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ABSTRACT

The Impact of Immigration on Election Outcomes in Danish Municipalities

In this paper we study the effects on support for different political parties due to an increase in the immigrant share in Danish municipalities during the period 1989-2001. We find that the immigrant share has some notable effects. The anti-immigration parties are among those that win votes when the immigrant share increases, but a pro-immigration party on the left also gains from an increase in the immigrant share. The non-socialist party that is most pro-immigration, however, loses votes when the immigrant share increases. Our results indicate that in the elections some Danish voters voice their displeasure about immigration in their own neighbourhood. But we find no clear indication of a general decline in support for the welfare state on account of immigration, as several scholars have been predicting.

JEL Classification: J15, J61, D72

Keywords: immigration, immigrants, elections, racism, xenophobia

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Introduction*

In this paper we study the effect of an influx of immigrants on political parties in Denmark. In particular, we examine the effect of a change in the demographic composition in Danish municipalities. In doing so we consider an exogenous change in immigration patterns dating back to an unprecedented influx of refugees and their placement in the municipalities in accordance with established legal regulations. With the help of regression estimations we seek to discover whether or not such a change in the 'share of non-Western immigrants' significantly affected election outcomes. We study election results for 275 municipalities during the period 1989-2001, covering altogether four local elections and four elections to Parliament. Taking the platforms of the different political parties as a proxy for their positions on immigration and welfare state issues, we seek to identify the impact of immigration on support for the Danish welfare state. What motivates such a study and, in particular, what makes the Danish case interesting even to the non-Danish reader? This introduction is devoted to clarifying the aims and objectives of the study.

Immigration, and the situation of immigrants, has become a political issue in most West European countries. It is generally the immigration of non-Western rather than Western immigrants that has been the main subject of debate. Surveys show that many natives feel negative about the present situation with respect to immigration and immigrants. A fairly new expression of this is the establishment and expansion of anti-immigration political parties. Such parties have been receiving wide political support in Belgium, France, the Netherlands, and Norway, for example, as well as in Denmark which is the subject of the present study. These parties advocate a very restrictive policy on immigration, with proposals aiming to reduce the influx of immigrants and to encourage return migration, as well as measures to reduce income transfers and to dismantle programs aimed at immigrants.

This development has led researchers from several disciplines to study various aspects of the situation. One of these concerns the supporters of the anti-immigration policy: who are they?

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Studies reveal variations based on education, gender, age etc.[1] An expanding area of research concerns the way the economic (or perceived economic) impact on different groups may explain the difference in attitudes towards immigration. The (perceived) economic effects are usually one of two types: labour market effects (wages, unemployment) or effects on the economy of the public sector. Immigrants are often unskilled or, if they are skilled, they tend to work in occupations mainly for the unskilled, very often because they lack country-specific human capital. According to standard economic models, skilled natives gain from immigration – at least when they and the unskilled group complement one another in the production process. Immigration will generate higher wages as well as lower prices for certain types of services, and may thus be supported. Unskilled native workers, on the other hand, may fear losing as the result of an influx of immigrants, as they are substitutes in the production process. This may add to the risk of unemployment and lower wages, and thus to a more negative view of immigration and immigrants.[2]

The effects for the public sector may also vary from group to group. An influx of non-Western immigrants (refugees and family-related migration) generates a net transfer to this group of immigrants as they have low employment rates. A rise in the net transfer may be financed by higher taxes paid largely by people with jobs and especially by those with well-paid jobs.[3] This may be a factor leading to resistance to immigration among those who are employed and who have relatively high wages, especially under a progressive tax system. Another way of financing the net transfer to immigrants is to reduce the replacement rates in the income transfer programs, for example by lowering the replacement rates for the unemployed or social welfare rates. Ultimately the fulfilment of such a measure would mean shrinking the welfare state. And this in turn might mean that those citizens who receive income transfers would oppose immigration even more strongly. Thus, such effects (perceived or real) may also leave their mark on the political scene as well, for example, with immigration encouraging the rise of new anti-immigration parties or the growth of those already existing as immigrant numbers rise.[4] One main purpose of the present study is to explore whether there is such a causal relation between an increase in immigration and

[1] See Dustmann and Preston (2001), Gang, Rivera-Batiz and Yun (2002), Norris (2005, Chapter 8), Facchini and Mayda (2006), Tamura (2006), Malchow-Møller et al. (2007) and Mayda (2007).
[2] Most studies show little or no effects on native wages and unemployment as a result of immigration. For surveys, see Longhi, Nijkamp and Poot (2005 and 2006). A notable exception is Borjas (2003), reporting a negative impact of Mexican immigrants on the wages of low-skilled US workers.
[3] See Facchini and Mayda (2006) and Tamura (2006).
[4] On the relation between the size of immigration and the effects on wages, unemployment and the public sector finances, see also Tamura (2007).

support for anti-immigration parties. With this in view we consider whether a rise in the share of immigrants in Danish municipalities does increase the support for anti-immigrant parties.

The effects of immigration on the public sector depend on the system for financing the various activities. If transfers are financed by the state, there is no reason to expect greater local resistance to immigration on financial grounds in municipalities with many immigrants. On the other hand, if the municipalities bear a large part of the financial burden, we should expect to find more support for anti-immigration parties in municipalities with many immigrants. In Denmark the municipalities assume the greater part of the costs, see Wadensjö and Orrje (2002) and Wadensjö (2007). Support for anti-immigration parties may also depend on which public authority is responsible for the rules that determine the immigration regulations. In Denmark, immigration policy (the number of immigrant visas granted and the distribution of refugees along the line of the placement policy) and the distribution of its costs are both determined at the national level by the government and national Parliament. We should thus expect the national elections to provide the main forum for the anti-immigration parties. If the government is responsible for immigration policy, the effect of immigration on support for the political parties may also depend on whether or not these are currently in power. From the outset, we can thus envisage various processes at the local and national levels whereby immigration affects support for the parties – and especially those with an anti-immigration agenda. In addressing such issues we will seek to determine whether the effects of immigration in the municipalities differ, as between local and general elections.

Economic arguments may thus affect the immigration debate and may help to explain some of the variation in individual attitudes towards immigration and the support for anti-immigration political parties.[5] However, there may be other factors behind attitudes and immigration policies, not least the possible importance of xenophobia in parts of the electorate.[6] Among other things, resentments against immigrants have been used to explain different outcomes in publicly provided welfare state designs. For example, Lee and Roemer (2006) address "the problem of American exceptionalism", which refers to the rather meagre redistribution of income and provision of publicly provided goods in the US. They note that several

[5] Economic arguments and individual characteristics explain only part of the cross-country variation in individual attitudes towards immigration. See Malchow-Møller et al. (2007). See also Mayda (2007) for another cross-country study of the variation in attitudes.

[6] Xenophobia denotes "an unreasonable fear or hatred of foreigners or strangers or of that which is foreign or strange", see http://dictionary.reference.com/browse/xenophobia.

researchers have suggested a more general *anti-solidarity effect* as an important explanation, claiming that lack of compassion for the poor has been a major cause of the notable difference between the Europe and the US welfare systems.[7] Lee and Roemer (2006) offer another explanation, emphasizing the importance of the *policy bundling* of political issues stemming from the constitutional design in the US regarding majority representation. Their idea is that the anti-redistributive Republican Party, which is also the party known to be more restrictive on immigration issues, gets the votes of a white, low-skilled electorate that is not against redistribution as such, but does give the race question high priority. The authors argue that almost half the effect that has been attributed to anti-solidarity sentiment is actually determined by racial and xenophobic concerns rather than by any fundamental desire to limit the role of the state. A related study by Roemer and Van der Straeten (2006) predict that the shift in the Danish government induced by the immigration debate will lead to a significant reduction of the welfare state.[8]

The paper is designed as follows. The following section provides a political "map" of Denmark, in particular of the parties' stance with respect to migration issues and support for the welfare state. The following sections comprise the empirical analysis, starting with a variance decomposition of the different party vote shares that is aimed to explore the importance of factors emerging on the local level, followed by regression estimations that seek to pinpoint the impact of an increase in the share of non-Western immigrants on the parties' vote shares. The final section offers some concluding comments.

The political parties in Denmark

The subject of our study is the election results of the political parties in Denmark. Below we briefly introduce the political parties that participated in the elections during the period studied, presenting them in the order in which they were established on the Danish political scene.[9] The following is a broad classification of the political sphere in Denmark with respect to the two policy dimensions that we are interested in:

1. Against high taxes, negative regarding the immigration issue
2. Against high taxes, neutral regarding the immigration issue
3. Neutral regarding high taxes, positive regarding the immigration issue

[7] They refer particularly to Alesina et al. (2001) as a major source for their findings in the related literature.
[8] See also Roemer, Lee and Van der Straeten (2007), which includes several studies on the connection between immigration and support for the welfare state.
[9] See Table A1 for the percentage distribution of the votes in more recent national elections.

4. Pro high taxes, negative regarding the immigration issue
5. Pro high taxes, neutral on the immigration issue
6. Pro high taxes, positive regarding the immigration issue

This rather simple classification provides the basis for mapping-out the different positions and their respective political counterpart. By "against high taxes" we mean being in favour of reducing tax rates and at the same time cutting back on the welfare state. Similarly, by "negative on the immigration issue" we denote a position that seeks to attract the voters who favour a more restrictive policy towards immigration. This classification is obviously rather broad, covering a fairly wide range of positions, from expressing some concern about immigration to favouring anti-immigration legislation.

The oldest of the Danish political parties is the *Konservative Folkeparti* (*Conservative People's Party*), which started as the ruling party after the king lost power in Denmark in the mid-19th century.[10] It represented the upper classes. The name of the party at that time translates as the Right (Wing) Party. The opposition formed a party, calling themselves Left (Wing) Party, *Venstre* (its English translation, *Liberal Party*, is more in line with its political profile today). This Party mainly represented farmers of good economic standing, and was the party that formed a government after a long political conflict. The smaller farmers and groups of employees and self-employed in the cities were not part of the new party, and they responded by forming a new party, *Radikale Venstre* (*Social Liberal Party*). This party was, and still is, a non-socialist party but lies furthest to the left among the non-socialist parties as a whole. It has formed governments together with the *Social Democratic Party* several times. In the two-dimensional classification (shown above) it occupies position 3 while the *Liberal Party* and the *Conservative Party* can be assigned to position 2 or 1.

Socialdemokratiet (*Social Democratic Party*) is a party of the type that also occurs in the other Scandinavian countries and other countries in Western Europe. It was established as far back as the 1870s, relying mainly on the votes of the blue-collar workers. Between 1924 and 2001 it was the party enjoying the largest electoral support. As in several other countries, the left wing of the *Social Democratic Party* formed a communist party of its own after the Russian revolution. The Communist Party divided into two in the wake of the Hungarian

[10] The English translation of the names of the Danish political parties varies. We mainly follow the version used by Statistics Denmark.

uprising in 1956. A Soviet-critical fraction formed the *Socialistisk Folkeparti* (*Socialist People's Party*), which ultimately became the larger of the two breakaway groups. In the 1990s, the Communist party entered into an alliance with other small parties on the left to form *Enhedslisten – De Rød-Grønne* (*Unity List*). In the two dimensional classification the *Social Democratic Party* takes position 5, while the *Socialist People's Party* position 6. The same position applies for the *Unity List*.

Two new parties appeared in 1973, both of them as parties of protest. At first the main issue at stake for the *Centrum-Demokraterne* (*Centre Democratic Party*) was the property tax. This is a non-socialist party in the middle of the political spectrum, and it has joined governments both under the *Liberal Party* and the *Conservative People's Party*, but also governments led by the *Social Democratic Party*. A second party founded in 1973, *Fremskridtspartiet* (*Progress Party*), began as a party of protest against income tax and the large public sector. Later, immigrants and immigration became its main interest. It is one of the two anti-immigration parties. In 1995 internal conflict led to a split and the formation of a new party, *Dansk Folkeparti* (*Danish People's Party*). This party gradually out-competed the Progress Party, soon becoming the dominating anti-immigration party. It is strongly anti-immigration, but supports the welfare state (for native Danes). *Kristeligt Folkeparti* (*Christian People's Party*) was founded in 1970, and has at various times been represented in Parliament and even in the government. It is a non-socialist party, but it has been part of the government under both the *Liberal Party* and *Conservative People's Party*, as well as under *Social Democratic Party*. In the two-dimensional classification shown above they take the following positions: For the *Centre Democratic Party* position 2, for the *Progress Party* position 1, *Danish People's Party* position 4, *Christian People's Party* position 2.[11]

To be represented in Parliament a party has to win 2 per cent of the votes at an election. This is a low hurdle compared with many other European countries, and it means that in most periods many parties are represented in local and national assemblies, but most of them by a few seats only. In practice there are two possible government-forming alternatives. The left alternative implies a coalition between the *Social Democratic Party* and the *Social Liberal Party* with support in Parliament from the *Socialist People's Party* and the *Unity List*. The other alternative, on the right, implies a coalition between the *Liberal Party* and the

[11] We will not discuss why anti-immigration sentiments have been particularly strong in Denmark. See Hervik (2004) for a discussion on the origins of Danish xenophobia.

Conservative People's Party together with support in Parliament from the *Danish People's Party* and one or more of the small non-socialist parties. This means that the *Danish People's Party* may be able to influence policy-making, for example regarding immigration policy, when the *Liberal Party* and the *Conservative People's Party* have formed a joint government.

Analysis

Our purpose here is to determine the impact on election results of an influx of immigrants to Denmark during the 1990s. We thus conduct regression estimations, taking the vote shares of the individual political parties as the dependent variables. Regional diversity within a municipality's population, and the impact of this on the formation of local policy outcomes have been frequently studied; see Gerdes (2008) and Hopkins (2006), and the references given there. In the present paper, we look at election outcomes and ask whether there has been a reaction to the influx of persons of non-native origin in terms of an increase or a drop in support for the various parties.

Regression estimations will be the main tool to disentangle the impact of immigration on voting outcomes, but we will also conduct a variance decomposition of vote shares by party. We will decompose voting patterns with a view to measuring the extent to which votes are locally, or nationally, determined. As we are interested in the impact on election outcomes of a change in the resident composition in municipalities, an evaluation of the significance of regional issues in general in determining the parties' vote shares could be revealing. To this end, we turn to Morgenstern and Potthoff (2005) and Morgenstern and Swindle (2005), who seek to clarify the determinants of what they call "the local vote". This vote can be affected by a variety of factors, such as the popularity of a candidate in a constituency, or the particular design of an electoral system. The decomposition technique does not distinguish between these aspects, i.e., whether the "vote is targeted toward an individual candidate, applied to a party list, or distributed among multiple party candidates" (Morgenstern and Swindle, 2005, p. 146). However, advantage of such a decomposition technique for our study is that it allows us to create a comparable measure for the importance of local issues in the two election cycles. Hence, we are not concerned here with disentangling the importance of the nature of underlying causes, but with using the amounts thus calculated in the variance decomposition in order to reveal "the degree to which voters are influenced by factors particular to their districts". See Morgenstern and Swindle (2005), p. 145.

Local vote and national trends

We will now apply the variance decomposition, as described by Morgenstern and Potthoff (2005). These author's decomposition of electoral variance posits three elements: the district time effect (the "local vote"), district heterogeneity (the inconsistency of party support across districts) and volatility (the national trend, expressing the variance in overall party support over time). They use all three measures to formulate a classification of parties across countries. As we are primarily interested in using the local vote as a setting for our regression analysis, we do not adopt this classification. Nor will we comment on the impact of district heterogeneity as this departs from the assumption of "districts…drawn randomly from a superpopulation" (Morgenstern and Potthoff, 2005, p. 25). As not all the parties that we study submitted candidates in a number of the electoral wards, the assumption of a random draw would not hold water.[12] We will focus on the local vote, but will also touch on volatility, i.e., the part of the variance that is explained by time trends in the cross-municipality dimension.

The estimations of variance components for each party in each election cycle are attained according to the following formula: For the district time it is given by

(i) $$\sigma^2 = \frac{\sum_{i=1}^{I}\sum_{k=1}^{K}(y_{ik} - \bar{y}_{i.} - \bar{y}_{.k} + \bar{y}_{..})^2}{(I-1)(K-1)},$$

while volatility is estimated by

(ii) $$\sigma_T^2 = \frac{\sum_{k=1}^{K}(\bar{y}_{.k} - \bar{y}_{..})^2}{I(K-1)} - \frac{\sum_{i=1}^{I}\sum_{k=1}^{K}(y_{ik} - \bar{y}_{i.} - \bar{y}_{.k} + \bar{y}_{..})^2}{I(I-1)(K-1)},$$

where K is the number of elections, I is the number of districts (in our case the municipalities) and "the dot subscript (e.g. in $\bar{y}_{.k}$) indicates the average over the replaced index" (Morgenstern and Potthoff, 2005, p. 24).

As some of the parties that we studied are rather small, and are occasionally absent from some of the municipalities, we will not comment on absolute values for the local vote (which are in fact considerably smaller for the smaller parties). Rather, we will study the relative outcomes

[12] The calculation of variance components with respect to local vote and national trend are not sensitive to the validity of such assumptions, see p. 24 in Morgenstern and Potthoff (2005).

for each party in local government and general elections.[13] The results of this decomposition are shown in Table 1.

-Table 1 about here-

Morgenstern and Swindle (2005) look at general election outcomes for political parties in 23 countries, among them the *Social Democratic Party* and the *Liberal Party* in Denmark, during the period 1971-1998. Their measure for the size of the local vote in the Danish general elections differs somewhat from our estimates, but these (fairly small) differences can be explained the slightly shorter period covered here, and by the fact that the authors use voting results at the county level, while we look at the municipal level.

The variance assigned to the local vote is generally greater in local government elections than in elections to the national Parliament, i.e., the ratios of the respective figures are greater than one, see Table 1. This lends support to the contention that issues of genuine local concern should be given more weight in elections to local governments than to general elections. A notable exception here is the ratio for the *Progress Party*. For this party the variance connected with factors determined on a local basis is greater in general elections than in local government elections. Further, the local vote in local municipality elections is larger on the whole for parties on the left, i.e., the *Social Democratic Party* and the *Socialist People's Party*, and for the more centre-oriented *Social Liberal Party*. The exception is the group of parties furthest to the left of the political spectrum, known as the *Unity List*. However, for the *Unity List* we have observations for 33 municipalities only, which makes it hard to draw any valid conclusions. As regards parties more towards the right of the political spectrum, the *Conservative People's Party* and the *Danish People's Party* both receive a somewhat smaller local vote in local government elections than in national elections.

An examination of the impact of national time trends (denoted "volatility") on election outcomes yields the following results. First, there is a considerable amount of variety in the outcome for the different parties, suggesting that parties to the left of the *Social Democratic Party*, i.e., the *Socialist People's Party* and the *Unity List*, are far more receptive to national

[13] Following Morgenstern and Potthoff (2005) we make the restriction that for any election district (i.e., municipality) included at least two observations must be made in both election series. As regards the location of parties on a left-right scale, we adopt the classification proposed in Huber and Ingelhart (1995).

trends in elections to local governments than they are in general elections. This is equally true of the *Social Liberal Party*.[14] Bearing these results in mind, we will now turn to regression estimations to explore the impact of immigration on election outcomes.

The effect of a change in the 'share of non-Western immigrants' on election outcomes in Danish municipalities

We will now describe a series of regression estimations in which the election outcomes for each party, expressed as a percentage, are the dependent variables. A number of critical questions regarding the formulation of the estimation model first have to be addressed. The dependent variable simply accounts for votes on a dichotomous basis, indicating that party *i* either did or did not get a vote.[15] Aggregate data based on individual decisions that are intrinsically binary (sometimes called proportions data; see Greene, 2003, section 21.4.6), is accompanied by certain estimation problems. These concern in particular the question of how to set up an appropriate model that takes such an outcome as its dependent variable, and the according assumption on the underlying distribution that one should utilize in stating significance of achieved estimators.

According to Greene (2003) the appropriate way of treating proportions data that comes in as the dependent variable is to use the *log odds*, or *logit*, adopting regression methods (or maximum likelihood methods) to measure the effect of the covariates; see Greene (2003), p. 686. Thus the dependent variable in the estimations should be expressed as the logarithmic of the odds, i.e. $\tilde{y} = \ln\left(\frac{P_i}{1-P_i}\right)$, where the observed P_i in our setting is the proportion of votes for party *i* in a given municipality. A model defined in this way is linear in its arguments: $\tilde{y} = x_i'\beta + \varepsilon$. One crucial question concerns the way in which the distribution of ε should be handled. One standard procedure described in the literature is to assume an independent and identical distribution of the error term ε, such that $\varepsilon_{it} \sim IID\left(0, \sigma_\varepsilon^2\right)$.[16] In the estimations

[14] The *Social Democratic Party* and the *Social Liberal Party* formed national governments most of the time from 1993 to 2001.

[15] This means that we have simplified the decision process as we disregard the fact that the choice lies not simply between two alternatives, but between a number of different parties. However, the choice of alternatives is not constant across municipalities and time, which makes an approach of using choice dependent marginal effects (like a multinomial logit approach) rather troublesome.

[16] See also the discussion in Kieschnick and McCullough (2003) on related estimation issues. They argue that one should consider using other estimation models than a linear or log linear, but given the choice between those

presented in the present paper we adopt a slightly different approach in order to keep the model as simple as possible. We do this by using the logarithm of P_i as the dependent variable instead, which could be read as (log of) the "probability" of a party receiving a vote.[17] The covariate of main interest, i.e., the share of non-Western immigrants within municipalities, is also included in its logarithmic form. This allows us to read the $\hat{\beta}$-coefficient as follows: a one percent increase in the share of non-Western immigrants leads to a $\hat{\beta}$ percentage change in the vote share of party *i*.

We adopt a "fixed-effect"- estimation approach, which means as well as time dummies we also control for municipality heterogeneity by holding constant for municipality fixed effects. Due to these controls, the variance that remains "unexplained" can be attributed to district-time effects similar to the "local vote" described in the previous section.[18] The explanatory variable of particular interest for us is the effect of (a change in) the (log) share of first-generation non-Western immigrants. By considering this particular group of immigrants we seek to "target" individuals who were subject to the Danish dispersal policy. The aim of this policy was to distribute the newly arrived refugees over the whole of Denmark, and especially in areas where the immigrant population had hitherto been rather small. Earlier studies have shown that the distribution was more or less "random" when conditioned on a number of structural and demographic factors. In our estimations we seek to control for such factors by including variables for municipal averages regarding age, number of children per household and income from labour.[19] Even so, it is not possible on a basis of such estimations to assess an overall exogenous change in the composition of the local population, since we cannot control for immigrant status or time of arrival in Denmark. Moreover, we cannot ignore the possibility that a particular election outcome could have changed the 'share of non-Western immigrants' in that community, which would introduce some endogeneity into the estimations.

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two alternatives they deduce that "a linear regression on a logit transformed dependent variable is preferable to a linear regression on a nontransformed variable", Kieschnick and McCullough (2003), p. 211.

[17] Estimation results following from a logarithmic transformation of the dependent variable, i.e., using $\ln(P_i/1-P_i)$, are rather similar to those presented here.

[18] However, correspondence is not complete, since we use logarithmic outcome variables rather than values in pure levels in the regression estimations, which affects the variance decomposition. However, as the log transformation is a continuous and monotonically increasing operation, changes are on an ordinal scale.

[19] A more detailed discussion of various aspects of the dispersal policy can be found in Gerdes (2008) and in the references given in that work.

To allow for these possibilities we also apply an instrumental variable approach. Ideally we would have liked to have used the number of refugees assigned to the individual municipalities as our instrument for the 'share of non-Western immigrants', but no such figures are included in the official registers. Instead we use the number of refugees who received social assistance in the course of a given year. The logic behind this runs as follows: Before 1999 all refugees were entitled to what was known as "Kontanthjælp" from the municipalities in which the refugees had their place of residence. Assuming that most refugee newcomers would be receiving such help to begin with, this number can represent our approximation for the number of refugees assigned to the municipality. We allow for the alteration in 1999, whereby "Kontanthjælp" was replaced by another scheme – known as "Introduktionsydelse" – by using time-lagged figures. In particular, the 'share of non-Western immigrants' in one year is instrumented by the number of recipients of Kontanthjælp three years before. Given that our instrument is valid such estimations will allow us to make certain claims as to the causal effect of immigration on party votes. Consequently, so long as we are commenting on simple regression analysis, we will stick to the notion of measuring an associative effect instead.

The data used here has been taken from *Statistics Denmark*, while the data regarding election outcomes for the general elections to the national Parliament (the *Folketing*), come from various publications issued by the Ministry of the Interior and Health.

It could be objected that the covariate of main interest, namely the 'share of non-Western immigrants' in the municipality, could seize the vote of the immigrant population themselves. The scope for such confounding effect is not very great, however, since new immigrants from countries outside the EU (and the Nordic countries), i.e., those we identify as non-Western immigrants, are not entitled to vote in local elections until they have had three years of (permanent) residence in Denmark, while for voting in national elections Danish citizenship is required – among others requiring at least nine years residence in the country.[20] Following from the fixed-effect set up, we take account of changes rather than levels within municipalities, which means that groups of immigrants of non-Western origin who have been living in the same municipality throughout the studied period will not affect the coefficient estimate for 'share of non-Western immigrants'.

[20] See p. 8 in Bjørklund and Goul Andersen (2003).

Another rationale for applying fixed-effect estimations is as follows: If municipalities have time-invariant characteristics that affect outcome variables other than those explicitly controlled for, any estimation of the coefficient vector β for the explanatory variables x_{it} would be subject to omitted variable bias in case no municipality controls were included. In this kind of estimation set-up, reported coefficient estimates of (time varying) covariates will give the change in the dependent variable associated with a change in these explanatory variables.

The fixed-effect estimator can be written as follows (see also Verbeek (2000), p. 313):

(iii) $$y_{it} - \bar{y}_{i.} = \beta'(x_{it} - \bar{x}_{i.}) + (\varepsilon_{it} - \bar{\varepsilon}_{i.}), \quad \text{where } \varepsilon_{it} \sim IID\left(0, \sigma_{\varepsilon}^2\right).$$

Here x_{it} are (time-varying) control variables, including the measure of 'share of non-Western immigrants'. Starting from equation *(iii)* the regression coefficients are estimated by:

(iv) $$\hat{\beta}_{FE} = \left(\sum_{i=1}^{N} \sum_{t=1}^{T} \ddot{x}_i \ddot{x}_i' \right)^{-1} \left(\sum_{i=1}^{N} \sum_{t=1}^{T} \ddot{x}_i' \ddot{y}_{it} \right),$$

where $\ddot{x}_i = (x_{it} - \bar{x}_{i.})$ and $\ddot{y}_i = (y_{it} - \bar{y}_{i.})$.

Following from the preceding discussion estimations are conducted by estimating $\ln(P_{it}) - \overline{\ln(P_{it})} = \beta'(x_{it} - \bar{x}_{i.}) + \lambda_t + (\varepsilon_{it} - \bar{\varepsilon}_{i.})$, where P_{it} is the vote share for a given party P in municipality i at time t, where λ_t is a time dummy indicator.

Assuming that the control variables are independent of all ε_{it}, the regression estimations will be unbiased. More specifically, it is required that $Cov(\ddot{x}_{it}, \ddot{\varepsilon}_{is}) = 0$ for all t and s, so that party vote shares at period t in one municipality will not affect 'share of non-Western immigrants' in period $t+1, t+2, \ldots, t+k$.

Further, in the estimation we treat all the municipalities in the same way, which means that we do not weight them according to population size. As our dependent variables are local government election outcomes, it is reasonable to measure events and political currents that treat all the municipalities as separate, social entities.[21] The covariates, besides of the share of

[21] Thomsen (2003) uses aggregate data for Denmark to look at voter turnout. Examining data for municipalities and polling stations, he suggests a weighting approach based on population size. However, he points out this is

non-Western immigrants in the default model are age, number of children in the household and labour income. We cover a period that includes four local government elections and four general elections between 1989 and 2001. Standard deviations are weighted ("clustered") with respect to municipalities. The panels are not balanced, i.e., the number of observations for a party may not always be the same over all four elections. To facilitate a comparison of all the parties' election results over time, we show the party outcomes in Figure 1. The mean values of the covariates can be found in Table A2.

-Figure 1 about here-

Estimation results

A look at the coefficient estimates reveals the rather big variation in both significance levels and the signs of the estimated association between (a change in) the 'share of non-Western immigrants' and (a change in) vote shares in local elections and the respective result regarding general elections, see Table 2 column1 (1) and (2). Some parties show significant results in both series of election outcomes, others in one only or in none. Here we will present the results along the degree of significance for the respective coefficient estimates in local government and general elections. Throughout the discussion we denote significance by t-statistics that pass a two-sided significance threshold of 10 percent.[22]

-Table 2 about here-

Among the parties that show significant results as regards the 'share of non-Western immigrants' in both election outcomes, we find the *Conservative People's Party* and the *Progress Party*. The coefficient estimates are positive for both parties, albeit somewhat larger for the *Progress Party*. The *Conservative People's Party* experienced a considerable decline in electoral support in general elections during the period, while its support in elections at the local government level remained fairly stable, as can be seen in Figure 1. A general change in party support is caught by the time dummies included in the model. This implies that the coefficient estimate for the change in non-Western immigrants measures the variation in the dependent variable over time that is associated with the variation in the independent variable

mainly because the choice of units is somewhat arbitrary in the study concerned: "If each unit can be viewed as a separate social system there is no strong argument why the units should be weighted" (p. 3).

[22] We apply fixed effect estimations by using the "xtreg, fe" command in *Stata9*.

net of any time trends. Stated differently, the estimated coefficient $\hat{\beta}$ indicates the marginal effect of a change in 'share of non-Western immigrants', holding constant for common time trends and other covariates.

The *Danish People's Party* is the only party with a significant estimate for the 'share of non-Western immigrants' in elections to local government, but a non-significant estimate in general elections. Its coefficient estimate also shows the largest marginal effect of any of the parties.

The parties that did not show significant results in elections to local government, but did so in general elections are the *Christian People's Party*, the *Liberal Party*, the *Social Liberal Party* and the *Socialist People's Party*. In line with customary practice we define significance by a p-value smaller than 10 percent. However, if we adopt a somewhat less strict demarcation and utilize a 15 percent level instead, the coefficient estimates for the 'share of non-Western immigrant' covariate would be significant in the elections to local governments for both the *Liberal Party* and the *Socialist People's Party*. There is a small but consistently negative impact of an increase in the 'share of non-Western immigrants' for the *Liberal Party*, while there is a positive effect for the *Socialist People's Party*. Similarly, estimates for the *Social Liberal Party* are consistently negative and about equal in size, but these are non-significant in elections to local government. Finally, for the *Christian People's Party* we get a negative impact from 'share of non-Western immigrants' on vote shares in national elections. If we relate these results to the measure of local votes discussed in the preceding section, we find that the local vote ratio for the *Christian People's Party* is relatively small, i.e., less than two, while it is around six or over for the other three parties. This result, together with previous findings, suggests that there is no apparent connection between the size of the local vote in terms of explained variance on the one hand, and the level of significance of 'share of non-Western immigrants' in the regression estimations on the other.

Finally, the parties that yield non-significant results in both series of elections are the *Centre Democratic Party*, the *Social Democratic Party* and the *Unity List*. In this last case we have observations for 33 municipalities only, which obviously hinder any firm conclusions. For the *Centre Democratic Party* there are 70 applicable observations over time, which also is rather a small number. Nonetheless, the coefficient estimates suggest that the influx of non-Western

immigrants did not have any impact on voting outcomes. The same can be said of the *Social Democratic Party*. This last result is interesting as it contradicts the prevalent view that the *Social Democrats* lost votes to the *Danish People's Party* because of a growing anti-immigration mood in the electorate. See for example Bjørklund and Goul Andersen (2003), p. 13. As we have seen, there is rather a large marginal increase in support for the *Danish People's Party* at local government elections, associated with an influx of non-Western immigrants. We would thus have expected to find a corresponding negative relationship for the *Social Democratic Party* in elections to local governments. The rather large amount of variance attributed to the local vote and the (very) low weight associated with national time trends across municipalities in elections to the local governments, both suggest that the *Social Democrats* were more engaged than other parties in issues determined locally, which may have compensated to some extent for more widespread electoral concerns on immigration issues. To test the robustness of this hypothesis we also conducted estimations including only those municipalities in which the *Danish People's Party* run for local government office. However, this does not change the main results; i.e., the estimates for the *Social Democratic Party* are still insignificant as regards the impact of non-Western immigrant shares on election outcomes at the level of municipality.[23]

The above results thus indicate that local factors, as gauged by the local vote measure, are more or less dispensable when it comes to assigning the level of significance of a change in 'share of non-Western immigrants' in elections to the national Parliament. On the other hand, as we had previously noted, there was rather a low ratio regarding the strength of the local vote in local governmental elections for the parties on the right, i.e., for the *Conservative People's Party*, the *Danish People's Party* and the *Progress Party*. Our regression estimations show that all three parties were the only parties revealing significant coefficient estimates as regards the effect of the 'share of non-Western immigrants' in local elections. This finding suggests that a marginal increase in vote shares in reaction to an influx of non-Western immigrants is negatively related to the strength of a party's roots in local politics, meaning that political mobilization at the national level has been an important factor. We will return to this issue in our concluding section.

[23] We also applied another restriction, namely including only observations for the elections from 1997 onwards, i.e., the election year in which the *Danish People's Party* took part in the local elections for the first time, but this restriction too had a minor impact only on the results for the *Social Democratic Party*. Results not shown in the paper can be made available by the authors on request.

Checking consistency of regression estimations

We have already mentioned that the initial distribution of refugees among the municipalities was dependent on a number of socio-geographical factors, and that we have tried to take these into account by introducing corresponding control variables in the regression model. To examine the responsiveness of our regression estimations we also present some regression estimations that exclude all covariates apart from time and municipality fixed effects, and some that include several other control variables.[24]

-Table 3 about here-

Comparing the default estimations, i.e., those that include all the controls as shown in Table 2, columns (1) and (2), with regression estimation that lack any controls except time and municipality dummies in Table 3, columns (1) and (2), we can see that the estimates and the levels of significance are similar. The clearest difference compared with the default case concerns the *Danish People's Party*, which now gets a lower and non-significant coefficient estimate in local government elections.

A similar comparison of the default estimation with estimations that include controls regarding population density, share of unemployed, share of those over 65 and population size in the municipalities (all in logarithms), reveals certain adjustments. See Table 3, columns (3) and (4). The main results can be summarized as follows: the coefficient estimate for the *Christian People's Party* is no longer significant. The change in 'share of non-Western immigrants' is significant only for election outcomes for the *Conservative People's Party* in local government elections. As regards the *Progress Party* there is now a significant effect for elections to Parliament only. The coefficient estimates for the other parties are slightly smaller than the estimations in the default case. All in all, the augmented control does make a certain impact, but it does not refute the earlier results. Rather, it seems as though these additional variables control mainly for the variation correlated with larger cities and urban areas. This will be further clarified below.

[24] Once again, we are not really interested in their actual impact, i.e., the coefficient estimates of the covariates apart from 'share of non-Western immigrants' are not an issue in this paper.

Changes vs. levels

Hitherto we have focussed on the effect over time of a change in the composition of various immigrant cohorts. While earlier groups of immigrants consisted mainly of labour migrants, more recent cohorts consist to a great extent of refugees or family (re)unification migrants. In our estimations so far, we have looked at the impact of more recent waves of immigrants since we have been focusing on *changes* in immigrant shares during the 1990s. Thus, a question that we have overlooked concerns the meaning of the actual *level* of the share of immigrants. Some recent studies based on interview data from Denmark and Norway regarding support for anti-immigration parties, i.e., the *Danish People's Party* and the *Progress Parties* (one in each country), found no clear connection between the proportion of immigrants in the population of a neighbourhood and anti-immigration sentiments. Rather, they stressed the importance of the general political debate about immigration issues to attitudes in the electorate (see Bjørklund and Goul Andersen, 2003, p. 11).

Here our purpose is twofold: First, to see whether we can confirm the claim that the actual level of the 'share of non-Western immigrants' is of minor importance only; second, to compare estimations based on actual levels with our own results, which focus on the impact of changes in such shares in municipalities. Such an approach might pave the way for a more nuanced assessment of the underlying mechanisms.

As before, we will seek to explore such effects with the help of regression estimations. However, this raises some concern about the consistency of the estimation results obtained, particularly because we have to abandon the fixed-effect approach that we have employed up to now. The fixed-effect framework implicitly controls for levels in shares by including controls for municipality fixed effects.[25] The estimation results that we will now discuss are presumably "less reliable" compared to the fixed-effect framework.[26] For example, one drawback of OLS estimations is that the votes of citizens of non-Western origin who have lived in a Danish municipality for a fairly long time will also be captured in the coefficient

[25] For example, by applying a fixed effect approach we implicitly control for urbanization, a factor that has been shown to have some impact on voter turnout in elections in Denmark. See Thomsen (2003).

[26] In general, coefficient estimates acquired from fixed-effects estimations (FE) would be similar to OLS estimations, given that there were no time-fixed omitted variables to bias the results in the second case and no significant impact from the actual level in 'share of non-Western immigrants'. Thus, technically, there are no substantial differences between the approaches, apart from the emphasis in the estimations on variation over time in the FE case following from the control for municipality fixed effects. See Halaby (2004) for a non-technical discussion on the pros and cons of fixed-effect estimations.

estimate for ‘share of non-Western immigrants’. For this reason, these estimates should be regarded primarily as a complement to the fixed-effect estimations.

Thus, we use simple pooled regression estimations (referred to from now on as OLS). That is to say, we abandon separate controls for all municipalities. To control for time trends we retain time dummies in the model. The OLS approach means that the within-municipality and the cross-municipality variation will both contribute to the identification of the coefficient estimates. The results are shown in Table 2, columns (3) and (4).

We get a significant result for the *Conservative People’s Party* in general elections, but the coefficient estimate is somewhat lower than the one that we found in the fixed-effect estimations. There are no significant coefficients for the *Progress Party*, in either of the series of elections regarding the levels of the ‘share of non-Western immigrants’. The same holds for the *Danish People’s Party*, i.e., we find no significant results here. Thus, in the case of these last two parties, these results confirm those, derived from cross-sectional estimations for 1993 and 1997 reported by Bjørklund and Goul Andersen (2003).

We now turn to the *Christian People’s Party*, the *Liberal Party*, the *Social Liberal Party* and the *Socialist People’s Party.* The results regarding the OLS estimations are rather mixed. We find no significant coefficient estimates for the *Christian People’s Party* and the *Social Liberal Party*, but for the *Liberal Party* we do get slightly larger (i.e., more negative) and significant values for both the local government and the general elections. The pattern is similar with regard to the *Socialist People’s Party*, i.e., there is a larger and even a significantly positive effect in the OLS estimations.

In the case of the three parties that did not have significant coefficient estimates for ‘share of non-Western immigrants’ in the base line fixed-effect estimation, we find that the measured effect of levels are now significant for the *Centre Democratic Party* and the *Unity List*. For the former the coefficient estimate yields a negative effect from the level of ‘share of non-Western immigrants’ in local government elections, but not in general elections, while for the *Unity List* there is a significant positive coefficient in general elections, and an almost significant positive coefficient estimate in elections to local government. For the *Social Democratic Party* we find no significant results from OLS estimations.

Instrumental variable results

So far, as noted, we have avoided using the term "causal effect" to guard against possible endogeneity due to reverse causality. In technical terms this means that $E[\ddot{x}_i, \ddot{\varepsilon}_i] \neq 0$, which ultimately leads to biased coefficient estimates. To address this problem we also conduct some estimations for which we adopt an instrumental variable approach. The two following conditions have to be fulfilled to produce a valid instrument. First, the instrument must be correlated with the endogenous variable, i.e., $Cov[\ddot{x}_i, \ddot{z}_i] \neq 0$ and, second, it has to be exogenous, i.e., $E[\ddot{z}_i, \ddot{\varepsilon}_i] = 0$. The instrument we use is linked to the refugee-placement policy, as noted earlier. As refugees were entitled to social allowances from arrival in the country, the refugees placed in a municipality will also increase the number of refugees there who receive such allowances, which ultimately will also reflect changes in the share of non-Western immigrants in the municipalities.

One drawback of the instrumental variable approach is its larger requirement regarding the required number of observations. A commonly used test statistic to examine if this is satisfied is to use the F-test from the first step in the 'Two-step least squares' framework. According to Staiger and Stock (1997) a rule of thumb to avoid small-sample bias is that the statistic should be 10 or higher. See Table 4 for results from coefficient estimations and F-test statistics. We show the outcomes of instrumental variable estimations in line with the basic model to be compared with columns (1) and (2) in Table 2, and an extended model to be compared with columns (3) and (4) in Table 3.

-Table 4 about here-

As can be seen, the F-statistics are rather small for parties with few observations. We will not, therefore, comment on those outcomes. The *Conservative Party* does not yield any significant coefficients, in contrast with all previous results, indicating that the positive relation between the earlier changes in share of non-Western immigrants on their outcomes may have been spurious. For the *Liberal Party* the effects are now highly significant, as well as being much more negative. This could be interpreted as meaning that the results of the basic estimations were biased towards zero. For the *Progress Party* we get an indication of a strong effect in municipality elections, but no significant result for election to the national Parliament. This means that even here the estimated coefficient may have been biased downwards in the

preceding estimations. For the *Social Democratic Party* everything seems very much the same, i.e., no effect from a change in immigrant population on their electoral support at the municipal level. The negative effect for the *Social Liberal Party* is greater, pointing to significant effects in both election cycles. The results for the *Socialist People's Party* are also robust, and the effect is greater than in the basic estimations.

All in all, there are no radical changes compared to our earlier results. However, the estimates indicate much greater effects than in non-instrumented estimations. This suggests that prevailing endogeneity does actually bias the estimates towards zero. For example, the share of non-Western immigrants in municipalities is caused not only by an influx of immigrants, but also by natives moving from one municipality to another. Given that this decision is not the result of immigrants being placed in their own municipality, this means that we will have some (random) noise in our measure for 'share of non-Western immigrants'. The greater this mobility, the greater the downward bias of the coefficient estimates in non-instrumented estimations.

Sensitivity of estimations to metropolitan counties and cities

We will now look at the impact of various dynamic processes resulting from an inflow of immigrants into different municipalities. Social interaction between citizens and among neighbours probably works differently in fairly small cities than it does in urban regions.[27] Here we look at municipalities, in which the number of citizens of foreign origin has been rather small from the outset. We do so by studying the sensitivity of our regression outcomes to the removal of all municipalities within the county of *Copenhagen* and the major cities of *Aalborg*, *Aarhus* and *Odense*, i.e., 23 municipalities altogether.[28] The remaining municipalities will be less varied as regards the 'share of non-Western immigrants' and will largely comprise municipalities that were subject to the dispersal policy, as refugees were primarily placed in counties and municipalities with (from the outset) only a few persons of foreign origin. To get a broader view, we conduct both fixed-effect and OLS estimations, as shown in Table 5. We have already hinted above that the results of our estimation with the larger set of control variables accord fairly well with the one presented here (see by

[27] For studies focusing on the importance of factors such as municipality size, see for example Glaeser and Sacerdote (1999) and Glaeser (2000). For a detailed discussion of settlement patterns for different groups of immigrants in Denmark, see for example Damm, Schultz-Nielsen and Tranaes (2006) and Skifter Andersen (2006).

[28] We do not conduct separate estimations for these 23 municipalities, as such estimations would be rather shaky and unreliable due to the small number of observations.

comparing columns (1) and (2) in Table 5 with columns (3) and (4) in Table 3). However, for reasons of space, we examine the results for the two anti-immigration parties and the two largest parties only.

-Table 5 about here-

For the *Danish People's Party* the coefficient estimate is somewhat smaller in the fixed-effect estimations on local government elections, but still significantly different from zero (see column 1). A more striking change is that we now get a significantly negative (!) estimate for the level of 'share of non-Western immigrants' in general elections in the OLS estimations (see column 4).[29]

The most notable changes for the *Progress Party* are the reductions in the coefficients in the fixed-effect estimations, which give us non-significant estimates of a change in the 'share of non-Western immigrants' in local elections. These changes are quite small, however.

As regards the *Liberal Party* there are some important differences, as we now have far from significant values in local elections, regardless of whether we apply a fixed-effect approach or OLS estimations. The outcomes in general elections are not quite as negative, but still significant.

Finally, for the *Social Democratic Party* we now obtain negative coefficients in the OLS estimations in elections to local governments as well as in general elections. This indicates that a larger part of the 'share of non-Western immigrants' is associated with slightly lower support, albeit the effect is only slightly significant. At first sight this result lends support to the idea that the Social Democrats lost electoral support as a result of an influx of immigrants. However, the result is obviously at odds with the decline for the *Danish People's Party* that we also see here. Such inconsistency confirms our supposition that the OLS estimations are "less reliable" than the explicit control for municipality fixed effects.[30]

[29] Bjørklund and Goul Andersen (2003) report that the *Danish People's Party* had more support in the cities, while the *Progress Party* had its stronghold in the rural areas. See p. 11.

[30] As another robustness check we also conducted estimations where separate time-trends for the fourteen counties were included instead of using nationwide time trends. In general, the effect of such an augmented control is that the coefficients become somewhat smaller and occasionally insignificant. This holds true also for the two anti-immigration parties, *Danish People's* and *Progress Party*. However, their coefficient estimates in elections to the local government (.114 and .098, respectively) are only marginally inside the region of non-

Summing up

The results reported in the analytical section have revealed the following:

- The strength of the individual parties is different in the two types of elections. The *Social Democratic Party*, the *Socialist People's Party* and the *Social Liberal Party*, have a relatively stronger local standing in local than in general elections, as measured in terms of the "local vote". The anti-immigration parties, on the other hand, have relatively weaker positions.
- The anti-immigration *Danish People's Party* and *Progress Party* enjoy support in local elections in municipalities with an increased 'share of non-Western immigrants'. The same holds for the *Conservative Party*, but results become insignificant in the instrumental variable set-up in their case.
- Overall, the *Liberal Party* loses from an increase in the immigrant population, when holding constant for time trends and other factors.
- We do not find any significant effect on the *Social Democratic Party* from an increase in the immigrant share.
- Of the two political parties that are most pro-immigration, the *Socialist People's Party* gain by an increase in the immigrant share in general elections, while the *Social Liberal Party* loses.
- The instrumental variable approach indicates that there is scope for downward bias in the OLS estimations, indicating that the causal effect of an influx of non-Western immigrants might actually be greater than has been stated there.

Concluding discussion

In this study we draw attention to the impact of marginal changes in the ethnic diversity of local communities. With the help of coefficient estimators we measured a *direct* effect from immigration on the electoral outcomes of the various parties. There may well be some underlying indirect effects as well. For example, the decline in voter support for the *Social Democratic Party* in the course of the 1990s (see Figure 1) may have been affected by an erosion of electoral support due to a long lasting debate on immigration issues (see e.g. Doherty, 2007). However, it will be very difficult to determine the weight of immigration in

rejection, with p-values of somewhat less than 0.12 in both cases. For the *Liberal Party* and the *Social Democratic Party* the results are rather similar to those shown in the basic setting in Table 2. The number of observations are considerably smaller for the two anti-immigration parties, indicating that their larger responses to flexible trends over counties is not so much determined by the nature of such controls, but the result of a reduction of the number of degrees of freedom.

the overall time path, since many other factors will have to be taken into account – not least, which party or parties form the government, globalization, the EU-debate, or even – as suggested by Putnam (2007) – the general change in the forming of social identities.

Due to the variety of parties and the consequent differences in the respective political platforms, we are able to draw more specific conclusion about some of the underlying mechanisms stemming from a change in the ethnic diversification of local communities. Generally speaking, the response to an increase in the immigrant share is associated with a mandate for anti-immigration parties in local elections, but there is no clear sign of a more general *anti-solidarity effect*. We base this last claim on two facts: first, the consistently positive estimates for the *Socialist People's Party*, being both pro-immigration and pro-welfare state, and, second, the fact that the *Social Democratic Party* seems to remain pretty unaffected by an marginal increase in the non-Western immigrant share. Like its sister parties in other Scandinavian countries, the *Social Democratic Party* has been a leading player in building the Danish welfare state, implying that it has a creditable *pro-solidarity* stance. This result, in combination with the growing support for the anti-immigration parties, suggests that Danes show some resentment against immigration, in that they feel solidarity first and foremost with their own fellow countrymen, and only secondarily with residents recently arrived from foreign countries. This conclusion is reinforced by the fact that besides being against immigration, the *Danish People's Party*'s platform is rather close to traditional Social Democratic values regarding the welfare state. Taken together, these results do not support the prediction in the study by Lee and Roemer (2006) of a decline in support for the Danish welfare state due to an increase in immigration. Things might have looked different if Denmark had had a constitutional system based on US-type majority vote rather than its own representative parliamentary system. But this is a hypothetical question.[31]

It could be argued that even supporters of the *Social Democratic Party* have become more critical regarding immigration issues, ultimately forcing the party's strategists to adjust their programme in response to the general feeling in the electorate. However, granted that such a process did indeed take place, this has hardly been a development unique to the *Social Democrats*. It is more likely that there has been some shift in the major parties in the direction of a slightly more restrictive policy towards immigrants in the wake of a tougher debate on

[31] For a detailed theoretical discussion of the impact of polity on policy-formation, see for example Myerson (1999), Persson and Tabellini (2000), Persson (2002) and Iversen and Soskice (2006).

the subject, while a few minor parties sought voter support for an openly pro-immigration stance. But the relative position of the *Social Democratic Party* in the overall Danish party set-up is roughly the same, i.e., as the party relatively more inclined to redistribution than its main contestants in the liberal and conservative camp. Accordingly, any drop in the overall "preference for equality" triggered by the influx of non-Western immigrants should result in a minus sign for the Social Democrats, but this we do not see.

In this connection it might be interesting to note that the welfare state in Denmark is not only extensive; it also commands strong support. In the International Social Survey Program (ISSP), questions were asked in 27 countries regarding the pride that respondents felt regarding different aspects of their country (history, economy, sports, democracy, etc.). In one area, Denmark came out top: more people in Denmark than in any other of the 27 countries said they were proud of their country's welfare state (see Larsen, 2008).

This leads us back rather naturally to the question of the very foundations of the immigration issue. Hopkins (2006) argues in favour of what he calls the "National Salience" of the debate on immigration, for example the extraordinary concentration on the immigrant population as that aroused by the Terror attacks of 11 September 2001, while resentments arising from direct contact with immigrants and the native population are more of a secondary effect. This idea is also supported by Bjørklund and Goul Andersen (2003): people seem less influenced by direct personal experience of immigrants than by the *general political debate* about immigration. In view of our own findings it thus seems reasonable to conclude that during the debate on immigration in Denmark (see also Goul Andersen, 2006), the influx of immigrants (i.e., refugees) in the various municipalities brought the immigration issue to the local level, and that this in turn made a significant impact on election outcomes in the shape of anti-immigration sentiments.

Table 1. Determination of the Local Vote and National Trends (Volatility) for major parties in Denmark in local government and national elections from 1989 to 2001.

		Local elections		General elections		**Ratio****	
	Obs.*	Local Vote	Volatility	Local Vote	Volatility	**Local Vote**	**Volatility**
Centre Democratic Party	70	0.883	1.399	0.646	3.608	**1.366**	**0.388**
Christian People's Party	98	0.504	0.190	0.361	0.285	**1.396**	**0.668**
Conservative People's Party	265	13.434	1.210	4.835	12.738	**2.778**	**0.095**
*Danish People's Party****	123	1.355	1.349	0.509	11.896	**2.664**	**0.113**
Liberal Party	272	23.475	13.416	3.933	40.253	**5.968**	**0.333**
Progress Party	207	2.725	6.085	2.936	8.837	**0.928**	**0.689**
Social Democratic Party	275	21.742	1.769	3.067	11.632	**7.088**	**0.152**
Social Liberal Party	166	3.297	0.496	0.503	0.289	**6.560**	**1.713**
Socialist People's Party	196	6.204	1.424	0.423	0.434	**14.664**	**3.279**
Unity List	33	0.224	0.313	0.064	0.189	**3.508**	**1.655**

- * Observations: The number of municipalities in the calculations. ** The Ratio is estimated by dividing the figure in local elections by the respective figure for the general elections. ***Approximated by assuming three periods of observations. A calculation accounting for (the true) two periods results in an estimate that is both negative and almost zero as regards the volatility effect.
- The (original) Danish party names in order of appearance are respectively: *Centrum-Demokraterne, Kristeligt Folkeparti, Konservative Folkeparti, Dansk Folkeparti, Venstre, Fremskridtspartiet, Socialdemokratiet, Radikale Venstre, Socialistisk Folkeparti, Enhedslisten - De Rød-Grønne.*

Table 2. Fixed-effect and Pooled OLS regression estimations.

		Fixed-effect estimations				Pooled regression estimations			
		Local elections		General elections		Local elections		General elections	
		(1)		(2)		(3)		(4)	
Log party share for the…	Obs.[1]	Adj. R^2	*Log share of non-Western immigrants*	Adj. R^2	*Log share of non-Western immigrants*	Adj. R^2	*Log share of non-Western immigrants*	Adj. R^2	*Log share of non-Western immigrants*
Centre Democratic Party	224 *70*	.765	-0.108 (0.105)	.949	0.035 (0.054)	.429	-0.245** (0.120)	.857	0.0105 (0.034)
Christian People's Party	337 *98*	.165	0.001 (0.047)	.549	-0.042* (0.023)	.501	-0.064 (0.083)	.532	-0.014 (0.066)
Conservative People's Party	1040 *265*	.158	0.062*** (0.023)	.767	0.042*** (0.015)	.225	0.003 (0.034)	.624	0.025* (0.014)
Danish People's Party	246 *123*	.147	0.204*** (0.074)	.893	0.021 (0.035)	.019	0.042 (0.061)	.500	0.036 (0.038)
Liberal Party	1081 *272*	.370	-0.024 (0.016)	.899	-0.049*** (0.007)	.382	-0.080** (0.033)	.668	-0.060*** (0.016)
Progress Party	632 *207*	.790	0.115** (0.052)	.884	0.098*** (0.031)	.671	0.024 (0.035)	.826	0.015 (0.025)
Social Democratic Party	1097 *275*	.118	0.002 (0.013)	.834	-0.001 (0.004)	.173	-0.001 (0.022)	.387	-0.003 (0.011)
Social Liberal Party	598 *166*	.032	-0.046 (0.048)	.418	-0.057*** (0.016)	.094	-0.056 (0.054)	.183	-0.036 (0.026)
Socialist People's Party	706 *196*	.170	0.043 (0.029)	.543	0.044*** (0.012)	.139	0.096*** (0.033)	.332	0.074*** (0.023)
Unity List	86 *33*	.326	-0.231 (0.251)	.718	-0.002 (0.071)	.408	0.335 (0.208)	.593	0.310* (0.157)
		Other controls besides year and municipalities fixed effects are: municipality averages for *age* (for those of age 18 or older), *labour income* and *number of children in household*.							

[1] Observations: The number of municipalities in the calculations times years of observation for each municipality *(actual number of municipalities in Italic style)*; at least 2 time observation for each municipality. Adjusted standard errors for municipality clusters. *significant at 10%; **significant at 5%, *** significant at 1%.

Table 3. Fixed-effect regression estimations. Consistency check.

		No control variables besides municipalities fixed effects.				Adding control variables beside of those shown in Table 2			
		Local elections		General elections		Local elections		General elections	
		(1)		(2)		(3)		(4)	
Log party share for the…	Obs.[1]	Adj. R^2	*Log share of non-Western immigrants*	Adj. R^2	*Log share of non-Western immigrants*	Adj. R^2	*Log share of non-Western immigrants*	Adj. R^2	*Log share of non-Western immigrants*
Centre Democratic Party	224 *70*	.730	-0.135 (0.108)	.935	0.069 (0.052)	.782	-0.162 (0.112)	.950	0.031 (0.052)
Christian People's Party	337 *98*	.150	-0.018 (0.049)	.490	-0.055** (0.024)	.195	0.037 (0.049)	.590	-0.008 (0.022)
Conservative People's Party	1040 *265*	.151	0.050** (0.024)	.767	0.045*** (0.015)	.162	0.051** (0.024)	.786	0.020 (0.015)
Danish People's Party	246 *123*	.020	0.114 (0.071)	.873	0.001 (0.033)	.227	0.165** (0.070)	.905	-0.004 (0.038)
Liberal Party	1081 *272*	.344	-0.039** (0.015)	.873	-0.060*** (0.008)	.404	-0.005 (0.015)	.906	-0.038*** (0.006)
Progress Party	632 *207*	.768	0.141** (0.057)	.884	0.101*** (0.032)	.803	0.058 (0.052)	.887	0.070** (0.033)
Social Democratic Party	1097 *275*	.106	0.008 (0.013)	.831	0.0004 (0.004)	.139	0.008 (0.012)	.836	0.001 (0.004)
Social Liberal Party	598 *166*	.017	-0.041 (0.048)	.394	-0.054*** (0.016)	.057	-0.020 (0.046)	.446	-0.041*** (0.015)
Socialist People's Party	706 *196*	.172	0.043 (0.030)	.530	0.050*** (0.012)	.188	0.027 (0.028)	.560	0.032*** (0.012)
Unity List	86 *33*	.285	-0.321 (0.246)	.700	0.025 (0.079)	.371	-0.331 (0.240)	.726	-0.015 (0.073)
						Additional control for population density, the share of unemployed, the share of person above the age of 65 and population size within municipalities			

[1] Observations: The number of municipalities in the calculations times years of observation for each municipality *(actual number of municipalities in Italic style)*; at least two observations for each municipality. Adjusted standard errors for municipality clusters. *significant at 10%; **significant at 5%, *** significant at 1%.

Table 4. Two-stage Instrumental variable estimations.

		Instrumental variable approach							
		Control variables as in Table 2				Additional control variables included			
		Local elections		General elections		Local elections		General elections	
		(1)		(2)		(3)		(4)	
Log party share for the…	Obs.[1]	F-stat	*Log share of non-Western immigrants*		*Log share of non-Western immigrants*	F-stat	*Log share of non-Western immigrants*		*Log share of non-Western immigrants*
Centre Democratic Party	224 *70*	0.75	1.202 (2.104)		-.801 (1.415)	0.35	.062 (2.105)		-1.608 (4.921)
Christian People's Party	337 *98*	9.19	-.206 (.180)		-.203* (.118)	6.52	-.266 (.237)		-.229 (.175)
Conservative People's Party	1040 *265*	25.28	.106 (.119)		-.019 (.088)	18.04	.056 (.143)		-.116 (.115)
Danish People's Party	246 *123*	1.19	.730 (.982)		-.299 (.395)	1.16	.501 (.912)		-.270 (.379)
Liberal Party	1081 *272*	24.89	-.285*** (.106)		-.175*** (.052)	17.43	-.286** (.129)		-.181*** (.069)
Progress Party	632 *207*	12.56	.822** (.324)		.285 (.207)	8.15	.729* (.393)		.195 (.255)
Social Democratic Party	1097 *275*	22.99	-.020 (.061)		.017 (.024)	16.29	-.001 (.073)		.025 (.031)
Social Liberal Party	598 *166*	13.53	-.371* (.222)		-.505*** (.189)	9.72	-.306 (.257)		-.533** (.262)
Socialist People's Party	706 *196*	20.39	.218 (.135)		.219*** (.073)	14.12	.138 (.159)		.214** (.098)
Unity List	86 *33*	2.57	.636 (1.094)		-.144 (.425)	2.66	.118 (.977)		-.138 (.435)
						Additional control for population density, the share of unemployed, the share of person above the age of 65 and population size within municipalities			

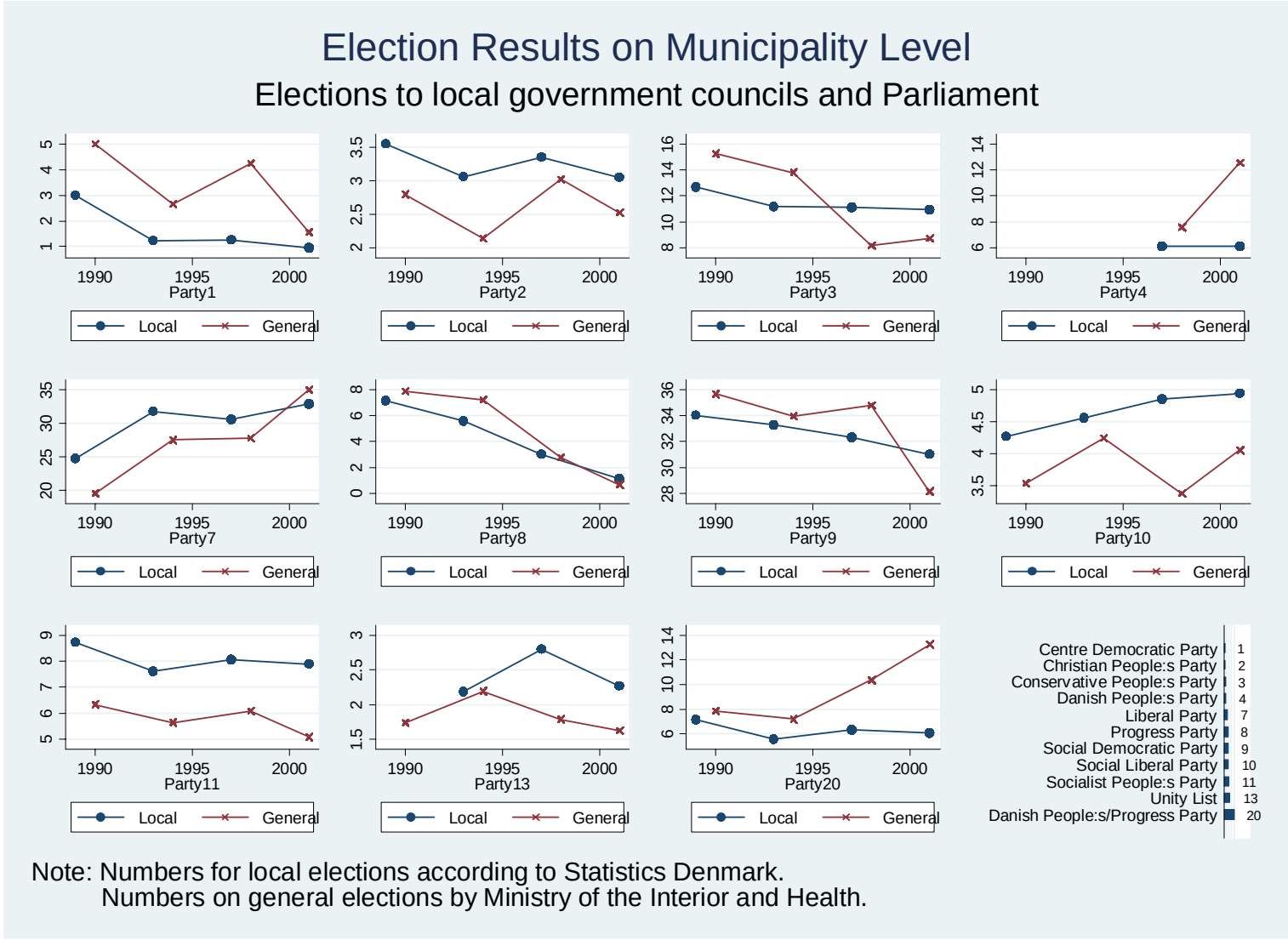
[1] Observations: The number of municipalities in the calculations times years of observation for each municipality *(actual number of municipalities in Italic style)*; at least two observations for each municipality. Adjusted standard errors for municipality clusters. *significant at 10%; **significant at 5%, *** significant at 1%. F-stat is the F-statistic in the first stage estimation, testing for a weak instrument.

Table 5. Fixed-effect and Pooled OLS regression estimations. Excluding metropolitan counties and cities.

		Fixed-effect estimations				*Pooled regression estimations*			
		Local elections		General elections		Local elections		General elections	
		(1)		(2)		(3)		(4)	
Log party share for the…	Obs.[1]	Adj. R^2	*Log share of non-Western immigrants*	Adj. R^2	*Log share of non-Western immigrants*	Adj. R^2	*Log share of non-Western immigrants*	Adj. R^2	*Log share of non-Western immigrants*
Centre Democratic Party	152 *50*	.745	-0.066 (0.096)	.962	0.063 (0.057)	.399	-0.333** (0.157)	.884	-0.022 (0.043)
Christian People's Party	296 *87*	.213	0.030 (0.048)	.575	-0.030 (0.022)	.421	0.026 (0.085)	.488	0.085 (0.060)
Conservative People's Party	948 *242*	.145	0.055** (0.025)	.757	0.033** (0.015)	.140	0.002 (0.035)	.602	0.031** (0.015)
Danish People's Party	208 *104*	.191	0.132** (0.066)	.902	-0.002 (0.036)	.019	-0.069 (0.072)	.560	-0.064* (0.035)
Liberal Party	989 *249*	.313	-0.003 (0.014)	.908	-0.034*** (0.006)	.279	-0.019 (0.026)	.650	-0.026** (0.013)
Progress Party	566 *187*	.751	0.078 (0.054)	.878	0.079** (0.031)	.627	0.026 (0.036)	.806	0.029 (0.026)
Social Democratic Party	1005 *252*	.130	0.006 (0.013)	.835	0.0003 (0.005)	.160	-0.039** (0.020)	.400	-0.019* (0.010)
Social Liberal Party	518 *144*	.001	-0.026 (0.051)	.386	-0.037** (0.016)	.110	0.034 (0.054)	.211	0.014 (0.022)
Socialist People's Party	620 *174*	.138	0.025 (0.030)	.520	0.029** (0.012)	.107	0.090** (0.037)	.269	0.055** (0.025)
Unity List	55 *21*	.254	-0.233 (0.307)	.723	0.033 (0.082)	.065	-0.018 (0.355)	.298	0.014 (0.196)
		Other controls besides year and municipalities fixed effects are: municipality averages for *age* (for those of age 18 or older), *labour income* and *number of children in household*.							

[1] Observations: The number of municipalities in the calculations times years of observation for each municipality *(actual number of municipalities in Italics)*; at least two observations for each municipality. Adjusted standard errors for municipality clusters. *significant at 10%; **significant at 5%, *** significant at 1%.

Figure 1



Note: Numbers for local elections according to Statistics Denmark.
Numbers on general elections by Ministry of the Interior and Health.

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Appendix

Table A1 Percentage distribution of votes in the elections to the Danish Parliament 1987-2005

	1987	1988	1990	1994	1998	2001	2005
Centre Democratic Party	4.8	4.7	5.1	2.8	4.3	1.8	1.0
Christian People's Party	2.4	2.0	2.3	1.9	2.5	2.3	
Conservative People's Party	20.8	19.3	16.0	15.0	8.9	9.1	10.3
Danish People's Party					7.4	12.0	13.3
Liberal Party	10.5	11.8	15.8	23.3	24.0	31.2	29.0
Progress Party	4.8	9.0	6.4	6.4	2.4	0.6	
Social Democratic Party	29.3	29.8	37.4	34.6	35.9	29.1	25.8
Social Liberal Party	6.2	5.6	3.5	4.6	3.9	5.2	9.2
Socialist People's Party	14.6	13.0	8.3	7.3	7,6	6.4	6.0
Unity List			1.7	3.1	2.7	2.4	3.4

Note. The numbers do not add up to 100 for each election due to that also other mainly small parties have taken part in the elections. Source: *Folketinget.*

Table A2. Demographic background factors for those municipalities where respective parties received a share of votes in elections to the local government.

		Obs.	**1990**	Obs.	**1994**	Obs.	**2001**
Centre Democratic Party	Share non-Western Immigrants	61	.014 (.010)	62	.019 (.014)	50	.026 (.019)
	Party vote share local election[3]	61	.032 (.022)	62	.0124 (.012)	50	.010 (.009)
	Party vote share general election	61	.064 (.018)	62	.033 (.009)	50	.020 (.004)
	Population	61	36013.930 (57426.620)	62	38507.650 (58476.040)	50	39408.180 (65155.620)
	No of children	61	.524 (.110)	62	.491 (.090)	50	.510 (.086)
	Labour income	61	118723.600 (21652.690)	62	123313.100 (20550.290)	50	168563.600 (26468.000)
Christian People's Party	Share non-Western Immigrants	88	.010 (.010)	90	.012 (.012)	74	.018 (.013)
	Party vote share local election[3]	88	.038 (.030)	90	.032 (.027)	74	.034 (.026)
	Party vote share general election	88	.042 (.029)	90	.032 (.021)	74	.039 (.024)
	Population	88	27317.230 (50562.540)	90	27713.280 (50581.610)	74	29400.320 (57356.620)
	No of children	88	.560 (.109)	90	.527 (.093)	74	.524 (.083)
	Labour income	88	100601.600 (15107.020)	90	107193.500 (15230.430)	74	143973.200 (19069.730)
Conservative People's Party	Share non-west. Immigrants	263	.007 (.010)	260	.009 (.012)	258	.016 (.012)
	Party vote share local election[3]	263	.128 (.079)	260	.112 (.088)	258	.109 (.097)
	Party vote share general election	263	.153 (.043)	260	.139 (.046)	258	.088 (.031)
	Population	263	15138.500 (30986.680	260	15533.250 (31506.090)	258	15873.300 (32723.550)
	No of children	263	.578 (.094)	260	.539 (.083)	258	.538 (.081)
	Labour income	263	102370.600 (21303.330)	260	109146.200 (21118.500)	258	147277.600 (28141.830)
Danish People's Party[2]	Share non-west. Immigrants			*124*	*.013* *(.015)*	123	.020 (.015)
	Party vote share local election[3]					123	.064 (.029)
	Party vote share					123	.079

	general election						(.021)
	Population			*124*	*24376.510 (43810.700)*	128	24974.15 (45549.82)
	No of children			*124*	*.514 (.082)*	128	.520 (.080)
	Labour income			*124*	*114062.600 (21192.070)*	128	153109.1 (27496.93)
Liberal Party	Share non-west. Immigrants	270	.007 (.010)	269	.009 (.012)	273	.016 (.012)
	Party vote share local election[3]	270	.247 (.113)	269	.317 (.112)	273	.330 (.116)
	Party vote share general election	270	.194 (.063)	269	.274 (.072)	273	.350 (.066)
	Population	270	14868.580 (30626.350)	269	15203.910 (31025.990)	273	15305.370 (31898.390)
	No of children	270	.579 (.094)	269	.541 (.083)	272	.541 (.081)
	Labour income	270	102212.600 (21090.990)	269	108899.800 (20883.120)	273	146850.800 (27770.620)
Progress Party	Share non-west. Immigrants	200	.008 (.009)	194	.009 (.010)	72	.018 (.014)
	Party vote share local election[3]	200	.073 (.028)	194	.057 (.026)	72	.011 (.018)
	Party vote share general election	200	.082 (.028)	194	.075 (.020)	72	.009 (.008)
	Population	200	17588.540 (35093.550)	194	18280.250 (35997.950)	72	29214.820 (58070.000)
	No of children	200	.574 (.095)	194	.535 (.085)	72	.526 (.086)
	Labour income	200	101186.300 (19923.600)	194	107259.900 (19008.840)	72	145880.200 (25119.220)
Social Democratic Party	Share non-west. Immigrants	274	.007 (.009)	274	.009 (.011)	275	.016 (.012)
	Party vote share local election[3]	274	.341 (.101)	274	.333 (.105)	275	.310 (.114)
	Party vote share general election	274	.357 (.074)	274	.340 (.067)	275	.281 (.052)
	Population	274	14717.520 (30427.340)	274	15007.310 (30775.300)	275	15231.230 (31793.750)
	No of children	274	.581 (.094)	274	.542 (.084)	275	.541 (.081)
	Labour income	274	101935.600 (21138.000)	274	108617.700 (20914.290)	275	146770.100 (27712.330)
Social Liberal Party	Share non-west. Immigrants	160	.009 (.011)	154	.011 (.013)	139	.018 (.014)
	Party vote share		.045		.046		.050

	local election[3]		(.0391)		(.037)		(.038)
	Party vote share general election	160	.040 (.015)	154	.048 (.014)	139	.048 (.016)
	Population	160	20194.300 (38714.190)	154	21136.980 (39918.430)	139	22627.840 (43289.510)
	No of children	160	.555 (.096)	154	.518 (.085)	139	.523 (.084)
	Labour income	160	105500.700 (22315.510)	154	111989.400 (22079.800)	139	152007.400 (29549.180)
Socialist People's Party	Share non-west. Immigrants	187	.009 (.011)	183	.011 (.013)	169	.018 (.014)
	Party vote share local election[3]	187	.091 (.037)	183	.077 (.034)	169	.080 (.055)
	Party vote share general election	187	.070 (.024)	183	.063 (.022)	169	.058 (.018)
	Population	187	18842.700 (36098.490)	183	19577.370 (36814.820)	169	20787.530 (39528.210)
	No of children	187	.563 (.096)	183	.526 (.084)	169	.528 (.082)
	Labour income	187	105995.900 (22095.110)	183	112685.400 (21909.350)	169	151456.200 (28778.280)
Unity List	Share non-west. Immigrants			21	.020 (.011)	32	.028 (.013)
	Party vote share local election[3]			21	.022 (.014)	32	.025 (.018)
	Party vote share general election			21	.035 (.019)	32	.026 (.014)
	Population			21	67529.380 (92751.340)	32	55242.230 (76671.800)
	No of children			21	.444 (.090)	32	.457 (.065)
	Labour income			21	112719.500 (17967.770)	32	150833.100 (20979.650)

[1] Observations: The number of municipalities used in the calculations.
[2] Background factors regarding the year 1994 for municipalities where the Danish People's Party received vote shares in 1997. [3] Results for local government election for the years 1989, 1993 and 2001.