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Language and civic education requirements as gatekeepers or tools for economic integration: a question of gender?

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Abstract: Over the 21st century, European governments have introduced language and civic knowledge-tests as requirements for integration stages such as permanent residency and citizenship. Such requirements have been justified as a tool to incentivize host-language acquisition among immigrants and improve integration. By applying the newly developed Language Policy Index for Migrants to recent rounds of the European Social Survey, we explore whether these desired effects exist. We focus on the economic integration of non-EU migrants, for whom these requirements mainly apply. In a logistic multilevel model with ESS-data from 18 countries, no support is found that stricter requirements improve employment for non-EU migrants in general. However, there is no pattern suggesting that chances of employment are higher in lenient settings either. When incorporating a gender dimension, results suggest that strict requirements may have excluding effects on the employment of male non-EU migrants, while they could benefit that of female non-EU migrants. We relate this to gender-based differences in labor market attachment, occupational choice, and the importance of language proficiency in working tasks. This study joins a rather limited literature evaluating civic integration requirements and makes a contribution regarding the gender aspect, further underscoring the complexity of the effects of these policies.

Keywords: integration, immigration, Europe, language and civic education requirements, gender

1 Introduction

A worrying pattern in most immigrant-receiving countries in Europe is that foreign-born individuals consistently perform worse on the labor market compared to native-born residents, in terms of both participation and earnings (Eurostat

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2024; Guzi et al. 2023). In countries such as France, the Netherlands, Sweden, and Germany, the employment gap between foreign- and native-born residents is 11–14 percentage points (Ekonomifakta 2022; Eurostat 2024). The gap is largely driven by unemployment among non-EU migrants, averaging an unemployment rate of 12.3 % in the EU27 countries, in comparison to averages of 7.1 % among individuals born in another EU country and 5.2 % among natives (Eurostat 2024). In response to this consistent disparity in labor market outcomes between native-born and foreign-born individuals across countries, along with other signs of poor integration, European governments have developed various strategies aimed at improving integration. Such strategies include increased requirements for acquisition of legal statuses like permanent residency as well as introduction and establishment programs for non-EU migrants (Goodman and Wright 2015).

In the political debate as well as in the scholarly literature, language proficiency is often singled out as an important – if not *the* essential – key to integration, both economic and social. The positive impact of language proficiency on economic integration among immigrants, in terms of both employment chances and earnings, is well established in the literature and sometimes referred to as "the economics of language" (Chiswick 2009: 2–6; Chiswick and Miller 2015: 212; Dustmann and Fabbri 2004). Hence, language has been a prevalent component in policies aiming to improve integration. European governments have implemented language training and introduction programs, some free of charge and others not. Over time, an increasing number of European countries have opted for the more restrictive path, actively increasing the requirements for language and civic knowledge on immigrants (Goodman and Wright 2015: 1886; Rocca et al. 2020: 15).

Scholars within the social sciences have attempted to evaluate the effect of these policies and arrived at very different conclusions (Böcker and Strik 2011; Neureiter 2019; Goodman and Wright 2015; Guzi et al. 2023; van Oers 2021). In addition, as shown recently in a systematic overview by Schildt and Deygers (2024), scholars within the fields of language testing and applied linguistics have mainly adopted the lens of critical discourse analysis, with few engaging in empirical evaluations. As a result, little is known about the effects of linguistic integration tests from the field of applied linguistics. Although results from empirical research are limited and ambiguous, language and civic education (LCE) requirements for citizenship or permanent residence acquisition have been accepted as the given policy to address integration in the political debate. In the present paper, we set out to contribute to the existing literature and policy discussion by investigating the effect of civic integration policies on economic integration (defined here as employment status) with a specific focus on the gender dimension, an aspect which has been overlooked to date. It is important to determine whether effects of language tests on economic integration vary depending on the gender of the immigrant. Consid-

ering the vast literature on the gendered labor market (Goldin 2014; England 2010; Tåhlin and Magnusson 2023), along with studies on how language acquisition and importance of language proficiency in the workplace differ by gender (Birger and Haim 2023; Ghio et al. 2023), it is surprising that the gender dimension has not been incorporated in previous studies evaluating the effects of LCE requirements.

Another novelty of this study, compared to earlier studies in the social sciences (e.g., Goodman and Wright 2015; Neureiter 2019) is the introduction and application of the newly developed Language Policy Index for Migrants (LAPIM; Carlsen and Rocca 2023), specifically designed by a group of researchers in applied linguistics for the measurement of LCE requirements for all stages of immigration in different countries. We combine LAPIM data with the two most recent rounds of the European Social Survey (ESS) in an attempt to answer the questions:

> *What effects do LCE requirements in the immigration and integration process have on the economic integration of immigrants in Europe? Are the effects different between male and female immigrants?*

2 The emergence of LCE requirements in Europe

The term *civic education* or *civic integration* occurs in the literature as the requirements and integration policies in question do not solely contain language tests but also include so-called 'Knowledge-of-Society' (KoS) tests. KoS tests are used to assess individuals' knowledge regarding the host society in terms of, for instance, legal institutions, politics, culture, history and values (Rocca et al. 2020: 15). In most countries, KoS tests are only offered in the language of the host country, which, according to critics, implicitly make them indirect language tests (Rocca et al. 2020: 15). For this reason, LAPIM scores are based not only on language tests, but also account for KoS tests.

LCE requirements is used here as an overarching term referring to both KoS requirements and language tests or mandatory language courses. Until the year 2000, most European countries did not have specified language requirements for the acquisition of permanent residence or citizenship, or even entering the country (Rocca et al. 2020: 15). Since then, many European countries have adopted compulsory LCE requirements for entry, settlement, and citizenship (Goodman 2010; Goodman and Wright 2015; Neureiter 2019). Some scholars refer to this trend as a 'civic turn' in European integration policies beginning in the early 2000s (Joppke 2007; Goodman 2010).

The details and design of these requirements differ across countries in their strictness and the legal status for which they are conditioned. Language tests vary in

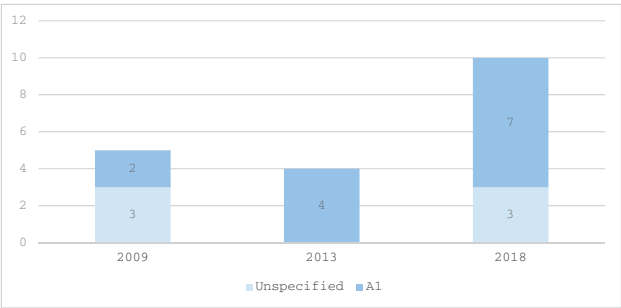

Figure 1: Pre-entry requirements in 2009, 2013, and 2018 (raw numbers). Source: Rocca et al. (2020)

difficulty from A1 to B2 (CEFR), and the requirements are naturally also different for pre-entry, residence permit, and citizenship (Council of Europe 2023). For example, in Austria you need to pass a language test corresponding to B2-difficulty and a KoS test to acquire citizenship, and B1 for permanent residency. In stark contrast, Sweden and Ireland currently require no KoS or language tests for any legal status or entry.

Language requirements for citizenship have become stricter over time in many countries. Rocca et al. (2020) also show the trend of adopting requirements for all immigration stages – pre-entry, temporary residence, permanent residence, and citizenship – by presenting the number of countries which had requirements for each stage over a series of surveys.

Figure 1 shows a substantial increase over time in the number of EU member states setting any formal language *pre-entry* requirements – from four in 2013 to ten in 2018. Most countries do not have pre-entry requirements, but those that changed their policies between 2009 and 2018 generally moved in a stricter direction (Rocca et al. 2020: 53).

Among the 19 countries that participated in every survey, the proportion with requirements for *permanent residency* increased from 7 out of 19 (37 %) in 2007 to 13 out of 19 (68 %) in 2018 (see Figure 2). For example, France shifted from level A1 in 2007 and 2009 to A2 in 2013 and 2018. Norway moved from no requirement 2007–2013 to A1 in oral skills in 2018.

As for *citizenship* requirements (see Figure 3), the number of states setting language requirements has increased steadily. In 2007, 8 out of 19 (42 %) member states had requirements for citizenship. In 2018, 16 out of the 19 (84 %) countries participating in all surveys had official language requirements for citizenship. The requirements have also become stricter. In 2007 and 2009, A1 was a relatively common requirement level. In 2013 and 2018, no countries set level A1 requirements for citizenship. In 2018, five had opted for level A2 while eight out of the 19 countries (42 %) set a B1-level requirement, the most common requirement in 2018 (Rocca et al. 2020: 59).

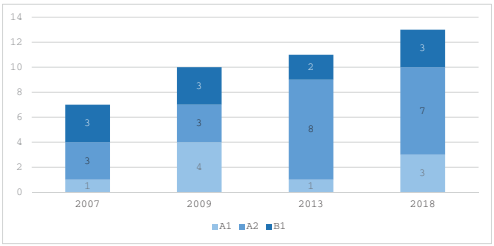

Figure 2: Permanent residency requirements over time (subset in Rocca et al. 2020)

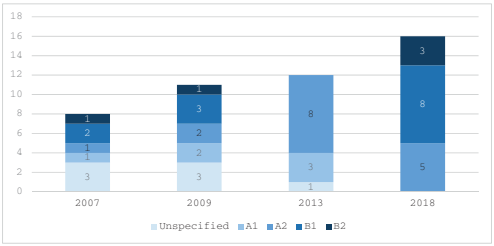

Figure 3: Citizenship requirements over time (subset in Rocca et al. 2020)

Moreover, in 2018 at least 16 of the 35 (46 %) responding member states included KoS tests as requirements for some legal status. In almost all these countries, the KoS tests were given in the language of the host country. According to the authors, it is reasonable to assume that the language level required to take and pass a KoS test exceeds level A2 in reading or listening (Rocca et al. 2020: 37–38).

3 The Language Policy Index for Migrants (LAPIM)

The Language Policy Index for Migrants (LAPIM) was developed by the IMPECT[1] Research Project Group at the Western Norway University of Applied Sciences and was published in October 2023 (Carlsen and Rocca 2023). It is the most up-to-date index for linguistic requirements in integration and citizenship policy as well as learning opportunities for migrants across Europe.[2] It was designed specifically for

1 Linguistic Integration of Adult Migrants with Poor Education and the Consequences of Migration Tests.

2 Other available indices are the wide-ranging Migrant Integration Policy Index (MIPEX; Platt et al. 2022; Kanas and Steinmetz 2021) and the narrower Civic Integration Policy Index (CIVIX), created specifically to measure LCE requirements at entry, settlement, and citizenship (Goodman and Wright 2015: 2785).

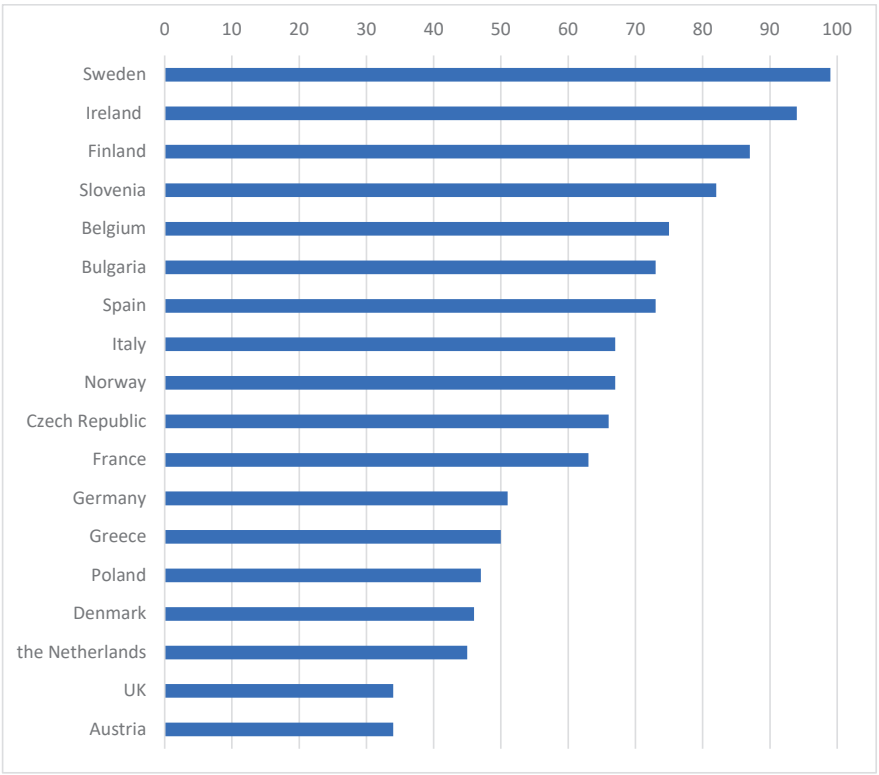

Figure 4: LAPIM scores as of 2022.[3]

this purpose to allow for the ranking of countries according to their relative strictness in language policy. Data has been collected for around 20 European countries from a group of country representatives and experts in language policy and second language acquisition. The index describes both explicit language requirements for immigrants, such as language tests, as well as implicit language requirements (e.g., KoS tests provided only in the language of the host country), and existing language learning opportunities for migrants in each country. Accordingly, the language component dominates LAPIM, although KoS is also measured to a certain extent.

3 Note that these are the scores for 2022. Since some respondents in the sample have been interviewed in previous years, the LAPIM scores for those individuals have been altered to fit the appropriate year if any change in policy occurred for that country between 2018–2022. However, only minor changes occurred in a few countries and hence the LAPIM scores for 2018, for instance, are very similar to the scores for 2022.

The index ranges from 0–100 with a high number indicating very lenient LCE requirements, and a low number suggesting stricter language and civic policies (Carlsen and Rocca 2023).

Based on the overview above, we calculate LAPIM scores for each country. In our country sample, LAPIM scores range from around 30 for the countries with the strictest LCE requirements to around 100 for countries with no requirements. Based on these rules, the scores illustrated in Figure 4 were calculated for 2022. Based on the LAPIM scores, countries are categorized into three groups: "strict", "moderately strict" and "lenient". Details on how this categorization was made are expanded upon in the section describing analytical approach and variables.

4 Previous studies

4.1 Cross-national studies

One of the main contributions to the rather limited and specific literature on mandatory LCE requirements and their effects is arguably Goodman and Wright (2015). They test whether mandatory language and civic integration requirements have any effect on the integration of immigrants in the EU-15 countries by using data from the European Social Survey (ESS) and applying CIVIX as a policy indicator of LCE requirements (see Footnote 2). The integration outcome is measured in political, social, and economic integration. They observe a positive and significant effect only for political integration, but not for economic or social integration. The authors stress the discovery of no effect at all, either positive or negative, leading them to conclude that civic integration policies may be imposed primarily for symbolic reasons.

Inspired by Goodman and Wright (2015), Neureiter (2019) conducts a similar study by also applying CIVIX to ESS data for 15 EU-countries but with a more advanced methodological strategy. With an econometric difference-in-differences approach, Neureiter finds, in contrast to Goodman and Wright, that mandatory LCE requirements have a strong and positive effect on the economic integration of non-EU born migrants, while no effect is observed for social and political integration. The conflicting results of these two studies underscore the need to further investigate the effects of LCE policies, potentially through alternative methods and policy indicators. The methodology of Neureiter is enhanced compared to that of Goodman and Wright, by including a larger set of control variables and addressing unobservable heterogeneity. Still, there is room for improvement regarding transparency and robustness, for example by including confidence intervals for the predicted probabilities.

By applying several integration indices, including MIPEX (see Footnote 2), Koopmans (2010) finds that restrictive integration policies produce better socio-economic integration of immigrants, particularly in contrast to laissez-faire multiculturalism. Koopmans shows that Sweden, Belgium and the Netherlands, countries characterized by generous welfare states, multicultural policies and easy access to equal rights without major incentives to learn the host language, display low levels of labor market participation among immigrants. In contrast, countries with more restrictive and assimilationist integration policies such as Germany, Austria, and France, or limited welfare states such as the UK, have produced better socio-economic integration (Koopmans 2010: 20–22).

Other studies have shown that language and integration requirements for legal statuses do not necessarily motivate migrants but instead exclude certain groups from a secure legal status. Böcker and Strik (2011) argue that standardized language and KoS tests limit the possibilities to tailor language and integration programs to the specific needs of immigrant groups. They highlight results from an interview study where many respondents perceived the required level of language proficiency as being too low to improve their labor market position, but too high to include all immigrants with a will to integrate (Böcker and Strik 2011:182). Van Oers (2021) reports that citizenship tests in Germany and the Netherlands prevent specific groups of immigrants from fully integrating into society, including the elderly, those with limited education, women and refugees (Van Oers 2021: 281). Reinforcing this critical stance, Guzi et al. (2023) demonstrate that designing less strict immigration and integration policies could help reduce existing labor market disadvantages for immigrants (Guzi et al. 2023: 4182). To summarize, the findings on the effects of LCE requirements and other integration policies remain rather mixed and inconclusive.

4.2 LCE requirements from an applied linguistics perspective

As stated in the introduction, the field of applied linguistics lacks empirical evaluation of these policies, with the exception of qualitative studies such as Pulinx and van Avermaet (2017) and Cvejnová and Sladkovská (2017). It should however be added that, although not investigating the direct effect of integration policies, scholars like Gujord (2023) and Carlsen and Hamidi (2023) have shown through the examination of a large number of language test results that low-literate learners have little chance of achieving levels required for citizenship, such as the B1 level. As such, these latter studies contribute to some extent to the empirical evaluation of these policies. The most distinctive feature of linguistic research on language testing is, nevertheless, the critical approach that is often taken (see Schildt and

Deygers, 2024). This approach is found among language testing experts, but also among researchers with a sociolinguistic focus. Sociolinguistic researchers criticize the consequences of language tests for human rights and argue that the tests are discriminatory. In his analysis of policy documents and newspaper articles, Milani (2008) discusses language tests based on Bourdieu's concept of "rites of institution" – an approach also advocated by Shohamy (2022). Milani argues that language, in the framework of civic integration, is intimately connected to culture, norms and values, and that by requiring language tests for citizenship, governments require linguistic and cultural assimilation. Horner (2015) makes a similar case to Milani (2008) and places great emphasis on the concept of "linguistic authority" to explain the "policy of demands" that has emerged in the field of migration in Europe during the 2000s.

Civic integration has also been analyzed within applied linguistics from the perspective of political philosophy. Oakes and Warren (2007) analyze how language policy has been used in Quebec to strengthen national identity, taking their starting point in the two most common conceptualizations of citizenship in political theory: liberal and republican citizenship. The liberal view of citizenship is primarily rights-based, while the republican definition of citizenship places greater emphasis on obligations, primarily in terms of expectations to participate in social debate and contribute to the common good. The latter definition consequently places relatively high demands on citizens in terms of identification with the state. Oakes and Warren (2007) argue that the model chosen in Quebec, a so-called interculturalist model, lies somewhere between the French, republican definition of citizenship and the English-speaking Canadian, "multiculturalist" and liberal definition. Oakes and Peled (2018) review this interculturalist model (proposed by sociologist Gérard Bouchard), which expresses the view that integration means that both the new arrivals and the majority population of the country they have migrated to adapt to each other in different ways, but is nevertheless fundamentally based on the fact that there are majority and minority relationships between different groups and languages. The authors further explain how Bouchard has reasoned regarding the importance of a common "cement". They refer to the political philosophers Banting and Kymlicka (2015) who question whether it is possible to build solidarity between different religious and ethnic groups solely on the basis of a common view of human rights and democracy, unless there is also a non-political cultural community. Oakes and Peled (2018), however, believe that this position by Bouchard, regarding the non-negotiable status of the French language, can be seen as problematic from a traditional, liberal perspective. It thus appears that the choice of citizenship model has a great significance for how a country views language requirements. In sum, whether the research stems from critical sociolinguistics or uses concepts from political philosophy, linguists mostly concentrate

on critical/normative perspectives of these tests and have not studied effects, as is the case in the social sciences. The present endeavor is transdisciplinary in that it uses an index developed in applied linguistics with methods from the social sciences to measure, regardless of normative stance, the effects of civic integration policies, thus responding to the call from Schildt and Deygers (2024).

4.3 Gender perspectives on language acquisition and labor market integration

To incorporate the gender aspect, we turn to literature identifying gender differences in language acquisition and language-related labor market outcomes. In an Italian context, Ghio et al. (2023) find that female immigrants are more disadvantaged than males by poor linguistic proficiency in labor force participation. They relate this to the Italian immigrant labor market where domestic work and work in elderly care is strongly characterized by the employment of female immigrants. The female domination in the domestic sector makes proficiency in Italian more important for female immigrants than for male immigrants, as the former are more likely to need language skills and interact with native employers and speakers (Ghio et al. 2023: 388).

The female domination in the care sector is not unique to Italy. The fact that language skills seem to matter more for immigrant women in terms of labor market outcomes can largely be explained by the gender-segregated labor market, present in most countries. According to the Gender Gap Report of 2023, healthcare and care services is still a female-dominated field with a share of females around 65 %. Women also outnumber men in occupations within education, mainly in primary school teaching. Meanwhile, men are heavily overrepresented in sectors like infrastructure and construction or oil, gas and mining (World Economic Forum 2023).

The female-dominated occupations listed in the report are characterized by communicative elements and require robust skills in the native language. This contrasts with traditional male-dominated occupations like construction, which may be more physically demanding but require less language skills (Ghio et al. 2023). Studies also imply that immigration plays a significant role in reinforcing/maintaining the gendered labor market, particularly in the care sector. Östbakken et al. (2023) find that the female dominance in nurturant care is maintained largely due to a growing share of immigrant women in professions like nursemaids or doctors' secretaries (Östbakken et al. 2023:836).

Furthermore, Birger and Bar-Haim (2023) find that migrant men who use a different language than the host language at home are not prone to educational-occupational mismatch, once education is controlled for. On the contrary, migrant

women seem to suffer more from such mismatch when using a foreign language at home (Birger and Bar-Haim 2023: 279). The researchers attribute the disadvantage of women using a foreign language at home to cultural gender norms around the roles of men and women within the household, which shape decisions regarding division of work and working hours (Birger and Bar-Haim 2023: 280). All in all, these findings suggest that men and women could be affected differentially by language policies with respect to economic integration.

5 Hypotheses

In view of earlier studies, the following hypotheses are formulated:

H1: Non-EU migrants in countries with stricter LCE requirements have more successful labor market outcomes than non-EU migrants in countries with less strict LCE requirements.

As EU-born migrants are also included in the analysis, we formulate hypotheses regarding this group as well. While LCE requirements primarily apply to non-EU-born migrants, some of the conditions linked to citizenship acquisition must also be fulfilled by EU-born migrants, which may result in observable effects for this group as well.

H2: EU-born migrants in countries with stricter LCE requirements have more successful labor market outcomes than EU-born migrants in countries with less strict LCE requirements (albeit a smaller effect than for non-EU migrants).

Since language proficiency seems to matter more for the employment of females and particularly female migrants, we expect LCE requirements to have a more positive impact on female than on male non-EU migrants.

H3: LCE requirements have a more positive impact on non-EU migrant women than on non-EU migrant men.

As LCE requirements only apply to immigrants, we expect them to have no effect on the labor market outcome of natives.

6 Materials and methods

6.1 European Social Survey

The European Social Survey (ESS) is a biennial social survey that is carried out across many European countries. It is well known for its strict methodologi-

cal standards and focus on academic research (Platt et al. 2022; European Social Survey 2024). While it was not specifically designed to study immigrants, the ESS's high-quality and consistent measurements across countries makes it suitable material for cross-national analyses of immigrant experiences (Goodman and Wright 2015; Neureiter 2019; Platt et al. 2022).

We use two recent ESS rounds: 9 and 10. Even with only two rounds, this provides a large starting sample of n=76,769 and a relatively large share of respondents who identify as foreign-born (n=6,691). In round 9, interviews were conducted between 2018 and early 2020. For round 10 the period of conduction was longer than usual due to the COVID-19 pandemic,[4] and some countries opted for self-completed written questionnaires instead of traditional interviews. Therefore, the data for certain countries are based on interviews while others are based on self-completed written questionnaires. We used ESS data for the 18 countries that we had LAPIM scores for. These were: Sweden, Denmark, Finland, Norway, United Kingdom, Ireland, Germany, France, Spain, Italy, Austria, the Netherlands, Belgium, Czech Republic, Poland, Slovenia, Bulgaria and Greece. All these countries participated in both rounds except for Denmark, which only took part in round 9, and Greece, which only took part in round 10. The ESS data has been anonymized and does not contain any personal information (https://www.europeansocialsurvey.org/about/privacy-and-data-protection/survey-participants).[5]

6.2 Methods

6.2.1 Variables

The main dependent variable used in the study was employment status. It is a dichotomous variable for which individuals were coded either 1 or 0 based on their main activity over the previous 7 days. We were interested in the active population, meaning that a respondent was considered unemployed if he or she was unemployed *and* actively looking for work. Hence, employment was coded 1 if the respondent did not mark themselves as unemployed and actively looking for a job during the previous 7 days (i.e. had a job). Individuals who responded that they were unemployed and actively looking for a job were coded 0.

The main independent variable at the country level was the categorical variable based on LAPIM scores (0–100). Low values represent strict requirements,

4 18/09/2020–03/09/2022.

5 Only studies that include personal information are subject to ethical vetting in Sweden. The procedure of asking for ethical approval could thus be waived according to Swedish legislation.

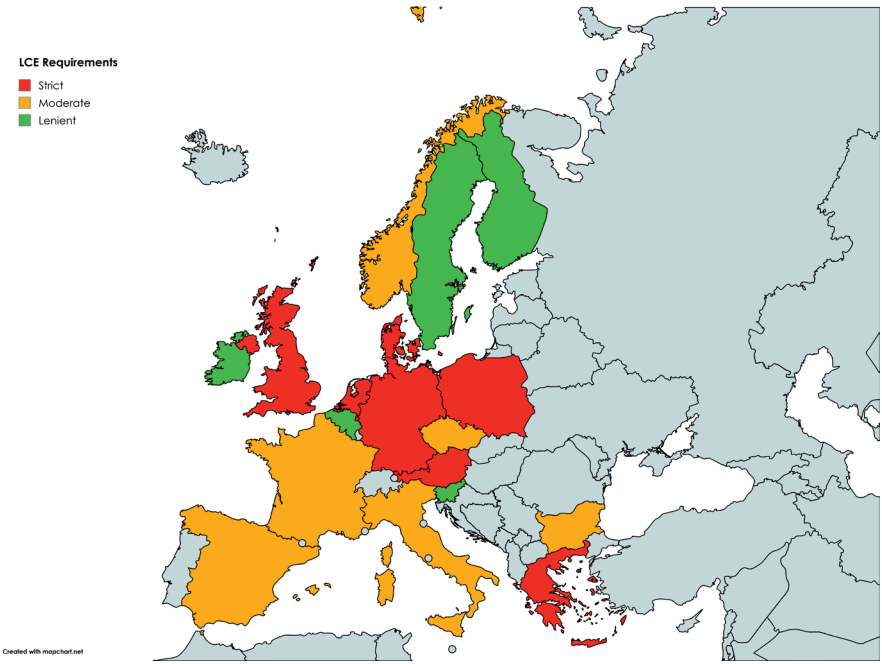

Figure 5: European map showing categorization of LCE requirements for the included countries.

and high values imply more relaxed requirements. The LAPIM scores of countries in our sample ranged from 34 for Austria to 99 for Sweden. LAPIM scores were divided and categorized into three broader categories: strict, moderately strict, and lenient. LAPIM scores of 35–55 were considered strict, while the label moderately strict was assigned to LAPIM-scores between 55 and 75. LAPIM scores above 75 were treated as lenient.

Since there are other country-level factors that may explain overall employment outcomes, we also controlled for national unemployment rates and GDP per capita as continuous variables. Depending on the country and when the respondent was interviewed, the appropriate GDP per capita and unemployment rate for that year was used. This data was retrieved from Eurostat and the UK Office for National Statistics (2024a, 2024b).

Since the main point of interest was to analyze the labor market outcomes of immigrants (economic integration), we distinguished individuals born in the country where the interview was conducted from those who were not. Moreover, within the group of foreign-born participants, we distinguished between immigrants born in another EU country and non-EU migrants. Hence, the main independent variable at the individual level was origin, with native-born respondents

coded 0, immigrants born in another EU country coded 1, and immigrants born outside the EU coded 2. By including natives in our sample, we could compare the relative economic integration across LAPIM categories, as it allowed for a benchmark value in the native residents' employment level. Although the primary focus of our study was on non-EU migrants, EU-born migrants were included to test if they are also impacted by LCE requirements. The other main independent variable at the individual level was gender, a binary variable with females coded 1 and males coded 0. We controlled for age, the highest level of education completed, marriage status, residence, and also included a dummy variable for interview years before and after the COVID-19 pandemic so as to control for any potential effects of the pandemic and the different data gathering methods used. For more details about the sample, see Appendix 1.

6.3 Data analysis

Since our data is cross-sectional with a hierarchical structure where individual-level data is nested within countries, we applied a multilevel random effects regression model. As the outcome of employment is binary, logistic regression was used accordingly. Multilevel models account for the clustering of observations within countries and allow us to examine how contextual factors like LCE policies influence employment outcomes, while the random effects account for unobserved heterogeneity across countries. Random-effects models are beneficial for cross-sectional data where the variability arises from contextual differences in policies and conditions across countries rather than changes over time (Li et al. 2010; Hox et al. 2017: 11–16).

The appropriate number of second-level entities (in this case countries) needed in a multilevel model is debated in the literature. Bryan and Jenkins (2016: 19–20) argue that the number of second-level units should be larger than 25 for hierarchical linear models and larger than 30 for logistic models with binary outcomes to not produce biased estimates for second-level covariates. Stegmueller (2013: 754) proposes that estimates become less biased when the second-level sample size approaches 15 and beyond. In our case, we had 18 countries for which both ESS data and LAPIM scores were available. While ideally, we would have had data for a larger number of countries, the range of 15–20 second-level units made for considerably less biased results compared to country samples smaller than 15, judging by Stegmueller's (2013: 754) study. To address this issue we also ran several robustness checks to validate the results, for example by re-running all multilevel models as linear probability models (LPMs) with clustered standard errors, another viable option for binary outcomes.

Since logistic regressions are not suited to stepwise models where different independent variables are included successively (Mood 2010), we directly present the full models with all variables. In a first model, the regression included all control variables and a two-way-interaction term between LAPIM category and origin. As non-EU migrants were the main focus of interest, they were set as the reference group. For the results, predicted probabilities were plotted with 95 % confidence intervals for each combination of the interaction. Full regression tables with odds ratios can be found in Appendix 2. In a second model, we included a three-way interaction term between LAPIM category, origin, and gender, to show how the associations found in model 1 change when interacting with gender.

7 Results

7.1 Descriptive statistics

For the descriptive statistics, weights were applied to ensure that the survey sample was more representative of the whole population by correcting for selection bias, nonresponse, and population size across countries (Solon et al. 2015). Tables 1–3 illustrate employment by origin, LAPIM category, and gender separately with weighted shares. Figure 6 shows how employment varies by combinations of gender, LAPIM categories, and origin.

Table 1: Employment status by origin.

Employment status n, weighted share in parenthesis	Natives	EU-born	Non EU-born
Unemployed	2,080 (6.1)	119 (8.1)	283 (11.5)
Employed	31,933 (93.9)	1,344 (91.9)	2,173 (88.5)
Total	34,013 (100)	1,463 (100)	2,456 (100)

First, it should be noted that the share of employed individuals is high for all categories. As expected, both EU-born migrants and non-EU migrants exhibit slightly higher unemployment rates compared to natives, and this is particularly pronounced for non-EU migrants.

Table 2: Employment status by LAPIM-category.

Employment status n, weighted share in parenthesis	Strict	Moderate	Lenient
Unemployed	680 (4.4)	1340 (9.6)	389 (4.6)
Employed	14,932 (95.6)	12,556 (90.4)	8,035 (95.4)
Total	15,612 (100)	13,896 (100)	8,824 (100)

Respondents from countries coded as having moderate LCE requirements clearly exhibit higher unemployment rates, compared to individuals in countries categorized as strict or lenient. Somewhat surprisingly, there is no major difference in employment between men and women overall. Small gender differences in unemployment of at most 1.6 percentage points remain even when sorted by origin (Table 3).

Table 3: Share of unemployed by gender and origin.

Unemployment, Weighted shares	Male	Female
Native-born	6 %	6.2 %
EU-born immigrants	7.3 %	8.9 %
Non EU-born immigrants	11 %	12.2 %

Finally, Figure 6 displays how unemployment varies by gender, origin and LAPIM category, highlighting a pronounced unemployment rate among non-EU migrant women under moderate requirements and a relatively large unemployment rate among non-EU migrant men under strict policies. The differences by gender are more apparent among non-EU migrants than among EU migrants and natives, particularly under strict and moderate settings.

For non-EU migrant men, unemployment is lower under moderate and lenient requirements compared to strict requirements. Among female non-EU migrants, however, the unemployment share is smallest under strict policies, and lower than for non-EU migrant men, while it is substantially higher under moderate requirements. With these patterns in mind, plotted results from the two logistic multilevel models are presented below. Model 1 is limited to focusing on the interaction between LAPIM category and origin, while Model 2 also accounts for the interaction with gender.

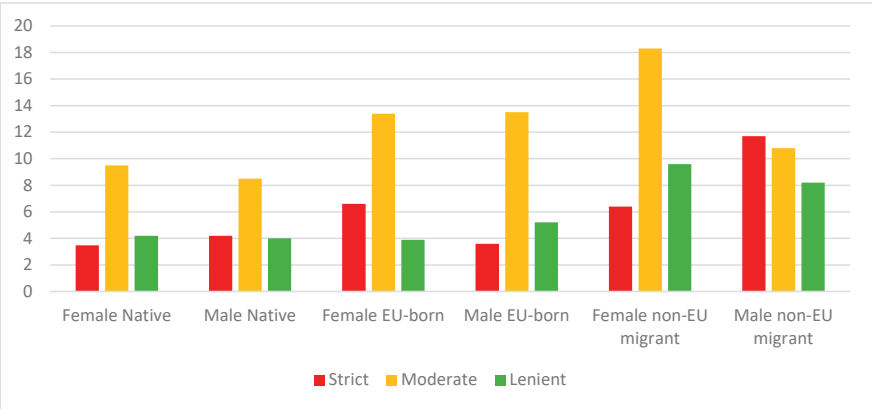

Figure 6: Share (%) of unemployed by gender, origin, and LAPIM category.

7.2 Model 1

The first model estimates the associations between LCE requirements and employment status via the interaction between LAPIM categories and origin. For the full model with the odds ratios of all covariates, including the two-way interaction and all control variables, see Table 7 in Appendix 2. Figures 7 and 8 show the predicted probabilities of employment across LAPIM categories and origin. To determine any significant differences in predicted employment between these groups, one should look at whether the 95 % confidence intervals overlap or not.

Overall, the employment rate of respondents in this sample is rather high (see Section 8.1), and therefore the predicted probabilities only differ from 0.89 (non-EU migrants under lenient policies) to 0.96 (natives under strict policies).

7.2.1 Within groups, across LAPIM categories

Figure 7 shows the predicted probabilities of employment within each group of origin. The predicted probability of employment is higher for natives than for migrants across all LAPIM categories. Overall, EU-born migrants are estimated to have a higher likelihood of being employed compared to non-EU migrants, although the relatively wide confidence intervals imply some uncertainty. For both natives and EU-born migrants, the predicted probability of employment is lower under moderate requirements than under lenient and strict requirements. The same pattern is not seen for non-EU migrants. However, these differences across LAPIM categories are not significant, as the confidence intervals overlap.

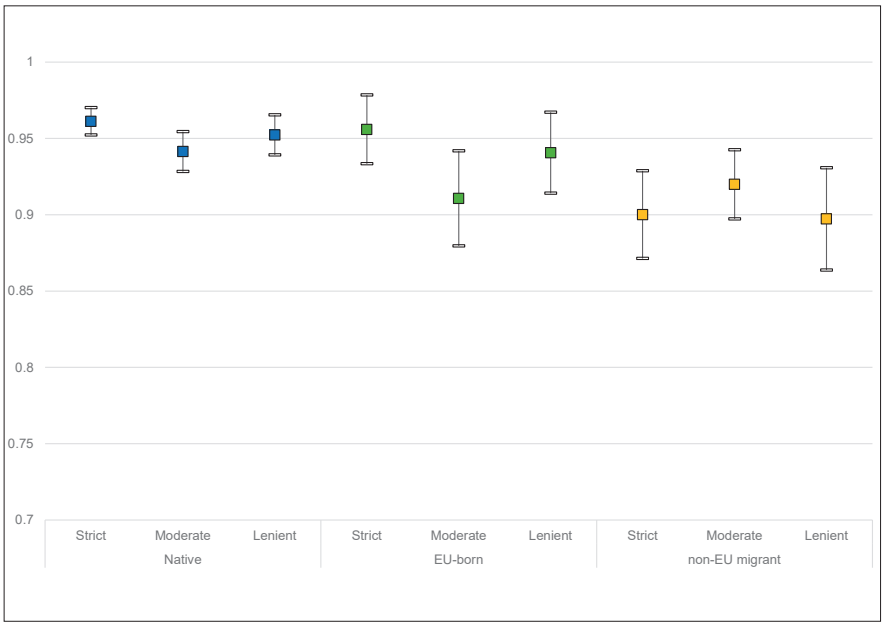

Figure 7: Predicted probabilities of employment by LAPIM category and origin with 95 % confidence intervals. Blue squares: native born, Green: EU-born immigrants, Yellow: non-EU migrants.

Across none of the three origin categories—natives (blue), EU-born migrants (green), and non-EU migrants (yellow)—does the predicted probability of employment differ significantly between LAPIM categories, as indicated by the overlapping confidence intervals.

Thus, neither EU-born nor non-EU migrants exhibit a statistically significant increase or decrease in the likelihood of employment under any specific LCE requirement setting.

7.2.2 Within LAPIM categories, between groups

In Figure 8, the same predicted probabilities are sorted differently to illustrate any significant differences between natives, EU-born migrants and non-EU migrants *within* the different LAPIM categories. A stepwise explanation is given for each LAPIM category.

Under strict requirements, the predicted probability for non-EU migrants is significantly lower compared to both natives and EU-born migrants under strict

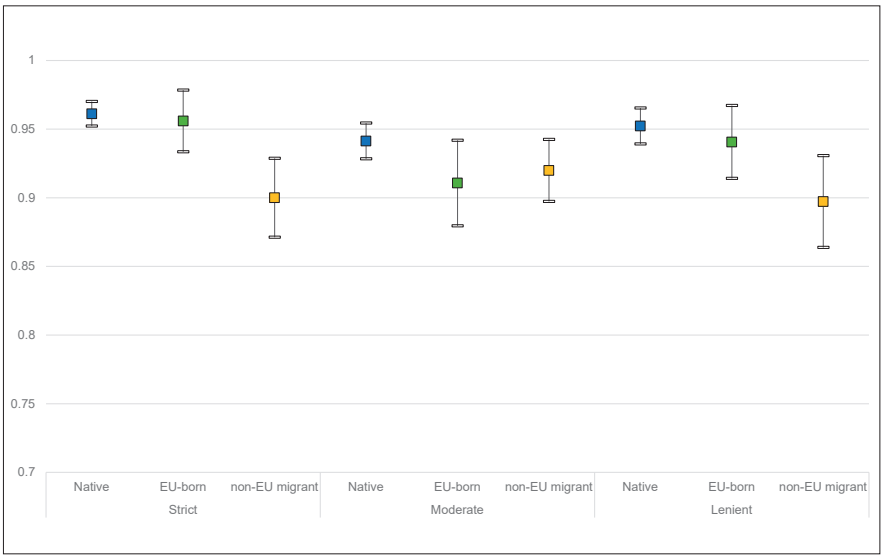

Figure 8: Predicted probabilities of employment by LAPIM category and origin with 95 % confidence intervals.

requirements (first yellow square compared to first blue and green square). Hence, both natives and EU-born migrants are substantially and significantly more likely to be employed under strict language policies compared to non-EU migrants. No significant difference between EU-born migrants and natives was found.

Under moderate requirements, no significant differences were observed in predicted employment between natives, EU-born migrants, or non-EU migrants as all three confidence intervals overlap. This is also implied by the interaction term between LAPIM and origin (see Table 7 in Appendix 2), showing that the advantage native-born individuals have over non-EU migrants in terms of employment odds decreases when moving from a strict to a moderate LCE setting.

Under lenient requirements, non-EU migrants have a significantly lower predicted probability of employment compared to natives (third yellow square compared to third blue square) but not compared to EU-born migrants (third yellow compared to third green square).

Hence, the plot shows that the predicted gap in labor market outcomes between natives and non-EU migrants is larger (and significant) in countries with strict and lenient LCE requirements, while the likelihood of employment for the two groups is more similar under moderate policies. The predicted probabilities for EU-born migrants are not significantly different for any LAPIM category compared

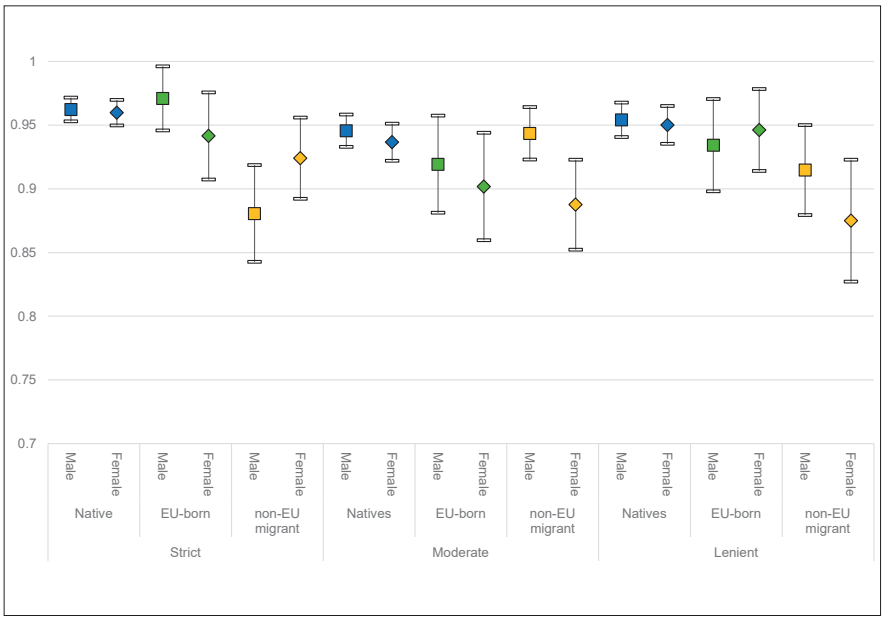

Figure 9: Predicted probability of employment by LAPIM category, origin, and gender, with 95 % confidence intervals. Natives in blue, EU-born immigrants in green, non-EU migrants in yellow. Squared nodes for males and diamond-shaped nodes for females.

to natives (green compared to blue), implying that EU-born migrants may exhibit similar employment levels as natives.

7.3 Model 2

In the second model, the three-way interaction between LAPIM, origin, and *gender* is added. We show the predicted probability of employment by gender for natives, EU-born migrants, and non-EU migrants across LAPIM categories (see Figure 9).

Under strict requirements, male non-EU migrants have significantly lower predicted probabilities of employment compared to native men. Non-EU migrant men under strict policies also exhibit significantly lower probabilities of employment compared to male EU-born migrants. The same is not true for non-EU migrant women compared to native or EU-born women. Neither gender among EU-born migrants demonstrate significantly different probabilities of employment compared to natives.

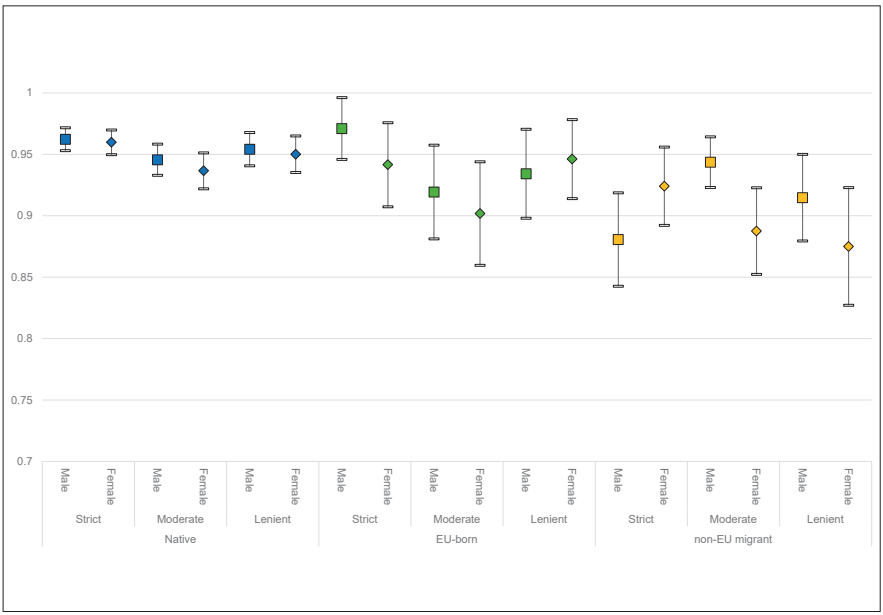

Figure 10: Predicted probability of employment by LAPIM category, origin, and gender with 95 % confidence intervals (sorted differently). Native-born in blue, EU-born immigrants in green, non-EU migrants in yellow. Squared nodes for males and diamond-shaped nodes for females.

Under moderate requirements, neither gender among non-EU migrants have significantly lower predicted probabilities compared to natives or EU-born migrants. The same is true for both genders among EU migrants compared to natives. The predicted probabilities for both male and female non-EU migrants are not significantly different from those of male and female EU-born migrants.

Under lenient requirements, non-EU migrant men do not have a significantly lower predicted probability of employment compared to native men. On the contrary, female non-EU migrants have a significantly lower likelihood of being employed compared to native women. This does not hold compared to EU-born migrants. Neither are any of the predicted probabilities for both genders among EU-born migrants significantly different from natives.

When examining the non-EU migrant group across LAPIM categories, the only statistically significant difference is a higher predicted probability of employment for non-EU migrant men under moderate requirements compared to strict requirements (second yellow square vs. first yellow square). Under moderate requirements, non-EU migrant men also have significantly higher estimated chances of

employment compared to non-EU migrant women (second yellow diamond). Finally, even if tempered by overlapping confidence intervals, the pattern of predicted employment probabilities for female non-EU migrants suggests a potential positive association between stricter requirements and employment outcomes for this group.

8 Discussion

While one should be cautious about drawing any broader generalizations and causal inferences from the present study, a few clear results emerge. The results show that non-EU migrants as a group do not have significantly lower predicted probabilities of employment compared to natives under moderate LCE requirements, while they do have this relative disadvantage under lenient and strict requirements. Based on this, the most effective LCE requirement level as regards economic integration seems to be moderately strict requirements, rather than very relaxed or very strict policies. However, there is no clear trend indicating that non-EU migrants have higher or lower chances of employment in one LCE requirement setting compared to another, leading to the rejection of H1 that stricter requirements should yield improved economic integration. A similar pattern is observed for EU-born migrants, thereby undermining support for H2 as well. The reasoning behind stricter LCE requirements is that they improve language proficiency and consequently enhance the integration of immigrants, including economic integration (Chiswick and Miller 2015; Dustmann and Fabbri 2003). While we do not question the well-established association between language proficiency and improved integration (especially as it is not directly tested in this study) our results raise doubts around the assumption that stricter LCE requirements incentivize and generate improved language skills.

According to selection theory, one should expect to find more integrated immigrants in countries with stricter integration requirements (Borjas 1987). This does not seem to be the case for non-EU migrants in our sample. However, neither do we find significantly better outcomes in less strict settings. Hence, our results do not provide clear support either for proponents of stricter LCE requirements (e.g., Neureiter 2019; Koopmans 2010), who argue that such measures have positive effects, or for critics who claim they have exclusionary consequences (e.g., Strik et al. 2010; Guzi et al. 2023). Instead, our results provide further support for those pointing to the lack of any empirically shown effects. In light of this, our findings reinforce the concerns raised by Goodman and Wright (2015) regarding whether these policies have any impact *at all.*

Nevertheless, the question becomes more complex when the gender aspect is taken into consideration. The associations shown in the second model reveal that the policies may have a positive or excluding effect in certain settings, depending on the gender of the immigrant. For non-EU migrant women, the likelihood of being employed seems to be lowest under lenient requirements, while they exhibit the highest probability of employment in countries with the strictest policies, where the predicted probability is even higher than for male non-EU migrants. Although these differences are tempered by wide confidence intervals pointing to uncertainty, when compared against natives within the same LCE requirement setting, the trend persists. Under lenient requirements, female non-EU migrants have significantly lower probability of employment than female natives. The same is not true under moderate and strict requirements. On the contrary, male non-EU migrants have significantly lower chances of being employed compared to native men only under strict requirements, as the differences under moderate and lenient requirements are not significant. Hence, H3 is partly supported as there is an observable positive association between strict LCE requirements and the labor market outcome of non-EU migrant women, but not for non-EU migrant men. Moreover, the second model reveals a positive and significant association between moderate LCE requirements and employment outcomes of non-EU migrant men, implying that they have a higher likelihood of securing employment in a moderately strict setting than under strict policies.

The different patterns found for male and female immigrants could partly be explained by the cultural gender norms highlighted by Birgier and Haim (2023). The fact that investments in language proficiency, embodied in stricter LCE requirements, seem to be more beneficial for non-EU born women, could be explained by the division of work between men and women among non-EU migrants. In countries with lenient or no requirements, without any enforcing elements or distinct incentives to learn the language, immigrant women may be less inclined to invest in learning the host language and also face a higher risk of being confined to domestic roles while men embrace the role as breadwinners. One way to ensure that this language investment occurs among immigrant women may be through stricter LCE requirements.

9 Conclusion

The present study reveals gender-specific labor market dynamics that may favor and disfavor male and female non-EU migrants differently depending on the policy context. The findings give reason to believe that LCE requirements could

have a mainly gatekeeping effect on non-EU migrant men, while they may have an incentivizing effect on female non-EU migrants. In view of these new findings, setting the bar for LCE requirements may essentially represent an ideological question regarding the choice of promoting a male-breadwinner model or an environment stressing the importance of female labor market participation. By shedding light on the gender dimension of these policies, the findings reveal yet another piece of the complex effects of LCE requirements that deserve further exploration. Future research could further investigate the gender aspect of these policies and incorporate more dimensions of economic integration, for example by measuring outcomes also in working hours or earnings. Control variables at the country level could be expanded to include more contextual factors in politics and economics, and most importantly gender-related indicators such as female labor force participation rates. In addition, research is needed that examines the direct relationship between LCE requirements and actual language learning effects, in order to disentangle effects on language from other integration measures.

A limitation to our study is that we cannot accurately attribute which specific integration requirements each immigrant encountered, since arrival years vary widely and LCE policies have evolved. However, since barely any country had pronounced LCE requirements prior to the early 2000s and because requirements have almost exclusively gotten stricter, the LAPIM scores of 2022 are fairly representative of the relative strictness and composition of requirements across countries even retrospectively. Nonetheless, this limitation together with the fact that we cannot assess whether LCE requirements actually enhance language proficiency, constrains the ability to establish causal inference.

Future studies would benefit from incorporating education which could help determine if LCE requirements work through selection rather than integration, that is if more highly educated and high-skilled immigrants are consistently found in countries with stricter requirements. This would help determine whether civic integration measures are, by and large, integration policies as proposed or rather (covert) immigration policies.

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Appendices

Appendix 1 Sample and descriptive statistics

Table 4: Descriptive statistics for the 37,932 sampled respondents, as well as the weighted shares of each category based on the estimated population.

Variable	Category	Weights (estimated population), n and %	No weights (sample),n and %
LAPIM category	Strict	18,537 (48.9 %)	15,612 (41.2 %)
	Moderate	16,592 (43.7 %)	13,896 (36.6 %)
	Lenient	2,803 (7.4 %)	8,424 (22.2 %)
Employment (active population)	Unemployed	2,537 (6.7 %)	1,951 (5.1 %)
	Employed	35,395 (93.3 %)	35,981 (94.9 %)
Origin	Native	32,921 (86.8 %)	34,013 (89.7 %)
	EU-born immigrant	1,568 (4.1 %)	1,463 (3.8 %)
	Non-EU-born immigrant	3,433 (9.1 %)	2,456 (6.5 %)
Gender	Male	20,400 (53.8 %)	19,721 (52 %)
	Female	17,532 (46.2 %)	18,211 (48 %)
Education	Lower secondary or less	6,982 (18.4 %)	4,157 (10.9 %)

Table 4: (Continued)

Variable	Category	Weights (estimated population), n and %	No weights (sample),n and %
	Upper secondary	13,497 (35.6 %)	14,135 (37.3 %)
	Lower tertiary or vocational	9,989 (26.3 %)	11,681 (30.8 %)
	Higher tertiary	7,103 (18.7 %)	7,661 (20.2 %)
	Missing	361 (1 %)	298 (0.8 %)
Age	18–25	3,397 (9 %)	2,722 (7.2 %)
	26–35	8,126 (21.4 %)	7,611 (20.1 %)
	36–45	9,080 (23.9 %)	9,441 (24.9 %)
	46–55	10,824 (28.5 %)	10,600 (27.9 %)
	56–65	6,505 (17.2 %)	7,558 (19.9 %)
Marriage status	Unmarried	20,334 (53.6 %)	21,318 (56.2 %)
	Married	17,598 (46.4 %)	16,614 (43.8 %)
Residence	Rural	13,574 (35.8 %)	13,587 (35.8 %)
	Urban	24,217 (63.8 %)	24,201 (63.8 %)
	Missing	141 (0.4 %)	144 (0.4 %)
Interview	Pre-pandemic	18,563 (48.9 %)	16,779 (44.2 %)
	Post-pandemic	19,369 (51.1 %)	21,153 (55.8 %)

Table 5: Sample description, continuous variables. Sample and weighted estimated population.

Variable	n	Mean	Std deviation	Min	Max
Weighted					
LAPIM	37,932	57.34	15.62	34	99
GDP per capita (thousands €)	37,932	31.31	10.18	6.3	77.4
National unemployment rate (%)	37,932	6.53	3.46	2.0	15.5
Age	37,932	43.87	11.84	18	65
Unweighted					
LAPIM	37,932	63.23	18.0	34	99
GDP per capita	37,932	33.14	15.67	6.3	77.4
National unemployment rate	37,932	6.08	3.1	2.0	15.5
Age	37,932	43.87	11.84	18	65

Table 6: Sample distribution of immigrants by country.

Country	Foreign-born, n
Austria	282
Belgium	268
Bulgaria	18
Czechia	82
Denmark	57
Finland	86
France	269
Germany	647
Greece	59
Ireland	442
Italy	328
Netherlands	159
Norway	204
Poland	4
Slovenia	160
Spain	310
Sweden	257
United Kingdom	287
Total	3,919

Appendix 2 Regression output for Model 1 and 2

Table 7: Model 1: Determinants of employment with two-way interaction between LAPIM category and origin. n=37,932. Coefficients displayed in odds ratios. Standard errors in brackets. ***p<0.01, **p<0.05, *p<0.1. Source: European Social Survey Round 9 & 10 – subset of countries.

Variable		Odds ratios
LAPIM category	Strict	1
	Moderate	1.22 (0.30)
	Lenient	0.96 (0.26)
Origin	Native	2.90*** (0.41)
	EU-born immigrant	2.52*** (0.72)
	Non-EU migrant	1
LAPIM category*Origin	Moderate#Native	0.49*** (0.09)
(reference groups strict and non-EU migrant)	Moderate#EU-born immigrant	0.34*** (0.12)
	Lenient#Native	0.83 (0.17)
	Lenient#EU-born immigrant	0.75 (0.29)

Table 7: (Continued)

Variable		Odds ratios
Gender	Male	1
	Female	0.86*** (0.04)
Education	Lower secondary or less	1
	Upper secondary	2.26*** (0.18)
	Lower Tertiary/Vocational	2.85***(0.21)
	Higher Tertiary	4.30***(0.39)
	Missing	3.8*** (1.19)
Age	18–25	1
	26–35	2.23*** (0.18)
	36–45	2.98*** (0.25)
	46–55	2.96*** (0.24)
	56–66	2.77*** (0.24)
Marital status	Unmarried	1
	Married	1.92*** (0.12)
Residence	Rural	1
	Urban	1.002 (0.04)
GDP per capita		1.006 (0.05)
National unemployment rate		0.92*** (0.02)
Pre-post pandemic dummy	Pre	1
	Post	1.14** (0.06)
Intercept		1.79** (0.51)
Sigma_u		0.30 (0.059)
Rho[6]		0.027 (0.01)
Wald chi2 (22)[7]		1023.14***
Prob>chi2		0.0000[8]
LR test of rho=0:[9]	chibar2(01)	104.8***

6 Rho=Intraclass correlation coefficient.

7 Degrees of freedom.

8 Numbers < 0.05 implies that there are no issues with the model. This is an F-test to see whether all the coefficients in the model are jointly different than zero (Torres-Reyna 2007).

9 This test formally compares the pooled estimator (logit) with the panel estimator, in this case countries. A significant test implies that the xtlogit (multilevel) is an upgrade from a pooled logit estimation (StataCorp 2023).

Table 8: Model 2: Determinants of employment with the three-way interaction LAPIM x Origin x Gender**.** n=37,932. Coefficients displayed in odds ratios. Standard errors in brackets. ***p<0.01, **p<0.05, *p<0.1. Source: European Social Survey Round 9 & 10 – subset of countries.

Variable		Odds ratios[10]
LAPIM category	Strict	1
	Moderate	2.25*** (0.66)
	Lenient	1.48 (0.47)
Origin	Native	3.72*** (0.65)
	EU-born immigrant	4.89*** (2.35)
	Non-EU migrant	1
LAPIM category*Origin	Moderate#Native	0.28*** (0.07)
	Moderate#EU-born immigrant	0.14*** (0.08)
	Lenient#Native	0.54** (0.15)
	Lenient#EU-born immigrant	0.28** (0.16)
Gender	Male	1
	Female	1.71** (0.46)
LAPIM category*Gender	Moderate#Female	0.26***(0.09)
	Lenient#Female	0.37** (0.14)
Origin*Female	Native#Female	0.54**(0.15)
	EU-born immigrant#Female	0.27**(0.17)
LAPIM category*Origin*Female	Moderate#Native#Female	3.44*** (1.27)
	Moderate#EU-born immigrant#Female	6.51** (4.78)
	Lenient#Native#Female	2.64**(1.11)
	Lenient#EU-born immigrant#Female	7.32**(5.78)
Education	Lower secondary or less	1
	Upper secondary	2.28*** (0.15)
	Lower Tertiary/Vocational	2.86***(0.21)
	Higher teriary	4.31***(0.39)
	Missing	3.75*** (1.18)
Age	18–25	1
	26–35	2.25*** (0.18)
	36–45	2.99*** (0.25)
	46–55	2.97*** (0.24)
	56–65	2.80*** (0.25)
Marital status	Unmarried	1
	Married	1.93*** (0.12)
Residence	Rural	1
	Urban	1.001 (0.04)
GDP per capita		1.007 (0.005)

10 The reference groups in all three variables included in the interaction term, i.e. the odds ratios of LAPIM category, are for non-EU migrant men, the odds ratios of origin are for men under strict policies, and the odds ratios of gender are in comparison to non-EU migrant men under strict policies etc.

Table 8: (Continued)

Variable		Odds ratios[10]
National unemployment rate		0.92*** (0.02)
Pre-post pandemic dummy	Pre	1
	Post	1.14** (0.06)
Intercept		1.34 (0.41)
Sigma_u		0.30 (0.059)
Rho		0.027 (0.01)
Wald chi2 (30)		1045.12***
Prob>chi2		0.0000
LR test of rho=0:	chibar2(01)	107.3***