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Title: *"Social integration across Europe, a demographic divide: how does emotional attachment towards the country of residence differ between migrants and natives?"*

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Abstract

The current restrictive migratory policies and rhetoric of "ethnic substitution" are indicative a deeper-seated issue of migrant integration policies within the European Union. So far, the literature has mainly utilised standard outcomes to measure social integration. To account for its subjectivity, this study uses the proxy of emotional attachment to determine the degree to which social integration differs between migrants and natives. By using a country-fixed effects OLS regression for repeated cross-sectional data across 16 EU countries, the results indicate that migrants feel less integrated in their country of residence than natives (particularly first-generation immigrants). Second generation-immigrants instead have a higher emotional attachment (but less than natives). Three underlying mechanisms were identified in support of these results: difficulty of language acquisition, clash of cultures and discrimination. Despite the limitations associated with the model, the results align with the literature. Providing useful insights for future policy-making and research in social integration.

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1. Introduction

The unprecedented arrival of migrants following the 2015 refugee crisis, put in the limelight an issue that European countries have been facing for decades: the social integration of immigrants. Migration is not a new phenomenon in the European Union (EU). The free movement of workers established via the Treaty of Rome (European Commission, 2023) has allowed, just for 2020, 10.2 million EU nationals to live and work in another Member State (MS) (European Commission, 2023). With the EU consistently adapting its legislation in an attempt to further harmonise its asylum and integration practices across MS. However, current political rhetoric has advocated for restrictive and anti-immigration policies in an effort to protect their citizens' national identities (Vasilopoulou & Zur, 2023). With some claiming that an "ethnic substitution" may otherwise take place (Pianigiani, 2023). Such discourse of cultural erosion makes it relevant to investigate whether social integration differs between migrants and natives, and what the implications for policy-making may be.

Across the current literature, there is no prescription to a single definition of social integration. Instead, both theoretical and empirical papers proxy integration with a variety of indicators, allowing for a nuanced discussion. For instance, Borjas (1989) theoretically describes social integration through the human capital theory. Wherein he concludes that migrants and natives face a skill mismatching. He claims that this gap creates higher incentives for migrants to integrate in the labour market. Allowing them to invest, based to their expected stay in the host country. Instead, Aleksynska and Algan (2010) utilise an empirical approach by creating a composite function of economic, cultural and civic outcomes for social integration in the EU (from 2001-2009). This function identifies how integration differs between generations of immigrants and their country of origin. Finding that second-generation immigrants are more socially integrated than first-generation immigrants. Conversely, Abramitzky et al., (2016) empirically proxy social integration through the names given to children in the United States (US) during the Age of Mass Migration (1850-1913). Their results indicate that assimilation increases with the time spent in the country. With new generations having less foreign names and more favourable economic outcomes. Finally, Begu et al., (2020) empirically test how the perceptions of migrants and natives differ with respect to the integration process across the EU. On average, most natives have negative views towards migration, believing that it does not have any positive impact on society. With both parties attributing each other the responsibility of facilitating the integration process.

Whilst relevant to the overall discussion, the above papers do not account for the current changes in migratory flows, policies and integration levels across the EU. Their analyses are instead constrained to very specific timeframes and contexts, as well as utilising standard outcome-based proxies for social integration. Such methods do not take into account the subjectivity associated with integration. Integration

can be described as a mutual-recognition system between migrants and natives, with each party recognising their responsibility in the integration process (Laurentsyeva & Venturini, 2017). Such a system implies that integration is also based on individualistic beliefs and preferences that can only be captured through a self-identification variable (Laurentsyeva & Venturini, 2017). More specifically, this paper aims to do this by proxying social integration through the variable of emotional attachment. Which captures the subjective aspect of integration, that none of the above papers have done. Furthermore, the variable considers how integrated individuals feel as opposed to how the process itself takes place; allowing for the terms of "integration" and "assimilation" to be used interchangeably. Utilising this variable can establish the emotional degree to which migrants and natives feel attached to their country of residence. Any divergence in the amount of belonging they feel, can then be used to understand the underlying mechanisms which may generate such responses. Therefore, proving crucial insights into how future policy-making in integration can be shaped to benefit both parties, and by default, society. Hence, this study investigates:

To what extent does the emotional attachment to the country of residence vary between migrants when compared to natives across EU Member States?

The main hypothesis of this study is that migrants have a lower emotional attachment to their country of residence as opposed to natives. This is further analysed through two heterogeneity analyses. Firstly, the degree to which the emotional attachment to the country of residence differs per generation of immigrant is studied. Secondly, how emotional attachment diverges between migrants and natives for four MS, is also analysed.

The data used for this study derives from the European Social Survey (ESS) for the years of 2016 to 2020 (ESS rounds 8,9 and 10). The survey is conducted on a cross-sectional basis in bi-annual rounds for a variety of European countries. This paper only focuses on EU MS, amounting to 16 countries. The two main variables of interest are the emotional attachment to the country of residence and the Migrant Status of the individual surveyed. Moreover, the age, gender, employment status and education level variables are controlled to limit the bias in the estimation. An Ordinary Least Square (OLS) estimation method is used as the main methodological and statistical tool. It is firstly run as a regression solely for the dependent and independent variable, and secondly, by controlling for the possible confounders mentioned above. Subsequently, the full model of this paper is estimated via a country-fixed effects OLS linear regression model wherein the main result is derived. The finding of this model states that migrants have a negative emotional attachment to the country of residence as compared to natives (by -0.25-point estimate). This result is statistically significant at a 5% level, and withstands the two robustness checks. One wherein the control variables are tested (which gives the same coefficient), and one without ESS round 10 which produces a stronger negative relationship (which may be due to the smaller sample size). Furthermore, the

first heterogeneity analysis shows that second generation migrants have a positive emotional attachment to the country of residence as opposed to first generation immigrants (by 0.19 points). This is also statistically significant at a 5% level. But that second-generation immigrants feel less socially integrated than natives. Finally, the second heterogeneity analysis across 4 MS, reveals that Italy has the most negative relationship out of all the 16 EU countries (-0.97) whereas Belgium the most positive (0.54). Conversely, the countries with the least and most immigrants in the surveyed sample (Lithuania and Estonia), showed a stronger negative relationship than the full model with respectively -0.54 and -0.51 estimates. The full models' results are consistent with Begu et al. (2020) findings of migrants' negative perception towards the integration process. Additionally, the first heterogeneity analysis is consistent with both Aleksynska and Algan (2010) and Abramitzky et al (2016) who note a similar result. Three main underlying mechanisms are identified that exemplify these findings; namely: the difficulty of learning the language, the trade-off and clash between cultures and the perceived discrimination towards immigrants. Both the findings and mechanisms add substantial new insights to the current literature, which is relevant for future policy-making. Nevertheless, further research can still be done in this domain. For instance, through new composite proxies of social integration considering both subjectivity and cultural outcomes.

The rest of the paper is organised as follows. Section 2 introduces the literary background used for this paper. Section 3 delves into the data and methodology used for the analysis. Subsequently, section 4 introduces the results whilst section 5 discusses their implication and limitations and potential for further research. Finally, Section 6 concludes.

2. Literature review

This section delves into the theoretical and conceptual framework regarding the integration of migrants. Additionally, empirical academic papers are evaluated to provide a more comprehensive and nuanced discussion on the topic.

The current underlying theory on the subject of migrant integration mainly relies on rational choice and utility maximising models to estimate the economic outcomes of migration. Chiswick (1978) for instance, focuses on a labour market integration perspective. Wherein, through an analysis of the US Census (1970), he notes that the gap in earnings between migrants and natives equalises after 10-15 years of labour. Similar conclusions were noted by Borjas (1989), who instead incorporates this finding into the larger discourse of integration. Which is why his study will serve as the main theoretical background for this paper. Borjas (1989) follows the human capital theory of Becker (1975), in an attempt to describe the

economic theory with which assimilation takes place and which factors may contribute to making it a successful process.

Borjas (1989) notes that integration is a double faceted issue: one of human capital and one of the socioeconomic conditions of the host country. Migrants are placed at a disadvantage as they face skill mismatching compared to natives. Initially not having all the skills that the host country deems as valuable, such as the language. The rate at which migrants integrate, according to Borjas (1989), is determined by the time horizon that the migrants expect to be in the country. In turn, determining their human capital investment effort and motivation. Those who have little chance to return to their country of origin, will integrate faster than those with a higher probability (this is observed for political refugees). Human capital theory states that higher incentives to invest will result in higher returns in earnings for migrants (Borjas, 1989). This is a consequence of migrants having relatively lower earnings compared to natives, meaning that their earnings profile will be steeper. The 'catching-up' of migrants reflects, can thus be interpreted, as a form of integration in the labour market. However, this is not an absolute truth. As Borjas (1989) further notes that the rate with which migrants integrate can be determined by the political and economic conditions of the host country. With timing of the immigrant cohorts and differences in skills, being of relevance.

Whilst Borjas (1989) provides an essential foundation to the theory of migrant integration, an analysis beyond the human capital theory is needed to consider other aspects of assimilation. In current academia, this is mainly done through empirical papers, which is what the rest of this literature review will delve into.

Aleksynska and Algan (2010) extend the discussion on integration by acknowledging the complexity of this phenomenon and how it cannot be measured via a single indicator. Their aim is to establish the existence of a link between receiving societies who provide opportunities for integration, and the assimilation process itself. They utilise the same data source and a similar methodology to this paper. They analyse assimilation across 5 economic, cultural and civic outcomes and by differentiating between immigrant generation, duration of stay and origin. The cultural outcomes are of most interest for the sake of this literature review. The ESS is used for 16 countries on the European continent from 2001 to 2009. The outcomes are regressed to measure the gaps between the native born and different sub-groups of immigrants, by controlling for survey round fixed effects. But no causality is estimated as Aleksynska and Algan (2010) focus on the establishing the relationship as opposed to providing a cause-and-effect coefficient. This comprehensive analysis finds that the largest gap between immigrant generations is the knowledge of the language, which seems to be decisive for assimilation. However, second generation immigrants have lower trust in institutions and higher perceived discrimination compared to first generation immigrants, despite knowing the language. This finding addresses the crux of the issue. Progress on some

dimensions may compensate for lack of progress on others. But preserving some behaviours may help immigrants integrate on other fronts (Aleksynska & Algan, 2010).

Similar findings were noted by Abramitzky et al. (2016) who through a US-specific study researches cultural assimilation in the Age of Mass Migration (1850-1913). Contrary to Aleksynska and Algan (2010) who use individualised survey responses, Abramitzky et al. (2016) use the names of children as a proxy for cultural assimilation, to then compare with adult outcomes (such as the language and applying for US citizenship). As they claim that names can be a signal for cultural identity, and a de facto way of identifying with the host culture. They utilise the US historical census to regress the choice of names with a composite social integration variable, which encompasses the adult outcomes previously mentioned. Similarly to Aleksynska and Algan (2010), this paper does not grant any causal estimates as it is not a normative investigation. Instead, it documents the behaviours of immigrants and what those may imply. Their main finding suggests that self-identification with the US culture increases with the time spent in the country, and that new generations eventually resemble natives (with less foreign names being chosen over time). Which is a finding that is also consistent with Borjas' (1989) human capital theory. Additionally, they note that name-based assimilation is faster for immigrants more culturally distant from natives, and results in positive effect on adult outcomes. Nevertheless, Abramitzky et al. (2016) note that there is a trade-off between immigrants wanting to maintain a degree of self-identification with their ethnic group and integrating with the host country. For instance, immigrants wanting to retain their ethnic names may face discrimination by employers. Highlighting the difficulty that immigrants face in maintaining an association with their ethnic group, without repercussions on the integration process.

The interplay between retaining self-identification and integration with the host society, is also shaped by the native's perceptions and attitudes towards migrants. This is what Begu et al. (2020) investigated. Through their study, they analyse the divergences in the perception of EU citizens on the integration of immigrants by differentiating across natives, immigrants and second-generation immigrants. They proxy integration via a 2017 Eurobarometer questionnaire covering 3 main areas: the socio-demographic profile (education level, standard of living and occupational status), the job skill level and the role of the host's country government. They utilise a Kruskal-Wallis test and logistic regression to test these three hypotheses. Their findings indicate that the three groups are statistically significant with migrants showcasing the highest education levels. Additionally, they note that natives tend to have negative perceptions regarding immigrants. With only less than half of the surveyed natives believing that immigration has a positive impact on society. And with 63% believing that they increased crime problems. The three groups believe that language, employment and accepting the values and norms of the host society are pivotal factors in the integration process. Nevertheless, both natives and immigrants pass responsibility

to each other as to how it should be facilitated. With natives believing it is the immigrant's duty whereas immigrants emphasise the community's role in establishing an accepting environment.

Overall, all of the above three papers provide insightful findings that are relevant to this discussion. However, it should be mentioned that both Aleksynska and Algan (2010) and Abramitzky et al (2016) are both context specific. Indeed, Abramitzky et al (2016), focuses on a specific time period that is vastly different than todays. For instance, the accessibility of information and new migrant policies may influence immigrant's behaviour differently. Similarly, Aleksynska and Algan (2010) also focus on the early study of the 21st century. Indicating that a more recent investigation that accounts for changes in migratory flows and policies is needed. Additionally, all three papers prescribe to standard outcome variables that proxy for integration (such as names, language, jobs and the role of governance). But as integration is a very complex and subjective experience, a proxy that encapsulates this is needed for a more nuanced discussion. This was noted by Laurentsyeva and Venturini (2017) who claim that integration is based on a mutual recognition-based system. That includes developing a sense of belonging to the host society, and natives accepting their role as facilitators. The difficulty of capturing this phenomenon is that social integration is also based on beliefs and preferences (of both immigrants and natives), and not just constraints such as learning the language (Laurentsyeva & Venturini, 2017). They believe that self-identification is the most direct attempt to estimate the general idea of social integration. With variables such as ethnic and emotional attachment. Hence, that is the approach that is taken for this research, with the latter representing the main variable of interest.

3. Data and methodology

This section first delves into the dataset used for this paper. Secondly, it exemplifies the empirical strategy employed, and it finally looks into the nature and composition of the data through descriptive statistics.

3.1 Data

The data used for this paper is taken from the ESS. The ESS is a cross-national survey that is conducted every two years across Europe since 2001 (ESS, 2002). The samples selected for the survey are randomly assigned and newly selected for each round of the survey. The survey's questionnaire delves into the attitudes, beliefs and behaviour patterns of different European populations. The main variable of interest from the survey, used a proxy for social integration, is the question "How emotionally attached do you feel to [country]". Respondents are asked to rate the following on a scale from 0-10 where 0 represents no emotional attachment at all and 10 the highest emotional attachment. The respondents are also free to refuse

to answer, to provide no answer or to respond with "I don't know". The survey spans across an array of European countries however, for the purpose of this study, the focus is on EU countries only. The following question has only been asked since ESS round 8 (2016) hence data attaining to previous years is not utilised (ESS, 2002).

The sample size of each cohort for the survey is on average around that of 2000 respondents. To maximise the sample size of the investigation, this investigation takes the findings of the ESS round 8, 9 and 10, providing a total of 94,239 observations. ESS round 10 was administered during the COVID-19 pandemic meaning that responses may have been more varied than for the other rounds. Data is available for 16 EU countries including: Austria (AT), Belgium (BE), Czechia (CZ), Estonia (EE), France (FR), Germany (DE), Hungary (HU), Ireland (IR), Italy (IT), Lithuania (LT), Netherlands (NL), Poland (PL), Portugal (PT), Slovenia (SI), Spain (ES) and Sweden (SE).

The dependent variable of this investigation is the emotional attachment to the country of residence. The independent variable is the binary variable of "Migration Status". Taking the value equal to zero if the individual is a native, and value equal to one if they are a migrant. As there is no migrant status question in the survey, it is determined based on three other variables in the survey: whether an individual was born in the country of residence, whether they have foreign-born parents and the year they first came to live in the country. As per Eurostat (2016), a "first-generation immigrant" is an individual born in a country other than the country of residence, whereas a "second-generation immigrant" is a native-born person with at least one foreign-born parent. Hence, the "migrant" cohort of the "Migrant Status" variable includes both of these types of immigrants. The control variables used in the regression equation include the age, the employment status, the education level and gender. Age is numerical variable whereas gender is a binary variable taking value 0 if male and 1 if female. On the other hand, the employment status and the education level are both categorical variables. Employment status is proxied by the categorical variable of main source of household income. This variable ranges from wages, income from self-employment and investment to pensions, unemployment benefits. Similarly, education level also ranges upon a variety of categories. Due the number of countries, the number of categories is quite extensive. Yet, they are all based upon the International Standard Classification of Education (ISCED) developed by UNESCO, which is the international reference standard for organising education and qualification programmes in all fields (Eurostat, 2023).

3.2 Methodology

The aim of this investigation is to focus on establishing whether there is a relationship, and in what dimension, between being a migrant and social integration in a country. This is why a correlational approach

is taken as opposed to a causal one. Causality would instead highlight the cause-and-effect relationship, so if being a migrant causes a certain effect on social integration. This would be difficult to establish due to the specificities of this dataset and limitations of causal estimation. In fact, causality would imply no omitted variable bias, almost identically comparable groups and no measurement error (Cunningham, 2021). None of these assumptions can be met, due to the data collection method used. Hence, this paper instead emphasises the link between the two variables of interest and its potential mechanisms.

To investigate this relationship, an OLS linear regression approach is taken. This statistical model is used to fit the relationship between an explanatory (the migrant status) and a continuous variable (the emotional attachment). The model assumes a minimisation of the sum of the square of errors, where errors constitute the difference between the actual and precited values of the outcome variable (Zdaniuk, 2014). In doing so, it should estimate a coefficient that depicts the linear relationship between the two variables. The assumptions of the OLS model are tested to ensure that it the correct method with which to test the data. It can only accurately estimate the relationship if the data is linear, independent, homoscedastic and has normality of its residuals (Zdaniuk, 2014). The linearity assumption cannot be tested with respect to the migrant status as it is a binary variable. However, the continuous variable is linear and increasing (as shown in Figure 1A) hence, satisfying the assumption. The data does not exhibit a normality of its residuals (Figure 2A). However, the large number of observations implies a large enough sample size to estimate inference due to the central limit theorem (Routledge, 2023). Hence, satisfying this assumption. The homoscedasticity assumption is also satisfied as shown by the flat line in Figure 3A. Finally, the independence assumption seems to be met as the two variables do not have a correlation with each other (Table 3A). Consequently, the OLS regression is an adequate method.

Nevertheless, a simple OLS regression does not capture the full effect of the relationship. To do so, a country fixed approach is used. This method ensures that the time varying effect is captured by controlling for time invariant variables (Cunningham, 2021). In this sample, the only variable that remains constant over time are the 16 MS (which are captured by the "country" variable). Hence, controlling for the countries through fixed effects allows for a within country estimation analysis, meaning that the country of residence does not influence the estimated coefficient. The other variables in the sample vary over time, as the observations are individual responses to questions posed during the different rounds; making it essential to capture their variance. Additionally, clustering is used to more accurately estimate the standard errors. Clustering enables to control for within country differences; specifically, the clustering of individuals within a sample (Cameron & Miller, 2015). For example, migrants could be highly concentrated in certain countries as opposed to others, which could bias the effect on emotional attachment. Controlling for this ensures that it is not a contributing factor in the analysis, isolating the effect. The coefficients of the

variables are unaffected by clustering, as this aims to more accurately capture the standard errors of the analysis (Table 2A shows the results without clustering).

The regression equation for the full model (country fixed effect OLS regression) is represented as follows:

$$Y_{i,t} = \beta_0 + \beta_1(\text{Migrant Status}) + \beta_2(\text{Gender}_{i,t}) + \beta_3(\text{Age}_{i,t}) + \beta_4(\text{Employment Status}_{i,t}) + \beta_5(\text{Education level}_{i,t}) + \boldsymbol{\alpha}_i + \varepsilon_{i,t}$$

The full model will be henceforth referred to as Model 3. Prior to establishing the full relationship, two additional models are estimated (through simple OLS linear regression). For the Model 1, the effect of Y is investigated on β_1. Where Y represents the emotional attachment and β_1 the migrant status. Meaning that the effect of being a migrant on emotional attachment to the country of residence is analysed. β_0 instead represents the constant in this equation and $\varepsilon_{i,t}$ the error term, which accounts for uncertainty in the model. Similarly, Model 2 includes the same variables as Model 1 with the addition of the control variables, captured by β_2, β_3, β_4 and β_5. Finally, Model 3 accounts for the country-fixed effects in addition to Model 2. The fixed effects of the regression, the 16 EU MS, are captured by alpha in the equation.

Two robustness checks for the data are also analysed. Firstly, the validity of the chosen control variables is tested to ensure that they are not biasing the estimated coefficient (as opposed to controlling the bias). Secondly, the results are tested by excluding the observations from the ESS round 10. This round was administered during the COVID-19 pandemic, meaning that it could influence the results. Additionally, the survey methodology used was different as opposed to ESS rounds 8 and 9. Indeed, in certain countries individuals were sent "self-completion" questionnaires and others were contacted remotely through phone calls (ESS, 2002). This could have inadequately captured only a certain sample of the population, which may bias the results. For instance, only non-essential workers with a more consistent access to their phones as opposed to essential workers, who statistically are more likely to be migrants (Kleine-Rueschkamp & Ozguzel, 2020). Hence, it is essential to see whether there is a significant change in responses as compared to the main research question. The same methodology as for Model 3 is utilised.

Additionally, two heterogeneity analyses are conducted. The first investigates the effect on social integration per generation of immigrant. The regression equation used is the same as that above, however, β_1 now represents the migrant "Generational Status". Where it captures first and second-generation immigrants (taking values 0 and 1 respectively). The same methodology as for Model 3 is used. Lastly, the effect of being a migrant on social integration is studied for 4 MS. Allowing for a country level analysis. The same methodology per Model 2 is used, in an attempt to further gain insight into the roots of the relationship between the dependent and independent variable.

3.3 Descriptive statistics

To understand the composition and nature of the data in this sample, it is relevant to delve into its descriptive statistics.

Figure 1 shows, amongst the whole sample, the distribution of migrants and natives for each European MS in thousands (hence for all the three ESS rounds). From a general outlook, it can be seen that migrants represent only a small subsample of the population interviewed, with the majority being natives. The same results are represented in percentage terms in Table 1A (Appendix). Wherein, similarly to Figure 1, they showcase that the countries with the largest percentage of immigrants are Estonia, Belgium, France, Ireland and Sweden. With Estonia have the highest percentage of migrants as opposed to natives (33% of their sample population) out of all the 16 MS.

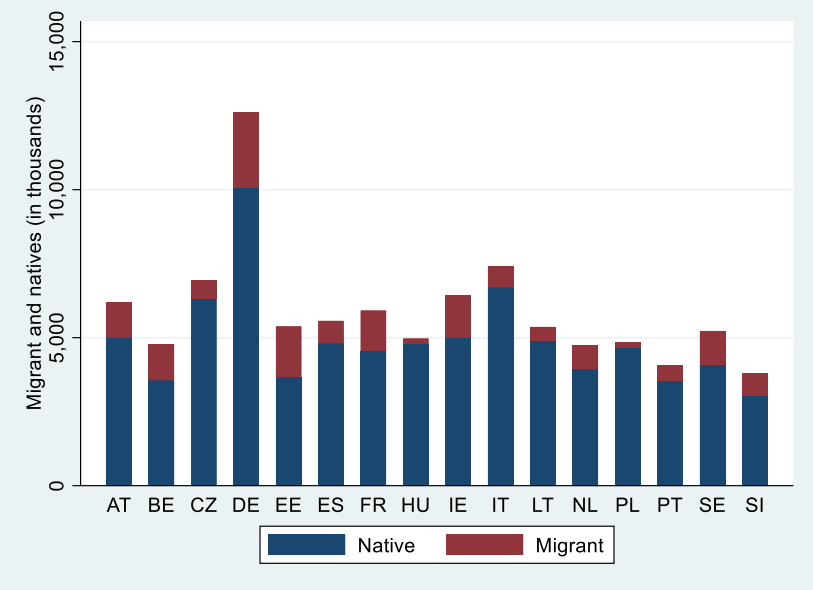

Figure 1: A demographic representation of the distribution of migrants and natives for the whole sample across the 16 EU MS (in thousands)

Figure 2 represents the percentage of first- and second-generation immigrants within each migrant sample per European MS. Out of the total observations across the 3 ESS rounds, only 16% are immigrants (which is 15,621 individuals). The overarching finding across the 16 MS countries, is that there is a larger proportion of first-generation immigrants as opposed to second generation immigrants. However, the difference is minimal with first generation immigrants representing 55.5% of the total immigrant population across all 16 MS and second generation 44.4 % (Table 2A Appendix).

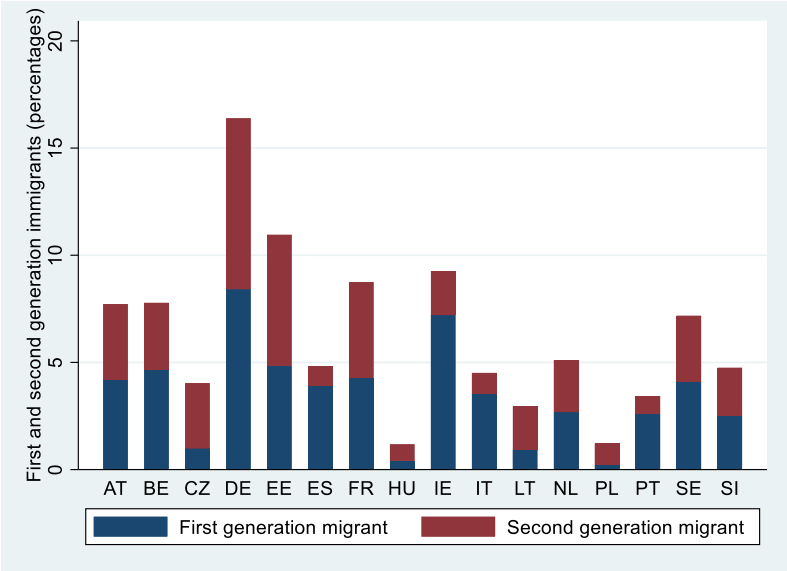

Figure 2: A demographic representation of first- and second-generation immigrants as a percentage of the total immigrant population, across 16 EU MS

Furthermore, Figure 3 represents how the mean emotional attachment varies between migrants and natives for each EU MS of the sample. Overall, the mean emotional attachment level for both migrants and natives seems to be quite high across all MS, with the lowest value amongst the whole sample standing approximately at point 7 (out of a scale of 10). And the highest value amongst the whole sample standing at approximately point 9. Additionally, on average, there seems to be a higher emotional attachment for the country of residence for natives as opposed to migrants. This was observed for all countries with the exception of Belgium, France and Poland. Who instead showcase that migrants seem have stated a higher emotional attachment than natives.

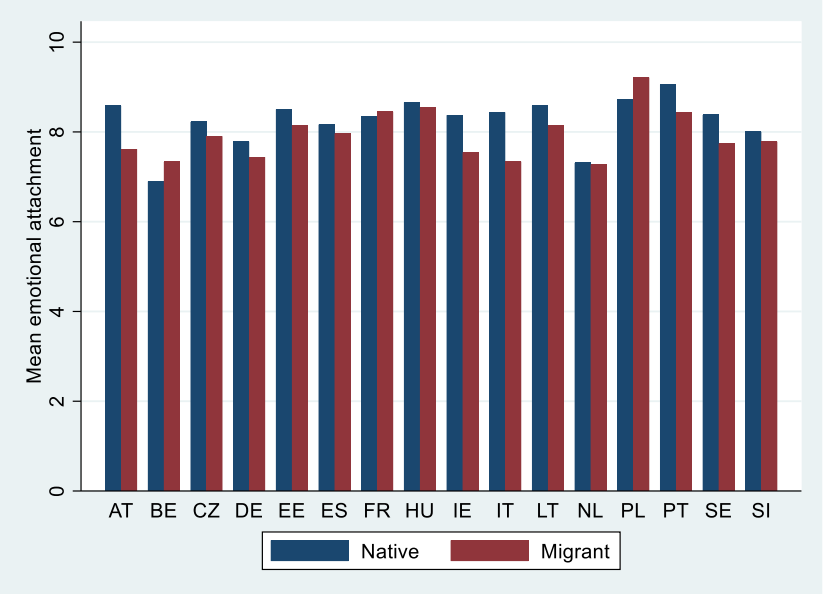

Figure 3: The variation of the mean emotional attachment for migrants and natives, across the 16 EU MS.

In the total population sample, there seems to be a high emotional attachment to the country of residence (as shown in Table 1). Indeed, the mean of this variable averaged around 8.1 out of a scale of 10 indicating that most of the population (natives and migrants) has a substantial sense of belonging towards their residence country. As previously mentioned, around 16.6% of the total population sampled in the 3 ESS rounds is a migrant, which is quite small percentage. This seems to be representative of the EU's real situation. As in 2014, immigrants approximately represented 17.6% of the EU population (Eurostat, 2020). More recent estimates for 2022 indicate that EU MS had an average of 12.4% first generation immigrants (European Commission, 2022) which is also consistent with first generation immigrants representing a larger portion of the immigrant population. The average age is correspondent to the median of the population. As the interviewees started interviewed individuals from 15 up to a hundred years old. This showcases a good variance in age of the sample, but is slightly above the current European mean age of 44 years old for 2022 (Eurostat, 2023). There is an almost equal separation of male and female with females just surpassing the male individuals by a 0.4 point. This also seems to be consistent with the EU as females represent 51.5% of the EU population (World Bank, 2022). Additionally, on average, the majority of individuals have completed their upper secondary education. This is slightly above the EU average wherein 44.8% of individuals have attained a ISCED of level 3 and 4 (upper secondary) (Eurostat, 2023). Which may indicate that this sample has a particularly educated cohort, which may lead to more informed responses. Finally, on average, the interviewed sample is benefitting from either social benefits and grants or income generated through investments or savings. Data on income source is not readily available at an EU level so whether this variable is representative is ambiguous. Nonetheless, the sample used in this paper can be extrapolated to be a representative sample of Europe.

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
Emotional Attachment	8.17	2.34	1	11
Migrant status	0.17	0.37	0	1
Age	50.33	18.56	15	100
Employment status	6.94	1.57	1	8
Education Level	13.84	8.97	1	28
Gender	1.47	0.50	1	2
Number of observations (N)	94239			

Notes: Table 1 shows the descriptive statistics of all the variables used in the analysis along with the number of observations. All values are rounded to 2 decimal places.

4. Analysis and Results

This section is subdivided as follows. Firstly, the relationship between the two variables of interest is analysed through a linear OLS regression. Secondly, the relationship is investigated through a country-fixed effects model and accounts for two robustness checks. Finally, two heterogeneity analyses are conducted along migrant generation and country level comparisons.

4.1 Ordinary Least Squares linear regression

Column 1 of Table 2 describes the result of this first model. The coefficient showcases a negative relationship, meaning that being a migrant decreases the emotional attachment to the current country of residence by 0.47 points. This is significant at a 1% level, making the result statistically significant. This finding however, is incomplete. As Model 1 only considers the effect that the dependent and independent variable have on each other, without accounting for other unobserved confounding variables that could be influencing the effect. This could lead the analysis to have a biased coefficient which does not accurately represent the true effect (Cunningham, 2021). Indicating that a further investigation is needed.

As the data satisfies the OLS assumptions, the same model can be used. However, in order to create a more comprehensive study, this regression includes additional variables that could bias the results (Cunningham, 2021). Namely; age, employment status, education level and gender. By controlling for these variables, the linear regression should more accurately depict the effect that being a migrant has on the emotional attachment to the country of residence. The result can be seen in Column 2 of Table 2. Indeed, the coefficient decreases. When controlling for certain confounding factors, being a migrant decreases the emotional attachment to the country of residence by 0.35 points. The result is statistically significant at a 1% level, indicating that result is most likely not due to chance. The control variables are all statistically significant at the 1% level, with the exception of the education level which is significant at the 5% level instead.

The difference in the coefficients between the two models is almost by a full point. Implying that the coefficient in model 1 overestimated the effect that being a migrant has on social integration. Indeed, including potential unobservables seems to more closely capture the true effect.

Table 2: OLS regression results

	Model 1	Model 2
Migrant Status	-0.47***	-0.35***
	(0.20)	(0.20)
Age		0.03***
		(0.00)
Employment Status		0.02***
		(0.00)
Education level		-0.00**
		(0.00)
Gender		-0.12***
		(0.01)
Constant	8.20***	6.89***
	(0.00)	(0.05)
Number of observations (N)	94239	94239

Notes: Table 2 provides a comparison of the 2 OLS linear regression model for the effect of being a migrant on emotional attachment to the country of residence. Emotional attachment represents the dependent variable. Age, employment status, education level and gender are the control variables. Coefficient estimates and standard errors are rounded to 2 decimal places. ***, **, * report significance at the 1%,5%,10% significance level respectively.

4.2 OLS Fixed effects regression

Whilst model 2 gives a clear indication of the negative relationship between being a migrant and the emotional attachment to the country of residence, it does not provide the full picture. Indeed, to comprehensively capture the effect, a stronger predictive tool is used: an OLS country-fixed effects regression. As there is no possibility for causality with this data, this is the second-best impact evaluation technique that can be used.

After running country fixed effects regression as exemplified by the regression equation (1), the results produced are shown in Table 3.

Table 3: Model 3

	Coefficient
Migrant status	-0.25**
	(0.11)
Age	0.03***
	(0.00)
Employment status	0.01
	(0.01)
Education Level	0
	(0.00)
Gender	-0.09*
	(0.05)
Constant	6.91***
	(0.17)
N	94,239

Notes: Table 3 provides the OLS country-fixed effects regression for the effect of being a migrant on emotional attachment to the country of residence. Emotional attachment represents the dependent variable. Age, employment status, education level and gender are the control variables. Coefficient estimates and standard errors are rounded to 2 decimal places. ***, **, * report significance at the 1%,5%,10% significance level respectively.

The coefficient generated using this model has the lowest value as compared to Models 1 and 2. By accounting for country fixed effects, the results indicate that if an individual is a migrant, their emotional attachment to the country of residence will decrease by 0.25 points. Similar to the previous model, the results reinforce the negative relationship between the dependent and independent variables. Supporting the main hypothesis of this paper. Nevertheless, the magnitude of the effect when using fixed effects is much smaller as compared to the previous models. Indicating that some unobserved factors were biasing the effect of the estimator, leading to an overestimation of the coefficient. The finding of Model 3 is significant at both a 5 and 10% significance level, once again showing that it is statistically significant. The negative relationship is consistent with the findings derived by Begu et al. (2020). Whilst their paper does not describe this exact relationship, they note that natives and migrants have a negative perception towards the integration process. Both believing it is each other's responsibility to make the effort. Additionally, Aleksynska and Algan (2010) highlight the perceived discrimination that immigrants face, which could be a mechanism that helps explain this finding. Hence, this result seems to be consistent with the literature.

Conversely, emotional attachment has a positive relationship with age. This effect implies that with an increase in age, emotional attachment to the country increases by 0.03. Whilst employment status also exhibits a positive coefficient, the magnitude of the effect is very small (0.01) and not statistically

significant. Meaning that its relationship with emotional attachment is very small or even ambiguous. Similarly, education level also seems to have an insignificant effect on the emotional attachment. Gender on the other hand, has a negative and statistically significant relationship with emotional attachment. As it is a binary variable, this shows that for females, emotional attachment decreases by 0.09 points. Once again, the magnitude of this effect is very small hence not very relevant for the purpose of this investigation.

The robustness of the following results is tested two-ways. Firstly, the validity of the results is tested through the control variables chosen for Model 2 and 3. A 'good' control is characterised as variables that are unaffected by the treatment variable, hence limiting the omitted variable bias when added to a regression equation (Cinelli et al., 2022). This is indeed the case for the age and gender variables, as migration status does not affect them. Conversely, it is ambiguous whether this applies for the variables of employment status and education. For instance, migration status could potentially influence accessibility to the job market (for example through curriculum discrimination) and to educational institutions. Hence, it is necessary to test whether these variables may bias the estimates. Table 4A showcases that when excluding these two variables from the country-fixed effects regression, the coefficient and significance of the results are the same as in Model 3. With a just a 0.1-point increase in the standard error. Therefore, this indicates that employment status and education do not substantially change the results, and do not seem to bias the estimates.

Secondly, another robustness check is conducted by not including the observations of the ESS round 10 due to potential bias they could have on the coefficient estimator. As previously mentioned, this round was characterised by the global pandemic of 2019, which may have influenced the results through the issuing of self-completion questionnaires. The results of this robustness check, shown in Table 5A, show that being a migrant still has a negative effect on the emotional attachment to the country of residence. However, the effect is stronger, with the emotional attachment decreasing by 0.28 points instead. Whether this effect is solely due to the analysis or if it is also driven by the smaller sample size, is unclear. Rounds 8 and 9 of the ESS survey were conducted just as the 2015 EU migration crisis was unfolding and migrants were settling in the Member States (in 2016 and 2018 respectively). Hence, this could have been a contributing factor leading to a stronger negative sentiment. With newly arriving migrants not feeling socially integrated yet and already established migrants experiencing ghettoization in certain communities (O'Sullivan, 2020). The latter may still hold true for round 10 of the ESS however, due to their methodological constraints, they may have excluded more migrants than natives from the sample (for example essential workers). Overall, both of these robustness checks indicate that the results produced in Model 3 (Table 3) hold and internal validity can be established.

4.3 In depth: a generational and country level divide

To fully understand the nature of the relationship that is studied, it is essential to grasp where it may originate from. This will firstly be seen from a migrant generational perspective and then by focusing on some country level comparisons.

Migrant generational status is subdivided into first- and second-generation migrants as per the previously described Eurostat definition. With generational status being equal to 0 if the individual is a first-generation immigrant and having value 1 if they are a second-generation immigrant. This new status variable is subjected to the same methodology as per the OLS country fixed effects regression, as this effect is analysed across EU MS. This is done to understand whether a certain type of immigrant drives the negative effect on emotional attachment as compared to the other. The results are represented in Table 4.

Table 4: Model 4

	Coefficient
Generational status	0.19**
	(0.09)
Age	0.03***
	(0.00)
Employment status	0.01
	(0.01)
Education level	0.00
	(0.00)
Gender	-0.09
	(0.06)
Constant	6.309***
	(0.13)
N	15,621

Notes: Table 4 provides the OLS country-fixed effects regression for the effect of being a second-generation migrant on emotional attachment to the country of residence. Emotional attachment represents the dependent variable. Age, employment status, education level and gender are the control variables. Coefficient estimates and standard errors are rounded to 2 decimal places. ***, **, * report significance at the 1%,5%,10% significance level respectively.

These results indicate that being a second-generation immigrant, increases the emotional attachment to the country of residence by 0.19 points. This is statistically significant at both a 5% and 10% significance level. This finding is consistent with Abramitzky et al. (2016) who note that second generation immigrants benefit from better outcomes (in terms of jobs, education, citizenship) which could help exemplify this positive effect. The main differentiating factor between first- and second-generation immigrants is the place of birth. Indeed, according to these results, immigrants that are born in their country

of residence feel more socially integrated in their country. Indicating that participating in that country's social, cultural and educational activities from an early age is a defining factor in the feeling of belonging and by default emotional attachment (Laurentsyeva and Venturini, 2017). Nevertheless, second generation immigrants still feel less attached to the country of residence than natives, as shown in Table 6A. Exemplifying, that despite both cohorts being born in the same country, second generation immigrants do not feel as socially integrated as natives. The implications of such a finding are nuanced, and are further discussed in the next section.

Overall, the negative relationship established between migrants and emotional attachment in Models 1,2 and 3 seems to be mainly driven by first generation immigrants. As shown by Table 7A, first generation immigrants represent the majority of the Generational Status sample, making this finding consistent with the demography of the dataset.

Finally, to further understand the underlying justifications behind this relationship, a few country level comparisons are conducted. The four MS analysed for the purpose of this in-depth investigation are: Estonia, Lithuania, Belgium and Italy. These countries were selected on two main criteria. Estonia and Lithuania respectively represent the countries with the highest and lowest percentage of migrants in the interviewed sample. As shown in Table 1A, Hungary and Poland have the lowest migrant populations but both countries suffer from a very low sample size, which may bias and lead the results. Hence, the next best country was chosen (i.e., Lithuania). Whereas, Belgium and Italy represent the countries with largest divide on the effect of being a migrant on their emotional attachment to the country of residence. Similar to the previous models, an OLS linear regression is utilised. However, fixed effects are not included, as the country investigated is of interest and a contributing factor in the effect of being a migrant. The results are displayed in Table 5.

Table 5: Model 5

	Belgium	Italy	Lithuania	Estonia
Migrant Status	0.54***	-0.97***	-0.54***	-0.51***
	(0.07)	(0.09)	(0.113)	(0.07)
Age	0.02***	0.01***	0.03***	0.03***
	(0.00)	(0.01)	(0.02)	(0.00)
Employment Status	-0.01	0.04**	-0.02	0.01
	(0.02)	(0.02)	(0.02)	(0.21)
Education level	-0.01*	-0.01***	-0.02***	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Gender	-0.16**	0.04	-0.32***	-0.26***
	(0.06)	(0.05)	(0.07)	(0.06)
Constant	6.32***	7.56***	7.79***	7.26***
	(0.22)	(0.19)	(0.25)	(0.22)
N	4774	7408	5363	5381

Notes: Table 5 provides the OLS linear regression for 4 MS on the effect of being migrant on emotional attachment to the country of residence. Emotional attachment represents the dependent variable. Age, employment status, education level and gender are the control variables. Coefficient estimates and standard errors are rounded to 2 decimal places. ***, **, * report significance at the 1%,5%,10% significance level respectively.

As shown, Italy represents the country with the most negative effect out of the four MS. Indicating that being a migrant decreases the emotional attachment to Italy by almost a full point. The same negative effect, but in a smaller magnitude, is noted for both Estonia and Lithuania who have almost identical coefficients despite having a very diverging percentage of immigrants. In fact, 31% of the interviewed sample qualify as a migrant in Estonia (Table 1A) as opposed to the only 9% in Lithuania. These statistics generally reflect the migration trends of the time in the two countries. With Estonia experiencing a higher migration flow of approximately 18,000 individuals per year (Statistics Estonia, 2022) as opposed to Lithuania's 12,000 migrants up until 2019 (Official Statistics Portal, 2022). Yet, the sentiment of a negative social integration for migrants was common. Belgium on the other hand, is the only country that exhibits a positive effect of migrants' emotional attachment. Indeed, the effect of being a migrant increases emotional attachment by a 0.54 point as compared to natives. It is important to note that Belgium does not have the highest percentage of migrants but of those that were surveyed, the majority generated a positive response.

Extrapolations from these findings can be many. From these results, it seems like the Baltic countries struggle in making their migrants feel socially integrated. Indeed, migration from countries beyond those of ex-USSR states is a relatively new phenomenon for these countries (Kovalenko et al.,

2010). Nevertheless, the majority of the migrants taking part in the survey for both Estonia and Lithuania are Russian born or of Russian origin (68% and 46% respectively). Showcasing that feelings of low social integration are not exclusive to 'international' immigrants, but are also felt by Russians immigrants who do not feel a high level of emotional attachment to their current countries of residence (as noted by the negative coefficients). Indeed, as outlined in by Kovalenko et al. (2010) the Baltics showcased integration policies that extended solely to learning the language. And rhetoric in the media did not gravitate towards tolerance of immigration (Kovalenko et al., 2010). However, it is worth noting that new migrant integration policies have since been initiated in an effort to curb this negative effect (Lojmand, I.S., 2022).

The same finding can be seen for Italy where there is a clear difficulty in integrating migrants socially. The 2015 migration crisis and current restrictive migration propaganda and policies can be seen as contributing factors. Indeed, current administrative changes have made it more difficult for migrants to obtain citizenship (MIPEX, 2020). With the Migrant Integration Policy Index (MIPEX) noting that Italy favours "Temporary Integration" which encourages natives to see migrants as equals, but as foreigners (MIPEX, 2020). Furthermore, this negative effect can also be exemplified through the immigrants' country of origin. In fact, Italy's largest immigrant cohort in the sample is from Romania which is representative of the country's current situation, as they are still the largest immigrant population (Istat, 2021). Romanians have long faced bouts of racism and xenophobia in Italy both at a societal and at a political level, by being mainly associated with crime (Momigliano, 2017). This discrimination may in part reflect why immigrants have a lower attachment level and feel less socially integrated in Italy.

Conversely, Belgium seems to have a more effective integration policy as compared to these other countries. MIPEX (2020) notes that Belgium exhibits successful integration strategies along nationality, anti-discrimination, education and political participation. As opposed to Italy, Belgium seems to promote a more permanent integration strategy. This is further reflected by the integration of Moroccans in Belgium who represent the most ancient immigrant community in the country, with 49% having since acquired Belgian citizenship (Odasso, 2016). Such a finding may help demonstrate the positive relationship shown in Model 5 (as the majority of immigrants in the sample are Moroccans). Further highlighting that Belgian governance seems have a positive impact in integrating migrants.

5. Discussion

The main findings from this investigation indicate that being a migrant has a negative relationship on the emotional attachment to the country of residence. As mentioned in the results section, this is supported by the current literature on the subject. Showcasing that despite the different context, period and sample, overall, there still seems to be an adverse relationship. To fully understand the nature of this

relationship, it is relevant to discuss what potential mechanisms may be driving it and their respective implications.

One of the main mechanisms which could help explain the lower social integration felt by immigrants, is the language. As mentioned by Aleksynska and Algan (2010), learning the language is a decisive facilitator in the process of assimilation. It represents the first indicator of belonging towards a certain culture and is needed to perform the most basic activities (such as finding employment). This is particularly relevant for first generation immigrants, who being born outside the host country, are expected to take this step, regardless of the difficulty. Since first-generation immigrants represent the majority of the migrant cohort in this sample, they seem to drive the negative effect of the relationship. Hence, supporting the difficulty in learning and speaking the language as a plausible mechanism.

Another contributing mechanism could be the interaction of cultures between the host country and the country of origin. With two very diverging cultures, there is a trade-off of how to retain the country of origins' customs, without harming the integration process into the hosts' country society. For example, wanting to preserve a certain culture may influence the choice of residential area. Leading immigrants to settle in communal areas with other immigrants from the same country of origin, in an effort to build a community. This may lead these areas to be categorised as "ghettos" by natives (O'Sullivan, 2020) who claim that immigrants do not want to integrate (Begu et al., 2020). Such rhetoric and attitudes may reduce even further immigrants' perception of being socially integrated. However, this is also heavily influenced by the host country's views and acceptance towards the immigrants' culture. In the case of Belgium, their promotion of a "Permanent Integration" system allowed for a successful integration over time and across generations of immigrants (MIPEX, 2020). With 49% of Moroccan immigrants acquiring Belgian citizenship in 2012, whilst retaining their customs (Odasso, 2016). This showcases the strong interplay at hand between the host country and the migrant's country of origin, in turn determining the degree of cultural preservation and integration (Abramitzky, 2016).

The heterogeneity analysis revealed that second generation immigrants felt more socially integrated than first generation immigrants. This is most likely driven by the fact that they were born in the host country. Hence, are already exposed to the host country's language and culture and they should benefit from better economic outcomes (Abramitzky, 2016), as opposed to first generation immigrants. Yet, second generation immigrants still feel less socially integrated than natives. This could be motivated by the discrimination targeted towards them. This is indeed the case in Italy, where Romanian immigrants for decades are faced with racism and xenophobia through the media and politicians (Momigliano, 2017). Despite being the largest and oldest immigrant community, indicating that discrimination has perpetuated across generations. This was also seen in Estonia and Lithuania where anti-migrant rhetoric was heavily

employed against immigrants (Kovalenko et al., 2010). Aleksynska and Algan (2010) note that perceived discrimination is mainly felt by second generation immigrants. Helping to exemplify their lower feeling of social integration to their country of residence as compared to natives.

Nonetheless, it is important to note that whilst the models' results are significant, they cannot be fully interpreted without acknowledging their limitations. Model 3 controls for five confounding variables in the regression which would have otherwise influenced the results (as was demonstrated through Models 1 and 2). However, the model cannot fully capture all unobservables and there could still be some confounding factors biasing the results. For instance, the religion of an individual may lead to a lower emotional attachment, if it is underrepresented in the country of residence. Moreover, as the main variable of interest is self-reported, this could lead to some measurement error in the study. The estimated coefficient may not fully capture the effect, or certain participants may not have been fully honest as they knew they were taking part in a survey. As was mentioned by Laurentsyeva and Venturini (2017) self-reported data may often lead to statistically noisy results. These limitations also hold for the heterogeneity analyses. Furthermore, the external validity of the generational heterogeneity analysis may be limited by the small sample size, despite the ratio of first and second generation being representative of current estimates. These concerns should be taken into account however, considering the nature of the data and statistical tools available, the employed empirical strategy used was the most appropriate. This also allows for further research in this area. For example, more comprehensive studies could include composite social integration variables accounting for both subjectivity and cultural outcomes (such as language or citizenship). Which is yet to be fully accounted for. Or, more specifically, how post 2016 migratory flows may have influenced integration and assimilation policies across EU countries.

6. Conclusion

This research aimed at investigating the gap between the social integration of migrants and natives. More specifically, this was studied across 16 EU countries and was subsequently differentiated per generation of immigrant and per certain countries. Allowing for comparisons into the extent to which the effect changes.

The difficulty in measuring social integration in the current academic literature provided the foundation for this paper. For instance, the majority of research on integration gravitates towards labour and economic outcomes. As was the case in the human capital theory (Borjas, 1989). Additionally, other studies focus on an amalgamation of cultural and economic outcomes, which fail to capture the subjectivity associated with integration. Hence, this paper proxies social integration through the subjective and self-reported indicator of emotional attachment.

The usage of an OLS country-fixed effects regression, allowed to capture the overall relationship between emotional attachment and the status of the individual. Whilst maintaining the country of residence fixed. Additionally, survey data from the ESS for these 16 MS, allowed to control for variables such as age and gender which could have biased the results. The main finding from this investigation is that being a migrant has a negative effect on the emotional attachment to the country of residence. This outcome supports the main hypothesis of this research and is in line with a significant portion of the literature, as illustrated in previous sections.

The heterogeneity analyses allowed for further nuance into the main discussion. The findings from the first analysis indicate that being a second-generation immigrant has a positive effect on the emotional attachment, as opposed to a first-generation immigrant. Yet, second-generation immigrants feel less emotionally attached than natives. This result is also consistent with the current literature. Conversely, country level comparisons of the second analysis reveal substantial differences between MS as opposed to the main finding of this paper. With some experiencing a very positive relationship and others a very negative one. Showcasing that whilst the overall effect is negative, this is also dependent on country specificities (such as different migration policies). Furthermore, three main mechanisms were discussed as justifications to these results: the difficulty in learning the language, the trade-off between cultures and perceived discrimination by immigrants. With the latter in particular affecting second generation immigrants, and the former two being relevant for the general negative relationship.

Despite having statistically significant results, this paper also has its limitations. The full model cannot capture all unobserved differences meaning that there could be other confounders biasing the results. Moreover, as the data derives from a survey, it is possible that there may be measurement errors, specifically for the self-completion questionnaires distributed during the COVID-19 pandemic. Furthermore, the heterogeneity analysis suffered from a small sample size which decreases its external validity.

These limitations, indicate that further research can and should be conducted in this field. For instance, the readily new availability of subjective indicators could allow to create a composite social integration proxy. Which combines both subjective and standard cultural outcomes (such as language and citizenship). And more recent empirical studies could account for the divergences in integration across MS following the rise in migratory flows since 2015. Overall, more academic research is needed to further understand the mechanisms at play and their implications for future policy-making in migrant integration.

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8. Appendix

Table 1A: Migrants as a percentage of the total population sample for each MS

European Member States	Percentage of migrants (over population sample of each country)
Austria	25%
Belgium	19%
Czechia	9%
Germany	20%
Estonia	31%
Spain	13%
France	23%
Hungary	3%
Ireland	22%
Italy	10%
Lithuania	9%
Netherlands	16%
Poland	4%
Portugal	13%
Sweden	21%
Slovenia	20%

Table 2A: OLS country fixed effects regression without standard error clustering per country

	Coefficient
Migrant Status	-0.25***
	(0.02)
Age	0.03***
	(0)
Employment Status	0.01*
	(0.01)
Education level	0
	(0.00)
Gender	-0.09***
	(0.12)
Constant	6.91***
	(0.05)
N	94,239

Notes: Table 2A provides the OLS country-fixed effects regression of being a migrant on the emotional attachment to the country of residence without clustering at a country level. Emotional attachment represents the dependent variable. Age, employment status, education level and gender are the control variables. Coefficient estimates and standard errors are rounded to 2 decimal places. ***, **, * report significance at the 1%,5%,10% significance level respectively.

Table 3A: Variance inflation factor

	VIF	1/VIF
Status	1	1
Mean VIF	1	.

Table 4A: Robustness check without two control variables

	Coefficient
Migrant Status	-0.25**
	(0.12)
Age	0.03***
	(0.00)
Gender	-0.09*
	(0.05)
Constant	6.979***
	(0.15)
N	94,239

Notes: Table 4A provides the OLS country-fixed effects regression with the control variables of education level and income source. Emotional attachment represents the dependent variable. Age, employment status, education level and gender are the control variables. Coefficient estimates and standard errors are rounded to 2 decimal places. ***, **, * report significance at the 1%,5%,10% significance level respectively.

Table 5A: Robustness check without ESS round 10

	Coefficient
Migrant Status	-0.29**
	(0.12)
Age	0.03***
	(0.00)
Employment Status	-0.00
	(0.01)
Education level	-0.00
	(0.00)
Gender	-0.13**
	(0.05)
Constant	7.14***
	(0,17)
N	59,872

Notes: Table 5A provides the OLS country-fixed effects regression of ESS rounds 8 and 9. Emotional attachment represents the dependent variable. Age, employment status, education level and gender are the control variables. Coefficient estimates and standard errors are rounded to 2 decimal places. ***, **, * report significance at the 1%,5%,10% significance level respectively.

Table 6A: OLS country-fixed effects regression for second generation immigrants and natives

	Coefficient
Migrant Status 2	-0.14*
	(0.08)
Age	0.03***
	(0.00)
Employment Status	0.01
	(0.01)
Education	0
	(0.00)
Gender	-0.09*
	(0.05)
Constant	6.89***
	(0.176)
N	85,582

Notes: Table 6A provides the OLS country-fixed effects regression for being a second generation immigrant as opposed to natives on emotional attachment to the country of residence. Emotional attachment represents the dependent variable. Migrant Status 2 takes value 0 if native and value 1 if second generation immigrant. Age, employment status, education level and gender are the control variables. Coefficient estimates and standard errors are rounded to 2 decimal places. ***, **, * report significance at the 1%,5%,10% significance level respectively.

Table 7A: First vs second as a percentage of total immigrant population

	First generation immigrant	Second generation immigrant
Percentage out of migrant sample (in %)	55.53%	44.47%
N	8,675	6,946

Notes: Table 7A notes the frequency of first- and second-generation immigrants as percentages of the total immigrant sample. The total number of observations in the immigrant sample is 15,621

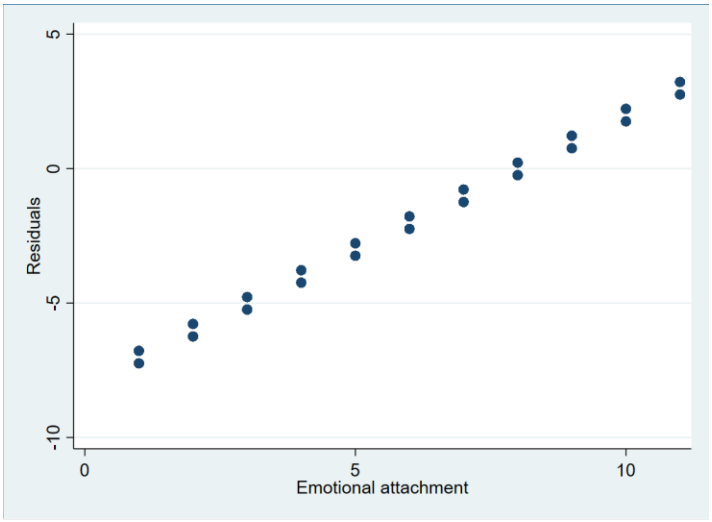

Figure 1A: The linear relationship of emotional attachment

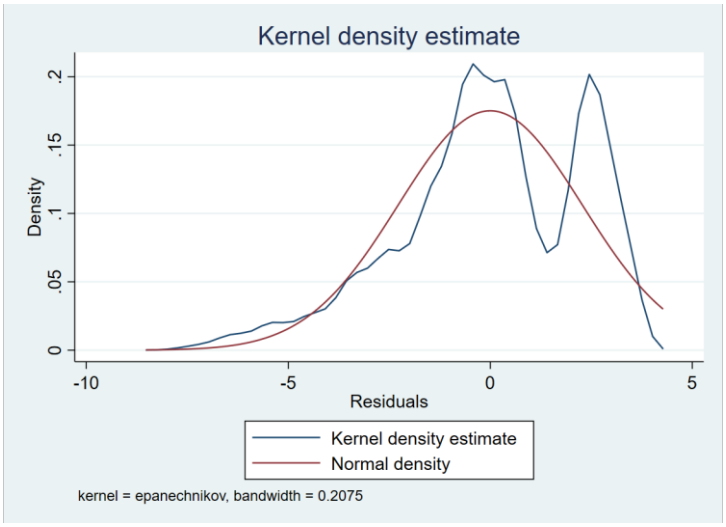

Figure 2A: Kernel and normality density testing for residuals

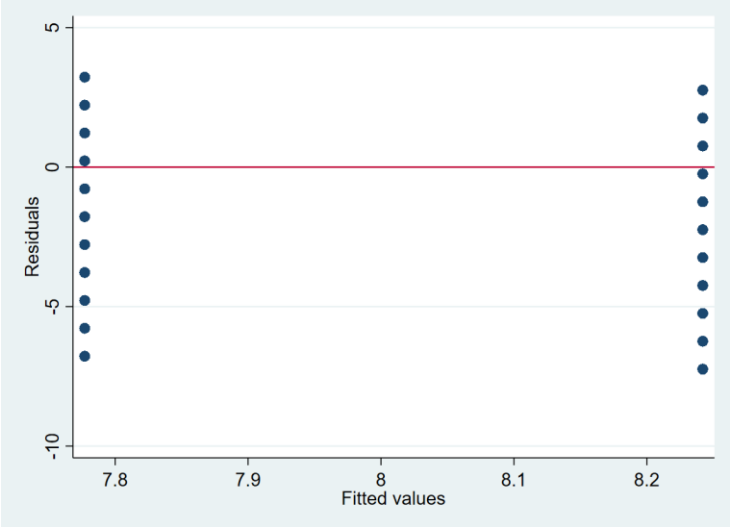

Figure 3A: OLS homoscedasticity check