Cultural proximity and naturalization: results from a cross-national study

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Abstract. Using a unique longitudinal database constructed through the merging of administrative records from Sweden and Finland, we study how immigrant naturalization relates to cultural proximity. We analyse how Swedish citizenship acquisition depends on mother tongue by comparing Swedish-speaking and Finnish-speaking immigrants from Finland, who arrived in Sweden in 1988-2004, and contrast with other Nordic-born immigrants. We treat return migration and naturalization as two communicating elements in the decision process of immigrants, and estimate also the risk of return migration for the same study group of people. The free Nordic labour market, together with economic, political and social similarities between the Nordic countries, imply that the benefits of naturalization are modest and the same for all Nordic-born immigrants in Sweden. Thus, we assess determinants of naturalization net of obvious benefits of incorporation via the right to remain in a country and access to nationality-based privilege. Swedish-speaking Finns are found to have an approximately 30 per cent higher standardised risk of naturalization than Finnish-speaking Finns, and a 2.5 times higher risk as compared to people from the other Nordic countries. This variation can be assumed reflecting the degree to which the groups broadly differ in self-identification with respect to the Swedish society.

Keywords: naturalization; cultural proximity; cross-national data; Nordic countries; return migration

1. Introduction

Immigrant naturalization, or citizenship acquisition, can in many respects be seen as a doorway to nationality-based privilege, and it is a subject of growing importance worldwide. Naturalization can be considered an observable sign of immigrants' allegiance and commitment to the receiving country, and the extent to which immigrants are willing to become an integral part of the new society (Yang 1994). Understanding the naturalization process is consequently helpful in order to create policies that improve immigrant integration and socialization.

A growing body of research has provided empirical evidence of the determinants of naturalization over the last decades. The literature to date must nevertheless be considered fragmented in nature. The economic literature has primarily studied the impact of naturalization from an income or utility maximization framework, while sociologists and political scientists have been concerned with a variety of factors that might explain why immigrants ascend to citizenship at differential rates (DeVoretz 2008). Two research traditions have been predominant in studies of this type. One stresses the role of socioeconomic achievement in the naturalization process, whereas the other emphasises non-socioeconomic factors, such as the role of demographic, social and cultural factors. In this paper, we are particularly concerned with disentangling the contribution of cultural proximity on naturalization.

A caveat with a majority of earlier studies has to do with the cross-sectional nature of the data used. Naturalization is a dynamic process and must therefore be studied with longitudinal data. Another shortcoming of much previous research is the omission of a cost-benefit analysis to predict naturalization (Bevelander et al. 2015). The decision to naturalize takes place in an environment where a multitude of factors operate simultaneously, and the more heterogeneous the study population of immigrants, the more difficult it is to isolate the

influence of each contributing factor. An important decision of immigrants which may compete with the naturalization decision is whether or not to eventually return to the country of origin. As in the case of naturalization, the return migration decision is dynamic in nature and should preferably be analysed within the same empirical framework.

Since naturalization is a reflection of identity, cultural proximity between the home country and the host country has been argued to be a key factor behind the decision to naturalize (Yang 1994). The approach of previous empirical research concerned with the association between cultural similarity and naturalization has been to categorise immigrants into country groups of origin according to how distant the home country is to the host country in terms of aspects such as similar traditions, a common history, and the use of the same language (see e.g. Yang 1994; Dronkers and Vink 2012; Helgertz and Bevelander 2016).

This paper takes a novel approach for assessing the impact of cultural proximity on naturalization. We utilise a unique longitudinal cross-country dataset in a unique setting where we can assess the determinants of naturalization net of the obvious benefits of incorporation via the right to remain in a country and the access to nationality-based privilege. This is accomplished by examining the naturalization patterns of Nordic-born immigrants in Sweden, who come from countries that are economically, politically and socially very similar to one another. The special circumstances and historical relationships make the Nordic region highly appealing for a more in-depth study of the naturalization process.

While examining also the naturalization patterns of Norwegians and Danes, the study places special focus on the naturalization patterns of Finns. We exploit the fact that some immigrants born in Finland have Finnish as their mother tongue, while others have been raised in the Swedish-speaking regions of Finland. The analytic sample consists of people who arrived in Sweden in the period 1988-2004, and contains socioeconomic, demographic, and labour market variables for each individual, with most being measured at the end of each

calendar year. In focus is the likelihood of becoming a Swedish citizen, but unlike previous research, we contrast this likelihood with the risk of return migration in the same study population. Hence, apart from the fact that we obtain an unusually informative measure of the influence of cultural proximity on naturalization, we are also able to study return migration and naturalization as two communicating elements in the decision process of immigrants.

2. Context and previous research

Since 1954, citizens of the five Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden) have enjoyed rights of relocation and employment in all countries. No visas have been needed to settle, and the migration process is highly similar to that of natives who migrate internally. The explicit right of residence may consequently be considered as lessening the potential importance of the naturalization procedure, and this special laboratory was in effect long before the pan-European dream of the European Union was realized.

Aggregate statistics for Sweden, referring to the proportion of the foreign-born population which is naturalized by country of birth, reveal a disparity between immigrants from Finland and those born in the other Nordic countries (Table 1). Danes, Norwegians and Icelanders are among the least likely to be naturalized, while people born in Finland naturalize at a level similar to migrants from refugee-sending countries. Except for the Icelanders, the lion's share of all naturalized people of Nordic descent had become Swedish citizens already before the 1980s, however. Given the fact that the immigrants who come from Finland face no more, or any other, benefits of a Swedish citizenship than people born in the other Nordic countries, these numbers nevertheless suggest the presence of some latent mechanisms, and prompt the need to undertake longitudinal analyses.

(Table 1 here)

Most earlier empirical studies on the determinants of naturalization have been conducted in a North American context (Portes and Curtis 1987; Liang 1994; Yang,1994; Jones-Correa 2001; Bloemraad 2002; 2004; Chiswick and Miller 2009). Studies on European counties are of more recent date (Vink, Prokic-Breuer, and Dronkers 2013; Street 2013; 2014; Bevelander et al. 2015; Helgertz and Bevelander 2016). The decision to naturalize has been linked to a number of factors that operate at the individual, family and contextual level, and which relate to both economic and non-economic factors (Logan, Oh, and Darrah 2012).

Immigrants' perceptions of costs, benefits and meaning of naturalization, and the subsequent naturalization decisions, are conditioned by the greater social environment surrounding them (Yang, 1994). Several specific conditions in the country of origin as well as in the host country, not to mention physical proximity between them, may therefore be important in promoting or discouraging immigrants' propensity to naturalize. In a setting where immigrants from a variety of countries are being studied, the decisions to return migrate and naturalize may therefore depend on both the level of economic development and the degree of economic and political freedom in the country of origin (Chiswick and Miller 2009; Dronkers and Vink 2012).

The roles of economic and noneconomic factors are nevertheless intertwined. Together with demographic characteristics, the degree of cultural adaption to the host country is generally viewed as a key predictor of naturalization, because it is intimately related to the immigrants' successful integration into the receiving country (Yang 1994; Logan, Oh, and Darrah 2012). Cultural proximity between the origin and the destination country can therefore be expected to facilitate the process of naturalization.

Economists tend to stylize the naturalization process as a result of rational optimization strategies. A common assumption is that an immigrant's choice to naturalize is determined by the economic benefits available to citizens (Chiswick 1978). This may be in the form of

earnings premiums paid to natives, or access to employment that is closed due to discriminatory hiring behaviour which places non-citizens at a disadvantage (Becker 1971). Another potential advantage to naturalization lies in the possibility to access labor markets that would otherwise be restricted (Aleinikoff 2001), or that employers feel safer to employ citizens than non-citizens (Mazzolari 2009).

In recent years, the focus on incentives has somewhat given way to an understanding of naturalization interpreted as an outward expression of some underlying selection process (DeVoretz 2008). This would mean that the naturalization act itself is not the cause of greater economic success, but rather that those who naturalize would have been more successful even without the citizenship papers. While some studies have found that naturalization is associated with a subsequent improvement of the economic situation, primarily in terms of earnings (Bratsberg, Ragan, and Nasir 2002; DeVoretz and Pivnenko 2006), others, at least for the case of Sweden, find no such strong interrelation (Scott 2008; Helgertz, Bevelander, and Tegunimataka 2014).

The idea that naturalization may not be the culprit of economic success requires an explanation which is not difficult to formulate, although it is more difficult to test. The basic argument is that naturalization signifies a long-term commitment to a country (Diehl and Blohm 2003). This may itself have no direct economic gains, but it is likely to result in actions that will have long-term benefits. One such action is language acquisition, which may have substantial beneficial consequences (Chiswick and Miller 2014). This commitment may lead to increased interaction with the native population, and thereby an increase in the number of natives in the migrant's social network (Bloemraad 2002; Portes and Curtis 1987).

Rather than being a stepping stone to economic success, some studies actually find that naturalization may be a sign of negative, rather than positive, selection. In some countries, access to government-supplied benefits are directly linked to incorporation via citizenship. If

this is the case, individuals with tenuous ties to the labor market may have greater incentives to naturalize than their more successful peers (Borjas 2002; Euwals et al. 2010).

Citizenship acquisition is therefore likely the result of a multi-faceted integration process, where direct economic considerations play only a partial role, and the direction of their influence may be uncertain (Corluy, Marx, and Verbist 2011). The study context here, with free mobility, full ability to return migrate, rights to employment and transfers, and no evident economic incentives for naturalization, provides a highly useful setting in order to understand how cultural proximity affects naturalization.

Citizenship in Sweden is, as in the other Nordic countries, based on the *jus sanguinis* principle, that is, according to parents' nationality (Clarke, van Dam, and Gooster 1998). Citizens from other Nordic countries can apply for Swedish citizenship after only two years of residence in Sweden, compared to the five years required for non-Nordic citizens. No language or naturalization tests, nor any income or employment requirement, are necessary for naturalization. For Nordic citizens, Swedish citizenship acquisition by notification has also been possible, which means that the juridical naturalization procedure is simplified. Dual citizenship has been legally allowed in Sweden since July 2001, in Finland since June 2003, in Iceland since July 2003, while it is still not allowed in Denmark and Norway. The changed legal practice in Sweden should nevertheless be interpreted as a formal acknowledgment of an already existing liberal practice, which allowed immigrants in Sweden to possess dual nationalities even before the legislative change in July 2001 (Spång 2007; Helgertz and Bevelander 2016).

3. Data and methods

The data used were provided by Statistics Sweden (permission number 8547689/181453). They contain all documented moves into and out of Sweden in the period 1988-2005. Since

we are interested in the naturalization rates of Nordic immigrants in Sweden, our focus is on people born in Finland, Denmark, Norway or Iceland, who had a citizenship of any of these countries at the time of arrival in Sweden. Norwegians and Icelanders were collapsed into one category by Statistics Sweden at the time of delivery of the data. The Icelanders amount to barely eight per cent of all people in the Norwegian/Icelandic group, however.

These population-based records include complete information about the same individuals' moves into and out of Sweden, even if they occurred prior to the start of our study period in 1988. We have therefore exploited the data to ensure that people studied are first-time immigrants in Sweden on or after 1988. All individual characteristics, including citizenship, were measured at the end of each calendar year. We can therefore prospectively assess both naturalization and return migration rates during the period 1989-2005 for all persons who lived in Sweden over the turn of a calendar year. People who die or move to a third country are treated as right-censored observations.

For the immigrants who originate in Finland, there is linkage to information about the same persons when they resided in Finland. This part of the data were provided by Statistics Finland (permission number TK-52-215-11). The population registers in Finland, unlike those in Sweden, record each citizen's unique mother tongue. The linkage consequently makes it possible to identify Finnish immigrants in Sweden according to whether they have Swedish or Finnish mother tongue, which otherwise would not be possible.

In total, the data include 31,961 immigrants from Finland, 27,057 immigrants from Denmark, and 44,599 immigrants from Norway or Iceland. Since Statistics Finland has a policy of not providing data on total populations, the Finnish part of the data constitute a 77.5 per cent random sample. Thus, our analytical data of the Finns include 7,449 Swedish speakers and 18,071 Finnish speakers who can be linked to the data from Sweden. The number of persons who return migrate and naturalize, respectively, is 3,604 and 523 for the

Swedish-speaking immigrants from Finland, 11,910 and 750 for the Finnish-speaking immigrants from Finland, 15,906 and 558 for immigrants from Denmark, and 28,771 and 920 for immigrants from Norway.

To estimate the risk of return migration and naturalization, respectively, we run Cox proportional hazard regressions. People under risk of return migration are those who resided in Sweden at the beginning of each calendar year. People under risk of naturalization are those who resided in Sweden and did not have a Swedish citizenship at the beginning of each calendar year. Only 12.9 per cent of all naturalized persons subsequently return migrate.

In relation to the possibility of obtaining dual citizenship, we observed a threefold increase in the naturalization rate of Finnish immigrants in Sweden in 2003-2005 as compared to the previous years. However, inclusion of this period turned out to have virtually no influence on the other estimates of interest (results available upon request). In the results to be reported here, we have kept these years in the data, since that will extend the length of the follow-up and increase the data size.

Control variables are each person's sex, age, time in Sweden, marital status, whether the person lives in a household with minor children, earnings, years of education, and county of residence (*län*). For people who originate in Finland, we can use also variables that represent each person's type of household, annual earnings, whether the person lived in owner-occupied housing, and region of residence (*landskap*). All these refer to the situation at the end of the calendar year prior to migration from Finland. The variables and their distributions by people's origin are described in the next section. Separate analyses are undertaken for people aged 18+ years and for minor persons, respectively, considering that those in the latter group cannot themselves decide on migration or naturalization.

4. Results

Nordic-born immigrants in Sweden were found to have notably higher return migration rates and lower naturalization rates than immigrants in general, lying at levels that were roughly similar to those of people originating in Western Europe, North America, and Oceania (Table 2). There is considerable variation within this group, however, particularly between Swedish-speaking and Finnish-speaking immigrants from Finland. The Swedish speakers were not only less likely to return migrate than the Finnish speakers, but they were also more likely to naturalize. Approximately 54 per cent of the Swedish speakers had return migrated to Finland after 15 years in Sweden, while 23 per cent of those who still were living in Sweden by that time had Swedish citizenship. Corresponding numbers for the Finnish speakers were 71 per cent and 17 per cent, respectively. These unstandardised numbers also reveal that the proportion of return migrants among the Finnish speakers was roughly similar to that for people from the other Nordic countries, and they were slightly more likely to naturalize. The Swedish speakers, on the other hand, were more likely to remain in Sweden, and they naturalized to a greater extent than people in the other groups.

(Table 2 here)

The groups differed also on individual characteristics (Tables 3 and 4). The Swedish-speaking immigrants from Finland were more likely to be younger, unmarried, to have immigrated more recently, to have higher earnings, to be higher educated, and to live in the Stockholm area. Finnish-speaking immigrants were more likely than the others to live in Northern Sweden, while Danes to a higher extent lived in Southern Sweden, and Norwegians in regions close to Norway. A higher proportion of the immigrants from Finland were women, whereas men were overrepresented in the immigrant groups from the other Nordic countries. Since educational attainment is not automatically recorded upon immigration, there is missing information on years of education for many of the recent immigrants. However, since data

from Finland can be used to assess educational attainment for the immigrants who originate in Finland, they do not suffer from the problem of missing information on years of education. When comparing the Swedish-speaking and Finnish-speaking immigrants from Finland we additionally see that the former were more likely to had lived with their parents, and in owner-occupied housing prior to migration abroad. A notably higher share of the Swedish speakers also came from Western Finland (Pohjanmaa and the Åland Islands), which is, together with Uusimaa in Southern Finland, the main settlement area of the Swedish speakers in Finland.

(Table 3 here)

(Table 4 here)

To study whether compositional differences affect the between-group differences in migration and naturalization we run Cox proportional hazard regressions of the relative risk to return migrate and to naturalize, respectively. We estimate two models for each outcome of interest and age group. The first model uses data on all Nordic migrants, and adjusts for effects of the control variables sex, age, time spent in Sweden, marital status, presence of a child in the household, earnings, years of education, and region of residence. The other model is restricted to data on Finnish-born persons only, but is able to exploit the cross-national character of our data, since we then include also characteristics prior to migration abroad.

As related to Swedish-speaking immigrants from Finland, the unstandardised risk of return migration is 1.65 for Finnish speakers, 1.71 for Danes, and 1.58 for Norwegians plus Icelanders. When control variables are added the estimates are 1.66, 1.46, and 1.40, respectively (Table 5). The corresponding unstandardised risks ratios of naturalization are 0.69, 0.32, and 0.27, and the standardised ones 0.75, 0.42, and 0.32, respectively. Thus compositional differences in characteristics across the groups contribute only to a modest part of the differences in return migration and in naturalization. The Finnish speakers naturalize at a significantly higher rate than the other Nordic migrants, while Swedish speakers naturalize

at a rate that is even 30 per cent higher than that of the Finnish-speaking Finns. Finnish speakers are the most likely to move back home, whereas their Swedish-speaking countrymen have clearly the lowest return migration risk, or only about 0.6 that of Finnish speakers, and about 0.7 that of other Nordic citizens.

(Table 5 here)

Separate analyses for people who immigrated as children (Table 6) reveal that naturalization and return migration risks of Finnish speakers are on par with those of other Nordic citizens, whereas the Swedish-speaking child immigrants have a 50 per cent higher naturalization risk and 35 per cent lower risk of return migration.

(Table 6 here)

Hence even when having controlled for standard confounders, we find that Swedish-speaking Finns have an approximately 30 per cent higher risk of naturalization than Finnish-speaking Finns, and a 2.5 times higher risk as compared to people from other Nordic countries. Since the benefits of naturalization are modest and similar for all Nordic immigrants in Sweden, any difference by mother tongue observed here can be assumed to reflect the degree to which the groups broadly differ in self-identification with respect to the Swedish society. This claim is also supported by the depressed return migration risk of Swedish-speaking Finns.

It is important to stress that differentials in return migration risk by origin reveal a pattern that largely mirrors differentials in naturalization risk by origin. This pattern supports the view that return migration reflects unsuccessful integration, while naturalization is an indicator of successful socialisation. The estimated effects of the central control variables support this line of argumentation, and are in line with much previous research (see e.g. Yang 1994; Saarela and Scott 2015). They will therefore not be discussed at length. Time spent in the host country, as well as earnings in the host country, are negatively associated with the

risk of return migration and positively related to the risk of naturalization. The estimates of the other control variables are also generally as expected. Women are less likely to return migrate than men, whereas the sex difference in naturalization is practically non-existent. Age decreases both the risk of return migration and that of naturalization. Married people are more likely to naturalize than non-married ones, whereas the association between marital status and return migration is less strong. A minor child in the household decreases the likelihood of both return migration and naturalization, whereas length of education has an increasing effect on the likelihood of both events. People who lived with their parents or as singles prior to migration from the home country are less likely than others to both return migrate and naturalize. Low earnings in the home country and having lived in owner-occupied housing is negatively associated with the return migration risk and positively associated with the naturalization risk.

5. Conclusion

The idea that reception context in terms of cultural proximity may be an important factor in the naturalization decision is given a great deal of support in this paper. Yet the lower naturalization rate of Nordic-born immigrants as compared to immigrants from other origins also corresponds with the fact that they have few economic incentives to naturalize in Sweden.

One of the key points of the paper has been to examine differential rates of naturalization between Swedish-speaking and Finnish-speaking Finns, while also contrasting with other Nordic-born immigrants. We find that Finnish-speaking Finns have a significantly higher naturalization rate than other Nordic-born immigrants. In addition, this group is characterized by a higher risk of return migration.

On face-value, if the context of reception was to hold true, we should expect Finnish-speaking Finns to have the lowest naturalization risk, since they are the group of Nordic migrants which is the most distant culturally and linguistically from Sweden (Rooth and Saarela 2007). Denmark and Norway both have languages very similar to Swedish, while Finnish belongs to a completely different language family. This hypothesis seems contradicted by our findings, however, because the Finnish-speaking Finns have a higher naturalization risk than any other Nordic-born group except the Swedish-speaking Finns. Given the fact that the Finnish-speaking Finns represent the linguistically most challenged group, one could easily interpret these differentials in light of arguments which say that naturalization might be a sign of negative selection and integration difficulty. Such an interpretation is nevertheless contradicted by the fact that, in the current context, naturalization grants no significant rights in terms of economic security.

We should therefore rather look to the return migration rates. Finnish-speaking migrants have the highest standardised risk of return migration risk of any group. Additional regressions of ours (results not shown), also indicated that the influence of earnings and length of education on the naturalization risk is notably stronger for the Finnish-speaking Finns than for the other Nordic-born groups. The higher naturalization risk of Finnish-speaking Finns as compared to Danes and Norwegians is therefore likely the result of strong economic and social selection, indicating that the Finnish-speaking Finns who eventually naturalize consist of a pool of positively selected citizens.

An evident limitation of the data used is that we have no information about partner characteristics. Previous studies have stressed the importance of the family situation, and particularly the origin-country characteristics of the partner (Street 2013; 2014). In Sweden, marriage to a foreign-born Swedish citizen increases the naturalization propensity considerably, specifically when the spouse naturalizes during the same year (Helgertz and

Bevelander 2016). The influence of being married to a foreign-born Swedish citizen or to a native Swede is also higher for Nordic citizens than for other country-of-origin groups. However, since less than one third of all married Nordic-born immigrants belong to any of these two groups (Helgertz and Bevelander 2016), and only one third of all people studied here were married, the differential naturalization rate within the group of Nordic-born immigrants that we find here cannot likely be driven by partner characteristics only.

Our largest support for the context of reception idea is provided by the case of the Swedish-speaking Finns. People in this group have the lowest return migration risk and the highest risk of citizenship acquisition. The standardised naturalization risk for Swedish-speaking Finns is 2.5 times higher than that of other Nordic nationalities, and 30 percent higher than that of their Finnish-speaking countrymen. Since there are no obvious economic incentives to naturalize, the substantial disparity in naturalization between immigrants from an extremely close cultural and linguistic background and those with less proximity supports the idea that social and cultural integration must play an important role in the decision to naturalize, much to the potential dismay of economists. Adding to this dismay, we find no large effects of economic status on the naturalization risk, although this is likely an artifact of the rules that allow all Nordic citizens equal rights in all countries.

References

Aleinikoff, T. A. (2001). American citizenship: an introduction. Citizenship Studies, 5, 5-9.

Becker, G. S. (1971). The Economics of Discrimination. University of Chicago Press, Chicago.

Bevelander, P., Bratsberg, B., Helgertz, J. & Tegunimataka, A. (2015). Vem blir medborgare och vad händer sen? Naturalisering i Danmark, Norge och Sverige. [Who becomes a citizen and what happens next? Naturalization in Denmark, Norway and Sweden]. Delegationen för migrationsstudier, Stockholm.

Bloemraad, I. (2002). The North American naturalization gap: an institutional approach to citizenship acquisition in the United States and Canada. International Migration Review, 36, 193-228.

Bloemraad, I. (2004). Who claims dual citizenship? The limits of postnationalism, the possibilities of transnationalism and the persistence of traditional citizenship. International Migration Review, 38, 389-426.

Borjas, G. (2002). Welfare reform and immigrant participation in welfare programs. International Migration Review, 36, 1093-1123.

Bratsberg, B., Ragan, J. F. & Nasir, Z. M. (2002). The effect of naturalization on wage growth: a panel study of young male immigrants. Journal of Labor Economics, 20, 568-597.

Chiswick, B. R. (1978). The effect of Americanization on the earnings of foreign-born men. Journal of Political Economy, 86, 897-921.

Chiswick, B. R. & Miller, P. W. (2009). Citizenship in the United States: the roles of immigrant characteristics and country of origin. Research in Labor Economics, 29, 91-130.

Chiswick, B. R. & Miller, P. W. (2014). International migration and the economics of language. In Handbook of the Economics of International Migration, Volume 1A, Chiswick, B. R. & Miller, P. W. (eds). Elsevier, North Holland, New York, 211-269.

Clarke, J., van Dam, E. & Gooster, L. (1998). New Europeans: naturalisation and citizenship in Europe. Citizenship Studies, 2, 43-67.

Corluy, V., Marx, I. & Verbist, G. (2011). Employment chances and changes of immigrants in Belgium: the impact of citizenship. International Journal of Comparative Sociology, 52, 350-368.

DeVoretz, D. J. (2008). The economics of citizenship: a common intellectual ground for social scientists? Journal of Ethnic and Migration Studies, 34, 679-693.

DeVoretz, D. J. & Pivnenko, S. (2006). The economic causes and consequences of Canadian citizenship. Journal of International Migration and Integration, 6, 435-468.

Diehl, C. & Blohm, M. (2003). Rights or identity? Naturalization processes among "labor migrants" in Germany. International Migration Review, 37, 133-162.

Dronkers, J. & Vink, M. P. (2012). Explaining access to citizenship in Europe: how citizenship policies affect naturalization rates. European Union Politics, 13, 390-412.

Euwals, R., Dagevos, J., Gijsberts, M. & Roodenburg, H. (2010). Citizenship and labor market position: Turkish immigrants in Germany and the Netherlands. International Migration Review, 44, 513-538.

Helgertz, J. & Bevelander, P. (2016). The influence of partner choice and country of origin characteristics on the naturalization of immigrants in Sweden: a longitudinal analysis. International Migration Review. DOI: 10.1111/imre.12244.

Helgertz, J., Bevelander, P. & Tegunimataka, A. (2014). Naturalization and earnings: a Denmark-Sweden comparison. European Journal of Population, 30, 337-359.

Jones-Correa, M. (2001). Under two flags: dual nationality in Latin America and its consequences for naturalization in the United States. International Migration Review, 35, 997-1029.

Liang, Z. (1994). Social contact, social capital, and the naturalization process: evidence from six immigrant groups. Social Science Research, 23, 407-437.

Logan, J. R., Oh, S. & Darrah, J. (2012). The political and community context of immigrant naturalisation in the United States. Journal of Ethnic and Migration Studies, 38, 535-554.

Mazzolari, F. (2009). Dual citizenship rights: do they make more and richer citizens? Demography, 46, 169-191.

Portes, A. & Curtis, J. W. (1987). Changing flags: naturalization and its determinants among Mexican immigrants. International Migration Review, 21, 352-371.

Saarela, J. & Scott, K. (2015). Mother tongue, host country earnings and return migration: evidence from cross-national administrative records. International Migration Review. DOI: 10.1111/imre.12230.

Scott, K. (2008). The economics of citizenship: is there a naturalization effect? In The Economics of Citizenship, Bevelander, P. & DeVoretz, D. J. (eds). Holmbergs, MIM/Malmö University, Malmö, 105-126.

Spång, M. (2007). Pragmatism all the way down? The politics of dual citizenship in Sweden. In Dual Citizenship in Europe. From Nationhood to Societal Integration, Faist, T. (ed). Ashgate, Aldershot, 103-126.

Street, A. (2013). Naturalization dynamics in immigrant families. Comparative Migration Studies, 1, 23-44.

Street, A. (2014). My child will be a citizen: intergenerational motives for naturalization. World Politics, 66, 264-292.

Vink, M., Prokic-Breuer, T. & Dronkers, J. (2013). Immigrant naturalization in the context of institutional diversity: policy matters, but to whom? International Migration, 51, 1-20.

Yang, P. Q. (1994). Explaining immigrant naturalization. International Migration Review, 28, 449-477.

Table 1. Foreign born population in Sweden at the end of 2004 by continent or country of birth, percentage naturalized, and year of naturalization as % of all naturalized

Continent or country of birth	Total number	Natu-ralised	-1974	1975-1979	1980-1984	1985-1989	1990-1994	1995-1999	2000-2004
(A) Finland	186,589	63.8	42.3	20.6	15.0	9.1	6.7	2.7	3.4
(B) Denmark	41,663	45.4	55.0	14.2	11.7	6.7	4.9	3.8	3.7
(C) Norway	45,000	39.9	61.1	8.1	6.4	6.6	5.8	5.7	6.2
(D) Iceland	3,851	18.0	14.3	6.2	9.8	9.0	11.1	12.4	37.1
(E) Other EU25 countries	183,943	59.4	39.9	12.7	9.9	12.6	8.9	5.5	10.6
(F) Other European countries	215,648	72.1	4.0	3.0	3.3	5.2	17.1	35.2	32.2
(G) Africa	65,249	61.3	4.5	3.7	5.6	7.7	20.4	27.1	31.0
(H USA and Canada	17,804	46.6	48.3	4.5	5.4	4.6	6.3	8.6	22.2
(I) Other American countries	64,199	69.5	5.8	5.6	11.5	16.6	23.4	18.3	18.9
(J) Asia	272,279	63.4	3.3	4.5	6.9	9.0	22.8	26.3	27.2
(K) Oceania	3,517	32.7	24.9	8.4	8.1	6.3	9.7	13.3	29.3
(L) Unknown	520	25.4	13.6	0.8	1.5	3.0	18.2	37.9	34.1
Total	1,100,262	62.5	19.8	8.7	8.3	8.9	15.3	19.0	20.0

Other European countries include the former Soviet Union.
The Swedish born population amounted to 7,911,130 persons.
The description refers to authors' calculations based on Statistics Sweden (2005).

Table 2. Migration and naturalization of the foreign born population who immigrated to Sweden in 1988-2004, by origin of birth

		% migrated after			% naturalized after		
Origin	Number	5 yrs	10 yrs	15 yrs	5 yrs	10 yrs	15 yrs
(1) Finland, Swedish speaker	7,449	30.6	48.7	53.7	3.7	13.2	23.0
(2) Finland, Finnish speaker	18,071	50.9	67.5	71.4	3.3	9.5	16.8
(3) Denmark	27,057	55.9	69.0	72.3	2.4	7.4	13.9
(4) Norway and Iceland	44,599	52.9	69.2	72.9	1.7	5.5	8.4
(5) Former Yugoslavia	114,222	3.5	6.9	14.3	45.3	83.9	83.6
(6) Western Europe	46,077	33.7	48.4	54.6	4.7	10.5	16.5
(7) Eastern Europe	66,365	7.3	12.9	16.0	26.3	59.7	76.6
(8) Southern Europe	28,348	9.6	17.1	22.5	17.0	54.7	71.9
(9) USA and Canada	15,734	44.3	58.5	62.0	5.0	9.7	20.2
(10) Central and South America	36,698	8.6	15.7	17.6	29.1	57.3	67.4
(11) Iran and Iraq	108,495	2.1	7.8	12.9	37.3	83.7	91.2
(12) Middle East	34,668	3.0	7.8	9.9	51.9	77.4	90.8
(13) Africa	57,480	5.4	12.9	18.4	32.3	76.7	85.7
(14) Asia	72,973	12.5	19.7	24.5	34.6	71.1	83.1
(15) Oceania	4,422	42.6	61.6	73.7	4.4	10.6	22.4
(16) Unknown	129	5.0	16.4	20.0	32.9	63.0	75.0
Total	690,014	15.1	21.7	31.9	32.0	68.7	73.1

All persons studied had a non-Swedish citizenship at the time of immigration, and lived in Sweden at the end of the immigration year.

Calculations of the percentages migrated and naturalized are for persons with applicable time since immigration.

The total number of persons born in Finland is 31,961. Swedish and Finnish speakers can be separated via linkage to data from Finland, which constitute a 77.5 per cent random sample of the persons who migrated from Finland to Sweden. Approximately 3.3 per cent of the people born in Finland who migrated to Sweden had a native language other than Finnish or Swedish.

(5) Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, and Slovenia

(6) Austria, Belgium, France, Germany, Great Britain, Ireland, Liechtenstein, Luxembourg, Netherlands, and Switzerland

(7) Albania, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovakia, Slovenia, and other countries in the former Soviet Union

(8) Cyprus, Gibraltar, Greece, Italy, Malta, Portugal, San Marino, Spain, Vatican State, and Turkey

(12) Bahrain, Egypt, Gaza, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, South Yemen, Syria, West Bank, United Arab Emirates, and Yemen

(13) Excludes African countries in the Middle East

(14) Excludes Turkey, Iran, Iraq, and African countries in the Middle East

Table 3. Characteristics of Nordic born immigrants aged 18+ years (%)

	Finland, Swedish speakers	Finland, Finnish speakers	Denmark	Norway and Iceland
Man	44.4	43.9	60.5	52.7
Immigrated before 1994	49.7	62.1	55.2	69.7
Age, 18-22 years	9.8	8.8	6.0	8.8
23-28	30.2	24.8	17.3	22.9
29-35	30.0	27.7	26.7	26.5
36-45	17.8	22.5	26.0	21.6
46-64	9.4	13.4	19.9	15.8
65+	2.9	2.8	4.0	4.4
Marital status, Married	27.8	28.9	39.7	34.3
Not married	64.0	57.5	47.4	52.6
Previously married	8.2	13.6	12.9	13.1
Minor child in the household	27.6	31.1	33.6	38.0
Earnings in 2005 prices, No	18.4	24.6	35.1	28.1
<50,000 SEK	13.6	16.0	11.3	14.7
50,000-99,900 SEK	8.6	10.9	7.9	10.0
100,000-199,900 SEK	21.7	22.9	18.4	22.5
200,000-299,900 SEK	22.4	16.5	14.9	16.3
300,000+ SEK	15.4	9.1	12.3	8.5
Years of education, <10	18.0	28.5	14.0	17.0
10-11	13.9	18.9	12.0	16.0
12	19.7	19.0	10.7	13.1
13-14	18.0	13.5	8.3	9.0
15	17.4	12.2	7.7	6.3
16+	13.0	7.9	8.9	6.1
Unknown	-	-	38.3	32.4
County of residence, Stockholm	50.3	47.3	13.5	19.3
Norrbotten	2.0	12.8	0.7	2.4
Skåne	4.4	4.6	43.5	7.8
Västra Götaland	5.7	7.5	8.9	23.5
Värmland	0.7	0.9	1.7	11.5
Other	36.9	26.9	31.7	35.5
*Type of household, Single	25.1	33.9		
With parent(s)	50.9	36.7		
With partner and no children	11.2	12.3		
With partner and children	12.8	17.1		
*Earnings in 2005 prices, No	20.2	24.0		
<5,000 €	32.0	25.1		
5,000-9,900 €	13.7	14.3		
10,000-19,900 €	18.2	19.7		
20,000+ €	15.9	16.9		
*Owner-occupied housing	65.9	52.6		
*Region of residence, Uusimaa	25.0	28.3		
Pohjanmaa	41.3	3.6		
Åland Islands	19.9	0.5		
Lappi	0.0	14.6		
Other	13.8	53.0		
Number of individuals	6,545	15,098	22,885	36,860

The description is based on the distribution of total time spent in Sweden.
* Situation in Finland at end of calendar year prior to migration year
If education of Finnish born immigrants is unknown in Swedish data, information from Finnish data has been used.

Table 4. Characteristics of Nordic born immigrants aged <18 years (%)

	Finland, Swedish speakers	Finland, Finnish speakers	Denmark	Norway and Iceland
Boy	48.3	52.1	51.5	51.2
Immigrated before 1994	40.6	52.8	58.5	66.3
Age, <7 years	25.2	25.4	30.7	28.9
7-12	43.9	44.3	40.9	41.6
13-17	30.9	30.3	28.4	29.5
County of residence, Stockholm	42.6	37.4	11.6	12.9
Norrbotten	3.4	15.5	1.3	2.3
Skåne	5.9	4.3	35.1	11.5
Västra Götaland	4.3	7.6	8.3	19.4
Värmland	0.8	0.9	2.1	11.7
Other				
*Region of residence, Uusimaa	38.0	27.4		
Pohjanmaa	34.8	3.1		
Åland Islands	10.1	0.1		
Lappi	0.5	16.8		
Other				
Number of individuals	904	2,973	4,172	7,739

The description is based on the distribution of total time spent in Sweden.
* Situation in Finland at end of calendar year prior to migration year

Table 5 (continues on next page). Relative risks of return migration and naturalization (with 95% confidence intervals) for Nordic born immigrants aged 18+ years

	Return migration		Naturalization	
	Model 1	Model 2	Model 1	Model 2
Origin				
(1) Finland, Swedish speaker	1	1	1	1
(2) Finland, Finnish speaker	1.66 (1.59-1.73)	1.57 (1.49-1.66)	0.75 (0.66-0.86)	0.77 (0.65-0.91)
(3) Denmark	1.46 (1.40-1.52)		0.42 (0.35-0.49)	
(4) Norway or Iceland	1.40 (1.34-1.46)		0.32 (0.28-0.37)	
Gender, Man	1	1	1	1
Woman	0.85 (0.83-0.86)	0.74 (0.72-0.77)	0.96 (0.88-1.05)	0.91 (0.80-1.04)
Time in Sweden, 1-4 years	1	1	1	1
5-6	0.67 (0.65-0.69)	0.67 (0.63-0.71)	7.30 (6.25-8.53)	9.33 (7.53-11.6)
7-8	0.54 (0.52-0.57)	0.56 (0.51-0.60)	6.92 (5.76-8.31)	8.88 (6.93-11.4)
9-10	0.46 (0.44-0.49)	0.49 (0.44-0.54)	8.17 (6.74-9.89)	9.21 (7.03-12.1)
11-12	0.35 (0.32-0.37)	0.41 (0.36-0.46)	8.32 (6.82-10.2)	9.41 (7.05-12.6)
13-14	0.24 (0.22-0.26)	0.25 (0.21-0.29)	7.45 (6.06-9.16)	10.5 (7.79-14.0)
15-17	0.23 (0.21-0.26)	0.22 (0.18-0.26)	9.11 (7.40-11.2)	13.2 (9.79-17.8)
Age, 18-22 years	1	1	1	1
23-28	0.89 (0.86-0.91)	0.81 (0.77-0.86)	0.41 (0.34-0.48)	0.39 (0.30-0.49)
29-35	0.77 (0.74-0.79)	0.67 (0.62-0.72)	0.26 (0.22-0.31)	0.23 (0.17-0.29)
36-45	0.67 (0.65-0.70)	0.53 (0.49-0.58)	0.27 (0.22-0.32)	0.23 (0.17-0.30)
46-64	0.51 (0.49-0.53)	0.43 (0.39-0.47)	0.20 (0.16-0.25)	0.17 (0.12-0.24)
65+	0.28 (0.26-0.30)	0.35 (0.30-0.41)	0.14 (0.09-0.21)	0.13 (0.07-0.22)
Marital status, Married	1	1	1	1
Not married	1.00 (0.97-1.02)	0.90 (0.86-0.95)	0.70 (0.63-0.79)	0.70 (0.60-0.83)
Previously married	1.02 (0.98-1.05)	0.81 (0.76-0.88)	0.76 (0.65-0.90)	0.62 (0.48-0.79)
Minor child in the household, No	1	1	1	1
Yes	0.84 (0.82-0.86)	0.78 (0.74-0.83)	0.91 (0.82-1.02)	0.82 (0.70-0.96)
Earnings in 2005 prices, No	1	1	1	1
<50,000 SEK	0.84 (0.82-0.86)	0.74 (0.70-0.78)	1.25 (1.07-1.47)	1.14 (0.91-1.41)
50,000-99,900 SEK	0.77 (0.75-0.80)	0.69 (0.65-0.73)	1.36 (1.14-1.63)	1.30 (1.01-1.67)
100,000-199,900 SEK	0.65 (0.64-0.67)	0.58 (0.55-0.61)	1.35 (1.16-1.57)	1.23 (0.99-1.52)
200,000-299,900 SEK	0.56 (0.54-0.58)	0.51 (0.48-0.54)	1.30 (1.11-1.52)	1.25 (1.00-1.56)
300,000+ SEK	0.77 (0.75-0.80)	0.67 (0.62-0.72)	1.18 (0.98-1.42)	1.14 (0.88-1.48)
Years of education, <10	1	1	1	1
10-11	0.99 (0.96-1.02)	1.02 (0.96-1.07)	0.98 (0.85-1.13)	0.97 (0.78-1.20)
12	0.96 (0.92-0.99)	0.99 (0.94-1.04)	0.94 (0.82-1.08)	0.98 (0.80-1.20)
13-14	1.01 (0.98-1.05)	1.05 (0.99-1.12)	1.08 (0.92-1.26)	1.12 (0.89-1.40)
15	1.15 (1.10-1.20)	1.17 (1.09-1.25)	1.14 (0.97-1.35)	1.31 (1.05-1.64)
16+	1.21 (1.16-1.27)	1.14 (1.05-1.23)	1.17 (0.97-1.40)	1.30 (1.00-1.68)
Unknown	1.40 (1.36-1.44)		0.32 (0.25-0.43)	
Table continues on next page...		1		1

... Table 5 continued.

	Return migration		Naturalization	
	Model 1	Model 2	Model 1	Model 2
*Type of household, Single		1		1
With parent(s)		0.93 (0.88-0.98)		0.94 (0.78-1.14)
With partner and no children		1.19 (1.13-1.26)		1.08 (0.86-1.35)
With partner and children		1.42 (1.33-1.51)		1.28 (1.03-1.59)
*Earnings in 2005 prices, No		1		1
<5,000 €		1.16 (1.10-1.22)		0.86 (0.72-1.02)
5,000-9,900 €		1.21 (1.14-1.29)		0.97 (0.79-1.19)
10,000-19,900 €		1.17 (1.10-1.24)		0.76 (0.61-0.94)
20,000+ €		1.34 (1.26-1.43)		0.77 (0.61-0.98)
*Owner-occupied housing, No		1		1
Yes		1.13 (1.08-1.17)		0.91 (0.79-1.05)
Number of individuals (events)	81,388 (51,255)	21,643 (13,393)	81,388 (2,055)	21,643 (1,069)

County of residence (*län*) and year of observation are also included in Model 1, plus region of residence (*landskap*) in Model 2, but their estimates are not displayed here.

* Situation in Finland at end of calendar year prior to migration year

Table 6. Relative risks of return migration and naturalization (with 95% confidence intervals) for Nordic born immigrants aged <18 years

	Return migration		Naturalization	
	Model 1	Model 2	Model 1	Model 2
Origin				
(1) Finland, Swedish speaker	1	1	1	1
(2) Finland, Finnish speaker	1.57 (1.41-1.76)	1.57 (1.38-1.80)	0.67 (0.49-0.90)	0.57 (0.37-0.87)
(3) Denmark	1.57 (1.40-1.76)		0.67 (0.49-0.91)	
(4) Norway or Iceland	1.60 (1.43-1.78)		0.59 (0.45-0.79)	
Gender, Boy	1	1	1	1
Girl	1.01 (0.97-1.05)	1.03 (0.94-1.12)	0.89 (0.77-1.04)	0.84 (0.63-1.11)
Time in Sweden, 1-4 years	1	1	1	1
5-6	0.54 (0.50-0.58)	0.54 (0.46-0.63)	3.48 (2.79-4.33)	4.37 (2.87-6.65)
7-8	0.47 (0.42-0.52)	0.50 (0.41-0.61)	3.62 (2.74-4.77)	3.05 (1.77-5.26)
9-10	0.39 (0.34-0.44)	0.29 (0.21-0.40)	3.76 (2.78-5.09)	5.60 (3.29-9.51)
11-12	0.26 (0.22-0.32)	0.36 (0.25-0.52)	4.07 (2.87-5.78)	6.54 (3.60-11.9)
13-14	0.17 (0.12-0.23)	0.14 (0.07-0.30)	3.88 (2.51-6.00)	5.60 (2.26-11.8)
15-17	0.23 (0.15-0.35)	0.27 (0.11-0.66)	5.97 (3.48-10.2)	9.48 (3.75-24.0)
Age, <7 years	1	1	1	1
7-12	0.86 (0.81-0.90)	0.76 (0.69-0.84)	0.62 (0.50-0.77)	1.26 (0.73-2.17)
13-17	0.89 (0.84-0.94)	0.78 (0.69-0.88)	0.53 (0.41-0.68)	1.63 (0.92-2.91)
Number of individuals (events)	15,788 (8,936)	3,877 (2,121)	15,788 (696)	3,877 (204)

County of residence (*län*) and year of observation are also included in Model 1, plus region of residence (*landskap*) in Model 2, but their estimates are not displayed here.