is substantially lower in areas with a high concentration of immigrants. The results are consistent with the results for the immigrant groups – when other characteristics are controlled for, co-ethnic concentration seems to have a positive effects for all groups.

An equally interesting finding in table 2 is that having a neighborhood candidate running also has a positive effect on ethnic Danes which is consistent with the results for immigrants in table 1. Thus, candidates on average seem to be able to mobilize people to vote disproportionately in their neighborhoods.
Discussion and conclusion

The literature on residential concentration has been dominated by opposing empirical findings. In this paper we used a unique dataset on local elections in Denmark to provide insights into the debate.

The paper strongly support the claim that the concentration of co-ethnic individuals in a neighborhood is associated with increased – not decreased – individual turnout. Furthermore, we were able to identify candidates geographically. Co-ethnic candidates in the neighborhood as well as in the municipality increase individual turnout substantially and decrease the effect of co-ethnic concentration. This implies that part– but certainly not all – of the original effect is due to more co-ethnic candidates running in residentially concentrated communities. Interestingly, also the number of candidates in general in the neighborhood matters. This emphasizes the importance of local mobilization in general in addition to the co-ethnic mobilization.

Finally, we examined the influence from the logic of a racial threat hypothesis. The empirical results run counter to the hypothesis. As it turns out, ethnic Danes have substantially lower turnout when living in areas with a high proportion of immigrants. Interestingly, the neighborhood candidate effect also applies for Danes. Thus, candidates’ ability to mobilize disproportionately in their neighborhoods seems to a more general effect.
References


Bhatti, Y. & Hansen, K. M. (2010b) Leaving the nest and the social act of voting - revisiting the relationship between age and turnout among first-time voters.


Bhatti, Y. & Hansen, K. M. (2010d) Public employees lining up for the polls - the conditional effect of living and working in same district.


