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# Social Integration of Immigrants and the Attitude of the Native Population in European Countries<sup>1</sup>

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## Abstract

In this paper, I focus on the relationships between the attitude of the native population towards immigrants and immigration (ATII) in 20 European countries and the level of social integration and perceived discrimination of first and second generation immigrants in those countries. The stringency of naturalization policies in the host countries is also taken into consideration as a mechanism of the development of these relationships.

The results confirm that a country's naturalization policies fairly represent most ATII indicators, and that immigrants feel less discriminated against in more welcoming societies. However, no systematic relationship was revealed between the attitude of the native population and the social integration of immigrants. On the other hand, the results suggest lower perceived discrimination and higher social integration of first generation immigrants in countries where the naturalization status of immigrants is more secured, and the possibility of dual nationality is more restricted.

The results also show that the perceived discrimination of immigrants does not decline with the duration of residence in the host countries, but the latter revealed a positive relationship with the social integration of immigrants.

**Keywords:** naturalization policy, social integration, perceived discrimination, attitude of the native population.

JEL Classification: J10, F22, K37, Z13

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## 1. INTRODUCTION

The successful social integration of immigrants and their children in the destination countries is crucial for many reasons. Most importantly, successful integration of immigrants and better social acceptance of immigrants by the host societies result in a higher contribution to the host country. Conversely, poor integration may result in the exclusion of immigrants and their children from the social and economic norms of the destination countries. In both cases, the attitude of the native population may serve as both the cause and the result of the degree of immigrant integration, and, in turn, may impact the immigration and naturalization policies in the host countries.

Integration of immigrants into host country economies and societies has become a very popular topic for research and discussion, particularly in recent decades. However, much integration-related research focuses on the socioeconomic integration of immigrants expressed through the health, education, and labor market outcomes of immigrants in the destination countries. Another stream of research addresses only the attitude of the native population towards immigrants and immigration in the main destination countries for immigrants. Little work to date has studied the level of immigrant integration outside the context of the labor market, or in combination with the attitude of the native population towards immigrants and immigration.

The notion of “naturalization” is defined in this study as the acquisition of citizenship of the destination country by immigrants. This definition is widely used in the literature and results in very clear limits and plain differentiation between naturalized and non-naturalized immigrants (Bevelander and Veenman, 2008; Engdahl, 2011). Since naturalization is the procedure that results in the elimination of all (or almost all) legal barriers and differences between immigrants and natives, it is reasonable to consider it when studying the level of the social integration of immigrants.

In this study, I focus on the social integration of immigrants and the perceived discrimination of immigrants in host societies. The notion of social integration of immigrants is discussed in this paper through the evaluation of a feeling of closeness to the host country and a measure of the frequency by which the official language of the host country is being spoken at home. The latter can be considered an indicator of acculturation, which is defined as the convergence of the behavior of immigrants to that of the native population. The perceived discrimination of immigrants is evaluated through their answers to a survey question as to

whether or not they consider themselves a member of a group that is being discriminated against in the country.

As the main contribution to the existing literature, I attempt to reveal the relationships between both the social integration and perceived discrimination of immigrants and the attitude of the native population towards immigrants and immigration (similar to related literature, ATII abbreviation will be used hereafter). As a highly complex measure, ATII can clearly both impact immigrant integration, and be impacted by immigrant integration. For this reason, different indicators of ATII are employed in this study to cover its different aspects. These indicators include the willingness of the native population to accept new immigrants into their homeland, the natives' opinion about the role of the government in immigration related issues, and their opinion about the contribution of immigrants to their country. Moreover, the impact of ATII on immigrant integration may also be indirect, through effecting institutionally-imposed restrictions and integration-related policies. In order to estimate the direct effect of ATII, institutionally imposed restrictions in the form of the stringency of the naturalization policies are also controlled for in this study.

The objective of this paper is to provide a more comprehensive picture of the integration of immigrants in European countries by first analyzing whether the naturalization policies reflect ATII, and then attempting to link ATII and the institutionally-imposed restrictions in the form of naturalization policies with the social integration of immigrants and the perceived discrimination of immigrants in these countries. The empirical study is conducted on 20 European countries using similar norms and definitions that could allow cross-country comparison.

## **2. LITERATURE REVIEW**

The academic literature related to this study is relatively extensive, covering three main aspects: the natives' attitude towards immigrants and immigration, naturalization policies, the integration of immigrants in host societies, as well as their interactions. In the past decade, a large body of research has been developed on these classic issues. However, most of these studies focus on only one of the three aspects, while a collective presentation could give a more complete picture of the causes and determinants of immigrant integration.

The natives' attitude towards immigrants is usually covered in social studies and sociological research. Ceobanu and Escandell (2010) present a good critical review of this literature, which also covers European countries, and attempting to understand the causes and implications of ATII. The authors highlight the importance for and need for cross-national research that would link ATII to the institutional environment and the immigrant composition in the receiving societies. They conclude that, because of the vast complexity of the issue, the area lacks theoretically and empirically extended research.

Nevertheless, some research studies have attempted to reveal the relationship between ATII and macroeconomic or other country specific characteristics of host countries, mostly related to outcomes in labor markets. For example, using longitudinal data, Gorinas and Pytlikova (2017) investigate whether anti-immigrant attitudes affect migration flows in OECD countries, and show that the natives' tendency to discriminate in the labor market has a robust negative effect on migration flows, particularly for migrants from more developed countries. Other studies have attempted to reveal the relationships of ATII with the unemployment rates in receiving countries (Meuleman, Davidov and Billiet, 2009), the presence and strength of radical right-wing parties in receiving countries (Bohman and Hjerm, 2016; Gorinas and Pytlikova, 2017), and native-immigrant differences in skills and labor market competitiveness (Mayda, 2006).

Other recent theoretical and empirical research (mainly developed by Facchini, and Mayda) attempts to relate ATII with the immigration policies in the host countries. For example, some studies analyse not only the determinants of ATII from theoretical and empirical perspectives, but also how these attitudes are reflected in migration policies (Facchini and Mayda, 2008; Facchini and Mayda, 2009; Facchini and Mayda, 2012). The authors provide some evidence that while restrictive migration policies are in line with the predictions of the median-voter framework, there are still large gaps between ATII and the actual policies, which may be explained by pressure groups, lobbyists, and policymakers' concerns about social welfare. However, to my knowledge, no study has attempted to reveal to what extent ATII is reflected in a country's naturalization policies.

Most integration-related studies also focus mainly on the socioeconomic integration of immigrants in labor markets, ignoring other sides of integration. Such studies, conducted for separate countries, generally find employment and wage gaps between natives and immigrants (including naturalized immigrants), even after controlling for observable individual

heterogeneity (Steinhardt, 2012; Fougere and Safi, 2008; Bevelander and Veenman, 2008). More comprehensive studies include the analysis of the level of labor market integration by immigrants in 29 European countries by Dustmann and Frattini (2011). Using data from the European Labor Force Survey (EULFS), the authors show that in most European countries immigrants are highly disadvantaged in the labor markets, even when their performance is compared to that of the native population with the same measurable skills. Such findings suggest that unsuccessful integration of immigrants in labor markets may be a cause of poor social integration, which has not been properly studied in the literature.

Moreover, there is very little literature that examines the relationship of the host countries' naturalization policies with the socioeconomic integration of immigrants. One such study is Gathmann and Keller (2014), who examine two major immigration reforms in Germany to test whether more liberal access to citizenship can improve the economic integration of immigrants. The results suggest that liberalization of citizenship access provides some benefits in the labor market but does not completely eliminate the gaps between immigrants and the native population.

There are other cross-national studies related to the impact of citizenship policies on the socioeconomic integration of immigrants. For example, Vink, Prokic-Breuer and Dronkers (2013) conduct a cross-sectional study of 16 European countries and show that more accessible citizenship policies have a significant impact on naturalization rates for immigrants from less developed countries. However, in their study the authors do not differentiate between immigrant integration and the rates of naturalization.

Finally, using data from the European Social Survey (ESS) from 2001 to 2009, Aleksynska and Algan (2010) study both the cultural and economic integration of first and second generation immigrants in European destinations, and show that integration-related economic and social outcomes may take place at a different speeds and do not have systematic correlations. The authors also relate the destination country's integration policies to the assimilation of immigrants and show that policies that favor labor market integration also favor immigrant assimilation. However, the main focus of the paper was to check correlations between different outcomes among native-born and first and second generation immigrants rather than reveal the connections between ATII, the naturalization policies, and the social integration of immigrants in the countries of residency.

This paper builds on and contributes to the present literature by creating a more comprehensive picture of immigrant integration by simultaneously covering ATII, its relation to a country's naturalization policies, as well as the social integration and perceived discrimination of immigrants.

### **3. DATA**

The main analyses are conducted using the 2010-2014 data waves (2010, 2012 and 2014) of the European Social Survey (ESS). The start wave of 2010 was chosen because of the 2009 implementation of the "Treaty of Lisbon", an important agreement that provides a consolidated legal foundation for the EU to promote and support the immigrant integration practices of member states. The end wave of 2014 was chosen since it was the last ESS data wave at the time of the research and in order to exclude the possible impact of the recent migration crisis in Europe. Among the advantages of the ESS is the recurrence of the same questions with the same definitions across survey waves and countries, which makes it possible to conduct cross-national comparative analyses. As of 2014, ESS includes complete or partial data on 23<sup>3</sup> of the 28 EU member states. However, Croatia (HR) was removed from the analysis since it joined the EU in 2013 and only had a data wave from 2010. Two more countries (Bulgaria and Hungary) were also excluded from the analysis for other reasons explained later in this section.

Using various indicators of the ESS, I was able to measure most aspects of the social and cultural integration of immigrants, as well as the attitude of the native population towards immigrants and immigration. These indicators include the feeling of closeness to the host country and language acquisition (which I refer to as "social integration"), the level of perceived discrimination, as well as the native population's willingness to allow more immigrants into the country and their opinion about the contribution of immigrants (which are referred to as ATII).

In addition, the survey contains such key indicator variables as the birthplace of individuals and their parents, and the duration of their residency in the host country. This allows us to identify an immigrant as a person who was born in a country other than the country of current residence (country where the survey was taken) and to further differentiate the individuals into four groups:

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<sup>3</sup>The 23 EU member state ISO country codes in ESS are: AT, BE, BG, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IT, LT, NL, PL, PT, SE, SI, SK.

- 1) Non-naturalized immigrants - citizens of countries other than the country of residence and not born in the country of residence;
- 2) Naturalized immigrants - citizens of the country of residence not born in the country of residence;
- 3) Second generation immigrants- citizens of the country of residence that were born in the country of residence and have at least one parent not born in the country of residence<sup>4</sup>;
- 4) Native population - citizens of the country of residence that were born in the country of residence with both parents born in the country of residence.

This differentiation of individuals was conducted to be able to estimate any changes in the attitude of the native population and the social integration of immigrants that are related to the citizenship status or the generation of immigrants. When using this differentiation, I also controlled for possible changes of country borders that might raise a concern if the respondents were not certain as to what country code to report as a county of birth. Since 2012, the ESS database includes DDR, USSR, Czechoslovakia, Yugoslavia, East Timor, Serbia and Montenegro in the list of possible birthplaces. Fortunately, there were few observations with such reports, and after their elimination, I concluded that this issue should not create a significant problem for the analysis.

On the other hand, three of the major constraints of the data are: 1) the surveys are conducted only in the country language and may not reach those who do not speak the language (who are potentially less integrated); 2) the small migrant sizes by different origins in the data sample may not be representative of the entire immigrant population; 3) The differences in immigrant composition between countries challenge the robustness of cross country comparisons.

To overcome the first constraint, I conducted additional analyses were conducted with restricted data including only the long-term immigrants who already reside in the destination

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<sup>4</sup> A more widely accepted definition of “second generation immigrant” is to be born to two non-native parents. However, because of the low number of such observations for many countries in the data, this non-standard definition was adopted in the main analyses. Robustness checks with the use of the more widely accepted definition for the countries with appropriate number of observations showed similar results. These Analyses are available upon request.

countries for at least 5 years<sup>5</sup> (and thus are highly likely to speak the language). The results of these analyses with the restricted data were in line with the results of the main analyses.

To overcome the second constraint, I compare the immigrant samples in the ESS data with the 2015 data on the total immigrant population from the EUROSTAT Migration and Migrant Population Statistics Report<sup>6</sup> and exclude those countries from the ESS database that show a significant mismatch in the relative immigrant shares<sup>7</sup>. Based on the comparison of the relative shares of the immigrant population statistics from the ESS database to the EUROSTAT 2017 Migration and Migrant Population Statistics Report (Table 1), two more countries (BG and HU) with the highest levels of mismatch were dropped from further analyses, leaving only 20 EU member states. In addition, six more countries (AT, CZ, GR, IT, PL, and SK) require careful consideration and, in some cases, are also dropped from the analysis either because of the mismatch or because of being present only in one data wave<sup>8</sup>, which results in a lower number of observations.

Finally, in order to overcome the third constraint, I use origin-to-host country pair controls in the regression analyses. Moreover, I am extremely careful in making conclusions regarding the causality of the relationships because of the possible reverse causality issues and the possible impact of country specific characteristics on the results.

Table 2 presents the 2010-2014 average individual characteristics of each of the four identified groups in each of the 20 EU member states. Because of the low number of observations of non-naturalized immigrants in PL and SK, these two countries were also excluded in corresponding parts of the analysis (related to non-naturalized immigrants).

It can be observed that, in line with logical expectations, the group of naturalized immigrants is often the oldest among the three immigrant groups (except for EE where non-

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<sup>5</sup> With such restriction, the group of naturalized immigrants also becomes more comparable with the group of non-naturalized long-term immigrants since the minimal required duration of residency for the purposes of naturalization in EU member states is at least 5 years. The results of these analyses are available upon request.

<sup>6</sup> The 2017 EUROSTAT Report was selected since it uses data up to 2015 and was considered the most comparable source of the statistics for this study.

<sup>7</sup> The shares of foreign born population between EUROSTAT and ESS results were clearly not perfectly identical, but mainly very close to each other. Any mismatch of more than two times of at least two indicators was considered significant for the exclusion from further analysis.

<sup>8</sup> The data from AT is present only in the 2014 wave, GR data is present only in the 2010 wave; and IT data is present only in the 2012 wave. BG and SK do not have 2012 year waves. All other country data is present in all three waves.

naturalized immigrants are the oldest, and FI and GR<sup>9</sup> where second generation immigrants are the oldest among the groups of immigrants) but is still on average younger than the group of the native population (except for AT, CZ, IT, LT, PL, SI, and SK).

**Table 1: Share of Foreign Born Population (Immigrants) in Destination Countries by the Country of Residence and the Place of Birth.**

| Country        | ISO | Foreign born population (EUROSTAT) |         |             | Foreign born population (ESS) |         |             |      |
|----------------|-----|------------------------------------|---------|-------------|-------------------------------|---------|-------------|------|
|                |     | Total                              | EU born | Non EU born | Total                         | EU born | Non EU born | N    |
| Austria        | AT  | 18.2%                              | 8.2%    | 10.0%       | 11.8%                         | 5.6%    | 6.1%        | 211  |
| Belgium        | BE  | 16.3%                              | 7.7%    | 8.6%        | 12.7%                         | 5.9%    | 6.8%        | 676  |
| Bulgaria       | BG  | 1.9%                               | 0.7%    | 1.2%        | 0.7%                          | 0.4%    | 0.4%        | 34   |
| Czech Republic | CZ  | 4.1%                               | 1.6%    | 2.5%        | 2.1%                          | 1.8%    | 0.3%        | 137  |
| Germany        | DE  | 13.3%                              | 5.3%    | 8.0%        | 9.8%                          | 4.2%    | 5.7%        | 884  |
| Denmark        | DK  | 11.2%                              | 3.8%    | 7.4%        | 7.0%                          | 2.6%    | 4.4%        | 332  |
| Estonia        | EE  | 14.7%                              | 1.5%    | 13.2%       | 17.1%                         | 0.7%    | 16.4%       | 1063 |
| Spain          | ES  | 12.7%                              | 4.2%    | 8.5%        | 10.2%                         | 3.0%    | 7.2%        | 579  |
| Finland        | FI  | 6.0%                               | 2.2%    | 3.8%        | 4.2%                          | 1.8%    | 2.4%        | 259  |
| France         | FR  | 11.8%                              | 3.3%    | 8.5%        | 10.5%                         | 2.9%    | 7.6%        | 584  |
| United Kingdom | GB  | 13.3%                              | 5.0%    | 8.3%        | 12.2%                         | 3.4%    | 8.8%        | 850  |
| Greece         | GR  | 11.3%                              | 3.2%    | 8.1%        | 9.8%                          | 2.4%    | 7.4%        | 267  |
| Hungary        | HU  | 5.1%                               | 3.3%    | 1.8%        | 1.8%                          | 1.2%    | 0.6%        | 94   |
| Ireland        | IE  | 16.9%                              | 11.6%   | 5.3%        | 14.6%                         | 10.4%   | 4.1%        | 1101 |
| Italy          | IT  | 9.7%                               | 3.0%    | 6.7%        | 7.3%                          | 3.0%    | 4.3%        | 70   |
| Lithuania      | LT  | 4.5%                               | 0.7%    | 3.8%        | 3.6%                          | 0.4%    | 3.3%        | 219  |
| Netherlands    | NL  | 12.1%                              | 3.3%    | 8.8%        | 8.8%                          | 2.4%    | 6.4%        | 490  |
| Poland         | PL  | 1.6%                               | 0.6%    | 1.0%        | 1.2%                          | 0.6%    | 0.6%        | 64   |
| Portugal       | PT  | 8.4%                               | 2.2%    | 6.2%        | 6.7%                          | 1.1%    | 5.6%        | 372  |
| Sweden         | SE  | 17.0%                              | 5.4%    | 11.6%       | 12.6%                         | 4.8%    | 7.8%        | 643  |
| Slovenia       | SI  | 11.7%                              | 3.2%    | 8.5%        | 8.0%                          | 3.0%    | 5.1%        | 309  |
| Slovakia       | SK  | 3.3%                               | 2.8%    | 0.5%        | 2.2%                          | 1.8%    | 0.4%        | 81   |

Note: EUROSTAT presents the national 2015 European Union statistics on international migration, while the ESS data-based calculations show the shares of the foreign born population residing in the country in 2014.

In terms of years of education, all four groups stand more or less close to each other, but the groups of naturalized and second generation immigrants often show higher average results than the non-naturalized immigrants or even the natives. The non-naturalized immigrants are often, on average, more probable to be married and to have children than any other group, with the group of naturalized immigrants being the close second in both categories. However, there is no clear group dependent tendency in the share of females within a group.

<sup>9</sup> In Greece, the group of second generation immigrants was actually the oldest among the four groups. The high average age of this group is most likely a result of immigration of co-ethnic Greeks from Albania and other Balkan nations following the collapse of the Soviet Union in 1989.

**Table 2: Average Individual Characteristics by Group and Country of Residence.**

| Country | Non-naturalized Immigrants |      |                    |      |        |         |                      |       | Naturalized Immigrants |      |                    |      |        |         |                      |       |
|---------|----------------------------|------|--------------------|------|--------|---------|----------------------|-------|------------------------|------|--------------------|------|--------|---------|----------------------|-------|
|         | Age                        |      | Years of Education |      | Female | Married | Presence of Children | N     | Age                    |      | Years of Education |      | Female | Married | Presence of Children | N     |
|         | (Mean)                     | (SD) | (Mean)             | (SD) | (%)    | (%)     | (%)                  |       | (Mean)                 | (SD) | (Mean)             | (SD) | (%)    | (%)     | (%)                  |       |
| AT      | 41.0                       | 13.4 | 12.9               | 4.1  | 54.0%  | 47.0%   | 46.0%                | 114   | 52.8                   | 16.3 | 12.6               | 3.7  | 62.0%  | 53.0%   | 39.0%                | 97    |
| BE      | 41.4                       | 15.2 | 12.8               | 4.4  | 52.0%  | 52.0%   | 50.0%                | 341   | 46.6                   | 16.4 | 12.1               | 4.3  | 56.0%  | 62.0%   | 55.0%                | 335   |
| CZ      | 45.2                       | 15.8 | 13.6               | 3.0  | 35.0%  | 50.0%   | 50.0%                | 26    | 56.6                   | 16.0 | 12.6               | 3.0  | 60.0%  | 50.0%   | 35.0%                | 111   |
| DE      | 41.5                       | 13.5 | 13.0               | 4.7  | 58.0%  | 66.0%   | 52.0%                | 338   | 47.2                   | 18.1 | 13.3               | 3.6  | 50.0%  | 63.0%   | 41.0%                | 545   |
| DK      | 44.1                       | 16.4 | 13.7               | 5.7  | 55.0%  | 58.0%   | 44.0%                | 159   | 46.0                   | 16.4 | 14.0               | 5.7  | 57.0%  | 56.0%   | 46.0%                | 173   |
| EE      | 62.4                       | 14.2 | 12.0               | 3.4  | 62.0%  | 57.0%   | 34.0%                | 658   | 61.8                   | 15.0 | 12.5               | 3.7  | 74.0%  | 52.0%   | 24.0%                | 405   |
| ES      | 38.5                       | 13.6 | 12.6               | 5.1  | 49.0%  | 49.0%   | 42.0%                | 382   | 44.2                   | 14.0 | 14.4               | 6.0  | 54.0%  | 54.0%   | 54.0%                | 196   |
| FI      | 35.7                       | 12.8 | 15.1               | 4.3  | 50.0%  | 35.0%   | 46.0%                | 125   | 39.9                   | 15.5 | 15.1               | 4.1  | 52.0%  | 40.0%   | 43.0%                | 134   |
| FR      | 44.7                       | 15.8 | 12.3               | 4.9  | 56.0%  | 55.0%   | 46.0%                | 234   | 54.3                   | 16.8 | 12.6               | 4.9  | 54.0%  | 52.0%   | 40.0%                | 350   |
| GB      | 37.6                       | 14.2 | 15.2               | 4.5  | 57.0%  | 46.0%   | 37.0%                | 316   | 50.0                   | 17.7 | 13.5               | 4.3  | 52.0%  | 59.0%   | 47.0%                | 533   |
| GR      | 37.9                       | 11.3 | 10.9               | 3.4  | 58.0%  | 61.0%   | 58.0%                | 178   | 43.1                   | 17.3 | 12.5               | 4.0  | 60.0%  | 56.0%   | 40.0%                | 88    |
| IE      | 37.3                       | 12.8 | 15.0               | 3.7  | 48.0%  | 46.0%   | 41.0%                | 697   | 42.2                   | 14.9 | 15.1               | 3.4  | 57.0%  | 49.0%   | 46.0%                | 403   |
| IT      | 39.4                       | 12.2 | 12.8               | 3.9  | 50.0%  | 53.0%   | 59.0%                | 34    | 49.2                   | 16.7 | 11.9               | 4.6  | 60.0%  | 54.0%   | 51.0%                | 35    |
| LT      | 51.1                       | 15.1 | 13.5               | 2.5  | 57.0%  | 48.0%   | 22.0%                | 23    | 60.6                   | 13.4 | 12.4               | 3.6  | 58.0%  | 46.0%   | 32.0%                | 196   |
| NL      | 41.1                       | 12.5 | 13.6               | 4.9  | 48.0%  | 41.0%   | 42.0%                | 132   | 49.0                   | 15.9 | 13.7               | 4.8  | 58.0%  | 43.0%   | 38.0%                | 358   |
| PL      | 46.8                       | 18.7 | 16.4               | 5.0  | 40.0%  | 80.0%   | 60.0%                | 5     | 69.0                   | 16.1 | 10.3               | 4.2  | 59.0%  | 48.0%   | 40.0%                | 58    |
| PT      | 37.7                       | 12.3 | 11.2               | 4.5  | 62.0%  | 36.0%   | 40.0%                | 149   | 46.5                   | 15.8 | 11.0               | 4.8  | 60.0%  | 43.0%   | 50.0%                | 223   |
| SE      | 43.5                       | 16.9 | 13.6               | 4.4  | 48.0%  | 49.0%   | 45.0%                | 157   | 47.7                   | 17.6 | 13.3               | 3.8  | 55.0%  | 47.0%   | 39.0%                | 485   |
| SI      | 40.9                       | 14.9 | 11.3               | 3.3  | 38.0%  | 74.0%   | 60.0%                | 47    | 55.6                   | 13.8 | 10.9               | 4.3  | 54.0%  | 71.0%   | 60.0%                | 262   |
| SK      | 46.1                       | 17.4 | 13.2               | 3.5  | 36.0%  | 55.0%   | 64.0%                | 11    | 55.3                   | 16.0 | 13.4               | 3.1  | 67.0%  | 63.0%   | 44.0%                | 70    |
| Total   | 43.5                       | 16.4 | 13.2               | 4.5  | 54.0%  | 52.0%   | 43.0%                | 4,126 | 50.1                   | 17.3 | 13.1               | 4.4  | 57.0%  | 54.0%   | 43.0%                | 5,057 |

| Second Generation Immigrants |        |      |                    |      |            |             |                          |       | Native Population |      |                    |      |            |             |                          |        |  |
|------------------------------|--------|------|--------------------|------|------------|-------------|--------------------------|-------|-------------------|------|--------------------|------|------------|-------------|--------------------------|--------|--|
| Country                      | Age    |      | Years of Education |      | Female (%) | Married (%) | Presence of Children (%) | N     | Age               |      | Years of Education |      | Female (%) | Married (%) | Presence of Children (%) | N      |  |
|                              | (Mean) | (SD) | (Mean)             | (SD) |            |             |                          |       | (Mean)            | (SD) | (Mean)             | (SD) |            |             |                          |        |  |
| AT                           | 46.3   | 18.7 | 13.0               | 3.5  | 49.0%      | 41.0%       | 35.0%                    | 153   | 50.0              | 18.2 | 12.3               | 3.1  | 52.0%      | 45.0%       | 30.0%                    | 1,418  |  |
| BE                           | 40.3   | 18.4 | 13.1               | 4.0  | 49.0%      | 39.0%       | 36.0%                    | 500   | 48.4              | 19.3 | 13.0               | 3.6  | 51.0%      | 49.0%       | 37.0%                    | 4,085  |  |
| CZ                           | 49.6   | 16.7 | 12.8               | 2.6  | 51.0%      | 46.0%       | 32.0%                    | 422   | 46.8              | 17.3 | 12.7               | 2.4  | 51.0%      | 47.0%       | 35.0%                    | 5,935  |  |
| DE                           | 44.6   | 17.4 | 13.9               | 3.4  | 53.0%      | 47.0%       | 27.0%                    | 728   | 49.9              | 18.6 | 13.8               | 3.4  | 49.0%      | 54.0%       | 30.0%                    | 7,300  |  |
| DK                           | 43.8   | 20.7 | 13.4               | 5.0  | 51.0%      | 41.0%       | 28.0%                    | 247   | 49.1              | 18.7 | 13.1               | 5.1  | 48.0%      | 52.0%       | 32.0%                    | 4,111  |  |
| EE                           | 45.0   | 16.1 | 13.4               | 3.1  | 59.0%      | 47.0%       | 41.0%                    | 880   | 48.0              | 20.1 | 12.9               | 3.5  | 58.0%      | 38.0%       | 37.0%                    | 3,907  |  |
| ES                           | 38.8   | 18.7 | 13.7               | 4.6  | 55.0%      | 32.0%       | 34.0%                    | 102   | 48.3              | 18.6 | 12.5               | 5.8  | 50.0%      | 53.0%       | 44.0%                    | 5,004  |  |
| FI                           | 44.3   | 23.1 | 13.2               | 4.6  | 51.0%      | 22.0%       | 19.0%                    | 110   | 50.7              | 19.0 | 13.1               | 4.4  | 51.0%      | 34.0%       | 28.0%                    | 5,753  |  |
| FR                           | 46.9   | 18.7 | 12.8               | 3.6  | 53.0%      | 39.0%       | 33.0%                    | 694   | 51.0              | 18.7 | 12.5               | 4.0  | 54.0%      | 43.0%       | 32.0%                    | 4,299  |  |
| GB                           | 45.2   | 17.4 | 14.2               | 3.9  | 58.0%      | 39.0%       | 35.0%                    | 563   | 52.9              | 18.9 | 13.1               | 3.5  | 56.0%      | 47.0%       | 30.0%                    | 5,531  |  |
| GR                           | 60.9   | 20.2 | 9.2                | 4.4  | 51.0%      | 51.0%       | 25.0%                    | 142   | 47.8              | 18.7 | 11.4               | 4.3  | 56.0%      | 54.0%       | 38.0%                    | 2,294  |  |
| IE                           | 40.1   | 18.6 | 14.5               | 3.3  | 58.0%      | 35.0%       | 33.0%                    | 301   | 49.4              | 18.5 | 13.5               | 3.5  | 54.0%      | 47.0%       | 36.0%                    | 6,149  |  |
| IT                           | 36.2   | 18.7 | 14.1               | 4.2  | 44.0%      | 28.0%       | 32.0%                    | 25    | 47.7              | 18.4 | 12.6               | 5.3  | 52.0%      | 49.0%       | 39.0%                    | 855    |  |
| LT                           | 50.5   | 17.3 | 12.8               | 3.2  | 60.0%      | 46.0%       | 36.0%                    | 395   | 49.5              | 19.0 | 12.4               | 3.5  | 62.0%      | 45.0%       | 33.0%                    | 5,399  |  |
| NL                           | 43.8   | 19.0 | 13.9               | 4.1  | 59.0%      | 36.0%       | 30.0%                    | 405   | 51.8              | 17.9 | 13.5               | 4.1  | 54.0%      | 49.0%       | 32.0%                    | 4,666  |  |
| PL                           | 54.3   | 13.4 | 12.4               | 3.4  | 53.0%      | 72.0%       | 55.0%                    | 200   | 45.3              | 18.9 | 12.4               | 3.5  | 53.0%      | 56.0%       | 47.0%                    | 4,972  |  |
| PT                           | 39.2   | 20.5 | 9.9                | 4.7  | 58.0%      | 25.0%       | 27.0%                    | 146   | 54.2              | 19.0 | 7.7                | 5.0  | 59.0%      | 54.0%       | 33.0%                    | 5,018  |  |
| SE                           | 38.6   | 16.4 | 13.3               | 3.0  | 51.0%      | 33.0%       | 35.0%                    | 436   | 50.2              | 19.6 | 12.8               | 3.5  | 50.0%      | 45.0%       | 30.0%                    | 4,024  |  |
| SI                           | 42.0   | 18.5 | 12.5               | 3.4  | 54.0%      | 39.0%       | 38.0%                    | 335   | 48.5              | 18.9 | 12.0               | 3.5  | 54.0%      | 49.0%       | 45.0%                    | 3,191  |  |
| SK                           | 53.5   | 16.7 | 12.8               | 2.8  | 64.0%      | 52.0%       | 45.0%                    | 156   | 49.7              | 17.0 | 12.9               | 3.0  | 60.0%      | 55.0%       | 44.0%                    | 3,452  |  |
| Total                        | 45.1   | 18.4 | 13.2               | 3.7  | 55.0%      | 42.0%       | 34.0%                    | 6,940 | 49.6              | 18.8 | 12.6               | 4.1  | 54.0%      | 48.0%       | 35.0%                    | 87,363 |  |

Note: the statistics are calculated using only one year wave data for AT, GR and IT (2014, 2010 and 2012 respectively), resulting in a lower number of observations. BG and SK do not have 2012 year waves. The rest of the countries have all three data waves and the average statistics are calculated.

Finally, to scale the countries based on the level of strictness of their naturalization policies, I employ the Migrant Integration Policy Index (MIPEX), which also allows cross-country comparisons. MIPEX is a unique tool which assembles indices measuring the favorability of citizenship and integration policies for immigrants in European countries. These indices cover 167 indicators of various dimensions in order to describe migrants' inclusion in the society of the host country. The indicators are from 8 main policy dimensions: "Labor Market Mobility", "Education", "Political Participation", "Family Reunion", "Health", "Permanent Residence", "Anti-discrimination", and "Access to Nationality". Since I am interested only in the naturalization policies, the indicators of "Access to Nationality" are the main focus of this research, and the basis on which the countries are classified.

According to the MIPEX documentation, this policy dimension covers four sub-categories that cover 35 indicators in total. Each indicator can take one of the five possible values between 0 and 100 (0, 25, 50, 75 or 100), and the grade of the sub-category is the mathematical average of the indicators included in it. Thus, the average value of this index ranges from 0 to 100, with 0 being the most unfavorable for immigrants and 100 being the most favorable. Table 3 reports the sequence of the MIPEX score of "Access to Nationality" for each of the 20 countries for the period 2010-2014 and the five year average values. The table does not reveal many within-country variations in the scores, which suggests the strength of the index and its use as an indicator of the stringency of a country's naturalization policies in this analysis.

The first sub-category of the MIPEX indicator of "Access to Nationality" is "Eligibility", which generally converges on requirements regarding the duration of residence in the host country. The second sub-category is the "Conditions for Acquisition of Status", which covers the requirements regarding language, citizenship and integration tests, income and job security as well as the financial fees for acquiring the citizenship. The third sub-category is the "Security of Status", which covers the entitlement to naturalization, the grounds for rejection, and possibilities to appeal. Finally, the fourth sub-category is "Dual Nationality" and its legal acceptance by the host country<sup>10</sup>.

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<sup>10</sup> The scores of the sub-categories of the MIPEX indicator of "Access to Nationality" for 2010-2014 periods can be found in Table A1 in the Appendix. The complete list of included indicators and the covered questions of each sub-category is in Table A2 in the Appendix.

**Table 3: MIPEX Scores of “Access to Nationality” by Country and Year.**

| Country        | ISO | MIPEX Score of "Access to Nationality" |      |      |      |      | Average |
|----------------|-----|----------------------------------------|------|------|------|------|---------|
|                |     | 2010                                   | 2011 | 2012 | 2013 | 2014 |         |
| Austria        | AT  | 27                                     | 26   | 26   | 26   | 26   | 26.2    |
| Belgium        | BE  | 62                                     | 62   | 62   | 69   | 69   | 64.8    |
| Czech Republic | CZ  | 40                                     | 40   | 40   | 40   | 49   | 41.8    |
| Germany        | DE  | 66                                     | 66   | 66   | 66   | 72   | 67.2    |
| Denmark        | DK  | 35                                     | 35   | 35   | 42   | 58   | 41      |
| Estonia        | EE  | 18                                     | 18   | 18   | 18   | 18   | 18      |
| Spain          | ES  | 48                                     | 48   | 48   | 48   | 48   | 48      |
| Finland        | FI  | 61                                     | 63   | 63   | 63   | 63   | 62.6    |
| France         | FR  | 61                                     | 61   | 60   | 61   | 61   | 60.8    |
| United Kingdom | GB  | 62                                     | 62   | 62   | 60   | 60   | 61.2    |
| Greece         | GR  | 57                                     | 57   | 57   | 34   | 34   | 47.8    |
| Ireland        | IE  | 57                                     | 59   | 59   | 59   | 59   | 58.6    |
| Italy          | IT  | 50                                     | 50   | 50   | 50   | 50   | 50      |
| Lithuania      | LT  | 30                                     | 35   | 35   | 35   | 35   | 34      |
| Netherlands    | NL  | 68                                     | 68   | 68   | 66   | 66   | 67.2    |
| Poland         | PL  | 26                                     | 26   | 56   | 56   | 56   | 44      |
| Portugal       | PT  | 86                                     | 86   | 86   | 86   | 86   | 86      |
| Sweden         | SE  | 73                                     | 73   | 73   | 73   | 73   | 73      |
| Slovenia       | SI  | 41                                     | 41   | 41   | 41   | 41   | 41      |
| Slovakia       | SK  | 25                                     | 25   | 25   | 25   | 25   | 25      |

Note: The table is constructed using the Migrant Integration Policy Index from <http://www.mipex.eu>.

#### 4. METHODOLOGY

As mentioned in the previous section, the measures of various social and cultural indicators of individuals were constructed using answers to ESS survey questions with different scaling systems. The country and group averages of these measures and other descriptive statistics were then computed to estimate the relationships between various indicators. The results of these analyses are presented in section 5.

From a purist standpoint, it is technically not correct to take averages of any ordinal scale because ordinal values may carry exactly the same amount of information being scaled using any other proportional scaling system. In fact, the sensitivity of empirical studies to monotonic transformations of ordinal scales has been highlighted by many researchers (Bond and Lang, 2013; Schröder and Yitzhaki, 2017). However, from a pragmatic point of view, this methodology not only works but is also an accepted practice in almost all social science fields and is accompanied by standards for how well it works. Discussions about controversies

regarding the use of traditional descriptive statistics for ordinal-level variables have been going on for decades<sup>11</sup>.

The simplified approach to dealing with ordinal variables as if they were numeric requires the assumption that the numerical distance between each set of subsequent categories is equal and justified. If that assumption is very close to reality, then analyses based on these numbers will render veritable results. In this case, any proportional change in the scaling system will clearly change the mean values, but will have no impact on either the correlation coefficients or the significance of the regression models and regression coefficients. The appropriateness of the scaling systems of the ESS dataset may be justified by the ESS documentation. However, readers can decide themselves whether or not they consider the numeric distances close to reality.

Some technically correct alternatives to this simplified approach include the use of the median and mode instead of averages (however, these can sometimes provide poor summaries of the data), the use of appropriate binomial values instead of ordinal scaling systems, and the use of Logit, Probit or other ordinal regression models instead of OLS. All of these methods have been used in suitable parts of the analyses in order to confirm the robustness of the results<sup>12</sup>. In general, my conclusions were identical using different scaling systems and parametric statistics. The current version of the analysis is presented in this chapter in order to be more interpretable and understandable for the reader.

The same complications with applicability of general statistical methods are basically valid for any ordinal-scale indicator, including the MIPLEX index and its categories that were also used in this study. However, the practical use of such ordinal indexes is so widely used among academic researchers that there are many published academic articles in related fields that use this index, without even mentioning the issue (Aleksynska and Agan, 2010; Huddleston, Niessen, Ni Chaoimh and White, 2011; Stadlmair, 2017b). Moreover, the very little within-country variation in the index during the observed 5-year period (Table 3) also supports the use of this index as an aggregated indicator of the stringency of naturalization policies.

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<sup>11</sup> Early history about such conflicting views may be found in Gardner, 1975.

<sup>12</sup> The results of the robustness check analyses with other parametric statistics, and analyses with the use of aggregated scaling systems, are available upon request.

In addition to the descriptive results, regression analyses were conducted in order to better evaluate the relationship between ATII or naturalization policies and the social integration and perceived discrimination of immigrants. Because of some restraints of the data and the methodological restrictions related to ordinal-scaled variables that were mentioned earlier, the choice of the outcome variables for the regression analyses was restricted to binomial variables (the perceived discrimination and language acquisition of immigrants), and appropriate robustness analyses were conducted to strengthen the obtained results. Moreover, because of possible reverse causality issues (described in more detail in the result section) the regression analyses are aimed at the estimation of the relationships between the variables rather than the causality. For this reason, OLS regression analyses were conducted to evaluate the statistical significance of the regression coefficients.

Since there is no developed theoretical literature that would suggest an empirical model for estimation of the impact of various country-specific or individual characteristics on social integration or perceived discrimination of immigrants, an empirical model was developed based on related literature from the labor economics. In particular, the set of explanatory variables in the regression models of integration was built based on some empirical literature that estimates the impact of naturalization on the labor market performance of immigrants (Steinhardt, 2012; Helgertz, Bevelander and Tegunimataka, 2014; Gathmann and Keller, 2014; Sargsyan, 2017). As a result, in addition to the main explanatory variables of interest (ATII and institutionally imposed restrictions on immigrant naturalization), the empirical model employed in this study includes age, education, duration of residency in the host country, gender, marital status, presence of children, and the citizenship status of immigrants (naturalized vs. non-naturalized).

In line with logical expectations, most of these variables, including the level of education, duration of residency, and naturalization were shown to have a positive impact on the labor market integration of immigrants (Gathmann and Keller, 2014; Sargsyan, 2017). There are no obvious reasons to expect a different outcome when estimating the respective impacts on the social integration or perceived discrimination of immigrants. Moreover, the findings of related empirical literature on the social and cultural integration of immigrants (Mayda, 2006; Aleksynska and Algan, 2010; Keller, Gathmann and Monscheuer, 2015), also suggest using similar controls with similar expectations. As a result, the following model was estimated to identify the impact of ATII and the institutionally imposed restriction (expressed through the MIPEX indicators) on the social integration of immigrants:

$$Y_i = \beta_0 + \beta_1 R_i + \beta_2 E_i + \beta_3 G_i + \beta_4 M_i + \beta_5 C_i + \beta_6 N_i + \beta_7^n ATII_n + \beta_8^m MIPEX_m + \beta_9^k Other_{ik} + e_i, \quad (1)$$

where  $Y$  is a variable of interest responsible for integration (perceived discrimination of immigrants, or the language acquisition as an indicator of the social integration) of immigrant  $i$ ;  $R$  is the years of residence in the host country;  $E$  the years of education;  $G$ ,  $M$ ,  $C$  and  $N$  are binomial dummy variables standing respectively for the gender, marital status, presence of children in the household, and naturalization of immigrants;  $ATII$  is a vector of indicators of the country-average attitude of the native population towards immigrants and immigration (n)<sup>13</sup>;  $MIPEX$  is a vector of indicators of the institutionally imposed restriction on immigrants expressed through the  $MIPEX$  scores (m);  $Other$  is a vector of other characteristics (k) including other individual characteristics, origin-to-host country pair controls and data wave controls; and  $e$  is the error term. The regressions were conducted on the joint samples of naturalized and non-naturalized immigrants.

Finally, in order to cover the impact of naturalization policies in more detail and further restrict the possible bias of the ordinal scale of the  $MIPEX$  scores, all the four sub-categories of the indicator of “Access to Nationality” were used as separate explanatory variables: “Eligibility”, “Conditions for Acquisition of Status”, “Security of Status” and “Dual Nationality”<sup>14</sup>. As mentioned in the Data section, each sub-category can take values from 0 to 100, with 0 being the most unfavorable for immigrants and 100 being the most favorable.

## 5. RESULTS

The results in this section present the country average levels<sup>15</sup> of the indicators of interest and follow the objective to describe the indicators of  $ATII$ , social integration, perceived discrimination and naturalization policies that were used in this study<sup>16</sup> for each of the 20

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<sup>13</sup> Because of the high correlation between the  $ATII$  indicators (see Table 3.8 in the Appendix), these indicators were used separately in the regression models in order to exclude multicollinearity.

<sup>14</sup> The indicators used for the estimation of each of the four  $MIPEX$  categories can be found in Table 3.7 in the Appendix.

<sup>15</sup> Similar figures were obtained when using median values instead of averages. The results of these analyses are available upon request.

<sup>16</sup> As mentioned in the Data section, because of the low number of observations, the group average results of non-naturalized immigrants were eliminated for PL and SK. In addition, all the estimates based on the questions that were added to the ESS questionnaire only in year 2014 (the feeling of closeness to the country of residence, the average willingness to allow more immigrants from poorer countries in Europe; native populations’ opinions about the contribution of immigrants to crime problems, the treatment of the government towards new immigrants, and government generosity in judging refugee applications) are also absent for countries that did not have this data wave (i.e. GR, IT and SK).

countries for which the study is conducted. The sub-sections also provide the correlation and regression coefficients between different pairs of these indicators in order to shed light on the respective relationships. However, because of possible reverse causality issues, discussed in detail in the sub-sections, the conclusions based on these findings should be done very carefully. The sub-sections are structured as follows: sub-section 5.1 focuses on the naturalization policies and their relationships with the ATII indicators. Sub-section 5.2 presents the analysis of the perceived discrimination of immigrants, while sub-section 5.3 presents the analysis of the social integration of immigrants.

### **5.1. Naturalization Policies and ATII**

In this sub-section, I provide some insight into ATII expressed through the viewpoints of the native population in the host countries regarding new immigrants and their contribution, as well as the role of the government in immigration related issues. This matter is of great importance since it is the native population's votes and general public opinion that, in theory, form and impact a country's immigration related policies, including naturalization policies (Facchini and Mayda, 2008; Facchini and Mayda, 2012)<sup>17</sup>. Thus, it is reasonable to expect the causality of this relationship to be from ATII to the formation of the policies. However, I cannot exclude the possibility that the causality of the relationship may also be in the other direction, since the naturalization policies may impact the selectivity of the immigrants which, in turn, may form the natives' opinions. Nevertheless, parallel to the related literature, I hypothesize that the countries where the native populations express negative attitudes towards immigrants and immigration will have less favorable naturalization policies towards immigrants.

The attitudes of the native population are expressed in this study through averaging the natives' answers to some survey questions regarding their willingness to accept new immigrants of specific origins into their country, their desired level of stringency in immigration-related policies, and their opinion about the contribution of immigrants to the country of residence.

Figure 5.1.1 shows the country-average willingness of the native population to allow new immigrants of specific origins into their country. The scaling of the willingness indicators

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<sup>17</sup> In their studies, the authors discuss the median-voter perspective and interest-group dynamics as two possible mechanisms through which ATII may impact the immigration related policies. Both of the mechanisms assume the causality of this relationship to go from ATII to the stringency of immigration related policies, with the second channel having more potential to explain the actual stringency of the policies.

varies from the lowest score of 1 for low willingness to allow new immigrants of specific origin, to the highest score of 4 for willingness to allow many immigrants. In general, it is observable that within-country variation of each indicator is rather small. This supports the robustness of the indicators and the use of country-averages as country representative values.

The upper part of the figure shows that the country-average willingness levels to allow more immigrants from poorer countries outside Europe is lower than that for immigrants of any other classification in all 20 countries, varying from around 1.7 for Greece to around 3.2 for Sweden. The latter shows the most favorable relation towards new immigrants of all origins expressed by the native population, while the former shows the most unfavorable relation.

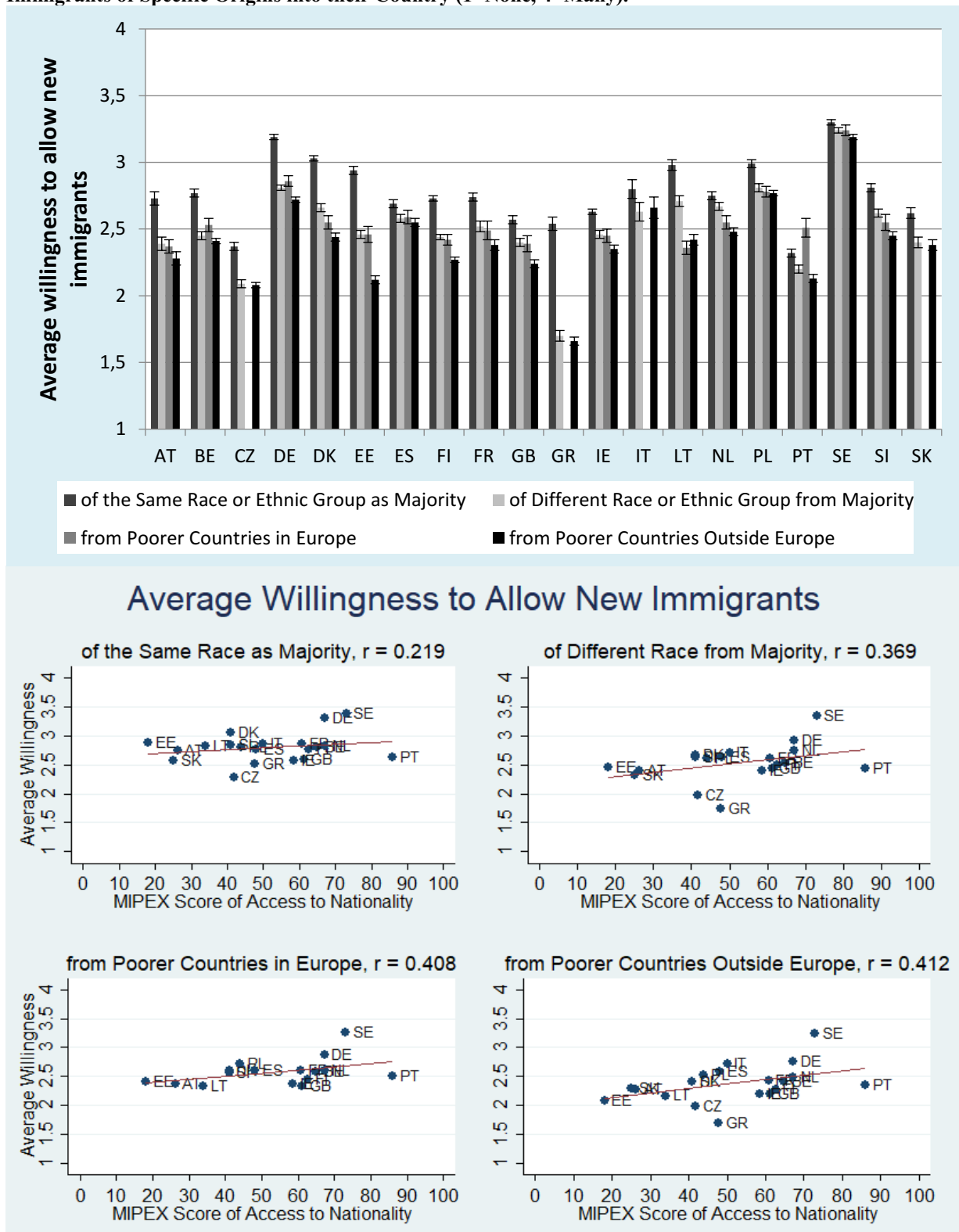
With the exception of Portugal, the willingness to allow new immigrants of the same race or ethnic group as the majority is always higher than that for migrants from other origins or ethnic belonging. Portugal may actually be considered as an outlier in most cases, having below average levels of willingness of the native population to accept new immigrants with the most favorable naturalization policies for immigrants.

The lower part of Figure 5.1.1 presents the distribution of country-average statistics based on the MIPEx index score of “Access to Nationality”. The figure shows that the native population’s average level of willingness to allow new immigrants into their country is positively related with the MIPEx score and thus is fairly reflected in the naturalization policies of the country.

Based on the correlation coefficients, the average level of willingness to allow new immigrants from poorer origins into their country is a better predictor of the country’s naturalization policies, than the average willingness to allow new immigrants of specific ethnic belonging. This finding suggests that the stringency of a country’s naturalization policies is more related with the desire of the native population to restrict access of immigrants from poorer countries.

I proceed with the native populations’ opinion about the role and attention of the government towards immigrants. Figure 5.1.2 presents the natives’ average opinions about the relative treatment towards new immigrants by the government (hereafter treatment towards new immigrants) and the generosity of the government in judging applications for refugee status (hereafter generosity in judging refugee applications).

**Figure 5.1.1: The Average Willingness of the Native Population in Destination Countries to Allow New Immigrants of Specific Origins into their Country (1=None, 4=Many).**

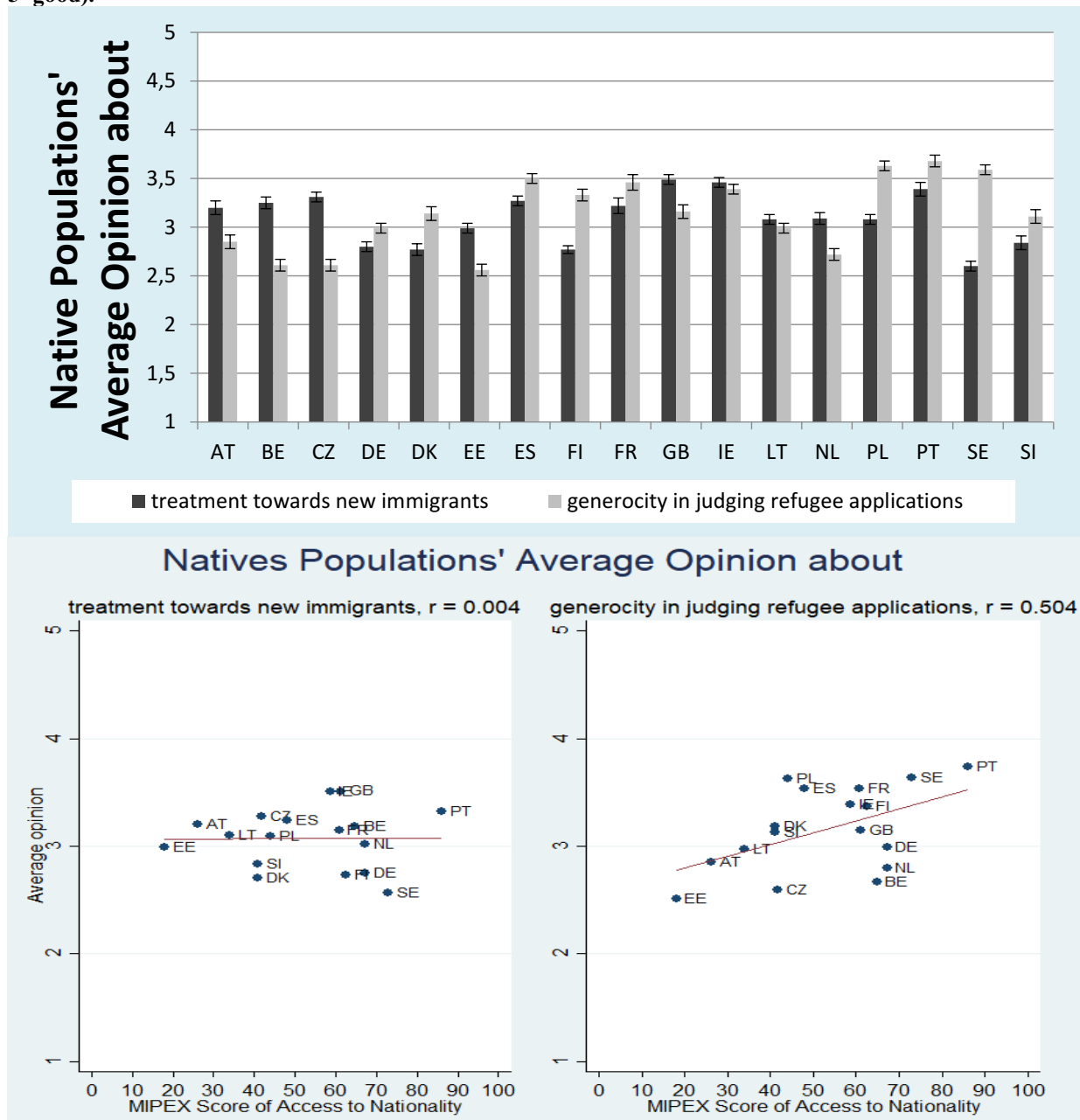


The upper and lower bars stand for a 95% confidence interval,  $r$  is the correlation coefficient.

Note: The survey questions used for the creation of these indicators for each of the 4 specified options (of the same race as the majority; of different race from the majority; from poorer countries in Europe; and from poorer countries outside Europe) were: “Would you like to allow many/few immigrants of ‘the specified group’ to the country?” The scaling of these survey questions could take values {1, 2, 3, or 4}, ranging from 1 for “few” to 4 for “many”. The values of the MIPEX scores range from 0 (the most unfavorable for immigrants) to 100 (the most favorable for immigrants).

The results do not show much between-country variation of these indicators, with the average values being concentrated between the scores of 2.5 and 3.5. In about half of the observed countries, the native population on average believes that new immigrants are being treated better than themselves, although there is not much statistical or economic significance in the level of these differences.

**Figure 5.1.2: The Native Populations' Average Opinion about the Attention of the Government Towards New Immigrants and the Generosity of the Government in Judging Applications for Refugee Status (1=bad, 5=good).**



The upper and lower bars stand for a 95% confidence interval,  $r$  is the correlation coefficient.

Note: The survey questions used for the creation of these indicators were statement questions: “Compared to yourself, government treats new immigrants better” and “Government should be more generous in judging applications for refugee status”. The scaling of these survey questions could take integer values from 1 to 5, ranging from 1 for “strongly disagree” to 5 for “strongly agree”. The values of the MIPEX scores range from 0 (the most unfavorable for immigrants) to 100 (the most favorable for immigrants).

There are only five countries (DE, DK, FI, SE and SI) where the native population on average believes that immigrants are being treated worse than themselves. Two of these countries (DK and SI) have below average MIPEX scores, while the other three (DE, FI and SE) have above average MIPEX scores, indicating no clear relationship between the MIPEX score and this indicator. This result is also observable from the lower left graph of the figure.

In terms of the native populations' opinion regarding the generosity in judging refugee applications, the figure does not show much between-country variation of the average values, with a high concentration of the scores in the region between 2.5 and 3.5. However, an evident positive correlation with the MIPEX score is visible from the lower right graph of Figure 5.1.2. This finding suggests that the natives' average desired level of generosity of governments in judging refugee applications is also fairly represented in the stringency of the naturalization policies.

Finally, Figure 5.1.3 describes the native populations' opinion about immigrants' contribution to their country, economy, culture, and the crime problems<sup>18</sup>. The scaling in this figure ranges from 0 for "making the indicator worse" to 10 for "making it better" with 5 standing for "no impact". Here again, Sweden presents the most positive opinions of the native population regarding the contribution of immigrants, with Finland standing not far behind, while Greece presents the most negative opinions. Figure 5.1.3 shows a high concentration of the country-average statistics below the average score of 5.0, with the estimates of cultural contribution being the largest in all countries.

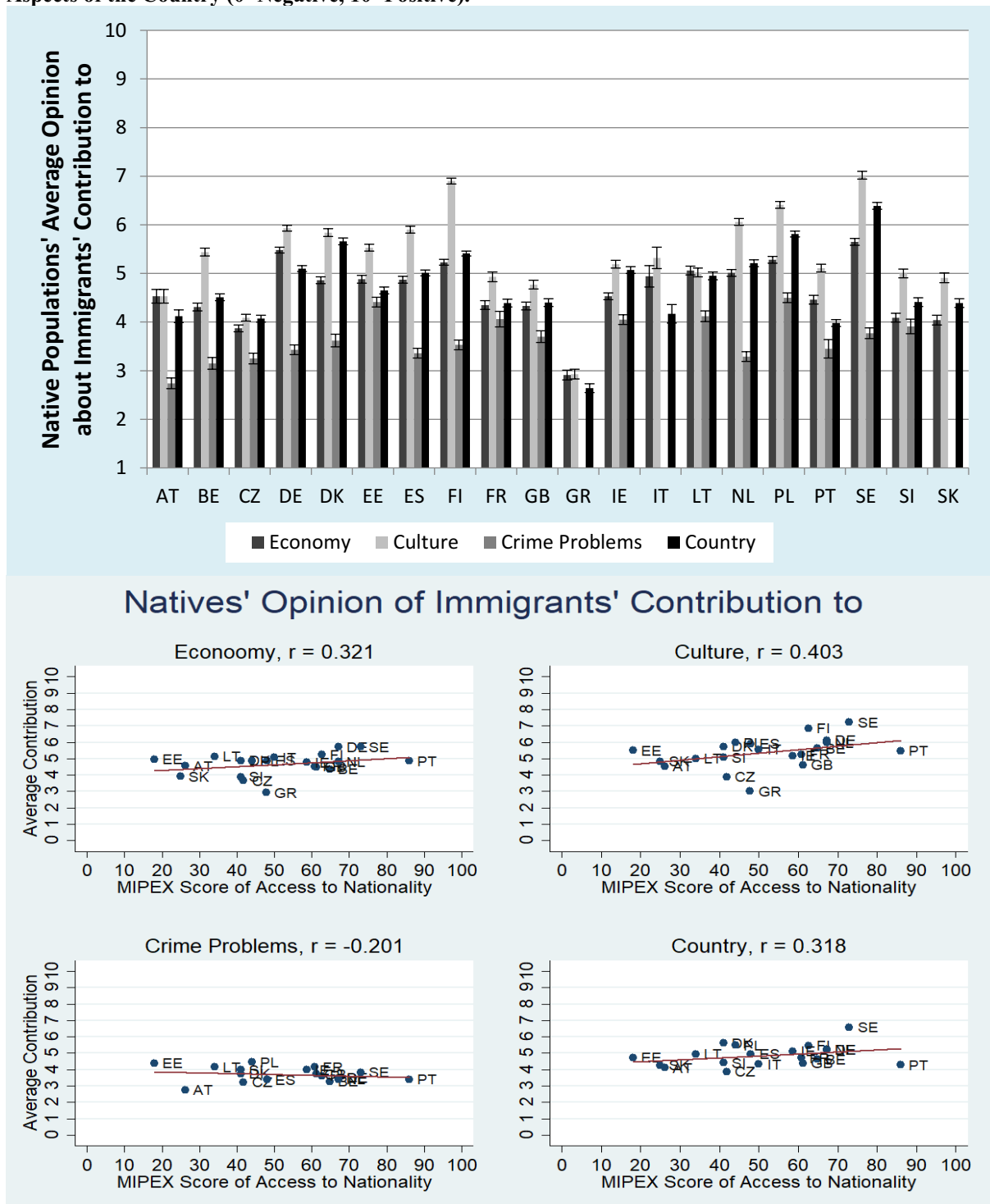
The relation of the MIPEX index score to the opinion of the native population regarding immigrants' contribution to different aspects of the country (lower part of Figure 5.1.3) also reveals some interesting results. However, it should be mentioned that the high concentration of average statistics around the score of 5.0 that stands for "no impact" makes the results less conclusive.

The figure shows a positive correlation between the MIPEX score and the natives' opinion of immigrants' positive contribution to the economy, culture, and the country in general, with the cultural aspect revealing the strongest positive correlation.

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<sup>18</sup>Native populations' opinion about the contribution of immigrants to crime problems was estimated through the question: "Immigrants make the country's crime problems worse (0) or better (10)". GR, IT and SK estimates are missing from the figure because only the 2014-year wave contains this question.

**Figure 5.1.3: The Native Populations' Average Opinion about Immigrants' Contribution to Different Aspects of the Country (0=Negative, 10=Positive).**



The upper and lower bars stand for a 95% confidence interval,  $r$  is the correlation coefficient.

Note: The survey questions used for the creation of these indicators for each of the 4 specified options of contributions (to the economy; culture; crime problems; and the country in general) were: “Do you consider immigration to be bad or good for ‘the specified aspect’ of the country?” The scaling of these survey questions could take integer values from 0 to 10, ranging from 0 for “making the indicator worse” to 10 for “making it better”. The values of the MIPEX scores range from 0 (the most unfavorable for immigrants) to 100 (the most favorable for immigrants).

Interestingly, the correlation with the contribution to the crime problems appears to be negative, indicating that in countries with more favorable naturalization policies for immigrants, the natives believe that crime problems worsen with immigration. However, no conclusions may be done about causality, because of the differences in the initial states of the crime indicators between the countries.

The results in this sub-section generally show that countries where the natives express more welcoming and liberal opinions regarding immigrants and immigration have more favorable naturalization policies for immigrants. This finding supports the hypothesis of a positive correlation between ATII and the favorability of naturalization policies for immigrants.

## **5.2. Perceived Discrimination of Immigrants**

This sub-section offers insights into the perceived discrimination of immigrants in the host countries and its relation to the ATII and the naturalization policies in those countries. The indicator of perceived discrimination was constructed through individuals' answers to the question of whether they consider themselves a member of a group that is discriminated against in their country of residence. With this in mind, a negative relationship of ATII (or the MIPEx score) with the indicator of perceived discrimination of immigrants would mean lower perceived discrimination of immigrants in countries with more positive ATII (or more favorable naturalization policies for immigrants).

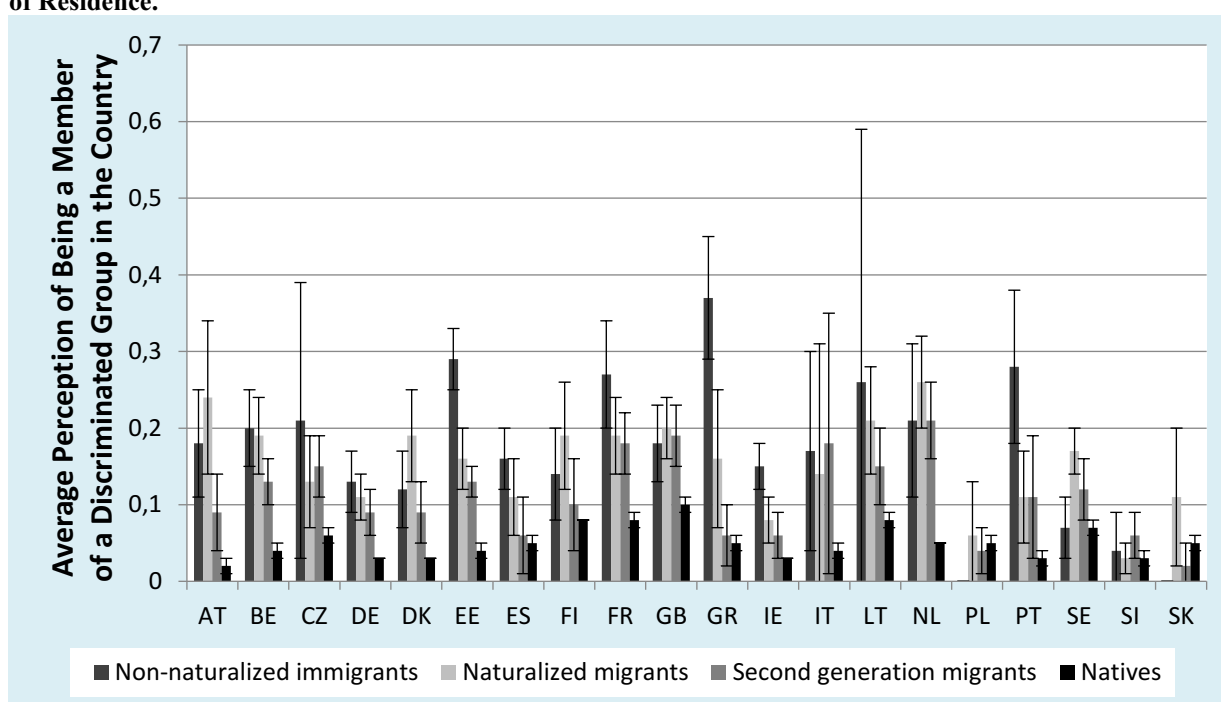
In studies of these relationships, most of the related literature (Facchini and Mayda, 2008; Facchini and Mayda, 2012) simply assumes that the causality of the relationships go from ATII and naturalization policies to the perceived discrimination of immigrants. However, even though it is difficult to imagine a potential issue with the reverse causality in these relationships, this possibility can still be present. Poor initial integration and high perceived discrimination of immigrant may result in more negative ATII and tighter naturalization policies in order to assure better integration of future immigrants.

Since the possibility of reverse causality cannot be completely excluded, the aim of this analysis is to estimate the sign of the relationship rather than the causality. To that end, I hypothesize that immigrants will express lower perceived discrimination in countries with more positive ATII or more favorable naturalization policies for immigrants. Moreover, because of the positive correlation between the ATII indicators and the MIPEx score of

“Access to Nationality” shown in the previous sub-section, the impact of the stringency of naturalization policies on the perceived discrimination of immigrants could rather be considered one of the mechanisms of the indirect impact of ATII.

The average perceived discrimination by each of the four groups (including the natives) in the countries of their residence are described in Figure 5.2.1. One noticeable and expected trend is that the perceived discrimination of second generation migrants is almost exclusively lower than that of first generation naturalized migrants. However, this difference is never statistically or economically significant.

**Figure 5.2.1: The Group-Average Perception of Being a Member of a Discriminated Group in the Country of Residence.**



The upper and lower bars stand for a 95% confidence interval.

Note: The survey question used for the creation of this indicator was a yes (1) or no (0) question: “Do you consider yourself a member of a group discriminated against in this country?” The group averages of this indicator were separately computed for the groups of non-naturalized immigrants, naturalized immigrants, second generation immigrants, and the native population.

Interestingly, the results show that in some countries (AT, DK, FI, NL and SE), naturalized immigrants report higher average perceived discrimination than non-naturalized immigrants. However, this difference is economically measurable and statistically significant only for Sweden. On the other hand, measurable differences in the average levels of perceived discrimination in favor of the group of naturalized migrants can be found in Estonia and Greece. Another interesting finding is that the perceived discrimination of the native population is, on average, also non-zero in all countries, and in some cases even reaches measurable levels.

The figure shows very large within-country variations in perceived discrimination of all three groups of immigrants, which highlights the need for individual-level analysis. There are two hypotheses with opposite impacts that I want to test through the evaluation of the perceived discrimination of immigrants. On the one hand, a negative attitude of the native population towards immigrants and stricter naturalization policies could result in tighter selection and better integration of immigrants. In this case, I would expect to see positive relationships between the ATII (or MIPEX) indicators and the perceived discrimination of immigrants.

On the other hand, positive attitudes of the native population towards immigrants and softer naturalization policies could cause a more open social life and better social integration of immigrants, resulting in negative relationships between the ATII (or MIPEX) indicators and the perceived discrimination. This also means that the absence of a visible one-way relationship may be a result of both of these forces working together.

To reveal the relationships between perceived discrimination and the ATII or the MIPEX indicators of the stringency of naturalization policies, regression analyses were conducted on the joint sample of first-generation naturalized and non-naturalized immigrants<sup>19</sup>. Table 4 presents the results of these regression analyses of OLS regression models based on equation (1). In the base model in column 1, only the individual characteristics of the first generation immigrants were included as explanatory variable of the perceived discrimination. In addition to the individual characteristics, the subsequent models separately include country-level ATII indicators (columns 2-7), the MIPEX scores (column 8), and the ATII indicators in combination with the MIPEX scores (columns 9-14).

The results suggest that younger and more educated first generation immigrants experience higher perceived discrimination in the host countries. According to my expectations and the predictions of previous literature, naturalized immigrants experience lower perceived discrimination than non-naturalized immigrants. However, one cannot exclude the possibility that it is the socially more integrated immigrants that decide to naturalize, and that this finding may be a result of selection to naturalization rather than the naturalization itself. Nevertheless, the results suggest that naturalized immigrants are less likely to experience perceived discrimination compared to non-naturalized immigrants.

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<sup>19</sup> The native population and the second generation immigrants were excluded from regression analyses because of the inapplicability of some control variables (for example, the years of residency in the host country or the origin-to-host country controls) for these groups.

**Table 4: OLS Regression Results of the Structure of Perceived Discrimination.**

| Perceived Discrimination<br>VARIABLES                       | ATHI Indicators       |                      |                       |                      |                       |                       |                      | MIPEX Indicators     |                      |                      |                      |                      |                      |                      |
|-------------------------------------------------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                                                             | (1)                   | (2)                  | (3)                   | (4)                  | (5)                   | (6)                   | (7)                  | (8)                  | (9)                  | (10)                 | (11)                 | (12)                 | (13)                 | (14)                 |
| Young ( < 25 y-o)                                           | 0.0546**<br>(2.67)    | 0.0550**<br>(2.69)   | 0.0548**<br>(2.68)    | 0.0554**<br>(2.71)   | 0.0544**<br>(2.66)    | 0.0545**<br>(2.66)    | 0.0545**<br>(2.66)   | 0.0548**<br>(2.68)   | 0.0556**<br>(2.72)   | 0.0553**<br>(2.70)   | 0.0556**<br>(2.72)   | 0.0549**<br>(2.69)   | 0.0547**<br>(2.67)   | 0.0547**<br>(2.68)   |
| Years of Residence                                          | -0.000242<br>(-0.64)  | -0.000225<br>(-0.59) | -0.000225<br>(-0.59)  | -0.000229<br>(-0.60) | -0.000238<br>(-0.62)  | -0.000242<br>(-0.64)  | -0.000237<br>(-0.62) | -0.000193<br>(-0.51) | -0.000188<br>(-0.49) | -0.000184<br>(-0.48) | -0.000192<br>(-0.50) | -0.000197<br>(-0.52) | -0.000194<br>(-0.51) | -0.000193<br>(-0.51) |
| Education (years)                                           | 0.00261*<br>(2.47)    | 0.00262*<br>(2.47)   | 0.00264*<br>(2.49)    | 0.00265*<br>(2.51)   | 0.00262*<br>(2.47)    | 0.00262*<br>(2.47)    | 0.00263*<br>(2.48)   | 0.00267*<br>(2.52)   | 0.00263*<br>(2.49)   | 0.00265*<br>(2.50)   | 0.00265*<br>(2.50)   | 0.00267*<br>(2.52)   | 0.00267*<br>(2.52)   | 0.00267*<br>(2.52)   |
| Female                                                      | -0.00771<br>(-0.89)   | -0.00820<br>(-0.95)  | -0.00825<br>(-0.96)   | -0.00836<br>(-0.97)  | -0.00778<br>(-0.90)   | -0.00786<br>(-0.91)   | -0.00788<br>(-0.91)  | -0.00705<br>(-0.82)  | -0.00736<br>(-0.85)  | -0.00742<br>(-0.86)  | -0.00750<br>(-0.87)  | -0.00693<br>(-0.80)  | -0.00710<br>(-0.82)  | -0.00708<br>(-0.82)  |
| Married                                                     | -0.00736<br>(-0.78)   | -0.00712<br>(-0.75)  | -0.00710<br>(-0.75)   | -0.00689<br>(-0.73)  | -0.00737<br>(-0.78)   | -0.00733<br>(-0.77)   | -0.00724<br>(-0.76)  | -0.00674<br>(-0.71)  | -0.00640<br>(-0.68)  | -0.00634<br>(-0.67)  | -0.00616<br>(-0.65)  | -0.00672<br>(-0.71)  | -0.00670<br>(-0.71)  | -0.00671<br>(-0.71)  |
| Presence of Children                                        | -0.0175*<br>(-1.74)   | -0.0164<br>(-1.63)   | -0.0166*<br>(-1.66)   | -0.0168*<br>(-1.67)  | -0.0173*<br>(-1.73)   | -0.0174*<br>(-1.73)   | -0.0174*<br>(-1.73)  | -0.0168*<br>(-1.67)  | -0.0163<br>(-1.63)   | -0.0163<br>(-1.62)   | -0.0165<br>(-1.64)   | -0.0169*<br>(-1.69)  | -0.0168*<br>(-1.67)  | -0.0168*<br>(-1.67)  |
| Naturalized                                                 | -0.0353***<br>(-3.31) | -0.0348**<br>(-3.26) | -0.0353***<br>(-3.32) | -0.0350**<br>(-3.29) | -0.0354***<br>(-3.32) | -0.0354***<br>(-3.32) | -0.035***<br>(-3.33) | -0.0348**<br>(-3.27) | -0.0342**<br>(-3.21) | -0.0345**<br>(-3.24) | -0.0341**<br>(-3.20) | -0.0346**<br>(-3.25) | -0.0348**<br>(-3.27) | -0.0349**<br>(-3.27) |
| <b>ATHI INDICATORS</b>                                      |                       |                      |                       |                      |                       |                       |                      |                      |                      |                      |                      |                      |                      |                      |
| Willingness to Allow More<br>Immigrants<br>of the same race |                       | -0.202**<br>(-3.08)  |                       |                      |                       |                       |                      |                      | -0.178*<br>(-2.20)   |                      |                      |                      |                      |                      |
| of different race                                           |                       |                      | -0.169*<br>(-2.40)    |                      |                       |                       |                      |                      |                      | -0.191*<br>(-2.02)   |                      |                      |                      |                      |
| from poorer countries                                       |                       |                      |                       | -0.207**<br>(-3.02)  |                       |                       |                      |                      |                      |                      | -0.229*<br>(-2.55)   |                      |                      |                      |
| Opinion about Contribution to<br>Economy                    |                       |                      |                       |                      | -0.0175<br>(-0.72)    |                       |                      |                      |                      |                      |                      | 0.0305<br>(1.02)     |                      |                      |
| Culture                                                     |                       |                      |                       |                      |                       | -0.0219<br>(-0.62)    |                      |                      |                      |                      |                      |                      | -0.0118<br>(-0.25)   |                      |
| Country                                                     |                       |                      |                       |                      |                       |                       | -0.0378<br>(-1.04)   |                      |                      |                      |                      |                      |                      | -0.00930<br>(-0.21)  |
| <b>MIPEX SCORE</b>                                          |                       |                      |                       |                      |                       |                       |                      |                      |                      |                      |                      |                      |                      |                      |
| Eligibility                                                 |                       |                      |                       |                      |                       |                       |                      | -0.00384<br>(-1.23)  | -0.00559*<br>(-1.73) | -0.00537*<br>(-1.67) | -0.00510<br>(-1.61)  | -0.00427<br>(-1.35)  | -0.00391<br>(-1.24)  | -0.00378<br>(-1.20)  |
| Conditions for Acquisition                                  |                       |                      |                       |                      |                       |                       |                      | 0.00305<br>(0.82)    | 0.00157<br>(0.41)    | 0.00320<br>(0.86)    | 0.00428<br>(1.14)    | 0.00302<br>(0.81)    | 0.00319<br>(0.85)    | 0.00323<br>(0.84)    |
| Security of Status                                          |                       |                      |                       |                      |                       |                       |                      | -0.0130*<br>(-2.09)  | -0.00784<br>(-1.18)  | -0.00973<br>(-1.51)  | -0.0106*<br>(-1.69)  | -0.0165*<br>(-2.32)  | -0.0123*<br>(-1.79)  | -0.0126*<br>(-1.93)  |
| Dual Nationality                                            |                       |                      |                       |                      |                       |                       |                      | 0.0159**<br>(2.83)   | 0.00973<br>(1.55)    | 0.0105*<br>(1.68)    | 0.0102*<br>(1.68)    | 0.0189**<br>(2.98)   | 0.0152*<br>(2.42)    | 0.0155*<br>(2.55)    |
| <b>Model Includes</b>                                       |                       |                      |                       |                      |                       |                       |                      |                      |                      |                      |                      |                      |                      |                      |
| ATHI Indicators                                             | No                    | Yes                  | Yes                   | Yes                  | Yes                   | Yes                   | Yes                  | No                   | Yes                  | Yes                  | Yes                  | Yes                  | Yes                  | Yes                  |
| MIPEX Scores                                                | No                    | No                   | No                    | No                   | No                    | No                    | No                   | Yes                  | Yes                  | Yes                  | Yes                  | Yes                  | Yes                  | Yes                  |
| Individual Characteristics                                  | Yes                   | Yes                  | Yes                   | Yes                  | Yes                   | Yes                   | Yes                  | Yes                  | Yes                  | Yes                  | Yes                  | Yes                  | Yes                  | Yes                  |
| Observations                                                | 8539                  | 8539                 | 8539                  | 8539                 | 8539                  | 8539                  | 8539                 | 8539                 | 8539                 | 8539                 | 8539                 | 8539                 | 8539                 | 8539                 |
| Adjusted R-squared                                          | 0.074                 | 0.075                | 0.075                 | 0.075                | 0.074                 | 0.074                 | 0.074                | 0.076                | 0.076                | 0.076                | 0.077                | 0.076                | 0.076                | 0.076                |

T statistics in parentheses

\*\*\* p<0.001, \*\* p<0.01, \* p<0.1

Note: The outcome variable in all regression models is a binomial variable responsible for the perceived discrimination of the immigrants. The ATHI indicators are country-average values of the responses of the native population computed separately for each ESS-round, and are limited to the native populations' average willingness to allow more immigrants of the same race as the majority, of a different race as the majority and from poorer countries outside Europe, as well as the native populations' average opinion about immigrants' contribution to the economy, culture and the host country in general. The MIPEX indicators are the values of the respective MIPEX scores of the "Eligibility", "Conditions for Acquisition", "Security of Status" and "Dual Nationality" for each year and country. The models with the MIPEX index scores also control for changes in the score values within 4 years prior to the survey. All regression models also include controls for origin to destination country pairs, and the data waves.

Surprisingly, the results show that the duration of residency in the host countries does not have any significant impact on the perceived discrimination of immigrants in those countries. This finding contradicts the assumption of better social acceptance of immigrants over time by the native population and stands robust when including more sets of controls (columns 2-14).

The regression coefficients of the ATII and MIPEX indicators also reveal some interesting and generally consistent results between the regression models. However, the table shows that the sign of the relationship may vary depending on the actual indicator that is being used.

In models with only ATII indicators (columns 2-7), the respective coefficients of all three indicators of the natives' willingness to allow more immigrants into their country show negative signs. This finding suggests that immigrants feel less discriminated in societies that are more willing to accept immigrants. Moreover, the coefficients keep their negative signs and statistical significance in models when controls for the stringency of the naturalization policies are introduced (columns 9-14). However, the indicators of the natives' average opinion about the contributions of immigrants to different aspects of the country did not reveal any statistically significant relationship with the perceived discrimination of immigrants.

Finally, the regression coefficients of the MIPEX scores of "Access to Nationality" (columns 8-14) show that the "Security of Status" is significantly and negatively correlated with the perceived discrimination of immigrants, which is consistent between models. This finding suggests lower perceived discrimination in countries where the naturalization status of immigrants is more secured. On the other hand, the positive coefficients of the indicator of "Dual Nationality", which was also statistically significant and mostly consistent between the models, suggest that immigrants experience more discrimination in countries where they are allowed to keep their initial nationality.

The results from the models in columns 9 and 10 also show negative relationships between the "Eligibility" score and the perceived discrimination of immigrants. This suggests lower perceived discrimination of immigrants in countries with more favorable eligibility conditions for naturalization of immigrants. However, similar to the coefficients of the indicator of "Conditions for Acquisitions", these results lose their statistical significance in other models. Nevertheless, the general results of this sub-section are in line with the hypothesis that the attitude of the native population towards immigrants and the favorability of

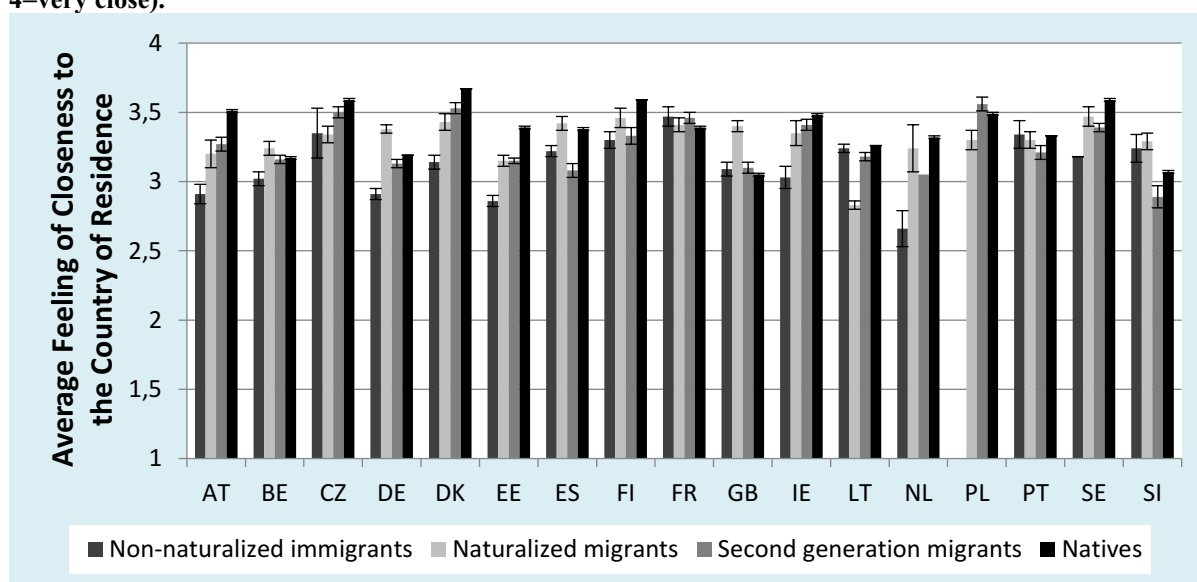
naturalization policies for immigrants are negatively correlated with the perceived discrimination of first generation immigrants in the host countries.

### 5.3. Social Integration of Immigrants

This sub-section covers the indicators of the social integration of immigrants expressed through the feeling of closeness to the country of residence and a measure of the frequency by which the official language of the host country is being spoken at home. The causality and the direction of the relationships of these indicators with the ATII indicators and the MIPEx scores are again confusing, similar to those in the previous sub-section. Moreover, the impact of the stringency of naturalization policies on the social integration of immigrants could still simply capture the indirect impact of ATII.

Figure 5.3.1 presents the group-average subjective feeling of closeness to the country of residence<sup>20</sup>. This indicator was constructed by averaging the individuals' answers to the question as to how close they feel to the country of residence, with four possible answers ranging from 1 for "not close at all" to 4 for "very close".

**Figure 5.3.1: The Group-Average "Feeling of Closeness" to the Country of Residence (1=not close at all, 4=very close).**



The upper and lower bars stand for a 95% confidence interval.

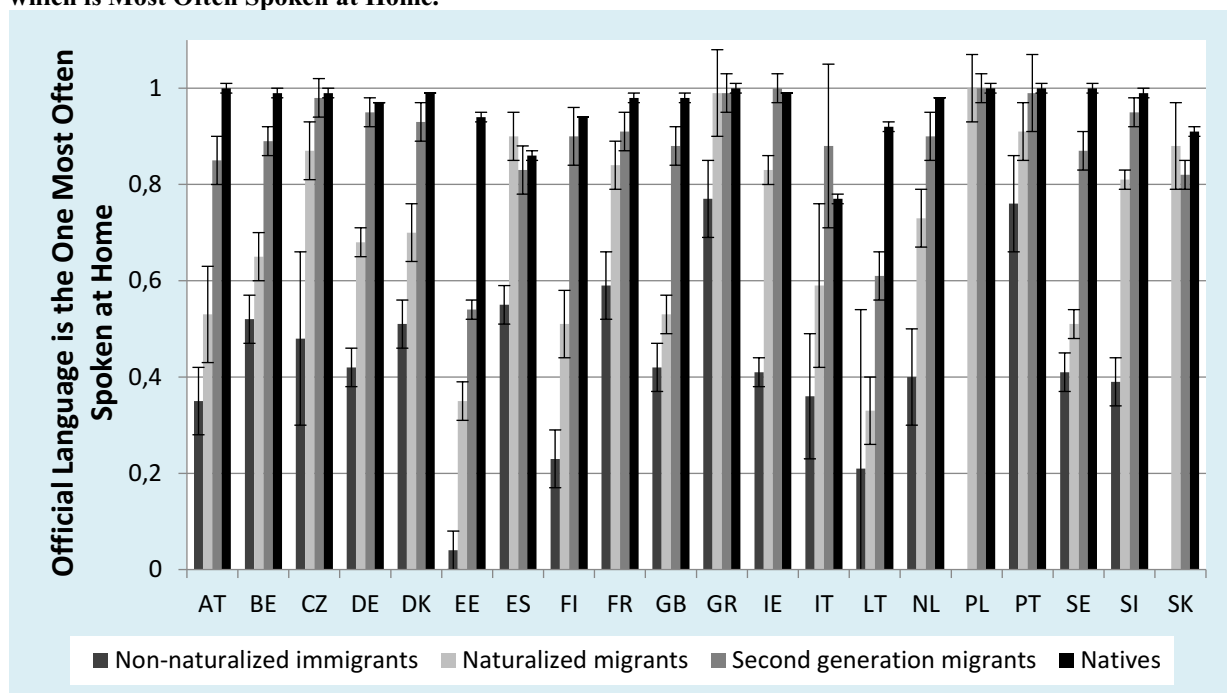
Note: The survey question used for the creation of this indicator was: "How close do you feel to the country?" The scaling of this survey question could take integer values ranging from 1 for "not close at all" to 4 for "very close". Only the 2014-year wave contains this question and thus GR and IT estimates are missing from the figure. The group averages of this indicator were separately computed for the groups of non-naturalized immigrants, naturalized immigrants, second generation immigrants, and the native population.

<sup>20</sup> The results of GR, IT and SK are absent, since this question was added to the ESS questioner only for the 2014 data wave, and the corresponding data wave for these countries is missing.

The results do not show much economically significant within-country variations in the feeling of closeness to the country between the native population and different groups of immigrants. However, statistically significant differences are noticeable for most countries, particularly between the groups of natives and non-naturalized immigrants. Very interesting results are obtained for France, Sweden and the UK, where the average reported feeling of closeness of the native population is less than those of some groups of immigrants. This issue raises some concerns regarding the attitude of the native population towards their country, particularly in the UK where the feeling of closeness of the native population is the lowest among the countries in the figure.

Figure 5.3.2 presents per-country levels of the likelihood that the official language of the host country is that which is most often spoken at home. Language acquisition is one of the most important indicators of acculturation used in the literature and is highly appropriate in evaluation of the social integration of immigrants.

**Figure 5.3.2: The Group-Average Probability that the Official Language of the Country of Residence is that which is Most Often Spoken at Home.**



The upper and lower bars stand for a 95% confidence interval.

Note: This indicator was constructed using the survey question “What is the language most often spoken at your household?”, and matching the answers with the official language or languages of the destination countries. The scaling of this indicator could take values “1” (if the official language of the country was the one most often spoken at home) and “0” otherwise. The group averages of this indicator were separately computed for the groups of non-naturalized immigrants, naturalized immigrants, second generation immigrants, and the native population.

The figure shows that the countries with the most unfavorable citizenship policies for immigrants (AT, EE and LT) have some of the lowest rates of language acquisition both for

naturalized and second generation immigrants. The countries with the highest levels of language acquisition of naturalized immigrants are CZ, ES, FR, GR, PL and PT which, based on the composition of immigrants in these countries, may be a result of the closeness of the host and origin country languages rather than the acculturation itself.

Similar to the previous sub-section, regression analyses were conducted on the joint sample of first generation naturalized and non-naturalized immigrants in order to reveal the relationships between the social integration of immigrants and the ATII indicators or the MIPEX scores of the stringency of naturalization policies. Since it is impossible to distinguish the causality of these relationships with the ESS data, I will again focus only on the directions of the relationships between the chosen indicators.

Unfortunately, since the question regarding the feeling of closeness to the country of residence was added to the ESS questionnaire only in 2014, the respective regression analyses were not carried out for this indicator because of the low number of observations. However, Table 5 presents the results of OLS regression analyses for the likelihood that the official language of the host country is that which is most often spoken at home.

As opposed to the results regarding the perceived discrimination of immigrants in the previous sub-section, the results in Table 5 show that alongside naturalization, the duration of residence in the host countries has a statistically significant positive relationship with the likelihood that the official language of the host country is the one that is most often spoken at home (language acquisition).

Other individual characteristics also revealed expected relationships with language acquisition. In particular, the results suggest that younger, higher educated and female immigrants are more likely to acquire the official language of the host country. On the other hand, married immigrants have significantly lower chances of acquisition of the host country language, while the presence of children did not reveal any statistically significant relationship.

Surprisingly, none of the regression coefficients of the ATII indicators showed any statistically significant relationship with the language acquisition. This result suggests that the attitude of the native population of a country towards immigrants does not relate to the acculturation of immigrants in that country.

**Table 5: OLS Regression Results of Language Acquisition.**

| Language Acquisition<br>VARIABLES                           | ATII Indicators       |                       |                       |                       |                       |                       |                       | MIPEX Indicators      |                       |                       |                       |                       |                       |                       |
|-------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                                             | (1)                   | (2)                   | (3)                   | (4)                   | (5)                   | (6)                   | (7)                   | (8)                   | (9)                   | (10)                  | (11)                  | (12)                  | (13)                  | (14)                  |
| Young ( < 25 y-o)                                           | 0.0769***<br>(3.62)   | 0.0766***<br>(3.61)   | 0.0769***<br>(3.62)   | 0.0768***<br>(3.62)   | 0.0767***<br>(3.61)   | 0.0769***<br>(3.62)   | 0.0769***<br>(3.62)   | 0.0783***<br>(3.69)   | 0.0781***<br>(3.68)   | 0.0787***<br>(3.71)   | 0.0785***<br>(3.70)   | 0.0779***<br>(3.67)   | 0.0782***<br>(3.69)   | 0.0782***<br>(3.68)   |
| Years of Residence                                          | 0.00555***<br>(14.02) | 0.00554***<br>(14.00) | 0.00555***<br>(14.02) | 0.00555***<br>(14.02) | 0.00556***<br>(14.03) | 0.00555***<br>(14.02) | 0.00555***<br>(14.02) | 0.00556***<br>(14.03) | 0.00555***<br>(14.02) | 0.00556***<br>(14.04) | 0.00556***<br>(14.03) | 0.00557***<br>(14.06) | 0.00555***<br>(14.02) | 0.00556***<br>(14.04) |
| Education (years)                                           | 0.00475***<br>(4.33)  | 0.00474***<br>(4.33)  | 0.00474***<br>(4.33)  | 0.00474***<br>(4.33)  | 0.00475***<br>(4.33)  | 0.00474***<br>(4.33)  | 0.00475***<br>(4.33)  | 0.00467***<br>(4.26)  | 0.00469***<br>(4.27)  | 0.00466***<br>(4.25)  | 0.00467***<br>(4.26)  | 0.00467***<br>(4.26)  | 0.00465***<br>(4.24)  | 0.00467***<br>(4.26)  |
| Female                                                      | 0.0387***<br>(4.32)   | 0.0389***<br>(4.35)   | 0.0387***<br>(4.32)   | 0.0387***<br>(4.33)   | 0.0386***<br>(4.32)   | 0.0387***<br>(4.33)   | 0.0387***<br>(4.32)   | 0.0388***<br>(4.34)   | 0.0389***<br>(4.35)   | 0.0387***<br>(4.32)   | 0.0388***<br>(4.33)   | 0.0385***<br>(4.31)   | 0.0386***<br>(4.32)   | 0.0387***<br>(4.32)   |
| Married                                                     | -0.0446***<br>(-4.56) | -0.0448***<br>(-4.57) | -0.0446***<br>(-4.56) | -0.0447***<br>(-4.56) | -0.0446***<br>(-4.56) | -0.0447***<br>(-4.56) | -0.0446***<br>(-4.56) | -0.0447***<br>(-4.56) | -0.0448***<br>(-4.57) | -0.0445***<br>(-4.54) | -0.0446***<br>(-4.55) | -0.0447***<br>(-4.57) | -0.0445***<br>(-4.53) | -0.0445***<br>(-4.54) |
| Presence of Children                                        | -0.00888<br>(-0.86)   | -0.00941<br>(-0.91)   | -0.00890<br>(-0.86)   | -0.00891<br>(-0.86)   | -0.00877<br>(-0.85)   | -0.00892<br>(-0.86)   | -0.00888<br>(-0.86)   | -0.00968<br>(-0.93)   | -0.00982<br>(-0.95)   | -0.00939<br>(-0.91)   | -0.00961<br>(-0.93)   | -0.00935<br>(-0.90)   | -0.00959<br>(-0.93)   | -0.00961<br>(-0.93)   |
| Naturalized                                                 | 0.127***<br>(11.52)   | 0.127***<br>(11.50)   | 0.127***<br>(11.52)   | 0.127***<br>(11.52)   | 0.127***<br>(11.52)   | 0.127***<br>(11.53)   | 0.127***<br>(11.52)   | 0.127***<br>(11.48)   | 0.127***<br>(11.46)   | 0.127***<br>(11.49)   | 0.127***<br>(11.49)   | 0.126***<br>(11.44)   | 0.127***<br>(11.47)   | 0.126***<br>(11.45)   |
| <b>ATII INDICATORS</b>                                      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Willingness to Allow More<br>Immigrants<br>of the same race |                       | 0.0993<br>(1.47)      |                       |                       |                       |                       |                       |                       | 0.0535<br>(0.64)      |                       |                       |                       |                       |                       |
| of different race                                           |                       |                       | 0.00516<br>(0.07)     |                       |                       |                       |                       |                       |                       | -0.103<br>(-1.05)     |                       |                       |                       |                       |
| from poorer countries                                       |                       |                       |                       | 0.0102<br>(0.14)      |                       |                       |                       |                       |                       |                       | -0.0425<br>(-0.46)    |                       |                       |                       |
| Opinion about Contribution to<br>Economy                    |                       |                       |                       |                       | -0.0128<br>(-0.51)    |                       |                       |                       |                       |                       |                       | -0.0772*<br>(-2.50)   |                       |                       |
| Culture                                                     |                       |                       |                       |                       |                       | 0.00973<br>(0.27)     |                       |                       |                       |                       |                       |                       | -0.0697<br>(-1.44)    |                       |
| Country                                                     |                       |                       |                       |                       |                       |                       | 0.00145<br>(0.04)     |                       |                       |                       |                       |                       |                       | -0.0662<br>(-1.41)    |
| <b>MIPEX SCORE</b>                                          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Eligibility                                                 |                       |                       |                       |                       |                       |                       |                       | 0.00167<br>(0.51)     | 0.00220<br>(0.65)     | 0.000848<br>(0.25)    | 0.00143<br>(0.43)     | 0.00281<br>(0.85)     | 0.00126<br>(0.39)     | 0.00215<br>(0.65)     |
| Conditions for Acquisition                                  |                       |                       |                       |                       |                       |                       |                       | -0.00377<br>(-0.97)   | -0.00332<br>(-0.84)   | -0.00369<br>(-0.95)   | -0.00354<br>(-0.91)   | -0.00362<br>(-0.93)   | -0.00289<br>(-0.74)   | -0.00240<br>(-0.60)   |
| Security of Status                                          |                       |                       |                       |                       |                       |                       |                       | 0.0118*<br>(1.82)     | 0.0102<br>(1.48)      | 0.0135*<br>(2.03)     | 0.0122*<br>(1.87)     | 0.0204**<br>(2.79)    | 0.0161*<br>(2.26)     | 0.0146*<br>(2.16)     |
| Dual Nationality                                            |                       |                       |                       |                       |                       |                       |                       | -0.00877<br>(-1.51)   | -0.00691<br>(-1.06)   | -0.0117*<br>(-1.82)   | -0.00983<br>(-1.57)   | -0.0163*<br>(-2.49)   | -0.0129*<br>(-1.99)   | -0.0120*<br>(-1.92)   |
| <b>Model Includes</b>                                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| ATII Indicators                                             | No                    | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | No                    | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| MIPEX Scores                                                | No                    | No                    | No                    | No                    | No                    | No                    | No                    | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Individual Characteristics                                  | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Observations                                                | 8719                  | 8719                  | 8719                  | 8719                  | 8719                  | 8719                  | 8719                  | 8719                  | 8719                  | 8719                  | 8719                  | 8719                  | 8719                  | 8719                  |
| Adjusted R-squared                                          | 0.418                 | 0.418                 | 0.418                 | 0.418                 | 0.418                 | 0.418                 | 0.418                 | 0.419                 | 0.419                 | 0.419                 | 0.419                 | 0.419                 | 0.419                 | 0.419                 |

T statistics in parentheses

\*\*\* p<0.001, \*\* p<0.01, \* p<0.1

Note: The outcome variable in all regression models is a binomial variable responsible for the likelihood that the official language of the host country is the one that is most often spoken at home by immigrants. The ATII indicators are country-average values of the responses of the native population computed separately for each ESS-round, and are limited to the native populations' average willingness to allow more immigrants of the same race as the majority, of a different race from the majority and from poorer countries outside Europe, as well as the native populations' average opinion about immigrants' contribution to the economy, culture and the host country in general. The MIPEX indicators are the values of the respective MIPEX scores of the "Eligibility", "Conditions for Acquisition", "Security of Status" and "Dual Nationality" for each year. The models with the MIPEX index scores also control for changes in the score values within 4 years prior to the survey. All regression models also include controls for origin to destination country pairs, and the data waves.

On the other hand, the indicators of the MIPEx score of “Access to Nationality” revealed results that are consistent with the findings in the previous sub-section. In particular, in most models the score of “Security of Status” shows a statistically significant positive relationship with the language acquisition of immigrants, while the indicators of “Dual Nationality” show negative relationships. This finding is in line with the results in the previous sub-section that suggest better social integration of immigrants in countries where the naturalization status of immigrants is more secured but possibilities for dual nationality are more restricted.

The general findings of this sub-section again confirm that the relationships between ATII, naturalization policies, and the social integration of immigrants present a complex system. The ATII indicators did not reveal any statistically significant relationship with the acculturation of immigrants, whereas the MIPEx indicator of “Security of Status” revealed a positive relationship, while the indicator of “Dual Nationality” revealed a negative relationship with the social integration of immigrants.

## **6. CONCLUSION**

This study contributes to the existing academic literature by being the first to analyze the perceived discrimination and social integration of first and second generation immigrants in combination with the attitude of the native population and institutionally imposed restrictions on naturalization.

The findings from the evaluation of the relationship between naturalization policies and the attitude of a country’s native population towards immigrants and immigration suggest that the latter is fairly represented in a country’s naturalization policies. In particular, the favorability of a country’s naturalization policies towards immigrants is closely and positively related to the natives’ desire to allow more immigrants from poorer countries, the natives’ desired level of government generosity in judging refugee applications, as well as the natives’ opinion of immigrants’ positive contribution to various aspects of the country. This finding in general supports the hypothesis of a positive correlation between ATII and the favorability of naturalization policies for immigrants, which is also suggested by the related literature (Facchini and Mayda, 2008; Facchini and Mayda, 2009; Facchini and Mayda, 2012).

As opposed to the logical expectation and the predictions in previous literature regarding the determinants of immigrant integration (Vink, Prokic-Breuer and Dronkers, 2013;

Gathmann and Keller, 2014; Sargsyan, 2017), the results of the regression analyses suggest that the duration of residence in host countries is not related to a decline in the perceived discrimination of immigrants. However, in line with the predictions of the related literature, the duration of residence in host countries and naturalization of immigrants were shown to have statistically significant positive relationships with the chosen indicators of acculturation. Some other individual characteristics also revealed expected relationships with language acquisition but showed no significant impact on the perceived discrimination of immigrants.

In further evaluation of the perceived discrimination of immigrants, the regression results revealed that it is negatively related to the natives' average willingness to allow more immigrants of different origins into their country. This finding suggests that immigrants feel less discriminated against in societies that are more welcoming. However, despite being in line with the predictions and hypothesis in the related literature (Vink, Prokic-Breuer and Dronkers, 2013; Gathmann and Keller, 2014; Sargsyan, 2017), it is difficult to identify the causality of this negative relationship.

On the other hand, indicators of the stringency of naturalization policies revealed both positive and negative relationships with the perceived discrimination of immigrants depending on the actual indicator used. In particular, the MIPEX indicator of "Security of Status" revealed a significant negative relationship with the perceived discrimination of immigrants, while the indicator of "Dual Nationality" revealed a positive relationship. This finding suggests lower perceived discrimination of immigrants in countries where the naturalization status of immigrants is more secured, and the possibility of dual nationality is more restricted. Moreover, language acquisition of immigrants was also positively related with the security of the naturalization status and negatively related with the indicator of dual nationality. However, the ATII indicators did not show any statistically significant relationship with language acquisition.

The general findings of this study again confirm that the relationships between ATII, naturalization policies, and the social integration of immigrants present a complex system with a wide range of interconnected mechanisms. More research is needed to reveal the exact mechanisms of these relationships.

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## Appendix

**Table A1: The Scores of the Sub-categories of the MIPEX Score of “Access to Nationality”.**

| <b>ISO</b> | <b>MIPEX Score of "Eligibility"</b> |      |      |      |      | <b>MIPEX Score of "Conditions for Acquisition"</b> |      |      |      |      |
|------------|-------------------------------------|------|------|------|------|----------------------------------------------------|------|------|------|------|
|            | 2010                                | 2011 | 2012 | 2013 | 2014 | 2010                                               | 2011 | 2012 | 2013 | 2014 |
| <b>AT</b>  | 21                                  | 21   | 21   | 21   | 21   | 18                                                 | 17   | 17   | 17   | 17   |
| <b>BE</b>  | 67                                  | 67   | 67   | 63   | 63   | 67                                                 | 67   | 67   | 28   | 28   |
| <b>CZ</b>  | 0                                   | 0    | 0    | 0    | 33   | 62                                                 | 62   | 62   | 62   | 28   |
| <b>DE</b>  | 92                                  | 92   | 92   | 92   | 92   | 52                                                 | 52   | 52   | 52   | 52   |
| <b>DK</b>  | 46                                  | 46   | 46   | 63   | 63   | 30                                                 | 32   | 32   | 42   | 42   |
| <b>EE</b>  | 8                                   | 8    | 8    | 8    | 8    | 42                                                 | 42   | 42   | 42   | 42   |
| <b>ES</b>  | 50                                  | 50   | 50   | 50   | 50   | 32                                                 | 32   | 32   | 32   | 32   |
| <b>FI</b>  | 71                                  | 79   | 79   | 79   | 79   | 58                                                 | 58   | 58   | 58   | 58   |
| <b>FR</b>  | 79                                  | 79   | 79   | 79   | 79   | 23                                                 | 23   | 20   | 25   | 25   |
| <b>GB</b>  | 79                                  | 79   | 79   | 79   | 79   | 35                                                 | 35   | 35   | 27   | 27   |
| <b>GR</b>  | 71                                  | 71   | 71   | 29   | 29   | 37                                                 | 37   | 37   | 37   | 37   |
| <b>IE</b>  | 88                                  | 96   | 96   | 96   | 96   | 33                                                 | 33   | 33   | 33   | 33   |
| <b>IT</b>  | 42                                  | 42   | 42   | 42   | 42   | 23                                                 | 23   | 23   | 23   | 23   |
| <b>LT</b>  | 25                                  | 25   | 25   | 25   | 25   | 58                                                 | 58   | 58   | 58   | 58   |
| <b>NL</b>  | 71                                  | 71   | 71   | 71   | 71   | 48                                                 | 48   | 48   | 42   | 42   |
| <b>PL</b>  | 10                                  | 10   | 20   | 20   | 20   | 62                                                 | 62   | 63   | 63   | 63   |
| <b>PT</b>  | 92                                  | 92   | 92   | 92   | 92   | 80                                                 | 80   | 80   | 80   | 78   |
| <b>SE</b>  | 50                                  | 50   | 50   | 50   | 50   | 83                                                 | 83   | 83   | 83   | 83   |
| <b>SI</b>  | 21                                  | 21   | 21   | 21   | 21   | 53                                                 | 53   | 53   | 53   | 53   |
| <b>SK</b>  | 8                                   | 8    | 8    | 8    | 8    | 15                                                 | 15   | 15   | 15   | 15   |

| <b>ISO</b> | <b>MIPEX Score of "Security of Status"</b> |      |      |      |      | <b>MIPEX Score of "Dual Nationality"</b> |      |      |      |      |
|------------|--------------------------------------------|------|------|------|------|------------------------------------------|------|------|------|------|
|            | 2010                                       | 2011 | 2012 | 2013 | 2014 | 2010                                     | 2011 | 2012 | 2013 | 2014 |
| <b>AT</b>  | 30                                         | 30   | 30   | 30   | 30   | 38                                       | 38   | 38   | 38   | 38   |
| <b>BE</b>  | 13                                         | 13   | 13   | 83   | 83   | 100                                      | 100  | 100  | 100  | 100  |
| <b>CZ</b>  | 60                                         | 60   | 60   | 60   | 60   | 38                                       | 38   | 38   | 38   | 75   |
| <b>DE</b>  | 57                                         | 57   | 57   | 57   | 57   | 63                                       | 63   | 63   | 63   | 88   |
| <b>DK</b>  | 27                                         | 27   | 27   | 27   | 27   | 38                                       | 38   | 38   | 38   | 100  |
| <b>EE</b>  | 20                                         | 20   | 20   | 20   | 20   | 0                                        | 0    | 0    | 0    | 0    |
| <b>ES</b>  | 60                                         | 60   | 60   | 60   | 60   | 50                                       | 50   | 50   | 50   | 50   |
| <b>FI</b>  | 40                                         | 40   | 40   | 40   | 40   | 75                                       | 75   | 75   | 75   | 75   |
| <b>FR</b>  | 40                                         | 40   | 40   | 40   | 40   | 100                                      | 100  | 100  | 100  | 100  |
| <b>GB</b>  | 33                                         | 33   | 33   | 33   | 33   | 100                                      | 100  | 100  | 100  | 100  |
| <b>GR</b>  | 20                                         | 20   | 20   | 20   | 20   | 100                                      | 100  | 100  | 50   | 50   |
| <b>IE</b>  | 7                                          | 7    | 7    | 7    | 7    | 100                                      | 100  | 100  | 100  | 100  |
| <b>IT</b>  | 60                                         | 60   | 60   | 60   | 60   | 75                                       | 75   | 75   | 75   | 75   |
| <b>LT</b>  | 10                                         | 30   | 30   | 30   | 30   | 25                                       | 25   | 25   | 25   | 25   |
| <b>NL</b>  | 63                                         | 63   | 63   | 63   | 63   | 88                                       | 88   | 88   | 88   | 88   |
| <b>PL</b>  | 20                                         | 20   | 90   | 90   | 90   | 13                                       | 13   | 50   | 50   | 50   |
| <b>PT</b>  | 73                                         | 73   | 73   | 73   | 73   | 100                                      | 100  | 100  | 100  | 100  |
| <b>SE</b>  | 60                                         | 60   | 60   | 60   | 60   | 100                                      | 100  | 100  | 100  | 100  |
| <b>SI</b>  | 53                                         | 53   | 53   | 53   | 53   | 38                                       | 38   | 38   | 38   | 38   |
| <b>SK</b>  | 27                                         | 27   | 27   | 27   | 27   | 50                                       | 50   | 50   | 50   | 50   |

**Table A2: The Sub-categories of the MIPEX Score of “Access to Nationality”.**

| Sub-category                                | Covered Question                                                                                                                    | Included Indicators                                                                                                                                                                              |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eligibility</b>                          | How long must migrants wait to naturalize?<br>Are their children and grandchildren born in the country entitled to become citizens? | Residence period;<br>Permits considered;<br>Periods of prior-absence allowed;<br>Requirements for spouses;<br>Requirements for partners;<br>Birth-right citizenship for second generation.       |
| <b>Conditions for Acquisition of Status</b> | Are applicants encouraged to succeed through basic conditions for naturalization?                                                   | Naturalization language requirement;<br>Integration requirement (form, exemption, cost, support, courses);<br>Economic resources;<br>Criminal record;<br>Good character;<br>Cost of application. |
| <b>Security of Status</b>                   | Does the state protect applicants from discretionary procedures?                                                                    | Maximum duration of procedure;<br>Additional grounds for refusal;<br>Discretionary powers in refusal;<br>Legal protection;<br>Protection against withdrawal of citizenship.                      |
| <b>Dual Nationality</b>                     | Can naturalizing migrants and their children be citizens of more than one country?                                                  | Dual nationality for first generation (Renunciation requirement, Renunciation exemptions);<br>Dual nationality for second generation;<br>Dual nationality for third generation.                  |

**Table A3: Correlation Table between the ATII Indicators.**

|                                               |                       | <u>Willingness to Allow More Immigrants</u> |                   |                       | <u>Natives' Opinion about Contribution to</u> |         |         |
|-----------------------------------------------|-----------------------|---------------------------------------------|-------------------|-----------------------|-----------------------------------------------|---------|---------|
|                                               |                       | of the same race                            | of different race | from poorer countries | Economy                                       | Culture | Country |
| <u>Willingness to Allow More Immigrants</u>   | of the same race      | 1.00                                        |                   |                       |                                               |         |         |
|                                               | of different race     | 0.88                                        | 1.00              |                       |                                               |         |         |
|                                               | from poorer countries | 0.78                                        | 0.94              | 1.00                  |                                               |         |         |
| <u>Natives' Opinion about Contribution to</u> | Economy               | 0.74                                        | 0.82              | 0.72                  | 1.00                                          |         |         |
|                                               | Culture               | 0.73                                        | 0.86              | 0.80                  | 0.86                                          | 1.00    |         |
|                                               | Country               | 0.71                                        | 0.85              | 0.74                  | 0.83                                          | 0.90    | 1.00    |

## **Abstrakt**

V tomto článku se zaměřuji na vztahy tří charakteristik, jedná se o postoj původní populace vůči imigrantům a imigraci (anglická zkratka ATII), úroveň sociální integrace a vnímání diskriminace první a druhé generace imigrantů v 20 evropských zemích. Přisnost politiky naturalizace v hostitelských zemích je také brána v potaz jako mechanismus rozvoje uvedených vztahů.

Výsledky potvrzují, že politika naturalizace uspokojivě reprezentuje většinu ATII indikátorů jednotlivých zemí a imigranti se cítí být méně diskriminováni ve společnosti, kde jsou více vítáni. Nicméně, nebyl objeven žádný systematický vztah mezi postoji původní populace a sociální integrací imigrantů. Výsledky na druhou stranu naznačují vnímání diskriminace v menším rozsahu a lepší sociální integraci první vlny imigrantů v zemích, kde je lépe zabezpečen proces naturalizace a možnost dvojího občanství je více omezena.

Výsledky také ukazují, že rozsah vnímané diskriminace imigrantů neklesá s dobou pobytu v hostitelských zemích. Naopak sociální integrace imigrantů vykazuje pozitivní vztah s dobou pobytu v hostitelských zemích.

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