

(The Struggle for) Refugee Integration into the Labour Market: Evidence from Europe

Francesco Fasani
Tommaso Frattini
Luigi Minale

February 2020

Abstract

In this paper, we study the labour market performance of refugees vis-à-vis comparable migrants across twenty European countries and over time. In the first part of our analysis, we document that labour market outcomes for refugees are consistently worse than those for other migrants. Refugees are 11.6 percent less likely to have a job and 22.1 percent more likely to be unemployed than migrants with similar characteristics. Moreover, their income, occupational quality and labour market participation are also relatively weaker. The *refugee-migrant gap* remains sizeable even after controlling for individual characteristics as well as for unobservables using a rich set of fixed effects and interactions between area of origin, entry cohort and destination country. These gaps persist until about 10-15 years after immigration. In the second part of our analysis, we investigate the role of economic and asylum policy conditions at the time of arrival in shaping integration paths of refugees versus migrants. First, we find that immigrating in a recession produces scarring effects for all migrants but no differential effect for forced migrants, leaving little role for this channel to explain observed refugee gaps. Second, we focus on the impact on refugees of being subject to spatial dispersal policies. Our estimates imply that *dispersed refugees* experience a persistent impact on their residential choices and substantial long run losses in their economic integration with respect to *non-dispersed refugees*.

JEL codes: F22, J61, J15

Keywords: Refugee-migrant gap; assimilation; dispersal policies; initial conditions.

[◦] Francesco Fasani: QMUL, CEPR, CReAM and IZA.

^{◦◦} Tommaso Frattini: University of Milan, LdA, CReAM, IZA and CEPR.

^{◦◦◦} Luigi Minale: Universidad Carlos III de Madrid, CReAM and IZA.

We would like to thank participants at several seminars and conferences for their helpful comments, as well as Reinhard Weisser for his excellent research assistantship. We are very grateful to Nuffield Foundation for its financial support on this project (Grant OPD/42944). Luigi Minale also wishes to gratefully acknowledge financial support from the Ramon Areces Foundation, the Ministerio Economía y Competitividad (Spain), Maria de Maeztu grant (MDM 2014-0431), and the Comunidad de Madrid, MadEco-CM grant (S2015/HUM-3444).

1. Introduction

Europe has recently experienced a major refugee crisis. The total number of individuals with recognized refugee status who reside in the EU15 area increased from approximately 1 million in 2014 to more than 2.5 million in 2018. In the same years, the total number of first time asylum applications received by EU-28 Member States countries reached an unprecedented figure of over 4.2 million. This dramatic increase in foreign-born citizens seeking protection sparked a heated debate in Western countries about refugees' impact on receiving societies and on adequate policies for dealing with this phenomenon. One crucial aspect of this debate is the extent to which Western countries can effectively integrate asylum seekers into their labour markets and societies (Fernández-Huertas Moraga and Rapoport 2015; Dustmann et al. 2017; Hatton 2017).

Despite its policy relevance, the integration of refugees into host countries' labour markets is still an understudied area relative to the large body of evidence on the assimilation of economic migrants (see Borjas 1999 and Kerr and Kerr 2011 for reviews of this latter evidence). In this paper, we provide a comprehensive analysis of the socio-economic integration of refugee migrants in European countries and analyse the role of economic and policy conditions at the time of arrival in explaining their integration paths. We do so by employing repeated cross-sectional micro data from the European Labour Force Survey – which enable us to identify individuals who migrated for humanitarian reasons – and by studying the labour market performance of refugees vis-à-vis comparable migrants across several European countries and over time.

In the first part of the paper, we estimate *refugee-migrant gaps* for a comprehensive set of outcomes. In our estimates, we condition on observable personal characteristics as well as on unobservable factors (captured by a rich set of fixed effects) common to individuals migrating from the same area, belonging to the same arrival cohort and arriving to the same destination country. We find that refugees' outcomes are consistently worse than those of comparable migrants. Not only does this labour market gap not seem motivated by the different observable individual characteristics, but 60–80 percent of the “refugee gap” conditional on age, gender and education remains unexplained even when we control for unobservables using origin area, entry cohort and destination country fixed effects, and the interactions between them. In our preferred estimates, refugees' employment and unemployment probabilities are 7.8 percentage points (11.6 percent) below and 3.1 percentage points (22.1 percent) above, respectively, those of non-refugee

migrants. These refugee-immigrant gaps are smaller for women than for men, vary across areas of origin and tend to persist up to 10-15 years after arrival in the host country. Our results also suggest that the worse health status and lower language proficiency of refugees may partly explain their weaker labour market performance.

In the second part of the paper, we investigate the role of initial economic and asylum policy conditions in shaping integration paths of refugees versus migrants. We first study the effects of immigrating into a recession. Being forced to flee violence and conflict, refugees are likely to be less responsive to the state of the host country's economy than economic migrants, potentially increasing their likelihood of arriving in destination countries during economic downturns. In addition, initial scarring effects may be more profound and/or persistent for refugees relative to other migrants. After matching individuals in our sample with economic conditions at the time of their arrival in host countries, we test whether immigrating in a recession produces lasting negative effects on immigrants' economic integration and whether the effect is stronger for refugees. We find evidence of scarring effects of economic downturns for all immigrants but no differential effect for forced migrants. Accounting for the role of recessions at entry does not significantly reduce the estimated refugee-immigrant gap, leaving little role for this channel to explain observed differences in integration profiles. We then turn our empirical analysis to the impact of asylum policies at the time of arrival on future economic integration of refugees (relative to comparable migrants). In particular, we focus on Dispersal Policies of asylum seekers and refugees (DPs), a relatively common scheme in European countries, whereby immigrants seeking humanitarian protection are centrally allocated to specific areas of the country. DPs typically pursue the aim of preventing ethnic enclave formation by scattering refugees across the country and often away from larger cities. These policies may improve refugees' outcomes if ethnical segregation is damaging for their economic integration. However, constraining the geographical mobility of refugee migrants and making centralized allocation decisions that are often orthogonal to local labour demand may produce negative effects on refugees' labour market performance. We estimate the consequences of DPs for the refugee-migrant gaps by exploiting the differential timing of DPs enactment across European countries which provides us with variation across both entry cohorts within the same country and within entry cohorts in Europe across countries. We find clear evidence of a persistent detrimental impact of DPs on *dispersed refugees*. For instance, the refugee-migrant gap in employment is 4.5 p.p. larger for refugees who arrived when a DP was in

place than for those who were not exposed to such a policy. One mechanism through which the detrimental effect of DPs seems to operate is by permanently altering the geographical distribution of refugees in host countries. Indeed, in the last part of our analysis, we document that *dispersed refugees* are more likely to reside in areas characterized by systematically less favourable conditions for labour market integration than *non-dispersed refugees*.

Our paper contributes primarily to the literature on the labour market integration of refugee migrants. Until recently, this area of research has received far less attention than that of economic migrants for various reasons, among them the scarcity of data allowing explicit differentiation of immigrants by entry category.¹ Nevertheless, evidence from both North America (Cortes 2004; Bevelander and Pendakur 2014) and selected European countries (Bratsberg et al. 2014; Ruiz and Vargas-Silva 2018; Sarvimäki 2017) hints at a large initial labour market disadvantage of refugees, albeit one that tends to shrink over time (see Bevelander 2016, Becker and Ferrara 2019, and Brell et al. 2020 for recent reviews of this literature). Our paper adds to this literature by developing the first comparable and systematic analysis of the socio-economic integration of refugee migrants across many European countries and over time. In addition, by focusing our analysis on labour market gaps between refugees and other migrants with similar characteristics, we provide estimates that are, at the same time, compelling and directly relevant for policy-making. A second area we contribute to is the literature on the role of conditions at arrival in shaping future integration paths of immigrants. Some of the relevant papers in this literature have relied on the quasi-random allocation imposed by spatial dispersal policies to generate exogenous variation in initial conditions faced by refugees in regional density of co-ethnic networks (Edin et al. 2003; Damm 2009 and 2014; Beaman 2012; Battisti et al. 2016; Martén et al. 2019; Dagnelie et al. 2019) or local labour market demand (Åslund and Rooth 2007; Godøy 2017; Azlor et al. 2020). Other papers have exploited these allocation policies to identify causal impacts on different outcomes, such as crime (Bell et al. 2013; Damm and Dustmann 2014; Couttenier et al. 2019) or politics (Dustmann et al. 2019; Bratsberg et al. forthcoming). However, direct evidence on the overall labour market impact of being subject to a dispersal policy is extremely scarce. The only exception is the evaluation of the Swedish Settlement Policy by Edin et al. (2004), which shows that

¹ Some studies rely on information on country of origin and entry cohort to identify immigrants likely to be refugees (e.g. Edin et al., 2003 and Cortes, 2004). Even the administrative record data to which researchers have recently begun gaining access is currently limited to only a few host countries: see Bratsberg et al. (2014) for Norway, Luik et al. (2016) for Sweden and Hainmueller et al. (2016) for Switzerland.

dispersed refugees are less likely to be employed, have lower earnings, and rely more on welfare than *non-dispersed refugees*. Our paper complements and expands on this evidence for Sweden by providing the first assessment of the medium and long-term effects of dispersal on refugees arrived over the last three decades across European countries. Our findings suggest that *dispersed refugees* experience a persistent impact on their residential choices and substantial long-run losses in their economic integration. These results speak directly to recent work by Bansak et al. (2018) and Trapp et al. (2018) showing that improving current allocation practices of hosting governments would produce large employment gain for refugees.

The paper unfolds as follows. Section 2 introduces our data and provides descriptive evidence on the labour market outcomes of different migrant groups relative to natives. Section 3 reports the results of our main empirical analysis of refugees versus other migrants. Section 4 presents the results on the role of conditions at arrival in explaining refugee-migrant gaps. Section 5 concludes with a brief discussion of policy implications.

2. Data and Descriptive Evidence

2.1. The European Labour Force Survey

Our analysis is based on data from the European Labour Force Survey (EULFS), a large household survey of people aged 15 and over covering the 28 member states of the European Union, the candidate countries (the Former Yugoslav Republic of Macedonia and Turkey) and three countries of the European Free Trade Association (Iceland, Norway and Switzerland). Specifically, we use two *ad hoc* modules on migrant labour market outcomes collected in 2008 and 2014, which contain additional questions on migrant experience in the host country. The EULFS reports information on individual circumstances, including country of birth, demographic characteristics and years since migration, as well as immigrant labour market status and type of occupation. The 2014 module also includes information on an individual's position in the host country national income distribution.² Of particular relevance for our study is the fact that the questionnaires for the *ad hoc* modules include information about the *main reason for migration*, thereby allowing us to

² The *ad hoc* modules are available for both 2008 and 2014 for the following 13 countries: Austria, Belgium, Cyprus, France, Greece, Italy, Lithuania, Luxembourg, Norway, Portugal, Spain, Sweden, and the UK. Data for Germany, Ireland and the Netherlands are available only for 2008 and those for Bulgaria, Croatia, the Czech Republic, Estonia, Finland, Hungary, Latvia, Malta, Poland, Romania, Slovakia, Slovenia and Switzerland only for 2014. Income data are unavailable for the Czech Republic, France, Hungary, Norway and Sweden, and the EULFS does not report wages.

distinguish *refugees* from *other migrants*. This reason-for-migration question was asked of all non-native individuals who arrived in the country of residence when they were 15 years of age or older, with interviewees given the choice of employment, study, international protection or family reunification as the primary motivation.³ Throughout the paper, we designate all respondents who selected ‘international protection’ as *refugees* and all those choosing another reason as (*other migrants*).⁴

2.2. Descriptive Statistics

Our main sample includes all immigrants of working age (25–64) who are not in full-time education or military service and have no missing information on immigrant status, reason for migration, gender, education, age or origin area, for a total of approximately 92 thousand observations distributed over 20 European countries. EU immigrants account for 37 percent of the observations, non-EU immigrants for about 57 percent and refugees for the remaining 6 percent.⁵ Descriptive statistics for this sample are presented in Table 1. The share of males is larger among refugees and they are relatively older than EU and non EU migrants. Refugees have educational qualifications similar to those of immigrants from outside the EU and lower than non-EU migrants. About one fourth of refugees and non-EU migrants have tertiary education compared with 32 percent of EU migrants. Conversely, 38 percent of refugees and 41 percent of non-EU migrants have at most lower secondary education, compared with a corresponding share of 26 percent among immigrants from EU member states. Refugees do, however, on average have higher migration seniority than other migrants: 44 percent of refugees, for instance, have been in the host country since before 1995, versus about 35-36 percent among the other two groups of migrants. As regards area of origin, the table shows no refugees from EU15 countries, almost 7 percent born in one of the EU new member states, and 31 percent from other non-EU European countries. An additional 25 percent are from North Africa and the Middle East, with the remainder almost equally

³ Specifically, in 2008, respondents were asked to choose among eight alternative reasons for migration: (1) employment, intra-corporate transfer; (2) employment, job found before migrating; (3) employment, no job found before migrating; (4) study; (5) international protection; (6) accompanying family/family reunification; (7) family formation, and (8) other. In 2014, the categories were reduced to six.

⁴ In our sample, we define as non-natives (refugees and other immigrants) all individuals who are “foreign born”, except for Germany where non-natives are defined as “foreign nationals”. When information about the country of birth is missing, we use the parents’ country of origin to determine the individual’s non-native status.

⁵ We exclude all observations from countries-survey years for which the number of refugees sampled is less than 30 individuals (i.e. Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Malta, Poland, Romania, and Slovakia). See Appendix Table A 1 for the sample size for each migrant group by host country.

split between sub-Saharan Africa (18 percent) and South and East Asia (17 percent). Only 3 percent of the refugees in the sample originate from Latin American countries.

Table 1 – Summary Statistics

	EU migrants	Non-EU migrants	Refugees
Men	0.48	0.47	0.60
Age group:			
25/39	0.45	0.47	0.33
40/54	0.37	0.39	0.50
55/64	0.18	0.14	0.17
Education:			
Tertiary	0.32	0.26	0.24
Upper secondary	0.43	0.34	0.38
Lower secondary	0.26	0.41	0.38
Broad entry cohort:			
Before 1995	0.36	0.35	0.44
1995-2003	0.31	0.41	0.41
2004-2007	0.22	0.17	0.09
2008-2013	0.11	0.07	0.06
Area of origin:			
EU15	54.2	0.0	0.0
NSM12 / NMS13	45.8	0.0	6.7
Other Europe	0.0	21.9	30.8
North Africa and Middle East	0.0	22.3	25.1
Other Africa	0.0	11.4	17.7
South-East Asia	0.0	16.9	16.8
North America and Oceania	0.0	3.2	0.0
Latin America	0.0	24.2	3.0
Labour market outcomes:			
Employment rate	0.72	0.65	0.60
Participation rate	0.80	0.76	0.71
Unemployment rate	0.10	0.14	0.16
Skilled occupations	0.35	0.26	0.22
Top income decile	0.09	0.07	0.03
Bottom income decile	0.11	0.15	0.17
Observations	34,484	52,213	5,236

Notes. The table reports the following variables separately for EU migrants, all non-EU migrants and refugees in the EULFS sample: share of men; distribution by age group, education, broad entry cohorts and area of origin; employment, participation and unemployment rate; share of individuals employed in a skilled occupation (out of all employed individuals), in the top and in the bottom deciles of the national income distribution.

Table 1 also reports descriptive statistics for the labour market indicators on which we focus throughout the empirical analysis: employment rate, labour force participation rate, unemployment rate, being in a skilled occupation, and being in the top or bottom decile of the host country income

distribution.⁶ For these variables, refugees are on average at a disadvantage not only relative to EU migrants but also relative to immigrants from outside the EU. For instance, the employment rate among refugees (non-EU migrants) is 60 (65) percent, their participation rate is 71 (76) percent and their unemployment rate is 16 (14) percent, with corresponding values for EU migrants of 72, 80 and 10 percent, respectively. The share of employed workers in a skilled occupation is 22 percent for refugees, 26 percent for non-EU migrants and 35 percent for EU migrants. The share of refugees in the top income decile is only 3 percent, less than half the corresponding value for non-EU migrants (7 percent) and about a third of the EU migrants' share (9 percent). Hence, the remainder of our paper focuses on explaining these gaps.

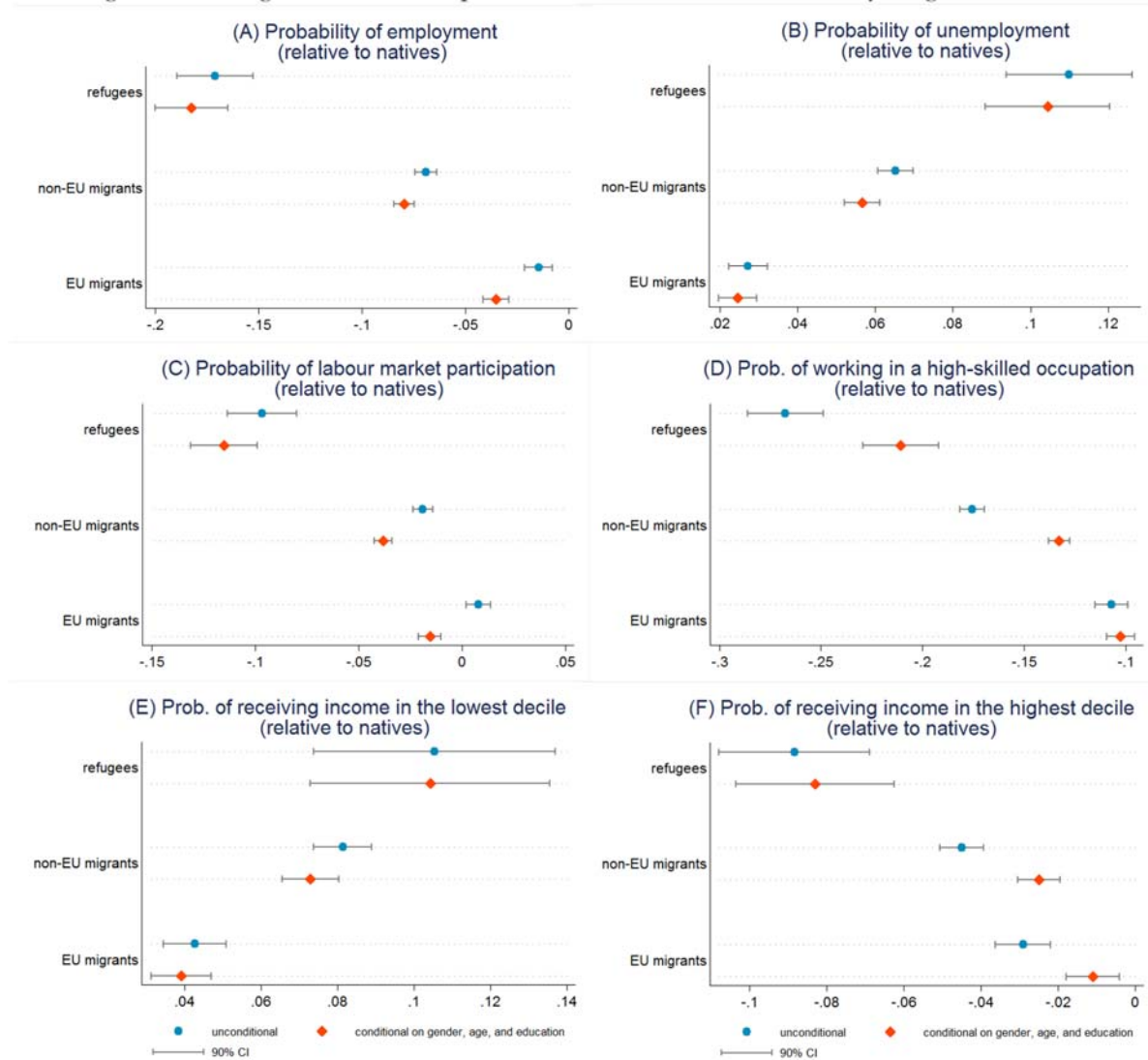
2.3. Preliminary Evidence: Natives, Migrants and Refugees

We set the background for our main analysis on the labour market gap between refugees and migrants by first comparing both groups with natives in European countries. In order to do so, we add observations on native workers from the EULFS to our main sample, and estimate linear probability models for each of the six outcomes discussed in the previous section (employment status, unemployment, labour force participation, high skilled occupation and being in the lowest or highest decile of the income distribution). We include dummies that identify EU immigrants, non-EU immigrants and refugees, whereas natives are the excluded category. We obtain “unconditional” gaps by exclusively conditioning on host country–year interaction dummies – to capture national business cycle fluctuations common to all four groups of workers – while conditional gaps are estimated after including dummies for gender, 5-year age groups and three educational levels. Figure 1 outlines the conditional and “unconditional” percentage point differences in labour market outcomes between natives and each of the three immigrant groups. The figure clearly shows that, across Europe, immigrants tend to have worse labour market

⁶ We define these indicators as follows: employment rate = the share of individuals from the working age population who are either in employment or self-employed; labour force participation rate = the share of individuals from the total working age population who are in the labour force (i.e. either employed or job hunting); unemployment rate = the share of individuals from the total labour force who are job hunting; skilled occupation = belonging to one of the three major ISCO-08 groups: Group 1: managers; Group 2: professionals; Group 3: technicians and associate professionals.

performance than natives regardless of their origin and reason for migration, whereas the gap tends to be small for EU migrants, generally wider for non-EU immigrants and even larger for refugees.

Figure 1—Immigrant–Native Gaps in Labour Market Outcomes, by Migration Status



Notes. The figure shows the unconditional and conditional differences (and 90 percent confidence intervals based on robust standard errors) for various labour market outcomes between EU and non-EU migrants and natives, as well as between refugees and natives. The dependent variable is, alternatively, a dummy for whether the individual is employed (A); job hunting versus being in employment (B); employed or job hunting versus being out of the labour force (C); employed in a high skilled occupation versus being employed in other occupations (D); in the bottom decile of the national income distribution (E); or in the top decile of the national income distribution (F). Unconditional estimates are obtained from linear probability regressions that include destination country–observation year interaction dummies. Conditional gaps further control for gender, age and education. The sample comprises individuals aged 25–64.

As regards unconditional employment probability (Figure 1A), EU migrants are 1.5 percentage points (about 2 percent relative to the native population mean) less likely than natives to be employed, whereas the gap increases to 6.9 percentage points (9 percent) for non-EU migrants and to 17.1 percentage points (24 percent) for refugees. When we condition out intergroup differences in age, gender and education, the gaps with natives tend to increase because immigrants are on average younger and better educated. A similar pattern is evident for unemployment (Figure 1B), and for labour force participation (Figure 1C). Refugees' unconditional and conditional unemployment rates are 11 and 10.4 percentage points higher than those for natives. Conversely, they have a 9.7 percentage point (12 percent) lower unconditional and 11.5 percentage point (15 percent) lower conditional probability of labour market participation than natives. Even focusing on employed individuals, non-natives tend to do worse than natives in terms of both occupational skill content and income. Both migrants and refugees are less frequently employed in high-skilled occupations (Figure 1D) and considerably less (more) likely than natives to be in the top (bottom) decile of the national income distribution (Figure 1E(F)).

Appendix Figure A 1 graphs the evolution of the gaps in employment (A) and unemployment (B) probabilities for the three immigrant groups with respect to natives, by years since arrival in the host country. The figure indicates that on arrival, refugees have extremely large gaps in both employment and unemployment probability, not only with respect to natives but also to other immigrants. Although gaps in labour market outcomes tend to decrease with time spent in the host country for all immigrants, they remain sizeable for refugees and non-EU migrants even after 15 years or more.

3. The Gap between Refugees and Migrants

The evidence presented in the previous section confirms the severe difficulties in socio-economic integration experienced by all migrant groups – with the partial exception of EU migrants - when compared with native workers that have been identified in the literature. In the core of our paper, however, we focus our analysis on comparing outcomes of refugees with those migrants who have not sought humanitarian protection. Since Figure 1 suggests that migrants tend to outperform refugees in European labour market, we carefully assess the size of this gap and its persistence, and we shed light on some of its potential determinants.

The fact that refugees may face a more difficult integration than other groups of migrants, especially upon arrival, is not entirely unexpected. Refugees were exposed to violence, conflict and persecution, with potentially lasting effects on their health and mental health that may hinder their socio-economic integration. Further, having been forced to suddenly leave their home countries, with limited control on the timing and the final destination of their move, refugees are more likely to experience a worse match in host countries – in terms of their skills, aspirations and availability of ethnic networks – than the average migrant. Indeed, whereas host countries can select economic migrants based on their characteristics, and economic migrants can select their destinations based on a higher demand for their own skills, such selection is not typically possible in forced migration. Whether refugees are able to bridge their initial disadvantage, however, is an empirical question. The direct comparison of one type of migrant with another eliminates the major measurement problems common in studies comparing migrants with natives having similar education and host country work experience. In addition, this comparison allows us to rule out certain potential explanations of the observed gap - such as discrimination in the labour market, cultural and language barriers and obstacles to the recognition of foreign qualifications – that are likely to affect similar migrants in similar ways, irrespective of their initial reason for migration. Finally, our data also enable us to condition on a rich set of fixed effects that capture the unobservable characteristics, shocks, determinants and other factors common to, for example, all individuals emigrating from a certain area in the same year or all individuals arriving in a specific host country at the same time. The extent to which the inclusion of these fixed effects reduces the observed gap is informative about the role of selection pattern differences in determining the relative outcomes of refugees versus other migrants.

3.1. Estimating Equation

In order to investigate the differences between refugee and migrants, we focus exclusively on those countries that are a source of both groups of immigrants. We thus retain all non-EU15 immigrants and refugees and end up with an estimation sample of 69,128 individuals, 5,236 (7.6 percent) of them refugees. We estimate the following linear probability model:

$$y_{isdTt} = \beta \text{ref}_{isdTt} + \gamma X_{isdTt} + \mu_{at} + \varphi_T + \omega_s + \varepsilon_{isdTt} \quad (\text{eq. 1})$$

where y_{isdTt} is a (binary) labour market outcome for individual i from origin area s who arrived in country d in year T and was interviewed in survey year t (2008 or 2014); ref_{isdTt} is an indicator

variable that takes value one for refugees (i.e. migrants arrived for humanitarian protection) and zero for all other migrants; X_{isdTt} is a vector of individual controls (age, gender, education); μ_{dt} is a set of destination country–interview year fixed effects capturing any economic or non-economic conditions in the destination country at the time of interview; φ_T is a set of arrival cohort fixed effects that captures all unobservable factors common to individuals arriving in Europe in the same year;⁷ ω_s is a set of origin area fixed effects capturing common time invariant characteristics of migrants arriving from the same geographic area;⁸ and ε_{sdTt} is an idiosyncratic shock. Unless otherwise specified, we use heteroscedasticity robust standard errors to account for the fact that our dependent variables are binary. In order to better control for unobservable characteristics and shocks that might have determined the labour market outcomes of individuals entering the same destination country in the same year or leaving the same area in the same year we can then incorporate two-way fixed effects into our specification. In particular, we condition on host country–entry cohort and on area of origin–entry cohort fixed effects. The former set of dummies captures all initial conditions (e.g. unemployment, GDP growth, migrant stock) in the destination country to which all migrants belonging to the same arrival cohort, irrespective of refugee status, were exposed, while the latter set controls for any common shock affecting migrants arriving in Europe from the same origin area in the same cohort.

3.2. Baseline Results

In Table 2, we report the coefficients estimated from the linear probability model in equation (1) for the likelihood of employment, incorporating the different controls and fixed effects stepwise. Across all specifications, we consistently find a large and significant negative employment gap between refugees and comparable migrants. When conditioning exclusively on host country–survey year dummies, the employment differential is at a minus 6.4 percentage point (column 1). This baseline initially increases when controlling for gender and age (column 2) but then decreases with the incorporation of education dummies (column 3). As a result, the gap conditional on individual characteristics is minus 8.8 percentage points (column 3), suggesting that refugees are overall relatively better selected from the distribution of employment-correlated observable

⁷ The specific year of arrival is available for individuals arrived 10 or less years before the interview. For the others, earlier arrivals, entry cohorts fixed effects refer to five-year groups (e.g. 1980-84, 1985-89).

⁸ We include dummies for seven origin areas: EU new member states; other European countries; North Africa and the Middle East; other African countries; South and East Asia; North America and Oceania; and Latin America.

characteristics than other migrants. When we condition on area of origin (column 4), this gap shrinks substantially by almost 20 percent (minus 7.2 percentage points), suggesting that refugees disproportionately originate from areas associated with weaker EU labour market performance. Conversely, when we control for entry cohort (column 5), the gap increases slightly, implying that refugees are slightly overrepresented in earlier cohorts, which had more time to integrate.⁹ Finally, we include the two-way fixed effects for host country–entry cohort and for area of origin–entry cohort that we discussed in the previous section. These last estimates (column 6) show that allowing entry cohort effects to vary by host country and by source area generates no further reduction in the employment gap between migrants and refugees. Thus, in our most restrictive specification the refugee–migrant employment rate differential is 7.8 percentage points, suggesting that refugees are about 11.6 percent less likely to be employed than comparable migrants (whose unconditional employment probability is 0.67).

Table 2 – Refugee–Immigrant Gap: Employment

	(1)	(2)	(3)	(4)	(5)	(6)
Refugee	-0.064*** (0.012)	-0.095*** (0.012)	-0.088*** (0.011)	-0.072*** (0.011)	-0.076*** (0.011)	-0.078*** (0.011)
Host country*year	YES	YES	YES	YES	YES	YES
Gender and age		YES	YES	YES	YES	YES
Education			YES	YES	YES	YES
Source Area FE				YES	YES	
Entry Cohort FE					YES	
Entry Cohort*Host Country FE						YES
Entry Cohort*Source Area FE						YES
Observations	69,128	69,128	69,128	69,128	69,128	69,128

Notes. The table reports the coefficients for a refugee migrant dummy, estimated by linear regression with an employment dummy as the dependent variable. The sample comprises non-EU15 immigrants aged 25–64. The unconditional mean of the employment indicator for migrants is 0.67. All specifications include destination country–observation year interaction dummies. "Gender, Age, Education" are dummy variables for gender, five–year age groups and at most upper secondary or tertiary education (with at most lower secondary education as the excluded category). "Source Area FE" are dummy variables covering the seven major source regions (13 EU new member states; other European countries; North Africa and Middle East; other African countries; South and East Asia; North America and Oceania; Latin America). "Entry cohort FE" are dummy variables for year (or groups of years) of arrival in the host country. "Host country FE" are dummies for the twenty destination countries in the sample. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

⁹ Note that our findings about how much each group of covariates contributes to shrinking rather than widening the refugee gap may depend on the specific sequential inclusion of controls that we followed. In order to check for that, we perform a Gelbach decomposition (Gelbach 2016) for the estimates of the employment refugee gap. Appendix Table A 2 reports the such decomposition that confirms findings in Table 2.

Table 3 – Refugee–Immigrant Gap: Other Labour Market Outcomes

	Participation		Unemployment		Skilled occupation		Bottom income decile		Top income decile	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Refugee	-0.061***	-0.063***	0.045***	0.031***	-0.079***	-0.071***	0.066***	0.060***	-0.053***	-0.048***
	(0.010)	(0.010)	(0.010)	(0.011)	(0.012)	(0.012)	(0.020)	(0.021)	(0.013)	(0.013)
Host country*year	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Gender, age, education	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Entry Cohort*Host Country FE		YES		YES		YES		YES		YES
Entry Cohort*Source Area FE		YES		YES		YES		YES		YES
Baseline probability	0.78		0.14		0.24		0.16		0.05	
Observations	69,128		52,900		46,359		13,847		13,847	

Notes. The table reports the coefficients for a refugee migrant dummy, estimated by linear regressions with either an unemployment dummy, a participation dummy, a skilled occupation dummy (whether employed in a high-skilled or other occupation), and a bottom and top income decile indicator as the dependent variable. The sample comprises non-EU15 immigrants aged 25–64. All specifications include destination country–observation year interaction dummies. "Gender, Age, Education" are dummy variables for gender, five-year age groups and at most upper secondary or tertiary education (with at most lower secondary education as the excluded category). "Entry cohort FE" are dummy variables for year (or groups of years) of arrival in the host country. "Host country FE" are dummies for the twenty destination countries in the sample. "Source Area" are dummy variables covering the seven major source regions. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

In Table 3, we consider the other labour market outcomes of participation (columns 1-2), unemployment (columns 3-4), skilled occupation (columns 5-6) and being in the bottom (columns 7-8) and top (columns 9-10) decile of the income distribution. For each outcome, we first estimate the refugee gap while conditioning exclusively on host country–year fixed effects and individual characteristics (odd columns) and then incorporate the full set of two-way fixed effects (even columns). The average unconditional probabilities for each outcome for non-refugee migrants are reported in the bottom part of Table 3. These estimations reveal that the likelihood of refugee labour market participation is relatively low, about 6.3 percentage points (8 percent) less than for comparable non-refugee immigrants in our most restrictive specification (column 2). The unemployment probability is 4.5 percentage points higher for refugees than for other migrants, although the gap narrows by 30 percent when we condition on all controls and fixed effects. According to the estimates in column 4, the unemployment probability is approximately 3.1 percentage points (22 percent) higher for refugees than for comparable migrants. Even among those who are employed, refugees are disadvantaged relative to other immigrants. Not only they are 7.1 percentage points (29 percent) less likely to be in a high-skilled occupation than other migrants with similar characteristics (column 6), but also they display higher probability to be in the bottom decile and lower probability to be in the top decile of each host country’s income distribution than other immigrants. According to the estimates from our more complete specification (columns 8 and 10), refugees are 6 percentage points more likely to fall into the

bottom and 4.8 percentage points less likely to fall into the top decile than their non-refugee counterparts.¹⁰

3.3. Heterogeneity by gender and area of origin

In Table 4, we estimate equation (1) separately for women (panel A) and men (panel B). The refugee gap in employment tends to be smaller for women than for men, both in absolute value and relative to the baseline probabilities. The results in column 2 indicate that refugee women are 5 percentage points (or 8 percent) less likely than comparable immigrant women to be employed. In contrast, refugee men’s employment rate is 11 percentage points lower than that of immigrant men with the same characteristics, a 14 percent gap relative to the baseline employment of immigrant men overall. Similar patterns hold for participation and unemployment. Conversely, little gender difference is observable in the unconditional refugee–immigrant gap in skilled occupation probability.

Table 4– Refugee-Immigrant Gaps by Gender

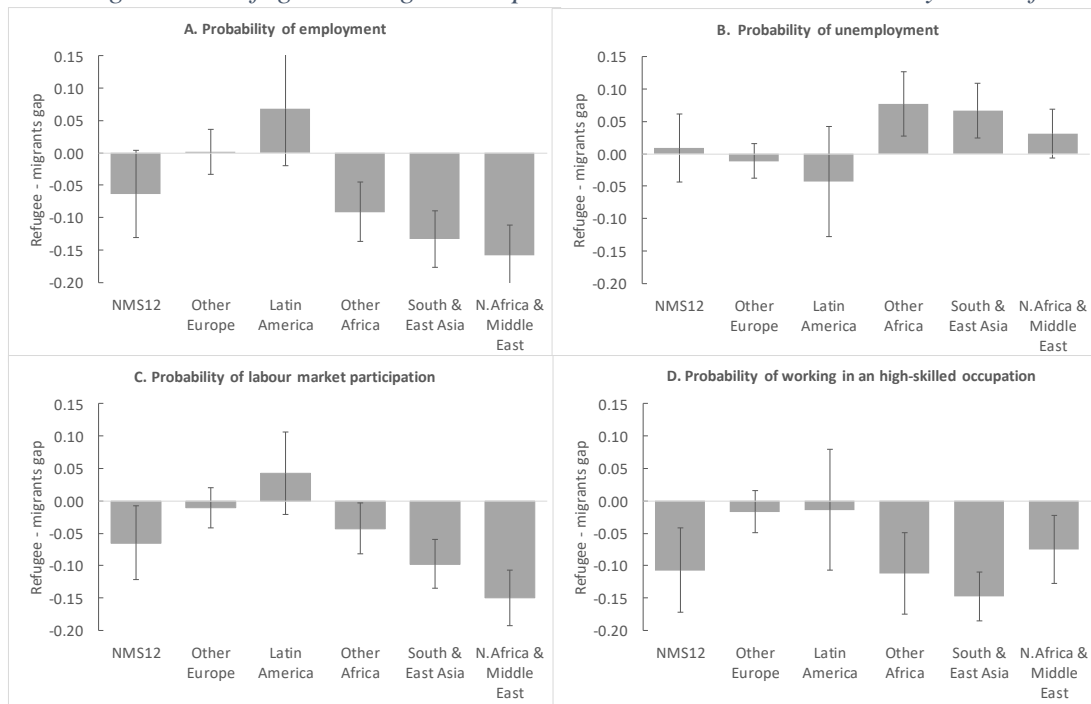
	Employment		Participation		Unemployment		Skilled occupation	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A - Women								
Refugee	-0.051*** (0.019)	-0.050*** (0.018)	-0.041** (0.018)	-0.046*** (0.017)	0.019 (0.016)	0.010 (0.016)	-0.085*** (0.021)	-0.068*** (0.020)
Baseline probability	0.584		0.674		0.134		0.283	
Observations	37,533		37,533		24,865		21,581	
Panel B - Men								
Refugee	-0.122*** (0.015)	-0.108*** (0.015)	-0.083*** (0.013)	-0.087*** (0.012)	0.059*** (0.014)	0.043*** (0.014)	-0.101*** (0.016)	-0.067*** (0.015)
Baseline probability	0.779		0.888		0.122		0.304	
Observations	31,595		31,595		28,035		24,778	
Host country*year	YES	YES	YES	YES	YES	YES	YES	YES
Age, education		YES		YES		YES		YES
Entry Cohort*Host Country FE		YES		YES		YES		YES
Entry Cohort*Source Area FE		YES		YES		YES		YES

Notes. The table reports the coefficients for a refugee migrant dummy, estimated using separate linear regressions for women (panel A) and men (panel B) with either an employment dummy, a participation dummy, an unemployment dummy for a skilled occupation dummy (whether employed in a high-skilled or other occupation) as the dependent variable. The sample comprises non-EU15 immigrants aged 25–64. The baseline probabilities report the unconditional means of the outcome variables for female and male non-refugee migrants. All specifications include destination country–observation year interaction dummies. "Age and education" are dummy variables for five–year age groups and for at most upper secondary or tertiary education (with at most lower secondary education as the excluded category). "Entry cohort FE" are dummy variables for year (or groups of years) of arrival in the host country. "Host country FE" are dummies for the twenty destination countries in the sample. "Source Area" are dummy variables covering the seven major source regions. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

¹⁰ In Appendix Table A3, we report estimates obtained including three-way fixed effects for source area, host country and entry cohort. For all six outcomes considered, the refugee gap remains large and strongly significant, although the inclusion of three-way fixed effects generally reduces the estimated gaps with respect to the coefficients obtained with two-way fixed effects.

Next, in Figure 2, we compare conditional refugee–migrant gaps in labour market outcomes across different origin areas, revealing substantial heterogeneity.¹¹ The labour market outcomes of refugees from European countries outside the EU15 (NMS12 and other European countries) are not too dissimilar from those of comparable immigrants from the same regions, with any differences tending to be statistically insignificant. In fact, most refugees originating from European countries had arrived in the host country during the 1990s, meaning that by time of interview, they had caught up with the other migrants’ performance. Instead, refugees from African and Asian countries – the main source areas of recent refugee inflows and arguably of those in the foreseeable future – show particularly large gaps in all the outcomes considered. In fact, North African and Middle Eastern migrants display the largest gaps in employment and labour market participation, while those from other African and South and East Asian countries display the largest gaps in unemployment and skilled occupation probability, respectively.

Figure 2 – Refugee–Immigrant Gaps in Labour Market Outcomes by Area of Origin



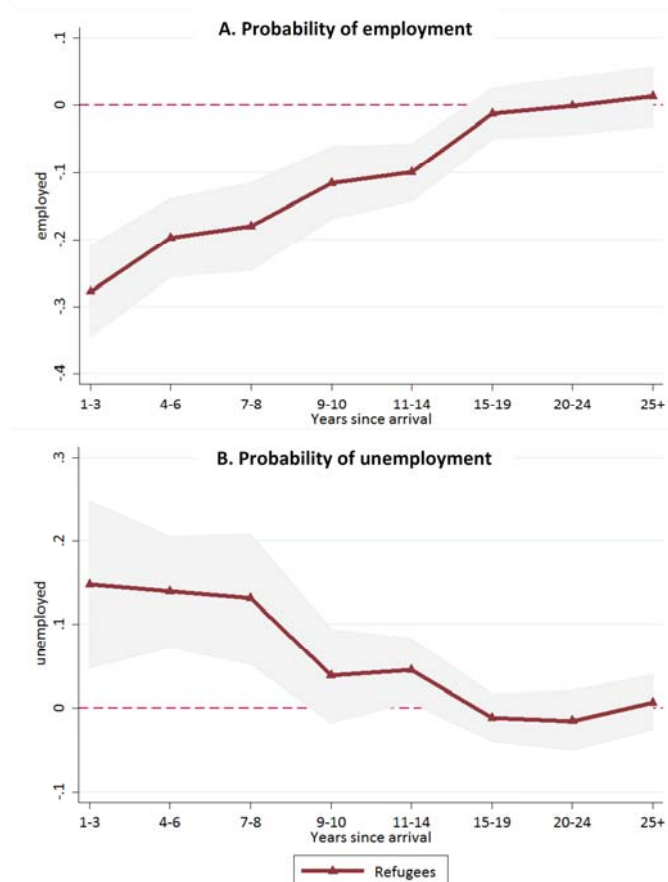
Notes. The figure illustrates the conditional refugee–migrant gaps in various labour market outcomes, together with the corresponding robust standard error-based 90 percent confidence intervals. The dependent variable is, alternatively, a dummy for whether the individual is employed (A); job hunting versus being in employment (B); employed or job hunting versus being out of the labour force (C); employed in a high-skilled occupation (D). We estimate the regressions separately for each area of origin, controlling for gender, age, education, as well as interaction between destination country dummies and observation year or entry cohort dummies. The sample comprises non-EU15 immigrants and refugees aged 25–64.

¹¹ We draw the graph by estimating separate regressions for each origin area while including controls for individual characteristics (age, gender, education) and host country–year and entry cohort–host country fixed effects.

3.1. Assimilation

Figure 3 profiles refugee assimilation in terms of employment (A) and unemployment (B) probabilities. These estimates are obtained through direct comparison of refugees with similar migrants conditional on individual characteristics and on fixed effects for destination country–survey year and area of origin.¹²

Figure 3 – Refugee–Immigrant Employment and Unemployment Gaps, by Years since Arrival



Notes. The figure graphs the evolution of the conditional gap in employment (A) and unemployment probability (B) between refugees and non-EU15 migrants by years in the host country. All regressions include age, gender, education, destination country–interview year fixed effects, and origin area fixed effects. The sample comprises non-EU15 immigrants and refugees aged 25–64. We report 90 percent confidence intervals based on robust standard errors.

¹² Note that we use data from two cross-sections collected 6 years apart (in 2008 and 2014) and we can therefore compare the outcomes of individuals from the same entry cohort measured at different points in time simultaneously with different cohorts measured in the same year. We are thereby partially able to distinguish the effect of years since arrival from possible compositional changes across entry cohorts. Our estimated profiles, however, might be also capturing some differences in selective out-migration across migrant categories (Dustmann and Görlach 2016).

As expected, the gap is particularly large upon arrival: for individuals with no more than 3 years of residence in the host country, the employment probability gap is minus 30 percentage points, with a corresponding unemployment gap of 15 percentage points. Although this gap becomes progressively narrower with years of residence in the host country, the difference only reaches statistical insignificance after 15 years (for employment) or 9–10 years (unemployment), suggesting that refugees struggle to eliminate their initial labour market disadvantage vis-à-vis other immigrants. In Appendix Figure A 2 we display these assimilation profiles in employment probabilities separately for women (A) and men (B). As shown in Table 4, the refugee gap tends to be smaller for women than for men: upon arrival in the host country, refugee women are 23 percentage points less likely to be employed than similar female immigrants, while the gap for men is 33 percentage points. In addition, Figure A 2 shows that women catch up with other immigrants at a faster pace than refugee men. Indeed, whereas the difference in employment probability between refugee and other immigrant women is not statistically significant after 11–14 years in the host country, the refugee gap among men only disappears completely 20 years after arrival.

3.2. Health and Language

In this section, we extend our analysis to immigrants' outcomes outside the labour market and study refugee–migrant differences in health status and social integration (as measured by host country language proficiency). Both variables are measured at the moment of interview rather than upon entry, meaning that although they may reflect differences between refugees and other migrants on arrival, they are also the result of differences in their integration trajectories. One likely determinant of refugees' poorer performance in the labour market is the well-documented initial gap in physical and mental health between refugees and other migrants, which results directly from the traumatic experiences associated to forced displacement (Burnett and Peel 2001; Porter and Haslam 2005). This initial gap can either be bridged or widened by the quality of the integration process in the host country. Because the EULFS questionnaire contains no direct questions on respondent health status, we shed light on this issue using information from other items. For example, the question on labour market status, asked of all interviewees, includes a 'permanently disabled' category into which only 2.8 percent of the immigrant sample falls. Refugees, in contrast, as panel A of Table 5 shows, are 1.4–1.8 percentage points more likely to

report a permanent disability than comparable immigrants (columns 1–3). Columns 4–6 of panel A then address another health-related outcome: the reason for the job search inactivity of unemployed individuals who report no such effort in the four weeks prior to interview. We exclude from this sub-sample all those who previously self-identified as having a permanent disability. Of the remainder, approximately 9 percent answered that health or disability prevented them from job hunting, with refugees 9 percentage points more likely to give this response than comparable immigrants.

Table 5 – Refugee-Immigrant Gaps in Health and Language

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A - Health						
	LM status: permanently disabled			Reason for not searching an employment: health or disability		
Refugee	0.014** (0.006)	0.016*** (0.005)	0.018*** (0.005)	0.096*** (0.028)	0.086*** (0.028)	0.090*** (0.027)
Observations	58,014	58,014	58,014	10,645	10,645	10,645
Panel B - Host Country Language						
	Obstacle to employability: lack of proficiency			Low proficiency		
Refugee	0.053*** (0.019)	0.046*** (0.018)	0.044*** (0.016)	0.043*** (0.016)	0.027* (0.015)	0.030** (0.013)
Observations	38,940	38,940	38,940	31,693	31,693	31,693
Host Country*Year	YES	YES	YES	YES	YES	YES
Gender, Age, Education	YES	YES	YES	YES	YES	YES
Source Area	YES	YES		YES	YES	
Entry Cohort*Host Country FE		YES	YES		YES	YES
Entry Cohort*Source Area FE			YES			YES

Notes. The table reports the coefficients for a refugee migrant dummy, estimated in linear probability regressions in which the dependent variables are dummies equal to one if the respondent reports (a) a permanent disability (Panel A, columns 1–3); (b) health or disability issues as the main reason for not actively job hunting (columns 4–6); (c) a lack of fluency in the host country language as an obstacle to employability (Panel B, columns 1–3); and (d) a “beginner or less” level of proficiency in the host country language. The sample comprises non-EU15 immigrants aged 25–64. All specifications include destination country–observation year interaction dummies. “Gender, Age, Education” are dummy variables for gender, five–year age groups and at most upper secondary or tertiary education (with at most lower secondary education as the excluded category). “Source Area FE” are dummy variables covering the seven major source regions. “Entry cohort FE” are dummy variables for year (or groups of years) of arrival in the host country. “Host country FE” are dummies for the twenty destination countries in the sample. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Because language proficiency is one of the crucial determinants of integration in the host country (Chiswick and Miller 2014), it is rational for migrants to select a destination country based also on their own language skills and invest in learning the host country language before migrating. Forced migration, however, typically prevents refugees from carefully planning their movement and

optimally choosing their destinations. We can thus expect refugees to have lower language proficiency on average upon arrival than comparable migrants, and this initial gap can then increase or decrease with years of residence in the host country. When asked in both the 2008 and 2014 wave about the main obstacle to their employability in the host country, about one fourth of the immigrant respondents identified lack of proficiency in the host country language, with refugees 4–5 percentage points more likely than other migrants to make this choice (Table 5, panel B, columns 1–3). This pattern is mirrored in responses to the 2014 module, where we find that whereas about 13 percent of the immigrant worker sample report having low language proficiency in speaking the main host country language, this share increases by 3–4 percentage points among the refugee population (see columns 4–6 in panel B).¹³

4. The Role of Conditions at Arrival

The first part of our empirical analysis has documented the existence (and persistence) of an important gap in labour market outcomes between refugees and other migrants with similar observable characteristics (section 3). Notably, the gap remains sizeable even when comparing refugees and migrants within finely-defined cells that absorb unobservable characteristics and shocks common to all foreign born individuals who, for instance, emigrated from a certain area in the same year or arrived in a specific host country at the same time. In this section, we investigate potential determinants of the observed differential socio-integration path that refugees and other migrants experience. In particular, we focus on the role of initial economic and policy conditions upon arrival in the host country. Albeit common to refugees and migrants belonging to the same arrival cohort, economic conditions at the time of immigration may potentially have a stronger impact on future outcomes of the former group. We explore this conjecture in section 4.1. Even if arrived at the same time in the same country, refugees and migrants are exposed to different policy regimes, since asylum policies exclusively affect the former group. Thus, in sections 4.2 and 4.3, we concentrate on a relatively common scheme in European countries – i.e. spatial Dispersal Policies of refugees – and on their impact on the refugee gap.

¹³ The 2014 survey directly asks immigrant interviewees to rate their fluency in speaking the main host country language on a four point scale. We use dummy equal to one if the respondent chooses the lowest level ('beginner or less').

Empirically, we assess the role of arrival conditions in explaining the refugee labour market gap by including in our main estimating equation (1) a variable that measures conditions at entry in the host country (W_{dT}) and its interaction with the dummy for refugee status (ref_{isdTt}). We estimate the following equation:

$$y_{isdTt} = \beta_1 ref_{isdTt} + \beta_2 W_{dT} + \beta_3 ref_{isdTt} \times W_{dT} + \gamma X_{isdTt} + \mu_{dt} + \varphi_T + \omega_s + \varepsilon_{isdTt} \quad (\text{eq.2})$$

where the coefficients β_1 , β_2 and β_3 capture the average gap in labour market outcome y_{isdTt} between refugees and other migrants, the effect of initial conditions on all migrants and the differential effect of initial conditions on refugees, respectively. All other variables and fixed effects are defined as in equation (1). As in the previous part of the analysis, we then gradually include two-way fixed effects for host country–entry cohorts (which absorb the variable W_{dT}) and for area of origin–entry cohorts. In all regressions, standard errors are clustered at the entry cohort–host country level, which is the level of variation of the initial conditions measure.¹⁴

4.1. Arriving During a Recession

A potential explanation for the observed refugee-migrant gap may be that economic conditions upon arrival in the host country produce differential effects for refugees than for economic migrants. Several studies document that labour market conditions at the time of worker entry may have long-lasting consequences for individual careers (Kahn, 2010; Oreopoulos et al., 2012; Altonji et al. 2016). Because refugee migration decisions are driven mostly by push rather than pull factors (Hatton, 2009), refugees are likely to be less responsive to the state of the host country’s economy than economic migrants, increasing their chances of arriving during economic downturns and of permanently hindering their future labour market prospects. Over and above the potential differences in arrival timing, scarring effects from migrating in a recession may be more profound and/or persistent for refugees relative to other migrants, because the former typically start off with a substantial labour market penalty. In order to explore the effects of economic conditions at arrival, we match each individual in our sample with a dummy variable equal to one if the host country was experiencing a recession in the year of the respondent’s arrival. We define

¹⁴ In all regressions presented in this section, clustering standard errors at the host country level delivers very similar standard errors. This latter choice, however, imply working with a relatively small number of clusters (we have 20 host countries in the sample) which may lead to incorrect inference. Alternative standard errors can be provided upon request.

a country as being in recession if it is experiencing a negative annual growth of its real per capita GDP, which information is available for interviewees who arrived after 1995, reducing our sample to approximately 44.2 thousand observations.¹⁵ The results of estimating equation (2) for employment (columns 1-4), participation (columns 5-8) and unemployment (columns 9-12) are reported in Table 6. First, we re-estimate the baseline refugee gaps for each outcome on this restricted sample and report them in columns 1, 5 and 9. Since we are now using a sample of migrants with relatively shorter duration of residence in host countries and the gaps decrease with years since migration (see Figure 3), we find larger gaps than those estimated on the full sample (and reported in Table 3 and Table 4). We then include the recession indicator and its interaction with refugee status, reporting estimated coefficients in columns 2, 6 and 10. These estimates show that arriving in a country during a recession produce persistently negative effects on labour market integration of all migrants, implying a 6.3 percentage point lower probability of being employed at the time of survey, 5.3 percentage point lower probability of being active and 2.8 percentage points higher unemployment probability. However, controlling for these scarring effects does not reduce the estimated refugee gap, suggesting no systematic differences in the probability of arriving in the host country during a recession.¹⁶ The estimated coefficients on the interaction term, instead, are small and not significantly different from zero, refuting the hypothesis that facing adverse economic conditions at entry into the host country produces stronger negative effects for refugees than for other comparable immigrants. We further test this last finding by first including a full set of two-way fixed effects (columns 3, 7 and 11) and by then restricting the sample to migrants with at most 10 years of residence in the host country, for which scarring effects should be potentially more visible (columns 4, 8 and 12). In both cases, the estimated coefficient on the interaction between the recession and refugee dummy remains small and not significant.

¹⁵ For respondents whose year of arrival is measured as an interval rather than an exact year, the recession indicator equals one if there was at least one recession year in the interval considered.

¹⁶ This same conclusion could be reached by observing that including entry cohort–host country fixed effects in Table 2, column 6, (and in even columns in Table 3) does not substantially reduce the estimated gap.

Table 6 – Economic Conditions at Entry and Scarring Effects

Outcome: Years since migration:	Employment				Participation				Unemployment			
	All (1)	All (2)	All (3)	0-10 (4)	All (5)	All (6)	All (7)	0-10 (8)	All (9)	All (10)	All (11)	0-10 (12)
Refugee	-0.140*** (0.017)	-0.142*** (0.017)	-0.143*** (0.017)	-0.179*** (0.030)	-0.105*** (0.018)	-0.108*** (0.019)	-0.109*** (0.019)	-0.132*** (0.032)	0.066*** (0.012)	0.064*** (0.013)	0.068*** (0.012)	0.103*** (0.020)
Recession_T		-0.063*** (0.016)				-0.053*** (0.012)				0.028** (0.013)		
Refugee*Recession_T		-0.009 (0.038)	-0.006 (0.036)	0.029 (0.045)		0.019 (0.052)	0.012 (0.057)	0.031 (0.068)		0.048 (0.062)	0.026 (0.056)	-0.010 (0.057)
Baseline controls and FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Entry Cohort*Host Country FE			YES	YES			YES	YES			YES	YES
Entry Cohort*Source Area FE			YES	YES			YES	YES			YES	YES
Observations	44,207	44,207	44,207	30,175	44,207	44,207	44,207	30,175	34,599	34,599	34,599	23,411

Notes. The table reports estimated coefficients from linear regressions of employment (columns 1-4), participation (columns 5-8) and unemployment probability (columns 9-12) on a refugee migrant dummy, a recession indicator (at the time of migration, T) and the interaction term. The recession dummy is equal to one for years in which real GDP per capita growth is negative, and zero otherwise. The sample comprises non-EU15 immigrants aged 25–64 who have arrived from year 1995 onward. “Baseline controls and FE” include: destination country–observation year interaction dummies; dummy variables for gender, five–year age groups, education levels and source areas. “Entry cohort” are dummy variables for year (or groups of years) of arrival in the host country. “Host Country” are dummy variables for destination countries. “Source Area” are dummy variables covering the seven major source regions (13 EU new member states; other European countries; North Africa and Middle East; other African countries; South and East Asia; North America and Oceania; Latin America). Standard errors (in parentheses) are clustered at the entry cohort–host country level: *** p<0.01, ** p<0.05, * p<0.1

4.2. The Exposure to a Dispersal Policy

We now direct our attention to the role of asylum policies in shaping refugees' labour market disadvantage. Refugees and other migrants are exposed to different policy regimes, at least in the initial period of their host country residence. Because asylum seekers generally apply for asylum as soon as they arrive in a safe host country, asylum policy differences at the time of arrival can influence subsequent integration outcomes. In this section, we focus on the geographic *dispersal policies* (hereafter, DPs) of asylum seekers and refugees adopted by several European countries in recent years, which commonly requires that individuals seeking humanitarian protection settle in specific locations across the receiving country. DPs go well beyond the common practice in host countries of offering some temporary accommodation in dedicated reception facilities to recently arrived asylum seekers. Although they display considerable cross country heterogeneity, DPs typically entail a reform of the national asylum policy to establish a clear legal framework for the allocation process, they may apply to asylum seekers as well as to individual with recognized refugee status, they often use social housing to accommodate the subjects for relatively long periods of time and they may impose restrictions to mobility and mechanisms that incentivize refugees to permanently settle in assigned locations. DPs have been implemented in Denmark (since 1986; Damm 2009; Azlor et al. 2020), Finland (since 1988; Andersson et al. 2010), Germany (since 1991; Bahar et al. 2019), Ireland (since 2000; Proietti and Veneri 2019), Netherlands (since 1987; Van Selm, 2000), Norway (since 1994; Bratsberg et al. forthcoming), Sweden (from 1985 to 1994; Edin et al. 2003; Åslund and Rooth 2007), Switzerland (since 1988; Couttenier et al. 2019; Martén et al. 2019) and the UK (since 2000; Bell et al. 2013).¹⁷ DPs typically pursue the aim of preventing ethnic enclave formation by scattering refugees across the country and often away from larger cities. The effects of DPs on refugees' labour market integration are *a priori* uncertain. If ethnic enclaves are detrimental to immigrant labour market integration, then DPs may facilitate refugees' economic success. However, being dispersed may also have negative effects. For example, not only does dispersal prevent individuals from relying on co-nationals' or relatives' networks to find a job, but limited geographic mobility reduces the chances of finding employment and good job matches. In addition, refugees are often allocated to relatively disadvantaged areas, where accommodation is cheaper but labour demand is weaker.

¹⁷ See Appendix Table A 4 for further details and references on DPs in Europe.

Although several papers have exploited DPs – and their arguably exogenous allocations of refugees across different areas – to identify causal effects in different contexts, we have almost no evidence on the overall impact of these policies on the refugees themselves (with the notable exception of work by Edin et al. 2004, on Sweden). We study whether refugees affected by DPs have subsequent labour market outcomes that are significantly different from those of unaffected refugees. To identify the effects of DPs on the refugee gap, we follow a similar approach to the analysis of the effects of recessions discussed in section 4.1 and we re-estimate equation (2), replacing the recession indicator with a dummy that identify entry cohorts that arrived in host countries where a DP was in place.¹⁸ As in all previous regressions, we condition on the usual set of controls (age, gender, education, area of origin, host country by year FE) and capture any entry condition common to both migrants and refugees (including the presence of a DP) by conditioning on entry cohort–host country fixed effects. Our parameter of interest is the interaction term between the refugee dummy and the DP indicator which identifies the effect of DPs on the labour market gaps between refugees and other migrants. We rely on variation in policy exposure across entry cohorts within the same country (i.e. comparing cohorts who arrived in a specific country before and after the introduction or termination of the DPs) and within entry cohorts across countries (i.e. comparing the same arrival cohort across countries with and without active DPs). Two potential concerns regarding the causal interpretation of our estimates are worth discussing here. The first issue is that governments might choose when to introduce (or withdraw) a dispersal policy based on such considerations as economic recessions (or booms). In our case, however, this particular concern is of minimal importance because as long as the effects of economic conditions at entry are similar for refugees and migrants (as shown in section 4.1), our identification strategy captures them by means of entry cohort–host country fixed effects. A second set of potential issues is the presence of systematic differences in refugees’ unobservable characteristics across cohorts of arrivals in European countries and refugee self-selection into potential destination countries, which may be affected by the introduction of a dispersal policy. We deal with both types of concerns by gradually including in our specification interaction terms of the refugee dummy with entry cohort and with host country fixed effects. These interaction terms capture differences in

¹⁸ For respondents whose year of arrival is measured as an interval rather than an exact year, the DP indicator equals one if a dispersal policy was in place in more than half of the years included in the interval. Estimates are robust to alternative options (as for instance assigning value one to the DP indicator if a dispersal policy was in place in at least one year) and are available upon request.

unobservable characteristics of refugees belonging to different arrival cohorts or who migrated to different host countries which may generate spurious correlations with the exposure to DPs. Note that once both set of interaction terms are included in the specification, our regression equation is equivalent to a triple Difference-in-Difference specification.

Estimation results are reported in Table 7. We look at employment in columns 1-3. Over and above the usual baseline controls and set of fixed effects (individual characteristics, host country by survey year FE, area of origin FE) the specification in column 1 includes cohort-specific host country FE that absorb the DP coefficient entered alone. Thus, column 1 reports the coefficient on the refugee indicator as well as that on the interaction between refugee and the DP indicator. The latter coefficient indicates whether refugees who arrived when a DP was in place have a larger/smaller employment gap with migrants, compared to refugees who were not exposed to the policy. In column 2 we further enrich the model by including refugee-specific entry cohort FE that absorb the refugee dummy. Finally, column 3 adds refugee-specific host country FE, leading to the triple Diff-in-Diff specification. The size of the *Refugee*DP* interaction coefficient is relatively stable across specifications, and in the most complete one (column 3) suggests that the refugee-migrant gap in employment is 4.5 p.p. larger for refugees who arrived when a DP was in place than for those who were not exposed to such a policy. Columns 4 to 12 replicate the same analysis for participation, unemployment and the probability of being employed in a skilled occupation. The negative DP effect on refugee outcomes is confirmed for participation (columns 4-6), with dispersed refugees being 5.3 p.p. less likely to be active than non-dispersed ones, while the coefficients for unemployment are small and imprecise (columns 7-9). Contrary to the previous outcomes, the positive coefficient on the interaction term estimated for skilled occupation (columns 10-12) suggests that DPs may reduce rather than increase refugee gaps, although these estimates are not statistically significant.

Table 7 – Dispersal Policies and Labour Market Outcomes

	Employment			Participation			Unemployment			Skilled occupation		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Refugee	-0.059*** (0.022)			-0.046*** (0.018)			0.026 (0.017)			-0.087*** (0.017)		
Refugee * Dispersal Policy_T	-0.053 (0.036)	-0.047** (0.022)	-0.045* (0.027)	-0.045 (0.028)	-0.040* (0.021)	-0.053** (0.023)	0.016 (0.026)	0.023 (0.018)	0.011 (0.022)	0.026 (0.026)	0.026 (0.024)	0.042 (0.036)
Baseline controls and FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Entry Cohort*Host Country FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Refugee*Entry Cohort FE		YES	YES		YES	YES		YES	YES		YES	YES
Refugee*Host Country FE			YES			YES			YES			YES
Observations	60,477	60,477	60,477	60,477	60,477	60,477	47,274	47,274	47,274	41,204	41,204	41,204

Notes. The table reports estimated coefficients from linear regressions of employment (columns 1-3), participation (columns 4-6), unemployment (columns 7-9) and skilled occupation probability on a refugee migrant dummy and the interaction term between the refugee dummy and a Dispersal Policy indicator (which is equal to one if a DP was in place in the country of destination in the year of arrival, T). The sample comprises non-EU15 immigrants aged 25–64 who have arrived in Europe from year 1980 onward. “Baseline controls and FE” include: destination country–observation year interaction dummies; dummy variables for gender, five–year age groups, education levels and source areas. “Entry cohort” are dummy variables for year (or groups of years) of arrival in the host country. . “Host Country” are dummy variables for destination countries. Standard errors (in parentheses) are clustered at the entry cohort–host country level: *** p<0.01, ** p<0.05, * p<0.1

In Table 8 we study heterogeneity of the DPs effects on refugees' employment (panel A) and participation (panel B) by years since migration, gender, and educational level. Because the mobility restrictions imposed by DPs are generally temporary, we might expect their effect to fade out with time spent in the host country as refugees gradually relocate to better areas. Indeed, the negative effects of DPs are large and strongly significant for individuals with at most 10 years of residence (column 1), while they approach zero and become statistically non-significant for refugees with longer residence duration (column 2). Dispersal policies seem to have a larger negative effect on men compared to women, especially in participation (columns 3-4), and on relatively lower educated individuals (columns 5-6).

Overall, the results from this section suggest that the detrimental effects of DPs on the labour market performance of dispersed refugees clearly prevail over their potentially positive effects we discussed at the beginning of this section. Since these effects are observed several years after arrival in European countries, there must be mechanisms that generate persistence in DPs well beyond the initial allocation. We explore the role of geographical dispersion in the next section.

Table 8 – Heterogeneity in Dispersal Policy Effects

	YSM 0-10	YSM >10	Men	Women	Tertiary education	Lower/Upper sec. educ.
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A - Employment						
Refugee*Dispersal Policy_T	-0.175*** (0.066)	0.022 (0.045)	-0.047 (0.036)	-0.031 (0.043)	-0.036 (0.058)	-0.058* (0.030)
Panel B - Participation						
Refugee*Dispersal Policy_T	-0.290*** (0.060)	0.015 (0.031)	-0.060** (0.030)	-0.034 (0.031)	-0.053 (0.051)	-0.058** (0.026)
Baseline controls and FE	YES	YES	YES	YES	YES	YES
Entry Cohort*HostCountry FE	YES	YES	YES	YES	YES	YES
Refugee*Entry Cohort FE	YES	YES	YES	YES	YES	YES
Refugee*Host Country FE	YES	YES	YES	YES	YES	YES
Observations	30,199	30,278	27,538	32,935	14,176	46,291

Notes. The table assess the heterogeneity of the Dispersal Policy effect on employment and participation for individuals with different number years of experience in the destination country (0 to 10 years since migration vs more than 10 years; column 1-2), gender (column 3-4), and educational level (columns 5-6). The table reports the estimated coefficients for the interaction between a refugee migrant dummy and an indicator for a DP being active in the destination country at the migrant's time of arrival (T). The sample comprises non-EU15 immigrants aged 25–64 who have arrived in Europe from year 1980 onward. "Baseline controls and FE" include: destination country–observation year interaction dummies; dummy variables for gender, five–year age groups, education levels and source areas. "Entry cohort" are dummy variables for year (or groups of years) of arrival in the host country. "Host Country" are dummy variables for destination countries. Standard errors (in parentheses) are clustered at the entry cohort–host country level: *** p<0.01, ** p<0.05, * p<0.1.

4.3. The Geographical Distribution of *Dispersed Refugees*

By altering refugees' geographical distribution, DPs might affect their labour market outcomes if *dispersal areas* differ systematically in characteristics that favour economic integration with respect to the areas that refugees would have chosen in the absence of the policy. Although we cannot observe this counterfactual distribution, we can compare the residential choices of *dispersed* and *non-dispersed* refugees and contrast them with those of other migrants in our sample in order to learn about the spatial effects of the DPs in the medium-long run. We investigate this issue by exploiting residential data included in the EULFS. In particular, we know the degree of urbanisation of the area of current residence for all respondents, while we use the region identifier (NUTS1 or NUTS2 level; available for the majority of host countries in our sample) to match individuals with regional characteristics such as population density, GDP per capita and whether the region hosts the country capital.¹⁹ In Table 9, we perform two empirical tests. First, in order to assess the role of geography in explaining some of the observed refugee-migrant gap in labour outcomes, we re-estimate our main regression equation (1) with geographical variables as outcomes and study whether refugees differ systematically from other migrants in their residential choices (Table 9, odd columns). Second, to study whether the exposure to DPs generates persistent differences in residential patterns, we estimate the same specifications presented in Table 7 for geographical variables (Table 9, even columns). In both cases, we consider four outcomes: probability of living in urban areas (columns 1-2), regional population density (columns 3-4), regional GDP per capita (columns 5-6) and probability of living in the capital region (columns 7-8). We use the full estimation sample in Panel A, while we restrict it to migrants with less than 10 years of residence in Panel B. Our estimates imply that on average refugees' residential choices do not systematically differ from those of other migrants (odd columns, Panel A), although some significant differences are found for the sample of more recently arrived migrants (odd columns, Panel B). In particular, the negative coefficients in columns 3 and 7 of Panel B suggest that refugees with at most 10 years of residence in host countries are more likely to live in relatively less densely populated regions (about 20 percent less with respect to the mean) and in relatively

¹⁹ The degree of urbanisation (*degurba*) variable in the EULFS classifies areas into three groups – cities, towns and rural areas – according to their population density. Information on the region (NUTS2) of residence is available for all countries in our sample except Cyprus, Luxembourg and Netherlands, leaving us with a sample of approximately 50 thousand migrants.

poorer regions (with approximately 1.5 thousand Euros lower GDP per capita, with respect to an average of 32.2 thousand). These findings suggest that refugees may suffer from a disadvantage in making their initial residential decisions but they then converge to the pattern observed for other migrants, leaving little role to geography in explaining the refugee-migrants gap in labour market outcomes we discussed in section 3.²⁰ Our results for the effects of DPs on refugees' residential choices – reported in even columns of Table 9 – are instead stronger and more conclusive. Refugees who were exposed to a DP at the time of their arrival in the host country currently reside in regions that are less densely populated (columns 2 and 4) and have a lower GDP per capita (column 6). In addition, they are less likely to live in country capital regions (column 8).

Table 9 – Geography and Dispersal Policies

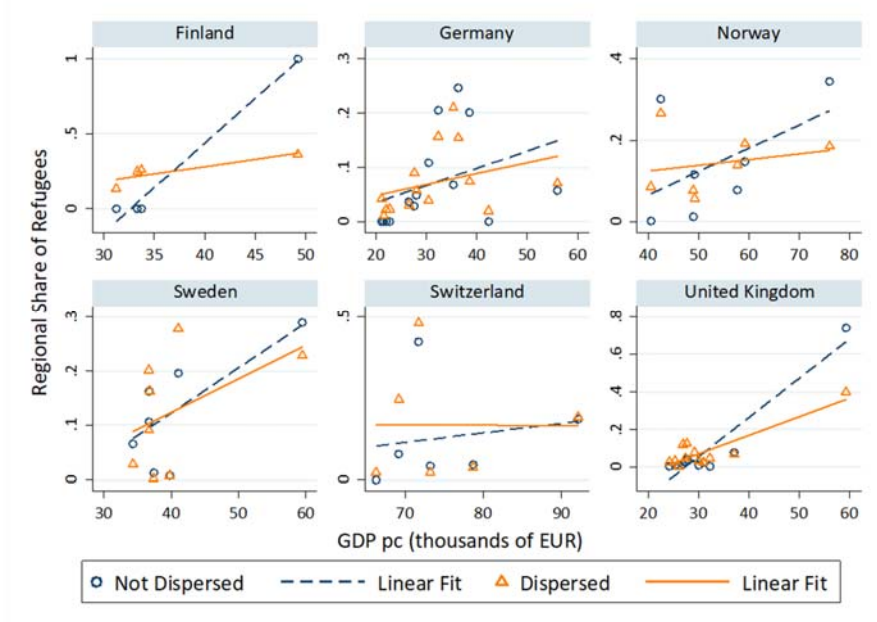
	Urban area		Regional population		Regional GDP per		Capital region	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A - YSM: all								
Refugee	0.017		46.645		-0.298		-0.021	
	(0.020)		(81.159)		(0.632)		(0.024)	
Refugee * Dispersal Policy_T		-0.017		-448.773***		-3.955***		-0.143***
		(0.027)		(123.707)		(0.891)		(0.031)
Mean outcome	0.625	0.625	760.46	760.46	33.83	33.83	0.280	0.280
Observations	60,010	60,010	50,634	50,634	50,634	50,634	50,634	50,634
Panel B - YSM: 0-10								
Refugee	0.022		-145.860*		-1.530**		-0.017	
	(0.033)		(76.861)		(0.666)		(0.023)	
Refugee * Dispersal Policy_T		-0.211***		-532.591***		-4.155**		-0.214***
		(0.069)		(187.919)		(1.666)		(0.066)
Mean outcome	0.633	0.633	724.23	724.23	32.22	32.22	0.256	0.256
Observations	29,955	29,955	25,301	25,301	25,301	25,301	25,301	25,301
Baseline controls and FE	YES	YES	YES	YES	YES	YES	YES	YES
Entry Cohort*Host Country FE	YES	YES	YES	YES	YES	YES	YES	YES
Refugee*Entry Cohort FE		YES		YES		YES		YES
Refugee*Host Country FE		YES		YES		YES		YES

Notes. The table reports estimated coefficients from linear regressions of geographical outcomes on a refugee dummy (odd columns) and on the interaction of the refugee dummy with a Dispersal Policy indicator (even columns). The DP dummy is equal to one if a DP was in place in the country of destination in the year of arrival (T). The outcomes are: probability of living in urban areas (columns 1-2), regional population density (columns 3-4), regional GDP per capita (measured in in thousands of euros, at current prices; columns 5-6) and probability of living in the capital region (columns 7-8). We use the full estimation sample in Panel A, while we restrict it to migrants with less than 10 years of residence in Panel B. The sample comprises non-EU15 immigrants aged 25–64 who have arrived in Europe from year 1980 onward. “Baseline controls and FE” include: destination country–observation year interaction dummies; dummy variables for gender, five–year age groups, education levels and source areas. “Entry cohort” are dummy variables for year (or groups of years) of arrival in the host country. . “Host Country” are dummy variables for destination countries. Standard errors (in parentheses) are clustered at the entry cohort–host country level: *** p<0.01, ** p<0.05, * p<0.1

²⁰ Indeed, estimating equation (1) for employment and other labour market variables with the inclusion of a full set of regional fixed effects only marginally reduces the refugee-immigrant gap. Results can be provided upon request.

Migrants are characterized by high mobility and, when left free to choose where to settle, they typically choose locations that maximise their economic and social inclusion. Our estimates suggest that DPs impose important constraints on these choices for exposed refugees, persistently affecting their residential patterns and inducing them to reside in areas characterized by less favourable conditions. Figure 4 provides a visual impression of the effect of DPs on the regional distribution of refugees in host countries. For the subset of countries that have adopted a DP and for which the information on respondents' region of residence is available in the EULFS (i.e. Finland, Germany, Norway, Sweden, Switzerland and UK), we can compute the shares of dispersed and non-dispersed refugees residing in each region and plot them against the regional GDP per capita. Figure 4 shows a clear positive gradient in all countries (with the partial exception of Switzerland, where the relationship is almost flat) for both groups of refugees, suggesting that they all tend to cluster in wealthier regions. In all countries, however, the gradient is remarkably steeper for non-dispersed refugees, implying that the DPs permanently hinder the ability of affected refugees to move into areas that offer better economic opportunities. Our findings support recent work by Bansak et al. (2018) and Trapp et al. (2018) showing that improving the match between settled refugees and assigned areas would produce large employment gains.

Figure 4 – Geographical Distribution of Refugees and Regional GDP pc, by Dispersal Status



Notes. The figure plots the shares of *dispersed* and *non-dispersed refugees* residing in each region against the regional GDP per capita (in current market prices; source: Eurostat and Swiss Federal Statistical Office). We produce a graph for each host country in the subset of countries that have adopted a DP and for which the information on respondents' region of residence is available in the EULFS.

5. Conclusions

The major refugee crisis experienced in Europe in recent years has positioned concerns about the successful integration of asylum seekers into host societies and their labour markets at the centre of the current economic and political debate. This paper contributes to this discourse by providing a comprehensive analysis of the labour market performance of refugees vis-à-vis comparable migrants across several European countries and over time. In particular, using the most recent available cross-European data, we document that refugees in European countries have experienced slower and more difficult economic integration than other migrants with very similar characteristics (e.g. demographics, origin area, entry cohort), a ‘refugee gap’ that is substantial and persistent over time. We also provide evidence suggesting that asylum policies in host societies – focusing in particular on dispersal policies of asylum seekers and refugees - can contribute to widening the observed refugee-migrant gaps.

Our findings raise serious concerns about the future economic integration of asylum seekers who arrived in EU countries during the last few years. The fact that the current refugee crisis has been characterized by a sudden and vast inflow of individuals in a relatively short time span will probably add to the challenges with which host countries must deal. Part of the difficulties faced by refugees trying to integrate into receiving societies are inherently associated with the forced nature of their migration. For example, exposure to conflict, traumatic experiences and unplanned migrations all generate important hurdles and undesirable legacies that prevent asylum seekers from making a successful start upon arrival. What happens next, however, is at least partially in the hands of host governments. If removing the barriers that prevent all migrants from rapidly assimilating to the employment and earning profiles of natives falls well beyond the scope of host-countries asylum policies, a more realistic and viable target could be that of ensuring that refugees assimilate at least as fast as other comparable migrants. Our analysis suggests that governments may negatively influence the speed and quality of refugee integration by implementing potentially suboptimal and counterproductive asylum policies. One reason for such implementation is the important trade-off these governments face when making decisions in this policy area. That is, whenever they aim to reduce immigrant inflows by making their policies more restrictive and their countries less attractive (for instance, by subjecting refugees to dispersal policies), they also tend to affect existing stocks of immigrants and/or refugees, potentially harming their future prospects

for socio-economic integration. At the same time, short-term political considerations may induce policy makers to favour measures that minimize immediate costs rather than maximizing long-run benefits, leading to potential underinvestment in refugee integration. Dispersing asylum claimants and refugees in relatively deprived areas, for instance, may be justified by immediate budget savings from lower accommodation costs, but these savings should be weighed against the negative effects of refugee dispersal on their future labour market integration. Hence, an additional challenge posed by the current refugee crisis is how to overcome myopia in designing European asylum policy.

6. References

- Altonji Joseph G., Lisa B. Kahn, and Jamin D. Speer. 2016. *Cashier or Consultant? Entry Labor Market Conditions, Field of Study, and Career Success*, Journal of Labor Economics, 34(S1), S361-S401.
- Andersson, R., Dhalmann, H., Holmquist, E., Kauppinen, T. M., Turner, L. M., Skifter Andersen, H. et al., 2010. *Immigration, housing and segregation in the Nordic welfare states*, Helsinki: Department of Geosciences and Geography, University of Helsinki.
- Åslund, Olof, and Rooth, Dan-Olof, 2007. *Do when and where matter? Initial labour market conditions and immigrant earnings*. Economic Journal, 117(518), 422–448.
- Azlor, Luz, Damm, Anna Pill and Schultz-Nielsen, Marie Louise, 2020. *Local labour demand and immigrant employment*. Labour Economics, In Press.
- Bahar, D., Özgüzel, C., Hauptmann, A. and Rapoport, H., 2019. *Migration and post-conflict reconstruction: The effect of returning refugees on export performance in the former Yugoslavia*. IZA DP N.12412.
- Bansak, Kirk, Jeremy Ferwerda, Jens Hainmueller, Andrea Dillion, Dominik Hangartner, Duncan Lawrence, and Jeremy Weinstein. 2018. *Improving refugee integration through data-driven algorithmic assignment*. Science, 359(6373), 325-329
- Battisti, M., Peri, G., & Romiti, A., 2016. *Dynamic effects of Co-Ethnic networks on immigrants' economic success*. NBER Working Papers 22389. National Bureau of Economic Research.
- Beaman, Lori A., 2012. *Social networks and the dynamics of labour market outcomes: evidence from refugees resettled in the US*. Review of Economic Studies, 79(1), 128–161.
- Becker, Sascha O. and Ferrara, Andreas, 2019. *Consequences of forced migration: A survey of recent findings*. Labour Economics, 59(C), 1-16
- Bell, Brian, Fasani, Francesco, Machin, Stephen, 2013. *Crime and immigration: evidence from large immigrant waves*. Review of Economics and Statistics, 21(3), 1278–1290.
- Bevelander, Pieter, 2016. *Integrating refugees into labor markets*. IZA World of Labor, 269.
- Bevelander, Pieter, Pendakur Ravi, 2014. *The labour market integration of refugee and family reunion immigrants: a comparison of outcomes in Canada and Sweden*. Journal of Ethnic and Migration Studies, 40(5), 689–709.
- Borjas, G.J.. 1999 *The economic analysis of immigration*, in O.C. Ashenfelter and D. Card (eds), Handbook of Labor Economics 3A, 1697-1760, Elsevier.
- Bratsberg, Bernt, Raaum, Oddbjorn, Roed, Knut, 2014. *Immigrants, labour market performance and social insurance*. Economic Journal, 24(580), 644–683.

Bratsberg, Bernt, Ferwerda, Jeremy, Finseraas, Henning and Kotsadam, Andreas. (forthcoming). *How Settlement Locations and Local Networks Influence Immigrant Political Integration*, American Journal of Political Science.

Brell, Courtney, Christian Dustmann, and Ian Preston. 2020. *The Labor Market Integration of Refugee Migrants in High-Income Countries*. Journal of Economic Perspectives, 34 (1): 94-121.

Burnett, Angela, Peel, Michael, 2001. *Health needs of asylum seekers and refugees*. BMJ, 322(7285), 544–547.

Chiswick, Barry R., Miller, Paul W., 2014. *International migration and the economics of language*. IZA Discussion Papers 7880.

Cortes, Kalena E., 2004. *Are refugees different from economic immigrants? Some empirical evidence on the heterogeneity of immigrant groups in the United States*. Review of Economics and Statistics, 86(2), 465–480.

Couttenier, Mathieu, Veronica Petrencu, Dominic Rohner, and Mathias Thoenig. 2019. *The Violent Legacy of Conflict: Evidence on Asylum Seekers, Crime, and Public Policy in Switzerland*. American Economic Review, 109 (12): 4378-4425.

Dagnelie, Olivier, Mayda, Anna M., and Maystadt, Jean-Francois, 2019. *The labor market integration of refugees in the United States: Do entrepreneurs in the network help?* European Economic Review, 111, 257-272.

Damm, Anna Piil, 2009. *Ethnic enclaves and immigrant labor market outcomes: quasi-experimental evidence*. Journal of Labor Economics, 27(2), 281–314.

Damm, Anna Piil and Dustmann, Christian. 2014. *Does Growing Up in a High Crime Neighborhood Affect Youth Criminal Behavior?* American Economic Review, 104(6), 1806-1832.

Dustmann, Christian and Görlach, Joseph-Simon. 2016. *Estimating immigrant earnings profiles when migrations are temporary*, Labour Economics, 41, 1-8

Dustmann, Christian, Vasiljeva, Kristine and Damm, Anna Piil., 2019. *Refugee migration and electoral outcomes*. The Review of Economic Studies, 86(5), 2035-2091.

Dustmann, Christian, Fasani, Francesco, Frattini, Tommaso, Minale, Luigi, Schönberg, Uta, 2017. *On the economics and politics of refugee migration*. Economic Policy, 32(91), 497–550.

Edin, Per-Anders, Fredriksson, Peter, Åslund, Olaf, 2003. *Ethnic enclaves and the economic success of immigrants: evidence from a natural experiment*. Quarterly Journal of Economics, 118(1), 329–357.

Edin, Per-Anders, Fredriksson, Peter, Åslund, Olaf, 2004. *Settlement policies and the economic success of immigrants*. Journal of Population Economics. 17, 133–155.

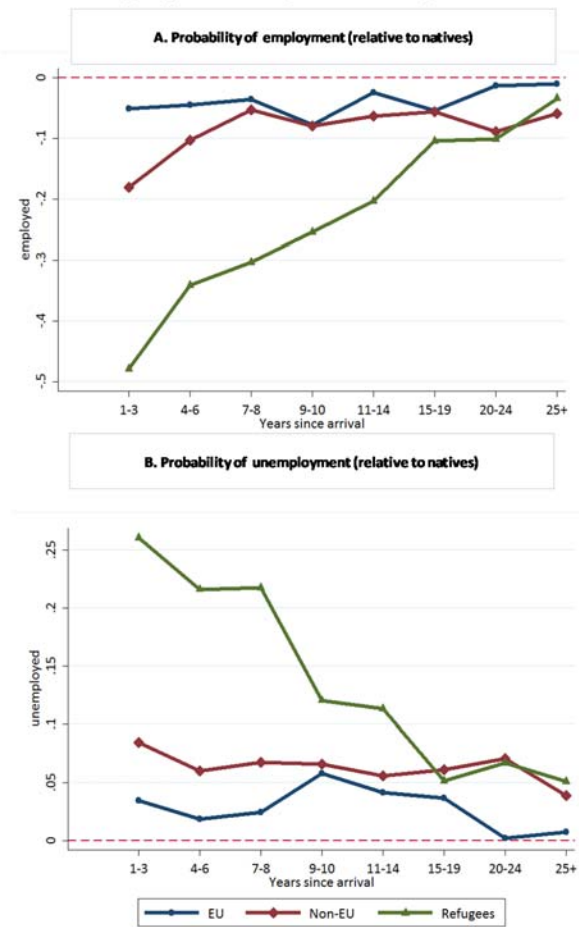
Fernández-Huertas Moraga, Jesús, Rapoport, Hillel, 2015. *Tradable refugee-admission quotas and EU asylum policy*. CESifo Economic Studies, 61, 638–72.

- Gelbach, Jonah B., 2016. *When do covariates matter? And which ones, and how much?* Journal of Labor Economics, 34(2), 509–543.
- Godøy, Anna, 2017. *Local labor markets and earnings of refugee immigrants*, Empirical Economics, 52(1), 31-58.
- Hainmueller, Jens, Hangartner, Dominik, Lawrence, Duncan, 2016. *When lives are put on hold: lengthy asylum processes decrease employment among refugees*. Science Advances, 2(8).
- Hatton Timothy J., 2009. *The rise and fall of asylum: what happened and why?* Economic Journal, 119(535), 183–213.
- Hatton, Timothy J., 2017. Refugees and asylum seekers, the crisis in Europe and the future of policy, Economic Policy, 32(91), 447-496.
- Kahn, Lisa B. 2010. *The long-term labor market consequences of graduating from college in a bad economy*. Labour Economics 17(2), 303-316.
- Kerr, Sari Pekkala and Kerr, William R. 2011. *Economic Impacts of Immigration: A Survey*, NBER Working Papers 16736, National Bureau of Economic Research.
- Luik, Marc-André, Emilsson, Henrik, Bevelander Pieter, 2016. *Explaining the male native–immigrant employment gap in Sweden: the role of human capital and migrant categories*. IZA DP No. 9943.
- Martén, Linna, Hainmueller, Jens and Hangartner, Dominik. 2019. *Ethnic networks can foster the economic integration of refugees*. Proceedings of the National Academy of Sciences, 116 (33) 16280-16285.
- Oreopoulos, Philip, Von Wachter, Till, Heisz, Andrew, 2012. *The short- and long-term career effects of graduating in a recession*. American Economic Journal: Appl. Econ., 4(1), 1–29.
- Porter, Matthew, Haslam, Nick, 2005. *Pre-displacement and post-displacement factors associated with mental health of refugees and internally displaced persons: a meta-analysis*. (JAMA) Journal of the American Medical Association, 294(5), 602–612.
- Proietti, P. and Veneri, P. forthcoming. *The Location of Hosted Asylum Seekers in OECD Regions and Cities*. Journal of Refugee Studies.
- Ruiz, I. and Vargas-Silva, C., 2018. *Differences in labour market outcomes between natives, refugees and other migrants in the UK*. Journal of Economic Geography, 18(4), pp.855-885.
- Sarvimäki, Matti, 2017. *Labor market integration of refugees in Finland*. Nordic Economic Policy Review, 7(1): 91–114.
- Trapp, Andrew C., Teytelboym, Alexander, Martinello, Alessandro, Andersson, Tommy and Ahani, Narges, 2018. *Placement Optimization in Refugee Resettlement*, WP 23, Lund University, Department of Economics.

Van Selm, Joan. 2000. *Asylum in the Netherlands: A Hazy Shade of Purple*. *Journal of Refugee Studies*, 13(1), 74-90

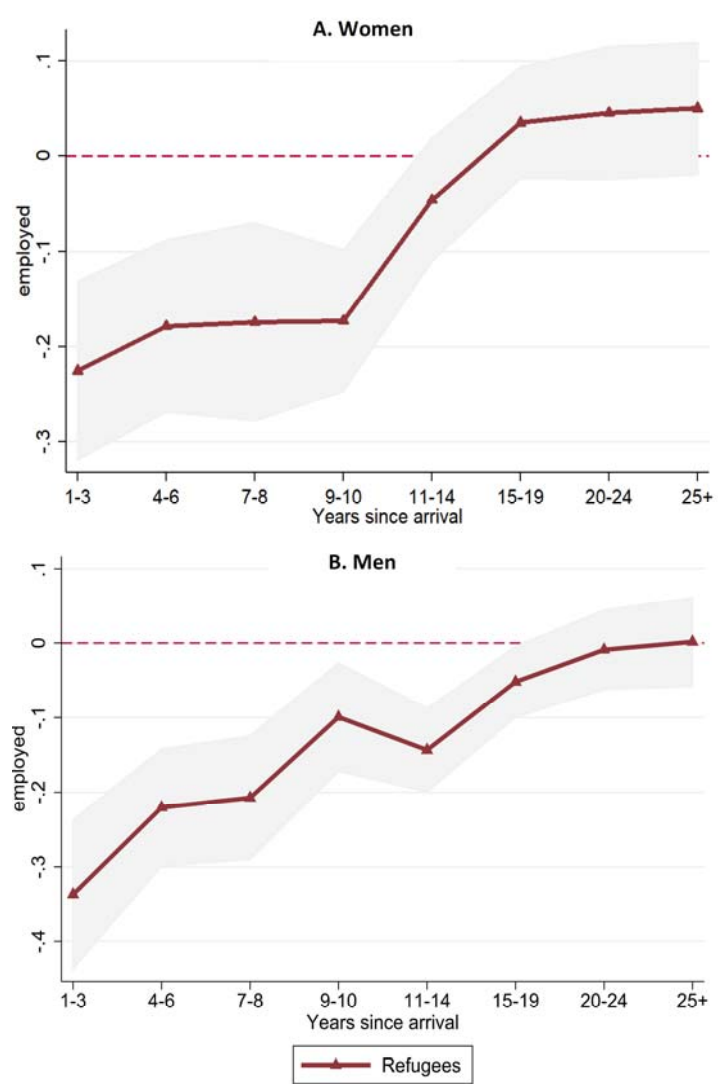
7. Appendix Figures

Figure A 1 – Employment and Unemployment Gaps with Respect to Natives, by Years Since Arrival



Notes. The figure outlines the evolution of the percentage point difference in employment probability (panel A) and unemployment probability (panel B) between natives and EU migrants (blue circles), non-EU migrants (red diamonds) and refugees (green triangles) by years in the host country. The estimates are conditional on age, gender and education plus destination country–interview year fixed effects. The sample comprises individuals aged 25–64.

Figure A 2 – Female versus male refugee–immigrant employment gaps by years since arrival



Notes. The figure illustrates the evolution of the conditional gap in employment probability between female (panel A) and male (panel B) refugees and non-EU15 migrants by years in the host country. All regressions include age, education, destination country–interview year fixed effects, and origin area fixed effects. The sample comprises non-EU15 immigrants aged 25–64. The shaded areas report 90 percent confidence intervals based on robust standard errors.

8. Appendix Tables

Table A 1 – Sample of Immigrants and Refugees by Host Country

	EU migrants	Non-EU migrants	Refugees	Total
AT	2,108	2,855	625	5,588
BE	1,903	1,763	373	4,039
CH	1,924	1,064	47	3,035
CY	434	551	49	1,034
DE	572	1,021	258	1,851
ES	3,475	8,783	52	12,310
FI	278	320	49	647
FR	1,245	3,362	207	4,814
GR	1,062	4,070	438	5,570
HR	57	408	96	561
HU	890	264	32	1,186
IE	2,788	874	66	3,728
IT	4,379	9,539	72	13,990
LU	4,717	825	62	5,604
NL	1,996	5,420	944	8,360
NO	971	811	278	2,060
PT	458	1,340	52	1,850
SE	1,435	1,737	940	4,112
SI	261	700	30	991
UK	3,531	6,506	566	10,603
Total	34,484	52,213	5,236	91,933

Notes. The table reports the number of EU migrants (col. 1), non-EU migrants (col. 2), refugees (col. 3), and overall immigrants (col.4) in our estimating sample by destination country. The sample comprises all individuals aged 25–64 not in full-time education or military service for whom no information is missing on their education.

Table A 2 – Employment Refugee Gap: Gelbach Decomposition

	Specification		Difference:
	Base	Full	Base-Full
Refugee gap	-0.064 (0.012)	-0.076 (0.011)	0.012 (-0.004)
Controls:			
Gender and Age	NO	YES	0.029 (0.003)
Education	NO	YES	-0.006 (0.002)
Source Area FE	NO	YES	-0.021 (0.002)
Entry Cohort FE	NO	YES	0.010 (0.002)

Notes. The table reports estimates from a Gelbach decomposition of the employment refugee gap reported in Table 2. The “base” specification exclusively condition on country–year fixed effects (corresponding to column 1 in Table 2). The “full” specification further conditions on dummies for gender, age, education, source area and entry cohort (corresponding to column 5 in Table 2).

Table A 3 – Three-Way Fixed Effects

	Employment	Participation	Unempl.	Skilled occupation	Bottom decile	Top decile
	(1)	(2)	(3)	(4)	(5)	(6)
Refugee	-0.069*** (0.012)	-0.056*** (0.011)	0.027** (0.011)	-0.079*** (0.013)	0.038* (0.022)	-0.045*** (0.014)
Host country*year	YES	YES	YES	YES	YES	YES
Gender, age education	YES	YES	YES	YES	YES	YES
Entry Cohort*Host Country*Source Area FE	YES	YES	YES	YES	YES	YES
Observations	69,128	69,128	52,900	46,359	13,847	13,847

Notes. The table reports the coefficients for a refugee migrant dummy, estimated by linear regressions with either employment, participation, unemployment, skilled occupation, or bottom or top income decile as the dependent variable. The sample comprises non-EU15 immigrants and refugees aged 25–64. All specifications include destination country–observation year interaction dummies. "Gender, Age, Education" are dummy variables for gender, five–year age groups and at most upper secondary or tertiary education (with at most lower secondary education as the excluded category) "Source Area" are dummy variables covering the seven major source regions. "Entry cohort" are dummy variables for year (or groups of years) of arrival in the host country. "Host country FE" are dummies for the twenty destination countries in the sample. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A 4 – Dispersal Policies in Europe

Country	EULFS Sample	Active DP	Description	Sources
Denmark	NO	First phase (1986-1998); Second phase (since 1999)	Denmark introduced a dispersal policy for recognized refugees in 1986, aiming at an even distribution across municipalities and at avoiding concentration in areas which already had high shares of immigrants. With the enactment of the "Integration Law" in 1999 the allocation system was reformed. The "introduction programme" for refugees was extended from 18 months to 3 years and more constraints to the possibility of moving out of the assigned municipality were introduced.	Nielsen, C.P. and K.B. Jensen (2006), "The Danish Integration Act's Significance for the Settlement Patterns of Refugees", Copenhagen: Institute for Local Government Studies.; Damm, Anna Piil, 2009. Ethnic enclaves and immigrant labor market outcomes: quasi-experimental evidence. J. Labor Econ., 27(2), 281–314.; Azlor, L., Damm, A.P. and Schultz-Nielsen, M.L., 2020. Local labour demand and immigrant employment. Labour Economics, In Press.
Finland	Yes	Since 1988	The Finnish policy since 1988 has been to disperse refugees throughout the country. The state provides accommodation for asylum seekers at refugee reception centres (located in different areas of the country) until their application is processed. Those who are granted a residence permit are then allocated to a specific municipality and entitled to integration measures.	Andersson, R., Dhalmann, H., Holmquist, E., Kauppinen, T. M., Turner, L. M., Skifter Andersen, H. and ... Yousfi, S. 2010. Immigration, housing and segregation in the Nordic welfare states, Helsinki: Department of Geosciences and Geography, University of Helsinki.
Germany	Yes	Since 1991	In Germany asylum seekers are allocated to Lander according to the Königstein rule – a predetermined rule that combines total tax revenues and population numbers – and which is re-calculated annually. Asylum seekers are then allocated to districts within Lander, in which are required to stay, using state-specific allocation key as guidance.	Bahar, D., Özgüzel, C., Hauptmann, A. and Rapoport, H., 2019. Migration and post-conflict reconstruction: The effect of returning refugees on export performance in the former Yugoslavia. IZA DP N.12412. Bosswick W. (2001) "Development of Asylum Policy in Germany", Journal of Refugee Studies Vol. 13, No. 1 2000.; Christina Boswell, Burden-Sharing in the European Union: Lessons from the German and UK Experience, Journal of Refugee Studies, Volume 16, Issue 3, September 2003, Pages 316–335.
Ireland	Yes	Since 2000	In 2000 the Government announced a policy of dispersal of protection applicants throughout the country with the aim of avoiding a disproportionate burden on State services accessible to protection applicants. The dispersal location is made largely on the basis of family composition and available housing.	Paola Proietti, Paolo Veneri, (2019) The Location of Hosted Asylum Seekers in OECD Regions and Cities, Journal of Refugee Studies, forthcoming
Netherlands	Yes	Since 1987	The 'Regulation Reception of Asylum Seekers' (Regeling Opvang Asielzoekers, ROA) that became effective in 1987 established that asylum seekers, like the quota refugees, would initially be housed in centrally operated reception centres, and after that in specialized housing.	Joan Van Selim "Asylum in the Netherlands: A Hazy Shade of Purple" Journal of Refugee Studies Vol. 13, No. 1 2000, Pages 74–90; Andersson (2003) Settlement Dispersal of Immigrants and Refugees in Europe: Policy and Outcomes, WP
Norway	Yes	Since 1994	Since 1994, the Norwegian government has pursued the objective of settling refugees throughout the entire country. The proportion of refugees settled in each county roughly corresponds to the county proportion of the overall population.	Djuve_Kavli_Norway_2000 – "Living conditions and relocations among refugees in Norway, in light of the government's resettlement work", fafo report 344; Valenta and Bunar (2010) "State Assisted Integration: Refugee Integration Policies in Scandinavian Welfare States: the Swedish and Norwegian Experience" Journal of Refugee Studies Vol. 23, No. 4
Sweden	Yes	From 1985 to 1994	The DP was introduced in 1985 (the so-called "Whole of Sweden Strategy") and enforced until 1994. Since 1994, asylum seekers have been able to look for their own housing and are entitled to housing allowances, or alternatively a free place in an asylum location.	Habereld et al. "Selectivity and Internal Migration: A Study of Refugees' Dispersal Policy in Sweden", Front. Sociol., 13 September 2019; Bevelander, P. (2010). "The immigration and integration experience: the case of Sweden," in Immigration Worldwide: Policies, Practices, and Trends, eds U. A. Segal, D. Elliott, and N. S. Mayadas (New York, NY: Oxford Univ Press); Edin, P., Fredriksson, P., and Åslund, O. (2004). Settlement policies and the economic success of immigrants. J. Populat. Econ. 17, 133–155.
Switzerland	Yes	Since 1988	A dispersal policy was introduced with an amendment to the Aliens Law in 1988, to minimize self-segregation and ghetto effects and avoid social tension between natives and asylum seekers. During their waiting period, asylum seekers are housed in accommodations in a randomly assigned Swiss canton and they are not allowed to leave this canton. Mobility restrictions persist also after the conclusion of the application screening process.	Chapter F6 of the State Secretary of Migration's Migration's Handbook of Asylum and Return (2015); Couttenier, Mathieu, Veronica Petrencu, Dominic Rohner, and Mathias Thoeng. 2019. The Violent Legacy of Conflict: Evidence on Asylum Seekers, Crime, and Public Policy in Switzerland. American Economic Review, 109 (12): 4378–4425; Martén, Linna, Hainmueller, Jens and Hangartner, Dominik. 2019. Ethnic networks can foster the economic integration of refugees. Proceedings of the National Academy of Sciences, 116 (33) 16280–16285.
UK	Yes	Since 2000	The 1999 Immigration and Asylum Act (IAA) introduced a dispersal policy for asylum seekers which was implemented from 2000 onwards. When they apply for accommodation, asylum seekers are allocated to temporary accommodation centers across the UK and live there for the first few weeks. They are then assigned to a specific Local Authority that places them in one of its available housing units where they can stay until their refugee status is determined. The UK dispersal policy explicitly denies asylum seekers the right to have a say in the choice of their destination and aims at placing them away from Greater London or the South East of England. Asylum seekers whose refugee status is recognized are entitled to request social housing but they must apply in the same Local Authorities they were dispersed to and live there for at least 6 months.	Bell, Brian, Fasani, Francesco, Machin, Stephen, 2013. Crime and immigration: evidence from large immigrant waves. Review of Economics and Statistics, 21(3), 1278–1290.