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The Labor Market Integration of Refugee Migrants in High-Income Countries

Courtney Brell, Christian Dustmann, and Ian Preston

Economic models of the integration of immigrants into a host society generally focus on two main categories of factors: what determines who chooses to migrate; and what determines the accumulation of human, social, and cultural capital after immigration. Along both dimensions, refugee integration is likely to differ considerably from that of the typical economic migrant (for discussion, see, for example, Becker and Ferrara 2019; Chin and Cortes 2015). In addition, the refugee experience itself adds complexity to the integration of these migrants, who have often experienced traumatic episodes in their country of origin or extended periods traveling or in temporary living situations (such as refugee camps) before arriving in the host country.

While economic migrants decide to relocate to another country based on the relative opportunities afforded abroad compared to at home, refugee migration—being forced and often unexpected—is driven by different factors, such as vulnerability to persecution and access to the wherewithal to enable flight. Refugees are therefore not economically selected to the same degree as economic migrants and have more limited ability to choose a specific destination to which they will migrate. As a result, refugees typically arrive in a host country with less locally applicable human capital, including language and job skills, than economic migrants and consequently are likely to start at significantly lower levels of wages and employability.

■ *Courtney Brell is a Researcher, Christian Dustmann is Director, and Ian Preston is Deputy Research Director at the Centre for Research and Analysis of Migration, University College London, United Kingdom. Dustmann and Preston are both Professors of Economics at University College London. Preston is a Research Fellow, Institute for Fiscal Studies, also in London, United Kingdom. Their email addresses are courtney.brell.17@ucl.ac.uk, c.dustmann@ucl.ac.uk, and i.preston@ucl.ac.uk.*

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After arrival, incentives for refugees to improve their economic prospects in the host country are mixed compared to economic migrants. On the one hand, beginning at a lower level of human capital means that the potential costs of investment (such as forgone wages) are lower, and the rate of return on this investment may possibly be higher (at least according to some views of how immigrants accumulate human capital). If these effects dominate, then refugees would be expected to undergo rapid assimilation, particularly early on in their stay. On the other hand, refugees often face an uncertain future. They do not know at first whether asylum will be granted, and even if it is, permission to stay may be explicitly temporary and subject to periodic reassessment with the possibility of revocation. Some refugees may wish to return to their home country as soon as it becomes safe to do so, but when that will become possible, if ever, is uncertain. Such uncertainty may reduce the incentives to invest in host-country-specific human capital, such as language or social networks, and this may inhibit the integration of this group (Adda, Dustmann, and Gorlach 2019). The uncertainty itself may also be psychologically distracting and a hindrance to integration.

Finally, the unique experiences of refugees will also affect their ability to integrate. Having experienced or witnessed conflict and persecution means that health issues, and particularly mental health issues, are common among the refugee population. The journey from their home to the host country, as well as potentially having been traumatic, may also have been long or involved extended stays in intermediate locations such as refugee camps. During this time, refugees' human capital may have deteriorated as they may have had few opportunities to perform productive work.

Taken together, these factors mean that the integration of refugees is likely to raise significant challenges. In this paper, we provide an overview of what is currently known about the economic integration of refugees into high-income host countries, and in particular into their labor markets. We begin with a discussion of some facts about the refugee experience prior to arrival in the host country—their flight, journey, and stays in intermediate locations.

Following this, we provide an overview of the labor market outcomes of refugees in a variety of developed countries, based on an unusually broad collection of existing micro data sources, supplemented by evidence from data made available to us by a number of authors who have studied the topic. We will illustrate significant heterogeneity in outcomes of refugees across different host countries, with the general pattern that refugees start off behind other immigrants in employment and wages, and while they catch up over time, this catch-up is more pronounced in employment rates than in wages. We also offer a nonexhaustive but illustrative overview of some of the recent research in this area.

Although our focus is on economic integration, and in particular labor market outcomes such as employment and wages, integration of immigrants into a society—whether refugees or economic migrants—ultimately has to do with a broad development of capacities for successful participation in the host society, supporting a sense of social belonging in the destination

country.[1] Moreover, these wider dimensions of integration are often important determinants of economic outcomes. Thus, we will also delve into some broader social factors: health, language skills, and social networks. These factors present particular challenges for the integration of refugees, and as such, finding ways for policy to take these challenges into account may help in easing the integration of refugees into the workforce and society as a whole.

We conclude with a summary and a discussion of insights for public policy in receiving countries with regard to refugees. The prospects for successful integration depend not just on actions of the refugee or the immigrant but also on the openness and specific policy choices of the receiving community. Many recipient countries have put considerable effort and expense into measures targeted at supporting refugees' absorption into their societies and economies, but it is not always clear that the outcomes of these policies are in line with prior expectations or justifications.

The Refugee Experience

The diversity of migrant experience means that telling individual stories risks portraying their details as representative, when in fact the real-life variety is beyond what it is possible to present through anecdotes or case studies. With that warning in mind, such stories can still be valuably illustrative and highlight some of the unique circumstances that refugees face. Before discussing the refugee experience in general terms, we briefly describe five individual refugee journeys, each anonymized but adapted from a documented story:[2]

Example A: A student and waitress lived with her husband and children in a refugee camp near Damascus for several years after their home was destroyed in the Syrian civil war. As fighting between opposing forces neared, they paid to be trafficked by bus to the Turkish border, a dangerous journey that involved passing through areas under the control of several rival groups. After a short period staying in a camp in Turkey, they risked a perilously overcrowded boat journey to Greece and from there proceeded mostly on foot across the Balkans, often hopping between camps on the way. After being trafficked across the Hungarian border, they were able to take a train to Munich and finally claim asylum there. Their journey lasted about a month.

Example B: A Rohingya family and their business were persecuted by the army in a village in Myanmar. After their home was confiscated, they fled their village and tried to establish a life elsewhere in Myanmar. Their son moved to study in

[1] For example, Harder et al. (2018) develop measures of integration along six dimensions: psychological, economic, political, social, linguistic, and navigational. The influential conceptual framework of Ager and Strang (2008) identifies ten domains of integration within four areas of attainment.

[2] The stories are loosely based on original reports available at Adams and Vinograd (2015), Alcorn (2019), Watson (2019), García (2019), and *Refugee Action* (2017).

Yangon where he distributed political pamphlets, for which he was arrested and tortured but secured release through bribery. Fearing further recrimination, he fled to Thailand and on to Malaysia where he spent nine years working as an unauthorized immigrant before being recognized by the United Nations as a refugee. He took a boat journey from Indonesia to Australia, which resulted in him being held for 32 months in an immigration detention center. A decade later he works in construction and for community organizations in Melbourne, but still awaits permanent protection status, and has little contact with his family.

Example C: A child was born in a refugee camp of some 200,000 people in Kenya, to which her parents had fled from the civil war in Somalia. She lived there for her first eight years with her parents, siblings, and father's other wives. She received little education and facilities in the camp were rudimentary. Her family was eventually selected for resettlement and moved to Baltimore where they remained for seven years, before relocating to Buffalo to be closer to relatives and a larger Somali community. She is now studying for a PhD in education.

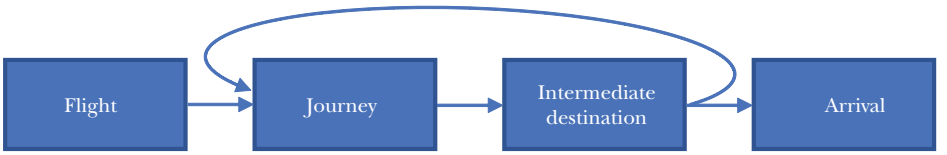
Example D: A mother of seven in a small community in Honduras participated in protests when water supplies to her village were compromised by a dam construction project. She was arrested and charged with trespassing, but the case was eventually dismissed. When a fellow protester was shot dead by police, she decided to leave with her two-year-old son and joined a migrant caravan traveling through Guatemala and Mexico to the US border, including a terrifying journey on top of a freight train. After crossing the border at Tijuana, she was held in detention for two weeks and spent a month in a shelter before relocation to Portland, Oregon, where she awaits a decision on her asylum application.

Example E: A young gay man moved to the United Kingdom from Algeria when his family discovered he was gay and tried to force him to marry his cousin. Struggling with depression, he stayed for several years with another cousin, overstaying his visa and helping with domestic chores while avoiding the formal economy. After learning from a charity that he might be eligible for refugee status, he applied for and was granted asylum. He now works as a sous-chef.

Of course, this small collection of individual stories encapsulates only a tiny proportion of the suffering and distress underlying refugee statistics. According to the UN High Commissioner for Refugees (2019a), in 2018, there were 70.8 million people forcibly displaced worldwide, including 25.9 million international refugees and 3.8 million individuals awaiting asylum decisions. For each one of these millions, there is an underlying story of hardship.

As the examples illustrate, the process of seeking refuge can have multiple stages, and at each stage, important decisions are made that will determine not only where and when a refugee will end up settling into a (semi-)permanent home, but also will influence their integration prospects after arrival. To structure our

Figure 1
The Stages of the Refugee Experience



discussion of these decisions and their potential consequences for refugee integration, we will break down the refugee path from origin to destination into the following stages as depicted in Figure 1: flight, journey, intermediate destination, and arrival.

Flight

During the past decade, the number of individuals displaced by war or persecution has increased dramatically, in large part due to ongoing conflicts in Asia and Africa (notably in Syria, Afghanistan, and South Sudan, which together have produced half of the global refugee and asylum-seeker stock in 2018; adding Myanmar and Somalia to this list accounts for two-thirds of global refugees) (UNHCR 2019a).[3] As the earlier examples illustrate, refugees may be fleeing civil conflict, religious or ethnic persecution, lethal police corruption, or inadequate protection of minority human rights.

The decision to flee one's home is traumatic, and even in the midst of ongoing conflict or persecution, many prefer to stay put. Aksoy and Poutvaara (2019) point out that, even if economic selectivity may be expected to be less strong for refugees than for other types of migrants, it will not be absent, and they show this using data for several countries. Wealth that would be abandoned in the home country upon flight will be a factor in the decision, as will economic prospects in possible destination countries. Of those that would like to leave, not all may have access to the resources needed to do so. In addition, persecution risk may be associated with economic prosperity (for example, if the persecution is motivated by perceived economic factors) and so may the risks associated with the journey (if the wealthier can buy their way out of dangerous situations or afford more reliable transport).

Nonetheless, if noneconomic factors have heightened importance for refugees, that may mean that refugee populations are likely to include both low- and

[3]We follow here the definition of a refugee from the UN High Commissioner for Refugees, which includes "individuals recognized under the 1951 Convention relating to the Status of Refugees, its 1967 Protocol, the 1969 Organization of African Unity (OAU) Convention Governing the Specific Aspects of Refugee Problems in Africa, the refugee definition contained in the 1984 Cartagena Declaration on refugees as incorporated into national laws, those recognized in accordance with the UNHCR Statute, individuals granted complementary forms of protection, and those enjoying temporary protection. The refugee population also includes people in refugee-like situations." In contrast, asylum seekers are "individuals who have sought international protection and whose claims for refugee status have not yet been determined…irrespective of when those claims may have been lodged" (UNHCR 2019a; for more detail, see Hatton, 2016, 2017, and forthcoming).

high-skilled individuals whose skills are more suited to their country of origin than to their destination country and demographic types who might be unlikely to migrate for economic reasons. This is not to say that refugees will not be distinctive in some respects since, as discussed, they will still be selected in other ways. Additionally, if there is heterogeneity in individual economic and cultural adaptability, then refugees (unlike economic migrants) will also not be selected in those terms, and this could tend to inhibit rapid integration.

Journey

Many of those displaced by conflict or persecution remain in their country of origin. In fact, of the stock of displaced persons recorded by the UN High Commissioner for Refugees (2019a) as of 2018, only 42 percent were refugees and asylum seekers; the remaining 58 percent being internally displaced. Many are displaced to nearby countries: nearly four-fifths of refugees live in countries neighboring their country of origin. These nearby destinations are typically developing; only 16 percent of refugees are hosted by countries in developed regions. Thus, as well as the decision to flee, refugees arriving in developed countries are often selected by having undertaken an especially long and difficult journey in search of a better life.

The details of a refugee's journey may differ hugely, and many choices are made along the way. Some paths are well understood by those taking them to have significant risks of death: for example, the UN High Commissioner for Refugees (2019b) reports that in 2018, with 141,000 Mediterranean arrivals to Europe, there were nearly 2,300 estimated dead or missing. Apart from mortal hazards, the decision of whether to try traveling by legal means is also important in determining the potential risks associated with a route.

Intermediate Destinations

During their journey, refugees may often stay, perhaps for prolonged periods, in another country along the way. In some circumstances, this will be among the general population, residing either with or without legal authorization. Alternatively, this may involve a stay in a designated refugee camp for periods as short as a few days or as long as a number of years. It is difficult to find reliable information about how typical it is for refugees to have had some experience in camps but clearly many arrive without ever having done so.

The UN High Commissioner for Refugees (2019a) estimated that 60 percent of refugees lived in noncamp accommodation in 2018, though of course this number varies widely from many developed countries, where essentially all refugees live in private accommodation, to some of the least developed countries where the majority of refugees reside in camps. Refugee camps vary greatly in their size, funding level, organization, and longevity, from Kutupalong in Bangladesh, established in 1991 and recently expanded to a population of over half a million, to La Linière in France, opened in 2016 and closed just a year later, housing 1,600 refugees at its peak. While it is difficult to generalize, refugee camp facilities are mostly rudimentary, opportunities for work and education are minimal or informal, and health and safety risks are common. Spending extended periods in a refugee camp could seriously

affect future prospects for integration into a developed labor market, because there may be limited opportunities to engage in the formal workforce while residing in a camp, and so residents' human capital may degrade over time.

A refugee camp may be a direct pathway to resettlement in a developed country, but this experience is not especially common (Hatton forthcoming): the UN High Commissioner for Refugees (2019a) records that only 92,400 refugees were resettled by 25 countries in 2018. Resettlement is one of three durable solutions considered by the UN High Commissioner for Refugees (2011) for refugees, voluntary repatriation or local integration being alternative possibilities. The process of selection for resettlement introduces a further set of criteria bearing on selection of the refugee population arriving in high-income countries. Of refugees that are not resettled, some will eventually decide to move on or return home, but many others may remain. Some long-standing camps have turned into de facto permanent towns or merged into nearby cities (such as Deir al-Balah in Gaza).

Arrival

The method of arrival in a host country, whether resettled, legally arriving directly, or illegally arriving, may have important implications for an asylum seeker's legal status and hence ability to undertake work. Resettled individuals will arrive with asylum status already determined and may therefore be at an advantage in joining the local labor market. Irregular arrivals, on the other hand, may be more likely to spend time in detention while their claims are being processed, which could have impacts on mental health as well as human capital. Of course, this is likely to vary significantly between host countries and over time as their policies change.

The nature of reception in the receiving country is also likely to be of great significance. Refugee status is not typically granted immediately and refugee migrants can find themselves subject to procedures of validation that inhibit their ability to work and aggravate feelings of alienation, perhaps even appearing to replicate experiences of interrogation and incarceration from which the individual may be fleeing (Phillimore 2011). Such procedures may hinder early labor market attachment, allowing skills to atrophy while the individual is unable to work, and create habitual persistence of dependence on welfare.

Furthermore, refugees are frequently subject to policies of forced dispersal, as described below for several north European countries, which isolate them from the sorts of social networks of previous immigrants that may be critical to job finding and social learning among typical migrants. In addition, refugees' integration and assimilation may be significantly hindered if they face hostility or discrimination from host communities.

To summarize, the labor market integration of refugees is likely more challenging than that of economically motivated migrants. We may expect refugees to arrive with skills less adapted to the receiving country's economic needs and to be of a composition that is less conducive—on average—to self-sufficiency through economic activity. Length and uncertainty of expected immigration duration may lead to conflicting effects on investment in skills specific to the receiving country's economy. Refugees are likely to be initially less well equipped with

productivity-enhancing proficiencies in host countries' labor markets and thus disadvantaged in comparison to economic migrants in terms of employment and wages. In the next section, we investigate whether this is borne out in the data.

Evidence on Labor Market Integration

Our investigation of the labor market integration of refugees focuses on employment and wages. One challenge in studying refugees is that they typically make up only a small fraction of the overall immigrant population, so that their numbers are small in general survey data. Moreover, most surveys or administrative datasets do not provide markers that allow a distinction to be drawn between economic and refugee migrants. Even when available, differences in measurement across receiving countries and differences in the definition of refugees mean that cross-country comparisons must be read with caution. In addition, refugees in different countries are subject to quite different integration policies and legal regimes, as well as often being drawn from quite different areas and cohorts. Disentangling these effects would be a challenge even with plentiful data.

Our analysis draws on three sets of data sources. First, we use various micro datasets that either focus specifically on refugees (including the UK's Survey of New Refugees and the Australian Building a New Life in Australia survey), contain refugee "boost" samples (the German Socio-Economic Panel), or that are detailed enough to naturally contain a meaningfully sized sample of the refugee population. Where data is from a publicly available survey covering only one country, we will refer to these as the "country-specific public survey" data. Second, also within the class of public survey data, we single out the EU Labour Force Survey (LFS), from which we use data collected during ad hoc modules administered in 2008 and 2014 that allow the identification of different types of immigrants, as a cross-national public survey. Finally, we have obtained from the authors of various papers on refugees that are based on census and register data, statistics on refugees and other immigrants' outcomes that will allow comparison across these countries.[4] We refer to these sources of data as the "administrative" data sources.

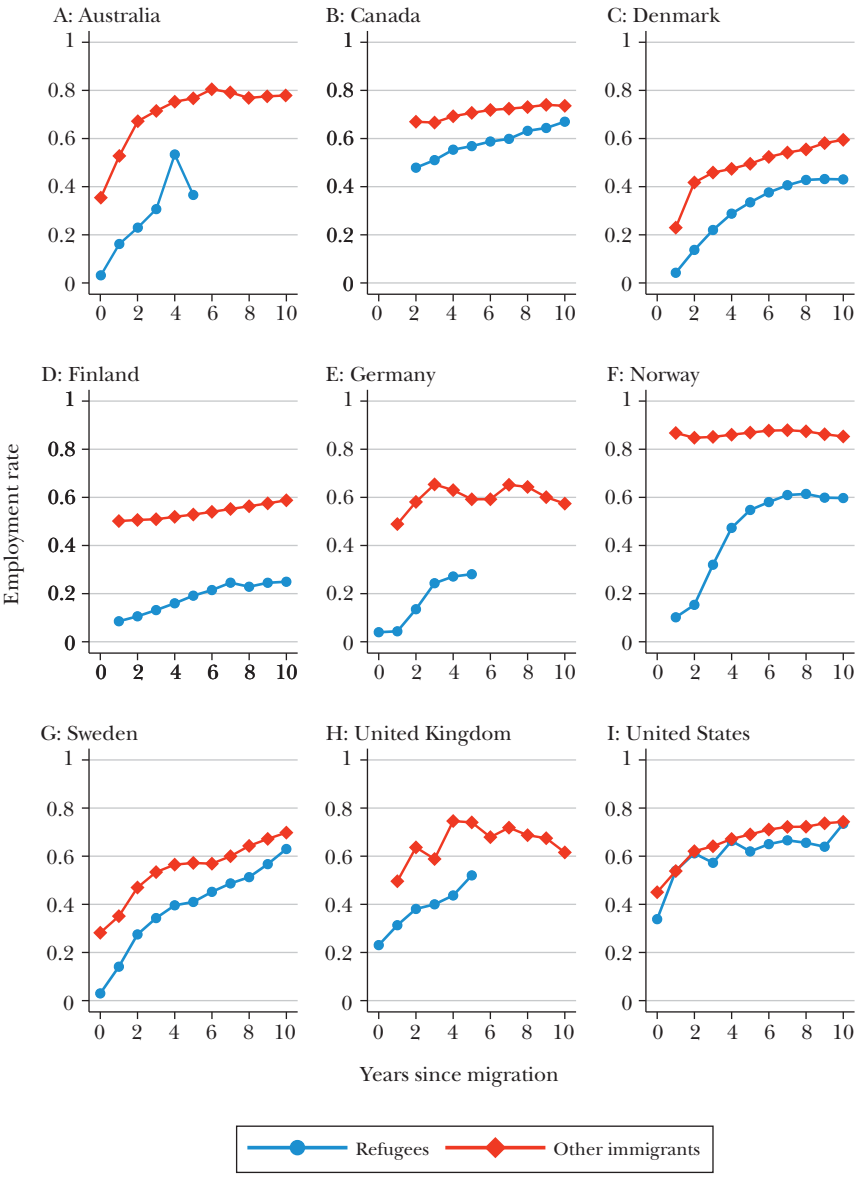
Each of these types of data has advantages and disadvantages, and we hope that—by providing evidence based on all three—we will be able to paint a comprehensive picture of the way in which refugees integrate into the labor markets of various countries, in comparison with other immigrants and natives.

Employment

Overall, employment rates of refugee migrants are very low immediately after arrival in the host country, but typically increase quite rapidly over the first few years after migration. However, there is significant heterogeneity between countries. Figure 2, drawing on administrative data and country-specific public survey

[4]These papers include Bevelander (2016); Bratsberg, Raaum, and Røed (2019); Mata and Pendakur (2017); Sarvimäki (2017); and Schultz-Nielsen (2017).

Figure 2
Employment Rates of Immigrant Groups over Time since Migration



Source: The results are based on data from the following sources (for details see the online Appendix): Australia—BNLA, HILDA; Canada—Census; Denmark—Administrative registers; Finland—Administrative registers; Germany—SOEP; Norway—Administrative registers; Sweden—Administrative registers; United Kingdom—SNR, LFS; and United States—ACS.
Note: The figure plots observed employment rates of refugees and other immigrants in various host countries over time after migration. The precise sample groups vary in their construction due to having been obtained from different data sources (see the online Appendix), but generally consist of working-age males and females.

datasets, shows the employment rates of refugees and other migrants (typically those who migrated for labor market and/or family related reasons) over time after migration for several host countries. Care should be taken when reading this plot, as the "other immigrant" samples vary in their construction and may not be precisely comparable to the refugee samples, but the general trends are clear.[5]

Except for the United Kingdom, the United States, and Canada, employment rates for refugees are below 20 percent in the first two years after arrival. In contrast, other immigrants have higher employment rates at arrival in all countries, though these still vary significantly between countries. The employment of refugees increases in subsequent years at different rates across countries: rapidly so in Australia, Sweden, and Norway, but more modestly in Denmark, Germany, and Finland. In some countries, such as Sweden and Canada, refugees appear to mostly close the employment gap with other immigrants after a decade in the country, while in others such as Norway and Finland, the gap remains large and stable over this period. The most notable outlier country in this figure is the United States, where refugees' employment rates track those of other immigrants closely. It is not entirely clear why the US experience appears so different in this figure; possible explanations could relate to the nature of the US labor market or to the nature of the settlement process in the United States, but require further investigation.

To complement Figure 2, the employment rates of refugees two years and ten years after migration are also listed in Table 1, along with the differences between the employment rates of refugees and natives and between refugees and immigrants with the same length of residency. For almost all countries, the gap between refugees and other groups is closing over time, although refugees have persistently lower employment rates than other immigrants and natives ten years after migration. As mentioned, the exception is the United States, where refugees appear to have caught up to other immigrants after just two years and to natives by ten years after migration (a finding that is compatible with the existing literature).

[5]In an online Appendix, we describe our sources and methodology in detail. Sources, samples, and empirical methods differ from series to series, and the "other immigrant" categories vary in their composition. Data sources include the Household, Income and Labour Dynamics in Australia (HILDA) survey (Department of Social Services and Melbourne Institute of Applied Economic and Social Research 2001–2017), the Building a New Life in Australia (BNLA) survey (Department of Social Services and Australian Institute of Family Studies 2013–2014), the German Socio-Economic Panel (SOEP) (German Institute for Economic Research 1984–2017; Goebel et al. 2019), the UK Labour Force Survey (LFS) (Office for National Statistics, Social Survey Division, Northern Ireland Statistics and Research Agency, and Central Survey Unit 2008), the UK's Survey of New Refugees (SNR) (Home Office, UK Border Agency: Analysis, Research and Knowledge Management 2010), the American Community Survey (ACS) (Ruggles et al. 2019), the US Yearbook of Immigration Statistics (YIS) (Office of Immigration Statistics 2001–2017), and the EU Labor Force Survey (LFS) (European Commission 2008; 2014). It should also be noted that some of the series presented are based on single cross sections, while others are drawn from longitudinal or repeated cross-sectional data. In those series based on single cross sections, variation over time since arrival is provided purely by analysis of different arrival cohorts, whereas for data covering multiple years of observation, changing outcomes over time of fixed cohorts are combined with variation between cohorts to give the overall effect. In both cases, selective outmigration plays a role in determining the observed composition of migrants who have been in the country a given number of years (Dustmann and Görlach 2015).

Table 1
Employment Outcomes of Refugees Compared to Other Groups

Host country	*Years since migration*	*Refugee employment rate*	*Gap to other immigrant employment rate*	*Gap to native employment rate*
Australia	2	0.23	0.44	0.55
Canada	2	0.48	0.19	0.27
Finland	2	0.11	0.40	0.64
Germany	2	0.14	0.45	0.57
Norway	2	0.15	0.69	0.73
Sweden	2	0.28	0.20	0.54
United Kingdom	2	0.38	0.26	0.38
United States	2	0.61	0.01	0.11
Canada	10	0.67	0.07	0.08
Finland	10	0.25	0.34	0.50
Norway	10	0.60	0.26	0.29
Sweden	10	0.63	0.07	0.19
United States	10	0.73	0.01	-0.01

Source: The results are based on data from the following sources (for details see the online Appendix): Australia—BNLA, HILDA; Canada—Census; Finland—Administrative registers; Germany—SOEP; Norway—Administrative registers; Sweden—Administrative registers; UK—SNR, LFS; and USA—ACS.
Note: The table compares observed refugee employment rates to those of other immigrants and natives for various host countries at two and ten years after migration to the country. The fourth and fifth columns show the amount by which the refugee employment rate trails that of other immigrants or natives, respectively. The precise sample groups vary in their construction due to having been obtained from different data sources (see the online Appendix), but generally consist of working-age males and females.

Table 2 provides additional detail, by distinguishing between employment growth rates over the first 5 years in the country and in years 6–10. On average, employment growth of refugees is substantially higher than that of other migrant groups in both periods, a regularity that also holds for almost all countries when viewed in isolation. Notably, while employment of other immigrants is close to flat for several countries in the second period, refugees continue to experience growth, indicating an integration process of longer duration.

A similar picture emerges from Figure 3, based on data instead from the 2014 EU Labour Force Survey. The figure plots the employment rate of refugees against that of other immigrants, for those who have been in the country for less than 10 years, between 10 and 19 years, and for more than 19 years. Each point represents a European country. The figure shows that for those who migrated less than a decade ago, refugees in almost every country experience substantially worse employment rates than other immigrants (the only exception being Switzerland), mirroring the findings from Figure 2 and Table 1. However, refugees with between 11 and 19 years residency are employed at rates much closer to other immigrants, and any difference appears to be largely erased for those with residency longer than 20 years.

Because the integration process may differ substantially for different demographic subgroups, we also considered employment outcomes of male and female groups separately. Refugee women appear to be employed at particularly low rates—the ratio of female to male employment rates is smaller for refugees than for other

Table 2

Employment Growth Rates of Refugees and Other Immigrants over Time since Arrival

Host country	*Refugees 0–5 years*	*Other immigrants 0–5 years*	*Refugees 5–10 years*	*Other immigrants 5–10 years*
Australia	0.067	0.083	—	—
Canada	0.030	0.012	0.020	0.006
Denmark	0.073	0.066	0.019	0.020
Finland	0.027	0.007	0.012	0.012
Germany	0.048	0.026	—	—
Norway	0.111	0.000	0.010	–0.003
Sweden	0.076	0.058	0.044	0.025
United Kingdom	0.058	0.061	—	—
United States	0.056	0.048	0.023	0.011
Average	0.061	0.040	0.021	0.012

Source: The results are based on data from the following sources (for details see the online Appendix): Australia—BNLA, HILDA; Canada—Census; Denmark—Administrative registers; Finland—Administrative registers; Germany—SOEP; Norway—Administrative registers; Sweden—Administrative registers; United Kingdom—SNR, LFS; and United States—ACS.

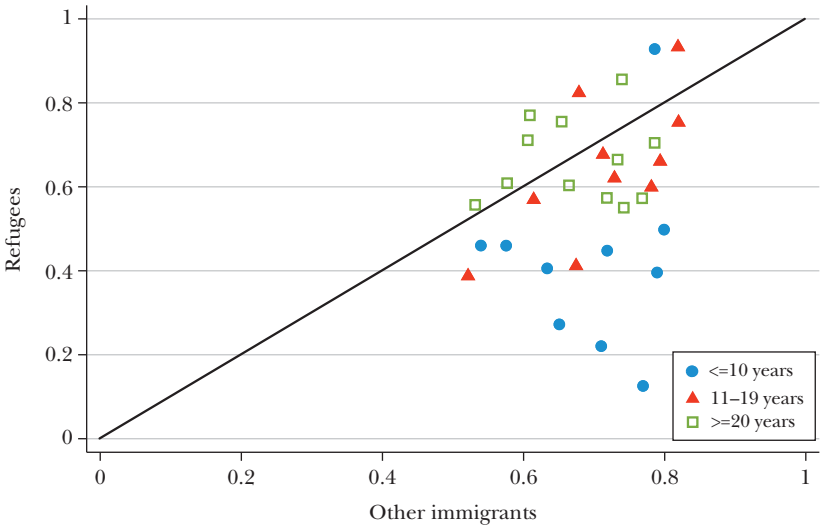
Note: The table shows average growth of employment rates for refugees and other immigrants. The second column shows the average yearly increase in the refugee employment rate observed during the first five years of residency in the host country, and the analogous figures for nonrefugee immigrants are displayed in the third column. The fourth and fifth columns similarly show the average yearly increases in employment observed for refugees and other immigrants during the period between five and ten years after arrival in the host country. The precise sample groups vary in their construction due to having been obtained from different data sources (see the online Appendix), but generally consist of working-age males and females.

immigrants (and both are smaller than for natives) in each country considered. This pattern is especially dramatic in the immediate years after migration, and while this ratio for refugees remains persistently smaller than that of natives even after a decade, in most cases, the difference between refugees and other immigrants appears to shrink significantly over this time scale. We also looked at the data across the countries in the EU Labour Force Survey to probe whether patterns of age, gender, or education level could explain some of the gaps we have seen between the outcomes of refugees and other immigrants. However, employment gaps conditional on these factors are qualitatively similar to the analogous unconditional results, leading us to the conclusion that differences in the demographic compositions of groups (at least in these dimensions) are not the main drivers of the differentials we have observed.[6]

Some general conclusions emerge from this discussion. First, initial employment rates of refugees are considerably lower than those of other immigrant groups. This finding is in line with our expectations, as refugees are likely to arrive with skills less adapted to the receiving country's labor market. Second, refugee employment

[6]For more detail on gender breakdowns and conditional labor market outcomes, see the online Appendix. The conditional employment plots are based on linear probability regressions, where we control for age, gender, and education.

Figure 3
Employment Rates of Immigrant Groups across European Countries



Source: This plot is based on data from the 2014 ad hoc module of the EU Labour Force Survey.
Note: This figure shows the employment rates of refugees compared to those of other immigrants for various European countries. Refugees are identified as those whose reported reasons for migration are international protection or asylum. The "other immigrants" sample consists of all other non-natives. Both groups are restricted to individuals between the ages of 20 and 64 whose main activity is not education or training (see the online Appendix for details). Each point in this figure represents a country, and the distance below the 45° line represents the extent to which refugees are employed at lower rates than other immigrants. This is shown separately for migrants who have been in the host country at most 10 years, between 11 and 19 years, and at least 20 years. Due to the small numbers of refugees in each individual country, some of the plotted points are calculated based on a small number of observations. Any individual point should be regarded as having limited reliability, though the general pattern can be expected to be more robust.

increases most sharply during the first two or three years after arrival. This pattern suggests that the first years after arrival are a crucial period for integration. Third, refugee employment continues to grow quickly for the rest of the first half-decade after the first few years and indeed continues to grow in the second half-decade, although at a slower rate. This pattern highlights that the time scale of integration appears to be much longer for refugees than for other immigrants. Fourth, employment levels of refugees in the longer term (a decade after arrival) continue to vary significantly between countries, but in many cases do not approach the levels of natives or other immigrants. However, there is some evidence that after the first decade, employment rates of refugees seem to converge to those of other immigrants. Finally, female refugees experience persistently lower employment rates than their male counterparts, and they are particularly missing out on the rapid employment growth experienced by men in the early years after migration (this is illustrated in online Appendix Figure A1).

Wages

In addition to being employed at lower rates than natives and other immigrants, even those refugees who do manage to find employment generally experience lower wages than the other groups. Their relative wage position gradually improves over time compared to an average native but not, in most countries, markedly faster than other immigrants. Again drawing on country-specific public survey and administrative data (reliable wage data being available only for a subset of countries for which we observe employment), we show in Figure 4 the average wage levels (calculated conditional on being in employment) of refugees and other immigrants as a fraction of average natives' wages over the first ten years after arrival.[7] In addition, we list average wage ratios of refugees and other groups after two and ten years in Table 3. For instance, while average wages of refugees who had been in the United States for two years amounted to 40 percent of native wages and 49 percent of other immigrants' average wages, after 10 years, average wages had improved to 55 percent of natives and 70 percent of other immigrants in the same position. It should be noted that changes in relative wages may be due to both wage changes of those in employment and changes in the composition of refugees who are in work.

Several general observations follow from Figure 4. First, as compared to employment rates where the growth in the first few years is much more rapid than that of subsequent years, refugee wages increase slowly but consistently relative to those of natives over time. Second, even in the long term, refugee wages often do not approach those of natives and continue to lag significantly behind those of other immigrants. Third, even in countries where refugee employment rates quickly approach the levels experienced by natives or other immigrants (like the United States), the corresponding wage gaps can remain large and persistent. Finally, while cross-country variation in refugee wages relative to natives is still significant, it is not nearly so large as that of employment rates.

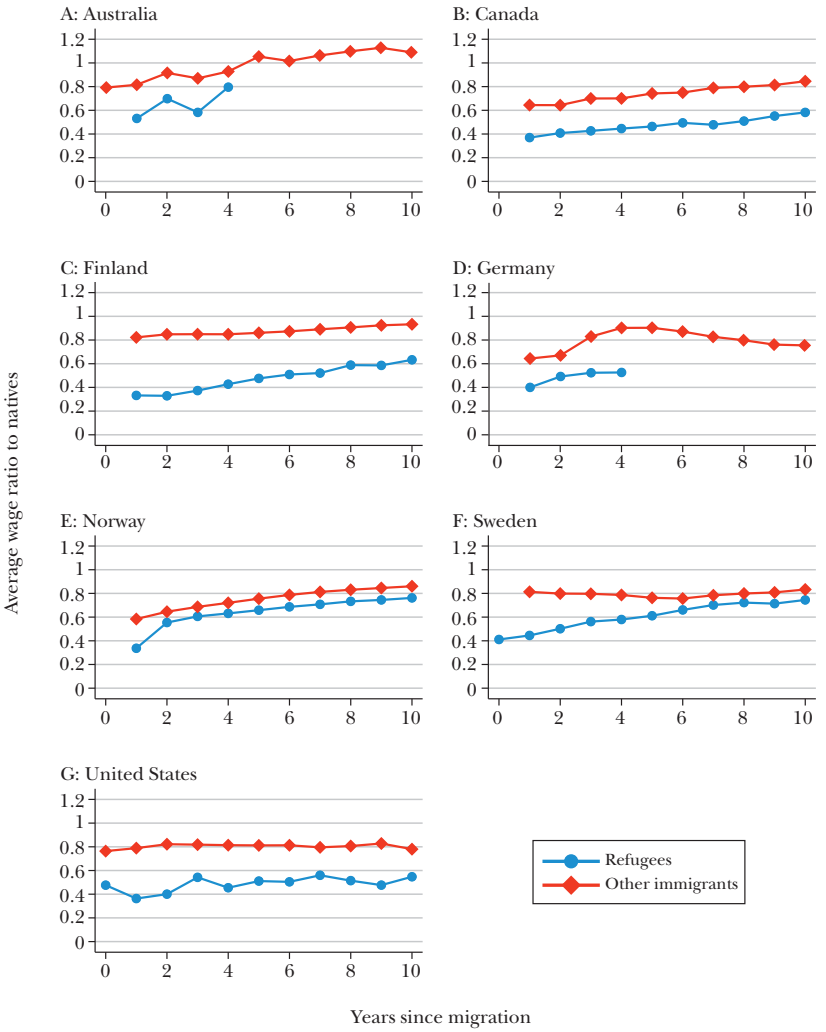
As with employment rates, we also investigated whether these results can be explained by compositional differences between refugee populations and other groups using data from the EU Labour Force Survey. Again, we do not see qualitative changes in the results when controlling for age, education, and gender, indicating that these factors are not the primary cause of the observed trends in refugee wages.

Previous Evidence

Overall, the patterns of refugee employment and wages discussed in the previous sections are consistent with the findings of previous literature. Of course,

[7] We simply calculate the average wage of all employed working-age natives without allowance for differences in age or other compositional factors and compare it to the average wage of all working-age refugees who have been in the country for a given number of years (and similarly for other migrants). The number of countries represented is fewer than in Figure 2, since we do not have reliable wage data for as many countries as we do for employment.

Figure 4
Wage Levels of Migrant Groups Compared to Natives over Time since Migration



Source: The results are based on data from the following sources (for details see the online Appendix): Australia—BNLA, HILDA; Canada—Census; Finland—Administrative registers; Germany—SOEP; Norway—Administrative registers; Sweden—Administrative registers; and United States—ACS.
Note: The figure plots the mean wages of immigrant groups (conditional on employment) in various host countries over time after migration. These wages are presented as a fraction of the mean wages of the native population. The precise sample groups vary in their construction due to having been obtained from different data sources (see the online Appendix), but generally consist of working-age persons.

other studies also offer different areas of focus and thus can fill in some other facets of the picture. For a review of the literature on immigrant integration, De la Rica, Glitz, and Ortega (2015) offers a useful starting point. Dustmann and Görlach (2015) provide an assessment of the empirical challenges in estimating earnings

Table 3
Wages of Refugees Compared to Other Groups

Host country	*Years since migration*	*Refugee to native wage ratio*	*Refugee to other immigrant wage ratio*
Australia	2	0.697	0.761
Canada	2	0.408	0.634
Finland	2	0.329	0.388
Germany	2	0.496	0.735
Norway	2	0.554	0.858
Sweden	2	0.502	0.628
United States	2	0.401	0.487
Canada	10	0.583	0.689
Finland	10	0.633	0.678
Norway	10	0.762	0.886
Sweden	10	0.745	0.894
United States	10	0.547	0.701

Source: The results are based on data from the following sources (for details see the online Appendix): Australia—BNLA, HILDA; Canada—Census; Finland—Administrative registers; Germany—SOEP; Norway—Administrative registers; Sweden—Administrative registers; and United States—ACS.
Note: The table compares average wage levels of employed refugees to those of other immigrants and natives for various host countries at two and ten years after migration to the country. The third and fourth columns show the ratio of refugee wages to natives and other immigrants, respectively. The precise sample groups vary in their construction due to having been obtained from different data sources (see the online Appendix), but generally consist of working-age males and females recorded as being in employment.

assimilation for immigrant populations. Less is known about the economic integration of refugee immigrants specifically, though a substantial literature has begun to develop in recent years. For reviews of the existing evidence on refugee labor market integration, useful starting points are Chin and Cortes (2015), Bevelander (2016), and Becker and Ferrara (2019).

For the United States, the previous literature suggests that refugees' employment rates are not dissimilar to those of other immigrants, but a large initial gap in earnings exists, with a subsequent relative improvement. For example, Cortes (2004) broke ground by looking at refugees together with, but distinguished from, other immigrants. Using public-use census data from 1980 and 1990, she separated immigrants arriving between 1975 and 1980 into refugees and economic immigrants according to country of origin and year of immigration. Refugees are found to initially earn less and work fewer hours than other immigrants, but their earnings grow faster. The difference between the groups is attributed to longer expected duration of stay. Chin and Cortes (2015) show how this steeper path of labor market outcomes is associated with greater gains in education and language proficiency.

Studies have also looked at occupational prestige or status, which attempts to measure the extent to which, say, a refugee who is an engineer or teacher in another country may end up driving a cab or working in a fast-food restaurant in a high-income country. Akresh (2008) used survey data from the 2003 New Immigrant Survey, which records the last job held abroad, to show that refugees display

the sharpest downgrading in occupational prestige and the steepest subsequent upgrading of any immigrant group. Using the same survey, Connor (2010) shows that refugees, while employed at similar rates to other immigrants, still suffer a gap in earnings and occupational status, attributable in large part to differences in education, language ability, and neighborhood.

Both the time at which refugees arrive and their age at arrival can affect their integration prospects as well. Capps et al. (2015) and Fix, Hooper, and Zong (2017) document more recent outcomes using the American Community Survey, identifying refugees indirectly by country of origin and year of arrival and showing refugees continuing to lag behind natives in incomes and education, but not employment rates. Evans and Fitzgerald (2017) use the same approach and data and focus on the importance of age at arrival. Refugees arriving in the United States before age 14 perform similarly to natives, teenage entrants do somewhat worse, and adult refugees do much worse in employment, earnings, and welfare dependency (though there is rapid improvement in early years).

In contrast to the US experience, refugees in European countries seem to lag behind other immigrants not just in earnings, but also in employment rates, although there is evidence for some catch-up in both dimensions over time. The European evidence seems to also be mirrored by studies for Canada (Aydemir 2011; Bevelander and Pendakur 2014), which tell stories of initial disadvantage but rapid growth in employment rates for refugees.

For Europe, a concentration of papers based on excellent register data investigate the labor market integration of refugees for Scandinavian countries.[8] Unlike the situation in the United States, refugees in these countries are observed to experience very low employment rates in the initial years after migration. Although their position improves during the first decade in the country, they typically do not close the gap to natives and other immigrant groups and even sometimes appear to fall away over time (Bratsberg, Raaum, and Røed 2014, 2017; Schultz-Nielsen 2017). Low labor market attachment leads to high welfare dependence observed in these studies. Among those who are employed, earnings are low (Schultz-Nielsen 2017; Sarvimäki 2017; Bratsberg, Raaum, and Røed 2014, 2017), though earnings trajectories are steeper for refugees than for other migrant groups (Bevelander 2011, 2016). Local employment conditions matter, particularly for the low-skilled (Bevelander and Lundh 2007), and integration patterns are different for different origin groups (Lundborg 2013). Bakker, Dagevos, and Engbersen (2017) provide an example from the Netherlands of the use of register data elsewhere in Europe, finding again that refugees begin at a large disadvantage compared to other immigrant groups, but that the gap closes over time.

Other analyses for European countries are typically based on survey data. The finding of large gaps in employment, income, and job quality relative to other migrants, which diminish over time, is confirmed by a number of papers using the EU

[8]For Denmark, see Schultz-Nielsen (2017); for Finland, see Sarvimäki (2017); for Norway, see Bratsberg et al. (2014, 2017); for Sweden, see Åslund, Forslund, and Liljeberg (2017), Bevelander and Lundh (2007), Bevelander and Pendakur (2009, 2014), Bevelander (2011), and Lundborg (2013).

Labour Force Survey, a large dataset with ad hoc modules on migrants in 2008 and 2014 (Dumont et al. 2016; Dustmann et al. 2017; Fasani, Frattini, and Minale 2018; Zwysen 2019).

For the United Kingdom, Bloch (2008) identifies high levels of overqualification among employed refugees. A number of papers (see the discussion in Ruiz and Vargas-Silva 2017, 2018) use the UK Labour Force Survey to show that refugees initially have lower employment and wages than comparable economic migrants but show faster growth, at least in employment. Ruiz and Vargas-Silva (2017) and Cebulla, Daniel, and Zurawan (2010) find similar results using the UK Survey of New Refugees.

Other Factors Affecting Refugee Labor Market Outcomes

There are many reasons why the labor market integration of refugees might be expected to differ from that of other migrants. The backgrounds and histories of refugees may inhibit labor market attachment or suppress the wages they can command in a host country. One potential mechanism is that both the selection of refugees and their experience of flight may mean that health status, and especially mental health status, will differ from both natives and other migrants.

For similar reasons, refugees' difficulties in economic integration are also expected to coincide with slower integration in broader social dimensions. After arrival, the development of host-country language skills and social networks are simple markers for social integration and will also clearly be important determinants of success in economic integration. We discuss these factors in this section, noting how refugees differ from other migrants and the resulting effect this is expected to have on labor market outcomes.

Health

Although many studies have found immigrants in general to be typically healthier at arrival than natives, refugees tend to arrive with lower levels of health than other types of immigrants (for example, Giuntella et al. 2018). For the United States, Chin and Cortes (2015) find refugees are almost twice as likely to report being in "poor" or "fair" health as compared to other immigrants (17 versus 9 percent) and similarly much more likely to report being "troubled by pain" (18 versus 9 percent). This difference could be both due to the fact that refugees are selected in a different way than other migrants (in particular, with lower human capital, which has a positive association with health) and due to the deleterious effects of their experiences in their home country or during their subsequent flight.

Fleeing traumatic and emotionally damaging circumstances will affect psychological and physical health, and occurrence of mental health difficulties among refugee populations is well evidenced (Porter and Haslam 2005). This may only aggravate the particularly low initial economic fitness and adaptability of refugees as recovery from trauma and continuing distress over the circumstances from which the individual has fled distracts from integration (for example, Phillimore 2011). In particular, the

incidence of mental illness among refugees is likely to be much higher than in the general population, due to experiences of violent, life-threatening, and traumatizing events in their origin country, adverse conditions during flight or in refugee camps, and potentially exposure to violence or sexual and physical exploitation during and after migration. In addition, stress and anxiety caused by uncertainty about their status in a host country can be expected to exacerbate these problems. Schock et al. (2016), studying refugees in Germany, report that more than 60 percent of adult refugees and more than 40 percent of adolescents have experienced violence in their countries of origin and/or during their migration. Mental health conditions may be an important factor that inhibits the ability of individuals to cope with an unfamiliar environment by disrupting the acquisition of new skills and establishment of social contacts. Indeed, some studies have found mental health indicators to be important predictors of refugee labor market outcomes: for example, in the Netherlands (De Vroome and van Tubergen 2010) and the United Kingdom (Ruiz and Vargas-Silva 2018).

Estimates on the prevalence of mental health disorders among refugees vary considerably, but the overall picture is quite clear of an alarming incidence of mental health issues, in particular depression and post-traumatic stress disorder (for example, Bogic, Njoku, and Priebe 2015; Priebe, Giacco, and El-Nagib 2016; Giacco, Laxhman, and Priebe 2018). Bogic, Njoku, and Priebe (2015) point out that around two-thirds of studies of longer term refugees (displaced for more than five years) report prevalence of post-traumatic stress disorder greater than 20 percent (although lower quality studies tended to report higher rates). Focusing on more reliable studies, the authors suggest that refugees may be several times more likely than general Western populations to suffer either from post-traumatic stress disorder or from depression.

Another possible consequence of refugees' traumatic or violent experiences, along with inhibiting their integration into the host society and economy, may be antisocial behavior after resettlement. Studying the relation between exposure to conflict and violent behavior of refugees in Switzerland, Couttenier et al. (2019) report that cohorts exposed to civil conflicts or mass killings during childhood are on average 40 percent more prone to violent crimes than conationals without this exposure. Moreover, the heterogeneity of integration policies across cantons also allows the authors to show that these effects can be eliminated through policies encouraging early labor market attachment. Horyniak et al. (2016) link trauma and mental illness among refugees, particularly men, to substance abuse.

Thus, the existing evidence seems to suggest that refugees' experiences with violence and trauma can have serious effects on their mental health, and that the share of refugees suffering mental illnesses such as post-traumatic stress disorder is far higher than that in the general populations of host countries. This in turn will have serious consequences for their labor market integration, as well as for the host society in general.

Language

Proficiency in the language of the receiving country is among the most salient and frequently discussed aspects of human capital deficiency among arriving

immigrants (for example, Dustmann and Fabbri 2003). In the United States, numerous authors have provided evidence of the initial weakness and formidable subsequent role of English fluency in adaptation of refugees to the US labor market (as in Connor 2010; Chin and Cortes 2015; Evans and Fitzgerald 2017).

In Europe, Dumont et al. (2016) document large variation between EU host countries in the levels of refugee language proficiency: for example, higher in Spain and lower in Germany. Across the European Union as a whole, 24 percent of refugees with less than ten-years residence have advanced host-country language knowledge, increasing to 49 percent for those with more than ten-years residence (whereas the analogous figures for other non-EU born are 54 percent and 69 percent, respectively). Indeed, much of the gap between native and refugee employment in the European Union is argued to be accounted for by differing language skills: 59 percent of refugees with at least intermediate-level host-country language skills are employed as opposed to only 27 percent of those below this level.

More directly addressing the mechanisms linking language proficiency and employment, Fasani, Frattini, and Minale (2018) report that about one-quarter of refugees across Europe cite language difficulties as the principal obstacle to employability and Bloch (2008) gives a similar figure for the United Kingdom. Auer (2018) uses random assignment of refugees across Swiss language regions as a plausible source of exogenous variation and finds an association of language knowledge with increased probability of job finding.

To demonstrate directly how language skills of refugees compare to those of other migrants and how this changes over time, we use the EU Labour Force Survey's 2014 ad hoc module on the labor market situation of migrants. Immigrants were asked to rate their proficiency in the host country's language from "beginner or less," "intermediate," "advanced," or "mother tongue."[9] The overall pattern is that refugees consistently appear to begin with lower language proficiency than other immigrants (the only exception being in Switzerland). While the language skills of both refugees and other migrant groups appear to improve slowly but substantially over time, refugees' proficiency seems to persistently lag behind that of the other immigrant groups, even decades after migration.

As with labor market outcomes, the story does, however, appear slightly different in the United States. Looking at the American Community Survey (ACS), language proficiency is recorded on a five-response scale from "does not speak English" to "speaks only English at home." The results of this survey again show that refugees arrive with lower levels of language proficiency than other migrants—at the time of migration, only about 44 percent of refugees speak English "well" or better, compared with 64 percent of other immigrants. However, while other immigrants do not tend to see particularly strong gains in English speaking skills over time, refugees rapidly improve and even overtake other migrants' speaking abilities around ten years after arriving in the United States.

[9]For more details on the evidence about language proficiency of refugees discussed throughout this section, the online Appendix offers more detail on language skills for refugees and other immigrants, including figures illustrating both the EU and the US data.

The American Community Survey also asks about linguistic isolation, measured by whether an individual lives in a household in which no person above the age of 14 speaks English "very well" or better. Refugees are initially much more likely than other immigrants to live in houses in which no member is proficient in English, by a margin of 54 percent to 32 percent. Again, while other immigrants do not see much change in this measure over two decades, refugees' rate of linguistic isolation rapidly drops in the years following migration, falling below that of other immigrants after around a decade. Together, these patterns suggest that considerable effort is made in the refugee population to acquire English language proficiency, seemingly above that of other US immigrant groups.

In addition to having well-documented impacts on employability and other economic outcomes, language proficiency is also more generally important for social integration. In particular, Cheung and Phillimore (2014) demonstrate its importance to social network formation.

Social Networks

The formation of social connections, including both bonds with conationals or co-ethnics and bridges to native communities, is important to the broader refugee integration process (Ager and Strang 2008; Cheung and Phillimore 2014) and assists in the economic assimilation of refugees. The economic literature typically measures social networks in an indirect way, by counting individuals of same or similar origin in the region of settlement. An obvious problem of inferring the economic effects of social networks arises if there is sorting—say, if newcomers are more likely to choose to settle where economic conditions are favorable. This concern is typically addressed in the literature by concentrating on situations of random settlement policies for refugees.

The existence of local social networks, as well as evidently being an important measure of social integration per se, has also been argued to be important for migrants' job search prospects—for example, if job opportunities are communicated through established networks such as ethnic communities. Beaman (2012) develops a model along these lines in which employed individuals pass job offers to unemployed network members. In the short run, new arrivals increase the number of unemployed individuals seeking job information, while the number of employed members who can provide this information remains unchanged, which implies that a surge of recently arrived refugees has a negative effect on job finding rates in the short term. However, as refugees do become employed and thus able to pass along additional job offers, a positive information effect eventually dominates. Examining these implications for the labor market outcomes of refugees resettled in the United States, Beaman finds that an increase in the number of social network members resettled in the same year or one year prior to a new arrival leads to a deterioration of outcomes, while a greater number of tenured network members improves the probability of employment and raises wages.

Evidence from Europe generally supports a similar story, with larger social networks improving the labor market outcomes of refugees. For example, making use of dispersal policies for refugees in Scandinavia, several authors (for

Sweden, Edin, Fredriksson, and Åslund 2003, 2004; for Denmark, Damm 2009, 2014) have found that living in areas with high concentrations of co-ethnic or other minority individuals can improve the labor market outcomes of these refugees. These studies find that the effects of larger social networks are amplified for members of higher skilled or better employed groups, which is consistent with Beaman's (2012) model of job information dissemination through ethnic networks. In line with these results, Brücker et al. (2019) find evidence that dispersal policies in Germany have harmful effects on the labor market outcomes of the dispersed refugees. Further supporting the story of job opportunity transmission through social networks, Dagnelie, Mayda, and Maystadt (2019) find evidence for refugees in the United States that employment probability is affected positively by the number of business owners and negatively by the number of employees in their network.

Overall, access to a larger social network of established previous migrants seems helpful in transmitting information and providing access to preferential employment possibilities for newly arrived refugees.

Discussion and Policy Implications

A substantial body of evidence paints a highly consistent picture of refugees as disadvantaged socially and economically relative to other immigrants at arrival. We have provided a comprehensive review of refugees' economic integration and associated processes such as their social integration, language acquisition, and health outcomes, drawing together the existing literature and analyzing an inclusive collection of data from numerous sources and countries. Our focus has been on Europe, Australasia, and North America, regions that, despite a recent rise, receive only a fraction of the worldwide refugee population. Additional future analysis investigating similar issues for receiving countries outside this high-income group would be very timely.

Based on our investigation, we can conclude that refugees have—with the United States being an exception—substantially lower employment rates than other immigrants for at least the first decade after arrival, but that the gap comes close to disappearing during the second decade. Those refugees who do find work also experience much lower wages than other immigrants; again, the gap becomes smaller, but does not close during the first decade. The gap in labor market achievement between refugees and other immigrant groups (and indeed natives) is mostly unaccounted for by differences in demographic composition and the educational disadvantage of refugee groups. Aggravating factors for the detrimental economic position of refugees could include language deficiencies or physical and mental health problems due to experiences in regions of origin or during migrations.

One area of reform that can facilitate early integration is the asylum process itself, which is often lengthy and unpleasant. An important finding from the existing literature is that the length of time spent in refugee camps or other asylum accommodation has a strong impact on the future outcomes of refugees. For instance, for the Netherlands, Bakker, Dagevos, and Engbersen (2014) find

that a longer stay in asylum accommodation decreases the likelihood and quality of future employment, while De Vroome and Van Tubergen (2010) establish a negative association between the time spent in refugee reception centers and economic integration. Hainmueller, Hangartner, and Lawrence (2016) show that for refugees in Switzerland, each additional year that an asylum seeker waits for their claim to be processed decreases the subsequent employment rate by several percentage points. Similarly, Hvidtfeldt et al. (2018) compute that an additional year of waiting time in the Danish asylum system decreases subsequent employment by 3.2 percentage points on average. Hvidtfeldt et al. (forthcoming) show that lengthened waiting times also raise the risk of psychiatric problems. In Germany, Brücker et al. (2019) find that prolonged asylum procedures inhibit subsequent job finding.

Asylum claims may be decided while outside the country of ultimate destination, possibly in camps near to the origin country, or may be decided after arrival in the potential host country, but while still living in restricted housing conditions with barriers to employment and while supported by state payments. These barriers may have effects that persist long after the formal restrictions are lifted. Marbach, Hainmueller, and Hangartner (2018) show that temporary employment bans after arrival in Germany have significant adverse effects on subsequent employment trajectories of refugees.

After acceptance of refugees, it is not uncommon for host countries to enforce regional dispersal. The general argument for these policies is that this spreads the burden of support, avoids enclaves, forces refugees to engage with receiving communities, and therefore incentivizes acquisition of human capital and accelerates integration. However, the evidence suggests that if economic integration is the objective, this approach is questionable. Dispersal of refugees means depriving them of access to networks of individuals of similar origin, which are often critical to job finding and social learning. Thus, allowing for unrestricted settlement decisions of refugees within the receiving country may lead to better economic outcomes than external allocation.

In terms of post-arrival policy choices that can improve refugees' mental health outcomes, the German National Academy of Sciences Leopoldina (2018), in a detailed analysis of the various channels through which experiences of refugees can affect their mental health, emphasize the importance of providing support addressing psychological problems at an early stage. Giacco, Laxhmant, and Priebe (2018), as well as several other studies, emphasize the detrimental and aggravating effects that adverse conditions in a host country can have on refugees' mental health. Similar conclusions are reached by Bakker, Dagevos, and Engbersen (2014) and Kaltenbach et al. (2018), while Porter and Haslam (2005) identify living in institutional accommodation and experiencing restricted economic opportunity as risk factors for mental health outcomes. Studies investigating mental health outcomes in relation to post-migration experiences overwhelmingly conclude that the consequences of exposure to violence and trauma can be mitigated by early psychological support, reduced duration in asylum facilities, and support for early absorption into the labor market.

We conclude therefore that keeping the asylum process short, providing early support to address health issues, and facilitating refugees to join the labor market at the earliest possible stage are of key importance. Such policies reduce skill loss, help to reduce uncertainty about future residence, and improve the effectiveness of human capital investment, thus enhancing incentives to invest. To underscore this point, Bakker, Dagevos, and Engbersen (2014) find that in the Netherlands, temporary legal status leads to lower employment probability and job quality than permanent legal status and naturalization. Fasani, Frattini, and Minale (2018) show that groups of refugees granted permanent status at higher rates experience more favorable labor market outcomes. The success of such policies is also consistent with the earlier evidence on economic integration, which suggests large initial skill deficiencies that can potentially be addressed by policy.

Over and above all of this, refugees may find themselves subject to particularly intense hostility from host communities suspicious of the genuineness of claims of persecution and influenced by populist campaigns portraying asylum seekers as opportunistic exploiters of misplaced generosity. Public policy can accentuate or ameliorate such hostilities, at least to some extent.

In coming years, the outflow of refugees from poorer regions of the world seems likely to continue undiminished, given the continued political fragility of populous and growing countries from which migration to safer locations is increasingly easy. International obligations mandate a humanitarian duty to provide refuge in well-established cases. Reluctant acceptance of those obligations with arduous asylum processes and conditions that hinder successful integration harms the interests of refugees, wasting their talents and therefore also harming receiving countries themselves. A deeper understanding of the refugee experience can help to support sensible and constructive integration policy that encourages economically and socially productive participation of refugees in receiving societies.

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References

Adams, Ben, and Cassandra Vinograd. 2015. "Salma's Story: One Refugee Family's Journey from Syria to Germany." *NBC News*, October 7. https://www.nbcnews.com/storyline/europes-border-crisis/refugee-crisis-one-familys-journey-syria-germany-n425636.

Adda, Jerome, Christian Dustmann, and Joseph-Simon Gorlach. 2019. "The Dynamics of Return Migration, Human Capital Accumulation, and Wage Assimilation." Unpublished.

Ager, Alastair, and Alison Strang. 2008. "Understanding Integration: A Conceptual Framework." *Journal of Refugee Studies* 21 (2): 166–91.

Akresh, Ilana Redstone. 2008. "Occupational Trajectories of Legal US Immigrants: Downgrading and Recovery." *Population and Development Review* 34 (3): 435–56.

Aksoy, Cevat Giray, and Panu Poutvaara. 2019. "Refugees' and Irregular Migrants' Self-Selection into Europe: Who Migrates Where?" CESifo Working Paper Series 7781.

Alcorn, Gay. 2019. "'The Land Where We Lived Has Gone'—The Life Story of a Rohingya Refugee." *The Guardian*, August 4. https://www.theguardian.com/world/2019/aug/04/rohingya-refugee-myanmar-australia-oppression-suffering.

Åslund, Olof, Anders Forslund, and Linus Liljeberg. 2017. "Labour Market Entry of Non-labour Migrants—Swedish Evidence." *Nordic Economic Policy Review* 2017: 115–58.

Auer, Daniel. 2018. "Language Roulette—The Effect of Random Placement on Refugees' Labour Market Integration." *Journal of Ethnic and Migration Studies* 44 (3): 341–62.

Aydemir, Abdurrahman. 2011. "Immigrant Selection and Short-Term Labor Market Outcomes by Visa Category." *Journal of Population Economics* 24 (2): 451–75.

Bakker, Linda, Jaco Dagevos, and Godfried Engbersen. 2014. "The Importance of Resources and Security in the Socio-economic Integration of Refugees. A Study on the Impact of Length of Stay in Asylum Accommodation and Residence Status on Socio-economic Integration for the Four Largest Refugee Groups in the Netherlands." *Journal of International Migration and Integration* 15 (3): 431–48.

Bakker, Linda, Jaco Dagevos, and Godfried Engbersen. 2017. "Explaining the Refugee Gap: A Longitudinal Study on Labour Market Participation of Refugees in the Netherlands." *Journal of Ethnic and Migration Studies* 43 (11): 1775–91.

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): 128–61.

Becker, Sarah O., and Andreas Ferrara. 2019. "Consequences of Forced Migration: A Survey of Recent Findings." *Labour Economics* 59: 1–16.

Bevelander, Pieter. 2011. "The Employment Integration of Resettled Refugees, Asylum Claimants, and Family Reunion Migrants in Sweden." *Refugee Survey Quarterly* 30 (1): 22–43.

Bevelander, Pieter. 2016. "Integrating Refugees into Labor Markets." IZA World of Labor 2016: 269.

Bevelander, Pieter, and Christer Lundh. 2007. "Employment Integration of Refugees: The Influence of Local Factors on Refugee Job Opportunities in Sweden." IZA Discussion Paper 2551.

Bevelander, Pieter, and Ravi Pendakur. 2009. "The Employment Attachment of Resettled, Refugees, Refugees and Family Reunion Migrants in Sweden." In *Resettled and Included? The Employment Integration of Resettled Refugees in Sweden*, edited by Pieter Bevelander, Mirjam Hagström, and Sofia Rönnqvist, 227–45. Malmö, Sweden: Malmö University Electronic Publishing.

Bevelander, Pieter, and Ravi Pendakur. 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.

Bloch, Alice. 2008. "Refugees in the UK Labour Market: The Conflict between Economic Integration and Policy-Led Labour Market Restriction." *Journal of Social Policy* 37 (1): 21–36.

Bogic, Marija, Anthony Njoku, and Stefan Priebe. 2015. "Long-Term Mental Health of War-Refugees: A Systematic Literature Review." *BMC International Health and Human Rights* 15: Article 29.

Bratsberg, Bernt, Oddbjørn Raaum, and Knut Røed. 2014. "Immigrants, Labour Market Performance and Social Insurance." *Economic Journal* 124 (580): F644–F683.

Bratsberg, Bernt, Oddbjørn Raaum, and Knut Røed. 2017. "Immigrant Labor Market Integration across Admission Classes." *Nordic Economic Policy Review* 2017: 17–54.

Bratsberg, Bernt, Oddbjørn Raaum, and Knut Røed. 2019. "Social Insurance Design and the Economic Integration of Immigrants." In *Integrating Immigrants into the Nordic Labour Markets*, edited by Lars Calmfors and Nora Sánchez Gassen, 133–58. Copenhagen, Denmark: Nordic Council of Ministers.

Brücker, Herbert, Jens Hainmueller, Dominik Hangartner, Philipp Jaschke, and Yuliya Kosyakova. 2019. "Refugee Migration to Germany Revisited: Some Lessons on the Integration of Asylum Seekers."

Paper presented at the XXI European Conference of the fRDB on "How to Manage the Refugee Crisis." Reggio Calabria, Italy, June 15.

Capps, Randy, Kathleen Newland, Susan Fratzke, Susanna Groves, Gregory Auclair, Michael Fix, and Margie McHugh. 2015. "The Integration Outcomes of U.S. Refugees: Successes and Challenges." Washington, DC: Migration Policy Institute.

Cebulla, Andreas, Megan Daniel, and Andrew Zurawan. 2010. "Spotlight on Refugee Integration: Findings from the Survey of New Refugees in the United Kingdom." London, UK: UK Home Office.

Cheung, Sin Yi, and Jenny Phillimore. 2014. "Refugees, Social Capital, and Labour Market Integration in the UK." *Sociology* 48 (3): 518–36.

Chin, Aimee, and Kalena E. Cortes. 2015. "The Refugee/Asylum Seeker." In *Handbook of the Economics of International Migration*, Vol. 1, edited by Barry R. Chiswick and Paul W. Miller, 585–658. Amsterdam, Netherlands: Elsevier.

Connor, Phillip. 2010. "Explaining the Refugee Gap: Economic Outcomes of Refugees Versus Other Immigrants." *Journal of Refugee Studies* 23 (3): 377–97.

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): 465–80.

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): 4378–425.

Dagnelie, Olivier, Anna Maria Mayda, and Jean-François Maystadt. 2019. "The Labor Market Integration of Refugees in the United States: Do Entrepreneurs in the Network Help?" *European Economic Review* 111: 257–72.

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. 2014. "Neighborhood Quality and Labor Market Outcomes: Evidence from Quasi-random Neighborhood Assignment of Immigrants." *Journal of Urban Economics* 79: 139–66.

De la Rica, Sara, Albrecht Glitz, and Francesc Ortega. 2015. "Immigration in Europe: Trends, Policies, and Empirical Evidence." In *Handbook of the Economics of International Migration*, Vol. 1, edited by Barry R. Chiswick and Paul W. Miller, 1303–62. Amsterdam, Netherlands: Elsevier.

Department of Social Services and Australian Institute of Family Studies. 2013–2014. "Building a New Life in Australia: The Longitudinal Study of Humanitarian Migrants, Release 4 (Waves 1–4)." Australian Data Archive Dataverse. doi:10.26193/ZQHBPW (accessed April 1, 2019).

Department of Social Services and Melbourne Institute of Applied Economic and Social Research. 2001–2017. "The Household, Income and Labour Dynamics in Australia (HILDA) Survey, GENERAL RELEASE 17 (Waves 1–17)." Australian Data Archive Dataverse. doi:10.26193/PTKLYP (accessed April 1, 2019).

De Vroome, Thomas, and Frank van Tubergen. 2010. "The Employment Experience of Refugees in the Netherlands." *International Migration Review* 44 (2): 376–403.

Dumont, Jean-Christophe, Thomas Liebig, Jorg Peschner, Filip Tanay, and Theodora Xenogiani. 2016. "How are Refugees Faring on the Labour Market in Europe? A First Evaluation Based on the 2014 EU Labour Force Survey Ad Hoc Module." European Commission Working Paper 1/2016.

Dustmann, Christian, and Francesca Fabbri. 2003. "Language Proficiency and Labour Market Performance of Immigrants in the UK." *Economic Journal* 113 (489): 695–717.

Dustmann, Christian, Francesco Fasani, Tommaso Frattini, Luigi Minale, and Uta Schönberg. 2017. "On the Economics and Politics of Refugee Migration." *Economic Policy* 32 (91): 497–550.

Dustmann, Christian, and Joseph-Simon Görlach. 2015. "Selective Out-Migration and the Estimation of Immigrants' Earnings Profiles." In *Handbook of the Economics of International Migration*, Vol. 1, edited by Barry R. Chiswick and Paul W. Miller, 489–533. Amsterdam, Netherlands: Elsevier.

Edin, Per-Anders, Peter Fredriksson, and Olof Åslund. 2003. "Ethnic Enclaves and the Economic Success of Immigrants—Evidence from a Natural Experiment." *Quarterly Journal of Economics* 118 (1): 329–57.

Edin, Per-Anders, Peter Fredriksson, and Olof Åslund. 2004. "Settlement Policies and the Economic Success of Immigrants." *Journal of Population Economics* 17 (1): 133–55.

European Commission. 2008 and 2014. "European Union Labour Force Survey." Eurostat. https://doi.org/10.2907/LFS1983-2018V.1 (accessed April 8, 2019).

Evans, William N., and Daniel Fitzgerald. 2017. "The Economic and Social Outcomes of Refugees in the United States: Evidence from the ACS." NBER Working Paper 23498.

Fasani, Francesco, Tommaso Frattini, and Luigi Minale. 2018. "(The Struggle for) Refugee Integration into the Labour Market: Evidence from Europe." IZA Discussion Paper 11333.

Fix, Michael, Kate Hooper, and Jie Zong. 2017. "How Are Refugees Faring? Integration at US and State Levels." Washington, DC: Migration Policy Institute.

García, Wendy. 2019. "Why I'm Fleeing Honduras to Seek Asylum in the US." *The Guardian*, July 29. https://www.theguardian.com/environment/2019/jul/29/honduran-asylum-seeker-dam-protester.

German Institute for Economic Research. 1984–2017. "Socio-Economic Panel-Core Version 34." Socio-Economic Panel. doi:10.5684/soep.v34 (accessed May 8, 2019).

German National Academy of Sciences Leopoldina. 2018. *Traumatised Refugees—Immediate Response Required*. Halle, Germany: German National Academy of Sciences Leopoldina.

Giacco, Domenico, Neelam Laxhman, and Stefan Priebe. 2018. "Prevalence of and Risk Factors for Mental Disorders in Refugees." *Seminars in Cell and Developmental Biology* 77: 144–52.

Giuntella, Osea, Zovanga Kone, Isabel Ruiz, and Carlos Vargas-Silva. 2018. "Reason for Immigration and Immigrants' Health." *Public Health* 158: 102–9.

Goebel, Jan, Markus M. Grabka, Stefan Liebig, Martin Kroh, David Richter, Carsten Schröder, and Jürgen Schupp. 2019. "The German Socio-Economic Panel Study (SOEP)." *Journal of Economics and Statistics* 239 (2): 345–60.

Hainmueller, Jens, Dominik Hangartner, and Duncan Lawrence. 2016. "When Lives Are Put on Hold: Lengthy Asylum Processes Decrease Employment Among Refugees." *Science Advances* 2 (8): E1600432.

Harder, Niklas, Lucila Figueroa, Rachel M. Gillum, Dominik Hangartner, David D. Laitin, and Jens Hainmueller. 2018. "Multidimensional Measure of Immigrant Integration." *Proceedings of the National Academy of Sciences* 115 (45): 11483–488.

Hatton, Timothy J. 2016. "Refugees, Asylum Seekers, and Policy in OECD Countries." *American Economic Review* 106 (5): 441–5.

Hatton, Timothy J. 2017. "Refugees and Asylum Seekers, the Crisis in Europe and the Future of Policy." *Economic Policy* 32 (91): 447–96.

Hatton, Timothy J. Forthcoming. "Asylum Migration to the Developed World: Persecution, Incentives and Policy." *Journal of Economic Perspectives*. https://doi.org/10.1257/jep20191107.

Home Office, UK Border Agency: Analysis, Research and Knowledge Management. 2010. "Survey of New Refugees, 2005–2009." http://doi.org/10.5255/UKDA-SN-6556-1.

Horyniak, Danielle, Jason S. Melo, Risa M. Farrell, Victoria D. Ojeda, and Steffanie A. Strathdee. 2016. "Epidemiology of Substance Use among Forced Migrants: A Global Systematic Review." *Public Library of Science One* 11 (7): E0159134.

Hvidtfeldt, Camilla, Jørgen Holm Petersen, and Marie Norredam. Forthcoming. "Prolonged Periods of Waiting for an Asylum Decision and the Risk of Psychiatric Diagnoses: A 22-Year Longitudinal Cohort Study from Denmark." *International Journal of Epidemiology*.

Hvidtfeldt, Camilla, Marie Louise Schultz-Nielsen, Erdal Tekin, and Mogens Fosgerau. 2018. "An Estimate of the Effect of Waiting Time in the Danish Asylum System on Post-resettlement Employment among Refugees: Separating the Pure Delay Effect from the Effects of the Conditions under Which Refugees are Waiting." *Public Library of Science One* 13 (11): E0206737.

Kaltenbach, Elisa, Maggie Schauer, Katharin Hermenau, Thomas Elbert, and Inga Schalinski. 2018. "Course of Mental Health in Refugees—A One Year Panel Survey." *Frontiers in Psychiatry* 9.

Lundborg, Per. 2013. "Refugees' Employment Integration in Sweden: Cultural Distance and Labor Market Performance." *Review of International Economics* 21 (2): 219–32.

Marbach, Moritz, Jens Hainmueller, and Dominik Hangartner. 2018. "The Long-Term Impact of Employment Bans on the Economic Integration of Refugees." *Science Advances* 4 (9): EAAP9519

Mata, Fernando, and Ravi Pendakur. 2017. "Of Intake and Outcomes: Wage Trajectories of Immigrant Classes in Canada." *Journal of International Migration and Integration* 18 (3): 829–44.

Office of Immigration Statistics. 2001–2017. "Yearbook of Immigration Statistics." https://www.dhs.gov/immigration-statistics/yearbook (March 31, 2019).

Office for National Statistics, Social Survey Division, Northern Ireland Statistics and Research Agency, and Central Survey Unit. 2008. "Labour Force Survey Ad Hoc Module Eurostat Dataset, 2008." UK Data Service. http://doi.org/10.5255/UKDA-SN-6770-1.

Phillimore, Jenny. 2011. "Refugees, Acculturation Strategies, Stress and Integration." *Journal of Social Policy* 40 (3): 575–93.

Porter, Matthew, and Nick Haslam. 2005. "Predisplacement and Postdisplacement Factors Associated

with Mental Health of Refugees and Internally Displaced Persons: A Meta-analysis." *Journal of the American Medical Association* 294 (5): 602–12.

Priebe, Stefan, Domenico Giacco, and Rawda El-Nagib. 2016. "Health Evidence Network Synthesis Report 47: Public Health Aspects of Mental Health among Migrants and Refugees: A Review of the Evidence on Mental Health Care for Refugees, Asylum Seekers and Irregular Migrants in the WHO European Region." Copenhagen, Denmark: World Health Organization Regional Office for Europe.

Refugee Action. 2017. "Adam." October 21. https://www.refugee-action.org.uk/adam/.

Ruggles, S., Flood, S., Goeken, G., Grover, J., Meyer, E., Pacas, J., and Sobek, M. 2019. "IPUMS USA: Version 9.0." IPUMS. https://doi.org/10.18128/D010.V9.0.

Ruiz, Isabel, and Carlos Vargas-Silva. 2017. "Are Refugees' Labour Market Outcomes Different from Those of Other Migrants? Evidence from the United Kingdom in the 2005–2007 Period." *Population, Space and Place* 23 (6): E2049.

Ruiz, Isabel, and Carlos Vargas-Silva. 2018. "Differences in Labour Market Outcomes between Natives, Refugees and Other Migrants in the UK." *Journal of Economic Geography* 18 (4): 855–85.

Sarvimäki, Matti. 2017. "Labor Market Integration of Refugees in Finland." *Nordic Economic Policy Review* 2017: 91–114.

Schock, Katrin, Maroa Böttche, Rita Rosner, Mechthild Wenk-Ansohn, and Christine Knaevelsrud. 2016. "Impact of New Traumatic or Stressful Life Events on Pre-existing PTSD in Traumatized Refugees: Results of a Longitudinal Study." *European Journal of Psychotraumatology* 7 (1): Article 32106.

Schultz-Nielsen, Marie Louise. 2017. "Labour Market Integration of Refugees in Denmark." *Nordic Economic Policy Review* 2017: 55–90.

UN High Commissioner for Refugees (UNHCR). 2011. "Resettlement Handbook." Geneva, Switzerland: UNHCR.

UN High Commissioner for Refugees (UNHCR). 2019a. "Global Trends: Forced Displacement in 2018." Geneva, Switzerland: UNHCR.

UN High Commissioner for Refugees (UNHCR). 2019b. "Mediterranean Situation." Operational Portal Refugee Situations. https://data2.unhcr.org/en/situations/mediterranean (accessed November 17, 2019).

Watson, Stephen T. 2019. "From Kenyan Refugee Camp to UB Commencement, One Graduate's Story." *Buffalo News*, May 18. https://buffalonews.com/2019/05/18/from-kenyan-refugee-camp-to-ub-commencement-one-grads-story/.

Zwysen, Wouter. 2019. "Different Patterns of Labor Market Integration by Migration Motivation in Europe: The Role of Host Country Human Capital." *International Migration Review* 53 (1): 59–89.