Labour market entry of refugees–Swedish evidence

by

Olof Åslund, Anders Forslund, and Linus Liljeberg

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Abstract

We describe the short- and long-term patterns of labour market entry and integration among non-labour immigrants to Sweden. Our main sample considers the 1990-2014 period. The patterns of time to first contact and labour market vary with business cycle conditions, country of origin and other background characteristics. But the main message is the remarkable stability of a relatively slow entry process and long-term outcomes below those of the average worker. The number of jobs before entry is limited and the first employer contact is for many a port to a more stable position. First jobs are comparatively often found in small, low-wage firms, which over time have become increasingly present in service industries. Our discussion of policy experiences suggest several margins and factors affecting the labour market outcomes of recent migrants, but also indicate that no single reform or measure is likely to in itself radically change the patterns.

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JEL-codes: [Click and write the JEL-codes]
1 Introduction
Refugee immigration to Sweden has been sizeable for a long time and reached an all times high in 2015 in terms of the number of asylum seekers. The numbers of granted residence permits for refugees have also been high in later years and can be expected to increase the next few years due to the surge in asylum seekers (see Figure 1). It can furthermore be noted that the number of asylum seeking children was around 70 000 (of which roughly half arrived without their parents) in 2015.

All in all, the numbers of asylum seekers and refugee immigrants are large enough to imply that successful integration will be important not only for the immigrants but also for native Swedes and previous migrants. The recent numbers are also significant in the sense that they imply challenges to a large number of Swedish institutions in the short run. This is obviously true for refugee reception institutions, but also for schools and for the housing market. However, if the integration process should prove to be successful, this would alleviate future labour market problems associated with an aging population and contribute to better long-run public finances. And an unsuccessful integration would instead make such long-run challenges tougher. Hence, there is no doubt that integration will be a key issue in Sweden in the years to come.

In this paper we present integration patterns for earlier cohorts of immigrants to shed light on what we should expect given earlier experiences. It goes without saying that earlier experiences will be more informative if institutions do not change too much and that responses are similar to inflows of immigrants of different sizes and composition (e.g., with respect to age, education, and birth country); we know that the size and composition of immigrant inflows vary substantially over time. But looking at previous experience is arguably the best foundation for discussing future prospects.

We study the first contacts with the labour market and the process of reaching a more stable employment and earnings position. We also describe in which industries and firms entry occurs, describe the number of jobs and employers met from the first contact until becoming established. We also analyse earnings development and long-term indicators on economic marginalisation. The population under study is immigrants arriving in the 1990–2014 period, from refugee sending countries. The paper also
contains a description and discussion of policies, reforms and institutions relevant for the labour market prospects of newly arrived migrants.

2 Refugee migration to Sweden in the post-war period

Sweden’s history as a significant net immigration receiver begins after World War II. In the 1930 census, only 1 percent of the population was foreign-born, climbing to 7 percent in 1970 and further to 17 percent at the end of 2015.

During and after the war, a substantial number of refugees from neighbouring countries sought shelter in Sweden (which lifted some restrictions against refugee migration during the war). Some arrived from Norway, Denmark and the Baltic countries, whereas others came from concentration camps in continental Europe. These individuals to a large degree returned to their countries of origin or moved to a third country in the late 1940s, but significant proportions also remained in Sweden.

In the 1950s and 1960s labour migration dominated the inflows. Most migrants came from the Nordic countries, especially Finland, where the number of individuals living in Sweden increased by close to 200,000 from 1951–1970. But the period also saw some immigration following political turmoil, e.g. in Hungary (1956), Greece (1967) and Czechoslovakia (1968). The regulations for non-Nordic labour migration became stricter from 1967 and even more so in the early 1970s. A gradual shift then occurred toward refugee and family-related immigration. The 1970s and early 1980s saw politically motivated immigration from e.g. Chile, Turkey, Lebanon, Vietnam, and Poland.

During the 1980s, the number of asylum applicants and residence permits granted on humanitarian grounds increased (see Figure 1). Iran, Ethiopia and Chile were significant source countries. In 1989, close to 25,000 individuals immigrated, partly as a result of a new praxis shortening waiting times and preferential treatment of those whose applications had been pending for a long time. As a result, the number of asylum applications rose, which in turn contributed to a tightening of the regulations later the same year. For a couple of years, refugee immigration was somewhat lower, before the Balkan wars caused an unprecedented number of people to go to Sweden for

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1 We use the term refugees also for asylees and humanitarian residence permit categories. The presentation largely builds on Nilsson (2004) and on official figures from the Statistics Sweden and the Swedish Migration Board. See also http://www.motallaodds.org/factualweb/se/2.3/articles/1930_tslet.html
humanitarian reasons. In the summer of 1993, visa requirements for citizens from Bosnia-Herzegovina and (F.Y.R) Macedonia were enacted to reduce the number of asylum seekers. In 1993–1994 over 80,000 refugees were granted residence in Sweden, whereof 66,000 from former Yugoslavia. Another 20,000 came in these two years as family reunification migrants to previous refugees. As can be seen in Figure 1, this was also a time when falling and negative GDP growth was accompanied/followed by sharply rising unemployment. Another message from the figure is that there is a lot of variation in economic conditions also in later years, meaning that the cohorts we study have faced varying prospects at arrival.

Throughout the 1990s, there was also a substantial and persistent inflow of people from Iraq, and (particularly in the early part of the decade) Somali refugees also became a significant refugee group. Iraqis continued to come in the 2000s, with peaks in the 2006–2007 period. Somali refugee migration increased at the same time, but with a somewhat later peak. Even though the presentation here mentions only a few countries, it is important to note that there is a wide distribution of citizenships among asylum seekers to Sweden. While it may dominate the inflow in one or two consecutive years, no single group has done so seen over a longer time period.

With some variation, the trend has been toward steadily growing overall immigration since the mid 1980s, reaching more than 100,000 residence permits per year from 2012. Refugees and their families have constituted on average 25–30 percent of this figure since the year 2000, but growing in recent years. Since 2000, women have made up 30–40 percent of the asylum seekers annually. Children constituted about one quarter of the applicants before the number of unaccompanied minors grew from about 2 to 8 percent from 2008.

Much due to the war in Syria and other conflicts in the region, the total number of asylum seekers increased annually from 2011 to 2014. In 2015, projections in the first part of the year signalled that the number of application would fall below that of 2014. But in the late summer things changed and the inflows increased rapidly, reaching 8,000-10,000 applications weekly in October and November. The Swedish government took dramatic steps, which combined with changes outside Sweden sharply decreased the number of people seeking asylum in Sweden. Many decisions are still pending, so the total impact of the 2014–2015 asylum applications on refugee immigration is still to
be seen. From January through September 2016, a total of 37,980 individuals were granted asylum.

This short description again illustrates that refugee migration is much driven by external dramatic events, but occurs also in interplay with legal frameworks, where developments proceed and follow interchangeably. While the legal distinction between e.g. refugees and labour migrants is typically clear-cut, an individual migrant’s decision may well be affected by several factors of different types (e.g. social and economic hardship in combination with political oppression). The legal frameworks affecting migration is also likely to play an important role, and one can expect people to follow the route that is more open and feasible.

Figure 1: Asylum seekers, residence permits, and unemployment 1984–2015
Source: Statistics Sweden (LFS), the Swedish Migration Board.

3 Some data issues and definitions
In this study, we are interested in immigration to Sweden that is not driven by persons from other countries finding jobs who subsequently decide to move to Sweden (immigration for labour market reasons). While integration issues certainly may be
important in relation to labour market driven immigration, it may be argued that the most interesting issues regarding labour migrants relate to their impact on natives through an increased labour supply in certain segments of the labour market. We do not deal with such issues in this study. Instead, we focus on the labour market integration of immigrants who arrive either as refugees or as relatives of refugees. For these immigrants, labour market integration is a key issue on which we will concentrate. Hence, we look at different measures of labour market integration of non-labour immigrants and how these measures evolve over time.

A first thing to notice is that we do not have any direct information in our data on the immigrants’ reasons to migrate to Sweden. We do, however, have information on birth country (or birth region) and time for receipt of residence permit (which formally, and in our data, corresponds to the time of immigration). We use this information to approximate the type of immigration (mainly: refugees are from non-European countries outside the OECD except for the period of wars in former Yugoslavia; see Appendix x for exact definition used in the study). In addition, we do not observe immigrants in our data when they apply for asylum (arrive in Sweden), we only observe the subsample of asylum seekers who actually get a residence permit when they get their permits. As the process of getting a residence permit tends to be lengthy, we systematically underestimate the durations of immigrants’ actual stay in Sweden. However, our definition of immigration corresponds to the formal one, which also defines much of the support available to the newly arrived.

Our data will contain a significant share of family reunification migrants (and also some migrants who arrive for studies or work, although much fewer). We believe that the economic integration of this broader immigrant group is relevant for our purposes, and given that the regulations and conditions for family migration has varied over time, we arguably avoid some sample composition issues by using a broader group. Having said this, we will also present results for countries/cohorts where we know refugees strongly dominated the inflow.

Second, we must decide how to measure labour market integration. Our approach in this respect is to view integration as a process potentially involving many steps. Hence, to describe this process, we walk through it step by step to see how they are taken by different groups of immigrants and whether the outcomes change over time. In this, we
start with the first contacts with the labour market: how long does it take before the first attempt to look for jobs by registering at the Public Employment Service (PES)? How long does it take to get the contact with an employer? The first contact/job is defined to be the job in which an immigrant receives the first earnings, no matter how small these earnings are.

We also look at how long it takes to labour market entry, “the first real job”. It is not obvious how to define labour market entry. We have chosen to define labour market entry year as the first year that a person has annual earnings in excess of half the median annual earnings of a 45 year-old. Hence, we sum up the labour earnings during a given year. This means that an individual may have more than one job the year (s)he gets established. As we look at the way into the labour market, this is natural. The threshold is chosen high enough to rule out short temporary jobs, but low enough to allow for low-paid full-time jobs during a substantial part of the year.

Furthermore, we characterise both the first jobs and the entry jobs in terms of industries, firm sizes, and whether firms are high-paying or low-paying ones. We also look at integration in terms of the development of the position in percentile ranked income distributions over time since immigration.

Finally, we use register data to look at some complementary outcomes which primarily reflect integration problems: social assistance take-up and measures of long-term unemployment/non-employment.

4 Labour market integration: How long does it take?

In this section, we present evidence on how long time the different steps taken during the labour market entry process take.

4.1 First labour market contacts

This section uses two measures of the time until the first contact with the Swedish labour market: being registered at the PES and having any level of earnings. The first measure is intended to capture individuals looking for a job, or at least in the process of approaching the labour market. But people may of course look for (and find) work

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2 This is the definition used by Erikson et al. (2007). The earnings threshold roughly corresponds to six monthly wages for a full-time janitor in the local public sector.
without going to the PES. Then we are, however, limited to those who to some extent succeed, which is what our second measure aims to capture.

4.1.1 First contact with the Public Employment Service
A common first step into the Swedish labour market is to register as a job seeker at the Public Employment Service (PES). Figure 2 displays the fractions of different immigrant cohorts (1992–2014) having had the first contacts with the PES after 1, 3, 5, 10 and 15 years after immigration. For a given cohort, the different lines present the cumulated experience (since they display the fraction registered on at least one point, they can never cross). In the late 1990s and early 2000s, the patterns were stable showing a substantial fraction (but still a minority) registering within one year after immigration. Then, another 30 percent became registered up to and including the 5. From 2011 (Dec 2010), when the responsibility for refugee reception and integration was transferred from the municipalities to the PES, we see increasing fractions of immigrants with early contacts with the PES.

Figure 2: Fraction that has been registered at least once (at least one day) at the PES for different cohorts at different number of years since immigration
4.1.2 First employer contact–first earnings

We now turn to our other measure of first labour market contacts. Figure 3 is constructed similarly to Figure 2, but shows the fraction of immigrants who have had positive earnings at some point within 1, 2, 3, 5, 10 and 15 years after immigration for different immigration cohorts between 1990 and 2013. A number of features are worth mentioning. First, the importance of business cycle conditions is clearly visible in the low shares having a first job 1, 2 and 3 years after immigration for cohorts arriving in the early 1990s. A similar indication is the drop for immigrants entering around the financial crisis of 2009. Second, the share rises continuously with the duration of the stay in Sweden and reaches around 90 per cent after 10 to 15 years. Third, there is no clear trend over the immigration cohorts in the timing of the first jobs, especially looking at shares for those who have had their residence permits for at least five years. This suggests that the timing of the first jobs is not very sensitive to, e.g., the number of residence permits granted (see Figure 1) or “normal” changes in business cycle conditions.

Figure 3: Fraction of immigrants with positive earnings at least once for different cohorts at different numbers of years after immigration. Age 20–50 at immigration year
4.2 Labour market entry—the “first real job”
Figure 4 shows the same type of information as Figure 3, but with the difference being that Figure 4 shows the fraction that have held a job generating earnings of at least half the medium earnings of a 45-year-old. It is evident from the figure that labour market entry is a time-consuming process – it takes more than five years for half a cohort of immigrants to enter the labour market. However, after 15 years around 80 per cent in the cohorts have completed the labour market entry. As for the first contacts, business cycle conditions matter. If anything, they seem to matter more for entry than for the first contact.\(^3\) There is no indication that the process has deteriorated over time, actually the opposite seems to be the case. Once again, combining the information in Figure 4 with the information in Figure 1, it is hard to see a systematic relationship between the number of immigrants in a cohort and labour market success, as measured by time to labour market entry.

A relevant question is of course whether what we label “entry” is temporary or permanent. An indication is given by a comparison of long-term patterns conditional on previous entry. Looking at those who met the earnings criterion in at least one year within the first three, about two-thirds meet the criterion in any given later year. In other words, entry is clearly linked to future prospects, but there is also a substantial fraction that go back to lower earnings. Another related relevant issue concerns job stability. If involuntary job loss is more common among immigrants than among natives, this may imply different kinds of job mobility among immigrants than among natives, probably implying less upward wage mobility among immigrants (see Barth et al., 2012, for an empirical analysis of the Norwegian labour market along such lines). Such an empirical analysis of job stability is, however, beyond the scope of this paper.

\(^3\) This suggests that scarring might be more significant for searching, getting and keeping “real” jobs than for more occasional labour earnings.
4.3 Differences between source countries and groups of immigrants

The averages presented in sections 4.1 and 4.2 hide some differences between different source countries and groups of immigrants. First, country of origin seems to be potentially important both for the time to the first job and to labour market entry. We illustrate this in Figure 5, where we compare immigrants from former Yugoslavia with immigrants from Iraq. The differences are striking, both regarding the first contact and, especially, labour market entry with integration running much smoother for immigrants from former Yugoslavia than from Iraq. The choice of these two groups are for illustrative purposes; there are similar differences between other groups and it is a common finding that country of origin in a statistical sense explains much of the differences seen in the labour market among recent migrants (see also the regressions presented below). This suggests that country of origin may be important in the integration process.

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**Figure 4:** Fraction of immigrants who have entered the labour market for different cohorts at different numbers of years after immigration. Age 20–50 at immigration year.
We have also computed labour market entry patterns for other subgroups of the studied immigrant cohorts. We summarise the results of these computations here. Looking at age at the time of immigration, it seems that young persons (age 20–29) enter the labour market somewhat faster than the average (age 20–50), but the differences are relatively modest, both regarding first contacts an entry. Gender differences follow an expected pattern: men on average have a shorter time to their first contact with an employer, and also have substantially shorter times to entry. And for most cohorts and time spans since immigration, the share of men who have entered the labour market exceeds the female share by 10-20 percentage points (Figure 6). Finally, labour market entry is faster the higher the level of educational attainment. This is especially true when comparing immigrants with at most compulsory education with those having completed upper secondary education. All in all, this suggests that across-group differences typically seen in the overall workforce are also found for recent migrants.
Figure 6: Fraction of immigrants who have entered the labour market for different cohorts at different numbers of years after immigration. Age 20–50 at immigration year. Men and women.

4.4 Time between first job and labour market entry

In Table 1 we show average times to first jobs, labour market entries and durations between first jobs and entry for all cohorts 1990–2014. With the exception of the two first cohorts (1990 and 1991, when time to entry is much longer), the time elapsed between residence permit and the first contact roughly equals the time elapsed between first job and entry. The average measures give large weights to long durations. The median is less sensitive to extremes. Looking at medians (not reported in Table 1), median durations are much shorter and generally longer for the time to the first job than the time interval between the first job and entry. In Table 1 we also report the fraction of cases where the first contact occurs in the same firm as labour market entry. This

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4 Table 1 is somewhat tricky to interpret, because the average time to (especially) labour market entry is truncated, and more so the closer to the end of our observation window we get. Hence, the average time to labour market entry of 2010 immigrants is “more truncated” than the average time of 1990 immigrants. For this reason, the table is not perfectly informative of the development over time of the durations to first jobs and (especially) labour market entry.

5 Typical values for the medians imply that 50 per cent of the immigrants have had some contact within 2 years and that 50 per cent spend at most a year between the first job and labour market entry.
fraction is normally above 50 percent. In this sense, the first contact often seems to be a direct step to labour market integration, a factor that appears to have become more important with time. Notice, however, that the numbers for the last years of our observation window may be less informative – they only reflect conditions for those who enter the labour market rapidly.

Table 1: Average times between immigration, first labour market contact, and labour market entry; fraction where workplace of first contact and of entry coincide

<table>
<thead>
<tr>
<th>Immigration year</th>
<th>Number of individuals</th>
<th>Time (years) between immigration and first contact</th>
<th>Time (years) between immigration and entry</th>
<th>Time (years) between first contact and entry</th>
<th>First contact and entry in same firm</th>
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<td>13 207</td>
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4.4.1 Number of jobs before labour market entry
We have seen that a fairly large fraction of those entering the labour market do so in the firm where they had their first job. However, at the same time a significant fraction of those entering do so in other firms than the first. In Table 2 we show the average and median number of jobs held between the first job and entry both for all who have entered and for those who have entered within 8 years. The latter restriction does not seem to be of great importance. For most cohorts, the average number of jobs held between the first job and labour market entry is between four and five, while the median
is around three. Hence, large numbers of jobs does not seem to be the typical way for immigrants to enter the Swedish labour market. As a comparison, we can notice that Engdahl & Forslund (2016) showed that youth between 20 and 30 years of age on average had roughly 1.5 jobs per year.

Table 2: Number of jobs between first job and labour market entry

<table>
<thead>
<tr>
<th>Year of immigration</th>
<th>Number of individuals</th>
<th>Average # jobs from first job to entry</th>
<th>Median # jobs from first job to entry</th>
<th>N, censored at 8 years</th>
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<td>4.4</td>
<td>3</td>
<td>9 202</td>
<td>4.2</td>
<td>3</td>
</tr>
<tr>
<td>2005</td>
<td>10 577</td>
<td>4.3</td>
<td>3</td>
<td>10 360</td>
<td>4.2</td>
<td>3</td>
</tr>
<tr>
<td>2006</td>
<td>17 263</td>
<td>4.2</td>
<td>3</td>
<td>17 133</td>
<td>4.1</td>
<td>3</td>
</tr>
<tr>
<td>2007</td>
<td>15 391</td>
<td>4.0</td>
<td>3</td>
<td>15 391</td>
<td>4.0</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: The number of jobs is counted for each immigration cohort without taking the year of the first job into account. For comparability between years, we censor the table at 2007.

4.4.2 Immigrants in the earnings distribution

A common way to measure economic integration of a group is to compare their wages or earnings to other groups (typically natives or the whole population). To avoid problems of comparing incomes and dealing with possible changes in income inequality in the total distribution of income over time, we instead look at the position of different cohorts of immigrants in the percentile ranked income distributions from 1990 until 2014. We present evidence in Figure 7 on the income distribution conditional on having income as well as on incomes including zeros, i.e., including incomes of jobless persons. The former is more informative for positions in the wage distribution, while the latter is more informative of income (in)equality between immigrants and natives. Both measures are, of course, related to economic integration.
The left hand-side graph of Figure 7 plots the development of the percentile ranked labour income of the average immigrant with positive income for the immigration cohorts arriving 1990, 1995, 2000, and 2010. There is no clear trend over time, although the 1990 cohort is consistently doing worse than the other cohorts. In this sense integration has been fairly similar since the mid 1990s.

The right hand-side graph of Figure 7 shows the development of the percentile ranked labour income of the average immigrant, including persons with zero incomes, for the cohorts arriving 1990, 1995, 2000, and 2010. Once again, there is no clear trend over time, and once again the 1990 cohort is consistently doing worse than the other cohorts. In fact, the distance to the other cohorts is even larger when we include also the non-employed (with zero income). One possible interpretation of the fate of the 1990 cohort is that the severe crisis in the Swedish labour market in the 1990s hurt the immigrants both in the short and in the longer run (see Åslund and Rooth 2007).

We also see that after a rather long period (almost 20 years), the percentile ranked average immigrant labour income only reaches the 45th percentile in the income distribution. Immigrants thus end up in low-paying jobs. We also see that immigrants end up in even lower income percentiles when we include the non-employed. Hence, not only do immigrants end up in low paying jobs, they also find jobs to a lesser extent than native Swedes. In other words, the earnings prospects of previous immigrant cohorts do not reach parity with the overall workforce. This is especially clear considering the fact that we have not adjusted for age profiles in this description. Even for those 20–29 at arrival, who would be expected to have a positive age-earnings profile for most of the follow-up period, the patterns are only marginally more positive than for the overall sample.6

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6 Notice that the slope of the percentile ranked income curves for the immigrants will reflect possible impacts both of age (experience) and years since migration. Most likely this results in a steeper profile than if an age correction was done. However, such a correction relies on potentially restrictive assumptions.
Multivariate relationships between individual characteristics and labour market outcomes

In the figures hitherto presented we have typically shown bivariate relationships between different outcomes and different background variables. However, the relationship between two variables (say gender and time to labour market entry) may reflect other factors than only gender, say education. In Table 3, we report the results of multivariate OLS regressions where we regress a number of labour market related outcomes on a number of background characteristics of immigrants. Note that these estimates are for a cross-section in 2014, conditional on year of immigration (and thus time spent in Sweden).
Table 3: Multivariate relationships between individual characteristics and labour market outcomes, OLS regressions

<table>
<thead>
<tr>
<th></th>
<th>Income 2014, SEK</th>
<th>Income &gt; 1 price basic amount 2014</th>
<th>Social assistance take-up 2014</th>
<th>Social assistance 2014, SEK</th>
<th>Employed Nov. 2014</th>
<th>Days registered at the PES 2014</th>
<th>In PES register at least 10 days 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at immigration</td>
<td>369</td>
<td>0,00</td>
<td>0,00</td>
<td>2,88</td>
<td>0,00</td>
<td>1,14</td>
<td>0,00</td>
</tr>
<tr>
<td>Women</td>
<td>-45820</td>
<td>-0,10</td>
<td>0,03</td>
<td>2,80</td>
<td>-0,09</td>
<td>-6,23</td>
<td>0,00</td>
</tr>
<tr>
<td>South America</td>
<td>8587</td>
<td>0,04</td>
<td>-0,09</td>
<td>-30,05</td>
<td>0,04</td>
<td>-17,30</td>
<td>-0,04</td>
</tr>
<tr>
<td>Horn of Africa</td>
<td>-44252</td>
<td>-0,13</td>
<td>0,24</td>
<td>73,57</td>
<td>-0,14</td>
<td>59,53</td>
<td>0,18</td>
</tr>
<tr>
<td>Arabic peninsula, North Africa</td>
<td>-32706</td>
<td>-0,08</td>
<td>0,06</td>
<td>12,11</td>
<td>-0,08</td>
<td>49,47</td>
<td>0,14</td>
</tr>
<tr>
<td>South and central Africa</td>
<td>-2782</td>
<td>0,02</td>
<td>(0,00)</td>
<td>-4,71</td>
<td>0,01</td>
<td>10,30</td>
<td>0,05</td>
</tr>
<tr>
<td>Iran</td>
<td>(865)</td>
<td>-0,01**</td>
<td>-0,01</td>
<td>(-0,17)</td>
<td>-0,01</td>
<td>9,33</td>
<td>0,03</td>
</tr>
<tr>
<td>Iraq</td>
<td>-48172</td>
<td>-0,14</td>
<td>0,16</td>
<td>57,68</td>
<td>-0,14</td>
<td>35,38</td>
<td>0,11</td>
</tr>
<tr>
<td>Turkey</td>
<td>-8449</td>
<td>0,03</td>
<td>-0,07</td>
<td>-23,16</td>
<td>0,03</td>
<td>(-0,18)</td>
<td>0,01**</td>
</tr>
<tr>
<td>South east Asia</td>
<td>-14321</td>
<td>0,03</td>
<td>-0,11</td>
<td>-35,79</td>
<td>0,03</td>
<td>-9,57</td>
<td>-0,02</td>
</tr>
<tr>
<td>Compulsory education</td>
<td>-20329</td>
<td>(0,00)</td>
<td>0,02</td>
<td>-34,41</td>
<td>-0,02</td>
<td>232,51</td>
<td>0,70</td>
</tr>
<tr>
<td>Upper secondary education</td>
<td>-4796</td>
<td>0,12</td>
<td>-0,06</td>
<td>-41,17</td>
<td>0,09</td>
<td>219,58</td>
<td>0,72</td>
</tr>
<tr>
<td>Tertiary education</td>
<td>8497</td>
<td>0,10</td>
<td>-0,10</td>
<td>-48,52</td>
<td>0,07</td>
<td>191,70</td>
<td>0,63</td>
</tr>
<tr>
<td>Mean dep. Variable</td>
<td>159601</td>
<td>0,47</td>
<td>0,39</td>
<td>181,25</td>
<td>0,47</td>
<td>134,10</td>
<td>0,45</td>
</tr>
</tbody>
</table>

Note: Reference categories are men, Former Yugoslavia (some categories excluded from the table), and no information on educational attainment at time for immigration. All estimates are significant at the 1 %- level, except entries within parenthesis (p>10 %), *, 10 %-level, and **, 5 %-level. Dummies for year of immigration also included in estimated models; estimates are not shown here. All covariates are measured at time of immigration.

Higher age at immigration is associated with “positive” work-related outcomes but “negative” outcomes for social assistance take-up and days registered at the PES. Women have worse outcomes than men for all outcomes other than days registered at the PES. Educational attainment at arrival to Sweden is not well measured, and it is not entirely clear what the reference category “missing information” contains. Hence, comparisons between the reference category and the other levels of educational attainment are hard to interpret. However, we can compare the estimated relationships between the outcomes and the measured levels of educational attainment. Most of these comparisons produce results in line with our expectations, meaning that for all outcomes but the number of days in unemployment, having gone through only compulsory school is associated with worse outcomes than are higher levels of educational attainment. Finally, there are large differences in outcomes between immigrants from different regions as witnessed by fairly large differences in the estimated associations between region dummies and the different outcomes.

7 The PES estimates for education seem odd; we have not yet found an explanation to this pattern.
5 Entry: Where?

5.1 Industries for first contacts and labour market entry

Persons who have decided to move to Sweden constitute a heterogeneous group and the composition in terms of observed characteristics changes over time. Hence, we should expect that the mix of sectors and jobs where immigrants enter into the Swedish labour market may have changed for reasons related to changes over time in the supply of different skills of immigrants. In addition, there may have been structural changes in the composition of jobs generating changes in skills demanded over time. All in all, it is not clear what we should expect regarding the sectoral composition of immigrant employment and its changes over time.

Figure 8 shows the distributions of industries for first contacts and entry jobs of different cohorts of immigrants. Industries are in the respective graphs ordered on their total share for the different cohorts. Business services, health care, hotels and restaurants are the three largest suppliers of first contacts as well as entry jobs for immigrants, all with average shares above 15 per cent. Looking at the bars within each category, we see some rather significant changes over time, where health care and manufacturing have become substantially less important and hotels and restaurants instead have grown in importance. The apparent growth in the sector “Law, economics, science, technology” mainly reflects reclassifications (and one could suspect that the drop for business services to the latest observation is partly due to the same factor).
In Table 4 we highlight the difference between men and women in terms of sectors for the first jobs. We see that women are overrepresented in research and education and, especially, in health care. Men instead more often find their first jobs in hotels and restaurants, manufacturing, and transport, warehousing and communication compared to women.
Table 4: Distribution (per cent) of industries for first jobs for different cohorts of immigrants 20–50 years old at immigration year, women and men

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health care</td>
<td>25,5</td>
<td>11,1</td>
<td>14,5</td>
</tr>
<tr>
<td>Financial services, business services</td>
<td>18,8</td>
<td>17,0</td>
<td>1,9</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>13,1</td>
<td>19,3</td>
<td>-6,2</td>
</tr>
<tr>
<td>Research and education</td>
<td>11,9</td>
<td>5,8</td>
<td>6,1</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>6,8</td>
<td>12,4</td>
<td>-5,6</td>
</tr>
<tr>
<td>Retail and wholesale trade</td>
<td>6,6</td>
<td>9,7</td>
<td>-3,0</td>
</tr>
<tr>
<td>Personal and cultural services</td>
<td>4,8</td>
<td>3,6</td>
<td>1,2</td>
</tr>
<tr>
<td>Transport, warehousing and communications</td>
<td>2,9</td>
<td>8,1</td>
<td>-5,1</td>
</tr>
<tr>
<td>Law, economics, science technics</td>
<td>2,9</td>
<td>3,8</td>
<td>-0,9</td>
</tr>
<tr>
<td>Public administration</td>
<td>2,2</td>
<td>1,9</td>
<td>0,3</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing</td>
<td>1,8</td>
<td>2,3</td>
<td>-0,5</td>
</tr>
</tbody>
</table>

Given the way our sample is constructed, the time to entry will on average be longer in later years compared to earlier ones (we observe entry for those immigrating 1990–2010). Table 5 therefore presents similar statistics limited to those who have entered the labour market within three years arrival. We do this to increase comparability over time – those who immigrated late in the period and have entered the labour market may be a selected group with other entry sectors than those who have not yet entered among the late arrivers. The four most common jobs for entrants, both rapid entrants and the whole group of entrants, are health care, manufacturing, business services, and hotels and restaurants. Jobs becoming less common as entry jobs are primarily located in health care and manufacturing, which both diminish significantly in importance between 1990 and 2010.8

Comparing those entering rapidly with all entrants, those entering rapidly are more often found in manufacturing and financial services, business services; they are more seldom found in health care and research and education. Those differences are of a non-trivial size. If we instead compare first jobs and entry jobs, manufacturing jobs are more common as entry jobs than as first jobs, both for rapid entrants and the whole group of entrants. Hotels and restaurants are, on the other hand, more common as first contacts

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8 Note, though, that the 1990 observation implicitly conditions on being employed in the first year in Sweden.
than as entry jobs for both groups of entrants. For other jobs differences are either small or depend on whether you consider rapid entrants or the whole group of entrants.

Table 5: Distribution (per cent) of industries for first labour market entry, given entry within three years after immigration, for different cohorts of immigrants 20–50 years old at immigration year

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>24.3</td>
<td>19.9</td>
<td>16.8</td>
<td>7.7</td>
<td>18.3</td>
<td>-16.6</td>
</tr>
<tr>
<td>Health care</td>
<td>12.6</td>
<td>16.0</td>
<td>12.3</td>
<td>10.9</td>
<td>13.9</td>
<td>-1.7</td>
</tr>
<tr>
<td>Financial services, business services</td>
<td>22.6</td>
<td>25.0</td>
<td>26.5</td>
<td>13.3</td>
<td>19.1</td>
<td>-9.3</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>12.9</td>
<td>11.3</td>
<td>12.8</td>
<td>22.9</td>
<td>14.6</td>
<td>10</td>
</tr>
<tr>
<td>Research and education</td>
<td>6.4</td>
<td>6.5</td>
<td>5.5</td>
<td>8.2</td>
<td>6.1</td>
<td>1.8</td>
</tr>
<tr>
<td>Retail and wholesale trade</td>
<td>8.3</td>
<td>8.2</td>
<td>7.9</td>
<td>8.7</td>
<td>8.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Personal and cultural services</td>
<td>2.6</td>
<td>2.7</td>
<td>2.3</td>
<td>3.4</td>
<td>3.0</td>
<td>0.8</td>
</tr>
<tr>
<td>Transport, warehousing and communications</td>
<td>4.8</td>
<td>4.8</td>
<td>6.1</td>
<td>8.9</td>
<td>6.6</td>
<td>4.1</td>
</tr>
<tr>
<td>Building and construction</td>
<td>1.1</td>
<td>2.4</td>
<td>4.3</td>
<td>5.9</td>
<td>3.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Public administration</td>
<td>1.7</td>
<td>1.0</td>
<td>0.9</td>
<td>0.9</td>
<td>1.1</td>
<td>-0.8</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing</td>
<td>1.1</td>
<td>0.5</td>
<td>0.5</td>
<td>0.9</td>
<td>0.9</td>
<td>-0.2</td>
</tr>
<tr>
<td>Law, economics, science, technology</td>
<td>3.2</td>
<td>7.9</td>
<td>7.3</td>
<td>7.9</td>
<td>7.9</td>
<td></td>
</tr>
</tbody>
</table>

5.2 Firm sizes and earnings levels
We now turn to briefly characterize the firms where immigrants find their first jobs. Figure 9 below shows the size distributions for the overall (i.e. all workers), first contacts, and entry jobs firms, in the years 2000 and 2014 respectively. Apart from single-person firms, immigrant first contact/entry jobs are disproportionately often found in smaller firms, with less than 20 employees. This pattern has become more accentuated over time, which is in line with e.g. hotels and restaurants becoming a more common port of entry to the Swedish labour market.⁹

⁹ A 3000+ category has been omitted for visibility reasons. The category encompasses about 25 percent of the employed and includes a lot of local/regional public sector employment. It decreases its share somewhat over time.
Figure 9: Employment distribution over firm sizes 2000 and 2014, total and for immigrants’ first jobs.

Figure 10 displays cumulative distributions of the worker-weighted firm average wage distribution for first contacts made in different years. For example, the graph shows that about of the contacts made in 2005 and 2010, more than 50 percent were in firms below the 30th percentile of average firm wages encountered by the overall workforce. In other words, these first jobs are often found in low-wage firms. This pattern has also been accentuated in later years; the later cohorts are above earlier ones at the lower part of the distribution.
6 Long-time patterns and problems

6.1 Social assistance
We have seen that labour market entry takes time for immigrants. One consequence of this in combination with eligibility conditions in the unemployment insurance system involving work requirements is that many immigrants in early stages of the integration process rely on social assistance. This is clear from Figure 11, which plots the fraction of immigrants on social assistance for different immigration cohorts and at different numbers of years since immigration.
The shares of immigrants on social assistance are very high during the first years after immigration. The share of youth relying on social assistance is for instance significantly lower—the share of 16–24-year olds on social assistance roughly varies between 7 and 15 per cent in the period 1990–2010.

Social assistance take-up among immigrants falls over time for each of the cohorts and seems to gravitate to around 10 per cent assistance dependence. The process has, however, not been very rapid for the cohorts we follow. A clear pattern in the figure is that the initial assistance dependence is significantly lower for recent cohorts than for cohorts from the 1990s. This may partly be a technicality due to municipalities moving to paying support through an “introduction benefits” rather than through social assistance, but can also at least to some extent reflect a tougher implementation of the regulations.

6.2 Long-term outcomes for some groups of immigrants

Our data enables us to use very long follow-up horizons for some groups of immigrants coming to Sweden before the mid 1990s. We have chosen to follow immigrants from a number of source regions where we know that refugee immigration was triggered by unrest of different kinds in the source regions, and where the numbers of individuals coming to Sweden were sufficiently large. This selection procedure has led us to follow

Figure 12 shows the number of immigrants from the regions we study living in Sweden between 1990 and 2014. The two largest groups measured in this way are immigrants from Bosnia and Herzegovina (slightly above 20,000), Iran (slightly below 15,000) and the Horn of Africa is sizeable (around 15,000). The three other immigrant groups are much smaller (each around 3,000 or smaller).\(^{10}\)

\[\text{Figure 12: Number of immigrants, age 20–50 at immigration, from selected regions and cohorts.}\]

\[\text{Note: We censor at age 65.}\]

A first outcome we consider is the employment rate. In Figure 13 we display the employment rates by number of years since immigration for the respective refugee groups. What we see as the most striking feature of the figure is that immigrants from all regions mostly end up with employment rates between 60 and 70 per cent after some 20 years in Sweden. The employment rate for immigrants from the Horn of Africa even

\[\text{\(^{10}\) The fact that some groups increase slightly after our “window” is closed is due to updates in immigration variables and people leaving and returning to Sweden.}\]
exceeds 70 per cent after around 25 years since immigration.\textsuperscript{11} This may come as a surprise given that people from this part of the world have a poor average position in the labour market, and where recent migrants often have low education. The cohorts we study here contain many highly educated.

**Figure 13:** Employment rates for immigrants, age 20–50 at immigration, from selected source regions and cohorts by years since immigration

Note: We censor at age 65.

Migrants from Bosnia and Herzegovina are especially rapid climbers in the employment rate league, reaching 70 per cent employment rate in about 5 years after immigration. For migrants from Chile, Vietnam and Poland we see a steady negative trend from a high level of employment. This may partly reflect that migrants have been seen to leave the labour force at comparatively young ages, but could also be due to composition issues.

Those who do not find a job must receive income support of some kind. Most often, households that cannot rely on friends or relatives get income support in the form of social assistance from the municipalities. We saw that employment rates rise over time since immigration. Hence, we expect social assistance dependence to decline over time.

\textsuperscript{11} All these numbers may be associated with different selection problems. For example, it is not unlikely the return migration to the source country is more likely to occur among those who have bad labour market outcomes in Sweden.
since immigration. This is exactly what we see in Figure 14, which plots social assistance take-up by years since immigration for immigrants from the regions we study. Immigrant households from Iran, the Horn of Africa and from Bosnia and Herzegovina all start their periods in Sweden with social assistance take-ups around 90 per cent. However, relatively rapidly the numbers start falling. Immigrants from the Horn of Africa is something of a negative outlier in this dimension, but about some 25 years after immigration, take-up of this group also goes down below 10 per cent as for all other groups.

![Figure 14: Social assistance take-up for immigrants, age 20–50 at immigration, from selected source regions and cohorts by years since immigration](image)

Note: We censor at age 65.

We have seen that long-run employment rates are reasonably high among immigrants from the regions that we study. Are those jobs also well paid, or do immigrants get access only to part-time, low-paid jobs even in the long run? One way to throw some light on this issue is to investigate where in the overall income distribution immigrants end up. Such computations are shown in Figure 15, where we plot the average income
percentile for the groups of immigrants that we study by years since immigration.\textsuperscript{12} The story is not one of immediate success; it takes some 20 years after immigration to reach the median income in the overall distribution for immigrants from most countries.\textsuperscript{13} A number of other observations can be made. First, and somewhat surprisingly to the authors, immigrants from Vietnam end up worst off in terms of income percentiles – the distance to immigrants from the other countries seems to be around 10 percentiles in the long run. Second, immigrants from Bosnia and Herzegovina climb up the income percentiles more rapidly than immigrants from the other countries, although immigrants from Chile and Poland are close behind.

The story told by Figure 16, which gives the percentile ranked incomes from the same six regions including persons with zero incomes, is similar to what we see in Figure 15, but all curves are lower, indicating that also immigrants from these six regions both

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure15}
\caption{Average percentile ranked income (given positive income) for immigrants from selected source regions and cohorts by years since immigration}
\end{figure}

\textit{Note: We censor at age 65.}

\textsuperscript{12} We percentile rank all individuals all years and retrieve the ranks of all immigrants to form average ranks each number of years after immigration.

\textsuperscript{13} Notice that we, by construction, capture possible effects of both aging and an increased number of years since migration. See also footnote 6.
have lower incomes given that they are working and lower employment rates than native Swedes. In fact, this “double penalty” means that immigrants from most regions and most of the time on average remain significantly below the median in the income distribution.

Figure 16: Average percentile ranked income (including zero incomes) for immigrants from some source regions by years since immigration

Note: We censor at age 65.

7 Policies, institutions and other factors of importance

Sweden has for a long time had policies concerning the reception and labour market integration of refugees. Some measures are targeted only at this group, whereas others can be seen as parts of general policies for the unemployed.\textsuperscript{14} Despite these efforts, outcomes remain relatively poor as described and discussed above. But the specific knowledge on which factors and policies improve the chances of labour market integration remains limited also in an international perspective; see e.g. (Butschek & Walter 2013; Rinne 2012; Kogan 2016; European Parliament 2016; Martín et al 2016).

\textsuperscript{14} See e.g. OECD (2016) for an overview.
Below we first mention central recent and ongoing policy efforts and then turn to discuss possible factors affecting the labour market prospects of recent migrants.

7.1 What happens and what is done?
Since December, 2010, when the responsibility of integration policies was moved from the municipalities to the PES, the hub of integration policies in Sweden is the two-year introduction programme at the PES for new recipients of residence permits. The introduction programme has been studied by Andersson Joona et al. (2016), but in our opinion it is too early to draw any firm conclusions regarding the labour market effects of this rather pervasive reform. Reports from e.g. the National Audit Office (Riksrevisionen, 2014) have documented problems in the implementation of certain aspects of the reform, and relatively slow outflows to work (which, however, has been the case for a long time, as seen above).

The large influx of asylum seekers has also triggered a number of new policies. One such policy is so called fast tracks to employment for newly arrived immigrants. These fast tracks aim at transferring refugees with relevant skills and experiences to occupations where employers face difficulties in finding the right competence. Information on the actual content of the different fast tracks is scarce, and as yet very few refugees have actually entered them. What seems to be clear is that one fundamental ingredient is validation, and it is also clearly stated that the exact procedures are supposed to be specific to each track and that the social partners should play an active role.

7.2 Effects of policies
Policies for the integration of immigrants potentially work on a number of margins. One way to classify these margins is to distinguish between policies affecting supply, demand and matching, respectively. It goes without saying that policies often work through more than one margin, and that any classification scheme is bound to be somewhat arbitrary.

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15 Some of the existing fast tracks are for engineers with a number of different specialties, teachers, doctors, pharmacists and dentists.
16 Much of the material presented here draws on the survey in Forslund & Åslund (2016).
7.2.1 Labour supply

There are many potential policy margins to affect labour supply. Validation is an important tool to identify skills and lack of skills. Unfortunately, there are no studies available on the effects of the validation efforts that have been undertaken in Sweden. Different ways of competence upgrading are important for labour supply. The types of upgrading vary by the age and background of immigrants.

It is well known that a completed upper secondary education is important for young persons’ labour market entry (see, for example, Engdahl & Forslund, 2016). Hence, one important policy margin is measures to promote schooling success among young immigrants. Results in Engdahl & Forslund (2016) suggest that this works reasonably well for youth entering Sweden at ages below the start of upper secondary education, whereas youth older than 16 years at arrival rarely finish upper secondary school (also counting adult education).

But education and training also concerns skill acquisition among older immigrants (probably preferably following validation). Appropriate skill acquisition varies between individuals. However, a common need for most is to learn the Swedish language.

Swedish for immigrants (sfi) has been a part of Swedish integration policies for a long time. There is ample evidence that mastering the host country’s language contributes to a “better” job offer distribution. However, research on the effects of sfi is very limited. To be effective, sfi should be something immigrants participate in and which gives participants a good language skills. Historically, a large fraction of immigrants has not participated (Kennerberg & Sibbmark, 2005), and a significant fraction of the participants has not completed the programme (Statskontoret, 2009). Evaluations by the National Audit Office (Riksrevisionen, 2008) and Kennerberg & Åslund (2010) give no clear-cut conclusions, but possibly suggest that refugee immigrants have benefitted from the programme.

Vocational labour market training programmes organized by the PES (AMU) and adult vocational training programmes (Yrkesvux) as well as adult education organised by the municipalities (Komvux) are three possible ways to upgrade the skills of immigrants.

Komvux has primarily been evaluated in connection with the so called knowledge lift in the 1990s. The results are ambiguous, and effects have not been estimated for immigrants separately. Yrkesvux has never been evaluated but Statskontoret (2012b)
showed that Yrkesvux courses often are very similar to AMU courses. Evaluations of AMU may therefore be informative about the effects of Yrkesvux as well. de Luna et al. (2008) estimated the effects of AMU for a number of groups of participants, one of these groups being non-Nordic immigrants. The estimated effects for this group were positive and large; effects for non-Nordic immigrants were comparable with effects for persons with low education and larger than the estimated effects for any other group.

Work practice arranged by the PES could be another way to acquire skills or valuable networks to facilitate integration. The results in Forslund et al. (2013), however, indicate that the results for non-Nordic immigrants are about average and significantly inferior to vocational training programmes for the group.

There is only limited knowledge about the effects of tertiary education, including tertiary vocational education, on immigrants’ labour market outcomes. Rooth & Åslund (2006) found that immigrants have returns to education, both taken in the source country and (especially) taken in Sweden. Katz & Österberg (2013) estimated lower returns to higher education for immigrants arriving to Sweden as kids compared to the returns for native Swedes. Lind & Westerberg (2015) found that immigrants experienced more income gains after tertiary vocational education than other groups.

But adequate skills are not enough. There must be proper incentives for job search. There is a vast literature on incentive problems created by various social security systems, designed to replace income losses or alleviate poverty. This may especially important for immigrants: Andrén & Andrén (2013) found that state dependence (so that benefit reception creates future benefit reception) is higher among immigrants than among native Swedes.

A number of reforms designed to create incentives for labour supply have been undertaken in tax systems, unemployment insurance, sickness insurance and social assistance. However, the design of the reforms has made them difficult to evaluate and there is basically no well identified evidence on how these reforms have affected the labour supply of immigrants. Nevertheless, most reforms have been designed to increase the gains from working most for low-income earners, so we would expect a positive impact on the labour supply of recently arrived immigrants. We do not, however, have any good ground for an opinion about the size of any such effects.

17 More generally, all systems that affect the net gains from working compared to non-working can be expected to have an impact on labour supply. The design of income tax systems is an obvious example.
As part of the introduction programme, *introduction guides* were introduced in December 2010. The system entailed that optional activities could be offered newly arrived immigrants in the introduction programme. The aim was that the guide should give the newly arrived immigrants support to facilitate integration. The system does not seem to have worked well (Riksrevisionen, 2014) and has been abandoned.

### 7.2.2 The demand for immigrant labour

A standard explanation to the gradual increase in earnings and employment probabilities seen among immigrants to many countries is that the initial lack of country-specific human capital is removed through experience and learning in the host country. Human capital in a broad sense can be accumulated and will typically increase with the duration of the stay. Investments can be formal (e.g. acquiring supplementary education or language training) or more informal capturing softer factors (social codes, style of speech etc). But since this process takes time, there is an argument for measures trying to increase effective demand through lower hiring costs for the first years if one believes that productivity for a sufficiently large fraction of the group is so low that it falls short of existing minimum wages.

One policy option to level the playing field is to use *wage subsidies*. Targeted wage subsidies are, according to available evaluations, normally effective (Calmfors et al., 2004; Card et al., 2010; Forslund & Vikström, 2011; Liljeberg et al., 2012b; Sjögren & Vikström, 2015). However, a very generous subsidy programme targeted at newly arrived immigrants has had a very low take-up, so using wage subsidies targeted at immigrants has not proved to be effective in this sense. It can be considered a riddle why employers have not been more interested in hiring people at, say, 20–40 percent of the regular wage. Explanations proposed in previous work include complicated systems and supplementary requirements, and an unwillingness to approach and depend on authorities (Riksrevisionen, 2015). But still, considering the cost reductions involved, there seems to be room also for other explanations, such as poor matching, lack of contacts and discrimination (see discussion below).

An alternative but closely related route is of course to (somehow) lower regular wages. In a system like the Swedish one with collectively bargained entry and minimum wages, this is not a direct policy tool. Nevertheless, substantial efforts have been made to find solutions targeting e.g. recent migrants. Even though the basic mechanisms
should be similar as for wage subsidies, unions appear more concerned that lower wages for some groups would create a downward pressure on the overall wages structure. There is some evidence that effects are spread to workers not directly affected (see e.g. Forslund et al., 2014; David et al. 2016; Lopresti & Mumford 2016), but it is hard to tell how big the effects of e.g. lower wages for migrants with less than three years of residence would be.

Given that there are concerns regarding negative consequences, it is highly relevant to quantify the expected gains: how large an impact on transitions to employment should one expect? There is a large literature on the employment effects of minimum wages. A vast majority of these studies refer to systems where minimum wages are determined by law (many studies refer to the U.S.). It is not evident that results from these studies are directly applicable to the Swedish context, where minimum wages are determined by collective agreements. One important difference, with a possible bearing on the interpretation of the results, is that legally determined minimum wages stipulate one common minimum wage for the whole economy, whereas collective agreements are struck at the sectoral level. One implication of this is that the “bite” of the minimum wage can be expected to be harder in Sweden than in countries with legally determined minimum wages, because a single minimum wage cannot be chosen too high if low-productivity jobs are to survive. If estimated effects depend on the bite of the minimum wage, which empirical evidence seems to suggest, then it is possible that many studies underestimate the effects of minimum wages in Sweden.

Our reading of the evidence is that lower minimum wages can be expected to be associated with higher employment, but that elasticities are moderate and, thus, that the effects also normally are moderate. The few studies there are of Swedish minimum wages (Forslund m.fl., 2014; Skedinger, 2006, 2011; Konjunkturinstitutet, 2010) often, but not unambiguously, suggest negative but moderate employment impacts of higher minimum wages. All in all, a possible interpretation of these results is that the wage cost cuts necessary to by themselves give rise to any substantial employment impact for groups with a low productivity would be so large that they are unlikely to occur. However, this does not mean that lowering the wage costs for newly arrived immigrants would produce no impact at all. It should also be noted that certain possible effects of minimum-wage cuts are extremely hard to capture in empirical studies, namely effects
like the opening-up of new low-wage sectors. To the extent that such effects do occur, existing studies would tend to underestimate the impact of minimum wages on employment.

A possible reason for limited impacts of lower hiring costs is discrimination; i.e. employers are for some reason not indifferent between job seekers of varying characteristics at a given wage. Empirically, both trials using anonymous or internet based job applications (Edin & Lagerström, 2006; Eriksson & Lagerström, 2012; Åslund & Skans, 2012), so called correspondence studies (cf e.g., Carlsson & Rooth 2007; Bursell 2014) and a stated preference study (Eriksson et al., 2012) suggest that immigrants are discriminated against in the Swedish labour market.18

Discrimination is a complex and much debated concept, and we will not get into the theoretical details here (ranging from classical taste-based models to broader structural perspectives). Recent research has also pointed to the importance of implicit and unconscious attitudes as an explanation to discriminatory behaviour (Rooth, 2010). An important difference between a native and a recently immigrated person with the same competence is that employers probably are more uncertain about qualifications acquired abroad, even with well functioning validation. This means that there always is a risk for statistical discrimination against recently arrived immigrants, i.e. risk-averse employers prefer what they consider safe candidates. Empirically, it is very hard to separate the mechanisms from each other.

If uncertainty about qualifications is a factor of importance, employment protection legislation (EPL) could be a particular problem. In addition to generally protecting the jobs of the already employed and thus potentially impeding the entry for those without jobs, it may then also make employers less willing to hire “high-risk” individuals. One such group is arguably the newly arrived immigrants. Swedish employment protection is complex. First, there are very few obstacles for employers to use fixed-term contracts, including the use of temp agencies. Second, Swedish employers can freely downsize the workforce by appealing to redundancy. Third, on the other hand, by default downsizing should be executed by last in, first out (LIFO) rules for employees with open-ended contracts. Fourth, LIFO can be replaced by other arrangements according to collective agreements between unions and employers.

18 Åslund, Hensvik & Skans (2014) also showed that the background of the boss has an impact on who is recruited – immigrant bosses hire immigrants more often than do native bosses.
So how strict is Swedish employment protection? Looking at OECD characterisations, Swedish EPL is close to the OECD average. The most prominent feature according to OECD, however, is the very large difference between the rules for fixed-term and open-ended contracts. This reflects an assessment that EPL for open-ended contracts in Sweden is rather strict. A possible objection to this assessment is the fact that LIFO can be replaced by other arrangements by collective agreements. Probably this means that the strictness varies with the character of labour relations in different sectors and firms. Overall, in our judgement, it is likely that the integration of immigrants into the Swedish labour market is hampered somewhat by EPL, but EPL is not likely to be a major obstacle to labour market entry in Sweden.

7.2.3 Matching

Given workers with sufficient and attractive skills, and employers willing to hire, matching is another important margin affecting labour market outcomes, at the individual level as well in the aggregate.

A growing literature shows the importance of informal contacts and networks in the labor market. There are good reasons to believe that recent migrants often lack at least some of the contacts that help in finding employment (e.g. Swedish employers). In this sense, there is argument for policy to bridge this gap; become/create the network for people with poor networks. There is evidence that such measures (typically in combination with subsidized employment) have had positive effects for immigrants in the Swedish labor market (Joona & Nekby 2012; Åslund & Johansson 2011; Liljeberg & Lundin 2010).

These evaluations all consider situations where the PES agents had much more time to build and maintain employer contacts. The treatment was quite intense in that the agent only had a small number of clients in parallel, especially considering the workload of at least 100 job seekers for a typical case worker. The total number of job seekers involved was very limited compared to the number of recent migrants who have not yet found a foot in the Swedish labor market. One can of course question whether activities can be scaled up with maintained quality. But considering the substantial costs of people remaining on welfare benefits instead of working (and paying taxes), rather high costs could be defended if the treatment improves the long-term labor market position of the individual.
Given the patterns seen for recent migrants in the Swedish labor market, there are good reasons to believe that many people are never even considered for job opportunities that are there. In this sense, matching initiatives increasing the exposure between workers and potential employers seem reasonable.

8 Concluding remarks

This presentation above has described the short- and long-term labour market situations for non-Western, typically refugee-related, immigrants to Sweden during the last decades. Using rich data on individuals, firms and labour market outcomes, we have tried to characterize the first contacts with the labour market, the route to entry and the ensuing labour market position. Our main analysis considers people arriving in 1990-2014 period, but we have also studied long-term indicators for selected groups of earlier migrants.

The most striking feature is perhaps the remarkable stability of the aggregated patterns. Business cycle variations encountered at arrival may affect progress in the early years, and there are substantial differences across countries of origin. But the overall picture is that the process of labour market integration has been very similar over a long period of time. Is this good or bad? Good, perhaps, in the light of the current situation with many people waiting for or having just received asylum; entry patterns do not seem to be strongly connected to variations in immigration levels. But, arguably, bad considering that process is slow and success limited, at least in the short run. It takes a long time for people to find a place in the Swedish labour market, and even in the long run many migrants do not reach parity with native workers.

We have tried to go beyond updating the well-known patterns of employment and earnings integration/assimilation. To this end we have documented durations and numbers of jobs involved in the entry process. Even though many people spend considerable times from the first contact to a more stable position, it seems that the first contact with an employer often serves as the door to the labour market. Compared to e.g. youth finding their way, immigrants do not exhibit many employer contacts on their way to a job generating a more substantial annual income. Over time, service industries of different kinds have become a more important port of entry for migrants. We see an increasing representation of immigrants in small and low-wage firms.
Are stable but poor outcomes unavoidable in the future? Our discussion of policy experiences identifies several margins, measures and institutions linked to the labour market integration of refugees and other migrants. But it is hard to point to one single factor that could change things in a major way. On the other hand, this is rarely the case with complex social challenges concerning a wide and very heterogeneous population. However, poor outcomes also mean potential to do better, and our data do contain examples of refugees arriving under less than beneficial circumstances, but progressing significantly.
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Appendix

Data and restrictions

We use data on from the IFAU-database for the years 1985-2014. Our study population in the main analysis consists of all non Swedish born first time immigrants to Sweden 1990-2014. Immigrants who have been living in Sweden previously are excluded. We also condition on that the immigrant must stay in Sweden for at least two years after immigration. Immigration status is measured by a grouped variable containing country or region of birth.

Income and employment status: We use tax-record earnings information to construct the employment status of workers. The earnings data contain annual earnings. We use data from the public employment service to measure individual unemployment. We have information on industry via a linked employer-employee dataset.

Tables used: Louise, Flnd, Anst, Ft gast, Datalagret
Louise: Income, social benefits, employment status
Flnd: Country of birth
Anst: employment status, income from work, industry
Ftgast: Size of and type of industry
Datalagret: Unemployment status, unemployment history
<table>
<thead>
<tr>
<th>Region</th>
<th>Countries included</th>
</tr>
</thead>
</table>
| Western             | 1-Finland  
2-Denmark  
3-Norway + Iceland  
4-GB + Ireland  
5-Germany  
6-Mediterr. Europe (Greece + Italy + Spain + Portugal + the Vatican + Monaco + Malta + San Marino)  
7-Other Europe (Andorra + Belgium + France + Liechtenstein + Luxemburg + the Netherlands + Switzerland + Austria)  
8-US + Canada  
27-Oceania (Australia + New Zealand etc…) |
| Eastern Europe      | 9-Bosnia-Herzegovina  
10-Former Yugoslavia (Yugoslavia + Croatia + Macedonia + Slovenia)  
11-Poland  
12-The Baltic states (Estonia + Latvia + Lithuania)  
13-South East Europe (Rumania + The former USSR + Bulgaria + Albania)  
14-Central Eastern Europe 2 (Hungary + The former Czechoslovakia) |
| Latin America       | 15-Mexico and Central America  
16-Chile  
17-Other South America (Argentina + Bolivia + Peru + Colombia + Uruguay + Ecuador + Guyana + Paraguay + Surinam + Venezuela) |
| Middle East         | 19- North Africa + Middle East (Lebanon + Syria + Morocco + Tunisia + Egypt + Algeria + Israel + Palestine + Jordan + South Yemen + Yemen + the United Arab Emirates + Kuwait + Bahrain + Qatar + Saudi Arabia + Cyprus)  
21-Iran  
22-Iraq  
23-Turkey  
18-African Horn (Ethiopia + Somalia + Sudan + Djibouti),  
20- Other African (all African countries not included elsewhere) |
| Asia                | 24-East Asia (Japan + China + Korea + Hong Kong + Taiwan)  
25-Southeast Asia (Vietnam + Thailand + the Philippines + Malaysia + Laos + Burma + Indonesia + Singapore)  
26-Other Asia (Sri Lanka + Bangladesh + India + Afghanistan + Pakistan + Brunei + Bhutan + Kampuchea + the Maldives + Mongolia + Nepal + Oman + Sikkim) |