

Paths to Integration: Labor Market and Social Integration Across Immigrant Admission Categories

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Abstract

We document large heterogeneity in immigrants' integration profiles and selection into outmigration across admissions classes. Using newly available data on residence permits in Finland, we study the evolution of labor market, educational and family outcomes separately for labor migrants, family migrants, refugee migrants, students and EU migrants. We find that the large initial differences in employment and earnings between these groups substantially diminish over time in the host country. Next, we document equally large heterogeneity in educational participation and family formation across immigrant groups. Finally, we show that among EU and labor migrants, those at the bottom and top of the earnings distribution are more likely to leave. By contrast, among refugees, family and student migrants, outmigration probability decreases with income.

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1 Introduction

The labor market integration of immigrants is an important, and controversial, policy topic in most developed countries. Economists have long informed this debate by documenting how earnings and employment of immigrants evolve over time in the host country. However, while the policy discussion often revolves around changes in the rules for residence and work permits, data restrictions have largely prevented researchers from exploring how integration profiles differ across immigrants who arrive under different admission categories.

This paper documents large heterogeneity in the labor market and social integration across permit classes in Finland. Our analysis is based on newly available data from the Finnish Immigration Service covering the universe of residence permits granted in 2011–2021 that is linked to population-wide data on labor market, educational and family outcomes. Using these data, we first show that residence permit type strongly predicts initial labor market performance. Non-EU immigrants arriving as family members or refugees¹ have very low initial employment rates and earnings and consequently receive large social benefits. For example, only roughly a tenth of refugees and family migrants were employed at the end of their arrival year. Initial employment rates are also low for those immigrating with a student visa and for EU migrants (who do not need a residence permit). Unsurprisingly, employment rates of those arriving with work permits are high upon arrival and thus they have high earnings and receive few social benefits.

Importantly, however, the labor market performance of different types of immigrants approach each other over time. During their first ten years in Finland, employment rates and earnings of refugees, family members and EU migrants increase steadily, while the opposite is true for labor migrants. Consequently, after ten years in Finland, the em-

¹For brevity, we refer to immigrants as refugees if they are granted a residence permit as UN quota refugees, asylum seekers or other humanitarian reasons.

ployment rate of EU migrants has fully converged to that of labor migrants (80%). The improvement in the employment of other groups is even stronger with 60% of refugees and 70% of student and family migrants being employed at the end of their tenth year in the country. However, the gaps in annual earnings remain much larger, with refugees earning, on average, just 48% of the level of labor migrants' earnings (and other migrant groups falling in between).

These patterns in employment and average earnings may be informative about the integration process driven by, e.g., the accumulation of country-specific human capital and improved social networks. However, they may also arise from business cycle variation and changes in the composition of the immigrant population (immigrants growing older and some of them emigrating). Similar to earlier work, we deal with business cycle variation and aging using natives as benchmarks. That is, we compare outcomes between same-age immigrants and natives of the same gender in the same calendar year and document how these immigrant-native gaps evolve over time in the host country. This analysis reveals that labor migrants initially have higher employment rates and earn more than same-age natives, but this advantage disappears after four years in the country. At the other end, in their first full calendar year in Finland, the average earnings of refugee men and women are only 4% and 1%, respectively, of those of natives, and this figure increases to only 47% for men and 30% for women after ten years in the country. The pattern is similar for family migrants but starts from a higher baseline. Among EU migrants, average earnings of men evolve very similarly as among same-age natives and thus remain at about 85% of the level of comparable natives, while earnings of female EU migrants increase from 63% to 85% of natives' earnings during their first ten years in the country.

In the second part of the paper, we extend the analysis to participation in formal education and family formation. Immigrants arriving with student visas naturally start their

lives in Finland as students, predominantly in higher education. Only a tenth of them arrive with a spouse, but many find a partner in Finland. Among those who remain in Finland for ten years, roughly half are married or cohabiting at the end of their tenth year, and 15% have a native spouse. The patterns for refugees and family migrants are quite different. Initially, very few of them are enrolled in educational institutions, but during their first four years in Finland, roughly 40% of refugees and a third of family migrants become full-time students, mostly in secondary education. Family migrants have a partner upon arrival, but roughly a quarter become single by their tenth year in Finland. The share of refugees with a spouse, on the other hand, remains relatively stable at around 40% throughout our ten-year follow-up period. Finally, the educational patterns of EU and labor migrants resemble each other: very few are initially enrolled in educational institutions, but almost a fifth become students during their first years in Finland. Roughly 60% of EU migrants have a partner at the year of arrival, and this share declines only mildly over time. Furthermore, only a fifth of labor migrants arrive with a spouse, but more than 60% of those remaining after ten years are married or cohabiting.

We end by documenting the extent and selectivity of outmigration across admission classes and discuss how it affects the interpretation of earlier results. First, we show that 24% and 19% of those arriving with student visas and work permits, respectively, leave the country in 10 years, while the corresponding figures are 12% for family migrants and 7% for refugees. Next, we examine selection into outmigration across the earnings distribution. We find a strong U-shaped relationship for labor and EU migrants, where those at the bottom and top of the earnings distribution are more likely to leave than those in the middle. By contrast, outmigration probability decreases with income among refugees, family and student migrants. Motivated by these observations, we construct integration profiles for those who never leave the country and compare them to our baseline estimates. Surprisingly, the integration profiles of "stayers" are very similar to our baseline

results using the full immigrant population. This similarity is largely explained by the counterbalancing effects of those leaving from the bottom of the income distributions vs those from the top.

Our results add to earlier work on immigrant integration. There is now a vast literature following [Chiswick \(1978\)](#) and [Borjas \(1985\)](#) on labor market integration, part of which focuses on specific groups such as refugees (e.g. [Damm and Åslund 2017](#); [Brell et al. 2020](#)) and the importance of selective outmigration (e.g. [Lubotsky 2007](#); [Sarvimäki 2011](#); [Dustmann and Görlach 2015](#); [Rho and Sanders 2021](#); [Adda et al. 2022](#)).² However, research systematically comparing earnings and employment profiles across admission categories appears to be limited to [Bratsberg et al. \(2014, 2017\)](#) for Norway and [Ruiz and Vargas-Silva \(2018\)](#) for the UK. Furthermore, a separate literature has proxied social (or cultural) integration using, among other measures, outcomes such as educational attainment, intermarriage and fertility (e.g. [Algan et al. 2012](#); [Furtado and Trejo 2013](#); [Åslund et al. 2015](#)).

We contribute to this earlier work in three ways. First, we add a third country to the literature on labor market integration by admission class. While our results are broadly similar to those for Norway and the UK, we believe that accumulating evidence on this topic is important, given the centrality of this question in the policy debate. Second, we appear to be the first to document how some measures of social integration vary and evolve between immigrants who arrive in a host country for different reasons. Third, we add to the work on outmigration by presenting evidence on the differences in outmigration likelihood and, uniquely, differences in the selection into outmigration across admission categories.

The rest of this paper is organized as follows. Section 2 describes the institutional setting and section 3 our data. Section 4 reports the baseline results. Section 5 documents the

²See [Kerr and Kerr \(2011\)](#), [Borjas \(2014\)](#) and [Duleep \(2015\)](#) for reviews

extent of outmigration across admission classes and discusses how outmigration affects the interpretation of the baseline results. We end with some concluding thoughts.

2 Institutional setting

2.1 Admission Categories and Access to the Labor Market

Foreign citizens staying in Finland for more than 90 days have to apply for a residence permit or—if they are EU or EEA citizens—register their right of residence. A residence permit can be temporary, continuous or permanent, and can be updated from temporary to continuous (or from continuous to permanent) after an adequate, uninterrupted stay in Finland. Most residence permits require sufficient financial resources, the amount of which depends on the type of residence permit.³

The right to work varies across admission categories. Citizens of EU and EEA countries and those who have residence permits based on family ties or humanitarian reasons have an unrestricted right to work. An occupation or employer-specific residence permit only allows employment in a certain occupation or with a certain employer. Foreign students can work without restrictions if the employment is an internship included in their degree, but otherwise they are restricted to an average of at most 30 hours per week. Asylum seekers are allowed to work for pay without a residence permit three or six months after applying for asylum (three months if they present a valid passport, and six months if they do not).

³Residence permits based on international protection, compassionate grounds, return migration, or for family members of current or former Finnish citizens are exempt from income requirements.

2.2 Social Security and Integration Policies

Eligibility for social security and publicly provided health care and other services requires EU or EEA citizenship, a continuous or permanent residence permit, or a temporary residence permit valid for at least a year. In addition, immigrants have to indicate a plausible intent to stay permanently in Finland. For example, an employment contract with a duration of at least two years can be used as an indication of an intention to settle permanently. Urgent social assistance can also be provided to people who are staying in Finland only temporarily.

Integration services are offered to all recently arrived unemployed immigrants who fulfill eligibility for social security. The publicly provided integration support starts with an initial assessment that seeks to determine the immigrant's education, work experience, language skills, and other characteristics that may influence the integration process and need for other services. The initial assessment is followed by a sequence of training that includes language training and other courses aimed at improving immigrants' ability to participate in the labor market and Finnish society. Subsequently, immigrants may also be encouraged to enroll in degree programs (typically vocational education) or to participate in other training and services that are expected to improve labor market integration.

3 Data

3.1 Data Sources and Restrictions

We use newly available data from the Finnish Immigration Service that cover all residence permits granted in 2011–2021. These data are linked to administrative data from Statistics Finland for the same time period. The data from Statistics Finland cover all individuals who are resident in Finland at the end of each year. In addition, they include

everyone earning taxable income in Finland or enrolling in secondary or tertiary education regardless of whether they remain resident in the country at the end of the year. In our analysis, we restrict the immigrant population to those who are residents in the year of being granted the residence permit or the following year. Due to our focus on labor market integration, we include only adult immigrants who were 18 to 59 years old at the time of arrival. In addition to the immigrants, our data include the full population of natives. In our main analysis, we use a 20 % random sample of 18 to 59 year-old natives. Our analysis sample thus consists of 138,910 migrants and 716,000 natives.

3.2 Residence Permits

We classify immigrants into five groups based on their first residence permit. Subsequent residence permits may be for a different admission category, but in our main analysis we compare integration patterns based on the first residence permit.

Labor Migrants There are two main groups of immigrants who arrive for work and are thus expected to have a job at the time of entry. The first group comprises low-skilled immigrants who typically do not hold a college or equivalent degree. These immigrants are only allowed to migrate to Finland to the extent that their employment is not likely to displace native workers. The second group is workers who come to work in professional occupations and, in most cases, hold a college degree. These workers also need to apply for a residence permit, but they are not subject to evaluation on whether or not they displace native workers. We group these two groups together as work migrants because of the similar starting point of having a job upon arrival.⁴

⁴We exclude seasonal workers from the analysis due to the short-term nature of these migration spells.

Family Migrants In our baseline analysis, we group all immigrants whose residence permit is based on family ties into one group. Thus, this group is very heterogeneous and includes, e.g., family members of refugees, corporate executives and natives. To account for this heterogeneity, we also analyze integration patterns classifying family members based on the resident permit category of the "sponsor", i.e., the family member already residing in Finland.

Refugee Migrants We categorize migrants as refugee migrants if they arrived in the country as asylum seekers, UN quota refugees or for other humanitarian reasons.

Student Migrants We classify all migrants who are admitted based on having been accepted into upper secondary or tertiary education as student migrants.

EU Migrants We classify all migrants from EU and EEA countries into one category. The main reason for this is that we do not observe the reason for their migration decision since they are free to move across EU countries. However, we argue that including them provides a natural comparison group to other immigrants, albeit their starting point in the integration process is very different.

3.3 Integration Outcomes

We match the data on residence permits to data on earnings, employment, participation in active labor market policies, education and social benefits. We also have information on spouses and family members. In the following we define our main outcomes.

Earnings We use total annual labor earnings as our baseline measure of earnings. This data comes from the Finnish tax authorities and is available for all workers who have taxable earnings and a personal identity number in Finland during the calendar year.

Employment To construct our primary measure of employment we use positive labor earnings. We consider alternative definitions where we use different cutoffs for labor earnings or information on job contract dates, but the results are both qualitatively and quantitatively similar across these employment definitions.

Education We measure educational participation from student registries and the register of the Public Employment Service. These data contain information on all individuals enrolled in educational programs that provide secondary or higher degrees. We consider participating to secondary and tertiary (lower and higher combined) separately. We also examine participation in training programs provided by the Public Employment Service, which are the main supply of integration training.

Social Benefits We measure social benefits using Statistics Finland's data on both taxable and non-taxable benefits. These data are based on information from different authorities, including the Social Insurance Institution, the Financial Supervisory Authority, the Finnish Center for Pensions and the Tax Administration. The data cover both the total amount of social benefits received by an individual as well as the amounts by type of benefit.

Net Transfers We combine the benefit data with Statistics Finland data on taxes and social security contributions to analyze net transfers of each individual. Our tax measures include labor and capital taxes but exclude social security contributions paid by employees.

Family We analyze a set of family related outcomes to measure non-economic integration and attachment to host country. Our outcomes include the share of migrants who marry or cohabit with a native Finn and fertility after migrating to Finland.

3.4 Descriptive Statistics

Table 1 reports descriptive characteristics of immigrants who received a first residence permit in Finland between 2011–2021 and our sample of 18–59 year old natives. Overall, our data includes information on 138,910 immigrants. The largest group is family migrants (28 percent), followed by EU migrants (23 percent), labor migrants (20 percent), students (16 percent) and refugees (14 percent).⁵ As expected, there are some important differences across admission categories in terms of their age, gender and marital status. For example, refugee and labor migrants are more often men (64 and 72 percent, respectively), while family migrants are more often women (69 percent) and have a partner (89 percent).

Figure 1 shows the number of immigrants by admission category and year in our baseline sample. The largest changes over time have been the increase in refugee migrants in 2016 as observed in most European countries. There has also been a gradual increase in the number of labor migrants. In the first half of the decade, fewer than 3,000 labor migrants arrived per year, but the flow increased to almost 5,000 labor migrants by 2019. Finally, the COVID-19 Pandemic may have played a role in the decrease in family unification in 2021.

4 Labor Market Integration

4.1 Average labor market outcomes, benefits and taxes

Figure 2 reports the average labor market outcomes across admission classes by years since migration. It shows that, upon arrival, immigrants arriving with work permits have similar employment rates and slightly larger average annual earnings than natives. How-

⁵The group of EU migrants in our sample does not reflect the whole population of EU migrants in Finland as not all EU migrants register with the Finnish Immigration Service

ever, there is a slight decline in these outcomes during the ten-year follow-up period. Similar to the findings of previous studies, refugees' initial labor market performance is poor, but there is a strong convergence towards other admission categories over time, particularly in employment. Immigrants with residence permits based on family ties have similar employment and earnings development as refugees, albeit family migrants' employment rate and earnings increase somewhat faster. EU migrants also experience positive employment and earnings development, but their starting point is very different from refugees and family migrants: 72% of EU migrants in our sample are employed in their first full year in the country compared to around 11% of refugees and 24% of family migrants.

Interestingly, 69% of immigrants arriving as students work already during their first full year in the country, and the share remains very similar during the following years. Their earnings increase steadily, implying higher average earnings among the employed. Given the earnings restrictions they face during their studies, they cannot work full-time unless they obtain a residence permit on some other grounds. Students can either graduate and subsequently obtain a work permit or obtain any other type of residence permit already before graduation if they, e.g., find a job or partner during their studies.

The patterns for social benefits and net transfers (taxes minus benefits) mirror those for employment and earnings. During their first years in Finland, refugees receive substantially more benefits and pay less taxes than other immigrants or natives. After the first four years in the country, the average benefits of refugees start to decline, and net transfers start to increase. The better labor market success of other immigrants in other admission classes translates into lower benefit receipts and higher net transfers.

In the appendix, we also show that among labor migrants, the average earnings of high-skilled professionals are triple to those of the average native, while earnings of other labor migrant groups are close to the native average (figure A1). Among family migrants,

unsurprisingly, those with a Finnish spouse fare best in the labor market, while family members of refugees struggle (figure A2). We also decompose the social benefits received by migrants to their major components (unemployment benefits, social assistance and housing allowance) in Figure A3. While benefits to refugees are higher in all these subcategories, family migrants' social benefits are mostly coming from unemployment benefits.

4.2 Comparison to same-age natives

The development of immigrants' average labor market outcomes after arrival is influenced not only by integration but also by changes in the business cycle and the composition of the migrant population. Compositional changes arise from immigrants growing older, and some of them emigrating. Next, we tackle business cycle variation and immigrants' aging by comparing the labor market outcomes of immigrants to natives of the same age and gender in the same calendar year. We study out-migration separately in section 6.

Figure 3 shows that, upon arrival, work migrants' employment rates and earnings are higher than those of same-age natives for both men and women. This initial advantage fades away in roughly four years in Finland. Controlling for age and business cycle effects appears particularly important for male EU migrants, where especially the earnings profiles are virtually flat for, as opposed to the increasing earnings and employment rate when studying raw averages in figure 2. This implies that the labor market outcomes of EU migrants evolve very similarly to natives, i.e., the improvements in their employment and earnings are more related to general experience and labor market conditions than country-specific labor market integration.

Immigrants arriving as students have initial employment rates that are six percentage points lower than those of same-age natives for men and 19 percentage points lower for women. However, their earnings amount to only 42% of native earnings for men and 29%

of native earnings for women. This difference is natural given that student immigrants are expected to be studying full-time. Over time, their earnings converge towards natives' earnings. Already in their fifth year in Finland, their average earnings are approximately 80% of same-age natives' average earnings, i.e., similar to the earnings of EU migrants.

Controlling for age and business cycle reduces the employment gaps of refugees and family migrants, but the employment gap in these admission classes is still initially 67 and 77 percentage points for refugee men and women, respectively, and 42 to 65 percentage points for men and women arriving as family migrants. In both groups, the initial earnings gap is also stark, with refugee men earning only 4% of same-age natives' earnings in their first full year in Finland, and refugee women struggling at only 1% of the earnings of same-age natives. Among family migrants, men initially earn 19% and women only 8% of same-age natives' earnings. Over time, however, refugees and family migrants partially catch up with the same-age natives, particularly in male employment rates. By their tenth year in Finland, the employment rates of refugees are 16 percentage points lower than same-age natives for men and 36 percentage points lower than same-age natives among women. For family migrants, employment rates after ten years in the country are 5 and 19 percentage points lower for men and women, respectively, than those of same-aged natives. Both family migrants and refugees do, however, still earn substantially less than the native comparison group. After a decade in Finland, male family migrants' earnings were 59% and female family migrants' earnings 50% of natives' earnings. Among refugees, earnings reached 47% of natives' earnings for men and only 30% of natives' earnings for women.

5 Education and Family

To broaden our understanding of the integration process, we next analyze participation in education and family formation. The top panel of figure 4 shows migrants' enrollment in secondary and tertiary education during their first ten years in Finland. Unsurprisingly, almost all those who are granted a residence permit based on being accepted into an educational institution initially enroll in education. The top right and bottom left panels of figure 4 reveal that these students are almost exclusively participating in tertiary education. Given that our grouping is based on the first residence permit, the development of the share enrolled in later years implies that students stay in the country on other types of residence permits.

The integration programs offered to immigrants with difficulties entering the labor market show up as high participation rates of refugees and family migrants in training provided by the PES during their first years in the country (bottom right panel in figure 4). The training programs are also meant to enable transitions into vocational secondary education leading to a degree, which also happens to some extent, with about 40% of refugees and 30% of family migrants enrolling in secondary education during their first five years.

EU migrants and work related migrants also participate in education after the first couple of years, with almost 20 % having enrolled by their fifth year in the country. EU migrants mostly attend secondary education, while work related migrants more commonly participate in higher education. For all admission classes, participation rates in education remain above 10% after ten years in the country.

Figure 5 shows changes in family formation and fertility. The top figure shows that there are important differences both in the initial family situation as well as how it changes as a function of time in the country. Students and work related migrants rarely enter the

country with a partner (10 and 20 %), but over time there is a significant increase in having a spouse in Finland. After ten years, more than 50 % of students and 60 % of work related migrants have a spouse in Finland. Furthermore, a significant share of these relationships are formed with native Finns. Among the student migrants, 15 % have a Finnish spouse after ten years and among the work related migrants, 10 % have a Finnish spouse. In contrast, for family migrants the starting point is very different (90 % have a spouse and 37 % have a Finnish spouse) and the trend is downward sloping. EU migrants and refugee migrants fall in between these two trends.

In the bottom panel in Figure 5 we study fertility across migrant groups. For all groups there is a trend towards having more children as they stay longer in the country. Besides being a natural development as these migrants are on average in their late twenties or early thirties at arrival, the fact that family size increases may be indicative of how migrants view the country and their own potential of settling in the country.

6 Outmigration

Understanding which types of immigrants decide to stay in or leave the host country can have important implications for policy makers and for the interpretation of the integration profiles we estimate. In this section, we aim to provide new evidence on how outmigration differs by migrant types and how the potential selection differs across migrant types.

6.1 Outmigration by Admission Category

It is natural to think that immigrants who arrive in a country due to different reasons also have different aims in terms of how long they expect to stay and or how responsive they are to potentially changing economic and other opportunities in the host country.

To get a sense of how important this could be quantitatively, we first characterise how outmigration depends on the admission category. Figure 6 shows the probability that immigrants overall and across different admissions categories leave the country following their first entry to Finland. It shows that on average 17 percent of immigrants have left the country in 10 years. In general, outmigration is very gradual over time. However, there is significant heterogeneity in outmigration rates by admission category. First, student migrants are the most mobile, as 24 percent of the entrants leave the country. Students are followed by labor migrants and EU migrants of whom 19 percent leave the country during the first 10 years. In contrast, migrants due to family connections and refugees are significantly less likely leave the country in the first 10 years (12 and 8 percent respectively).

6.2 Out-migration by Economic Status in Host Country

To get a better sense of how important these outmigration flows are going to be for interpreting their potential influence on the integration profiles, we estimate directly from which part of the earnings distribution the leavers come from. In particular, we want to estimate the following type of regression

$$\text{OutMigrate}_{it} = \beta * \text{EarningsRank}_{it-1} + \theta_{ji} + \lambda_t + \varepsilon_{it} \quad (1)$$

where $\text{EarningsRank}_{it-1}$ is the individual i 's earnings rank within the same admission category and admission cohort, θ_{ji} is the admission category fixed effect and λ_t is the year fixed effect. Now, the β^{OLS} would be informative about whether the immigrants who decide to leave the country are on average more from the bottom of the earnings distribution versus from the top of the earnings distribution. However, we do not want to force this relationship to be linear and thus we want to start by describing this relationship

non-parametrically.

The upper left hand side of Figure 7 shows the bivariate relationship between immigrants earnings rank and outmigration. We find a U-shaped curve, where the likelihood of leaving the country is highest among immigrants who are in the bottom of the admission category -specific earnings distribution. Outmigration is relatively rare in the middle of the earnings distribution. But, we also see that those who are at the top of the earnings distribution are also more likely to leave the country.

Next, it is also useful to understand whether selection to out-migration is different across the admission categories. In rest of panels in Figure 7, we plot out-migration as a function of earnings rank separately for all admission categories. This reveals an important element of heterogeneity. First, labor migrants are the most likely to leave if they are at the very top of the earnings distribution but outmigration is also increasing towards the bottom. EU migrants are also most likely to leave from the top and the bottoms of the earnings distribution. In contrast, the U-shape disappears for refugee, family and student migrants. In all these categories, it is the bottom of the distribution who are the most likely to leave.

In the Appendix Table A1, we provide estimates from a linear specification. The results in Panel A Column (1) show that in the aggregate the outmigration from the bottom of the earnings distribution marginally dominates the upward sloping part. The slope coefficient is the highest among labor migrants, students and EU migrants as expected. We can also do a similar analysis for employment and use the pre-migration employment status to predict out-migration. In Appendix Figure A4 we show the relationship between out-migration and previous years employment status. Again we find a strong relationship. Those immigrants who do not have a job are significantly more likely to out-migrate in the following year. This is true for all admission categories (see Table A1, Panel B).

Now, what can we say based on these differences across migrant groups out-migration choices? One potential interpretation is that in categories where the bottom of the distribution is over-represented, it is the immigrants who were the least economically integrated or whose job prospects were waning that leave the country. This would suggest that the policies governing immigration are favoring those who do well. However, it is also possible that some policies or features of the local labor market make it hard for immigrants to find better jobs, and then they decide to leave if that is in their option set.

6.3 Integration Profiles for Stayers

The evidence from the last two sections suggest that differences in outmigration rates and selective outmigration are potentially important for the interpretation of the main integration profiles that we estimate. To get a better sense of how important they are in practice, we reconstruct integration profiles using only information on immigrants who do not emigrate (stayers) and compare them to the universe of migrants who may have at later date decided to leave (baseline).

Figure 8 shows the difference in the earnings profiles for stayers and our baseline estimates. Overall, we find very similar integration profiles for the stayers as we find in our baseline analysis (see top left hand figure). The gap is the highest in two and three years after entry when the stayer earnings are between 300 and 400 euros (or 5 to 3 percent) less than those for everyone still in the country. But the stayers catch up by four to five years in the country. This implies a somewhat steeper earnings profile for stayers, but it is quantitatively very small.

Considering the profiles by admission categories, we see that the largest differences emerge among labor migrants, students and EU migrants which is expected as these are the groups with highest shares of outmigration. For labor migrants, the earnings profile for stayers is somewhat flatter. This means that the earnings start from a lower level

but also converge slower to the initially lower native earnings level. For students, who start from a lower level than natives, the opposite is true: the stayers' earnings profile is steeper. Yet these differences remain quantitatively quite small and this is in part explained by the fact that out-migration is U-shaped in immigrants earnings, especially for labor migrants who are the ones with highest average earnings.

In the Appendix, we also provide similar comparison between our baseline estimates and estimates for stayers for employment (see Figure A5), and we find again quantitatively very similar profiles.

7 Conclusions

Immigration is one of the most contested policy topics in many countries. A large part of the debate revolves around the question of who is allowed to enter the country and on what grounds. Often policy arguments are made based on the perceived differences in the potential for economic and social integration among immigrants entering the host country under different admission categories. However, evidence supporting or refuting these perceptions remains scarce.

In this paper, we documented the basic facts of labor market integration, proxies of social integration and outmigration for the universe of immigrants arriving in Finland in the 2000s. Many of our results are in line with what we understand as the conventional wisdom. Those arriving with work permits have high initial employment rates and earnings, while the opposite is true for refugees. Those arriving with student visas start their lives in Finland, not surprisingly, as students, and while about a quarter of them leave within ten years since arrival, the rest stay and their employment and earnings converge relatively fast to those of labor and EU migrants.

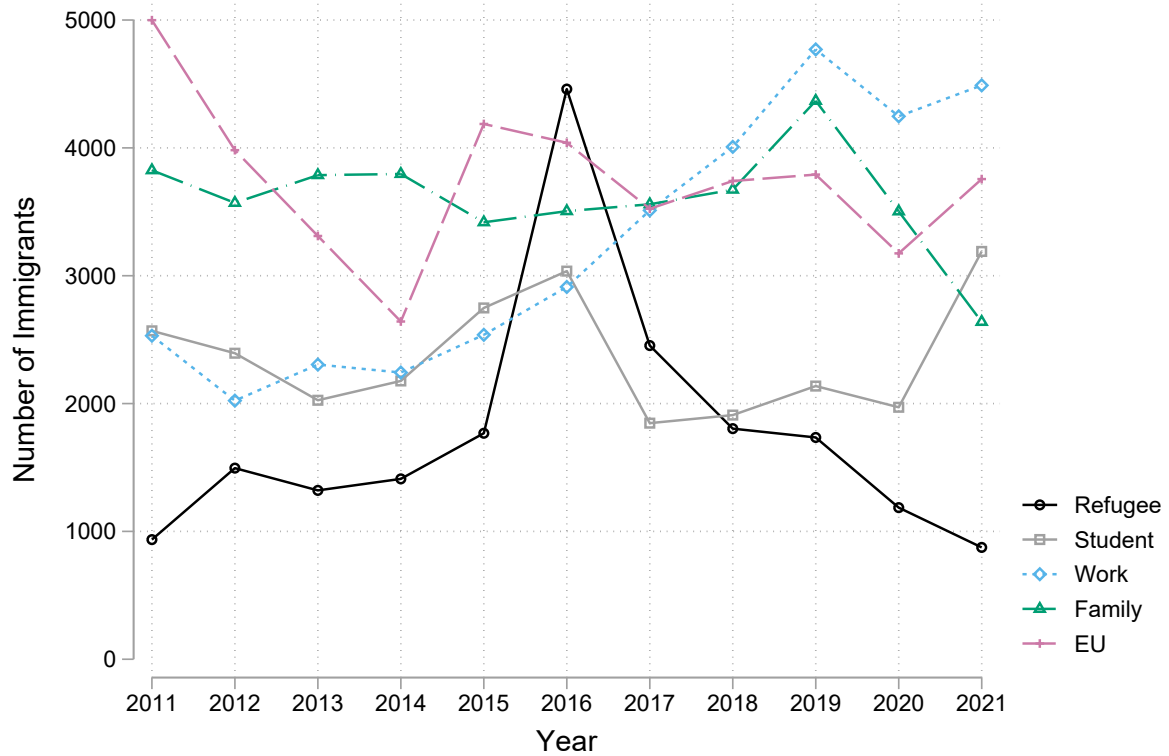
Perhaps more surprisingly, the labor market outcomes of student migrants—who are

predominantly enrolled in higher education and located in Finland’s most vibrant local labor markets—do not converge to the level of average natives. Similarly, many policy-makers and researchers may be surprised by how much the employment gap between labor migrants and refugees shrinks over the first ten years in Finland. On the other hand, we would be surprised if many people had strong priors on how selection into outmigration differs across admission categories.

These observations are just a few examples of the many facts we documented above. Some of our findings may be surprising while others not, and different people may update their prior differently. However, a meaningful policy debate concerning possible changes in entry policies—or, for example, targeting integration policies—needs to be based on commonly shared facts. Thus, we believe these results are important and that documenting similar facts for more countries would be highly valuable.

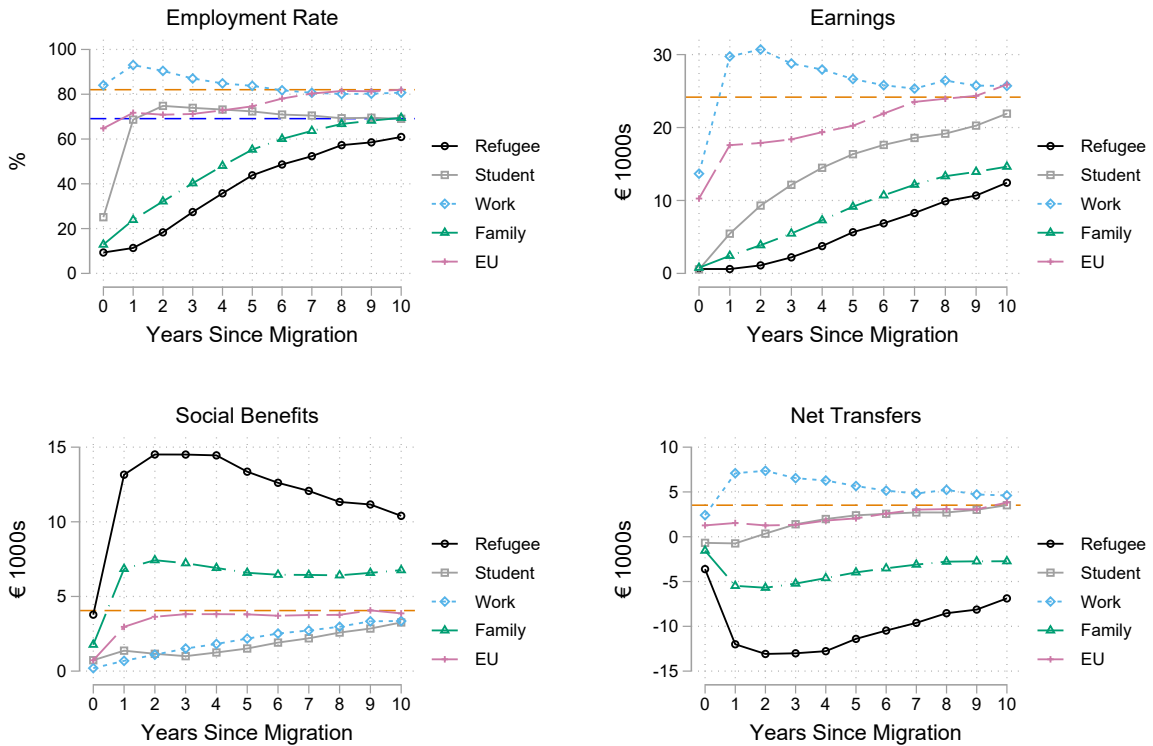
Figures and Tables

Figure 1: Number of 18-59 y.o. Immigrants by Admission Category



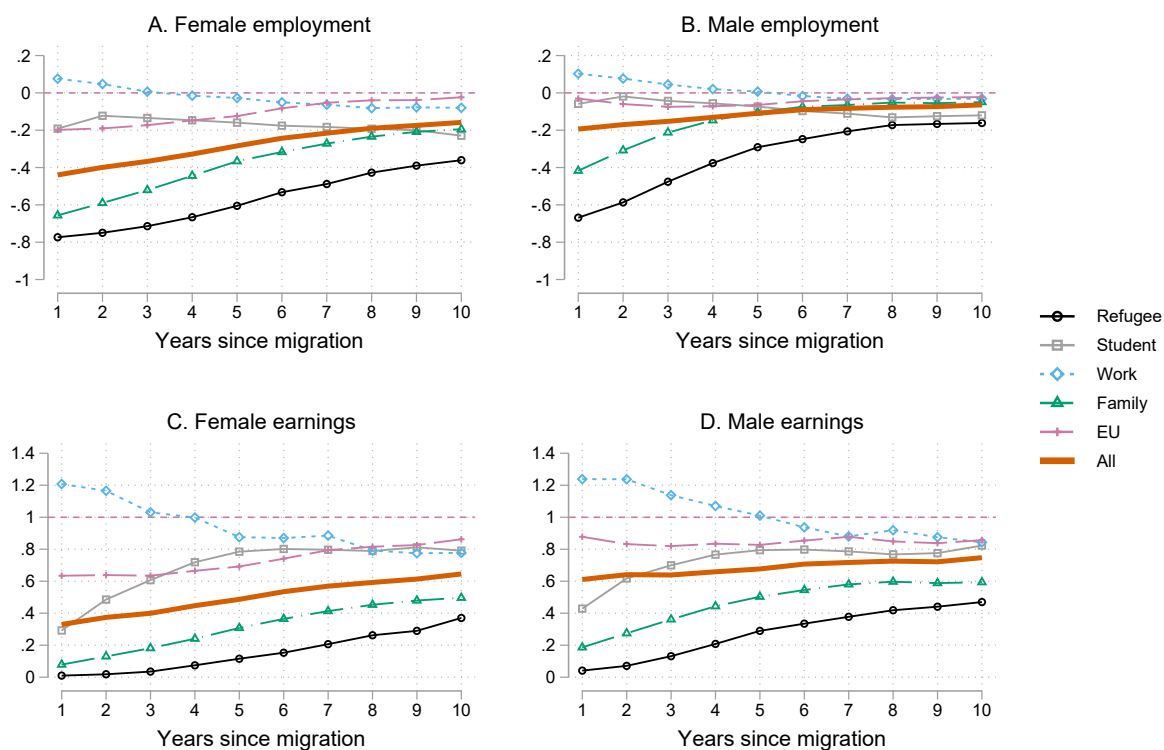
Notes: This figure shows the number of immigrants (age 18-59) granted a residence permit and matched to population registries.

Figure 2: Labor Market Outcomes by Years in Country



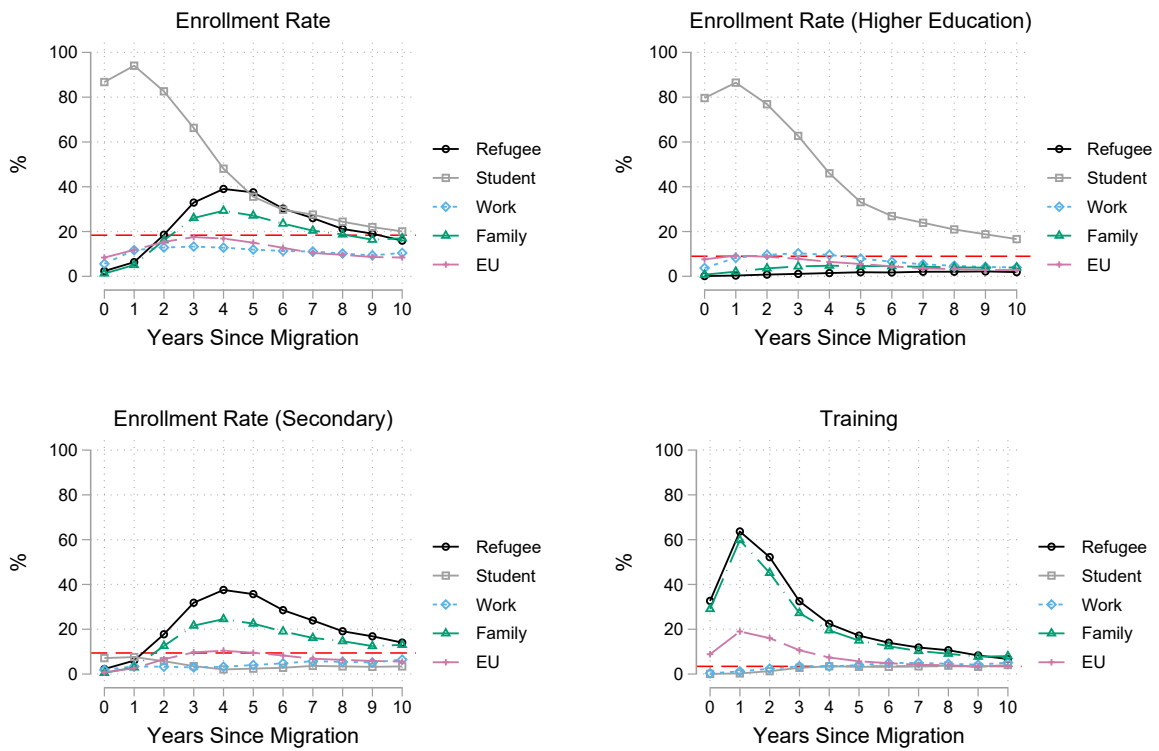
Notes: This figure shows average labor market outcomes across admission classes by years in Finland. The dashed orange line indicates the average for natives aged 18 to 59.

Figure 3: Employment and Earnings Relative to Same-Age Natives



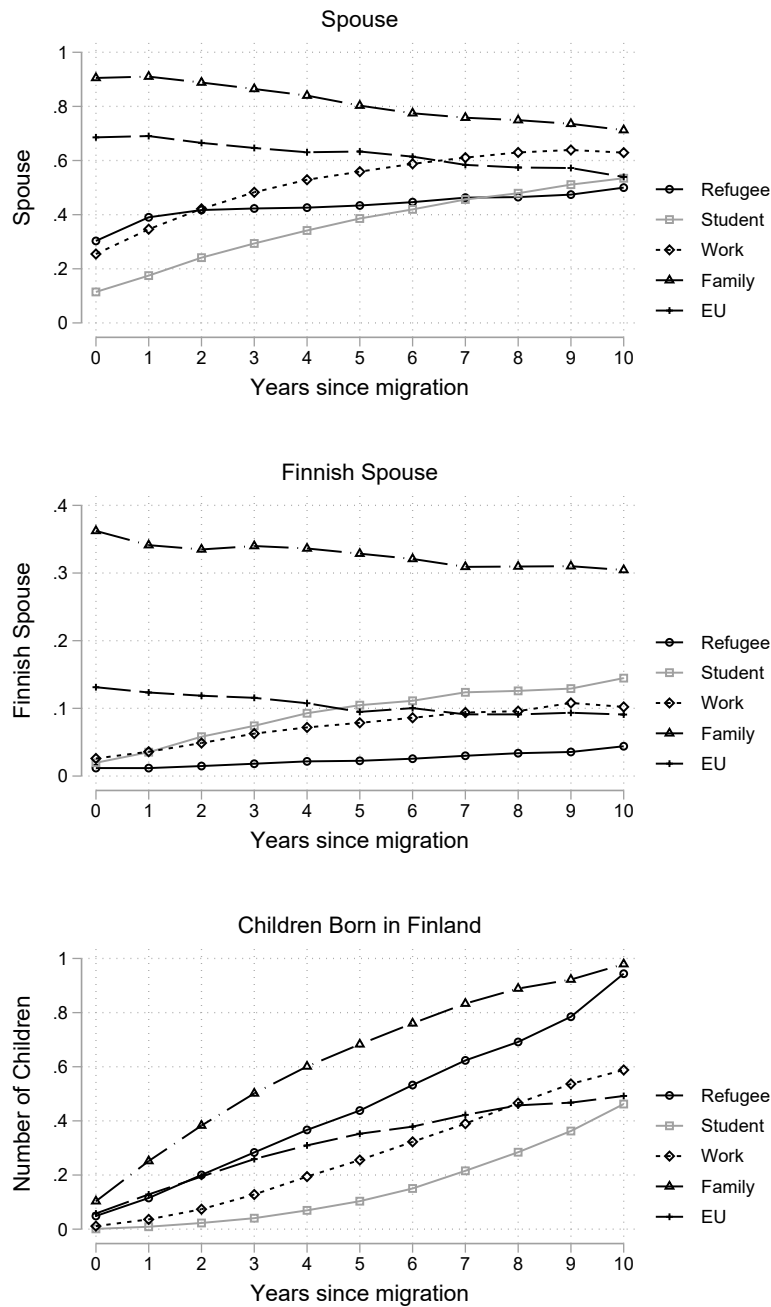
Notes: This figure shows immigrant-native employment and earnings gaps over admission classes after conditioning on gender, age, calendar year and time lived in Finland. The estimates for earnings gaps are constructed as $y_{ysm}^g = \sum \theta (ysm, t, X) \left[\frac{w^g(ysm, t, X)}{w^n(t, X)} \right]$, where $w^g(ysm, t, X)$ is the average earnings of immigrants in admission class g who have lived ysm years in host country in year t and have background characteristics X , $w^n(t, X)$ is the average earnings of natives with the same characteristics in the same year, and the weights $\theta = N^g(ysm, t, X) / N^g(ysm)$ are the share of immigrants in admission class g in year t with characteristics X out of all immigrants in this admission class observed in their ysm^{th} year in Finland. The estimates for earnings gaps are similarly constructed as $y_{ysm}^g = \sum \theta (ysm, t, X) [e^g(ysm, t, X) - e^n(t, X)]$.

Figure 4: Education Participation by Years in Country



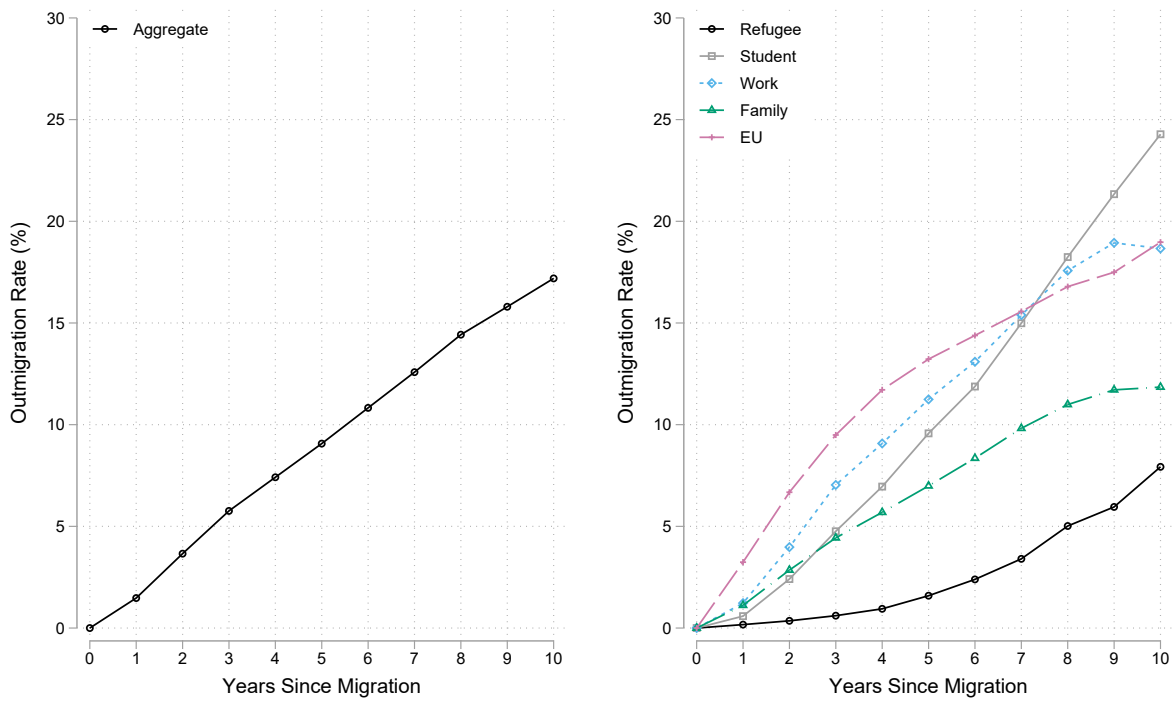
Notes: The figure shows shares of migrants enrolled in secondary or tertiary education (top left panel), tertiary education (top right panel) secondary education (bottom left panel) and training provided by the Public Employment Service (bottom right panel). The dashed red line shows the average for natives aged 18 to 59.

Figure 5: Family Formation by Years in Country



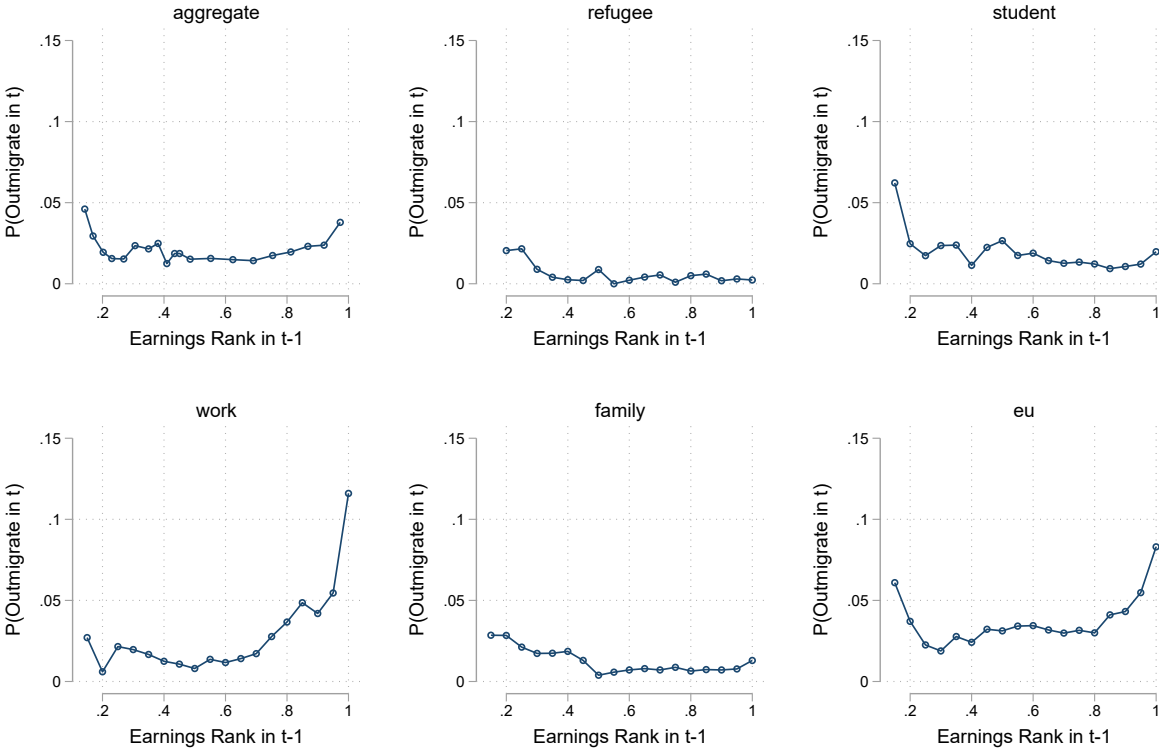
Notes: This figure shows averages of measures of family formation as a function of years in the country. Spouse is an indicator for being married to another person in Finland. Finnish spouse is an indicator for being married to Finnish citizen whose first language is Finnish or Swedish. Children born in Finland is the number of children who are born after the parent moves to Finland.

Figure 6: Outmigration by Years in Country



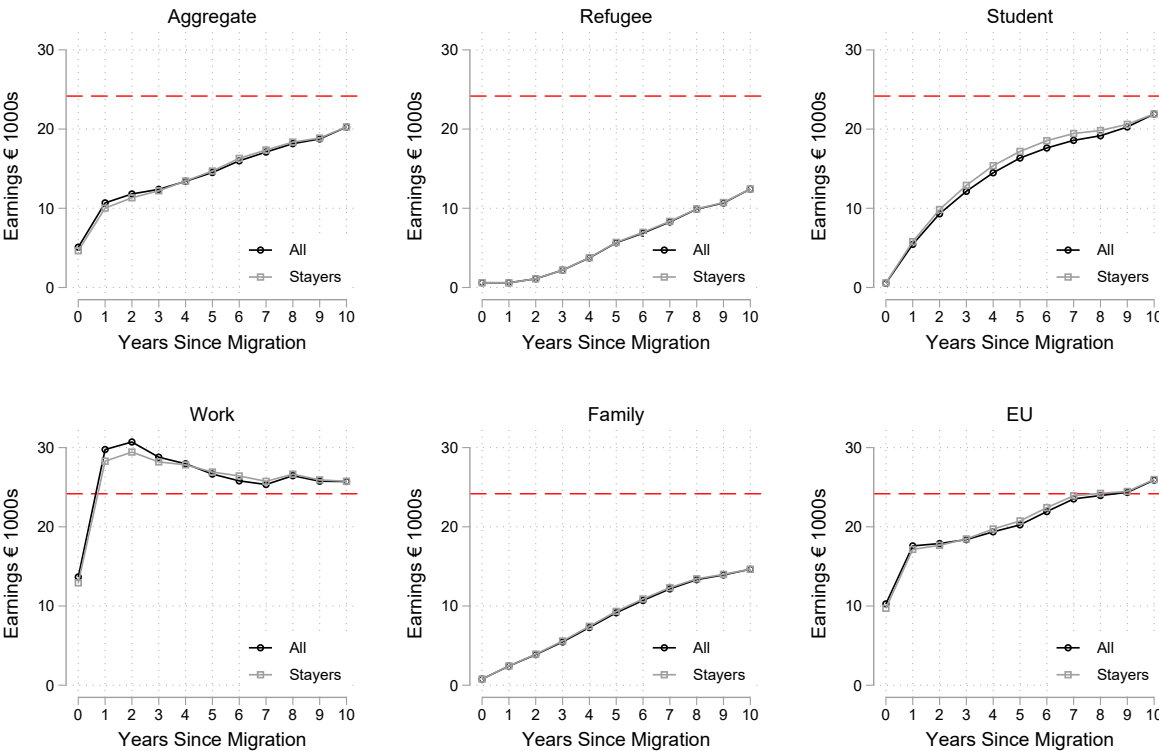
Notes: This figure shows the share of 18-50 year old immigrants who have outmigrated by years since migration.

Figure 7: Out-Migration Rates Over the Earnings Distribution by Admission Category



Notes: This figure shows out-migration rates across the earnings distribution by admission classes.

Figure 8: Earnings of Stayers



Notes: This figure shows the earnings of all immigrants in our analysis data and those immigrants who do not emigrate during our observation period ("stayers").

Table 1: Immigrant Background Characteristics by Admission Category

| | Admission Category | | | | | |
|-------------------------------|--------------------|----------------|----------------|---------------|---------------|-----------|
| | (1) Natives | (2) Refugee | (3) Student | (4) Worker | (5) Family | (6) EU |
| <i>Demographics</i> | | | | | | |
| Age (t=0) | 39.0 | 30.7 | 24.4 | 31.9 | 32.0 | 32.8 |
| Woman | 0.49 | 0,36 | 0.43 | 0.28 | 0.69 | 0.46 |
| Single | 0.46 | 0.38 | 0.73 | 0.39 | 0.05 | 0.43 |
| Married/Cohabit | 0.42 | 0.52 | 0.21 | 0.50 | 0.89 | 0.31 |
| Divorced | 0.12 | 0.07 | 0.01 | 0.03 | 0.04 | 0.03 |
| Widow | 0.01 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>Resident permits</i> | | | | | | |
| Year of permit | | 2016.3 | 2016.2 | 2017.5 | 2015.9 | 2016.2 |
| Length of first permit (days) | | 1361 | 398 | 406 | 371 | 1773 |
| N | 7718418 | 19208 | 21610 | 27222 | 38974 | 31896 |

Notes: This table shows immigrant background characteristics at the time of first entry to Finland and the same characteristics for a sample of natives in 2011-2021. For immigrants, age, gender and marital status come from the Finnish Immigration Service as indicated in their application form. For natives, data comes from Finnish population registries.

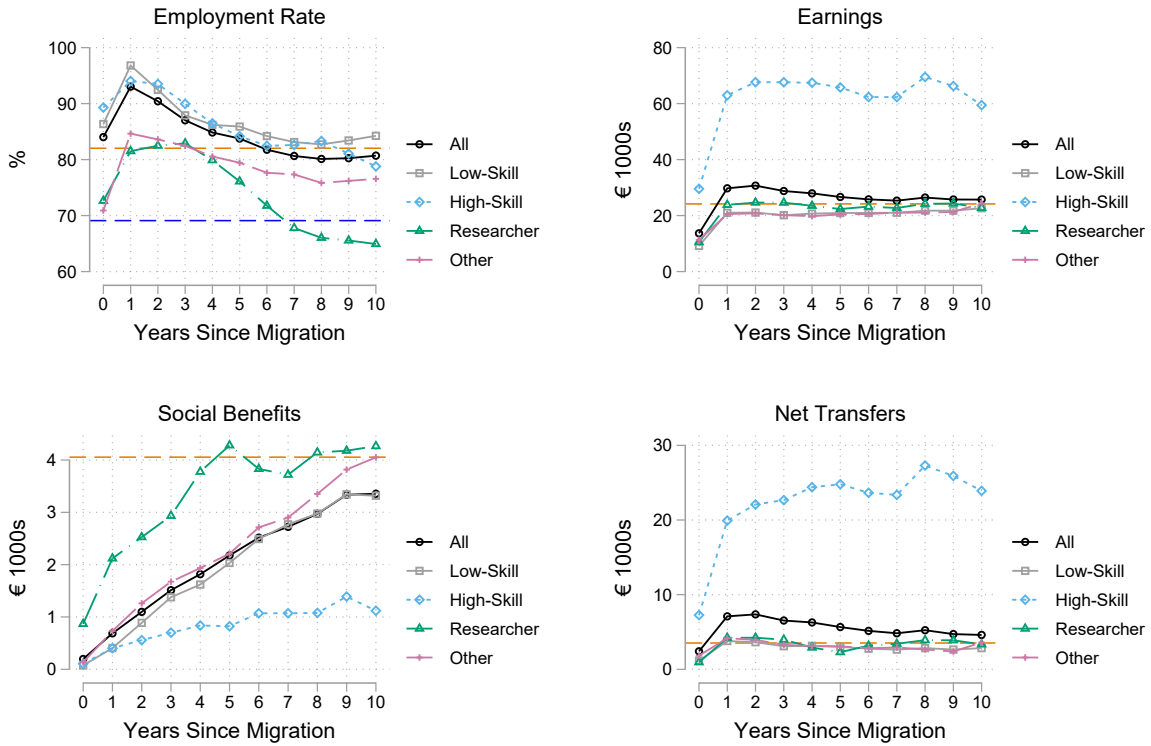
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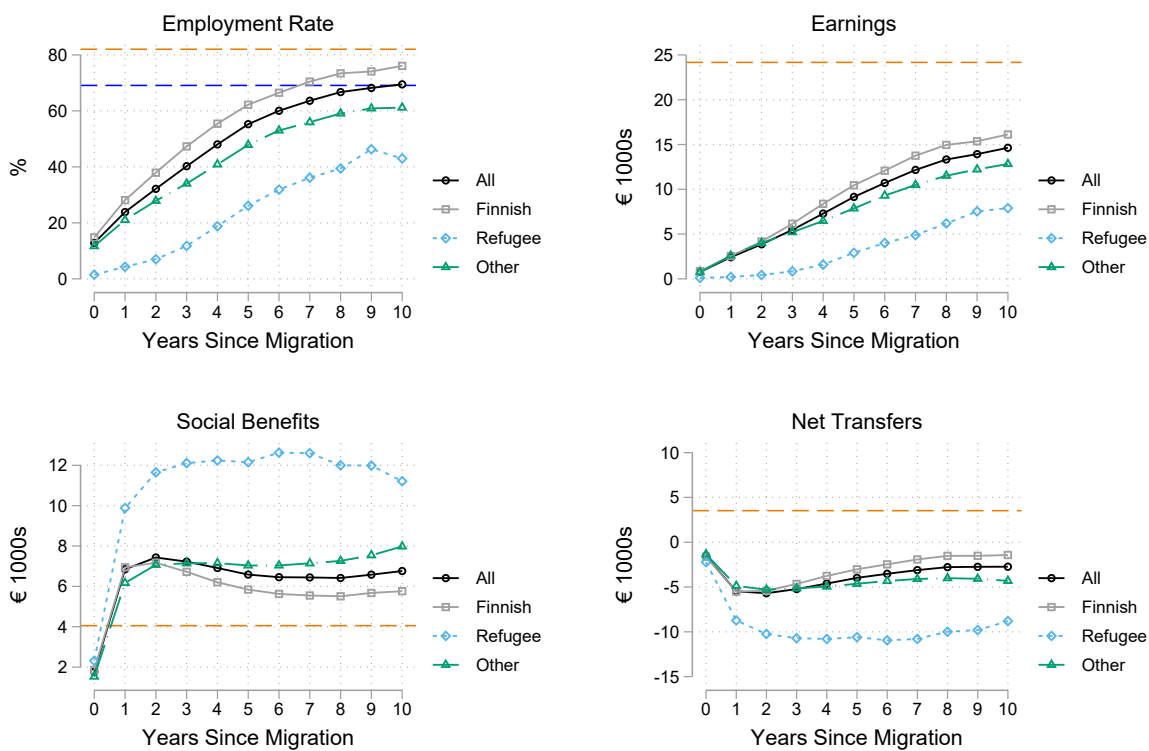
A Appendix figures and tables

Figure A1: Labor Market Outcomes for Work-Related Migrants by Years in Country



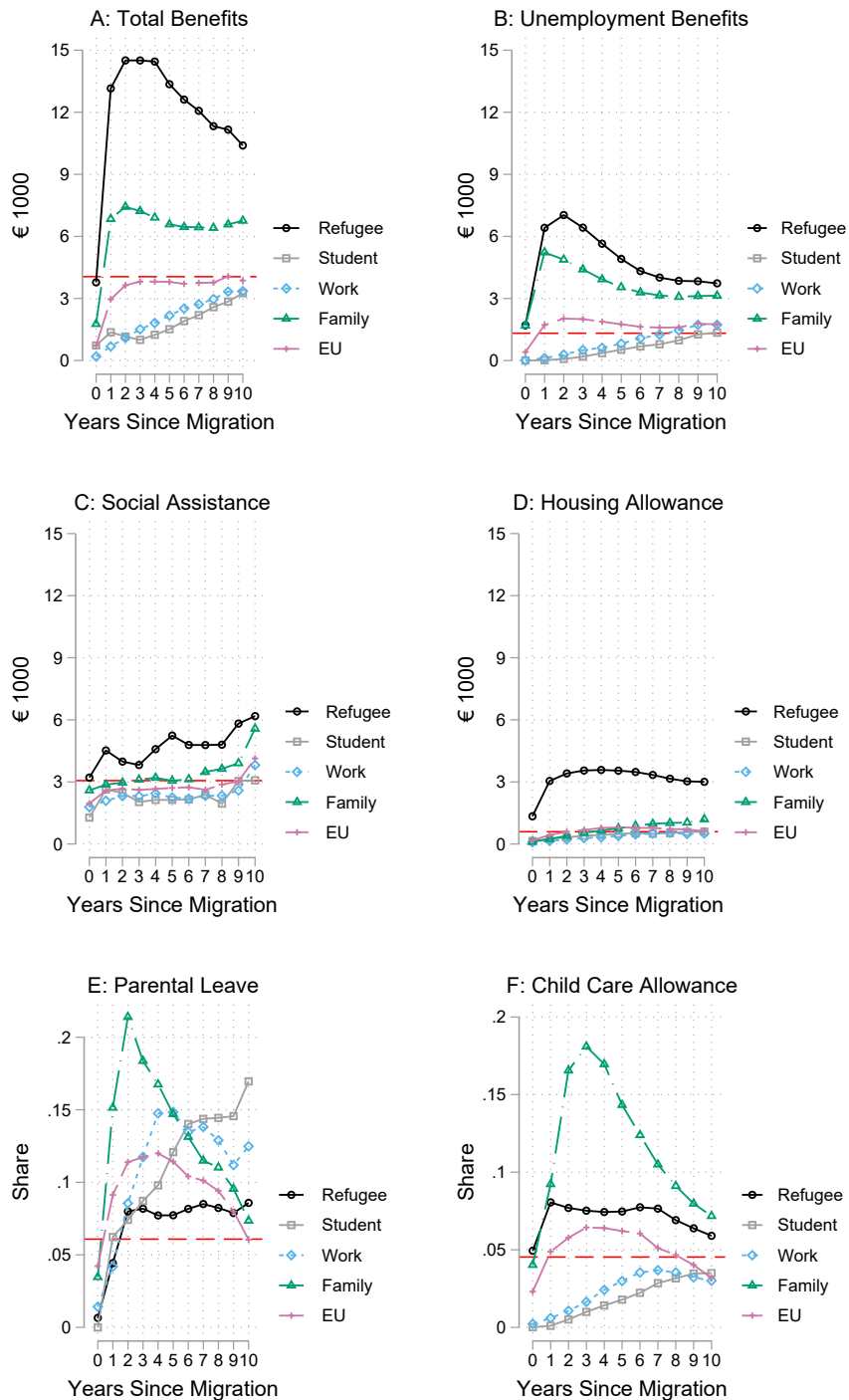
Notes: This figure shows labor market outcomes for different sub-categories of migrants who have a work-based residence permit. The dashed red line shows the average for natives aged 18 to 59.

Figure A2: Labor Market Outcomes for Family Migrants by Years in Country



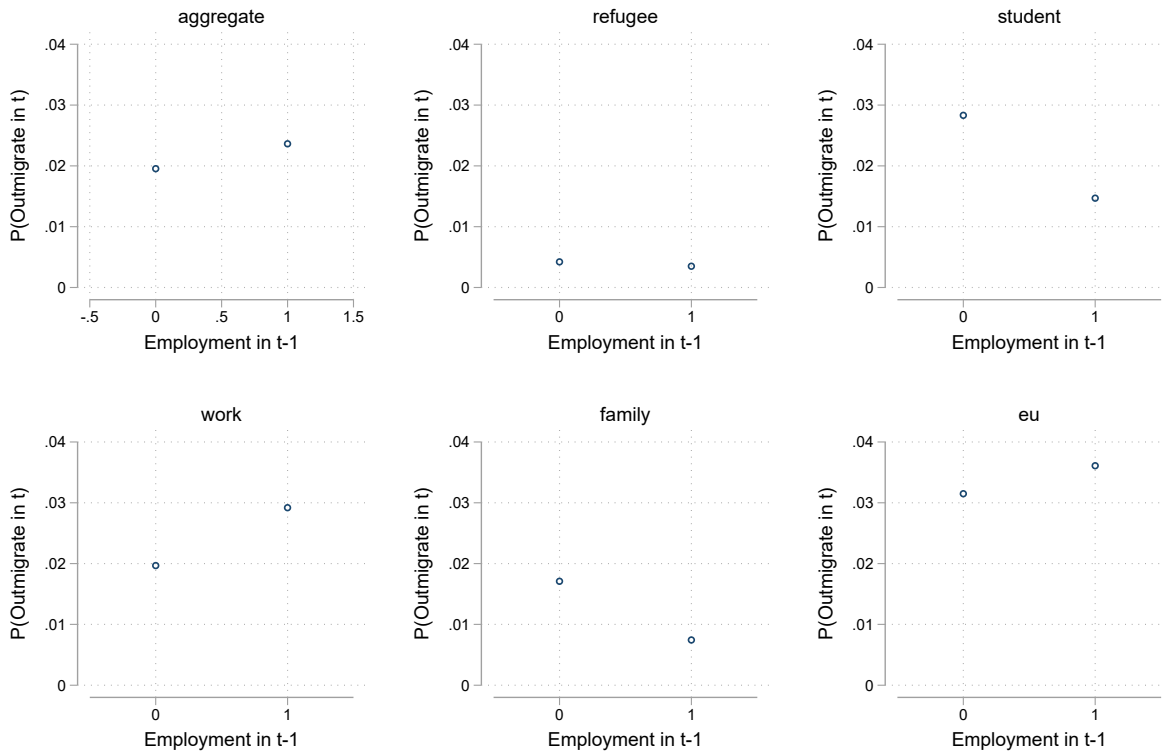
Notes: This figure shows labor market outcomes for different sub-categories of migrants who have a residence permit based on family ties. The family migrants are grouped by the type of resident permit of the so-called sponsor, i.e. the family member who is already resident in Finland. The dashed red line shows the average for natives aged 18 to 59.

Figure A3: Social Benefits by Years in Country



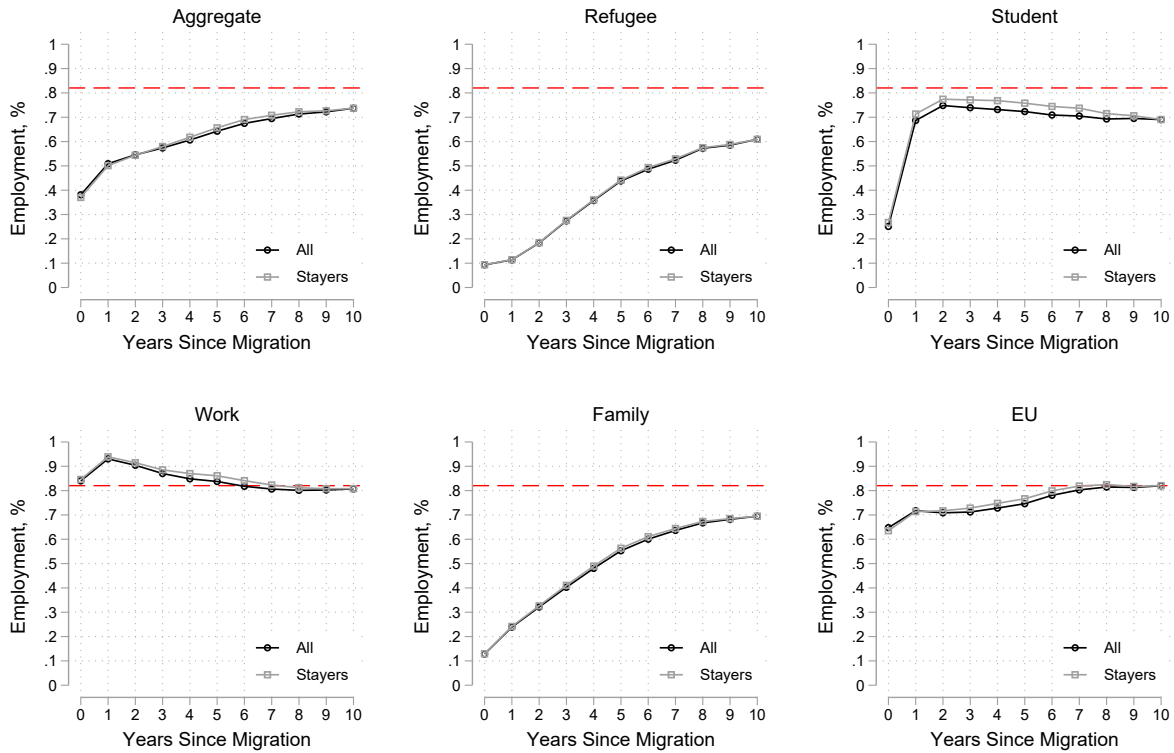
Notes: This figure shows average social benefits receipt by years since migration across admission classes. The dashed red line shows the average for natives aged 18 to 59.

Figure A4: Out-Migration Rates by Employment Status and Admission Category



Notes: This figure shows out-migration rates by employment status in the previous year across admission categories.

Figure A5: Employment Rate of Stayers



Notes: This figure shows employment rates of all immigrants in our analysis data and those immigrants who do not emigrate during our observation period ("stayers").

Table A1: Out-Migration by Earnings Rank and Employment Status

| | Admission Category | | | | | |
|----------------------------|----------------------|----------------------|----------------------|---------------------|----------------------|---------------------|
| | (1) All | (2) Refugee | (3) Student | (4) Worker | (5) Family | (6) EU |
| Panel A: Earnings | | | | | | |
| Earnings Rank(t-1) | -0.002*** (0.001) | -0.010*** (0.001) | -0.043*** (0.002) | 0.037*** (0.002) | -0.022*** (0.001) | 0.015*** (0.002) |
| N | 668017 | 91889 | 109511 | 114022 | 187945 | 164650 |
| Outcome Mean | 0.021 | 0.005 | 0.023 | 0.025 | 0.015 | 0.035 |
| Admission category FE | ✓ | | | | | |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | (1) All | (2) Refugee | (3) Student | (4) Worker | (5) Family | (6) EU |
| Panel B: Employment | | | | | | |
| Employment(t-1) | -0.003*** (0.000) | -0.001* (0.001) | -0.015*** (0.001) | 0.009*** (0.001) | -0.010*** (0.001) | 0.003*** (0.001) |
| N | 547258 | 73807 | 91496 | 89986 | 153994 | 137975 |
| Outcome Mean | 0.021 | 0.004 | 0.022 | 0.026 | 0.015 | 0.034 |
| Admission category FE | ✓ | | | | | |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Notes: Panel A shows the estimates from a specification $OutMigrate_{it} = \beta * EarningsRank_{it-1} + \theta_{ji} + \lambda_t + \varepsilon_{it}$, where $EarningsRank_{it-1}$ is the individual i 's earnings rank within the same admission category and admission cohort, θ_{ji} is the admission category fixed effect and λ_t is the year fixed effect. Panel B shows estimates with an analogous specification but $Employment_{it-1}$ as independent variable. Robust standard errors in parentheses: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.