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Are political and economic integration intertwined?*

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Abstract

Economic incentives play a key role in the decision to run for office, but little is known on how they shape immigrants' selection into candidacy. We study this question using a two-period Roy model and show that if returns to labour market experience are higher for migrants than natives, migrants will be less likely to seek office than natives. We empirically assess this prediction using administrative data from Norway, a country with a very liberal regime for participation in local elections. Our results strongly support our theoretical model and indicate that immigrants' political and economic integration are closely intertwined.

JEL classification: F22; J45; P16
Keywords: Immigration; Local Elections; Candidacy Decision; Labour Markets.

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1 Introduction

Economic incentives are a key determinant of the decision to run for elected office and impact a variety of attributes desirable in a politician, such as education, ability, competence, and honesty.[1] The same economic incentives are likely to play a role in shaping other descriptive characteristics, such as race, ethnicity or country of birth, which have become salient in multi-cultural societies – where a diverse body of elected officials is required to ensure the democratic representation of an increasingly heterogeneous electorate.

Progress in the representation of minorities has been slow, but steady and has been extensively documented in the literature.[2] At the same time, while international migration has been at the forefront of the economic and political debates, one important stylized fact that has emerged from several studies is the pervasive under-representation of the foreign born in the political process, and in particular among candidates and those elected to office (Bloemraad 2013; Dancygier 2014). Under–representation is likely to depend on an array of different factors, that can be broadly categorized as pointing towards the "demand" and "supply" of candidates. In party–based systems, much emphasis has been placed on demand side factors, and more specifically on the role played by party elites (Dancygier et al. 2015, Folke et al. 2017 and Dancygier et al. 2019). In local elections, where nomination procedures are less controlled by parties than in national contests (e.g. Cirone et al. 2019), supply side factors are likely to also play an important role – and in fact a shortage of suitable candidates has been identified (Ringkjøb and Aars 2010). Still, little is known on what determines the decision to seek office among immigrants groups, and in particular whether and how economic incentives matter (Bloemraad 2007).[3] This is surprising given the vast body of existing work, dating back to the pioneering contributions by Chiswick (1978) and Borjas (1985), showing that immigrants exhibit systematically different economic outcomes compared to natives. In this paper, we study the differences between immigrants and natives in their decision to run for office, and uncover the key role played by economic integration.

Our analysis focuses on candidacy for local office in Norway, a country where immigrants are allowed to participate in local elections, as both voters and candidates, upon the completion of a three-year residency requirement. Using data on the universe of candidates in the 2007, 2011 and 2015 municipal elections, we begin by documenting the patterns of selection into office-seeking by natives and the foreign born, highlighting that while immigrants do run for office in significant numbers, they are much less likely to do so than natives. We then propose a simple two–period Roy

[1] See Besley (2004), Caselli and Morelli (2004), Messner and Polborn (2004), Kotakorpi and Poutvaara (2011) and Dal Bo et al. 2017 among others.

[2] See for example Pande (2003), Besley et al. (2017) and Bernini, Facchini, and Testa (2018).

[3] One interesting exception is the recent study by Dancygier et al. (2019) who have documented for the case of Sweden that natives and immigrants are similar when it comes to their political ambition, interest and broad political "efficacy".

model of the candidate entry decision, extending the framework originally introduced by Dal Bo et al. (2017). In particular, we consider a population of immigrants and natives, composed of agents differing along two dimensions: intrinsic political motivation and ability. Individuals decide whether to become candidates by trading off labour market earnings against the expected gains from a political career: as the return to labour market experience – representing the opportunity cost of office – increases, ceteris paribus, the likelihood of seeking election decreases.

We show that our simple Roy model can help rationalize the differential patterns of selection between natives and immigrants. In particular, our data indicate that the return to labour market experience is higher for immigrants than for natives – a result confirming for the case of Norway the existence of economic assimilation (see Duleep 2015 for a recent review). This finding is consistent with natives' previously observed higher propensity to run for office. Importantly, we document that the differential returns to labour market experience between immigrants and natives change across education, gender and age groups, providing us further scope to assess the predictions of our theoretical model by comparing more homogeneous subgroups of the population. Crucially, we show that the differential returns across these subgroups change in a manner that mirrors the observed selection patterns. Consider, for example, high school and college graduates. Relative to high school dropouts a native high school (college) graduate is 40 (135) per cent more likely to run for office; the same differential for immigrant high school (college) graduates is instead -40 (166) per cent. As a result, the immigrant-native normalized differential in the marginal effect of education on the probability to seek election is *lower* (-80 per cent) for high school than for college graduates (31 percent). Correspondingly, the immigrant-native differential in the return to one year of Norwegian labor market experience is *higher* for high school than for college educated individuals (0.4 vs 0.1 percentage points). This is in line with the idea that the education group with a *higher* immigrant-native differential in the opportunity cost to seek election will display a *lower* gap in the probability to enter politics.

These findings indicate that even in party–based political systems like that of Norway, candidacy in local elections is strongly affected by economic incentives, working through the labor market. Notice though that at the same time they do not imply that the demand side of candidacy, as expressed by political parties, does not matter. On the contrary, they simply indicate that – alongside the selection determined by party nomination committees – individual self–selection does play an important role in determining the final nomination outcome. Importantly, we also document that the self–selection patterns highlighted in our baseline analysis are common across the political spectrum, hold in a variety of electoral contexts, and are not affected by origin country's features. Taken together, these results suggest that the selection criteria applied by party officials are likely to be orthogonal to those at work for the individual decision to seek candidacy.

Our analysis builds on three strands of literature. First, it is related to a large body of work that focuses on the economic assimilation of immigrants. Papers in this tradition have emphasized that immigrant earnings tend to grow faster than those of natives over time – even after accounting for language fluency, age at migration, macroeconomic shocks in the host country and selective out-migration patterns.[4] Second, it speaks to the literature on the political integration of immigrants and ethnic minorities. Much work has focused on immigrants as voters, analysing differences between immigrants and natives in turnout and voting behaviour. Considerably less research, however, has examined immigrants as candidates. A few recent studies have documented a widespread lack of descriptive representation for foreigners, focusing on the role played by political institutions (see Togeby 2008 and Dancygier 2014) – and their interaction with the spatial distribution of the immigrant population (Bloemraad 2013; Dancygier 2013). Dancygier et al. (2015), by contrast, exploit Swedish administrative data to study the determinants of the gap in representation between natives and foreigners in local elections and show that individual characteristics and contextual factors cannot completely explain it. Moreover, they argue that this gap is attributable to the actions of party gatekeepers, who, by choosing positions on the slate, can affect candidates' electoral success. This finding is confirmed also in a recent contribution by Dancygier et al. (2019). Third, and more broadly, our analysis contributes to the literature on the factors influencing the decision to run for office by underrepresented subgroups of the population (e.g. Lawless and Fox 2010, Wasserman 2018 and Bernini, Facchini, and Testa 2018).

The patterns we uncover in our analysis indicate that economic and political integration are closely intertwined. Our results have broader implications for the analysis of the political participation of minorities and other under-represented groups that go beyond the case of migrants in Norway. On the one hand, our key message is that differences in the returns to labour market experience might shape the decision to run for office by individual subgroups of the population. This mechanism could help understanding for instance why the young - enjoying comparatively higher returns to labour market experience - are less likely than the old to run for office in many modern democracies. A similar argument could be put forward to explain why minority groups expecting their labour market conditions to improve significantly following a reform might be less keen to participate in the political process than majority groups. On the other hand, higher returns to labour market experience for immigrants than for natives have been documented in the vast majority of destination countries (Ozden et al. 2018) and thus we expect our findings to apply to all those countries which grant foreign born individuals early access to local politics.

The remainder of the paper is organized as follows: Section 2 provides background information on immigration and political institutions in Norway. Section 3 discusses our data, whereas Section

[4] See Dustmann and Van Soest (2001), Bleakley and Chin (2004), Bratsberg et al. (2006) and Lubotsky (2007).

4 presents a simple Roy model of the candidate's entry decision. Section 5 uses the lens provided by the model to compare the selection patterns of immigrants and natives, whereas in Section 6, we investigate the role of political parties. Section 7 presents a series of additional results and robustness checks, and Section 8 concludes the paper.

2 Country Background

Norway is one of the main recipients of immigrants in Western Europe: in 2015, the foreign born represented 13 per cent of the total population, up from 5.3 per cent in 2000 (see Table 1).[5] Currently, most immigrants to Norway come from countries outside the European Union (53% in 2015), but the importance of the EU as a source has increased over time. In particular, the large recent inflows following the 2004 enlargement saw significant arrivals from the new member states, which now account for 26% of the total immigrant population, a five-fold increase relative to 2000. Historically, the Nordic countries represented an important source of the Norwegian foreign-born population, but their significance has declined over time, from 21% of the total in 2000 to only 11% in 2015.

2.1 Administrative structure

Norway is a constitutional monarchy, divided into 19 counties (*fylker*) and 428 municipalities (*kommunes*), with Oslo having both municipality and county responsibilities.[6] The administrative powers of the county and municipal councils are governed by the Local Government Act of 1992.

Municipalities play an important role in the provision of public services (Borge 2010), and their expenditures and revenues amount to 17% and 14% of GDP, respectively. They are responsible for local infrastructure and welfare, including education (child care, primary and lower secondary education), health and social care. County governments' responsibilities are instead more limited, focusing on upper secondary education, public transport, regional planning and development. Their total revenues and expenditures amount to only approximately 3% of GDP. Both layers of government have taxation powers, within a range specified by the central government. Revenues for both municipalities and counties accrue largely from local income taxation, but municipalities can also tax real estate and wealth. Given the more prominent role played by municipal authorities, our analysis will focus on municipal elections.

[5] https://www.ssb.no/en/befolkning/statistikker/innvbef/aar/2015-03-04.

[6] The number of municipalities varies slightly over the period considered: there were 430 municipalities in 2007 and 2011, while the number had decreased to 428 by 2015. Municipalities are very heterogeneous in size: in 2015, the average and median population was just above 11,000 and 4,400 individuals, respectively, with the largest city being Oslo, which had nearly 600,000 inhabitants, and the smallest municipality being Utsira, with only 206.

Table 1: Share of Immigrants and Country Background

	2000	2007	2015
Share of Foreign born	5.3	7.3	12.9
Distribution by Origin			
Nordic Countries	21	15	11
Other EU 15 (including EEA)	13	11	10
New EU Member Countries	5	9	26
Other	61	65	53

Note: Percentages reported. Source: Norwegian Statistical Office. Immigrants are persons born abroad of two foreign-born parents. Nordic countries: Denmark, Greenland, Finland, Faroe Islands, Iceland and Sweden. Other EU 15 (including EEA): Austria, Belgium, France, Germany, Greece, Ireland, Italy, Liechtenstein, Luxembourg, Netherlands, Portugal, Spain, Switzerland, United Kingdom. New EU Member Countries: Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Slovenia, Poland, Romania, Slovakia.

2.2 Elections

Municipalities are governed by elected councils. Local elections are held every four years in September, midway through a four year Parliament (Stortinget) period.

Norwegian citizens are eligible to vote and run for office if they turn 18 by the end of the election year. Norway enfranchises foreign citizens in local elections irrespective of their nationality,[7] provided that they have been resident in the country for at least three years.[8] Thus, it represents an ideal setting to study immigrant political participation. However, only Norwegian citizens are allowed to vote in national elections. The turnout in local elections of Norwegian citizens with no immigrant background has been stable at approximately 60 per cent over the last three elections. Comparable figures for foreign citizens are available only for the 2015 election, when their turnout was 29 per cent.[9]

Members of the council are elected from a single district, using an open list proportional system. Seats are allocated by means of a modified Saint-Laguë method. The minimum number of seats on a council is mandated by law and is a function of the total population. During our period of analysis, it varied between 11 (for municipalities with populations under 5,000) and 43 (for municipalities with more than 100,000 residents).[10] In our sample, the average (and median) is

[7] See Earnest (2015) for other examples of countries where non-nationals are allowed to vote in local elections in a non discriminatory fashion

[8] This requirement is waved for nationals of other Nordic countries, who can vote in the year of arrival as long as they have registered in the Population Register by June 30 of that year. The Electoral Register is based on the Central Population Registry, where everyone who intends to live in Norway for more than 6 months is registered.

[9] See http://www.nsd.uib.no/nsddata/serier/norske_valgundersokelser_eng.html.

[10] There are only three municipalities that, for a single year only, had fewer than 11 elected members (the minimum required by the Local Government Act).

just above 20, and the maximum is 85.

In each municipality, a party can enlist a maximum number of candidates equal to the available number of council seats plus six. Voters express their preference for one list and can cast preferential votes in favour of individual candidates. Individuals on the list are elected on the basis of the share of votes obtained by the party, their position on the list and the number of preferential votes they have received. Some candidates are put in privileged positions at the top of the list, and their names are written in bold (*stemmetillegg*). These candidates are also referred to as "party vote" candidates, as they are given 25 per cent more party votes than non-bolded candidates.[11] The maximum number of bolded candidates depends on the size of the council, and in our data, the share of bolded candidates varies between 0 and 85%, with an average of 12%.

There are three main political parties that won, on average, between 60 and 68% of the total seats across the three local elections included in our analysis, i.e., the Labour Party, the Centre Party and the Conservative Party. There are also many smaller parties and local independent lists.[12] The centre-left Labour Party consistently secured approximately one-third of the available seats across the three elections. The euro-sceptic Centre Party, which advocates for an economic nationalistic agenda and protectionist policies, and the center-right Conservative party have seen witnessed greater fluctuations in their seat shares, ranging between 14% and 20% of the total. Electoral lists are typically formulated through a two–steps process. First, parties organize a nomination committee to identify candidates among current incumbents, previous candidates, party members and sympathizers. Second, during a nomination meeting open to all local party members, the actual party ballot is decided (Cirone et al. 2019).[13] Importantly, as pointed out by Ringkjøb and Aars (2010) it has historically been difficult for parties to find enough candidates willing to run for local office in many municipalities and in fact, as we will discuss in greater detail in Section 6, in over 90% of the cases, the parties did not field the maximum number of admissible candidates.

3 Data and Descriptive Evidence

We base our analysis on two rich administrative datasets provided by Statistics Norway (SSB).

First, we obtained data on the universe of candidates running for municipal elections in 2007, 2011 and 2015 using the "Municipal and county council election, candidates" dataset.[14] Infor-

[11] For further information, see Bergh and Bjørklund (2010) and Fiva and Røhr (2018).

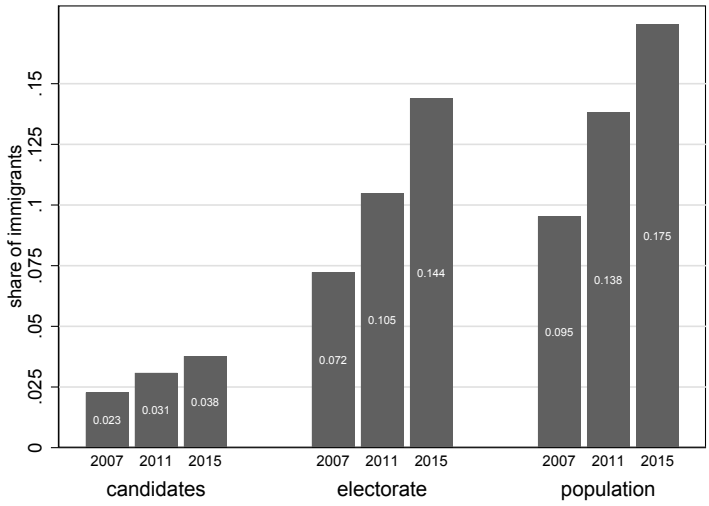
[12] These include a total of 380 parties, and 30% of these parties are in municipalities with fewer than 5000 inhabitants.

[13] During the period covered by our study, there were no mandatory gender quotas for electoral lists. The major political parties, however – with the exception of the Conservative Party – had adopted gender quotas on a voluntary basis (see Teigen 2015).

[14] See `https://www.ssb.no/en/valg/statistikker/kommvalgform` for further details.

mation is provided on the municipality in which candidates run, on their party affiliation, their position on the party list, whether their name is bolded, and a wealth of socio-demographic characteristics including gender, age, immigration status, educational attainment and income.

Figure 1: Share of immigrants among the candidates, electorate and population



Source: Norwegian Population Register. We restrict the analysis to individuals aged 24-63. Population includes anyone in that age group. Electorate includes natives aged 24-63 and immigrants aged 24-63 with at least 3 years of residency. Immigrants are foreign-born individuals from both foreign-born parents, excluding Nordic immigrants.

The data show that 61,657 individuals ran for office in 2007, 59,198 ran in 2011 and 58,093 ran in 2015. We therefore have 178,948 observations of candidates who ran for a total of 32,098 available seats in the three elections. Since we are primarily interested in establishing a relationship between labour market outcomes and the decision to run for office, we restrict our sample to those aged 24 to 63, i.e., working-age individuals who have had the opportunity to complete higher (tertiary) education. As a result, we are left with 137,502 observations. Of these, 132,480 are Norwegian-born individuals[15] and 5,022 immigrants, accounting for 3.6% of the total. Since Nordic countries' citizens enjoy political rights more similar to those of Norwegians, our analysis will focus on non-Nordic immigrants only. As a result, we exclude 921 Nordic candidates, leaving us with 4,101 non-Nordic immigrant candidates.

Second, we obtain information on the entire population entitled to vote in municipal elections from administrative register data. In Figure 1, we report the share of immigrants in three populations among those aged 24-63: candidates, electorate (i.e., all natives and foreigners with three years of residence) and total population. From this picture, we can see that immigrants are in general under-represented in the political process. Between 2007 and 2015, foreigners represented

[15] Among the native born, we also include second-generation immigrants (i.e., Norwegians born from immigrant parents), who represent 0.16 per cent of the candidates and 0.52 per cent of the total population. In this group, we also include individuals born abroad to Norwegian parents, who account for 0.64 per cent of the candidates and 0.85 of the total population. All our results are robust to the exclusion of either or both of these groups.

13.6 per cent of the total population, on average, with their share increasing from 9.5 to 17.5 per cent (i.e., by 84 per cent); their share in the electorate averaged 10.7 per cent, doubling from 7.2 to 14.4 per cent during the period considered. Immigrant representation among candidates was even lower, hovering at 3 per cent, on average, although it increased from 2.3 to 3.8 per cent over the period considered (i.e., by 65 per cent).[16]

Table 2: Descriptive Statistics

	Natives		Immigrants	
	Total	Candidates	Total	Candidates
Average age	43.74	46.30	41.28	44.54
Share of females	0.49	0.43	0.48	0.48
No educ. or compulsory	0.20	0.13	0.34	0.17
High school	0.45	0.44	0.33	0.27
College	0.27	0.34	0.22	0.38
Postgraduate	0.08	0.10	0.12	0.18
Observations	6,570,625	132,480	720,439	4,101
Probability of being:	Candidate	Elected	Candidate	Elected
Any position	1.98%	20.15%	0.57%	12.12%
Bolded	0.3%	77.41%	0.05%	51.83%
Bolded, credible party	0.24%	81.07%	0.04%	57.74%
Any position, non–credible party	0.08%	0.81%	0.04%	2%

Source: Norwegian Population Register. Total includes only individuals in electorate. Immigrants are foreign born from both foreign born parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 election years 2007, 2011 and 2015. Elected is the probability of being elected conditional on being a candidate.

Using administrative data sources, in Table 2, we compare the characteristics of the electorate and those of the candidates by immigration status. On average, immigrants are approximately 2.5 years younger than natives (41.3 vs. 43.7). However, the average age of immigrant candidates is higher (44.5) and closer to that of natives (46.3). This suggests that there is slightly less selection on age for native than for immigrant candidates. An additional interesting stylized fact is that, among immigrants, women are as likely as men to run for office, whereas this is not true for natives. Finally, immigrant and native candidates have similar skill levels: 34 per cent of the foreign candidates have at least a college degree, whereas this is true for 35 per cent of natives. Interestingly, in both groups, candidates tend to be more educated than the respective underlying population, and among the most skilled, selection appears to be stronger for immigrants. In fact, while immigrants are 50 per cent more likely than natives to hold a postgraduate degree (12 per cent vs. 8 per cent), the corresponding proportion among immigrant candidates is 80 per cent

[16]For completeness, the average share of immigrants among the elected in the age group 24-63 is 1.83 per cent in the period considered.

higher than among natives (18 per cent vs. 10 per cent). In other words, a Norwegian with a postgraduate degree is 20 per cent less likely to run for office than an immigrant with comparable education.[17]

As mentioned above, across the three elections covered by our analysis, we observe 4,101 immigrant candidates. This implies that, on average, 0.6 per cent of the foreign born run for office, whereas this proportion is more than three times as high for natives (2 per cent). Moreover, even when they run for office, immigrants are less likely to be in a prominent position: the probability of being a bolded candidate is 0.05 per cent for an immigrant, whereas it is six times as high for natives (0.3 per cent). In other words, roughly 15 per cent of native candidates are bolded, whereas this is true for only 8 per cent of immigrants.[18] Furthermore, when we restrict our attention to bolded candidates of "credible" parties, i.e., in those parties that end up electing at least one councillor in the current election, we can see that immigrants are more under-represented:[19] while one out of eight native candidates falls in this highly electable group, this is true only for one out of fourteen immigrant candidates.[20] Regarding the elected, a native candidate has a 20 per cent probability of becoming a councillor, whereas the corresponding figure declines to 12.2 per cent for immigrants. As expected, the likelihood of being elected increases significantly for both natives and immigrants if they are bolded – to 77.4 per cent for natives and 51.8 per cent for immigrants, and this increase is even larger if they are bolded for credible parties – to 81.1 per cent for natives and 57.7 per cent for immigrants. Finally, while the likelihood of being elected if the candidate runs with a non-credible party is generally very low, it is more than twice as high among immigrants than among natives (2 per cent vs. 0.8 per cent). Immigrant candidates are not evenly distributed among parties. Even if the share of candidates with a foreign background has increased over time among all political forces, there are still substantial differences – with left-leaning political groups having more candidates with immigrant backgrounds than their right-wing counterparts. For example, as we can see in Figure 2, in 2015, 3.7 per cent of the Labour Party candidates were immigrants, a share that falls to 2.4 per cent for the Conservatives and to 0.9 per cent for the Centre Party. Smaller parties and local lists – accounting for approximately one-third of the total seats – display instead a higher share of foreign candidates (4.2 per cent).

While, thus far, we have considered the average probability that an individual will run for office, we now turn to different subgroups of the native and immigrant populations, defined by education, gender and age. In the left panel of Figure 3, we plot the unconditional probability of running for

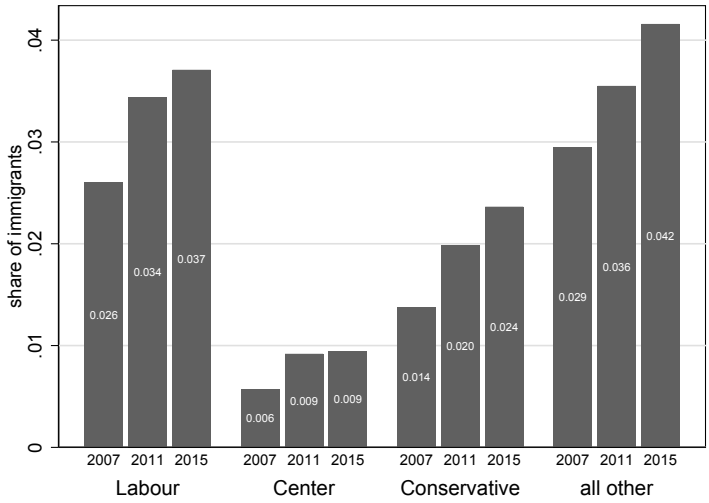
[17] In particular, immigrants with a postgraduate degree are 1.5 times more likely to be found among candidates than in the underlying population (0.18/0.12), whereas the corresponding figure is 1.25 for natives (0.1/0.08).

[18] As noted by Dancygier 2014, even if proportional representation and preferential voting seem to increase the probability that a minority candidate is elected, political elites often place minority candidates near the bottom of the party list, making nomination less probable.

[19] Bolded candidates of credible parties represent 12.2 per cent of total candidates.

[20] For similar evidence in the case of Sweden, see Dancygier et al. (2015).

Figure 2: Share of immigrants among candidates, by party



Source: Norwegian Population Register. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants.

election for immigrants and natives by education level. This probability is systematically higher for natives than for immigrants, but the gap between the two groups widens as the education level increases. For example, while 1.2 per cent of natives who have completed at most compulsory education seek election, this is true for 0.25 per cent of immigrants. On the other hand, if we focus on individuals with a college education, the gap widens to 1.6 percentage points (2.4 for natives and 0.8 for immigrants). The figure thus suggests that immigrants are less likley than natives to engage in politics, even controlling for their level of education, and that this gap increases with education.[21] This unconditional pattern could, however, also be driven by differences in the composition of the two populations within each education group – i.e., immigrants and natives could significantly differ along other dimensions. To identify the effect of education net of other individual characteristics, we estimate the following model:

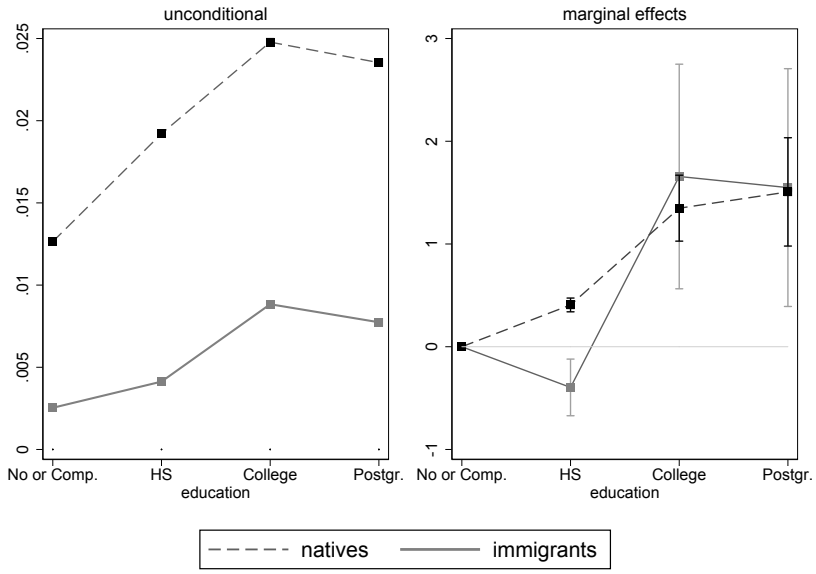
$$\begin{aligned} Y_{imt} &= \alpha + \alpha^M \times M_{imt} + \sum_{e=2}^{4} (\beta^e_{edu} I^e_{imt} + \gamma^e_{edu} I^e_{imt} \times M_{imt}) + \sum_{a=2}^{n} \left(\beta^a_{age} I^a_{imt} + \gamma^a_{age} I^a_{imt} \times M_{imt}\right) + \\ &+ \beta_{sex} I^s_{imt} + \gamma_{sex} I^s_{imt} \times M_{imt} + X'_{imt}\delta + \theta_m \times \tau_t + \epsilon_{imt} \end{aligned} \quad (1)$$

where the dependent variable Y_{imt} identifies whether individual i living in municipality m runs for office at time t; I^e_{imt} are indicator variables specifying the educational attainment of individual i ($e = 2, 3, 4$ indicating completed high school, college and postgraduate education, respectively, with high school dropouts as the omitted category); M_{imt} is a dummy variable taking value one if the individual is foreign born; I^a_{imt} are indicator variables for five-year age intervals, composed of individuals between 29 and 63 years of age (the omitted group being 24 to 28); I^s_{imt} is a

[21] Dancygier et al. 2015 find similar effects on the probability of being elected for immigrants in Sweden.

dummy identifying females; and X_{imt} is a vector of individual characteristics (e.g., marital and employment status). Finally, θ_m and τ_t are sets of municipality and year dummies, respectively. Their interactions account for all time-varying factors specific to each municipality, that may influence the probability to run for office. For example, these include the size of the immigrant population, that as shown in the literature might affect individual's (both native and immigrant) decision to seek candidacy (e.g. Folke et al. 2017), as well as accounting for native attitudes towards immigrants and other local socio–economic factors.[22]

Figure 3: Probability of running for office by education



Source: Norwegian Population Register. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63 and pool 3 elections (2007, 2011 and 2015). The right panel shows the per cent increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education, separately for immigrants and natives.

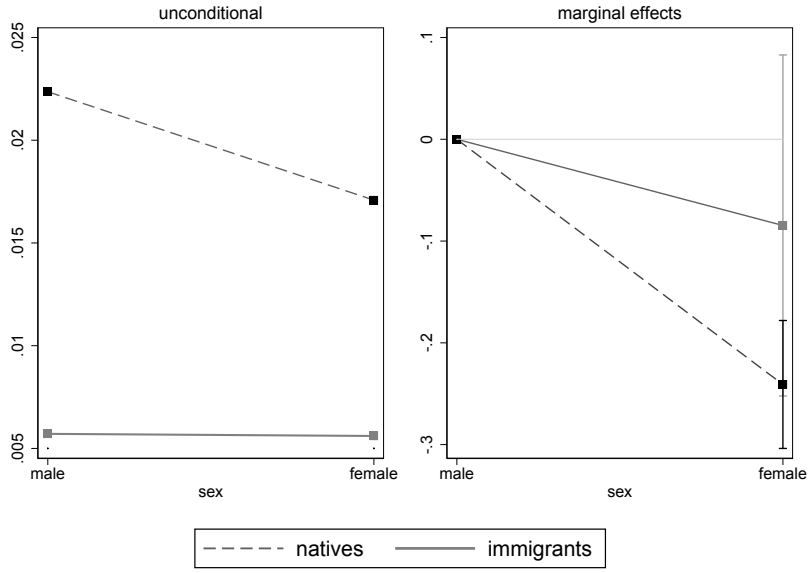
The marginal effects of different education levels for natives and immigrants are given by β^e_{edu} and $\beta^e_{edu} + \gamma^e_{edu}$, respectively, which indicate the percentage-point difference in the probability of running for office for individuals with education level e, relative to high school dropouts within each of the two groups. Since the probability of running for office for a high-school dropout differs between natives and immigrants, the marginal effect of education can be more clearly interpreted in percentage terms, by normalizing the estimated coefficients by the respective baseline probability. We plot the normalized coefficients in the right panel of Figure 3.[23] As we can see, while native high school graduates are 40 per cent more likely to run for office than their counterparts who have not completed this level of education, among immigrants, the effect of high school completion is

[22] In an additional robustness check, we also allowed for the effect of municipality-year-specific characteristics to vary between natives and immigrants by inserting in the specification the triple interaction $\theta_m \times \tau_t \times M_{imt}$. We show in Table A.1 that the marginal effects of interest are not affected by alternative combinations of fixed effects.

[23] The baseline probability for immigrants who have completed at most compulsory education is 0.25 per cent; the corresponding figure for natives is 1.26 per cent.

negative (-40 per cent). On the other hand, the marginal effect of college education is positive for both (135 and 165 per cent for natives and immigrants, respectively) and not significantly different between the two groups. Finally, a postgraduate education has a similar, positive effect for both groups but no additional effect relative to college for either group.

Figure 4: Probability of running for office by gender



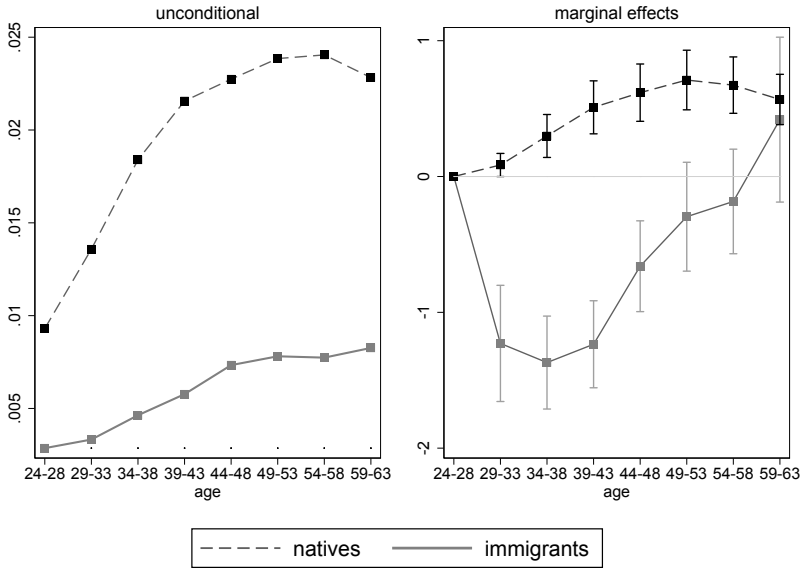
Source: Norwegian Population Register. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 elections (2007, 2011 and 2015). The right panel shows the per cent increase in the probability to run for office relative to males, separately for immigrants and natives.

In Figure 4, we investigate instead the effect of gender. In the left panel, we report the raw percentage of candidates for natives and immigrants by gender. Interestingly, while female natives are less likely to run for office than their male counterparts, this is not true for immigrants: female immigrants are as likely as males to seek office. In the right panel, we follow the same strategy as in Figure 3 and account for individual-level heterogeneity. In particular, we report our estimates of β_{sex} and $\beta_{sex} + \gamma_{sex}$ normalized by the baseline (i.e., males' likelihood of standing for election), capturing the per cent difference in the likelihood of running for office for female natives and immigrants, respectively, relative to males in the same group.[24] We still find that native women are more than 20 per cent less likely than males to run for office, a difference that declines to less than 10 per cent among immigrants and is no longer statistically significant.

Finally, in Figure 5, we study the effect of age. In the left panel, we report the raw percentage of candidates among natives and immigrants by age at five-year intervals. The likelihood of running for office increases steadily with age for immigrants. For natives, it also increases, but peaks at 54-58. In the right panel, we account for individual-level heterogeneity and report our estimates

[24]The baseline probability for immigrant males is 0.57 per cent; the corresponding figure for natives is 2.2 per cent.

Figure 5: Probability of running for office by age



Source: Norwegian Population Register. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 elections (2007, 2011 and 2015). The right panel shows the per cent increase in the probability of running for office for each age group, relative to the baseline 24-28, separately for immigrants and natives.

of β^a_{age} and $\beta^a_{age} + \gamma^a_{age}$ normalized by the baseline (i.e., the likelihood of standing for election for individuals aged 24-28 in the same group) capturing the per cent difference in likelihood of running for office for natives and immigrants, respectively, in age group a, relative to individuals aged 24-28 in the same group.[25] As shown by the dashed line, this likelihood is increasing with age for natives until their early fifties and declines slightly thereafter. The corresponding path for immigrants is different, as shown by the solid line. Up to the early forties, age does not appear to affect the likelihood of running for office, except for an initial decline. Starting from the early forties onwards, the effect of age appears similar to that of natives, shifted 15 years forward.

In summary, our analysis thus far has highlighted several interesting stylized facts. First, immigrants do run for local office, even if they are less likely to do so than natives. Second, the role played by education differs between the two groups, and this is also true for age and gender. To understand what drives these patterns, in the next section, we will develop a simple theoretical framework that can be used to guide our investigation.

4 Model

We study the decision to run for office in local elections, extending the Roy model of candidacy recently proposed by Dal Bo et al. (2017) by allowing for two groups that differ in their labour

[25] The baseline probability for immigrants aged 24-28 is 0.28 per cent; the corresponding figure for natives is 0.93 per cent.

market position. Natives and immigrants are heterogeneous along two dimensions, i.e., "ability" (y_i, $i = M, N$) and "intrinsic motivation" (p_i, $i = M, N$). Furthermore, we assume that immigrants' talents are rewarded less than those of natives in the Norwegian labour market, because of the well-known difficulties immigrants face upon arrival in the destination country. As a result, an immigrant will earn only a fraction $(1-c)$ $(0 < c < 1)$ of what a similarly talented native earns.[26] To keep the analysis simple, we will assume that ability and motivation are bounded above and jointly uniformly distributed over a convex set: $(y_i, p_i) \in T_i$, with $y_i \in [0, \overline{Y}]$ and $p_i \in [0, \overline{P}]$.[27]

Individuals live for two periods, and there is no discounting. The decision to enter politics is taken in period 1 and is not reversible. If individuals do not enter politics in period 1, they earn an income that is proportional to their ability. In other words, natives earn an income y, whereas immigrants earn an income $(1-c)y$. In the second period, due to seniority, earnings increase by a factor of $\delta_i > 1$, $i = M, N$, and immigrants' economic assimilation would imply $\delta_M > \delta_N$.

If individuals decide instead to enter politics, they will be allowed to run and will be elected to office with probability $q(y)$, and if elected, they will enjoy an ego rent $\frac{p_i}{2}$ in each of the two periods.[28] Elected individuals will also have to forgo some career prospects, and while their first-period earnings will continue to be y $((1-c)y)$ for natives (migrants), in the second period, their expected earnings will be given by $\delta_i \theta y$ with $0 < \theta < 1$. Following Dal Bo et al. (2017), the parameter θ captures the reduction in second-period earnings due to the choice of a political career.[29] Some of the first-period council members are appointed mayors in the second period and earn a wage $w < \overline{Y}$, which is identical for natives and immigrants, in addition to enjoying the ego rent $\frac{p_i}{2}$. Election to mayor occurs with probability π.

A native decides to become a politician if and only if:

$$(1+\delta_N)y \leq [1-q(y)]\,(1+\delta_N)y + q(y)\,\{p_N + y[1+\theta\delta_N](1-\pi) + (y+w)\pi\} \tag{2}$$

In other words, the total return from employment $(1+\delta_N)y$ must be smaller than the expected return from running for office. The latter is given by the sum of what the candidate would earn if she were not elected to office in the first period and the expected earnings she would earn if elected to office in the first period and possibly becoming a mayor in the second. These conditions

[26] For tractability, we do not allow c to vary with individual ability levels.

[27] In other words, we abstract from immigrant selection issues. Our model could be generalized to allow for differences in the domains of both ability and motivation between natives and immigrants, without affecting the basic trade-offs identified in our analysis. However, this would imply taking a stance on these characteristics, and we prefer not to do so.

[28] Note that while we do not explicitly model the decision of whether to remain in politics after the end of the second period, our ego rent can capture the potentially heterogeneous future labour market returns accruing to politicians as a result of their experience in office.

[29] In the Appendix, we study the behaviour of the model when $\theta > 1$, i.e., when being a part-time politician in the second period enhances one's labour market returns, as in Kotakorpi, Poutvaara, and Terviö (2017).

for an immigrant become:

$$(1-c+\delta_M)y \leq [1-q(y)]\,(1-c+\delta_M)y+q(y)\,\{p_M+y[1-c+\theta\delta_M](1-\pi)+[(1-c)y+w]\pi\} \quad (3)$$

with an analogous interpretation. Rearranging, the two equations can be rewritten as:

$$p_N+\pi[w-\theta\delta_N y] \geq \delta_N y(1-\theta) \quad (4)$$

and

$$p_M+\pi[w-\theta\delta_M y] \geq \delta_M y(1-\theta) \quad (5)$$

The first term on the left-hand side of equations 4 and 5 captures the ego rent associated with being in office for natives and immigrants, respectively; the second term captures the expected income gain from being elected mayor. To choose a political career, the expected gain from running for office needs to be larger than the opportunity cost of doing so in terms of career prospects. Comparing the right-hand sides of equations 4 and 5, we can see that once again these career prospects are greater for immigrants than for natives.

Rearranging equations 4 and 5, we have:

$$p_N \geq [\pi\theta+(1-\theta)]\delta_N y-\pi w \quad (6)$$

and

$$p_M \geq [\pi\theta+(1-\theta)]\delta_M y-\pi w \quad (7)$$

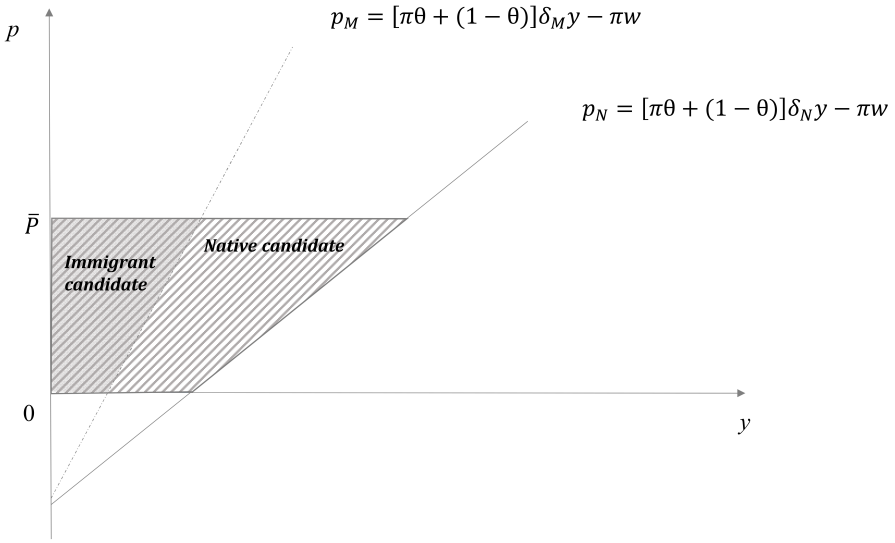
Figure 6 illustrates the decision to enter politics, and the two shaded areas highlight when a native (dashed area) and an immigrant (grey area) will do so.[30] We use this framework first to characterize the likelihood of running for office for both natives and immigrants and then to analyse differences in the selection patterns between the two groups. Our first result highlights the role played by the returns to labour market experience in explaining the differences in the expected probability of becoming a candidate.

Proposition 1 *If the return to labour market seniority is greater for immigrants than for natives, immigrants will be less likely than natives to run for office.*

Proof. See Appendix.

[30] Note that in drawing the picture, we have assumed for simplicity that some individuals' ability is high enough that even if they have the highest possible intrinsic motivation, they will never run for office. In other words, $\overline{Y} > \frac{\pi w+\overline{P}}{[\pi\theta+(1-\theta)]\delta_N}$. We will retain this assumption throughout our analysis.

Figure 6: Running for office



Intuitively, since immigrants enjoy a higher return to labour market experience than natives, ceteris paribus, they will have a higher opportunity cost of running for office, and as a result, they will be less likely to do so.

We can now consider some interesting comparative statics results. In particular, we will study how the likelihood of running for office is affected by i) the returns to experience; ii) the wage earned by full-time politicians; and iii) the likelihood of becoming a full-time politician. Our results are summarized below.

Proposition 2 *The following holds:*

i.) An increase in the returns to the labour market experience of immigrants relative to that of natives decreases immigrants' likelihood of running for office relative to natives (and vice versa).

ii.) If the wage earned by a full-time politician w is above than a threshold $\underline{w}$, where $\underline{w} = \frac{\overline{P}\theta}{2(1-\theta)}$, then an increase in the probability of being elected mayor increases the likelihood that both natives and immigrants will run for office; the opposite is true if $w < \underline{w}$. Moreover, the same increase has a greater effect on the group that has the smaller return to labour market experience.

iii.) An increase in the wage earned by a professional politician increases the likelihood that both natives and immigrants will run for office; moreover, the same increase has a greater effect on the group that has the lower return to labour market experience.

Proof. See Appendix. ■

The intuition for the first result in proposition 2 is the same as that for proposition 1. As for part *ii.)*, becoming mayor implies completely forgoing any outside employment opportunity. Therefore, an increase in the probability of becoming a full-time politician makes it more attractive to run for office only if the politician's wage is sufficiently high – or, correspondingly, if the fraction of time γ dedicated to political activity by simple councillors is already quite large, as in this case the additional cost in terms of forgone labour market returns will be small. Moreover, in this case, the heterogeneity between natives and immigrants is driven by the difference in their return to experience. Finally, the intuition for part *iii.)* is straightforward: a higher wage for the mayor makes it, ceteris paribus, more attractive to run for office. However the effect is larger for natives than for immigrants if the latter have higher returns to experience.

5 Explaining Candidacy

In this section, we study whether the patterns of selection into politics we have highlighted in our descriptive analysis can be rationalized through the lens of the theoretical framework we developed in the previous section. We begin by considering the role of differences in the return to labour market experience between immigrants and natives and turn next to study the direct effect of the returns to undertaking a political career.

5.1 The role of the return to labour market experience

The key parameters in our theoretical analysis are δ_M and δ_N, i.e., the returns to labour market experience for immigrants and natives. We therefore begin by estimating this parameter separately for natives and immigrants by running the following model:

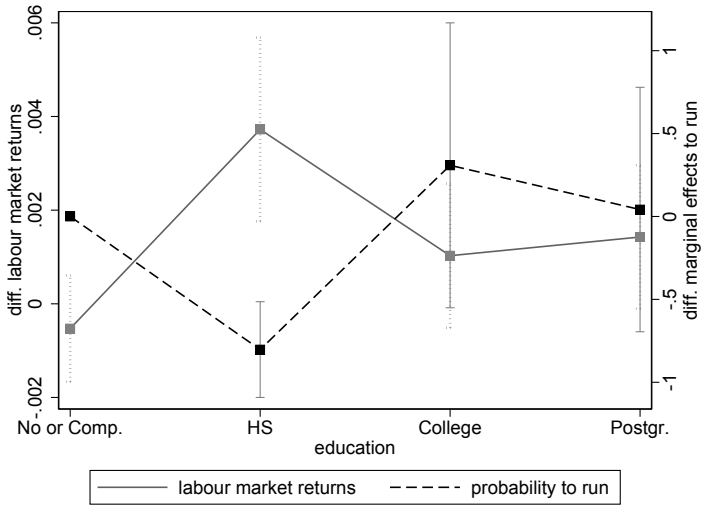
$$\log w_{imt} = \rho Experience_{imt} + \lambda Experience_{imt} \times M_{imt} + X'_{imt}\kappa + \beta M_{imt} + \theta_m \times \tau_t + v_{imt} \qquad (8)$$

where w_{imt} are hourly wages and $Experience_{imt}$ is potential Norwegian labour market experience, which is defined as follows: for natives and immigrants who acquired their highest educational qualifications in Norway, it is the current age minus the age at which the individual left full-time education; for immigrants who came to Norway after completing their education, experience is instead defined as years since migration. X_{imt} is a vector of control variables including dummies for gender, marital status, five-year age intervals for individuals aged between 29 and 63 (the omitted group being those aged 24 to 28) and for the four education groups defined earlier (with high school dropouts being the omitted category), and M_{imt} is an indicator for immigrant status,

whereas the interactions of the municipality and year fixed effects θ_m and τ_t account for all time-varying factors specific to each municipality. The parameter ρ represents the returns to experience, i.e., the opportunity cost of running for office for natives, whereas λ measures the difference in this return between natives and immigrants. A positive λ would therefore imply that an additional year of Norwegian labour market experience has a higher value for an immigrant than for a comparable native (i.e., in terms of our theoretical model that $\delta_M > \delta_N$).[31]

Our estimates indicate that each year of experience increases hourly wages by 0.29 per cent for natives and by 0.50 per cent for immigrants,[32] confirming the well-established pattern that wage growth is, on average, faster for immigrants than for natives (Barth et al. 2004). This higher return to labour market experience is consistent with the observed lower likelihood of immigrants running for office relative to natives highlighted in Proposition 1.

Figure 7: Returns to labour market experience and the likelihood of running for office: Immigrant-native gaps by education



The figure reports on the left axis the difference in the returns to an additional year of Norwegian labour market experience between immigrants and natives for each education group. The right axis measures instead the difference between immigrants and natives in the percentage increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education. Immigrants are foreign-born individuals to immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 elections (2007, 2011 and 2015). Source: Norwegian Population Register.

A second prediction of our model (see part 1 of Proposition 2) is that the immigrant-native difference in the probability of running for office varies across subgroups of the population in a way that mirrors the immigrant-native differences in returns to labour market experience. In particular, an increase in the returns to labour market experience for immigrants relative to natives decreases the likelihood of running for office for immigrants relative to natives (and vice versa).

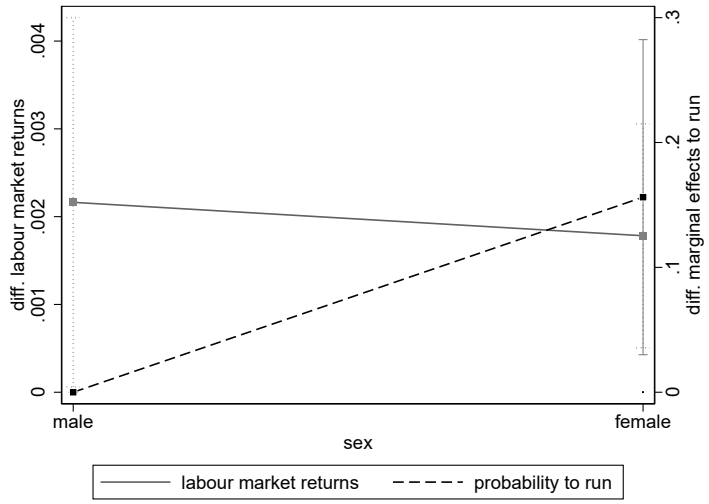
[31] Note that we are interested in measuring the overall gain from an additional year of labour market experience and the differences between natives and immigrants and not in identifying the reasons for these differences. With this in mind, we do not include in our models controls for occupation, sector of employment, or other such characteristics.

[32] In particular, we estimate the following coefficients in equation 8: $\rho = 0.0029$ (s.e. 0.00069) and $\lambda = 0.0021$ (s.e. 0.00091).

This proposition can therefore shed light on the patterns of selection into politics on education, gender and age, which we discussed in Section 3 of the paper. To empirically assess this prediction, we need to obtain separate measures of the returns to labour market experience for each different education level, gender and age group. To this end, we estimate appropriately modified versions of equation 8.[33]

Figure 7 plots – for each education category – the difference between immigrants and natives in returns to experience (solid line, measured on the left axis), i.e., our estimates of the parameter λ in equation 8, versus the difference between immigrants and natives in the marginal effect of education on the probability of seeking office, i.e. the estimates of γ^e_{edu} from equation 1 – normalized by their respective baselines (dashed line, measured on the right axis). The graph shows that the evolution of the differentials in the marginal effect of education on the probability of running is a mirror image of the evolution of the returns to labour market experience. These findings provide support for the channel highlighted in the theoretical model.[34]

Figure 8: Returns to labour market experience and the likelihood of running for office: Immigrant-native gaps by gender



The figure reports on the left axis the difference in the returns to an additional year of Norwegian labour market experience between immigrants and natives by gender. The right axis measures instead the difference between immigrants and natives in the percentage increase in the probability of running for office for women relative to men. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 elections (2007, 2011 and 2015). Source: Norwegian Population Register.

Similarly, we plot in Figure 8 the difference between immigrants and natives in returns to

[33] In particular, focusing on education, we estimate four separate equations, one for each education group; turning to gender, we estimate two equations, one for males, the other for females, and finally, focusing on age, we estimate eight different equations, one for each age group. The set of dummy variables included in X changes depending on the dimension we are focusing on, e.g., in the models by education, we include only age and gender dummies in addition to marital status.

[34] More than 70% of all immigrants have acquired their education before moving to Norway and this share is even higher among candidates (80%). In Appendix Figure A.1 we show the results separately for immigrants that arrived in Norway before and after they completed their studies. As expected, our results are driven by the first group.

experience by gender (solid line, measured on the left axis), versus the corresponding immigrant-native differences in the marginal effect of gender (where the reference category is male) on the probability of seeking office (dashed line, measured on the right axis). Again in this case, the graph shows that the evolution of the differentials in the marginal effect of gender on the probability of running is a mirror image of the evolution of the returns to labour market experience, which is consistent with our theoretical framework.

Finally, in Figure 9a, we plot for each age category the difference between immigrants and natives in returns to experience (solid line, measured on the left axis), versus the difference between immigrants and natives in the marginal effect of age on the probability of seeking office (dashed line, measured on the right axis). The figure is only partly consistent with our theoretical predictions. In fact, although the two lines look like mirror images of one another up to the 34-38 age group, they begin co-moving thereafter. One possible reason for this trend is that the immigrants in different age groups differ not only in their returns to labour market experience but also in the amount of time they have spent in Norway. Since it is plausible that attachment to Norway and therefore intrinsic motivation to engage in politics increases with the time spent in the country, it is possible that immigrants in the older age cohorts have a higher probability of running in elections because – in terms of our model – they enjoy a higher ego rent from office. To further investigate this possibility, we therefore repeat the exercise in Figure 9b focusing on the subgroup of immigrants who have been in Norway for less than fifteen years and are therefore likely to be more homogeneous in their intrinsic motivation to run.

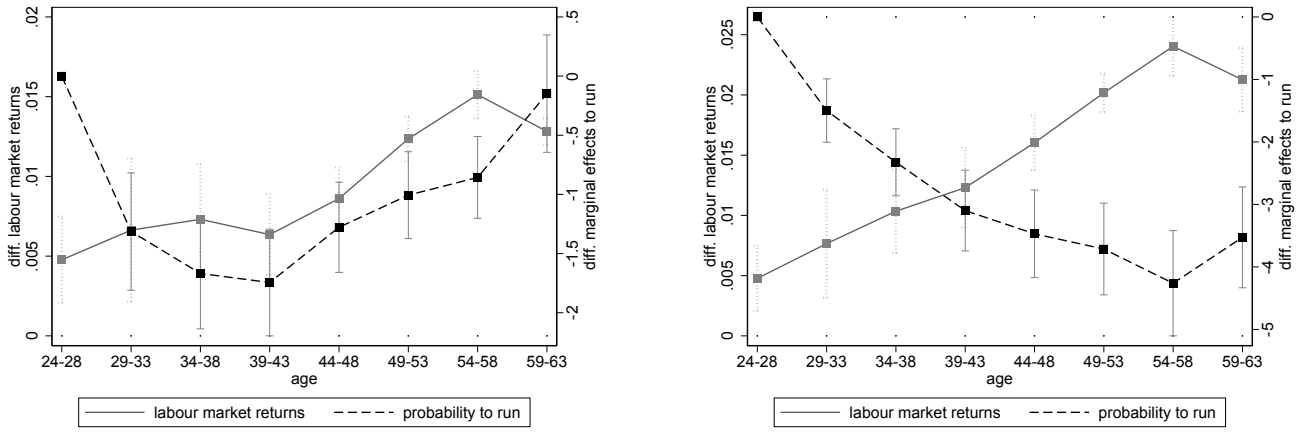
Once we restrict our attention to this more homogeneous group, the results are very much in line with our theoretical expectations, suggesting that once differences in intrinsic motivation are accounted for, our model performs well at explaining the observed selection.

In the remainder of the paper we will focus on results by education category. Those by gender and age are available upon request from the authors.

5.2 The direct returns to a political career

The last two results in Proposition 2 are comparative statics exercises highlighting the impact of changes in the (exogenous) probability of becoming a full-time politician and in the income earned in that role. In particular, part *ii)* states that the probability of becoming mayor increases the likelihood of running for office if and only if the wage earned by a full-time politician is sufficiently high and vice versa; part *iii)* emphasizes instead that the higher the wage earned by a professional politician, the higher the likelihood that an individual will run for office. Both mechanisms are at work for natives and immigrants. However, the model predicts that each of the two effects will be larger for natives because of their lower average return to labour market experience.

Figure 9: Returns to labour market experience and the likelihood of running for office: Immigrant-native gaps by age



(a) All immigrants

(b) Recent immigrants

The figures report on the left axis the difference in the returns to an additional year of Norwegian labour market experience between immigrants and natives by age. The right axis measures instead the difference between immigrants and natives in the percentage increase in the probability of running for office for each age group relative to the baseline 24-28. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 elections (2007, 2011 and 2015). The right panel includes only immigrants who have less than 15 years of experience in Norway. Source: Norwegian Population Register.

To assess these predictions, we estimate the following model:

$$Y_{imct} = \alpha + \sum_{j=N,M} I^j_{mct}(\beta^j \, \pi_{mct} I\{w_{mct} < \underline{w}\} + \gamma^j \, \pi_{mct} I\{w_{mct} \geq \underline{w}\} + \delta^j w_{mct}) + X'_{imt}\eta + \theta_c \times \tau_t + \epsilon_{imct} \tag{9}$$

where Y_{imct} is a binary variable for either being a candidate or for being a bolded candidate of a credible party;[35] I^N_{mct} and I^M_{mct} are dummy variables indicating natives and immigrants, respectively; π_{mct} is the ex ante probability of becoming a mayor; w_{mct} is, for each municipality, the wage earned by mayors relative to average earnings; $I\{w_{mct} < \underline{w}\}$ and $I\{w_{mct} \geq \underline{w}\}$ are indicator variables capturing whether the mayor's relative wage is below or above the threshold $\underline{w}$, respectively; X_{imt} is a vector of control variables including education, gender, age, marital and employment status and a set of dummies for municipality size; and θ_c and τ_t are county and year fixed effects, respectively, and their interaction accounts for all time-varying factors specific to each county.[36]

Note that the empirical counterpart of the exogenous probability of becoming a mayor introduced in our model is not immediately available. To construct it, we followed a conservative approach, assuming that ex ante all individuals have the same likelihood of becoming mayors if they decide to run for a credible party. Specifically, the probability π of becoming mayor is the product of the probability of being elected to office if running for a credible party $p_{council}$ and the

[35] To facilitate the interpretation of the coefficient, the binary variable takes value 0 or 100.

[36] Note that our main explanatory variables vary only at the municipality level and exhibit little variation over time. For this reason, we cannot include municipality fixed effects.

probability p_{mayor} of being appointed mayor if a member of the municipal council:

$$\pi = p_{council} \times p_{mayor} \tag{10}$$

where $p_{council}$=1/Maximum number of candidates of credible parties, and p_{mayor}=1/Number of councillors.

Table 3: The direct returns to a political career

	(1)	(2)
Below $\underline{w}$		
Probability to become mayor - *natives*	-0.023	-0.020
	(0.174)	(0.175)
Probability to become mayor - *immigrants*	-2.432***	-2.444***
	(0.276)	(0.277)
Above $\underline{w}$		
Probability to become mayor - *natives*	2.255***	2.229***
	(0.700)	(0.703)
Probability to become mayor - *immigrants*	0.857	1.450***
	(0.576)	(0.433)
Relative mayor wage - *natives*	0.076	0.094*
	(0.055)	(0.055)
Relative mayor wage - *immigrants*	0.162**	0.059
	(0.069)	(0.051)
Oslo excluded	No	Yes
Other controls	Yes	Yes
County FE × Year FE	Yes	Yes
Observations	6,365,268	5,395,310

Source: Norwegian Population Register. Individuals in the age group 24-63 and we pool 3 election years 2007, 2011 and 2015. Standard errors are clustered at the municipality level. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.
Notes: Variables are standardized using national mean and standard deviation. Other controls include dummies for immigrant status, education, gender, age, marital status, employment and municipality size. Below and above $\underline{w}$ refers respectively to whether the mayor's relative average wage is below or above the 7th decile of the distribution of mayor wages computed for each election year separately. Probability to run rescaled between 0 and 100. The estimated coefficients are the marginal effects of each variable, separately for natives and immigrants.

According to our model, $\beta^j < 0$, for $j = N, M$ and $\beta^M \leq \beta^N$ – namely if the mayor's wage is sufficiently low, a higher probability of becoming mayor has a negative effect on the likelihood of running for office, and the effect is stronger for immigrants who have higher returns to labour market experience. Moreover, $\gamma^j > 0$, for $j = N, M$ and $\gamma^M \leq \gamma^N$ – when the mayor's wage is above the threshold $\underline{w}$, a higher probability of becoming a full-time politician increases the

likelihood of running for office, and the effect is stronger for natives. Additionally, the model suggests that $\delta^j > 0$ for $j = N, M$, i.e., a higher relative wage for mayors has a positive effect on the probability of running for office. Moreover, it predicts that $\delta^M \leq \delta^N$ – in other words, the effect should be stronger for natives than for immigrants.

Our results, reported in Table 3, offer broad support for the theoretical predictions. Our benchmark analysis defines the threshold for the relative mayor's wage at the 7th decile of the national distribution, but our results are robust to alternative cutoffs and are reported in section 7. To facilitate the interpretation of the coefficients, both π and w have been standardized. In column (1), we estimate the model on the full sample when the dependent variable is the probability of becoming a candidate. As expected, a higher probability of becoming a mayor is negatively correlated with the likelihood of running for both natives and immigrants below the threshold $\underline{w}$; the effect is large and strongly significant for immigrants and smaller and very imprecisely estimated for natives. Conversely, for sufficiently high values of the mayor's relative wage, the effect becomes positive and is considerably stronger for natives. Finally, an increase in the mayor's wage has a positive effect on the likelihood of running for both immigrant and natives, but despite the different point estimates, the two coefficients are not significantly different from one another.

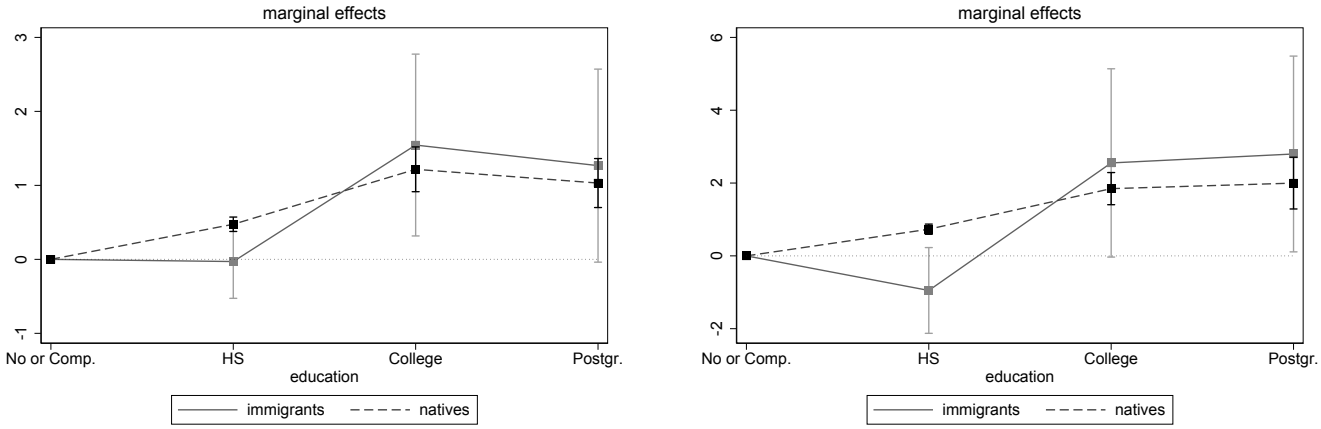
A seat on a municipal council in a large city may often be a starting point for a career in national politics.[37] Our simple model is not designed to capture the incentives involved in this case. For this reason, in column (2), we repeat the same exercise while excluding Oslo, by far the largest municipality in the country, and in Section 7, we assess the robustness of our results to the exclusion of other large cities. The findings are qualitatively similar, although the point estimates are slightly smaller.

6 The Role of Political Parties

It is well known that party officials play an important role in the formation of the electoral slate, and this is particularly true for party-based systems such as the Norwegian one. In particular, they may act as gatekeepers and shape the characteristics of individuals running for office, potentially discriminating against ethnic minorities and immigrants – as shown for example by Dancygier et al. (2015) in the case of Sweden. While selection on the "demand side" – i.e., by political parties – is likely to affect the overall composition of the electoral roster, our analysis thus far has focused on the role of individual self-selection into politics. Our results indicate that the immigrant-native differences in the specific patterns of selection on education, gender and age are

[37] Note that applies only for Norwegian citizens, as foreign nationals are not allowed to run for parliamentary elections.

Figure 10: Probability of running for office by education: Labour vs. Conservatives



(a) Labour Party

(b) Conservative Party

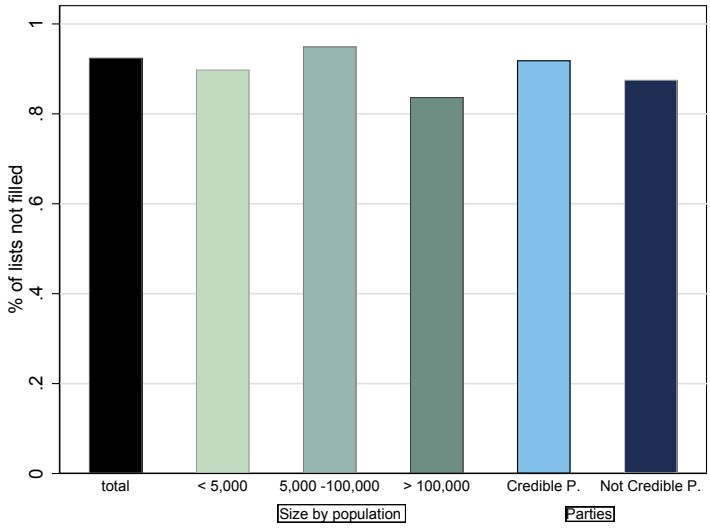
Source: Norwegian Population Register. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63 and pool 3 elections (2007, 2011 and 2015). The figure shows the per cent increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education, separately for immigrants and natives.

consistent with the immigrant-native gap in labour market returns. These returns are likely to drive an individual's decision to run for office – as highlighted in our theoretical model. On the other hand, there is no obvious reason to believe that they would similarly affect party officials' choices, which are likely driven by electoral considerations. In other words, what is required for our conclusions regarding the self-selection mechanism to be valid is not that party officials do not play a role but that the criteria they follow in compiling electoral lists are orthogonal to those driving individuals' decisions to seek office.

In this section, we begin by investigating the role played by the main parties in selecting candidates. Next, we contrast selection patterns in contexts that are arguably characterized by a more important role being played by political organizations with others in which they are less likely to be key actors. Specifically, since in the vast majority of elections, parties are unable to find a sufficient number of suitable candidates to fill their lists, we can compare "full" and "non-full" slates to contrast a setting in which capacity constraints on the maximum number of candidates are binding, and thus selection by party officials can be crucial, and one in which the characteristics of the candidates are more likely to be determined by the supply side. Finally, we juxtapose elections in urban areas – where party machines are typically more effective – and those in rural areas – where political organizations are likely less structured.

As discussed in Section 3, parties differ significantly in the likelihood of fielding immigrant candidates, with left-wing political forces typically exhibiting a higher share of foreigners on their lists. While these differences might be driven by many factors, what is crucial for the interpretation of our results is that the role of individual characteristics is similar across the main parties.

Figure 11: Share of lists with available candidate slots



Reassuringly, as we show in Figure 10, the marginal effect of education on the probability of running for office is similar for the two main parties – i.e. Labour and the Conservatives – that on average secured well over 50 per cent of the total available seats over the period we consider.[38]

Parties typically aim to compile a broad list to increase electoral support, but as argued by Ringkjøb and Aars (2010) they often experience difficulties in finding enough candidates to fill the electoral slate. Our data provide systematic evidence on this matter. In particular, Figure 11, illustrates the share of party lists that are not completely filled.[39] On average, over 90 per cent of all lists are not at full capacity, and this finding continues to hold across all municipality sizes and parties. Even in the five largest cities with over 100,000 inhabitants, where the maximum number of candidates is more likely to be binding, more than 80 per cent of the lists would have had space for additional individuals willing to run for office. Importantly, both credible and non-credible parties had many empty slots on their lists, and interestingly, the share of lists that were not completely filled is higher – at 92 per cent – for credible than for non-credible parties. Moreover, on average, parties fill only 68 per cent of the maximum available slots.

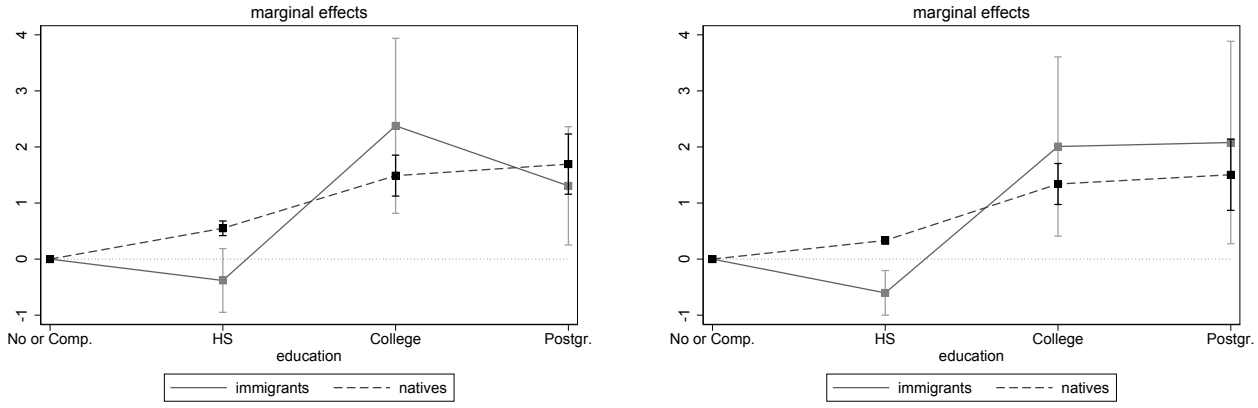
It is likely that the demand side of the selection process, which is shaped by local party officials, is different for "full" and "non-full" lists. Therefore, finding similar selection patterns in the two cases would support the idea that such patterns are driven by candidates' self–selection. To this end, in Figure 12, we separately study the marginal effect of education on the probability of running for office if the candidate runs on a "full" (left panel) or "non-full" list (right panel).[40]

[38] We have repeated the same exercise for the Centre Party and for a residual group (other parties), as well as for the marginal effects of gender and age. The results – reported in Figure A.2 – are broadly similar, except for the Centre Party, for which immigrants consistently make up less than one per cent of the candidates.

[39] See section 2.2 for details on the maximum number of candidates that can be put on the slate.

[40] Note that in the figure, we define a list as "full" if all available slots are filled and as "non-full" if at least 30 per cent of the slots are not filled. We experimented with alternative thresholds and obtained broadly similar results.

Figure 12: Probability of running for office by education: "Full" vs. "Non-full" lists



(a) "Full lists" (b) "Non-full lists"

Source: Norwegian Population Register. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63 and pool 3 elections (2007, 2011 and 2015). The figure shows the per cent increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education, separately for immigrants and natives.

Our findings highlight some interesting patterns.

First, among native candidates running on "full lists", relative to the benchmark of having at most completed compulsory education, there is a positive, significant and broadly monotonic marginal effect of education on the likelihood of running for office. Among immigrants, this effect is instead non-monotonic and not always significant. Among candidates running on "non-full lists", the marginal effects of education are broadly similar for natives and immigrants and are more precisely estimated. In particular, while native high school graduates are more likely to run for office than their counterparts who have at most compulsory education, the opposite is true for immigrants. Interestingly, the patterns observed in both panels are in line with those revealed in the full sample (see Figure 3), suggesting once again that in local elections, "supply" side factors play a key role in shaping candidate selection.[41]

While in urban areas, political parties are better organized and have a well-functioning organizational structure, this is less likely to be true in rural areas. Hence, parties may exercise more control over the composition of the electoral slate in cities than in the countryside. To investigate whether this leads to differences in the patterns of candidate selection, we compare the marginal effects of education on the likelihood of seeking office for immigrants and natives across geography. Reassuringly, the results (reported in Appendix Figure A.3) are very similar in both cases, providing additional evidence on the importance of supply-side determinants.

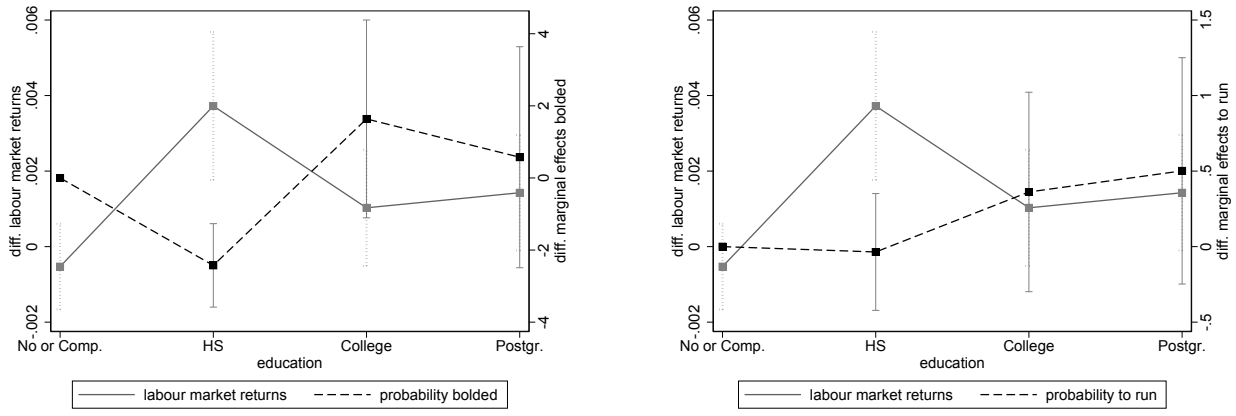
[41] Results focusing on the marginal effects of gender and age are broadly similar and are available upon request.

7 Additional Results and Robustness Checks

The simple theoretical model we developed in Section 4 focuses on the decision to run for office and emphasizes the role played by labour market incentives. In this section, we provide additional evidence supporting the mechanisms highlighted in our analysis. We begin by re-examining the central role of labour market incentives, highlighting how they differ depending on the individual degree of labour market attachment. Second, we explore the heterogeneity of our findings across origin countries and between naturalized and non-naturalized immigrants, showing that our main insights continue to hold across all groups. Finally, we conduct a series of robustness checks on the effects of the direct returns to a political career.

7.1 The role of labour market incentives

Figure 13: Returns to labour market experience and the likelihood of running for office: Immigrant-native gaps by party type



(a) Bolded, credible parties

(b) Non-credible parties

The figure reports on the left axis the difference in the returns to an additional year of Norwegian labour market experience between immigrants and natives by education. The right axis measures instead the difference between immigrants and natives in the percentage increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 elections (2007, 2011 and 2015). Source: Norwegian Population Register.

Our theoretical analysis highlights the role played by the opportunity cost of running for office in explaining the patterns of selection of immigrants and natives into politics: when deciding to enter an electoral race, candidates trade-off labour market returns against the expected benefit from being in office. However, if they have low attachment to the labour market or do not stand a realistic chance of election, this trade-off will not be practically relevant. We consider two contexts in which this might be the case.

First, in Norway, as in other Western democracies, a number of political parties field candidates in local elections. As shown in Table 2, individuals running for minor political groups ex ante have

very limited chances of success, while bolded candidates of credible parties are instead very likely to become council members.[42] For the former, both the expected benefits and costs of running for office are likely to be negligible; for the latter, they will instead be significant.

To assess this hypothesis, we focus on candidates running in bolded positions for credible parties [43] and those who run for non-credible parties.[44] We then replicate our analysis separately for each group and report the results in Figure 13. Analogously to Figure 7 we plot, for each education category, the difference between immigrants and natives in returns to experience[45] (solid line, measured on the left axis) against the normalized difference between immigrants and natives in the marginal effect of education on the probability of seeking office (dashed line, measured on the right axis).

Our results indicate that the predictions of our theoretical model are strongly supported for those candidates who actually face a concrete chance of being elected to office (left panel), whereas they offer less support for those who run for minor parties. In particular, the scattered line depicting differences in the marginal probability of running as a bolded candidate of a credible party in panel (a) mirrors the behaviour of the line depicting differences in returns to experience, whereas this pattern cannot be observed if we consider the candidates running for non-credible parties – see panel (b).

Second, the degree of labour market attachment varies in the population, and we expect our key mechanism to be more likely to be at work the higher the individual engagement with the labour market is. We explore this idea along two different lines. First, we compare inactive individuals and individuals in the labour force and then turn to compare males and females.

The results based on labour market participation are reported in Figure 14. The left panel focuses on the non-active, i.e., individuals aged 24-63 who are not employed and not looking for work, whereas in the right panel, we consider those in the labour force. For the first group, the difference in the marginal effect of education on the likelihood of running for office between natives and immigrants is essentially flat across education levels. This is consistent with the idea that – for individuals out of the labour force – other factors, not differentials in the labour market return, explain differences in the likelihood of being a candidate. Importantly, however, for those in the labour force, the marginal effect of education follows instead the patterns predicted by our

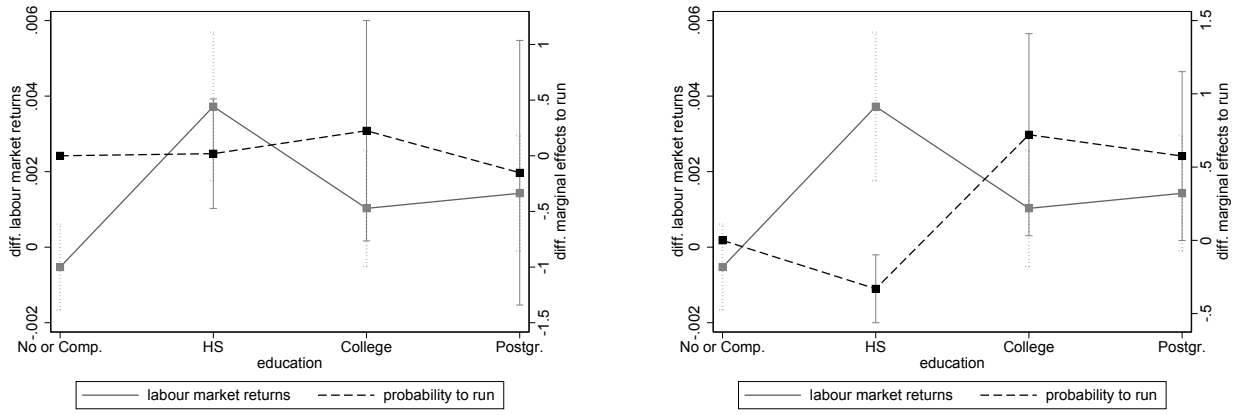
[42] While the probability of being elected from non-credible parties is negligible, bolded candidates running for credible parties have an 80 per cent probability of becoming councillors.

[43] See Section 3 for the definition of a credible party. In total, 95 per cent of candidates run for a credible party. In robustness checks, we adopt alternative definitions of a credible party by 1. excluding minor party lists and joint lists of the main parties and party-independent lists (12 per cent of all candidates) and 2. dropping all party lists that did not receive any seats in the previous election. The results are qualitatively unaffected and are available upon request.

[44] The results for non bolded candidates running for credible parties are analogous to those for bolded candidates and are available from the authors upon request.

[45] Note that these differences are the same for the two figures, as they reflect gaps in the entire population.

Figure 14: Returns to labour market experience and the likelihood of running for office: Immigrant-native gaps by labour market status



(a) Inactives

(b) In the labour force

The figure reports on the left axis the difference in the returns to an additional year of Norwegian labour market experience between immigrants and natives by education. The right axis measures instead the difference between immigrants and natives in the percentage increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 elections (2007, 2011 and 2015). Source: Norwegian Population Register.

theoretical model.

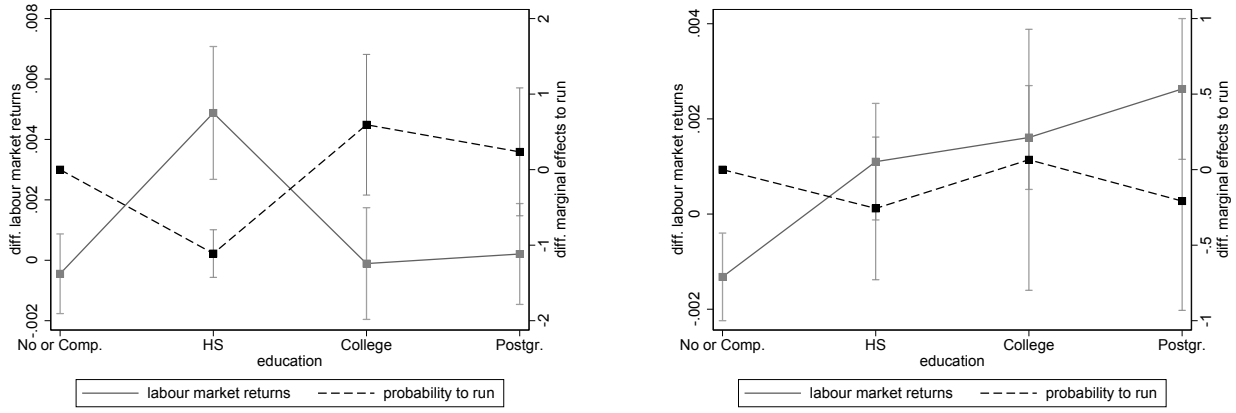
With respect to gender, it is well known that in most countries there are considerable differences in labour market behaviour between males and females. Although the labour force participation of women in Norway is remarkably high at 78.5 per cent for the age group considered, it is still lower than that of males (84.5 per cent). Importantly, women are much more likely than men to be in part-time employment[46] (36 vs. 12 per cent) and, overall, work significantly shorter hours.[47] For this reason, we expect the power of economic incentives to be stronger for male than for female potential candidates.

We investigate whether this is the case in Figure 15. The immigrant-native differential in labour market returns increases monotonically with education for women (right panel), whereas for men (left panel), it displays a non-monotonic pattern, in line with that observed for the entire population. As expected, while the pattern of differential probability of running by education for males closely mirrors the corresponding differential patterns in labour market returns, this is not the case for females. In other words, the average effect we revealed in Figure 7 is driven by male candidates – i.e., the group with higher labour market attachment.

[46] We follow the convention adopted by the Norwegian Labour Force Survey run by SSB, defining part-timers as individuals working less than 36 hours per week (https://www.ssb.no/en/arbeid-og-lonn/statistikker/aku/kvartal/2018-04-26?fane=om). If we use the threshold of 30 hours per week, the share of females decreases to 28 per cent while that of males declines to 7 per cent

[47] 32 vs 36 hours per week, including both part- and full-time workers.

Figure 15: Returns to labour market experience and the likelihood of running for office: Immigrant-native gaps by gender



(a) Males

(b) Females

The figure reports on the left axis the difference in the returns to an additional year of Norwegian labour market experience between immigrants and natives by education. The right axis measures instead the difference between immigrants and natives in the percentage increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 elections (2007, 2011 and 2015). Source: Norwegian Population Register.

7.2 The role of origin countries and citizenship

As we saw in Section 2, immigrants to Norway come from a variety of origin countries that vary substantially in their cultural, linguistic, political and institutional characteristics. Additionally, these immigrants also differ in their citizenship status. Clearly, these are all important factors that are likely to play a role in explaining an immigrant's willingness to run for office in Norway. In this section, we explore this heterogeneity, focusing on three salient dimensions, namely linguistic proximity, type of political regime in the source country and whether individuals have acquired Norwegian nationality.

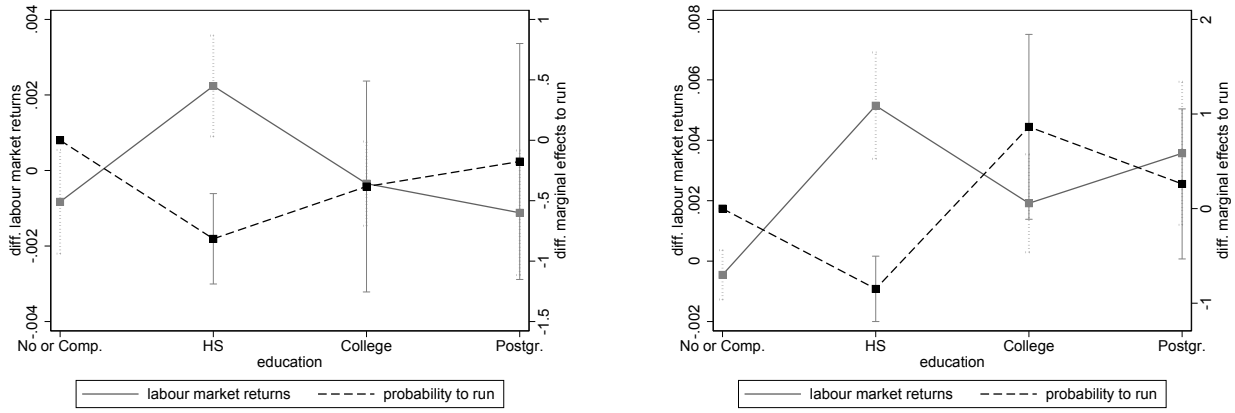
7.2.1 Linguistic proximity

Having a common language has been shown to be an important determinant of migration flows between two countries (Adsera and Pytlikova 2015). Moreover, a vast literature has emphasized the role of local language proficiency in influencing the economic and social success of immigrants at destination (e.g., Dustmann 1994, Dustmann and Van Soest 2001, Bleakley and Chin 2004, Bleakley and Chin 2010), and that the ease of learning the local language is inversely correlated with the distance from the mother tongue (Isphording and Otten 2014).

In our context, proficiency in the destination country's language is likely to have both a direct and an indirect effect on the decision to run for office. On the one hand, it directly facilitates political participation, by granting the immigrant a better understanding of the institutional setting and the political competition; on the other, it will make the gap in the returns to experience

with respect to natives smaller, thus reducing the difference in the opportunity cost of candidacy.

Figure 16: Returns to labour market experience and the likelihood of running for office: Immigrant-native gaps by language



(a) High proximity

(b) Low proximity

The figure reports on the left axis the difference in the returns to an additional year of Norwegian labour market experience between immigrants and natives by education. The right axis measures instead the difference between immigrants and natives in the percentage increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 elections (2007, 2011 and 2015). Source: Norwegian Population Register.

To study the role of language, we measure the proximity of immigrants' mother tongue to Norwegian using the Levenshtein index of linguistic distance. Produced by the Max Planck Institute for Evolutionary Anthropology, this index relies on the phonetic dissimilarity of words in two languages. In particular, it increases with the distance between languages and is based on the minimum number of character changes needed to move from a word expressed in one language to that same word expressed in another (see Bakker et al. (2009) for methodological details).

We consider two subsamples of immigrants defined based on whether the value of the index for their home country falls above or below the median.[48] Foreigners whose language is closer to Norwegian are more likely to run for office than the rest of the immigrant population: while the former have a 0.66 per cent probability of being on the electoral ballot, the same is true for only 0.47 per cent of the latter. In contrast, the corresponding figure for natives is 1.98 per cent. However, this pattern is largely driven by individual- and context-level characteristics:[49] the conditional probability difference with respect to natives is 0.64 percentage points for the former group and 0.69 for the latter, with the two figures not being significantly different from one another.

These results suggest that linguistic distance has a direct effect on political participation. The

[48]The index is defined for 203 countries. The distance with respect to Norwegian ranges between 0 and 102, with a median (mean) value of 92 (82) and a standard deviation of 17. If a country has more than one official (commonly used) language, the index is calculated as a population-weighted average.

[49]In particular, we ran linear probability models controlling in a flexible way for education, age, gender, employment status, marital status, and the interaction of municipality and year dummies.

main question we wish to address, however, concerns the indirect effect that language proficiency might have on the opportunity cost of running for office. To answer this, we proceed in two ways. First, we augment the empirical model presented in equation 1 by controlling for the proximity of the country of origin's language to Norwegian and re-estimate the marginal effects of education, age and gender. In constructing the analogs to Figures 7 - 9b, we obtain very similar results, which are available upon request. Second, we estimate – separately by linguistic proximity – the marginal effects of individual characteristics on the likelihood of running for office (equation 1) and the returns to labour market experience (equation 8). This is a more demanding exercise, as the differential returns to experience with respect to natives may exhibit different patterns between the two groups, which according to our theoretical model, should be mirrored by correspondingly different patterns in the marginal effects of education (age and gender) on the probability of running.

The results are reported in Figure 16. The evolution of the differentials in the returns to labour market experience by education diverge between the two groups. In particular, in the low linguistic proximity group, the differential is positive for all levels of education above compulsory, whereas in the high-proximity group this is true only for high school graduates. Importantly, the differential in the marginal effects of education on the probability of running is in both cases consistent with our theoretical predictions (e.g., Proposition 2, part i.)).

7.2.2 Political culture in the origin country

Immigrants to Norway originate in countries with often dramatically different political cultures. Much work in political science has emphasized the role of transferable norms, which shape the behaviour of foreigners in their host country, but as clearly summarized by Ramakrishnan and Espenshade (2001), multiple forces are typically at work, and thus the direction of the relationship is far from obvious: "Those fleeing regimes with long histories of political repression may be mistrustful of the political system and therefore be less likely to vote in elections. On the other hand, they may relish the freedom of choosing among competing candidates for political office and therefore be more likely to vote."

In this section we analyse the role of the home country's political culture on candidacy. Specifically, we study whether the key trade-off highlighted in our theoretical model – the opportunity cost of running for office – is affected by the political socialization at origin. We begin by grouping countries based on their level of democracy, as measured by the Polity IV Project,[50] and follow the three-part categorization suggested by Marshall et al. 2017 identifying countries as "democracies" if the score ranges between 6 and 10, "anocracies" for values between -5 and +5, and "autocracies"

[50] In particular, for each country of origin, we construct the average of this indicator for the period 1966-2015.

for values below -6. Our data indicate that between 2007-2015, 27 per cent of the immigrant population originated in democracies, 17 percent in autocracies and 56 percent in anocracies. While all foreigners are less likely than natives to run for office, those born in democracies exhibit the smallest gap, at 1.37 percentage points, whereas the comparable figure for immigrants born in anocracies is 1.49 and that for those born in autocracies is 1.6. Importantly, however, the distribution of individual- and context-level characteristics varies significantly across these groups. As a result, the conditional probability gaps[51] are larger – at 1 percentage point – for immigrants from democratic countries and smaller – at 0.69 and 0.31 percentage points, respectively – for those coming from anocracies and autocracies.

These results hint at the importance of having a democratic culture in the country of origin on the willingness to stand for office. Moreover, the differences between the conditional and unconditional gaps also indicate that there is significant heterogeneity in observable characteristics among immigrants from the three groups of countries. This suggests that there might also be differences in unobservable characteristics such as ability or work motivation that may affect each group's return to Norwegian labour market experience. As we did in Section 7.2.1, we first address this concern by augmenting the empirical model presented in equation 1 by controlling for the level of democracy of the country of origin and re-estimate the marginal effects of education, age and gender. Constructing the analogs to Figures 7-9b, we obtain very similar results, which are available upon request. Second, we estimated – separately by level of democracy – the marginal effects of individual characteristics on the likelihood of running for office (equation 1) and the returns to labour market experience (equation 8).

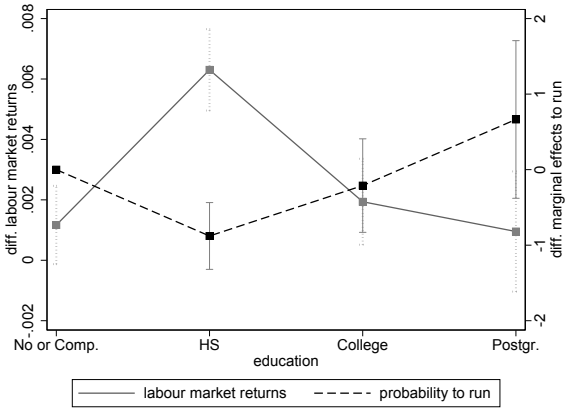
Our findings reported in Figure 17 provide strong support for the mechanism highlighted in our theoretical model. The patterns of differential labour market returns by education exhibit significant heterogeneity across the three groups of countries. Notably, these differentials are substantially flatter for individuals born in the least democratic countries (panel c), where the level of education does not have a significant impact on the difference in returns to experience with respect to natives and, similarly, does not affect the gap in the likelihood of standing for office. Furthermore, for individuals originating in both democracies and anocracies – the vast majority of our sample – the differential patterns in the probability of running closely mirror the underlying differences in the returns to labour market experience.

7.2.3 Citizenship status

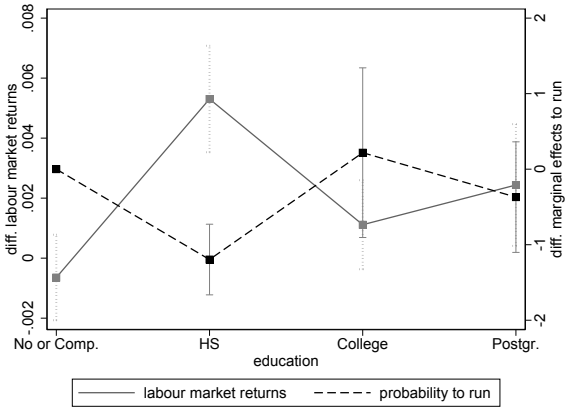
As discussed above, Norway allows foreign nationals, independent of their origin, to participate both as voters and as candidates in local elections, provided that they have been residents for at

[51] See footnote 49 for more details.

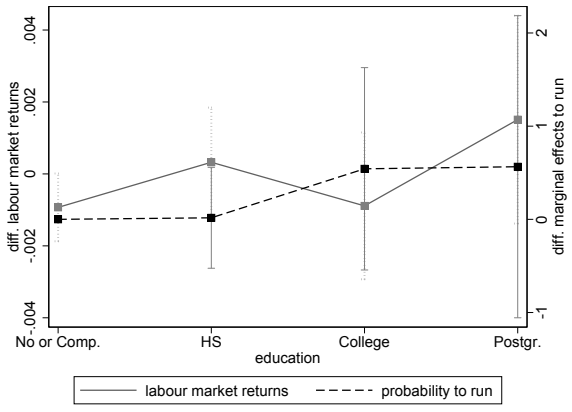
Figure 17: Returns to labour market experience and the likelihood of running for office: Immigrant-native gaps by democracy in origin country



(a) Democracy



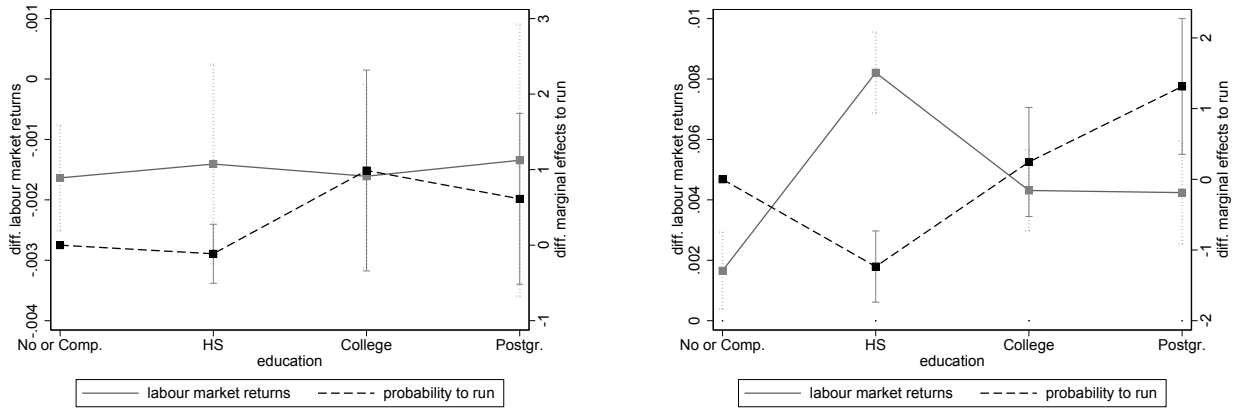
(b) Anocracy



(c) Autocracy

The figure reports on the left axis the difference in the returns to an additional year of Norwegian labour market experience between immigrants and natives by education. The right axis measures instead the difference between immigrants and natives in the percentage increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 elections (2007, 2011 and 2015). Source: Norwegian Population Register.

Figure 18: Returns to labour market experience and the likelihood of running for office: Immigrant-native gaps by citizenship



(a) Norwegian citizens

(b) Foreign citizens

The figure reports on the left axis the difference in the returns to an additional year of Norwegian labour market experience between immigrants and natives by education. The right axis measures instead the difference between immigrants and natives in the percentage increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 elections (2007, 2011 and 2015). Source: Norwegian Population Register.

least three years. Nevertheless, we can expect citizens and non-citizens to have different likelihoods of running for office, and this might be due to several reasons.[52] For example, the decision to naturalize indicates a higher attachment to the host country and thus a presumably higher intrinsic motivation to enter politics; furthermore, the political career prospects of Norwegian citizens are broader than those of foreign nationals, as non-citizens cannot be elected to Parliament, for example. In fact, our data indicate that naturalized citizens have a 0.72 per cent probability of running for office, whereas the corresponding figure for eligible foreign nationals is lower, at 0.4 per cent. Conditional on observable characteristics, the probability difference with respect to natives is 1.2 percentage points for immigrants without citizenship and 0.17 percentage points for immigrants with citizenship, and the two figures are significantly different from one another.

Note that since citizenship status is clearly the outcome of an individual decisions and might be driven by the same unobservable factors that shape the candidacy decision, we do not include nationality as a control variable in our main specification. However, bearing this in mind, in this section, we explore its role in two ways. First, we augment the model estimated in equation 1 by including a citizenship dummy. The results are broadly unaffected and are available upon request. Second, we separately investigate the relationship between the likelihood of running for

[52] Citizenship eligibility is linked to years of residence in the country. Applicants (EU and extra-EU) must document continuous legal residence in Norway for seven years, or a total of seven years during the last ten years. Immigrants from other Nordic countries may naturalize after 2 years of residence. To acquire the citizenship individuals need to renounce their former citizenship, pass a Norwegian language and social studies test. The percentage of immigrants with more than 15 years of residency who have acquired the citizenship is the same among the candidates and in the electorate, 75 per cent.

office and the opportunity cost of this choice for naturalized and non-naturalized immigrants. The results are reported in Figure 18. As the left panel makes clear, there is essentially no difference in returns to labour market experience between naturalized immigrants and natives, irrespective of the level of education, indicating that naturalized immigrants are likely to have completed their economic integration process. This is broadly reflected in the lack of significant differences in the immigrant-native gap in the probability of running for office across education levels. Considering instead foreign citizens (right panel), the figure exhibits the familiar pattern we have observed before.[53]

7.3 Direct returns: robustness checks

In Section 5.2, we showed that, as suggested by our theoretical model, if the wage earned by full-time politicians is low, the effect of an increase in the (exogenous) probability of becoming a full-time politician on the decision to run for office is negative, and this effect is stronger for immigrants than for natives; conversely, the effect becomes positive when the relative wages of full-time politicians are sufficiently high, in which case the effect is stronger for natives than for immigrants. Additionally, our results indicate that higher relative wages earned by professional politicians lead to a higher individual likelihood of running for office.

In this section, we check the robustness of our results to the manipulation of the threshold used to define "sufficiently high" relative mayor wages, to the exclusion of the largest Norwegian cities, and to restricting attention to individuals who run for office in a bolded position on the list and therefore have realistic expectations of being elected.

Our model does not provide a directly measurable indicator for the size of the threshold above which relative wages of full-time politicians are sufficiently high to have a positive effect on the probability of running for office. In our baseline analysis in Section 5.2, we set it at the 7th decile of the national distribution of relative mayor wages. Our results are robust to alternative thresholds, as we show in Appendix Table A.2. In particular, columns (1) and (2) report results from specifications in which the threshold is set at the 6th and the 8th decile, respectively, and show that our key results are essentially unaffected.

Our simple model captures the short-term trade-off faced by individuals seeking a seat on local councils, but it does not explicitly account for the fact that in large municipalities, election to local councils may be an investment in a future career in national politics. For this reason, in Section 5.2, we presented estimates that exclude Oslo from the sample. Since Oslo is not the only large city in Norway, in columns (3) to (6) of Appendix Table A.2, we assess the robustness of

[53] Note that the college-postgraduate gap in the marginal effect of education on the probability of running is not statistically significant.

our estimates to the additional exclusion of the second (Bergen, column 3), third (Trondheim, column 4), fourth (Stavanger, column 5) and fifth (Borum, column 6) largest Norwegian cities. The results are, again, in this case broadly unaffected.

Finally, as we previously discussed, bolded candidates are much more likely to be elected than other individuals running for office, and hence, we expect the incentives highlighted in our model to be more powerful for bolded candidates. To assess whether this is the case, in Appendix Table A.3, we focus on bolded candidates. As we can see in columns (1) and (2), all of our model's predictions are confirmed, regardless of whether we include Oslo in the sample. Moreover, columns (3)-(6) of the table also show that these results are robust to the alternative choice of the 6th (columns 3 and 4) or 8th (columns 5 and 6) decile as the relevant threshold for the wages of full-time politicians.

8 Conclusions

As more immigrants make destination countries their new homes, understanding the determinants of their under-representation in the political process is becoming increasingly important. In this paper, we studied this issue by focusing on a country – Norway – that has experienced a large inflow of immigrants over the past 20 years and has generous provisions to extend the franchise in local elections to foreign nationals.

Using a unique dataset covering the universe of individuals running for local elections between 2007 and 2015, we documented the patterns of selection into office-seeking for natives and the foreign born. We then proposed a simple forward-looking Roy model of the candidate entry decision, pointing out that returns to labour market experience can play a crucial role. Consistent with the predictions of the model, our empirical analysis showed that differentials in the returns to labour market experience between immigrants and natives – across a variety of subgroups of the population – mirror the observed selection patterns. This finding thus highlights that economic and political integration are closely intertwined: as migrants integrate economically, their returns to experience become closer to those of comparable natives, resulting in a similar opportunity cost of entering politics. Therefore, our model suggests that a faster economic integration (i.e. a faster convergence of immigrants' return to experience to those of natives) would also facilitate their political integration – everything else equal – a conclusion that to the best of our knowledge provides new insights into the complex process through which immigrants adapt to life in the host country.

We can think of at least two directions for further research. Our stylized theoretical model focused on the trade-off between entering politics and remaining active in the labour market. It did not explicitly consider the possibility that undertaking a political career might have repercussions

for subsequent labour market opportunities, for example through the acquisition of new human capital or the development of a larger social network. Given the narrow focus of our analysis on local elections, the extent to which these types of considerations will shape the decision to run for office is unclear, but exploring their role and the extent to which it might differ between immigrants and natives is potentially very relevant.

A large literature – see Pande (2003), Chattopadhyay and Duflo (2004), Cascio and Washington (2014), and Bernini, Facchini, and Testa (2018), to name a few of the recent contributions – has documented that policy choices at the local level are likely affected by some salient attribute of the elected official in charge. Using our rich data on the migration backgrounds of local councillors and mayors and the rich set of services that are under the control of municipal governments in Norway, it would be interesting to investigate whether foreign-born politicians favour different policy choices than their native counterparts and, if so, which interventions would they emphasize. While both are important questions, we leave them for future research.

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A Appendix

A.1 Positive returns to a political career

In the baseline theoretical analysis, we assumed that embarking on a political career involved a cost in terms of forgone labour market earnings in the second period if the councillor did not become a full-time politician. The model can easily be extended to also consider the case in which embarking on a political career actually enhances labour market earnings, i.e., $1 < \theta < \frac{1}{1-\pi}$. It is easy to show that the result in Proposition 1 continues to hold.

Regarding proposition 2, our main result , namely part *i.)*, continues to hold. Regarding part *ii.)*, if $\theta > 1$, then $\frac{\partial E[Run_i]}{\partial \pi} < 0$ and $\frac{\partial (E[Run_N] - E[Run_M])}{\partial \pi} < 0$ under our assumption that $\delta_M > \delta_N$. In other words, an increase in the probability of being appointed mayor decreases the likelihood that an individual will run for office, and this effect is greater among the group that has a larger return to labour market experience. Finally, it is easy to see that part *iii.)* continues to hold.

A.2 Proofs

Proof of Proposition 1. A native's likelihood of running for office is given by

$$E[Run_N] = \frac{\overline{P}}{2\overline{PY}} \left[\frac{2\pi w + \overline{P}}{[\pi\theta + (1-\theta)]\delta_N} \right] \tag{11}$$

Analogously, an immigrant's likelihood of running for office is given by

$$E[Run_M] = \frac{\overline{P}}{2\overline{PY}} \left[\frac{2\pi w + \overline{P}}{[\pi\theta + (1-\theta)]\delta_M} \right] \tag{12}$$

and 11 > 12 if and only if $\delta_M > \delta_N$.

Proof of Proposition 2.

To establish part *i.)*, consider

$$E[Run_M] - E[Run_N] = \frac{\overline{P}}{2\overline{PY}} \left[\frac{2\pi w + \overline{P}}{[\pi\theta + (1-\theta)]} \right] \left[\frac{1}{\delta_M} - \frac{1}{\delta_N} \right] \tag{13}$$

and let $\Theta = \frac{\overline{P}}{2\overline{PY}} \left[\frac{2\pi w + \overline{P}}{[\pi\theta + (1-\theta)]} \right] > 0$. Then,

$$\frac{\partial (E[Run_M] - E[Run_N])}{\partial \delta_M} = -\frac{\Theta}{\delta_M^2} < 0 \tag{14}$$

and

$$\frac{\partial(E[Run_M] - E[Run_N])}{\partial \delta_N} = \frac{\Theta}{\delta_N^2} > 0 \tag{15}$$

To prove part *ii.)*, first consider, for $i = M, N$:

$$\frac{\partial E[Run_i]}{\partial \pi} = \frac{\overline{P}}{2\overline{PY}} \left\{ \frac{[2w(1-\theta) - \overline{P}\theta]}{[\pi\theta + (1-\theta)]^2 \delta_i} \right\} \tag{16}$$

and $\frac{\partial E[Run_i]}{\partial \pi} > 0$ if and only if $w > \frac{\overline{P}(\theta)}{2(1-\theta)}$. Consider next:

$$\frac{\partial(E[Run_N] - E[Run_M])}{\partial \pi} = \frac{\overline{P}}{2\overline{PY}} \left\{ \frac{[2w(1-\theta) - \overline{P}\theta]}{[\pi\theta + (1-\theta)]^2} \right\} \left[\frac{1}{\delta_N} - \frac{1}{\delta_M} \right] \tag{17}$$

and note that as long as $\left[\frac{1}{\delta_N} - \frac{1}{\delta_M} \right] > 0$, i.e., $\delta_M > \delta_N$, $\frac{\partial(E[Run_N] - E[Run_M])}{\partial \pi} > 0$, if and only if $w > \frac{\overline{P}\theta}{2(1-\theta)}$.

Finally, to establish *iii.)*, note that

$$\frac{\partial E[Run_i]}{\partial w} = \frac{\overline{P}}{2\overline{PY}} \frac{2\pi}{[\pi\theta + (1-\theta)]\delta_i} > 0 \tag{18}$$

Finally,

$$\frac{\partial(E[Run_N] - E[Run_M])}{\partial w} = \Upsilon \left[\frac{1}{\delta_N} - \frac{1}{\delta_M} \right] \tag{19}$$

where $\Upsilon = \frac{\overline{P}}{2\overline{PY}} \left[\frac{2\pi}{[\pi\theta + (1-\theta)]} \right] > 0$. Note that $\frac{\partial(E[Run_N] - E[Run_M])}{\partial w} > 0$ if and only if $\left[\frac{1}{\delta_N} - \frac{1}{\delta_M} \right] > 0$, i.e., $\delta_M > \delta_N$.

■

A.3 Additional results

Table A.1: Probability to run for office: marginal effects, different interactions

	All candidates		
	(1)	(2)	(3)
Natives			
High school	0.0051***	0.0051***	0.0051***
	(0.0004)	(0.0004)	(0.0004)
College	0.0170***	0.0171***	0.0174***
	(0.002)	(0.002)	(0.002)
Postgraduate	0.0191***	0.0191***	0.0199***
	(0.003)	(0.003)	(0.003)
Female	-0.0053***	-0.0053***	-0.0053***
	(0.0007)	(0.0007)	(0.0007)
Immigrants			
High school	-0.0061***	-0.0061***	-0.0050***
	(0.0005)	(0.0005)	(0.0004)
College	-0.0128***	-0.0128***	-0.0129***
	(0.001)	(0.001)	(0.001)
Postgraduate	-0.0150***	-0.0151***	-0.0167***
	(0.002)	(0.002)	(0.002)
Female	0.0049***	0.0049***	0.0056***
	(0.0004)	(0.0004)	(0.0005)
Other controls	Yes	Yes	Yes
R-Squared	0.041	0.042	0.043
Observations	7,427,645	7,427,645	7,427,645
Fixed Effects			
Municipality	Yes	No	No
Year	Yes	No	No
Municipality X Year	No	Yes	No
Municipality X Year X Immigrant	No	No	Yes

Source: Norwegian Population Register. Individuals in the age group 24-63 and we pool 3 election years 2007, 2011 and 2015. Standard errors are clustered at the municipality level. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively. Note: Each regression also includes age dummies for immigrants and natives, marital status and employment status dummies.

Table A.2: The direct returns to a political career, robustness

	6th decile	8th decile	7th decile, excluding:			
	(1)	(2)	(3)	(4)	(5)	(6)
			Top 2	Top 3	Top 4	Top 5
Below $\underline{w}$						
Prob. mayor - *nat.*	-0.054	0.014	0.0004	0.008	-0.002	-0.011
	(0.176)	(0.173)	(0.170)	(0.167)	(0.166)	(0.165)
Prob. mayor - *imm.*	-2.309***	-2.613***	-2.438***	-2.434***	-2.451***	-2.451***
	(0.283)	(0.276)	(0.274)	(0.273)	(0.274)	(0.274)
Above $\underline{w}$						
Prob. mayor - *nat.*	2.037***	2.365**	1.714***	1.513***	1.328***	1.130***
	(0.502)	(1.004)	(0.560)	(0.504)	(0.442)	(0.361)
Prob. mayor - *imm.*	0.448	1.329**	0.953**	0.816	0.481	0.283
	(0.537)	(0.574)	(0.464)	(0.503)	(0.566)	(0.621)
Rel. mayor wage - *nat.*	0.042	0.174***	0.124**	0.120**	0.129**	0.094*
	(0.056)	(0.055)	(0.055)	(0.055)	(0.054)	(0.050)
Rel. mayor wage - *imm.*	0.150**	0.275***	0.084*	0.085*	0.097*	0.087*
	(0.076)	(0.059)	(0.050)	(0.050)	(0.051)	(0.052)
Oslo excluded	No	No	Yes	Yes	Yes	Yes
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
County FE × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,365,268	6,365,268	4,991,727	4,715,606	4,523,152	4,360,960

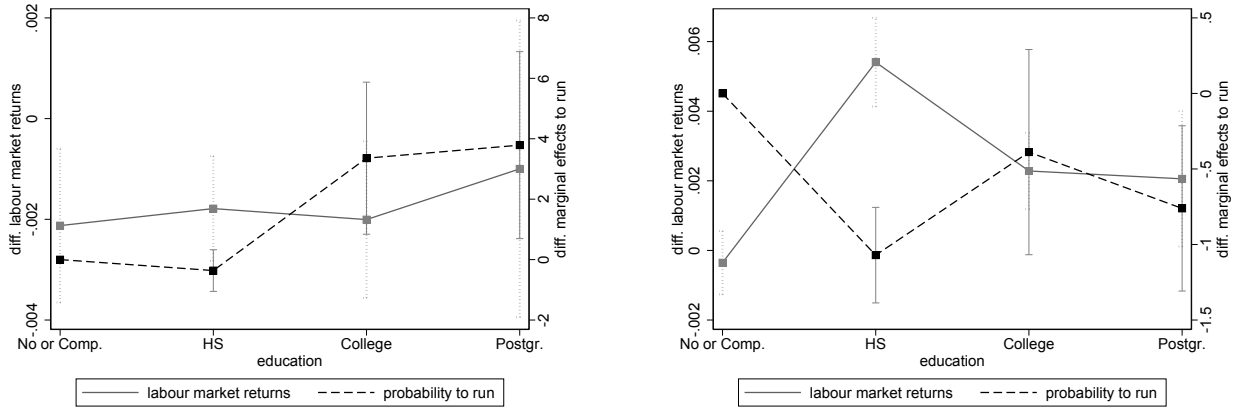
Source: Norwegian Population Register. Individuals in the age group 24-63 and we pool 3 election years 2007, 2011 and 2015. Standard errors are clustered at the municipality level. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively. Notes: Variables are standardized using national mean and standard deviation. Other controls include immigrant, education, gender, age, marital, employment and municipality population (5) dummies. Top n excluded refers to the number of largest cities (population-wise) excluded from the regression following this order: 1. Oslo, 2. Bergen, 3. Trondheim, 4. Stavanger, 5.Borum. Below and above $\underline{w}$ refers respectively to whether the mayor's relative average wage is below or above the 6th/7th/8th decile of the distribution of mayor wages computed for each election year separately. Probability to run rescaled between 0 and 100.The estimated coefficients are the marginal effects of each variable, separately for natives and immigrants.

Table A.3: The direct returns to a political career, bolded

	7th decile		6th decile		8th decile	
	(1)	(2)	(3)	(4)	(5)	(6)
Below $\underline{w}$						
Prob. mayor - *nat.*	-0.003	-0.002	-0.005	-0.004	0.013	0.014
	(0.039)	(0.039)	(0.040)	(0.040)	(0.039)	(0.039)
Prob. mayor - *imm.*	-0.407***	-0.410***	-0.385***	-0.385***	-0.435***	-0.441***
	(0.048)	(0.048)	(0.049)	(0.049)	(0.048)	(0.048)
Above $\underline{w}$						
Prob. mayor - *nat.*	0.358***	0.357***	0.305***	0.304***	0.308***	0.304***
	(0.104)	(0.106)	(0.078)	(0.079)	(0.115)	(0.116)
Prob. mayor - *imm.*	0.069	0.163**	-0.003	0.081	0.159	0.256***
	(0.099)	(0.072)	(0.094)	(0.072)	(0.098)	(0.069)
Rel. mayor wage - *nat.*	0.018**	0.021**	0.013	0.016*	0.029***	0.032***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)
Rel. mayor wage - *imm.*	0.031***	0.016*	0.031***	0.013	0.043***	0.031***
	(0.011)	(0.008)	(0.012)	(0.008)	(0.010)	(0.009)
Oslo excluded	No	Yes	No	Yes	No	Yes
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
County FE × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,276,500	5,308,010	6,276,500	5,308,010	6,276,500	5,308,010
Prob. bolded for *nat.*	0.238	0.238	0.238	0.238	0.238	0.238
Prob. bolded for *imm.*	0.043	0.043	0.043	0.043	0.043	0.043

Source: Norwegian Population Register. Individuals in the age group 24-63 and we pool 3 election years 2007, 2011 and 2015. Standard errors are clustered at the municipality level. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.
Notes: Variables are standardized using national mean and standard deviation. Other controls include immigrant, education, gender, age, marital, employment and municipality population (5) dummies.Top n excluded refers to the number of largest cities (population-wise) excluded from the regression following this order: 1. Oslo, 2. Bergen, 3. Trondheim, 4. Stavanger, 5.Borum. Below and above $\underline{w}$ refers respectively to whether the mayor's relative average wage is below or above the 6th/7th/8th decile of the distribution of mayor wages computed for each election year separately. Probability to run rescaled between 0 and 100.The estimated coefficients are the marginal effects of each variable, separately for natives and immigrants.

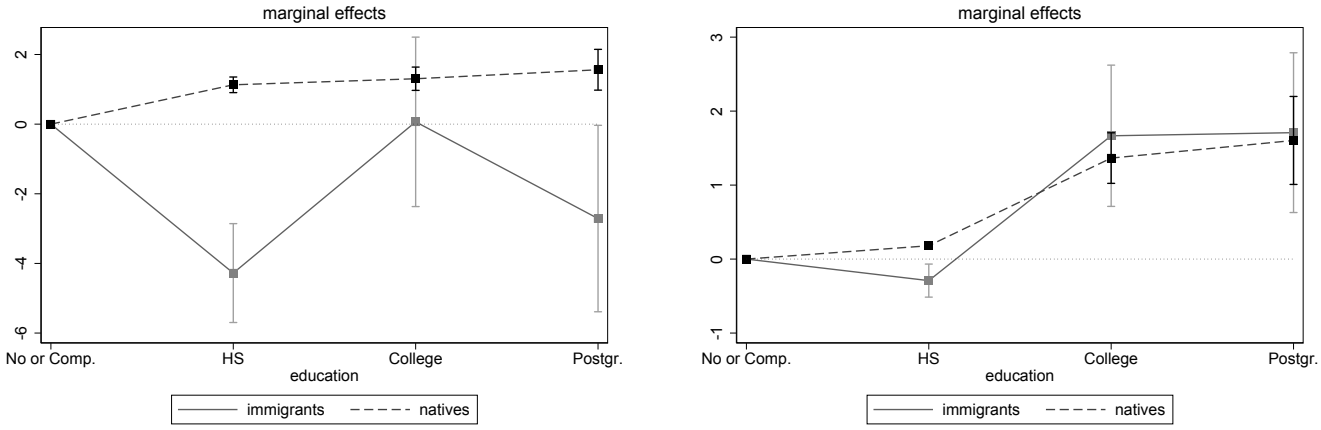
Figure A.1: Returns to labour market experience and the likelihood of running for office: Immigrant-native gaps by country of education



(a) Educated in Norway (b) Educated abroad

The figure reports on the left axis the difference in the returns to an additional year of Norwegian labour market experience between immigrants and natives by education. The right axis measures instead the difference between immigrants and natives in the percentage increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63, and we pool 3 elections (2007, 2011 and 2015). Source: Norwegian Population Register.

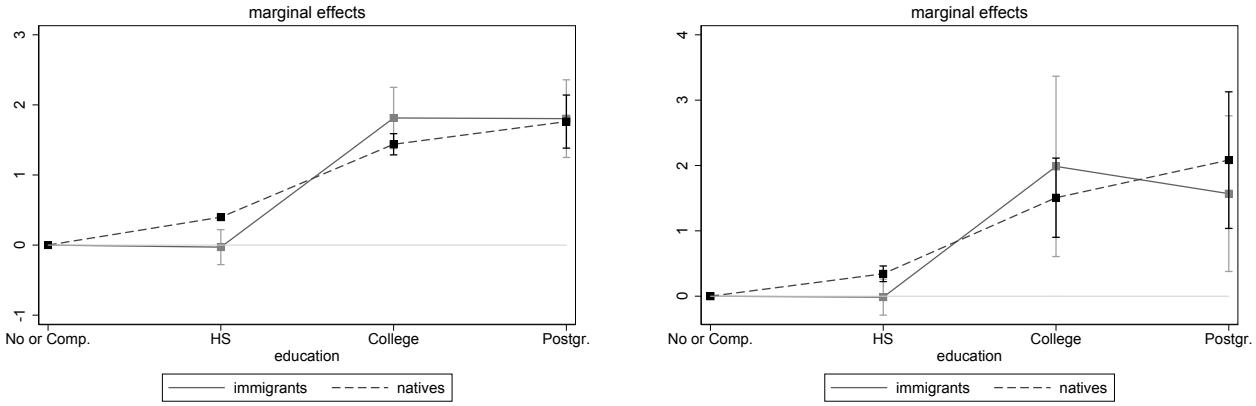
Figure A.2: Probability of running for office by party



(a) Centre Party (b) Other parties

Source: Norwegian Population Register. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63 and pool 3 elections (2007, 2011 and 2015). The figure shows the per cent increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education, separately for immigrants and natives.

Figure A.3: Probability of running for office by education: Rural vs. urban municipalities



(a) Rural municipalities (b) Urban municipalities

Source: Norwegian Population Register. Immigrants are foreign-born children of immigrant parents, excluding Nordic immigrants. We include only individuals in the age group 24-63 and pool 3 elections (2007, 2011 and 2015). The figure shows the per cent increase in the probability of running for office for each education group, relative to the baseline of at most compulsory education, separately for immigrants and natives.

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Are Political and Economic Integration interwinded?

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