**Online Appendix for:**

**“Why Are Immigrants Underrepresented in Politics? Evidence from Sweden”**

February 19, 2015

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15. **Additional Details on the Oaxaca-Blinder Decomposition**

This section explains our empirical approach in more detail. To explain the political underrepresentation of immigrants we employ the Oaxaca-Blinder decomposition technique (Blinder 1973, Oaxaca 1973), which has been widely used by sociologists and economists to study racial and gender wage gaps and discrimination in the labor market more generally (e.g., Reimers 1983, Oaxaca and Ransom 1994, Blackaby et al. 1998, Fortin et al. 2011). This technique builds on the simple idea that an observed difference in outcomes between two groups can be attributed to differences in characteristics on the one hand and to differences in the returns to these characteristics across the two groups on the other. For instance, the representation gap between immigrants and natives could be caused by immigrants possessing fewer of the resources conducive to a political career, or because individual resources of immigrants and natives are rewarded differently by voters and party gatekeepers.

In line with most other applications of the OB-decomposition technique we proceed from a simple linear model of the following type

(1)

where is a dichotomous variable indicating whether individual *i* in group *j* was elected to local office in a particular election, is a vector of individual characteristics and political context factors, is the vector of corresponding regression coefficients, and is an individual-specific residual. We choose a linear probability model over alternatives such as logit or probit partly because the statistical properties of the OB-decomposition technique are more well-established in the linear case, and partly because this eases computation and interpretation (note, however, that all the main results remain very similar when basing the decomposition on logistic regression; see Tables A2 and A3).

The key idea behind the OB-decomposition is that we can use the results from the group-wise regressions in equation (1) to decompose the mean outcome difference between the groups into two different components, often referred to as the explained and the unexplained part. Since the regression plane passes through the means of *Y* and *X* the difference in election chances between natives and immigrants may be written as

(2)

or

(3)

where overbars denote means; superscripts *N* and *I* denote natives and immigrants, respectively; and and are coefficients vectors (including the intercepts) from the linear models presented in equation (1). This results in a three-fold decomposition. The first term on the right-hand side of equations (2) and (3) – or – amounts to the share of the mean outcome gap that is accounted for by group differences in the predictors. For instance, part of the difference in election chances between natives and immigrants may be explained by the fact that natives on average are more highly educated. The second term – or – instead captures the contribution of differences in the slopes. Continuing with the example of education, a higher return to schooling among natives will add to the gap in election chances. Finally, the third component – – is an interaction effect. A positive interaction in equations (2) and (3) would imply that the influence among natives is greater for those factors for which natives have higher average values.

The difference between equations (2) and (3) concerns the viewpoint. Equation (2) is formulated using immigrants as the benchmark and the first two terms on the right-hand side measure how much election chances among immigrants would change if predictor levels and slopes were the same across the two groups. Analogously, equation (3) tells us how much election chances among natives would change given equal *X*’s and coefficient vectors across the native and immigrant groups.

A common alternative to the decomposition described in equations (2) and (3) instead assumes that there is some nondiscriminatory coefficient vector that would be observed in the absence of discrimination. The mean outcome gap may then be written as

(4)

This yields a two-fold decomposition. The first term of the right hand side of equation (4) is the so-called explained part and indicates, once again, how much of the outcome gap is due to the two groups having different characteristics. More concretely, in the present case the explained part indicates how much of the representation gap depends on natives and immigrants having different *X*’s.

The second term, typically called the unexplained part, captures the extent to which the gap depends on different returns to these characteristics across the two groups. In the case at hand, the unexplained part can thus be interpreted as the expected difference in the probability of becoming elected to local office for natives and immigrants with identical observed individual characteristics and political opportunity structures. The unexplained part in this two-fold decomposition is often attributed to discrimination.[[1]](#footnote-1) Correspondingly, we conceptualize discrimination broadly, as equal cases being treated differently on the basis of their immigrant status (cf. Pager and Shepherd 2008, 182). We should also note, however, that though the unexplained part is often attributed to discrimination, in practice it also captures unmeasured variables that may be relevant in producing gaps across groups. We address this issue in the main text by providing several mechanism probes that support the plausibility of the interpretation that discrimination is at work.

A much discussed issue is how to construct the nondiscriminatory coefficient vector used in the decomposition. Many suggestions have been made (e.g., Fortin et al. 2011), most of which express the nondiscriminatory vector as a weighted average of the regression coefficients for the two groups, i.e.

(6)

What sets the different approaches apart is the choice of the weighting factor . For instance, if is set to 1 the coefficient vector in the absence of discrimination is assumed to equal the regression vector currently observed for natives, whereas it is assumed to equal the coefficient vector of immigrants if is set to 0. However, we have no reason to assume that the coefficients from either the immigrant or the native group reflect nondiscrimination. Instead, we assume that negative discrimination of one group (i.e. immigrants) goes hand in hand with overvaluation of the other (i.e. natives), implying that . Here, we will follow a recent suggestion by Sloczynski (2013) and set equal to the share of immigrants in the population, i.e., the population proportion of one group will be used to weight the coefficients of the other group. At first sight this weighting procedure might appear somewhat counterintuitive but, as Sloczynski (2013) shows, it has several attractive features, and it means that the unexplained part will be equivalent to the *population average treatment effect*.

1. **Descriptive Statistics**

**Table A1: Descriptive statistics**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **1991** | | **2002** | | **2010** | |
|  | **Natives** | **Immigrants** | **Natives** | **Immigrants** | **Natives** | **Immigrants** |
|  |  |  |  |  |  |  |
| Gender | 0.503 | 0.520 | 0.506 | 0.519 | 0.504 | 0.520 |
|  | (0.500) | (0.500) | (0.500) | (0.500) | (0.500) | (0.500) |
| Age | 45.839 | 43.488 | 48.876 | 46.042 | 49.536 | 46.930 |
|  | (17.446) | (13.639) | (18.622) | (15.554) | (19.240) | (16.327) |
| Young children | 0.342 | 0.453 | 0.285 | 0.406 | 0.280 | 0.405 |
|  | (0.739) | (0.839) | (0.667) | (0.802) | (0.667) | (0.801) |
| Family income | 6.802 | 6.606 | 7.113 | 6.719 | 7.345 | 6.754 |
|  | (0.641) | (0.641) | (0.766) | (1.672) | (1.041) | (2.194) |
| Years of education | 10.522 | 10.513 | 11.213 | 11.180 | 11.702 | 11.581 |
|  | (2.682) | (2.696) | (2.687) | (2.773) | (2.625) | (2.922) |
| Employment status | 0.680 | 0.662 | 0.617 | 0.528 | 0.616 | 0.524 |
|  | (0.466) | (0.472) | (0.486) | (0.500) | (0.486) | (0.500) |
| Time in country |  | 20.413 |  | 22.800 |  | 23.502 |
|  |  | (11.607) |  | (14.032) |  | (15.440) |
| Citizenship |  | 0.580 |  | 0.698 |  | 0.721 |
|  |  | (0.494) |  | (0.459) |  | (0.448) |
| Effective no. of parties | 4.091 | 4.073 | 4.196 | 4.172 | 4.271 | 4.277 |
|  | (0.636) | (0.579) | (0.585) | (0.496) | (0.617) | (0.536) |
| Disproportionality | 2.280 | 2.512 | 2.743 | 2.743 | 2.313 | 2.577 |
|  | (1.146) | (1.281) | (1.151) | (1.151) | (1.057) | (1.185) |
| Native education | 10.477 | 10.675 | 11.151 | 11.368 | 11.607 | 11.811 |
|  | (0.602) | (0.589) | (0.667) | (0.649) | (0.656) | (0.648) |
| Immigrant share | 0.101 | 0.140 | 0.128 | 0.173 | 0.156 | 0.205 |
|  | (0.056) | (0.066) | (0.068) | (0.077) | (0.078) | (0.086) |
| Ethnic concentration | 0.161 | 0.162 | 0.118 | 0.110 | 0.089 | 0.086 |
|  | (0.108) | (0.126) | (0.086) | (0.099) | (0.055) | (0.069) |
| Left share | 0.451 | 0.449 | 0.499 | 0.500 | 0.452 | 0.448 |
|  | (0.089) | (0.080) | (0.089) | (0.077) | (0.093) | (0.080) |
| Seats to voters | 0.002 | 0.002 | 0.002 | 0.001 | 0.002 | 0.001 |
|  | (0.002) | (0.002) | (0.002) | (0.001) | (0.002) | (0.001) |
| Observations | 5,634,068 | 503,999 | 5,959,168 | 769,369 | 6,176,394 | 995,282 |

Note: The table displays means and standard deviations (the latter are in parentheses).

**3. Main Results Using Logistic Regression**

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| --- | --- | --- | --- | --- | --- | --- |
| **Table A2: Determinants of Election to City Councils in Swedish Municipalities across Groups, Logit Results** | | | | | | |
|  | **1991** | | **2002** | | **2010** | |
|  | **Natives** | **Immigrants** | **Natives** | **Immigrants** | **Natives** | **Immigrants** |
| **Demographics** |  |  |  |  |  |  |
| Gender | -.577\*\*\* | -.214\*\* | -.278\*\*\* | -.193\*\*\* | -.269\*\*\* | -.171\*\*\* |
|  | (.019) | (.094) | (.018) | (.072) | (.019) | (.067) |
| Age | .267\*\*\* | .250\*\*\* | .193\*\*\* | .151\*\*\* | .127\*\*\* | .096\*\*\* |
|  | (.006) | (.040) | (.005) | (.022) | (.004) | (.017) |
| Age-squared | -.002\*\*\* | -.002\*\*\* | -.002\*\*\* | -.002\*\*\* | -.001\*\*\* | -.001\*\*\* |
|  | (.000) | (.000) | (.000) | (.000) | (.000) | (.000) |
| Young children | .089\*\*\* | .105 | .016 | .181\*\*\* | -.005 | -.013 |
|  | (.014) | (.076) | (.016) | (.051) | (.003) | (.049) |
| *SES* |  |  |  |  |  |  |
| Family income | .458\*\*\* | .554\*\*\* | .379\*\*\* | .416\*\*\* | .217\*\*\* | .160\*\*\* |
|  | (.024) | (.133) | (.024) | (.089) | (.018) | (.013) |
| Years of education | .187\*\*\* | .170\*\*\* | .197\*\*\* | .211\*\*\* | .207\*\*\* | .248\*\*\* |
|  | (.003) | (.017) | (.004) | (.014) | (.004) | (.013) |
| Employment status | 1.717\*\*\* | 1.739\*\*\* | 1.268\*\*\* | 1.129\*\*\* | 1.094\*\*\* | 1.090\*\*\* |
|  | (.046) | (.222) | (.037) | (.121) | (.035) | (.108) |
| **Immigrant Specific** |  |  |  |  |  |  |
| Time in country |  | .043\*\*\* |  | .027\*\*\* |  | .028\*\*\* |
|  |  | (.005) |  | (.003) |  | (.003) |
| Citizenship |  | .807\*\*\* |  | .759\*\*\* |  | .972\*\*\* |
|  |  | (.136) |  | (.101) |  | (.108) |
| **Opportunity Structure** |  |  |  |  |  |  |
| Effective no. of parties | -.080\*\*\* | -.144 | -.065\*\*\* | -.058 | -.078\*\*\* | -.152\*\* |
|  | (.018) | (.105) | (.004) | (.073) | (.017) | (.063) |
| Disproportionality | -.195\*\*\* | -.265\*\*\* | -.173\*\*\* | -.157\*\*\* | -.165\*\*\* | -.239\*\*\* |
|  | (.002) | (.059) | (.014) | (.049) | (.014) | (.047) |
| Native education | -.607\*\*\* | -.588\*\*\* | -.629\*\*\* | -.463\*\*\* | -.659\*\*\* | -.591 |
|  | (.024) | (.127) | (.023) | (.086) | (.025) | (.088) |
| Immigrant share | -.573\*\*\* | -.065 | -.653\*\*\* | -1.609\*\* | -1.460\*\*\* | -1.973 |
|  | (.216) | (.873) | (.199) | (.636) | (.174) | (.496) |
| Ethnic concentration | .524\*\*\* | -.167 | .669 | .389 | 1.277\*\*\* | .923\*\*\* |
|  | (.085) | (.050) | (.093) | (.343) | (.129) | (.384) |
| Left share | -.860\*\*\* | 1.126 | -.713\*\*\* | .433 | -.922\*\*\* | -.002 |
|  | (.125) | (.714) | (.107) | (.479) | (.110) | (.412) |
| Seats to voters | 227.059\*\*\* | 234.109\*\*\* | 196.619\*\*\* | 194.532\*\*\* | 199.929\*\*\* | 214.605\*\*\* |
|  | (5.187) | (30.547) | (5.030) | (25.477) | (4.838) | (21.273) |
| Observations | 5,634,068 | 503,999 | 5,959,168 | 769,369 | 6,176,394 | 995,282 |
| Note: The dependent variable is a dummy indicating whether an individual won election. Logit coefficients; standard errors are in parentheses. Significance levels: \* *p* = <.05; \*\* *p* = <.01; \*\*\* *p* = <.001. | | | | | | |

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| **Table A3: Oaxaca-Blinder Decomposition Results 1991-2010, Logit Results** | | | | | | |
|  | **1991** | **1994** | **1998** | **2002** | **2006** | **2010** |
| **Difference** | .136 | .129 | .119 | .105 | .104 | .100 |
| P(Natives) | .229 | .223 | .215 | .208 | .202 | .194 |
| P(Immigrants) | .093 | .094 | .096 | .103 | .098 | .094 |
|  |  |  |  |  |  |  |
| **Explained** | .025 | .036 | .044 | .051 | .048 | .049 |
|  | (.001) | (.001) | (.002) | (.002) | (.001) | (.001) |
| Demographics | -.027 | -.030 | -.022 | -.016 | -.007 | -.007 |
|  | (.001) | (.001) | (.001) | (.001) | (.000) | (.000) |
| SES | .017 | .027 | .029 | .030 | .022 | .021 |
|  | (.001) | (.001) | (.001) | (001) | (.001) | (.001) |
| Opp. structure | .022 | .026 | .023 | .026 | .024 | .025 |
|  | (.001) | (.001) | (.001) | (.001) | (.001) | (.001) |
| Seats to voters | .013 | .014 | .013 | .011 | .009 | .010 |
|  | (.001) | (.001) | (.001) | (.000) | (.000) | (.000) |
| **Unexplained** | .111 | .093 | .076 | .054 | .056 | .051 |
|  | (.006) | (.006) | (.006) | (.006) | (.005) | (.005) |
| Note: The first row reports the percentage point difference in winning a local council seat across groups. The second/third row reports the percentage of natives/immigrants winning a seat. The second block (”Explained”) reports the size of the representation gap that is due to differences in characteristics, and the third block (”Unexplained”) reports the size of the representation gap that is attributable to differences in returns to characteristics. For included covariates, see Table 1. Standard errors are in parentheses. | | | | | | |

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| **Table A4: Determinants of Nomination to City Councils across Groups** | | | | | | |
|  | **1991** | | **2002** | | **2010** | |
|  | **Natives** | **Immigrants** | **Natives** | **Immigrants** | **Natives** | **Immigrants** |
| **Demographics** |  |  |  |  |  |  |
| Gender | -.443\*\*\* | -.130\*\*\* | -.286\*\*\* | -.122\*\*\* | -.276\*\*\* | -.127\*\*\* |
|  | (.008) | (.020) | (.007) | (.016) | (.007) | (.013) |
| Age | .121\*\*\* | .055\*\*\* | .078\*\*\* | .041\*\*\* | .054\*\*\* | .034\*\*\* |
|  | (.002) | (.004) | (.001) | (.003) | (.001) | (.002) |
| Age-sq | -.001\*\*\* | -.001\*\*\* | -.001\*\*\* | -.000\*\*\* | -.000\*\*\* | -.000\*\*\* |
|  | (.000) | (.000) | (.000) | (.000) | (.000) | (.000) |
| Young children | .012\*\* | .006 | -.097\*\*\* | .016 | -.093\*\*\* | -.004 |
|  | (.006) | (.013) | (.006) | (.010) | (.006) | (.009) |
| **SES** |  |  |  |  |  |  |
| Family income | -.026\*\*\* | .007 | .010\*\* | .016\*\*\* | .019\*\*\* | .014\*\*\* |
|  | (.007) | (.008) | (.005) | (.005) | (.004) | (.003) |
| Years of education | .193\*\*\* | .099\*\*\* | .155\*\*\* | .096\*\*\* | .148\*\*\* | .085\*\*\* |
|  | (.002) | (.004) | (.002) | (.003) | (.002) | (.002) |
| Employment status | .636\*\*\* | .264\*\*\* | .341\*\*\* | .201\*\*\* | .204\*\*\* | .165\*\*\* |
|  | (.012) | (.024) | (.010) | (.018) | (.009) | (.012) |
| **Immigrant Specific** |  |  |  |  |  |  |
| Time in country |  | .013\*\*\* |  | .008\*\*\* |  | .008\*\*\* |
|  |  | (.001) |  | (.001) |  | (.001) |
| Citizenship |  | .208\*\*\* |  | .272\*\*\* |  | .276\*\*\* |
|  |  | (.022) |  | (.018) |  | (.016) |
| **Opportunity structure** |  |  |  |  |  |  |
| Effective nr. of parties | .126 | .091\*\*\* | .056\*\*\* | .051\*\*\* | .035\*\*\* | -.030\*\* |
|  | (.009) | (.022) | (.000) | (.018) | (.006) | (.014) |
| Disproportionality | .038\*\*\* | .022\*\* | .002 | -.011 | -.001 | -.014\* |
|  | (.005) | (.010) | (.004) | (.009) | (.004) | (.008) |
| Native education | -.369\*\*\* | -.176\*\*\* | -.163\*\*\* | -.066\*\*\* | -192\*\*\* | -.091\*\*\* |
|  | (.011) | (.026) | (.009) | (.019) | (.010) | (.020) |
| Immigrant share | .298\*\*\* | -.417\*\* | .441\*\*\* | -.311\*\* | .271\*\*\* | -.483\*\*\* |
|  | (.092) | (.176) | (.071) | (.129) | (.057) | (.093) |
| Ethnic concentration | .327\*\*\* | -.020 | .511\*\*\* | -.190\* | .672\*\*\* | -.547\*\*\* |
|  | (.050) | (.114) | (.052) | (.106) | (.075) | (.122) |
| Left share | -.885\*\*\* | .046 | -.431\*\*\* | .369\*\*\* | -.450\*\*\* | .536\*\*\* |
|  | (.067) | (.173) | (.050) | (.128) | (.045) | (.101) |
| Seats to voters | 371.273\*\*\* | 210.928\*\*\* | 324.362\*\*\* | 231.386\*\*\* | 312.414\*\*\* | 225.579\*\*\* |
|  | (3,672) | (1.067) | (3.339) | (9.567) | (3.286) | (8.294) |
| Adj-R2 | .012 | .007 | .009 | .006 | .003 | .006 |
| Observations | 5,634,068 | 503,999 | 5,959,168 | 769,369 | 6,176,394 | 995,282 |
| Note: The dependent variable is a dummy indicating whether an individual ran in an election. OLS coefficients; standard errors in parentheses. Significance levels: \* *p* = <.05; \*\* *p* = <.01; \*\*\* *p* = <.001 | | | | | | |

**4. Main results using nomination as the dependent variable**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table A5: Oaxaca-Blinder Decomposition Results for Nomination, 1991-2010** | | | | | | |
|  | **1991** | **1994** | **1998** | **2002** | **2006** | **2010** |
| **Difference** | .490 | .451 | .357 | .301 | .287 | .318 |
| P(Natives) | .977 | .931 | .833 | .786 | .769 | .764 |
| P(Immigrants) | .487 | .480 | .476 | .479 | .483 | .446 |
|  |  |  |  |  |  |  |
| **Explained** | .106 | .114 | .128 | .159 | .191 | .177 |
|  | (.008) | (.008) | (.007) | (.006) | (.006) | (.005) |
| Demographics | -.052 | -.057 | -.044 | -.028 | -.019 | -.021 |
|  | (.006) | (.005) | (.004) | (.004) | (.003) | (.003) |
| SES | .007 | .026 | .035 | .030 | .039 | .035 |
|  | (.002) | (.002) | (.002) | (.002) | (.002) | (.002) |
| Opp. structure | .048 | .037 | .015 | .031 | .043 | .044 |
|  | (.007) | (.006) | (.006) | (.006) | (.005) | (.005) |
| Seats to voters | .103 | .108 | .122 | .127 | .128 | .119 |
|  | (.005) | (.004) | (.004) | (.004) | (.004) | (.004) |
| **Unexplained** | .384 | .337 | .229 | .149 | .096 | .141 |
|  | (.014) | (.013) | (.011) | (.011) | (.010) | (.009) |

Note: The first row reports the percentage point difference in running for a local council seat across groups. The second/third row reports the percentage of natives/immigrants running for a seat. The second block (”Explained”) reports the size of the nomination gap that is due to differences in characteristics, and the third block (”Unexplained”) reports the size of the nomination gap that is attributable to differences in returns to characteristics.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **Table A6: Foreign-born as a %-share of Elected (Nominated) by party, 1991-2010** | | | | | | | |  | **1991** | **1994** | **1998** | **2002** | **2006** | **2010** | | The Conservatives | 3.8 | 3.5 | 4.0 | 5.1 | 5.6 | 6.7 | |  | (4.4) | (4.4) | (5.4) | (6.1) | (7) | (7.6) | | The Centre Party | 1.2 | 1.2 | 1.2 | 1.2 | 2 | 2.4 | |  | (1.9) | (1.8) | (2.2) | (2.4) | (3.6) | (3.8) | | The Liberal Party | 3.5 | 4 | 4.2 | 7.9 | 7.8 | 6.9 | |  | (4.4) | (5.2) | (6.3) | (7.4) | (9.1) | (8.7) | | The Christian Democrats | 3.3 | 2.8 | 4.5 | 5.9 | 6.5 | 7.1 | |  | (4.4) | (4.8) | (5.4) | (7.5) | (9.1) | (9.8) | | The Green Party | 6.7 | 7.8 | 8.8 | 11.5 | 12.6 | 12.6 | |  | (7.9) | (7.9) | (9) | (11.5) | (13.6) | (12.4) | | The Social Democrats | 5.1 | 5.6 | 5.9 | 7.3 | 7.6 | 8.8 | |  | (6.1) | (6.3) | (7.5) | (8.6) | (9.7) | (10.5) | | The Left Party | 7.1 | 7.7 | 10.9 | 11.2 | 13.2 | 13.8 | |  | (9.4) | (9.8) | (11.9) | (13.3) | (13.9) | (14.6) |   Note: Entries are the percentage share of foreign-born as a share among the elected by party and year. Entries in parentheses are the share of foreign-born among the nominated by party and year. Figures are from Statistics Sweden (http://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START\_\_ME\_\_ME0107\_\_ME0107A/ME0107T08/). |

**5. Share of foreign-born among those nominated and elected by party** **6. Classification of Immigrant Groups**

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| --- | --- | --- | --- | --- | --- |
| **Table A7: Country Classifications** | | |  |  |  |
| **OECD** | **Non-OECD** |  |  |  |  |
| Finland | Bosnia-Herzeg. | Dom. Rep. | Israel | Mauritius | Afghanistan |
| Denmark | Yugoslavia | El Salvador | Yemen | Mozambique | Bangladesh |
| Norway | Croatia | Grenada | Jordan | Namibia | Bhutan |
| Iceland | Macedonia | Guatemala | Kuwait | Niger | Brunei |
| Ireland | Slovenia | Haiti | Lebanon | Nigeria | India |
| UK | Poland | Honduras | Libya | Rwanda | Kampuchea |
| Germany | Estonia | Jamaica | Morocco | Sao tome | Maldives |
| Greece | Latvia | Mexico | Palestine | Senegal | Mongolia |
| Italy | Lithuania | Nicaragua | Qatar | Seychelles | Nepal |
| Malta | Albania | Panama | Saudi Arabia | Sierra Leone | Oman |
| Monaco | Armenia | Saint Lucia | South Yemen | Swaziland | Pakistan |
| Portugal | Azerbaijan | St. Vincent | Syria | Tanzania | Sikkim |
| San Marino | Bulgaria | St. Kitt. Nevis | Tunisia | Togo | Sri Lanka |
| Spain | Georgia | Chile | Angola | Uganda |  |
| Vatican City | Kazakhstan | Bolivia | Arab Republic | Zaire |  |
| Andorra | Kyrgyzstan | Brazil | Benin | Zambia |  |
| Belgium | Moldova | Colombia | Botswana | Zanzibar |  |
| France | Romania | Ecuador | Burkina Faso | Zimbabwe |  |
| Liechtenstein | Russia | Guyana | Burundi | Iran |  |
| Luxembourg | Soviet Union | Paraguay | Central Africa | Iran |  |
| Netherlands | Tajikistan | Peru | Comoros | Turkey |  |
| Switzerland | Turkmenistan | Suriname | Equatorial Guinea | Hong Kong |  |
| Austria | Ukraine | Uruguay | Ivory Coast | Japan |  |
| Canada | Uzbekistan | Venezuela | Gabon | China |  |
| US | Belarus | Djibouti | Ghana | Taiwan |  |
| Australia | Czech Rep. | Eritrea | Guinea | North Korea |  |
| Fiji | Slovakia | Ethiopia | Guinea Bissau | South Korea |  |
| Kiribati | Czechoslovakia | Somalia | Cameroon | Burma |  |
| Micronesia | Hungary | Sudan | Cape Verde | The Philippines |  |
| Nauru | Antigua | Algeria | Kenya | Indonesia |  |
| Palau | Bahamas | Bahrain | Congo P. Rep. | Laos |  |
| Papua New G. | Barbados | Cyprus | Lesotho | Malay Fed. |  |
| Solomon Isl. | Belize | Egypt | Liberia | Malaysia |  |
| Tonga | Costa Rica | Fr. Morocco | Madagascar | Singapore |  |
| Vanuatu | Cuba | UAE | Malawi | Thailand |  |
| Samoa | Dominica | Gaza area | Mauritania | Vietnam |  |

Note: This table presents a classification that roughly corresponds to countries’ membership in the OECD in 1990. In some cases the classification is no longer current (e.g., Israel or Estonia are now OECD members). Some smaller countries that do not send many immigrants to Sweden appear in our data as part of a larger grouping (e.g., Fiji through Samoa belong to the Australian region).

**7. Additional Details on the Sample**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table A8: Nomination and Elections across Observations and Individuals** | | | | |
|  | Observations | | Individuals | |
|  | *Natives* | *Immigrants* | *Natives* | *Immigrants* |
|  |  |  |  |  |
| All | 35,471,130 | 4,410,203 | 7,548,832 | 1,163,137 |
| Nominated | 298,361 | 20,854 | 142,580 | 11,584 |
| Elected | 74,957 | 4,253 | 37,665 | 2,409 |
| Note: On average a native individual appears 4.7 times (out of the maximal 6) in the sample, whereas the corresponding figure for immigrants is 3.7. In order to be included in the data an individual needs to live permanently in Sweden, and to be eligible to run for local office. Consequently Swedes will enter the data once they have turned 18, whereas immigrants will enter the data once they have turned 18 and have lived a sufficiently long time in Sweden (3 years) to be able to run for local office. | | | | |
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| --- | --- | --- | --- |
| **Table A9: Previous Nomination and Election by Group** | | |  |
|  | *Natives* | *Immigrants* | *Total* |
| ***Elected in 2010*** |  |  |  |
| Times previously nominated | 2.42 | 1.89 | 2.38 |
| Times previously elected | 1.56 | 1.19 | 1.54 |
|  |  |  |  |
| ***First time elected in 2010*** |  |  |  |
| Times previously nominated | 0.89 | 0.69 | 0.87 |

**8. Main results broken down by natives vs. non-OECD immigrants**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table A10: Determinants of Election to City Councils in Swedish Municipalities across Groups** | | | | | | |
|  | **1991** | | **2002** | | **2010** | |
|  | Natives | Non-OECD | Natives | Non-OECD | Natives | Non-OECD |
| **Demographics** |  |  |  |  |  |  |
| Gender (female) | -.125\*\*\* | .015\* | -.052\*\*\* | -.022\*\*\* | -.052\*\*\* | -.013\*\* |
|  | (.004) | (.008) | (.004) | (.008) | (.004) | (.007) |
| Age | .036\*\*\* | .005\*\*\* | .023\*\*\* | .010\*\*\* | .014\*\*\* | .006\*\*\* |
|  | (.001) | (.002) | (.001) | (.002) | (.001) | (.001) |
| Age-sq | -.000\*\*\* | -.000\*\* | -.000\*\*\* | -.000 | -.000\*\*\* | -.000 |
|  | (.000) | (.000) | (.000) | (.000) | (.000) | (.000) |
| Young children | -.031\*\*\* | -.005 | -.044\*\*\* | .014\*\*\* | -.029\*\*\* | .001 |
|  | (.003) | (.005) | (.003) | (.005) | (.003) | (.004) |
| **SES** |  |  |  |  |  |  |
| Family income | .031\*\*\* | .002 | .017\*\*\* | .002 | .015\*\*\* | .002 |
|  | (.003) | (.003) | (.003) | (.003) | (.002) | (.002) |
| Years of education | .059\*\*\* | .010\*\*\* | .048\*\*\* | .017\*\*\* | .040\*\*\* | .017\*\*\* |
|  | (.001) | (.002) | (.001) | (.002) | (.001) | (.001) |
| Employment status | .225\*\*\* | .037\*\*\* | .199\*\*\* | .067\*\*\* | .161\*\*\* | .062\*\*\* |
|  | (.006) | (.010) | (.005) | (.009) | (.005) | (.008) |
| **Immigrant Specific** |  |  |  |  |  |  |
| Time in country |  | .003\*\*\* |  | .005\*\*\* |  | .004\*\*\* |
|  |  | (.001) |  | (.001) |  | (.000) |
| Citizenship |  | .013 |  | .034\*\*\* |  | .032\*\*\* |
|  |  | (.009) |  | (.011) |  | (.009) |
| **Opportunity structure** |  |  |  |  |  |  |
| Effective nr. of parties | .007 | .010 | .004 | -.016 | .005 | -.015\*\* |
|  | (.004) | (.010) | (.004) | (.011) | (.002) | (.007) |
| Disproportionality | .002 | .009\*\* | .002 | -.001 | -.000 | -.009\*\* |
|  | (.002) | (.004) | (.002) | (.005) | .002 | (.004) |
| Native education | -.067\*\*\* | .004 | -.048\*\*\* | -.010 | -.042\*\*\* | .010 |
|  | (.005) | (.011) | (.005) | (.011) | (.005) | (.010) |
| Immigrant share | .168\*\*\* | -.017 | .122\*\* | -.281\*\*\* | .117\*\*\* | -.100\*\* |
|  | (.045) | (.078) | (.034) | (.070) | (.029) | (.047) |
| Ethnic concentration | .023 | .106 | .050 | .083 | .076\* | .136 |
|  | (.024) | (.074) | (.027) | (.108) | (.038) | (.123) |
| Left share | .032 | .299\*\*\* | .022 | .305\*\*\* | .021 | .324\*\*\* |
|  | (.025) | (.086) | (.026) | (.073) | .023 | (.056) |
| Seats to voters | 110.238\*\*\* | 39.878\*\*\* | 104.348\*\*\* | 37.890\*\*\* | 103.895\*\*\* | 59.092\*\*\* |
|  | (1.790) | (5.643) | (1.726) | (5.946) | (1.66) | (4.811) |
| Adj-R2 | .004 | .001 | .003 | .002 | .003 | .002 |
| Observations | 5,634,068 | 200,469 | 5,959,168 | 453,378 | 6,176,394 | 675,943 |
| Note: The dependent variable is a dummy indicating whether an individual won election. OLS coefficients; standard errors in parentheses. Significance levels: \* *p* = <.05; \*\* *p* = <.01; \*\*\* *p* = <.001. | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table A11: Oaxaca-Blinder Decomposition Results 1991-2010, Non-OECD immigrants** | | | | | | |
|  | **1991** | **1994** | **1998** | **2002** | **2006** | **2010** |
| **Difference** | .193 | .181 | .154 | .129 | .123 | .116 |
| P(Natives) | .229 | .223 | .215 | .208 | .202 | .194 |
| P(Immigrants) | .035 | .042 | .061 | .079 | .079 | .078 |
|  |  |  |  |  |  |  |
| **Explained** | .036 | .038 | .035 | .044 | .053 | .051 |
|  | (.006) | (.006) | (.005) | (.005) | (.005) | (.004) |
| Demographics | -.003 | -.008 | -.017 | -.015 | -.009 | -.011 |
|  | (.004) | (.004) | (.004) | (.004) | (.003) | (.003) |
| SES | .000 | .005 | .007 | .005 | .007 | .008 |
|  | (.001) | (.002) | (.002) | (001) | (.001) | (.000) |
| Opp. structure | .003 | .001 | .014 | .021 | .018 | .009 |
|  | (.005) | (.005) | (.005) | (.005) | (.004) | (.003) |
| Seats to voters | .036 | .041 | .030 | .034 | .037 | .044 |
|  | (.006) | (.001) | (.004) | (.005) | (.004) | (.003) |
| **Unexplained** | .158 | .143 | .119 | .085 | .069 | .065 |
|  | (.007) | (.007) | (.006) | (.007) | (.006) | (.005) |
| Note: The first row reports the percentage point difference in winning a local council seat across groups. The second/third row reports the percentage of natives/immigrants winning a seat. The second block (”Explained”) reports the size of the representation gap that is due to differences in characteristics, and the third block (”Unexplained”) reports the size of the representation gap that is attributable to differences in returns to characteristics. For included covariates, see Table 1. Standard errors are in parentheses. | | | | | | |

**9. Oaxaca-Blinder Decomposition, OECD vs. Non-OECD immigrants**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table A12: Oaxaca-Blinder Decomposition Results 1991-2010, OECD vs. Non-OECD Immigrants** | | | | | | |
|  | **1991** | **1994** | **1998** | **2002** | **2006** | **2010** |
| **Difference** | .095 | .095 | .076 | .058 | .052 | .051 |
| P(OECD) | .131 | .137 | .137 | .137 | .131 | .128 |
| P(Non-OECD) | .035 | .042 | .061 | .079 | .079 | .078 |
|  |  |  |  |  |  |  |
| **Explained** | .078 | .092 | .095 | .083 | .080 | .076 |
|  | (.005) | (.005) | (.007) | (.008) | (.008) | (.007) |
| Demographics | .008 | .005 | .009 | .008 | .016 | .010 |
|  | (.002) | (.003) | (.005) | (.006) | (.006) | (.007) |
| SES | -.003 | -.000 | -.004 | -.014 | -.015 | -.012 |
|  | (.001) | (.002) | (.002) | (.001) | (.001) | (.001) |
| Opp. structure | .002 | .007 | .008 | .004 | .011 | .007 |
|  | (.004) | (.003) | (.003) | (.004) | (.004) | (.003) |
| Seats to voters | .033 | .039 | .036 | .038 | .036 | .042 |
|  | (.003) | (.003) | (.003) | (.003) | (.003) | (.003) |
| Time in country | .038 | .045 | .051 | .059 | .052 | .045 |
|  | (.005) | (.005) | (.007) | (.008) | (.007) | (.008) |
| Citizenship | .001 | -.003 | -.005 | -.012 | -.020 | -.016 |
|  | (.000) | (.001) | (.001) | (.002) | (.003) | (.002) |
| **Unexplained** | .017 | .003 | -.019 | -.025 | -.029 | -.025 |
|  | (.009) | (.009) | (.010) | (.011) | (.011) | (.010) |
| Note: The first row reports the percentage point difference in winning a council seat across groups. The second/third row reports the percentage of OECD/Non-OECD immigrants winning a seat. The second block (“Explained”) reports the size of the representation gap that is due to differences in characteristics, and the third block (“Unexplained”) reports the size of the representation gap that is attributable to differences in returns to characteristics. For included covariates, see Table 1. Standard errors are in parentheses. | | | | | | |

*Comments on Table:*The table above shows the OB-decompositions for OECD vs. Non-OECD immigrants. The following are noteworthy: First, the representation gap has decreased substantially over time (the reduction is 46%). Second, in all years *Seats to voters* and *Time in country* account for the lion’s share of the explained part. One important reason why Non-OECD immigrants are less likely to be elected to local office is that they tend to live in larger municipalities and have been in Sweden for a shorter time. Third, the unexplained part is positive in 1991 and 1994, but negative in the remaining years, suggesting that there was more discrimination against Non-OECD immigrants in the early years, but less in later years. Here it should, however, be noted that the effects of *Time in country* and *Citizenship* are not automatically included in the unexplained part as was the case for the Native vs. Immigrant comparison. If the effect of these variables would be added to the unexplained part in the same way as they are for the native vs. immigrant comparison we should get a positive unexplained part for all years.

**10. Oaxaca-Blinder Decomposition excluding *Time in country* and *Citizenship***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table A13: Oaxaca-Blinder Decomposition Results, excluding *Time in country* and *Citizenship*** | | | | | | |
|  | **1991** | **1994** | **1998** | **2002** | **2006** | **2010** |
| **Difference** | .136 | .129 | .119 | .105 | .104 | .100 |
| P(Natives) | .229 | .223 | .215 | .208 | .202 | .194 |
| P(Immigrants) | .093 | .094 | .096 | .103 | .098 | .094 |
|  |  |  |  |  |  |  |
| **Explained** | .038 | .044 | .050 | .055 | .056 | .059 |
|  | (.003) | (.003) | (.003) | (.003) | (.002) | (.002) |
| Demographics | -.003 | -.006 | -.004 | -.002 | .000 | .000 |
|  | (.003) | (.002) | (.002) | (.001) | (.001) | (.001) |
| SES | .004 | .011 | .016 | .014 | .016 | .016 |
|  | (.002) | (.000) | (.001) | (000) | (.001) | (.001) |
| Opp. structure | .006 | .003 | .004 | .009 | .009 | .007 |
|  | (.003) | (.003) | (.003) | (.003) | (.002) | (.002) |
| Seats to voters | .030 | .036 | .034 | .033 | .031 | .036 |
|  | (.003) | (.002) | (.002) | (.003) | (.002) | (.002) |
| **Unexplained** | .098 | .086 | .069 | .050 | .047 | .041 |
|  | (.006) | (.006) | (.005) | (.005) | (.005) | (.004) |
| Note: The first row reports the percentage point difference in winning a council seat across groups. The second/third row reports the percentage of natives/immigrants winning a seat. The second block (“Explained”) reports the size of the representation gap that is due to differences in characteristics, and the third block (“Unexplained”) reports the size of the representation gap that is attributable to differences in returns to characteristics. Standard errors are in parentheses. | | | | | | |

**11. Oaxaca-Blinder Decomposition accounting for Sweden Democrats**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table A14: Oaxaca-Blinder Decomposition Results, Accounting for SD support** | | | | |
|  | **1998** | **2002** | **2006** | **2010** |
| **Difference** | .119 | .105 | .104 | .100 |
| P(Natives) | .215 | .208 | .202 | .194 |
| P(Immigrants) | .096 | .103 | .098 | .094 |
|  |  |  |  |  |
| **Explained** | .036 | .041 | .045 | .047 |
|  | (.003) | (.003) | (.003) | (.002) |
| Demographics | -.013 | -.011 | -.008 | -.008 |
|  | (.002) | (.002) | (.001) | (.001) |
| SES | .013 | .012 | .013 | .013 |
|  | (.001) | (001) | (.001) | (.001) |
| Opp. structure | .003 | .007 | .008 | .007 |
|  | (.003) | (.003) | (.002) | (.002) |
| Seats to voters | .034 | .033 | .031 | .035 |
|  | (.002) | (.002) | (.002) | (.002) |
| SD vote share | .000 | -.000 | .000 | .000 |
|  | (.000) | (.000) | (.000) | (.000) |
| **Unexplained** | .083 | .063 | .058 | .052 |
|  | (.005) | (.005) | (.005) | (.004) |
| Note: The first row reports the percentage point difference in winning a council seat across groups. The second/third row reports the percentage of natives/immigrants winning a seat. The second block (“Explained”) reports the size of the representation gap that is due to differences in characteristics, and the third block (“Unexplained”) reports the size of the representation gap that is attributable to differences in returns to characteristics. In addition to the covariates included in Table 1 these analyses also include the vote share of the Sweden Democrats in the municipality. Standard errors are in parentheses. | | | | |

*Comments on Table:*The table shows what the OB-result look like when including the vote share of the Sweden Democrats as an independent variable. This can only be done for the years 1998-2010, because before 1998 there is no information on the vote shares of the Sweden Democrats (SD). Nonetheless, this does not seem to matter since the results above are virtually identical to those presented in the main text. The reason is that the variable measuring the vote share of the SD is close to zero and statistically insignificant in all years. That is, there is no relationship between the overall electoral support for SD in a municipality and the likelihood of electing immigrants to local office.

**12. Matching Results: Immigrants vs. Natives**



**Figure A1: The Immigrant Effect – Matching Results**

*Comments on Figure*: The figure presents the results from comparing the election probabilities of natives and immigrants using nearest-neighbor propensity score matching (with replacement). We match on all covariates in Table 1 except *Citizenship* and *Time in country*. A single match is used for each observation (ties are broken randomly), and a caliper of .0001 is used to exclude a fairly small number of bad matches. The grey areas represent 95-percent confidence intervals for the estimated effects. For computational reasons the standard errors used for this calculation were obtained through bootstrapping the “average treatment effect” (using 250 replications). Although the validity of this bootstrap procedure has been subject of discussion, preliminary analysis suggest that in this case the bootstrap procedure produces confidence intervals very similar to those obtained when using the more accurate, but also considerably more computationally-intensive approach, developed by Abadie and Imbens (which is included in Stata’s *teffects* command). Yet, the exact size of the confidence intervals should be interpreted with some care.

Note: balance tables for this analysis and for the matching analyses that follow are available upon request.

**13. Matching Results: OECD Immigrants vs. non-OECD Immigrants**

NewMatchGraph_OECDvsNonOECD.eps

**Figure A2: The non-OECD Immigrant Effect – Matching Results**

*Comments on Figure*: The figure presents the results from comparing the election probabilities of OECD and Non-OECD immigrants using nearest-neighbor propensity score matching (with replacement). In the leftmost graph we have matched on all the covariates in Table 1, including *Citizenship* and *Time in Country*. Note that by matching on these two variables we are unable to achieve a good covariate balance; there is little overlap between the distribution of propensity scores for OECD and non-OECD immigrants, respectively. Because the timing of arrival is (on average) different between OECD and non-OECD immigrants, there are considerable difficulties inherent in matching on *Time in country*. The same is, to some extent, true for *Citizenship*, which later waves of refugee migrants have been more prone to acquire than have the labor migrants from the 1960s and 1970s.

In the rightmost graph we exclude *Time in country* and *Citizenship* from the matching model. In both cases we have used a caliper of .0001 to exclude a fairly small number of bad matches. The grey areas represent 95-percent confidence intervals for the estimated effects. For computational reasons the standard errors used for this calculation were obtained through bootstrapping the “average treatment effect” (using 250 replications). Although the validity of this bootstrap procedure has been subject of discussion, preliminary analysis suggest that in this case the bootstrap procedure produces confidence intervals very similar to those obtained when using the more accurate, but also considerably more computationally-intensive approach, developed by Abadie and Imbens (which is included in Stata’s *teffects* command). Yet, the exact size of the confidence intervals should be interpreted with some care.

**14. Matching Results: Immigrants vs. Natives (only Gender and Age)**

ExactMatchGraph.eps

**Figure A3: The Immigrant Effect – Matching Results (only Gender and Age)**

*Comments on Figure*: The figure presents the results from comparing the election probabilities of natives and immigrants using exact matching on the pre-determined covariates gender and age (performing 1:N matching within cells). The grey areas represent 95-percent confidence intervals for the estimated effects. Like in Figure A2, the standard errors used for this calculation were obtained through bootstrapping the “average treatment effect” (using 250 replications). The exact size of the confidence intervals should therefore be interpreted with some care.

As can be seen when comparing Figure A3 to Figure A1, a clear over-time trend of a diminishing “immigrant effect” is present in both. Unsurprisingly, the “immigrant effect” is larger when we only match on gender and age compared to when we match on more potential mediating variables (Figure A1). The rate at which the “immigrant effect” decreases over time is also lower in Figure A3. This is, in all likelihood, due to the fact that the immigrant-native inequality in some resources and opportunity structures that consistently matter for the probability of being elected over our period of study (notably Employment Status and Seats to Voters, see Table A1) are much larger in 2010 than in 1991.

1. To see why, it is useful to further decompose the second term on the right-hand side of equation (4). Let and , where and denote vectors of discrimination coefficients for natives and immigrants, respectively. For example, if immigrants are discriminated in terms of their returns to schooling on the probability of being elected we should expect and . The unexplained part of equation (4) can now be expressed as

   (5)

   In essence equation (5) means that the unexplained component of the gap can be divided into discrimination in favor of natives () and discrimination against immigrants (). [↑](#footnote-ref-1)