NORDIC INTEGRATION AND SETTLEMENT POLICIES FOR REFUGEES – A COMPARATIVE ANALYSIS OF LABOUR MARKET INTEGRATION OUTCOMES

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Summary

This report has been commissioned by the Labour Market Committee of the Nordic Council of Ministers. The chief aim is to provide policy-relevant knowledge by conducting a comparative analysis of refugee labour-market integration in Scandinavia. Instead of focusing on the well-known employment gap or the fiscal impact of refugee unemployment, this study investigates the divergent impacts of integration programs and settlement policies for refugees from different backgrounds. Through longitudinal comparative analysis, this study examines the labour-market integration of refugees in Denmark, Norway and Sweden, searching for explanations of cross-national differences by combining statistical analyses with in-depth analyses of national policies and governance structures. We analyse participants in the integration programme from cohorts that hold residence permits and were settled in a municipality from 2008 to 2016, and we examine both their transition to employment and education enrolment as a dependent variable.

Which country has the best labour-market outcomes?

The descriptive analysis of employment or education enrolment for refuges shows that which country has the best overall results depends on *when* the outcomes is measured. Denmark has the best employment levels, for both men and women, in the first years after settlement. Then, because employment rates in Denmark have a less steep growth, the other two countries catch up with or surpass Danish employment levels over time. After two to four years in the country, participants in the integration programme in Norway generally have higher employment levels than participants in the integration programmes in Sweden and Denmark. However, this employment gap between Norway and the other two countries decreases for male participants over time, but remains (Sweden) or increases (Denmark) for female participants. For Sweden, it takes several years until male participants approach or surpass Norwegian or Danish employment levels. However, Sweden does slightly better for female participants than Denmark, at least in the long run. In all three countries, the more recent cohorts do better than the earlier ones (except for female participants in Denmark); the improvement for more recent cohorts compared to earlier cohorts is greatest in Sweden.

Concerning education enrolment, we find the opposite pattern: Sweden has the highest enrolment in education from the start, followed by Norway, while Denmark generally has significantly lower levels of persons enrolled in education.

Our report has sought not merely to document the overall outcomes, but, more importantly, to find whether there are differences in outcomes between sub-groups in

each country. Our analysis of estimated employment trajectories, which means employment rate adjusted for population differences, does find that all three countries have relatively better employment results for some subgroups than others.

- Norway has substantially better employment rates for women, and a relatively low employment gap between men and women compared to Sweden and (particularly) Denmark.
- In each country, a different age-group of male participants has the highest estimated employment trajectory. Denmark has the best estimated outcomes for men aged 20–25, Norway for those aged 26–45, and Sweden for those aged 46–55. Although Norway generally shows better employment outcomes for women, Sweden also has higher estimated outcomes for female participants aged 46–55.
- Denmark generally has better estimated employment rates in the first years, for all groups of education levels on arrival. However, Norway has the best employment results over time for those with lower education. The best employment trajectories for those with secondary and tertiary education are found in Sweden and Norway, where trajectories converge for those with the longest duration of residence.

Three hypotheses for cross-national differences

Earlier analyses of immigrant and refugee integration in the labour market have identified three groups of variables that affect the transition to employment: individual characteristics and human capital; application of different programme measures; and local structural conditions. Thus, in our analysis, we investigate if cross-national differences on these three aspects could help to explain differences in refugee labour-market integration, and we present three hypotheses: that cross-national differences in labour market integration outcomes are caused partly by differences in 1) the individual characteristics of the refugee population; 2) the use of programme measures; and 3) national policies regulating refugee settlement patterns.

First, human capital theory and previous analyses of immigrants' labour-market integration show that individual characteristics such as gender, age and educational level affect the probability of transition to employment. Consequently, the first hypothesis analyses if cross-national differences in labour market integration outcomes are caused partly by differences in the individual characteristics of the countries' refugee population, implying that the countries could initially have refugee populations with different preconditions for rapid labour market integration. We investigate this hypothesis by conducting an Oaxaca-Blinder decomposition, and the hypothesis is only partly confirmed. The observed refugee characteristics explain nearly seven percentage points of the employment gap between women in Norway and Sweden. This is considerable, but far from the differences that emerge, particularly after some time in the country. We also found that employment of male refugees would increase by nearly five percentage

points in Sweden if they had the same characteristics as refugees in Denmark. This corresponds to the overall observed differences. For other pairwise comparisons, the characteristics are expected to alter employment levels by only 1–3 percentage points, which in some cases is likely to fall within the margin of statistical uncertainty. Thus, the Oaxaca-Blinder decomposition does moderate some of the cross-national differences, but does not explain the entire difference between the national employment outcomes.

Our second hypothesis states that cross-national differences in labour market integration outcomes are caused partly by differences in the countries' usage of different programme measures, both generally and for certain subgroups. Consistent with earlier studies, our analysis find that two types of program measures in particular have positive association with labour market integration: these are education and subsidized employment, and we find substantial cross-country differences concerning the usage of these types of measures.

Regarding the usage of regular education, in Denmark, only 7-9 % participate in regular education, as this is seldom part of the integration programme. In Sweden, just over 20% of the participants have attended regular education as part of the programme since 2011, while in Norway, regular education has gone from being a rarely used measure to being used by over 30% of the participants. While there is a larger share of persons with higher education levels on arrival who participate in regular education in Denmark and Sweden, the opposite pattern in apparent in Norway, where the majority of participants in the integration programme getting regular education are those with primary education as the highest level of completed education at arrival. Consequently, most Norwegian participants get education at primary levels as part of the programme, and this could shed light on why the impact of participating in regular education during the programme period varies. In Denmark and Sweden, the analysis shows a positive correlation between participation in regular education during the programme and employment three years later, while this is not the case in Norway. However, it is worth noticing that Norwegian participants in regular education with primary education levels have higher estimated employment rates than both Sweden and Denmark from the fourth year after settlement. This could indicate that the investment in primary education does have a positive long-term impact, and should be investigated more closely in future studies. When combining insights from the descriptive analysis of the dependent variable and programme measures, the findings indicate that Sweden has invested more in regular education for participants in the integration programme than Norway and Denmark, particularly for refugees with higher education from abroad. Norway, on the other hand, has focused more on educating those with low education levels on arrival. Our findings also show that the employment differences in the longer run correspond to the differences in education investments. The results therefore indicate that the higher long-term employment outcomes in Norway and Sweden compared to Denmark could be caused partly by the investment in education.

There are also large differences between the usage of subsidized employment across countries. In Sweden, about 30% participate in subsidized employment – nearly twice the share compared to Norway and Denmark, which have between 11% and 17%

participating in subsidized employment. Still, in all three countries, subsidized employment is the measure with the highest positive effects on employment rates, between 23 and 34 percentage point (ppt) higher than for non-participants, and between 7 and 10 ppt higher for women than for men. Still, as discussed in earlier studies, the positive association between employment and participation in these activities may be due partly to selection: that those selected to receive subsidized employment are those with better prospects for getting employed in the first place. However, this 'argument of selection' could be challenged by the Swedish results. Sweden has around twice the share of participants who have subsidized employment as a programme measures compared to Norway and Denmark; still, the estimates for employment rates match Norwegian levels and are actually better than the Danish results. These results indicate that there is a potential for using subsidized employment for a larger share of participants in Norway and Denmark. Another finding is that in all three countries, men participate in subsidized employment more than women do; however, this discrepancy is substantially greater in Sweden and Denmark and lowest in Norway. This finding reflects cross-national differences concerning the employment gap between men and women, where the employment gap is greater in Sweden and particularly Denmark, compared to Norway.

Third, as structural local conditions have proven to be important indicators of labour-market integration, our third hypothesis states that cross-national differences in labour market integration outcomes are caused partly by differences in the national policies regulating refugee settlement patterns. Although our analyses cannot show statistically how much of the difference between the countries' employment outcomes can be attributed to the different settlement models, our analyses show the inherent conflict between the two main goals of Scandinavian settlement policies: 1) dispersed settlement and 2) settlement in favourable labour markets.

The analysis of initial settlement patterns shows that the Swedish settlement model, which gives the refugees the possibility to self-settle anywhere in the country, does lead to more concentrated settlement, with 72% settled in urban areas compared to the 'steered' settlement models in Norway and Denmark (with approx. 50% settled in urban areas). Thus, not surprisingly, the Danish and Norwegian settlement models achieve the goal of dispersed settlement better than the Swedish model. However, our analysis of the correlation between first settlement and employment shows that the goal of dispersed settlement and employment chances may not always go hand in hand. In all three countries, male participants who are settled in the capital are the ones most likely to be employed. Additionally, for both Denmark and Norway, male participants (and female in Denmark) settled in towns or rural/remote areas actually have a lower probability of being employed than those settled in more central areas, particularly those settled in the capital. The analysis of secondary movement of refugees also shows that those who are settled in the most remote areas are the ones most likely to move, and that they tend to move to urban areas. Additionally, with Danish male participants as the exception, resettlement from the initial municipality does *not* improve the chances of employment, indicating that the motive for moving might be

to live in more urban areas, irrespective of the employment opportunities for the individual.

1. Introduction

In 2015, Europe faced one of its worst refugee crises since the Second World War, with one million people applying for asylum (Migration Policy Institute 2017: 15). The refugee crisis peaked in the Scandinavian countries the autumn of 2015; but the number of refugees and refugee family reunifications (hereafter, the two groups are referred to collectively as 'refugees') had been growing steadily since the 1990s (Pyrhönen, Leinonen & Martikainen, 2017, p. 6). Successful integration of newcomers has been high on the political agenda in many countries; and, although contested (Ruist, 2017, pp. 184–185), the integration of immigrants into the labour market has been presented as a precondition for the survival of the current welfare state in Western European countries (Djuve, 2016; NOU 2017: 2, 2017; Tronstad & Hernes, 2017, p. 124). With the sharp increase in refugees, designing and implementing appropriate policies for promoting the integration becomes even more crucial (Andersson Joona, Lanninger & Sundström, 2016; Hernes, 2018a). However, integrating refugees into the labour market has proven to be a challenge in all Western European countries. Numerous studies show the persistent gap between the labour-market participation of native-born and immigrants in general, and refugees in particular (Heinesen, Husted & Rosholm, 2013; Pyrhönen et al., 2017, p. 29). This gap has become a major policy issue not only for issues of long-term fiscal sustainability, but also because labour-market integration is widely seen as a path to social integration and cohesion (Heinesen et al., 2013, p. 1). To quote a Danish governmental statement : 'It is at the workplace where you learn Danish culture and norms, get training in the Danish language and ultimately create the foundation for self-sufficiency and a good life as an active citizen' (Udlændinge- og Integrationsministeriet, 2016b, p. 11).

That refugees fare worse in the labour market is not unexpected (Bevelander & Pendakur, 2014, p. 690). Unlike other types of immigrants, refugees are forced migrants. The decision to flee is not grounded in financial motives and rational matching between their labour-market skills and employment needs in the destination country; it is an action of necessity to ensure one's own safety, and that of the family. The refugees' language disabilities and lack of country-specific work experience hamper their employment chances as compared to members of the native-born population (Bevelander & Pendakur, 2014, p. 690). Earlier studies have also noted several factors that help to explain the employment gap between native-born and refugees, such as differences in social capital, less access to native networks, discrimination by the majority population and particular vulnerability to economic recession and unemployment in the local labour market (Arbetsförmedlingen, 2017, p. 30; Bevelander, 2011, p. 23; Borevi & Bengtsson, 2015, p. 4; Karlsdóttir, Sigurjónsdóttir, Ström Hildestrand & Cuadrado, 2017, p. 10). Faced with these realities, Scandinavian governments have designed specific policies to deal with some of the obstacles refugees encounter on their

path to integration and employment. In this study, we examine two such policies: integration programmes for refugees and their reunited families; and national policies for refugee settlement.

First, as differences in human capital between refugees and the native-born population are assumed to affect possibilities for labour-market integration (for instance, educational and work-relevant experience from the home country may not be transferable to the receiving country), refugees have to adjust to the new labour market by modifying skills and/or acquiring new ones (e.g. language skills). To deal with this, Scandinavian governments have designed integration programmes for refugees. Several studies have stressed the importance of investment in employment measures, education and language training after arrival, to enhance the refugees' chances of obtaining employment (Bevelander, 2011, p. 30; Bevelander & Lundh, 2007, p. 5; NOU 2017: 2, 2017). Acquisition of language skills, civic studies and measures to ease participants' introduction to the labour market form the basic elements of the programmes in all three countries, the aim being to fill the gap between the refugees' starting points, and requirements/ needs of the local employment market. Viewed in a European perspective, the Scandinavian integration programmes share many similarities. However, they also differ in certain areas (Hernes & Tronstad, 2014, p. 16). Additionally, how these national policies are implemented may differ across country, which makes them relevant cases for investigating the outcomes of specific policies and programme measures.

Second, refugee settlement policies may be seen as the first step in national integration policies (Askim & Hernes, 2017, p. 106). They differ considerably, also between otherwise similar welfare regimes (Borevi & Bengtsson, 2015). Refugee settlement policies have long been infused with a combination of practical and moral considerations, but how and where refugees settle after obtaining a residence permit may directly affect their chances of employment. Earlier studies have found that structural variables at the municipal level affect the refugees' likelihood of labour-market integration (Bevelander & Lundh, 2007; Husted, Heinesen & Andersen, 2009). Norway, Denmark and Sweden have developed fundamentally different models of refugee settlement with differing degrees of central steering (Hernes, 2017). Examination of these policies is relevant because the different models may affect refugee settlement patterns across the country – both initially and over time – and whether refugees settle, or are settled, in municipalities with conditions favourable for labour-market integration.

1.1 Policy relevance – why a Scandinavian comparative analysis?

Because immigrant policies are highly politicized, studies within this field risk fuelling the stigmatization of immigrants. Thus, Ruist (2017, pp. 175–179) stresses that analyses should be policy relevant and useful. The main aim of this study is to provide policy-relevant knowledge by conducting a *comparative analysis* of refugee labour-market integration *in Scandinavia*.

Pyrhönen et al. (2017, pp. 34, 43) emphasize that comparative analyses (as opposed to single-country studies) may help to reveal what actually works when it comes to migrant integration. Studies focusing on the persistent employment gap between native-born and refugees risk producing a narrative of constant failure, which can prove counter-productive if the goal is to create better integration policies. They argue that studies focusing on how migrants fare in the labour market in absolute terms and comparatively across countries could provide a better knowledge base for decision-making:

> Without fine-grained and harmonized assessment of how various policies impact specific migrant groups and cohorts, we lack the capacity to compare experiences across the Nordic countries and produce synthesizing reports of how immigrants can be more efficiently and permanently integrated to labour markets. (Pyrhönen et al., 2017, p. 37)

Instead of focusing on the well-known employment gap or the fiscal impact of refugee unemployment, this study investigates the divergent impacts of settlement and integration policies for refugees from different backgrounds (Pyrhönen et al., 2017, p. 37). Policies directed at the target group are complex and multiple; one country may have better policies directed at some subgroups, while others are better in other areas. One country may have better policies for ensuring the labour-market integration of women, while another may be better at utilizing and transferring the educational competences of refugees. Cross-national comparative analysis, decomposing results for different subgroups in each country, could provide insights that are valuable and policy-relevant.

Why should we look to the Scandinavian countries? Connecting labour market integration outcomes to policies and measures is the best way to explore the question of ultimate policy relevance: *Who should learn what, from whom?* While nearly every country in the world receives immigrants, a far more limited set of countries maintain national integration policies that go beyond 'passive reception' – regulation of entry and quotas – to handle accommodation and inclusion (Goodman & Wright, 2015, p. 1886). The Scandinavian countries have developed the most advanced integration instruments for refugees in Europe (Karlsdóttir et al., 2017, p. 7), and their relatively long experience with active refugee settlement and integration policies make them suited as cases for learning. The 'learner' here could not only be the countries under study and other Nordic countries, but also countries with less experience with refugee integration policies. After the 2015 refugee crisis, the question of how to integrate the many newcomers rose to the top of the political agenda in the EU, resulting in the 2016 EU Action Plan on Integration.[1] As this Action Plan proposed integration measures that greatly resemble the main elements of the Scandinavian integration programmes, other countries may benefit from Scandinavian experiences (both positive and negative) in regulating, organizing and implementing such policies. Most countries lack reliable data that can be used to compare refugee labour-market outcomes and also connect results to language training and participation in employment measures. All three Scandinavian

[1] EU Action Plan on Integration : https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/european-agenda-migration/proposal-implementation-package/docs/20160607/communication_action_plan_integration_third-country_nationals_en.pdf

countries have long traditions of producing official statistics linking population and administrative registers. Such data are generally of high quality and enable analysis of small groups, such as refugees, and differences between regions. Further, Borevi et al. (2017: 5) describe Sweden, Denmark and Norway as 'ideal candidates for a "most similar" comparative study' because of their political, social, cultural and economic similarities, which create a fruitful case for experienced-based learning across borders (Brochmann et al., 2012). However, the question remains: from whom should we learn what?

1.2 Methodological gap

In a NordForsk report from 2017, Pyrhönen et al. (2017) conducted a study that included qualitative interviews with 56 experts on immigration and integration and a survey to Nordic migration and integration researchers (365 respondents). The goal was to map research within the field, and, more importantly, identify future research prospects. The top four subjects identified as future research needs were integration, forced migration, labour market, and governance and law. As regards methodology, longitudinal and comparative studies are called for, to exploit the unique register data available regarding the Scandinavian countries. Our study addresses precisely these research gaps, by analysing the labour-market integration of refugees (forced migrants) through longitudinal comparative analysis, and also searching for explanations of cross-national differences by combining statistical analyses with in-depth analyses of national policies and governance structures.

Beyond the Scandinavian context, there is a vast literature on immigrant integration: however, systematic analyses of effects are lacking. As Goodman and Wright (2015, p. 1887) argue, 'in light of massive changes observed across Western Europe to implement more obligatory integration policies, a systematic examination of policy effects is warranted'. Governments monitor their integration policies, for example, the Scandinavian governments regularly monitor and analyse the results of their integration programmes. However, comparative longitudinal studies are missing. Previous Scandinavian studies have been either national analyses using cross-sectional or longitudinal data, or comparative analyses using cross-sectional data. This poses two challenges from a comparative perspective: First, earlier longitudinal national analysis are not suitable for comparison because of various differences in the analytical approach: these analyses diverge concerning the target population, the cohorts, the operationalization of the dependent variable and/or the independent variables included in the analyses, complicating cross-national comparison. Second, coordinated analyses that do aim at comparison are based on cross-sectional data (Bevelander et al., 2013; Bjerre, Mortensen & Drescher, 2016). One problem with using cross-sectional data in explanatory analyses is that such analyses could include cohorts that have been exposed to differing integration policies. Further, the longer it has been since the individual has been exposed to a given integration measure, the harder it is to exclude other intervening

factors. As Bratsberg, Raaum and Røed (2017, p. 39) note: 'it is difficult to assign a particular causal interpretation to findings based on cross-sectional data'. Additionally, the few studies that compare employment integration are often descriptive, not explanatory (Bevelander et al., 2013; Bjerre et al., 2016, p. 8; Karlsdóttir et al., 2017), and/or focus on larger immigrant populations than those targeted by policies for settlement and integration programmes (OECD, 2015). By conducting a cross-national comparative analysis, using longitudinal data, and focusing on the target group of the integration programme and refugee settlement policies, we aim to take one step toward providing evidence suitable for causal interpretation, while still stressing the need for caution.

1.3 Three explanatory approaches

Earlier analyses of immigrant and refugee integration in the labour market have identified three groups of variables that affect the transition to employment: individual characteristics and human capital; application of different programme measures; and local structural conditions (Bevelander & Lundh, 2007, p. 10). Thus, in our analysis, we investigate if cross-national differences on these three aspects could help to explain differences in refugee labour-market integration.

First, human capital theory and previous analyses of immigrants' labour-market integration show that individual characteristics such as gender, age and educational level affect the probability of transition to employment. Consequently, before analysing the effect of different policies, we need to see whether cross-national differences are merely a result of differences in the countries' starting points – meaning that the countries in question initially have refugee populations with different preconditions for rapid labour-market integration. Thus, we investigate the following hypothesis:

- Hypothesis 1: Cross-national differences in labour-market integration outcomes are caused partly by differences in individual characteristics of the refugee population in the three countries under study.

Second, although the Scandinavian integration programmes share many similarities, they differ in some areas that could affect programme outcomes – such as different usage of programme measures, and different policies targeting subgroups. This gives rise to our second hypothesis:

- Hypothesis 2: Cross-national differences in labour-market integration outcomes are caused partly by differences in the countries' application of different programme measures, both generally and for certain subgroups.

Third, as structural local conditions have proven to be important indicators of labour-market integration, we investigate if the different Scandinavian settlement models directly affecting refugee settlement patterns across the country help to explain cross-national differences in labour-market outcomes. This leads to our third hypothesis:

- Hypothesis 3: Cross-national differences in labour-market integration outcomes are caused partly by differences in the national policies regulating refugee settlement patterns.

1.4 Structure of the report

In Chapter 2, we discuss our three explanatory approaches, with a short description of the historical development and current policies of integration programmes and settlement models in Denmark, Norway and Sweden. Then we discuss the theory and research underpinning our main explanatory approaches, before deriving specific hypotheses based on cross-national policy differences.

The research design is presented in Chapter 3, where we describe and discuss our data sources, operationalization of variables, statistical methods and the limitations of this study. In Chapter 4, we compare differences in the characteristic of the population between cohorts in each country. Chapter 5 presents a descriptive analysis of the dependent variables: employment and enrolment in education. We first decribe the overall results three, five and seven years after settlement, and then discuss differences in outcomes for three selected cohorts.

In Chapter 6, we compare the descriptive statistics of the participant group's individual characteristics as a whole in the three countries, before presenting and discussing regression analysis of how these characteristics affect the outcomes of employment and education enrolment. We also discuss cross-national differences for certain characteristics (gender, age and educational level on arrival) based on estimated employment trajectories. Lastly, we conduct an Oaxaxa-Blinder decomposition to see whether cross-national differences are merely the result of the countries having different refugee populations with different preconditions for rapid labour-market integration.

Chapter 7 presents an overview of the usage of the various programme measures in each country and discusses the differences. We then present regression analyses of how the programme measures affect employment outcomes in each country and compare them cross-nationally. In Chapter 8, we describe the initial settlement pattern and and the secondary movement of refugees in the three countries and analyse how this affects employment probabilities.

Chapter 9, we sum up our findings, discussing them in relation to our three hypotheses. The conclusions are presented in Chapter 10.

2. Explaining cross-national differences – three approaches

Three groups of variables have been emphasized in explaining differences in the labour-market integration of immigrants and refugees: 1) individual characteristics and human capital, 2) the programme measures applied, and 3) local structural conditions (Bevelander & Lundh, 2007, p. 10). Our analysis is structured according to these three groups – linking them to national refugee integration and settlement policies where possible.

2.1 Different refugee populations

Refugees are not a monolithic group. They set about achieving integration in the new country with different skill-levels and background factors, and the unique demographic profile of each country's refugee population complicates cross-national comparisons. Such differences may be the root explanation for the differences observed in labour-market outcomes (Goodman & Wright, 2015, p. 1894). Before investigating where differing policies may explain the differing outcomes regarding the labour-market integration of refugees in Scandinavia, we must consider an important question: Can cross-national differences in the characteristics of the refugee groups explain differences in labour-market integration outcomes? Earlier analyses have shown that, to a substantial degree, integration outcomes are the product of individual-level factors related to demographics (age, gender…) as well as 'human capital'-related determinants (such as education) (Arendt, Bolvig, Kolodziejczyk & Petersen, 2016, p. 12; Bevelander & Lundh, 2007, p. 16; Goodman & Wright, 2015, p. 1894). If there are cross-national differences concerning the characteristics of the refugee populations in each country, this could explain why one country outperforms the others.

The following individual characteristics of have been found to affect the likelihood of refugees managing the transition to work or education: gender, age, marital status, number of children, education and country of origin. In their literature review, Hernes and Tronstad (2014, p. 114) summarize the effects of these independent variables on employment:

- **Gender:** Women have lower labour-market integration outcomes than men.
- **Age**: The probability of employment decreases with age at entry.
- **Marital status**: Married persons have lower labour-market integration outcomes than single persons.

- **Children**: Women who have children have lower market-integration outcomes than women without children. The results are less clear for men, with studies showing both positive and negative effects for labour-market integration.
- **Education**: The probability of employment increases with higher education level.
- **Country of origin**: Some nationalities have relatively lower labour-market outcomes than others.

Thus, our first question is whether cross-national differences in labour-market integration outcomes are (partly) caused by differences in observable[2] individual characteristics in refugee populations.

2.2 Different usage of programme measures

With the numbers of refugees steadily increasing (Pyrhönen et al., 2017, p. 6), the Scandinavian countries have developed integration programmes directed particularly at refugees. With its 1999 Integration Act, Denmark became the first Scandinavian country to formalize the right and obligation to participate in an integration programme. Norway followed the same path with the Introduction Act in 2004. In Sweden, integration programmes had been an option at the local level since the early 1990s, but responsibility was centralized in 2010 with the implementation of the Establishment Act (Hernes & Tronstad, 2014, p. 28).

Generally, integration programmes in Scandinavia aim at helping newly arrived refugees find work, get an education, and in the longer term, achieve economic independence. The programmes, which are meant to be full-time, consist of three main components: language training, civic studies and educational and/or labour-market measures (Hernes & Tronstad, 2014, p. 16). Programme participation is linked to the right to financial assistance and social benefits. However, this conditionality does not apply exclusively to refugee policies, but reflects a more general feature of the Scandinavian welfare model, with its strong tradition of centrally steered activation policies where entitlement to financial benefits is made conditional on obligatory participation (Borevi, 2010, p. 50; Breidahl, 2017, p. 4).

Although the Scandinavian integration programmes share many similarities, they differ in certain areas. Additionally, the national policies may be implemented differently across countries, emphasizing different goals and measures. Differences in the application and implementation of programme measures and in policies that target (directly or indirectly) specific subgroups may lead to different labour-market outcomes. As is often the case with complex social challenges concerning a wide and very heterogeneous population, it is hard to identify one single factor that could change the situation in a major way (Åslund, Forslund & Liljeberg, 2017, p. 124). Damm and Åslund

[2] It is not possible to control for all individual characteristics that may affect labour-market outcomes, however. This point is further discussed in Chapter 3.

(2017, p. 11) argue that the considerable heterogeneity of the refugee group indicates that there is unlikely to be one specific measure or reform that will dramatically change the situation regarding the employment-market integration of refugees. As the ultimate goal of our analysis is cross-national learning, we must go beyond assessment of the outcomes for refugees as a whole, and decompose the national policies and results, seeking to connect particular sub-policies and measures to programme outcomes. Thus, the second question is: are cross-national differences in labour-market integration outcomes caused in part by differences in the countries' use of programme measures, generally and for specific subgroups?

In this chapter, we first offer a brief historical account and describe the main characteristics of the integration programmes of each country. We then present the findings from the literature on the effects of different programme measures, before turning to our two sub-hypotheses derived from the cross-national policy analysis of policies targeting specific subgroups.

2.2.1 Denmark – central regulation since the 1999 Integration Act

In the 1970s and 1980s, Danish policymakers were reluctant to introduce active employment-promoting measures targeting new immigrants (Breidahl, 2017, p. 8). When refugees first started coming to Denmark, an NGO, the Danish Refugee Council (DRC), was made responsible for integrative measures and contact for the first 24 months after arrival (18 months, from 1980), for which the DRC was funded and reimbursed by the government. This programme included language training and civic orientation, but no labour-market activities to speak of. After this initial 24-month period, responsibility for the refugees was handed over to the municipalities (Emilsson, 2015, p. 10). During the 1980s, as the number of refugees rose, the political debate intensified, across and within political parties. In the 1990s, the slogan 'rights and obligations' guided new reforms in general welfare policies, reforms that sharpened the obligations for the unemployed, introducing individual activation plans and restrictions on the entitlement to social benefits. These principles characterized the new central integration policy of the 1999 Integration Act, and the idea of 'integration through employment' steered the legislative process (Petersen & Jønsson, 2010, pp. 169–171, 187).

With the 1999 Integration Act, responsibility for activities aimed at the integration of refugees were transferred from the DRC to the municipalities. The integration programme for refugees and reunited families involves language courses, a civic course and employment measures. Language courses have a duration corresponding to 1.2 year of full-time studies (Undervisningsministeriet 2014) and are provided by the municipalities or private institutions, financed by the municipality. The new legislation implied not only that local government but also refugees were increasingly controlled by the central government (Emilsson, 2015). A focus on obligations permeated the 1999 Act. On the one hand, the municipalities are obliged to offer integration programmes to all immigrants, not only refugees; on the other, all immigrants are obliged to participate in the programmes offered and actively search for work. Financial sanctions could be imposed on participants receiving social assistance if they or their spouses did not

participate in the programme, or declined offers of employment. However, it should be noted that these measures mirrored the new general policies on unemployment and social assistance, and not concern refugees only (Breidahl, 2017, p. 8; Petersen & Jønsson, 2010, p. 190). All immigrants are required to participate in the measures that are offered in order to acquire a permanent residence permit. Although the Act required 30 weekly hours of participation (increased to 37 from 2004; later replaced by a requirement of 15 hours of participation in job training from 2016), the municipalities retain considerable autonomy with respect to the actual content of the programme.

Various details have been changed since its implementation in 1999, mostly of administrative and financial character regulating municipal implementation and obligations[3] or changes for other immigrant groups than refugees. However, the Integration Act remains in force. One important change during the period analysed here is the periodical introduction and removal of a reduced introduction benefit for the target group (depending on which government was in office). The Integration Act of 1999 introduced a new reduced integration benefit that meant lower levels of social benefits for refugees than for the majority population. After national and international criticism, this reduction was removed in 2000. Then, in 2002 it was reintroduced, with some modifications, by the new right-wing government (now applying to everyone who had not lived in Denmark for seven of the past eight years). After the 2011 elections, the new left-wing government immediately removed the reduced introduction benefit; however, four years later, the new right-wing government reintroduced a similar reduction in September 2015 (Breidahl, 2017, p. 9; Hernes, 2018a). Here it should be noted that even though the level of social benefits for immigrants during their first years in Denmark is lower than that for Danish citizens, it is not particularly low in an international context. With all the caveats to such comparison, the general level of social benefits in Denmark was 40–60% above that in Sweden in 2012, after taxes and housing subsidies and corrected for purchasing power (Hansen & Schultz-Nielsen 2015). The general Swedish benefit level at that time corresponded roughly to the Danish introduction benefits after taxes and housing subsidies.

In response to the refugee crisis, the government revised the scope, length and content of the existing integration programme in July 2016. The main elements and goals for the programme were retained: the changes focused on easing administrative obstacles for municipalities, strengthening the central subsidies to the municipalities, and shortening the introduction period by intensifying the employment focus in the first month. The initial programme period was reduced from three years to one year, with the possibility of extension up to five years, if the participant has not yet obtained employment or education, or passed a Danish language test. In response to findings that most refugees were undertaking language training prior to any employment measures and that the lengthy language courses were delaying entry to the labour market, the new legislation explicitly prioritizes job training, and states that the aim is to get participants employed within the one-year programme period (Rambøll

[3] For example, the new integration plans in 2013 and obligatory health checks in 2015.

Management Consulting, 2017, pp. 8–9). Several initiatives were taken to enable the language training to (ideally) proceed parallel with employment. These changes were implemented in July 2016, and are therefore relevant only for the 2016 cohort in our study.

2.2.2 *Norway – from local initiatives to the 2004 Introduction Act*

Although central regulation has increased in the past 15 years, the integration of immigrants has always been a local responsibility in Norway. Until the implementation of the 2004 Introduction Act, integration measures for refugees mainly a local concern, and varied widely among municipalities. Generally, a few hours a week of Norwegian courses were provided. Some municipalities offered employment training, but the quality was questionable, and such measures were the exception rather than the rule (Brochmann & Hagelund, 2010a, p. 252).

The right to language training was the first centrally regulated integration measure. In 1970, the central state began financing 150 hours of language courses (later raised to 240 hours in 1975) (Brochmann & Hagelund, 2010a, p. 234); however, the provision of language courses was voluntary for the municipalities. During the 1980s and 1990s, the number of hours of language courses increased; however, although this was a municipal responsibility, it was not yet a legal right for immigrants, and the waiting period, quality and quantity of services varied among municipalities. Additionally, participation was voluntary, and a few municipalities linked financial sanctions to participation in these courses (Brochmann & Hagelund, 2010a, p. 253).

During the 1990s, the employment gap between the majority population and the newcomers became apparent, and the politicians recognized the need for stronger control of the integration of refugees into labour market. Particularly the voluntary aspect of existing policies – both for the immigrants and the municipalities as service providers – was heavily debated (Brochmann & Hagelund, 2010a, pp. 248, 256). All this changed in 2003, when the Introduction Act was passed with support from all political parties[4] (Djuve, 2011, pp. 119–120). The Introduction Act was a response to three concerns: the voluntary aspect, making non-participation possible; the extensive reliance on social benefits; and the low and variable quality of the local measures in place (Brochmann & Hagelund, 2010a, p. 276). The new Act changed the voluntary principle in two ways: it now became obligatory for immigrants to participate in integration programmes, and obligatory for municipalities to provide such programmes (Djuve, 2011, pp. 119–120). This dual obligation made the Introduction Act appealing to both sides of the political spectrum: it introduced obligations of participation on the part of the target group, with clear rules concerning financial sanctions for non-participation, but also gave the target

[4] The Introduction Act consists of two parts: the integration programme, exclusively for refugees and reunited refugee families; and an amendment that (added in 2005) that gave employment and family reunited with Nordic citizens the right and duty to attend 300 hours of language and civics training (Tronstad & Hernes, 2017, p. 125). In this analysis, we focus solely on the former, the integration programme for refugees.

group more rights – simultaneously emphasizing obligations *and* rights (Brochmann & Hagelund, 2010a, p. 276).

Although the Introduction Act was a major step towards increased central regulation of refugee integration, the new regulations were fairly general in character. The municipalities were obliged to provide such programmes, but they retained considerable autonomy regarding programme implementation and content (Tronstad & Hernes, 2017, p. 125). According to the Introduction Act, such programmes are to include Norwegian and civics training, and measures to enable further education or attachment to the labour market – but the timing or duration of any of these measures is not specified. However, the extent of language and civic training is regulated. Participant have the right and duty to attend minimum 600 hours of language and civic training, which can be extended to up to 3000 hours (before January 2012, a minimum of 300 hours had been required) (Hernes & Tronstad, 2014). Each participant receives a given introduction benefit regardless of the household's financial situation, a deliberate political choice aimed at including women in the programme (Hernes & Tronstad, 2014, pp. 20, 69). Non-valid absence from programme activities is to result in financial reduction of the social benefit. The Norwegian integration programme has not undergone any major changes relevant for our analysis since it was introduced in 2004.

2.2.3 Sweden – from local variation to the 2010 Establishment Act

Initially, the idea that immigrants should be included in the general national welfare system and employment policies, in contrast to creating particular policies for them as a specific group, prevailed in Sweden. The first steps towards specific policies came in 1985 when the municipalities were given greater responsibility for refugees, especially with regard to language and civic training (Borevi, 2010, pp. 74–75). However, the employment perspective was lacking, and municipal assistance to refugees was generally seen as a social–political task administered through the office of social security (Borevi, 2010, pp. 74–77).

In the early 1990s, the financial crisis and the Balkan crisis brought a new focus on getting refugees into the workforce. Although there had been an employment gap between refugees and native-born Swedes prior to these crises, this gap widened during the financial crisis, and the high influx of refugees from the Balkans further elevated the challenge to the political agenda. The financial crisis strengthened the 'work-line' focus in general welfare policies, and was also evident in the development of new integration policies. The 1994 Act came as a response to all these challenges (Borevi, 2010, pp. 88, 94), and the first national steps were taken towards an integration programme. The municipalities were given a fixed grant for each participating refugee; the only requirement was that the municipality – in cooperation with the participant – would prepare an individual introduction plan. The municipalities could also choose to pay an introduction benefit instead of social benefits, to link participation more clearly with financial support, including the possibility of financial sanctions in case of non-participation (Borevi, 2010, pp. 97–98). Nevertheless, the voluntary aspect characterized national policies: it was not only voluntary for refugees to participate, but also voluntary for the

municipalities to offer such programmes. Consequently, programme quality and benefit levels varied across the country, as the municipalities were free to pay participants either an introduction benefit or social assistance (based on household income) (Andersson Joona et al., 2016, p. 6). National guidelines were few and vague, providing the municipalities with great autonomy and resulting in wide variation. Further, studies revealed that few municipalities actually implemented these voluntary measures (Borevi, 2010, pp. 97–98).

The voluntary provision of municipal integration programmes continued until the Establishment Act was introduced in December 2010. The aim of the reform was to facilitate and speed up integration into the labour market and society, and to reduce the local variation of integration measures available (Andersson Joona et al., 2016, p. 5). The reform transferred responsibility for the integration of refugees from the municipalities to a central agency, the Public Employment Service (*Arbetsförmedlingen*). All refugees were to register with *Arbetsförmedlingen* for establishment talks, plans, coaching and the introduction benefits (*etableringsersättning)*. The establishment plan was to cover at most 24 months and include language and civic training (still provided by the municipalities) as well as measures to prepare for work-force participation (performed by *Arbetsförmedlingen* or other agents). In particular, the reform aimed at promoting the integration of women, as refugee women had been found to participate less in labour-market programmes and to have lower employment rates than male refugees (Andersson Joona et al., 2016, pp. 3–6; Andersson Joona & Nekby, 2012). The Establishment Act made financial sanctions against non-participation centrally regulated rather than a municipal option. Additionally, the introduction benefit was design as an individual benefit – similar to the Norwegian model – independent of the household's overall economy, in order to incentivize both men and women to participate in the programme (Borevi, 2010, p. 124). Programme participation is a legal right for the target group, but not an obligation (as in Norway and Denmark). However, financial sanctions may be imposed on the target group in case of non-participation – weakening the voluntary aspect, as a majority of the target group depend on financial assistance (Hernes & Tronstad, 2014, pp. 53–54). Since the introduction of the Establishment Act in December 2010, some legislative changes have been made, particularly one that affects the target group of our analysis (for other changes not dealt with in this analysis, see footnote[5]). Initially, the new reform included family members who were reunified with refugees who had lived less than two years in the municipality of settlement; in 2013, this was expanded to six years (Arbetsförmedlingen, 2017, p. 9). Worth mentioning, but beyond the scope of this analysis, is that the Establishment Act was revised again in January 2018. The new reform marks a step towards further mainstreaming the integration programme into regular employment measures (Hernes, 2018b).

5 The Establishment reform introduced a new element whereby the participant could choose a coach – often from the private and non-profit organizations -who would assist the participants with advice, contacts and coaching. However, after heavy criticism from the Swedish National Audit Service, that system was abolished in February 2015 (Andersson Joona et al., 2016, p. 6). In 2014, two changes were introduced: 1) a restriction to expel participants who declined suitable employment opportunities, and 2) the possibility of extending programme duration by 8 months for those who participated part-time because of parental leave.

2.2.4 *The effect of different programme measures*

The design and implementation of the integration programmes – how components such as language training, education and labour-market measures are prioritized – may affect programme outcomes. Our analyses will investigate both the extent to which the Scandinavian countries apply different programme measures, and their association with subsequent labour-market integration.

Previous studies have shown that these different measures have varying effects; however, the number of studies is limited, and most effects have been measured only in the short run for broad groups of non-Western immigrants more than 15 years ago. What, then, are the main findings of earlier research on different programme measures?

First, language proficiency is often taken for granted as a driver of labour-market integration. From the beginning, language courses have been one of the most important features in integrative activities for immigrants; however, studies of language training show diverging results. The form, timing and extent of language training has been debated since the 1970s (Brochmann & Hagelund, 2010a, p. 235). Traditionally, language courses have preceded labour-market measures; however, in recent years this sequential introduction has been challenged, and parallel introduction of these two measures has been called for (Tronstad & Hernes, 2017). A Norwegian study found that participation in Norwegian language courses improved proficiency in the Norwegian language for non-Western immigrants, but that the improved language proficiency had no effect on earnings (Hayfron, 2001). Indeed, a Danish study found that participation in language courses actually delayed entry to the labour market (Clausen et al., 2009). A more recent study also shows that the transition rate to employment is negatively related to the number of hours spent attending traditional language courses in Norway, and this effect is strongest for participants with low education (Tronstad, 2015). By contrast, a Swedish study has documented that immigrants who complete a language course have higher employment levels than non-participants, when measured six to ten years after arrival. The employment effects are particularly notable for women and for immigrants with low educational levels, but there are no effects on income levels as such (Kennerberg & Åslund 2006).

Second, the programme may include regular education, both elementary and supplementary (further) education. For supplementary education, studies show consistently that high-skilled immigrants have a higher employment rate than low-skilled immigrants (Hernes & Tronstad, 2014, p. 114; NOU 2017: 2, 2017, p. 89). Arendt (2018) shows that these effects are particularly pronounced for refugee women. Still, Arendt, Pohl Nielsen and Jakobsen (2016, pp. 77–78) find that pre-migration skills matter only indirectly: high-skilled have greater employment chances not because of their homeland qualifications as such, but because they acquire more further education in the destination country. Thus, supplementary education has been highlighted as an important measure for labour-market integration (Bratsberg et al., 2017, p. 40). It is, however, necessary to stress that the existing studies are descriptive. It implies that they cannot pro-

vide definitive answers as to whether education causally improves employment. An alternative explanation is that because education requires motivation and skills, those who enrols in education would have obtained higher employment even without the education. Also, to the best of our knowledge, no studies have considered the effect of supplementary education per se.

Lastly, literature reviews of various labour-market measures find mostly positive results for subsidized employment, direct employment programmes, and other labour-market measures (Arendt, Bolvig, et al., 2016; Arendt & Pozzoli, 2013; NOU 2017: 2, 2017, pp. 93–96). Subsidized employment in private companies stand out as the most promising of the measures. However, several of these studies note that, although these measures are proven successful, particularly subsidized employment has rarely been used for the target group of the integration programmes.

2.2.5 Different policies targeting subgroups

The Scandinavian countries have basically the same target group for the integration programme;[6] however, national regulations differ somewhat concerning specific measures for different subgroups. Regarding cross-national learning, it is relevant to investigate if one country has better results for certain subgroups than the other countries, because this could indicate that the country has developed better policies, or implemented similar policies differently, leading to better outcomes. Our analysis is mainly explorative, as we want to search for all possible differences between the relative ability of each country to integrate different subgroups. However, we have identified two specific policy differences that will be tested in the analysis: policies targeting women's participation and policies for low and high-skilled participants.

Women's participation in employment measures

Danish programme participants receive means-tested social assistance if the family is unable to support itself (and for the period analysed: periods with a reduced integration benefit lower than the social benefits available to the majority population). Additionally, in Denmark, participation in employment measures are obligatory only for persons who receive financial assistance (Hernes & Tronstad, 2014, p. 85). These policies imply that if the husband is able to provide for the family, the wife is not obliged to participate in employment measures, nor has she a financial incentive to do so, and vice versa. In contrast, Norway and Sweden provide a special introductory benefit for each participant, regardless of the financial situation of the family as a whole. This individual benefit has been explicitly justified and promoted as a measure aimed at increasing the participation of women in the programme (Hernes & Tronstad, 2014, p. 85). Additionally, Sweden and Norway do not distinguish between different groups that should have employment measures as part of the programme content. Thus, it is relevant to inves-

[6] The Danish programme also include family reunifications involving Danish citizens (Hernes & Tronstad, 2014, p. 51). However, to make the population in the three country analyses comparable, this group is not included in our analyses.

tigate if there are cross-national differences concerning the results for female participants and their participation in labour-market measures. Based on the policy analysis, one sub-hypothesis will be that Denmark will have a relatively lower share of women participating in labour-market measures compared to Norway and Sweden.

Integration of high-skilled and low-skilled workers

Karlsdóttir et al. (2017, p. 5) write that the Norwegian validation processes have focused more on low-skilled workers, while Sweden has focused more on persons with higher qualifications. We will investigate whether there are cross-national differences concerning the results for the low-skilled and high-skilled participants, and if participants with different education levels are subject to different types of programme measures.

2.3 Different refugee settlement models

Refugee settlement policies may be seen as the first step in national integration policies (Askim & Hernes, 2017, p. 106). They differ considerably, even between otherwise similar welfare regimes (Borevi & Bengtsson, 2015, p. 2600). Refugee settlement policies entail that refugees who have obtained a residence permit, but are not yet national citizens, may be subject to certain policies that regulate their right to free settlement within the country. In Scandinavia, all refugees are welcome to settle wherever they wish, if they are self-sufficient. However, most refugees need public assistance to find initial housing and are (initially) dependent on financial support. For refugees who are not self-sufficient, the government may impose restrictions on where they may settle – or, where they are settled – in order to be eligible for social benefits, public assistance in finding accommodation, and the right to participate in integration programmes.

Refugee settlement policies have long been infused with a combination of practical and moral considerations. Previous analyses of Scandinavian refugee settlement policies have shown that considerations other than refugee employment opportunities have been emphasized in the policy-making processes, for example trade-offs between individual choice and collective goods through public regulation, local autonomy and central steering, and efficiency and democratic accountability (Askim & Hernes, 2017, p. 106; Borevi & Bengtsson, 2015; Hernes, 2017). The normative and political considerations underlying each model are not discussed here (see Askim and Hernes 2017, Hernes 2017, and Borevi & Bengtsson 2015). Instead, we investigate empirically how these different models affect three considerations that have permeated refugee settlement policies: 1) the dilemma of concentrated versus dispersed settlement, 2) promoting settlement in municipalities with favourable labour-market conditions, and 3) regulating secondary settlement. How settlement models affect these variables is particularly relevant, as previous analyses have found that the share of immigrants and co-nationals in the population, local labour-market conditions, and secondary settlement patterns affect the likelihood of labour-market integration for refugees (Bevelander, 2011; Bevelander & Lundh, 2007; Damm, 2014; Damm & Rosholm, 2010; Edin, Fredriksson, & Åslund, 2003). ThEe following questions will guide our analysis:

1. Do national refugee settlement models distribute refugees differently across the country?
2. Do national refugee settlement models lead to differences in the degree and patterns of secondary settlement; and what is the relationship between secondary settlement and refugees' employment integration?

After a short description of the historical development of refugee settlement policies in Scandinavia, we contrast the main principles each country's settlement models. Then follows a presentation of theories and previous research on each of the three dimensions under study: concentrated versus dispersed settlement, labour-market conditions, and secondary settlement. The presentation of each variable ends with hypotheses (where possible), derived from analysis of cross-national policy differences.

2.3.1 The Danish settlement model – central allocation across the country

In Denmark until 1999, refugees either found their own housing (about 10%) or received settlement assistance from the Danish Refugee Council (Damm, 2005, pp. 5–7). The question of centrally steered settlement entered the political agenda already in the late 1980s, dividing the political blocs: the left-oriented parties argued for equal distribution among municipalities by central allocation, while the right-oriented parties opposed such centralization. The main political concern was concentrated settlement (often referred to as 'ghettoization'), mainly in the big cities (Petersen & Jønsson, 2010).

Already in 1986, dispersed settlement was introduced as a criterion for refugee settlement (Damm, 2014, p. 144); however, the major change came with the 1999 Integration Act. As part of a sweeping reform of national immigration, asylum and integration policies, the 1999 Integration Act outlined a new settlement model that restricted the roight of refugees to self-settlement and gave the Immigration Agency (Udlændingestyrelsen) the authority to allocate refugees to the various municipalities. Refugees are distributed to municipalities on the basis of a formula that calculates municipal quotas taking into account the municipality's population size, share of immigrants from outside the Nordic countries and EU/EEA[7] and the number of persons recently arrived in connection with refugee family reunification. Using the quotas as a point of departure, municipalities within the same region are given the opportunity to negotiate a different distribution: but if they do not reach agreement, distribution follows the initial quotas. Although this municipal voluntary element exists in the Danish model, actual distribution generally resembles the centrally calculated quotas (Kaarsen, Vasiljeva & Skovgaard, 2016, pp. 6–7). The goal of the new model was to ensure a more equal geographical distribution of refugees across the country and fairer distribution of refugees among the municipalities (Hernes, 2017, pp. 805–806). The law restricted the autonomy

[7] From 2016 the quota are based on the share of all non-Western immigrants and other immigrants with temporary residence.

of the municipalities and the refugees; the central distribution of refugees to the municipalities affected municipal autonomy, and the law restricted the rights of refugees to choose their own place of settlement: self-settling (Petersen & Jønsson, 2010, p. 190). The Integration Act also affects the right of refugees to move from the municipality of initial settlement during the first three years after settlement. Refugees who move during this three-year period lose the right to participate in the integration programme and the right to financial assistance. However, exceptions exist if this resettlement is accepted by the new municipality. A municipality must accept integration responsibility if the refugee has employment opportunities in the municipality and there are no commuting/transport options (Kaarsen et al., 2016, p. 4).

2.3.2 The Norwegian settlement model – local autonomy and dispersed distribution

Until 1980, the Norwegian Refugee Council was responsible for refugee settlement, mostly quota refugees who arrived on connection with agreements concluded between the UNHCR and Norway. After a short period where the central government attempted direct settlement of asylum-seekers in municipalities, the state again assumed responsibility for asylum-seekers during the asylum period in 1985. Thus, from 1985 refugees were allocated to their municipality of settlement only after they had obtained a residence permit. In 1988, the Norwegian Directorate of Immigration (UDI) was established and became responsible for the settlement of refugees; in 2006, this responsibility was transferred to the newly established Norwegian Directorate of Integration and Diversity (IMDi). The refugee settlement process built on voluntary central–local agreements with selected municipalities. This model, formalized in 2002 through an agreement between the ministry responsible and the Norwegian Association of Local and Regional Authorities (KS) (Djuve & Kavli, 2007, p. 24), builds on two main principles: local autonomy and dispersed distribution (Askim & Hernes, 2017, p. 108; Brochmann & Hagelund, 2010a, pp. 249–250).

First, the principle of local autonomy: Norway's 2004 Introduction Act indirectly regulates the settlement process through municipal obligations for the integration process. The municipal obligation to provide integration programmes and housing is restricted to refugees settled through voluntary bilateral agreements with the central government through IMDi. A national committee determines the regional distribution of refugees. Based on this, IMDi, in cooperation with KS, contacts the municipalities, requesting refugee settlement for the following year. IMDi is in charge of negotiating bilateral agreements with the municipalities, but each municipal council decides if it is willing to accept/ settle the requested number, a lower number, or no new refugees at all. Consequently, refugee settlement relies entirely on voluntary municipal cooperation (Askim & Hernes, 2017). Over the years, the principle of local autonomy has been challenged repeatedly. In 1990, 2001 and 2011, proposals for giving the central government the authority to allocate refugees to municipalities were made, but were always rejected (Borevi & Bengtsson, 2015, pp. 13–14; Hernes, 2017, pp. 808–810).

Second, although dispersed settlement has been a leading principle in Norwegian settlement policies, this goal has been somewhat moderated by the aim of settling a minimum of number of persons of the same nationality or ethnic group in each municipality (Borevi & Bengtsson, 2015, p. 13), and the active policy of getting existing settlement municipalities to accept more refugees (Djuve & Kavli, 2007, p. 24). However, the considerable fluctuations in the number of asylum-seekers have challenged this ideal: although the main principle has been moderately dispersed settlement, settlement requests have been sent to all Norwegian municipalities in years when the number of asylum-seekers has been particularly high (Askim & Hernes, 2017, p. 108; Brochmann & Hagelund, 2010a, pp. 249–250).

The Norwegian 'municipal' model of settlement comes at the expense of the individual's autonomy to decide where to settle, although with some modifications.[8]

Additionally, the refugees' right to move during the introduction period (the first two years after initial settlement) is restricted. Similarly to the Danish model, refugees lose the right to participate in the integration programme and the right to financial assistance if they move during this period, although the new municipality they settle in may choose to include them in the programme (Hernes & Tronstad, 2014, p. 53).

2.3.3 The Swedish settlement model – individual autonomy through self-settlement

Before the 1980s, no official national policies or regulations of refugee settlement existed in Sweden. However, the rise in the numbers of asylum-seekers and refugees during the 1980s quickly placed the question of refugee settlement high on the political agenda. Until then, immigration had been located under the Ministry of Employment, and the Employment Agency (*Arbetsmarknadsstyrelsen*) were responsible for settling refugees, most of whom were settled in Stockholm, Uppsala, Malmö or Gothenburg were they first applied for asylum (Borevi, 2010, pp. 74–75). As part of a larger reform in 1985, responsibility for refugee settlement was moved from *Arbetsmarknadsstyrelsen* to the Immigration Agency (*Invandrarverket*). The initial idea was that *Invandrarverket* would enter voluntary agreements on refugee settlement with a limited selection of municipalities which could specialize in settlement and integration. However, a large increase in asylum-seekers compared to earlier prognoses followed in the wake of the new legislation, forcing Invandrarverket to reach out to all municipalities to assist with refugee settlement (Borevi, 2010, p. 76).

In 1994, Sweden introduced the right for asylum-seekers to arrange their for 'own accommodation' (*eget boende* (EBO)) while waiting for a decision on their asylum application; and this right applied also after a residence permit. This meant a strengthening of refugees' possibilities to exercise individual autonomy, and a corresponding limitation in the possibilities of the state authorities to exert influence on settlement patterns (Borevi & Bengtsson, 2015, p. 2605). Although the EBO reform was a response to

[8] If refugees find their own accommodation in a municipality, and if that municipality accepts their accommodation contract, they will have equal rights and obligations to participate in the integration programme.

criticisms of 'clientification' and the paternalistic state, the reform was not presented as a way to strengthen the individual autonomy of the new arrivals: it was meant to emphasize the refugees' obligations to take responsibility for their own situation. Later on, however, the refugees' individual autonomy, with equal rights to free movement, became the prevailing justification for the system (Borevi, 2010, p. 126; Borevi & Bengtsson, 2015, pp. 2606, 2613).

Refugees who did not self-settle continued to be settled through voluntary agreements between the central and local government, similar to the Norwegian model. In 2008, a Parliamentary committee presented a Green Paper on a major reform of Swedish integration policies. Included in the Green Paper was a proposal for a new Settlement Act that would allow central allocation of refugees who did not self-settle, to replace the existing system of voluntary central–local agreements. The government rejected central allocation as a new model, but as part of the Establishment Act, responsibility for refugee settlement was transferred from the Migration Agency (*Migrationsverket*) to the Employment Agency.

A similar question soon reappeared on the agenda. In 2012, the Migration Board was given greater authority to allocate solitary under-aged refugees to municipalities; this ensured increased central steering, but only for that specific target group. Then, during the refugee crisis in 2015, central allocation of refugees who did not self-settle was again proposed, and this time was adopted by the parliament (Hernes, 2017, pp. 806–808). As of March 2016, the new Swedish model combined the principle of self-settlement with a Danish model, where the central government allocate refugees who do not self-settle to the municipalities (Askim & Hernes, 2017, p. 116). These recent changes are not analysed here, as our sample includes only adult refugees, not solitary under-aged refugees. Thus, the settlement model relevant for our analysis in the Swedish case is the model that combined self-settlement with voluntary central–local settlement agreements for refugees who did not self-settle.

2.3.4 Who decides – the state, the municipality or the refugee?

The Scandinavian countries exemplify three alternative models of refugee settlement that differ with respect to who ultimately decides where refugees should live: the central government, the municipalities or the refugees themselves. The models prioritize competing normative and political considerations differently, especially concerning the questions of individual autonomy versus publically steered settlement, and central allocation versus municipal autonomy (Askim & Hernes, 2017, p. 114). Both the Danish and Norwegian models prioritize publically steered settlement, but the Danish models distribute refugees through central allocation, while the Norwegian model is based on voluntary municipal settlement agreements. The main principle in the Swedish model is individual autonomy. Nevertheless, as not all refugees manage to find housing for themselves, this model of free settlement is combined with assisted settlement through voluntary municipal settlement agreements.

2.3.5 *Different models – different distribution?*

In the following, we discuss existing theory and earlier empirical studies, analysing policy differences to derive hypotheses on how the three settlement models affect refugee settlement patterns regarding 1) concentrated versus dispersed distribution and 2) secondary settlement.

Concentrated versus dispersed settlement

There is a delicate balance to be struck between the goal of settling refugees evenly across the country and that of labour-market integration (Karlsdóttir et al., 2017, p. 14). Dispersal policies that direct newly-arrived refugees and asylum-seekers away from immigrant-dense metropolitan areas are practised in several European countries (Damm & Rosholm, 2010, p. 105). Refugee settlement policies can serve as a measure to create what Borevi and Bengtsson (2015, pp. 2602–2603) call 'desirable or beneficial social environments': however, just what constitutes a 'desirable or beneficial social environment' is contested. Policies promoting dispersed or concentrated settlement build on alternative assumptions as to how labour-market integration is best promoted, often connected to the dilemma of bonding and bridging social capital.

The idea that *concentrated settlement* would promote labour-market integration through *bonding* social environments by 'ethnic clustering' – where at least a minimum number of persons from the same nationality or ethnic group live in the same municipality (Borevi & Bengtsson, 2015, p. 2611) – is based on insights from network theory. Networks – friends, family and acquaintances – matter when one is searching for employment (Damm, 2009, p. 139). Network channels are especially relevant for immigrants who search for jobs, and particularly for low-skilled immigrants (2009, p. 141), More importantly, Damm found that the large majority of immigrants who were employed by network channels got their job through relatives, friends and acquaintances of immigrant, and not native, origin. Thus, ethnic enclaves may serve as a network that disseminates valuable information on job opportunities, and where the refugee is less exposed to the discrimination encountered elsewhere in the labour market, creating a good environment for employment integration (Edin et al., 2003, p. 332). This theoretical assumption has received some support from empirical studies showing that refugees who live close to other co-nationals experience positive effects on labour-market integration concerning *earnings* (Damm, 2009; Edin et al., 2003, p. 349), but there is less evidence of any effect on *employment rates* for refugees (Damm, 2009; Damm & Rosholm, 2010, p. 129). Additionally, the quality of the ethnic enclave matters: enclaves whose residents have high skill-levels and high employment rates have a positive effect on labour-market integration (Damm, 2009), whereas living in an enclave of lower quality may have a negative effect (Edin et al., 2003, p. 351). Empirical studies have shown ambiguous results – both positive and negative effects concerning how ethnic enclaves affect the labour-market integration of refugees, as well as different effects for different groups of immigrants.

Dispersed settlement policies, by contrast, often build on the idea of *bridging* social capital, where socially mixed environments are seen as speeding up the acquisition of

host-country-specific human capital (language skills, knowledge about the culture, networks with the majority population, etc.), which in turn could promote labour-market integration (Borevi & Bengtsson, 2015, p. 2603; Damm & Rosholm, 2010, p. 106; Edin et al., 2003, p. 332). Studies show higher employment rates among immigrants who have native-born friends and those who are involved in the local community (Karlsdóttir et al., 2017, p. 6). A dispersal policy also promotes a more fair distribution of responsibility, redistributing the financial and social cost of refugee integration more equally among municipalities (Damm & Rosholm, 2010, p. 106; Hernes, 2017). Fears of 'ghettoization' and parallel sub-communities are often used politically to argue in favour of dispersed settlement, as residential segregation is commonly presumed to obstruct the integration of immigrants (Damm & Rosholm, 2010, p. 282; Hernes, 2017).

It is uncertain whether dispersed or concentrated settlement obstructs or promotes labour-market integration of refugees (Damm, 2009, p. 383), as will be further investigated in our empirical analysis. In the political debates leading up to today's national settlement policies in Scandinavia, all three countries have highlighted dispersed settlement as an important goal, although the willingness to use centralized measures to achieve this by infringing on individual and/or municipal autonomy has differed.

We will test three hypotheses, one for each country, on how these settlement models lead to different settlement patterns in the first year of settlement. As the *Danish* settlement model distributes refugees among municipalities on the basis of the municipality's relative share of immigrants in the current population, we expect Denmark to have the most dispersed settlement pattern in the first year. In *Sweden,* refugees may self-settle, and those who do, often choose urban and concentrated areas: we expect Sweden to have the least dispersed settlement pattern in the first year. *Norway* is expected to have a settlement pattern somewhere in-between its two neighbours. Although the Norwegian model includes a policy explicitly favouring dispersed settlement, the central government depends on municipal cooperation, which may complicate implementation of this goal.

Secondary settlement

Secondary settlement or resettlement refers to internal migration – when a refugee moves from the municipality of initial settlement to another municipality. Politically, secondary settlement has often been portrayed as undesirable. Earlier studies show that the most of those who resettle in a new municipality move to more urban areas with concentrated immigrant populations (Kaarsen et al., 2016, p. 1), which contradicts the policy goal of dispersed settlement. However, if secondary movement involves unemployed refugees moving from unemployment in the initial municipality to employment in another municipality, it could be a positive mechanism, correcting flaws in the initial settlement process. Bevelander (2011, p. 43) argues that future studies of labour-market integration – using longitudinal data – should take into account how internal migration may affect employment integration. Refugee incentives to move internally have consequences for the population structure, and could increase pressure on the local infrastructure and welfare sector (Bevelander & Lundh, 2007, p. 7). While theory on labour immigrants predicts that secondary movement will be directed towards regions

with better labour-market conditions, actual internal movement for refugees could be related to the labour market, or due to other factors like wanting to live closer to fellow countrymen and family (Bevelander & Lundh, 2007, p. 11).

Studies of internal movement of immigrants have been ambiguous: some studies find that secondary settlement is not followed by employment or upward social movement, whereas others show positive labour-market integration effects of internal migration. (For literature reviews and discussions, see Bevelander and Lundh (2007, p. 7) and Bevelander (2011, pp. 30–31).) Various mechanisms could be at play. One indication that refugees move for reasons other than employment is that secondary settlement is often directed towards larger cities and municipalities, even though refugees' chances of labour-market integration have been shown to be better in smaller and rural municipalities (Bevelander & Lundh, 2007, p. 20). On the other hand, moving to larger municipalities or bigger cities could bring renewed connections with a larger co-ethnic population and the possibility of utilising ethnic networks (Bevelander, 2011, p. 31).

Studies have shown that refugees are more likely to move if their initial settlement was in small municipalities with fewer immigrants and co-nationals (Damm & Rosholm, 2010, pp. 107–108): they tend to move towards larger municipalities in more urban areas (Bevelander & Lundh, 2007, p. 17; Damm & Rosholm, 2010, p. 107). Moreover, studies indicate that secondary settlement patterns are stable across time (Kaarsen et al., 2016, p. 5). There are no differences between the patterns for men and women, but younger persons and refugees without a partner are more inclined to move (Udlændinge- og Integrationsministeriet, 2016a). It has not been investigated whether those who move are already employed or not: both cases could be plausible. If a refugee already has a job in the municipality of initial settlement, that person might be less inclined to resettle – or, conversely, he or she might find it easier to get new employment elsewhere. It is hard to predict how employment might affect the likelihood for resettlement (Kaarsen et al., 2016, p. 8).

We will investigate two hypotheses derived from the analysis of cross-national differences in the national settlement policies. First, these policies have differing regulations concerning the right to free movement, as regards both initial settlement and the right to move after the initial settlement. The latter is connected to the right to financial benefits and participation in the integration programme. In Denmark and Norway, refugees lose the above-mentioned rights if they move before the introduction period is over: that implies a three-year restriction in Denmark and two years in Norway. Sweden has no such restrictions on movement after the initial settlement. Refugees – not only those who self-settle, but also those who have been granted settlement assistance – will be eligible for financial benefits and participation in the integration programme even if they move to another municipality (Hernes & Tronstad, 2014, p. 53). From on these policy differences, we expect more refugees in Sweden to resettle to another municipality in the first years after the initial settlement, whereas secondary settlement will increase after two or three years in Norway and Denmark.

Second, how the settlement models distribute refugees initially may influence the degree and patterns of secondary settlement. Refugees have been shown to be more likely to move if their initial settlement is in smaller municipalities with few immigrants

and co-nationals (Damm & Rosholm, 2010, pp. 107–108). Thus, it could be expected that the Norwegian and the Danish model, building on principles of dispersed settlement, will lead to more secondary settlement, as refugees may wish to move to larger municipalities after the initial introduction period. For the Swedish settlement model, expectations would be differ for refugees who self-settled and for those who were settled with state/municipal assistance. For refugees who self-settle initially, it could be expected that they had already settled in a desired community, and will be less inclined to move. For refugees who received municipal/state assistance as regards settlement, we would expect to find more secondary settlement because they themselves did not initially choose where to live.

3. Research design: data and methods

Sweden, Denmark and Norway have been described as ideal candidates for a 'most similar' comparative study because of their political, social, cultural and economic similarities (Borevi, Jensen & Mouritsen 2017, p. 5). Scandinavia has many advantages that enable comparative statistical analyses. The national population registers based on a unique pin-code, that enables linking to other administrative registers, allows for longitudinal analysis of relatively small groups of immigrants such as refugees. Such data are hardly found outside of the Nordic countries. Further, the concepts, definitions and classifications used in the three countries are relatively similar (Bevelander et al., 2013, p. 13).

3.1 Data sources

3.1.1 Data on Danish participants

We have merged the data on participants in the integration programme in Denmark from several sources. Administrative registry data on employment, education and socio-demographic characteristics from Statistics Denmark have been merged with data on residence permits from the Danish Immigration Services and on activity in the integration programme from the Danish Agency for Labour Market and Recruitment. The 'year of settlement' is defined as the first year in which a refugee is registered in the Civil Registration System (CPR). Our sample includes all who were granted their first residence permit as a refugee in year of settlement or the year before. A 'participant' in the integration programme is defined as a refugee who receives welfare assistance within the first three years after settlement.[9]

3.1.2 Data on Norwegian participants

Data on participants in the integration programme in Norway are provided by Statistics Norway. The statistics include all those who are registered as participants in the current

[9] This differs from the definition applied by Statistics Denmark, which has been adopted by the Ministry for Immigrants and Integration. Statistics Denmark define a 'participant' solely on the basis of the type of residence permit. The Danish Act on Integration distinguishes between immigrants receiving welfare benefits and those who do not, and we focus on the former, who are eligible for employment support. Statistics Denmark define the start year of the programme as the year in which immigration is registered. We define it as the year of the first record in the Civil Registration System.
. Welfare assistance is *kontanthjælp*, and includes *uddannelseshjælp* (since 2014) and *integrationsydelse* since 2015.

year, and include information about gender, age, marital status, start date and end date of participation in the integration programme. Further, the data include programme measures they have participated in during the reference year and their ending reasons/status. Data are based on the local authorities' annual submissions of electronic forms and file extractions in relation to participants who are registered on KOSTRA[10] form 11B, where municipalities report on courses and labour-market measures. The categories are broad and cover the most commonly used measures, such as Norwegian language, language practice, approval of education, regular education at primary or secondary level. Participants who have been employed in private or public companies as part of the introduction programme are categorized as being in subsidized employment. The data on individual participants are then linked with the population register of 31 December in the reporting year. For former participants, the data are further linked with the 'system for personal data' within Statistics Norway, where information from several registers is merged. Such register-based employment statistics data contain information on whether a person is employed or undergoing education.

3.1.3 Data on Swedish participants

For the Swedish sample we use data from the database STATIV, which is administered by Statistics Sweden. Our sample includes all refugees and family migrants who have settled in a municipality in the period 2008–2016. The population included in the analysis consists of those who have participated in integration programmes at some point during their first three years in Sweden. Due to changes following the December 2010 reform, the definition of 'participants' differs slightly between the period 2008–2010 and 2011–2016. Prior to December 2010, local governments were responsible for the integration programmes but there was no central system for registering who were participating in the programmes or in which type of activities. For this period we rely on information about type of benefits received. Those who received either an introductory benefit (*introduktionsersättning*) or social assistance and introductory benefit (*ekonomiskt bistånd och introduktionsersättning*) are defined as having participated in the integration programme. Starting from 2011, there is information in STATIV about whether an individual has received an individualized integration plan and can hence be defined as a 'participant'. From this year, there is more detailed information about the integration programme, for example, which activities refugees have participated in.

The data include information on age, gender, marital status, number of children, place of residence and country of birth, as well as employment and education.

[10] KOSTRA (Municipality-State-Reporting) provides information on most of the municipal and county municipal activities, including the economy, schools, health, culture, the environment, social services, public housing, technical services and transport and communication

3.2 Population

The target group of the Scandinavian settlement policies and integration programmes are adult refugees and family members reunified with refugees: they constitute the population of our study. Schultz-Nielsen (2017, p. 57) explains the advantage of including both groups

> [they…] share multiple features, including the same country of origin and the fact that their association with the labour market largely follows the same pattern, taking into account differences in gender composition. (…) Including reunified family members in the group of refugees also makes the demographic composition of the group more directly comparable with calculations from other countries where information about grounds for residence are not available, and where country of origin therefore has to be used as an indicator of refugee status.

We analyse cohorts who hold residence permits and were settled in a municipality from 2008 to 2016. In 2007, Denmark implemented a sweeping municipal reform, reducing the number of municipalities from 270 to 98. As we include structural variables at the municipal level, we examine settlement and integration of refugees after this reform, from 2008. We further restrict the population to persons who have actually participated in the integration programme, and start our analysis from the year the individual was settled in a municipality (the local integration programme should start shortly after).

Although the various Scandinavian integration acts are aimed at basically the same population, there are some minor differences (see Hernes & Tronstad, 2014, p. 51). First, the Norwegian and Swedish integration programmes target only refugees and family members reunified with other refugees. The Danish integration programme target not only the groups mentioned above, but also persons reunified with Danish citizens and other immigrants. However, we exclude these latter groups, to ensure comparable populations.

Second, in Norway, only persons who are reunited with refugees who have lived in Norway for less than five years are entitled to participate in an integration programme. In Sweden, the same cut-off point had been two years; this was extended to six years in 2013 (Arbetsförmedlingen, 2017, p. 9). In Denmark, because the legislation does not distinguish between family members reunified with refugees and other citizens, there is no limit for when members of the former category have the right and obligation to participate in integration programmes. Given these differences, the study population in each country will differ as regards family reunifications that are included, however, we do not believe that these differences will have a significant impact on the results. The purpose of this analysis is to study the consequences of participating in the integration programme and its measures, making it relevant to include only persons who are part of the target group in each country.

Third, the three countries differ as to which age-groups the integration programme is meant to cover. The Norwegian programme includes persons aged 18–55; the Swedish programme, persons aged 20 (18) –65 – and the Danish programme includes persons from the age of 18 , with no specified upper limit. To make the analyses and target groups comparable, we include only participants aged 20–55.

3.3 The dependent variable: employment and education enrolment

'Labour-market integration' has been operationalized differently across studies: for instance, respondents may self-assess their economic integration, hazard rates in employment, annual earning levels, social insurance reception or binary employment variables (Andersson Joona et al., 2016; Bevelander & Pendakur, 2014; Bratsberg et al., 2017; Clausen, Heinesen, Hummelgaard, Husted, & Rosholm, 2009; Goodman & Wright, 2015; Heinesen et al., 2013; Sarvimäki, 2017; Schultz-Nielsen, 2017). Many studies use a combination of two or three indicators, either in separate analyses or by combining two or more indicators into one parameter to assess employment integration. Few studies include enrolment in education as an indicator of successful labour-market integration, but there are some exceptions (Bevelander et al., 2013; Enes, 2014; Olsen, 2018).

Scandinavian integration programmes aim at self-sufficiency. However, both employment and enrolment in higher secondary/ tertiary education have been stated as criteria for (at least short-term) success. Both are included in our analysis, where we distinguish three outcomes: employment, education, and employment and/or education.

Employment is defined as having had labour earnings corresponding to one hour's of work in a given week in November. This has been criticized for giving a 'generous' measure of employment. For example, Ruist (2018, p. 26)[11] argues that because the ultimate political goal is self-sufficiency, measurements for employment that operate with a higher threshold (e.g. minimum earning levels, or a higher level of hours per week) constitute a better measure. On the other hand, the measure of at least one hour of work in November could be argued to be a fairly strict definition, since many on temporary contracts or with weak attachment to the labour market might not have worked during that particular week in November. Moreover, the main contribution of this study is cross-country comparison of harmonized analyses. The definition we apply follows the guidelines of the International Labour Organization (ILO). Although the number of employed would be lower with a stricter definition of employment in all three countries, our focus is on relative employment levels between countries, and that can be obtained by using this well-established measure of employment.

Enrolled in education is defined as being enrolled in education in October at the level ISCED 3 or higher – levels similar to high school/upper secondary and higher education.

Employment and/or education are defined as referring to a person who is either employed and/or enrolled in education according to the definitions above.

Some individuals are employed and enrolled in education at the same time. For example, those enrolled in vocational education programmes will often be registered as both being employed and in education. In analyses where employment and education are presented separately, these individuals could be represented in both categories.

[11] Reference: https://eso.expertgrupp.se/wp-content/uploads/2018/05/ESO-2018_3-Tid-for-integration.pdf

This means that we cannot summarize outcomes for 'employed' and 'enrolled in education' to get the total number of those who are 'employed and/or enrolled in education', as one individual might be represented in both categories.

Our dependent variable will document employment and education enrolment trajectories for the population, up to 8 years *after settlement in a municipality*, particularly specifying outcomes *three, five and seven years after settlement in a municipality.* The Scandinavian governments operationalize their goals of labour-market integration outcomes differently, as reflected in earlier Scandinavian studies of participants in the integration programme. The *maximum* length of Scandinavian integration programmes varies (see Chapter 2.2.), so measuring outcomes after programme end is not suitable for a cross-country comparison, as this could entail different lengths since settlement. Additionally, although the maximum length of the programmes vary, all countries have the same goal of a rapid transition to employment. That makes it more relevant to examine outcomes *x* years after settlement, to see if there are differences in which countries have positive employment and education outcomes also in the short term.

3.4 Independent variables

3.4.1 Individual characteristics

Our study both analyses and controls for individual characteristics, and these variables are operationalized accordingly:

- Cohort: Individual classified into the cohort based on the year the individual is settled in a municipality.
- Gender
- Age mean
- Age-groups: 20–25 years, 26–35 years, 36–45 years and 46–55 years. As mentioned in Chapter 2.2., Denmark has special policies targeting persons aged 20–25, so we have categorized this as a separate group.
- Married: Individuals who were married at the time of settlement (Yes/No)
- Children <=6 years old: Individuals who have children under the age of six at the time of settlement. (Yes/No)
- Country of birth: The variable distinguishes among the six countries that have supplied the majority of the participants in this three-country study: Afghanistan, Eritrea, Iran, Iraq, Somalia and Syria. Individuals from other countries are included under 'Other countries'.
- Education level on arrival: Primary education (ISCED 0-2): no formal schooling, or primary or lower secondary school as highest completed level of education. Secondary education (ISCED 3-4): level equal to upper secondary school and post-secondary non-tertiary education, such vocational education. Tertiary education

(ISCED 5-8): university degrees at bachelor, masters or doctoral level. Information is missing for relatively large share in all three countries. In Denmark, this may include some persons who had already completed their education in Denmark: they were excluded when the information on education from abroad was collected.

- Reason for being granted a residence permit: Convention, Subsidiary Protection, UN Quota Refugee, family reunification and other.

3.4.2 Structural variables for the settlement municipality

Structural variables – characterizing the municipality the participant is settled in – are measured in the year of settlement.

- Settlement municipality
- Unemployment rate
- Centrality

The three Nordic countries define 'centrality' and 'rurality' in slightly different ways and operate with different numbers of categories. Population density and distance or accessibility to urban centres are the two most common criteria, often supplemented with various socio-economic criteria (NordRegio 2018). For comparative analysis, we distinguish five categories of centrality: metropolitan area (Copenhagen/Oslo/Stockholm), other large cities, cities, towns and rural/remote municipalities. The exact criteria and operationalization of the 'centrality' variable are not identical in each country.[12]

3.4.3 Programme measures

In their data registers, the three countries use different categories to classify programme measures, making it difficult to create comparable categories across countries. However, three categories are similar in all countries: *language training, regular education* and *subsidized employment*, and these three categories will be compared cross-nationally. The variable 'regular education' (as a programme measure) is extracted from various types of data sources in the three countries, resulting in different levels of fine-grained categories. In Denmark, the data distinguish between primary (ISCED > 1) and higher (ISCED > 2) education, but in Norway and Sweden, these categories are combined into one variable. (These differences are discussed in the analyses in Chapter 8.) Unfortunately, it proved impossible to compare the other registered programme measures directly for all three countries, because of the differing levels of fine-grained categories. Therefore, we operate with different national categorization for other programme measures than the three presented above.

[12] On the operationalization of these categories for each country and these categories placement within the five categories, see http://archive.nordregio.se/en/Metameny/About-Nordregio/Journal-of-Nordregio/Journal-of-Nordregio-2010/Journal-of-Nordregio-no-2-2010/Official-defini/index.html

3.5 Empirical methods

Privacy and confidentiality restrictions do not allow the three datasets to be merged into one, so analyses are conducted separately for each country. Further, we analyse outcomes for men and women separately, recognizing that one's gender can affect the individual's migration and integration experience and trajectories.

We examine two possible explanations for variance in outcomes among the three Scandinavian countries studied here:

a. because the characteristics of the populations differ across countries
b. because the association between characteristics/measures and outcomes differs across countries.

From the answers to a) and b) we can provide information on the outcome variation that is caused by cross-country differences concerning population characteristics by conducting an Oaxaca decomposition.[13] The method provides answers to the question: How much would we expect employment levels to change if the refugees in country A had the same characteristics as refugees in country B?

Information on a) is provided by descriptive analyses of cross-country differences in characteristics. Information on b) is provided by means of statistical analyses of the associations between the independent variables described above and the outcomes. To do this we apply a panel data model that includes all observed years after settlement, similar to the model applied in Bratsberg et al. (2017)

$$y_{ist} = c + \beta_s + \boldsymbol{X}_{ikt}\pi + \gamma_t + e_{ikt}$$

where y_{ist} is the outcome (such as employment) of individual i who is observed at s'th years after settlement in year t. The estimates β_s describes how the outcome develops *on average* with time since settlement in the country, when controlling for population characteristics, $\boldsymbol{X}_{ikt}$, and calendar time-effects, γ_t.

However, with this model there is a standard identification problem, because years since settlement are identical to calendar year minus settlement year. The estimated outcome profile with time since settlement and calendar effects will therefore also capture any differences across settlement cohorts that might occur either because of differences across cohorts who settle in different years, or because of differences in the impact of integration efforts over time.

The models have been estimated using the OLS estimator with standard errors that are clustered at the individual level and which are robust to heteroskedasticity.[14] The

[13] For details about this methodology see Appendix 3.

[14] This estimator has the same mean asymptotic properties as the random effects estimator. Both estimators allow the error term to be correlated over time for the same individual, but the random effects estimator is more efficient (has less as-

estimated coefficients can be interpreted as differences in mean values of the outcomes at different categories of the independent variables, when having fixed the other independent variables. We stress that such associations are adjusted correlations which are not subject to causal interpretation.

Third, having answered a) and b) we examine the size of the remaining differences in employment between the countries, given characteristics, local labour-market conditions and settlement models (see below). To do this, we predict how employment evolves with time since settlement – by gender, age and education, thereby providing information on cross-country differences in how well subgroups with the same background fare in the labour market.

Fourth, in the resettlement analysis presented Chapter 9, we model an outcome taking the value one in the year where the first resettlement occurs, and zero before. All years after the first settlement are excluded, making the model a discrete version of a duration model (Jenkins 1995). The estimated coefficients can therefore be interpreted as the probability of a resettlement given no previous resettlement.

3.6 Methodological limitations

Short-term versus long-term labour-market integration

Although we separate between outcomes up to eight years since settlement, a limitation with our analysis is the relatively short time-frame – measuring labour-market integration maximum eight years after settlement – which excludes the possibility of analysing the long-term effects of policies. Long-term labour-market integration is a matter of great importance, and earlier studies have identified cross-national differences on long-term effects (Bratsberg et al., 2017; Schultz-Nielsen, 2017; Åslund et al., 2017; Fasani et al. 2018). One disadvantage of analysing long-term effects, however, is that the longer the timespan since the policy intervention (e.g. the integration programme or settlement polices), the harder it becomes to attribute the long-term effect to that specific policy. Further, analyses of long-term effects are necessarily based on analyses of older cohorts, which consist of refugees with characteristics different from those of recent arrivals. Refugee group composition varies significantly over the years, and as regards policy learning, it is more relevant to study the outcomes of cohorts that resemble current and expected future groups of refugees, than cohorts that differ significantly in important characteristics that could affect labour-market outcomes.

Analysis of *observable* characteristics

Although this study strives to analyse and control for the individual characteristics of the participant groups, there could be relevant characteristics that are not documented

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ymptotic variance) if this correlation is fixed across time. If this is not the case, the random effects estimator provides biased standard error estimates, but the clustered estimator allows a fully flexible within-individual correlation structure. Note also that we cannot perform a fixed-effects estimation, as most of the covariates are fixed over time.

in the data, but could affect the outcomes – for example, health problems, motivation or skills.

Limitations of the comparative scope

The comparative aim and the wish to harmonize data across countries imposes some limitations on the data: First, as discussed under each variable above, some countries have more fine-grained categories than others for the same variables. To ensure harmonized data, we must follow a categorization whereby more fined-grained data had to be merged into larger categories (e.g. centrality of domicile, residence permit, education and country of origin). The potentials of these fine-grained categories have already been exploited in earlier country analyses; we have therefore given priority to the comparative perspective. Secondly, due to inter-country differences in privacy policies, some independent variables shown to be relevant in previous country analyses are not obtainable for all three countries – like information on health. Whereas data on participants' health (operationalized, for instance, as number of visits to the doctor) have been used in several Danish country studies, this variable is not included in our analyses, as access to individual health data is restricted in Sweden and Norway. However, we utilise the Danish health data in conducting a sensitivity analysis, used to discuss the results in Chapter 8.

4. Participants in the Scandinavian integration programmes

Until the 1970s, labour-market migrants dominated in Scandinavia. However, after the oil crisis reduced the demand for labour, all three countries emplaced restrictions on labour-market migration (Sweden in 1972, Denmark in 1973 and Norway in 1975). From the 1970s and onward, migration to the Scandinavian countries was increasingly dominated by refugees (Bevelander et al., 2013, p. 15). In the 1970s this generally involved organized transfers of UN quota refugees; the unorganized immigration of refugees grew during the 1980s, with three countries experiencing an increase in persons who arrived unannounced at the borders, seeking asylum. Since then, the number of asylum-seekers has fluctuated greatly, with Sweden steadily receiving a significantly larger share than Norway and Denmark (Brochmann & Hagelund, 2010b, pp. 333–334).

As explained, both refugees and refugee family reunification are the target group of Scandinavian integration programmes. However, this not a monolithic group. Both the number of participants and the target group's characteristics vary, not only across countries, but also across cohorts within each country.

4.1.1 *Denmark*

Table 1: Individual characteristics of refugees and family migrants to refugees in Denmark, by year of settlement

	2008–2009	2010–2011	2012–2013	2014–2015	2016	TOTAL
Women	47.0	36.9	39.8	35.2	38.2	37.8
Age (years)	31.8	30.3	30.7	31.7	30.6	31.0
Age-group						
20–25	23.0	33.4	30.1	26.2	30.8	29.0
26–35	46.7	43.1	45.8	45.0	44.5	44.8
36–45	23.7	17.8	18.3	21.6	19.3	20.0
46–55	6.6	5.7	5.7	7.2	5.4	6.1
Married	63.3	53.7	55.0	59.0	59.7	58.6
Has children <=6 years old	37.8	27.4	32.5	25.9	28.4	28.6
Country of birth						
Afghanistan	4.3	18.0	15.1	8.7	25.7	17.1
Eritrea	–	0.9	1.4	3.2	24.6	11.6
Iraq	7.4	14.4	17.8	6.8	1.9	6.8
Iran	26.5	10.9	2.5	1.3	0.5	3.2
Somalia	1.4	2.7	7.2	8.1	1.7	4.5
Syria	4.5	18.3	31.0	62.5	64.8	52.9
Other	55.9	35.8	26.4	12.6	5.5	15.5
Education						
Primary education	33.1	36.6	39.1	38.0	36.1	37.0
Secondary education	7.3	9.3	9.8	13.2	9.6	10.6
Tertiary education	18.4	13.5	15.5	17.9	11.8	14.7
Missing values	41.2	40.7	35.6	30.8	42.5	37.7
Centrality						
Metropolitan area	8.9	9.2	10.1	8.6	7.4	8.4
Other large cities	14.2	15.0	17.6	18.9	24.0	20.3
Cities	14.4	20.3	20.5	18.8	19.0	19.0
Towns	40.0	41.9	40.4	40.7	36.7	39.0
Rural/remote municipalities	22.5	13.6	11.4	13.0	12.9	13.3
Reason for being granted a residence permit						
Family reunification	12.2	16.9	15.0	17.5	23.3	19.3
Convention refugee	14.2	32.9	43.4	53.6	58.9	50.8
Subsidiary protection	28.9	23.9	20.5	22.0	11.3	17.8
UN Quota status	27.1	9.7	10.1	3.3	1.4	5.2
Other	17.6	16.6	11.1	3.6	5.1	6.9
Participants (N)	*1,155*	*1,690*	*2,791*	*6,957*	*9,090*	*21,683*

During the period analysed here, the number of new participants in Danish integration programmes increased substantially, from 1155 from the 2008–2009 cohorts to 9090 participants from the 2016 cohort alone. The following descriptive analysis concerns the relative share of the participant group for different cohorts, not absolute figures. The descriptive analysis of the individual characteristics of the various cohorts in Denmark shows that the share of women, average age, age-groups, marital status and participants with children has remained relatively stable across cohorts. Approximately one third are women, average age is 31 years, 59% are married and 29% had children when they arrived. The exception is the 2008–2009 cohort, with a relatively higher share of women, persons who were married and who had children under the age of 6 on arrival: each statistic is approximately 10 percentage points (ppt) higher for this cohort.

The country of birth, however, varies among cohorts. The 2008–2009 cohort has a high share of refugees from Iraq (26.5%) and from other countries than our selected six

countries (58%: e.g. refugees from Myanmar and Former Yugoslavia). In 2010–2013 the share of persons from Afghanistan and Iran increased, but decreased again from 2014. This decrease is mainly caused by the steady rise in Syrian refugees, from 18% to 65% of the participant group from 2010 to 2016.

The share of persons whose education level is not registered is about 30–40%. This decreases until 2016, when most of the information was obtained through nationwide data collection. As described in the methods section, previous education background from abroad may not have been registered if the person had completed his or her education in Denmark.Despite some fluctuations, about 37% are registered with lower levels of education; about 10% have secondary education levels; and roughly 15% have higher education. The initial distribution among settlement municipalities is also relatively stable, but a larger share of participants were settled in other large cities (not Copenhagen) in 2016, and fewer in towns. Reasons for being granted a residence permit have shifted over the years. The share of family migrants has increased from 12% to 23%, and convention refugees from 14% to 60%, whereas the share of persons with subsidiary protection and UN Quota status has decreased substantially. There has been a decline in the category 'Others' – mainly persons who were granted residence permits on humanitarian grounds or unknown reasons for asylum.

4.1.2 Norway

Table 2: Individual characteristics of refugees and family migrants to refugees in Norway, by year of settlement

	2008–2009	2010–2011	2012–2013	2014–2015	2016	TOTAL
Women	48.5	45.6	48.2	38.7	31.9	41.9
Age (years)	30.0	28.8	29.1	29.1	29.0	29.2
Age-group						
20–25	25.2	29.1	30.5	32.8	33.2	30.6
26–35	46.8	46.2	46.1	44.5	43.6	45.3
36–45	21.5	18.7	18.9	17.1	18.1	18.6
46–55	6.4	5.9	4.6	5.7	5.1	5.5
Married	43.2	39.1	42.4	43.4	47.0	43.1
Has children <=6 years old	41.7	27.6	29.0	23.5	22.2	27.4
Country of birth						
Afghanistan	9.7	12.6	7.6	4.9	3.1	7.2
Eritrea	17.2	27.0	23.1	29.3	30.4	26.0
Iraq	14.3	7.0	3.1	1.3	1.3	4.7
Iran	2.9	5.3	5.7	2.9	1.5	3.6
Somalia	14.1	21.0	30.5	18.7	4.8	17.7
Syria	0.8	0.5	4.8	24.7	43.8	16.8
Other	41.1	26.7	25.3	18.1	15.0	24.0
Education						
Primary education	50.8	47.6	48.3	39.2	33.4	43.1
Secondary education	6.9	11.7	8.2	3	2.4	6
Tertiary education	18.9	15.4	13.7	11.9	11.8	14
Missing values	23.4	25.4	29.9	45.9	52.3	37
Centrality						
Metropolitan area	14.5	12.2	11.4	7.7	8.7	10.5
Other large cities	21.2	17.3	15.2	13.3	16.5	16.3
Cities	24.6	24	21.8	20.6	21	22.1
Towns	24	24.2	27.4	28.7	25.1	26.2
Rural/remote municipalities	15.7	22.3	24.2	29.7	28.6	24.9
Reason for being granted a residence permit						
Family reunification	19.2	13.5	13.2	12.5	12.6	13.9
Convention refugee	64.3	71.7	71.0	74.5	75.4	71.9
Subsidiary protection	1.1	0.8	1.7	0.8	0.5	1.0
UN Quota status	15.3	14.0	14.1	12.2	11.5	13,2
Other	0	0	0	0	0	0
Participants (N)	*7,543*	*8,655*	*9,014*	*12,691*	*9,889*	*47,792*

The number of new participants in Norwegian integration programmes increased steadily from 2008 to 2015, and peaked in 2016. The following descriptive analysis concerns the relative share of the participant group for different cohorts, and not absolute figures. The descriptive analysis of the individual characteristics of different cohorts in Norway shows that the share of women has decreased during the period analyses, from about 50% to 30%. Average age has remained relatively stable at approx. 30 years, but later cohorts have a larger share of the youngest age-group (20–25 years), with a similar decrease among the 36–45 year-old group. The share of persons who were married at time of arrival has remained stable at just above 40%; however, the share of those who had children when they arrived has decreased substantially, from 42% for the 2008–2009 cohort to only 22% for the 2016 cohort.

The country of birth varies among cohorts. Throughout the period analysed, the share of persons from Eritrea and Somalia has been relatively high, generally fluctuat-

ing between 14% and 30% for each group. The share of persons from Iraq and Afghanistan was high in earlier cohorts, but declined with the increase in Syrian refugees from 2014.

Unfortunately in the Norwegian data, there is an increase in the missing values for education level on arrival, from 23% of the 2008/2009 cohort to over 50% in 2016. Consequently, Table 2 shows declining shares for all education levels, and cannot provide a good picture of the relative distribution for persons for whom education has been registered. However, if we compare the relative share of persons who have registered their education level, we see that this has fluctuated between 64%–73% (primary), 5%–16% (secondary) and 20%–25% (tertiary) (the latter figures are not shown in the Table, but have been calculated separately).

For the earlier cohort, initial settlement patterns were fairly evenly spread across categories, but there has been a decrease in settlement in the large cities, with a similar increase in towns and more remote/rural areas. Reasons for being granted a residence permit have changed during the period under study. The relative share of family migrants and UN Quota refugees has decreased, due to the sharp increase of Convention refugees from 2014.

4.1.3 Sweden

Table 3: Individual characteristics of refugees and family migrants to refugees in Sweden, by year of settlement

	2008–2009	2010–2011	2012–2013	2014–2015	2016	TOTAL
Women	54.8	49.2	47.8	39.6	35.6	42.4
Age (years)	33.3	32.2	33.4	33.3	32.7	33.1
Age-group						
20–25	21.9	28.4	21.8	22.6	25.6	23.3
26–35	40.5	39.1	41.2	40.6	40.3	40.7
36–45	26.5	21.9	25.0	24.4	22.4	24.4
46–55	11.2	10.7	11.9	12.3	11.8	11.6
Married	74.2	69.6	60.4	60.1	52.7	61.5
Has children <=6 years old	32.0	23.3	31.1	27.0	22.4	27.1
Country of birth						
Afghanistan	3.2	6.5	10.4	4.2	2.1	4.7
Eritrea	6.1	10.4	10.3	16.9	13.8	11.4
Iran	2.3	6.0	5.8	1.9	1.5	2.9
Iraq	48.1	16.1	4.0	1.7	2.7	16.3
Somalia	23.5	41.3	19.1	4.0	2.9	12.3
Syria	1.1	1.6	34.3	60.1	65.5	37.1
Other	15.7	18.5	16.1	11.2	11.5	15.3
Education						
Primary education	19.8	42.5	44.3	39.3	36.3	34.8
Secondary education	12.3	16.7	19.1	21.2	22.6	18.6
Tertiary education	22.8	18.3	25.9	34.4	36.5	28.9
Missing values	45.0	22.6	10.7	5.1	4.6	17.6
Centrality						
Metropolitan area	16.1	15.7	15.9	10.8	16.0	15.6
Other large cities	12.4	11.7	11.7	8.4	10.0	10.9
Cities	48.5	43.2	44.8	46.2	44.6	45.5
Towns	16.3	19.9	17.9	21.6	19.2	18.3
Rural/remote municipalities	6.7	9.4	9.8	13.1	10.2	9.8
Reason for being granted a residence permit						
Family reunification	41.2	50.7	45.2	46.9	54.4	45.5
Convention	31.4	11.0	15.0	16.7	11.3	15.7
Subsidiary protection	12.2	19.6	26.8	30.4	29.9	22.8
UN Quota status	10.0	12.3	7.5	3.4	2.4	5.6
Other	5.2	6.4	5.5	2.6	2.0	10.4
Participants (N)	15471	12710	21332	49594	27273	150258

The number of new participants in the Swedish integration programme increased steadily from 2008–2013, and peaked in 2014–2016. The following descriptive analysis comments on the relative share of the participant group for different cohorts, and not absolute numbers. We see that the share of women has decreased in recent years, from about 55 to 36%. Age-group distribution has been rather stable, and the average age has been 33 years. The share of persons who were married at time of arrival has decreased from 74% to 53% from the 2008/2009 to 2016 cohorts, and the share of persons who had children at time of arrival has fluctuated between 22% and 32%.

As to country of birth, we see that the 2008/2009 and 2010/2011 cohorts were dominated by Somali and Iraqi refugees. The share of Afghani and Iranian refugees rose between 2010–2013, and from 2010–2016 the share of persons from Eritrea increased. However, from 2012–2013 the share of Syrian refugees started to grow: in 2014–2016, over 60% of all new participants came from Syria.

The quality of Swedish data on educational levels on arrival has improved considerably, from 45% missing values in the 2008/2009 cohort to only 5% missing in the 2016 cohort. Consequently, Table 3 does not provide a good picture of the relative distribution of education levels for persons who have registered their education. However, if we compare the relative share of those who have registered their education level (these numbers are not shown in the table, but have been calculated separately), the share of those with secondary-level education has remained stable at around 22%. The relative share of persons with tertiary and primary education has fluctuated between 24%–42% (tertiary) and 36%–55% (primary). The 2008/2009, 2014/105 and 2016 cohorts had a relatively larger share of registered persons with tertiary education than the cohorts from 2010–2013, and consequently a lower share of persons with lower educational levels on arrival. The initial settlement pattern has also remained rather stable; however, for the 2014/2015 cohorts, a larger share were settled in towns and rural/ remote municipalities than previously.

The grounds for being granted a residence permit have changed over the years. The relative share of family reunification migrants and convention refugees has fluctuated between 41% -54% (family migrants) and 11%–31% (convention refugees). The share of UN quota refugees has declined, as a result of the increase from 12% to 30% for persons with subsidiary protection. Those classified in the category 'other' are persons who have received a residence permit on grounds of 'particularly distressing circumstances' (*särskilt ömmande omständigheter*). This could be a serious illness or disability, or because no other country is willing to accept them if they were to be expelled from Sweden.

5. Descriptive analysis of employment and enrolment in education

This chapter describes the population distribution on the dependent variables. As noted, the ultimate political goals in all three countries are self-sufficiency and integration into society. The Scandinavian governments generally operationalize these goals by measuring the two following outcomes: employment and/or enrolment in education x years after settlement. Due to lack of harmonization, direct comparison of outcomes for participants in the Scandinavian integration programmes has been lacking. We ask: how do participants in the Scandinavian integration programmes fare in the labour market? Are there cross-national differences?

5.1 Employment and education enrolment three, five and seven years after settlement

Figure 1 (men) and Figure 2 (women) compare the percentage of participants who are employed and/or in education three, five and seven years after initial settlement in a municipality. The total length of the columns illustrates the share of participants that are '*employed and/or enrolled in education*'. Because some participants are registered as being both employed and enrolled in education, the columns are divided into three categories: '*employed':* participants registered only as employed; '*enrolled in education'*: participants registered only as enrolled in education; and thirdly, '*employed and enrolled in education*': participants registered as being both employed and enrolled in education.

Figure 1: Employment and education enrolment for men, cohorts 2008–2013, by country and 3, 5 and 7 years after settlement.

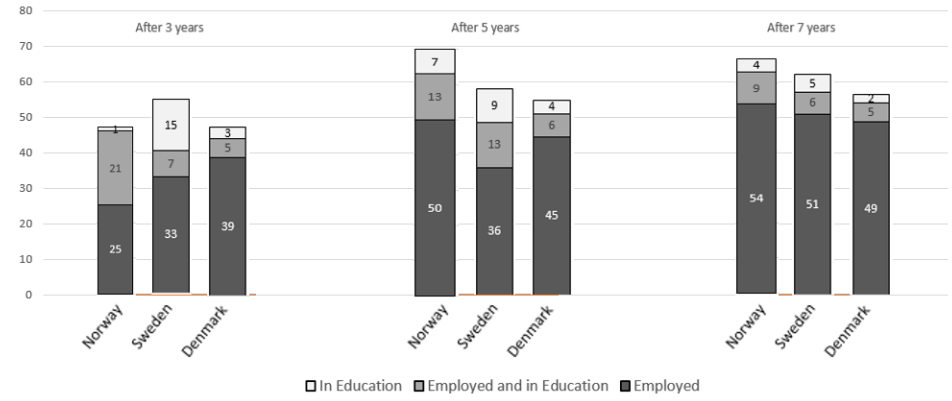


Figure 1 (men) shows that if we combine the two goals of employment and education, Sweden has the highest share three years after settlement, but Norway surpasses Sweden after five and seven years. Male participants in Norway have higher employment levels than in Denmark and Sweden five and seven years after arrival, whereas Denmark has the highest share in employment three years after arrival. As to persons registered as employed, or employed *and* in education, 46% of male participants are employed in Norway after three years, and 63% five and seven years after settlement. Although the share stabilizes five years after settlement, the share of persons registered only as being employed still increases, but that fewer persons are registered as being employed *and* enrolled in education. Sweden has the lowest share of male participants employed (solely or in combination with education) three years after settlement (40%); however, Sweden surpasses Denmark by 3 percentage points (ppt.) seven years after settlement. In Denmark, the share of male participants who are employed (solely or in combination with education) rises steadily from 44% after three years to 54% after seven years. Denmark has a relatively stable share of participants enrolled in education, between 7% and 10%, most of whom are registered as being both employed and enrolled in education; but the figures are lower than in either Sweden or Norway. Norway and Sweden have quite similar shares of enrolment in education. Between 20% and 22% of participants are enrolled in education three and five years after settlement, but this drops to 11%–13% seven years after settlement. In Norway, a larger share of those in education are also in registered as employed three years after settlement, while Sweden has a higher share of participants enrolled solely in education and not in combination with employment.

Figure 2: Employment and education enrolment for women, cohorts 2008–2013, by country, 3, 5 and 7 years after settlement

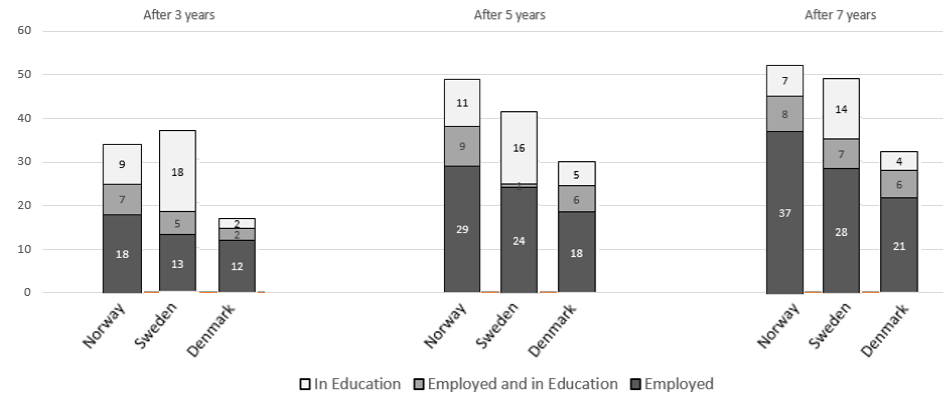


Figure 2 shows that although the employment rate for female participants increases steadily in all countries, there are substantial cross-national differences. Similarly to the case of male participants, Norway has better employment outcomes for women than Denmark and Sweden. With those who are registered as employed or employed *and* in education, the employment rate rises steadily, from 25% after three years to 45% seven years after settlement. Unlike the men, female participants in Sweden and Denmark do not catch up with Norwegian participants seven years after settlement: the gap between Norwegian and Swedish employment rates for women varies between 7 and 13 percentage points for the three data points, and in Denmark the employment gap increases from 11 to 18 ppt. In Sweden, the share of female participants who are employed (solely or in combination with education) increases from 18% three years after settlement to 35% seven years after settlement. Danish participants follow roughly the Swedish trajectories on employment three and five years after settlement; however, the share of employed female participants stagnates, seven years after settlement to 27%. Sweden has a high share of women in education at the three points of analysis, between 17% and 23%, but this fluctuates, particularly as regards combined education and employment. The share of female participants in Norway who are enrolled in education varies between 15% and 20%. Compared to Norway and Sweden, fewer Danish female participants are enrolled in education (similarly to the male participants), especially three years after settlement.

5.2 Employment trajectories

Figures 3 and 4 (men) and Figures 5 and 6 (women) compare employment trajectories in Norway, Sweden and Denmark for three selected cohorts: 2008, 2010 and 2012. We present the same data in two forms: First we describe differences between cohorts within each country (Figures 3 and 5), and then we present a cross-country comparison

of the different cohorts (Figures 4 and 6).These employment trajectories are the sum of the categories 'solely employment' and 'employment and education'.

Figure 3: Employment trajectories for men for each country, cohorts 2008, 2010 and 2012, 0–8 years after settlement.

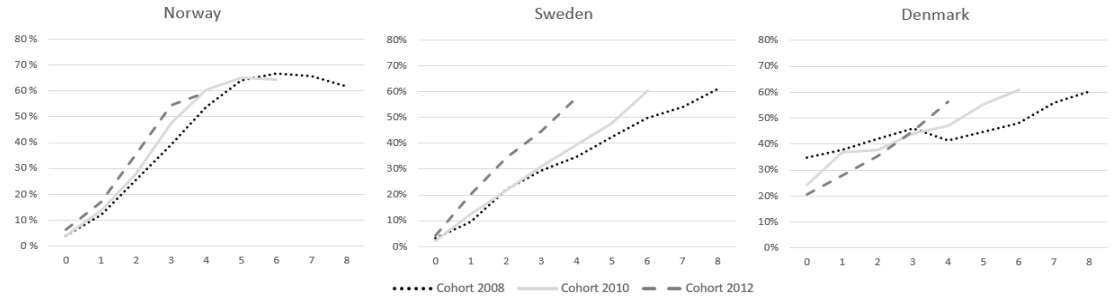
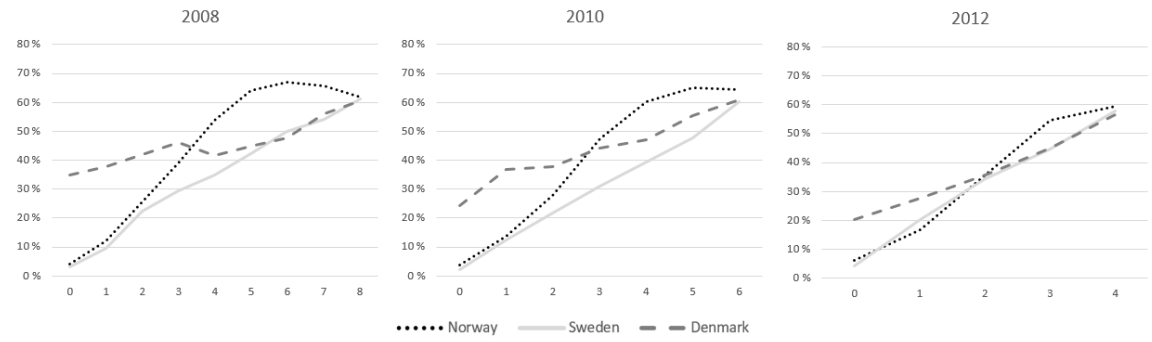


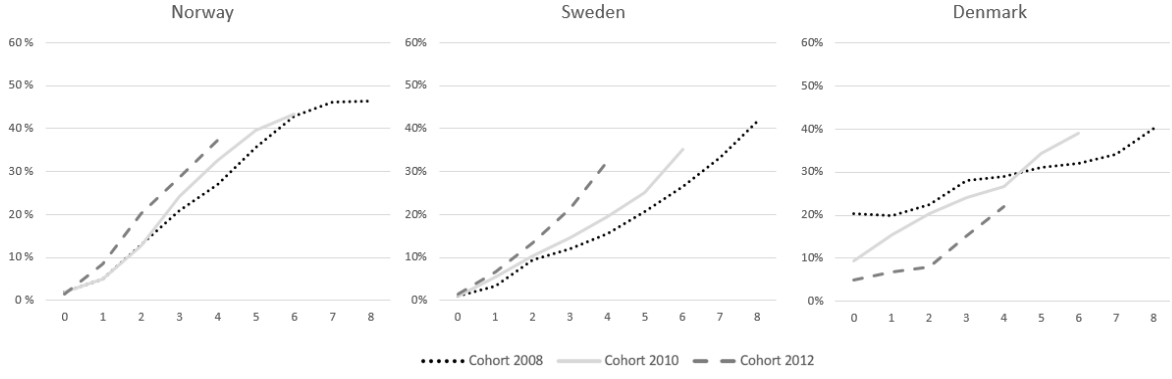
Figure 3 shows that in all three countries, recent cohorts do better over time than earlier cohorts. In Norway, the three cohorts start out at a similar level (4%–6%) and show similar patterns: a steady increase in the first years, followed by stagnation or a slight decline. Still, the more recent cohorts have a steeper increase, achieving higher employment levels faster. For example, while 39% of the 2008 cohort were employed three years after settlement, the figure is 54% for the 2012 cohort. For the 2008 and 2010 cohort, which show employment levels 6–8 years after settlement, we see stagnation and even a slight decline. For example, the 2008 cohort peak in the sixth year after settlement with 67% employed, but this falls to 62% in the eighth year. In Sweden, all cohorts start at low levels of employment, between 2% and 4%. More recent cohorts increase the share of employed participants more quickly than the earlier ones. For example, four years after settlement, only 35% of the 2008 cohort were employed, as against 58% in the 2012 cohort. In Denmark, the earlier cohorts have higher initial employment levels: the 2008 cohort started with 35% employed compared to 20% for the 2012 cohort. The 2010 and 2012 cohorts started lower, but their employment levels increase faster, surpassing the 2008 cohort after four years.

Figure 4: Employment trajectories for men for each cohort, Norway, Sweden and Denmark. 0–8 years after settlement



Cross-country comparison of the different cohorts (Fig. 4) shows that male participants in Denmark have consistently higher initial employments rates than Norway or Sweden. Norway catches up and exceeds Danish employment levels after 3–4 years. Swedish participants also achieve the same level as the Danes, but it takes several years. Although the 2012 cohort catches up with Danish levels after only two years, the 2008 and 2010 cohorts in Sweden take five or six to reach Danish employment levels. Despite quite different trajectories for the early years, the three countries converge at approx. 60% for all three cohorts, but the more recent cohorts reach these levels much faster. As a caveat, there is a tendency for the Norwegian trajectory to level out, which has also been observed in previous studies (Bratsberg et al. 2017).

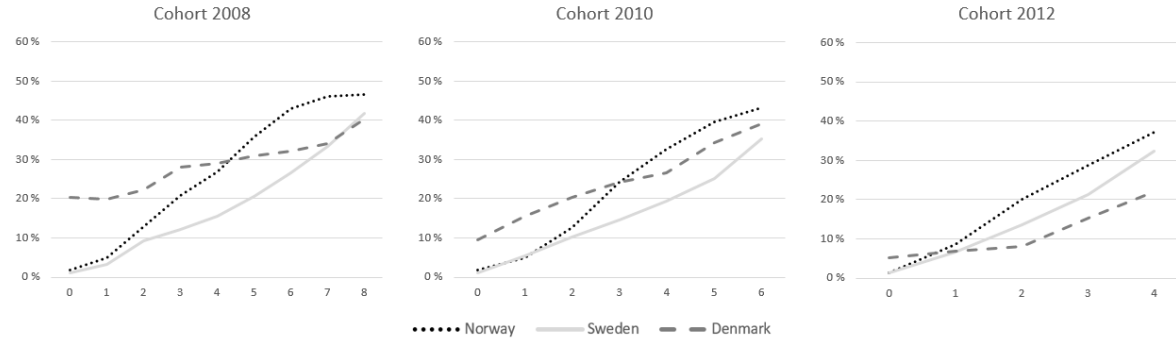
Figure 5: Employment trajectories for women for each country, cohorts 2008, 2010 and 2012, 0–8 years after settlement



Turning to the female participants, all three countries show rising employment levels, but there are cross-national differences as well as differences among the three cohorts. Similarly to the male participants, the more recent cohorts achieve better results faster in Norway and Sweden. In Denmark, however, the 2012 cohort does substantially worse than the two proceeding ones. In both Norway and Sweden, employment levels for the

more recent cohorts rise faster than the earlier ones, but the discrepancy between cohorts is sharper in Sweden than in Norway. In Sweden, the 2012 cohort achieves employment levels above 30% after only four years – significantly better than the 2008 cohort, which took seven years to reach the same levels. In Norway, the 2012 cohort have higher employment levels in all four years analysed here. The 2010 cohort does better than the 2008 cohort in the first years after settlement; however, they reach the same employment level six years after settlement. The Danish cohorts exhibit the opposite pattern: female participants in the earlier cohorts have better employment levels than the more recent ones. Employment levels for the 2012 cohort are about 15% points lower than the 2008 cohort in the four years of analysis; however, the 2010 cohorts surpasses the 2008 cohort after five years.

Figure 6: Employment trajectories for women for each cohort, Norway, Sweden and Denmark. 0–8 years after settlement

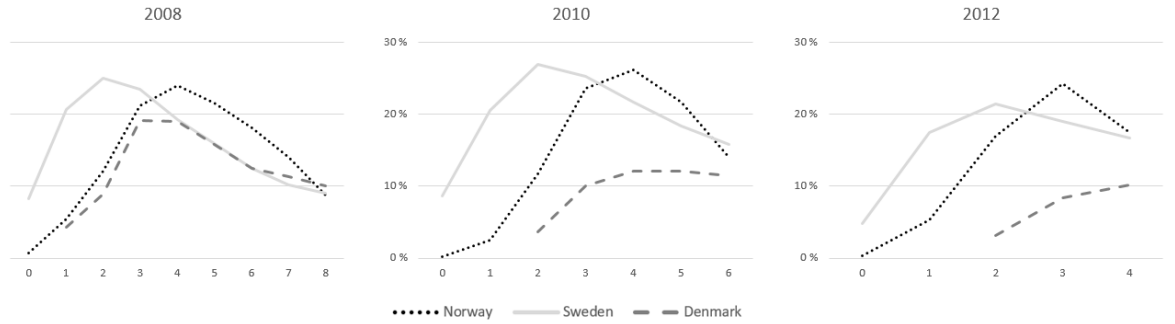


From Figure 6 we see that Danish female participants have higher initial employment levels than Swedish and Norwegian participant in the first three to four years, for the 2008 and 2010 cohorts. However, the Danish 2012 cohort has substantially lower employment levels than the two earlier cohorts, and compared to the other two countries. Although Sweden and Norway start out at about the same employment levels, Norwegian levels rise faster from the second year after settlement, remaining higher than Swedish levels, although the discrepancy lessens somewhat for the more recent cohorts. Still, Norway has higher employment levels than Denmark and Sweden for all three cohorts in the last year of analysis.

5.3 Education enrolment trajectories

Figure 7 (men) and Figure 8 (women) compare education enrolment trajectories for three selected cohorts – 2008, 2010 and 2012 – in Norway, Sweden and Denmark. 'Enrolment in education' is here defined as being enrolled in upper secondary education or higher education levels (in October for the given year). As with Figures 1 and 2, Figures 7 and 8 show the sum of the categories 'solely education' and 'education and employment'.

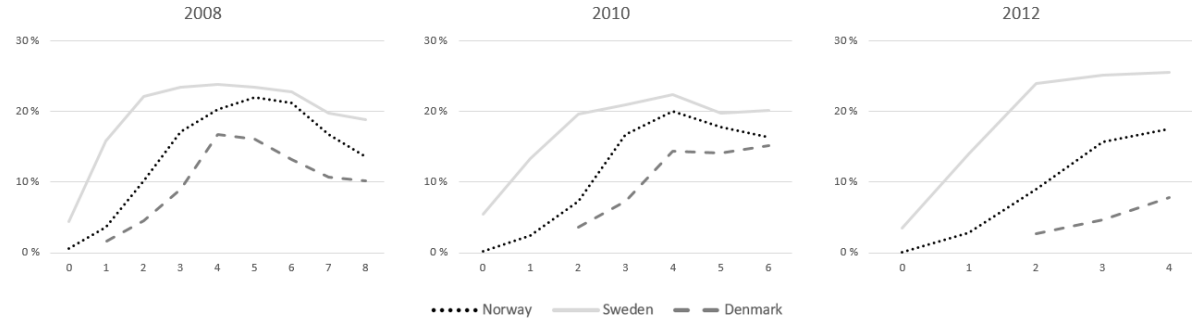
ure 7: Education enrolment trajectories for men cohort 2008, 2010 and 2012, 0 – 8 years after settlement*



te: *the categories 0 and 1 years since settlement are not plotted for Denmark, because there were fewer than five participants enrolled in education.

All three countries show the same pattern in employment trajectories for male participants: an increase in the initial years after settlement, followed by a decrease. However, there is considerable variation in country levels and timing. Unlike the case of employment trajectories, Sweden has more participants than Norway and Denmark enrolled in education the first years after settlement. Between 22% and 27% of the male participants in Sweden are enrolled in upper secondary education two years after settlement, but the 2012 cohort has 3–6 percentage points lower education enrolment levels in all years. Norway exhibits rather similar education trajectories for all three cohorts, peaking the third and fourth year after settlement. Compared to Norway and particularly Sweden, Denmark generally has lower levels of education enrolment; moreover, this gap increases for the cohorts of 2010 and 2012. For example, three years after settlement, roughly 10% of male participants in Denmark were enrolled in education, whereas in Norway and Sweden 20%–26% were enrolled in education.

Figure 8: Education enrolment trajectories for women cohort 2008, 2010 and 2012, 0 – 8 years after settlement



Similarly to the case of male participants, Sweden has the largest share of female participants enrolled in education (e.g. between 20% and26% two to four years after settlement). Norway has a lower share than Sweden, but more than Denmark, which has consistently fewer female participants enrolled in education. In Denmark, similarly to

the case of male participants, the percentage of female participants enrolled in education declines for the cohorts of 2010 and 2012; by 2012, only 3–8% are enrolled in education. By contrast, Norway and Sweden show only minor differences here.

5.4 Summary

Our comparison of employment and education outcomes for Scandinavian participants in refugee integration programmes reveals several patterns. In all three countries, the more recent cohorts do better than the earlier ones, except for female participants in Denmark, where we find the opposite pattern. Denmark has the best initial employment levels the first years after settlement for both men and women, but, because employment rates have a less steep growth, the other two countries catch up or surpasses Danish employment levels over time. After two to four years in the country, participants in the integration programme in Norway generally have higher employment levels than those in Sweden or Denmark. However, this employment gap between Norway and the other two countries decreases for male participants over time, but remains (Sweden) or increases (Denmark) for female participants. Sweden has consistently lower employment rates; for earlier cohorts it takes many years for participants in Sweden to approach or catch up with Norwegian or Danish employment levels. However, we find that Sweden shows substantially better improvement for both men and women for more recent cohorts compared to earlier ones, particularly for the 2012 cohort. It is worth noting that the improved results for the Swedish 2012 cohort coincide with the implementation of the Establishment Reform, as further discussed in Chapter 7. With education enrolment, the opposite pattern emerges: Sweden has the most persons enrolled in education, followed by Norway, while Denmark generally has significantly lower levels. Moreover, a larger part of the participants are solely enrolled in education in Sweden, whereas many of the persons enrolled in education in Norway and Denmark are also registered as being employed.

6. Descriptive analysis of participants in integration programmes

Are there cross-national differences in the observable characteristics of participant groups? Do these characteristics affect outcomes differently across countries? Here we begin by comparing the descriptive statistics of participant groups' individual characteristics as a whole in the three countries (for a description of differences between cohorts in each country, see Appendix 3), and then present and discuss the regression analysis of how these characteristics affect the outcomes for employment and education enrolment. Additionally, because the estimates in the regression models show average estimates concerning time, we also present estimated employment trajectories for selected sub-groups and compare them cross-nationally. Last, we examine whether the documented differences in the refugee's characteristics across the countries are sufficiently large to explain differences in employment levels between the three countries.

6.1 Comparative analysis of descriptive statistics for cohorts 2008–2016

Table 4 compares the individual characteristics of the participant group for cohorts 2008–2016 as a whole across the three countries (for descriptive analyses of different cohorts within each country, see Chapter 4).

Table 4: Individual characteristics of refugees and family reunified to refugees in Denmark, Norway and Sweden, cohorts 2008–2016

	Denmark	Norway	Sweden
Women	37.8	41.9	42.4
Age (years)	31.0	29.2	33.1
Age-group			
20–25	29.0	30.6	23.3
26–35	44.8	45.3	40.7
36–45	20.0	18.6	24.4
46–55	6.1	5.5	11.6
Married	58.6	43.1	61.5
Has children <=6 years old	28.6	27.4	27.1
Country of birth			
Afghanistan	5.5	7.2	4.7
Eritrea	11.6	26	11.4
Iran	6.8	4.7	2.9
Iraq	3.2	3.6	16.3
Somalia	4.5	17.7	12.3
Syria	52.9	16.8	37.1
Other	15.5	24	15.3
Education			
Primary education	37.0	43.1	34.8
Secondary education	10.6	6	18.6
Tertiary education	14.7	14	28.9
Missing values	37.7	37	17.6
Centrality			
Metropolitan area	8.4	10.5	15.6
Other large cities	20.3	16.3	10.9
Cities	19.0	22.1	45.5
Towns	39	26.2	18.3
Rural/remote municipalities	13.3	24.9	9.8
Reason for being granted a residence permit			
Family reunification	19.3	13.9	45.5
Convention refugee	50.8	71.9	15.7
Subsidiary protection	17.8	1	22.8
UN Quota status	5.2	13.2	5.6
Other	6.9	0	10.4
Participants	*21,683*	*47,792*	150,258

All three countries have a relatively similar share of women (about 40%) and an average age of about 30 years. The distributions for Denmark and Norway are very similar among the age-groups, whereas Sweden has a lower share of persons in the two youngest age-groups compared to neighbouring countries (about 10 ppt), and twice as many in the oldest age-group. Norway has fewer persons who married when they arrived than Denmark and Sweden (about 15–18 ppt); however, in all three countries approximately 27%–28% had small children at the time of arrival.

As to country of birth, we can note several cross-national differences. Norway has a higher share of persons from Eritrea and Somalia than Denmark and Sweden. In Denmark, Syrian refugees constitute over half of participants, mainly because their numbers increased from 2014–2016, with Syrian refugees constituting the majority. Additionally, Denmark has a higher percentage of persons from Iran than do Norway and Sweden. In Sweden, the share of Iraqis is higher than in Norway and Denmark; otherwise, Syrian refugees constitute the majority also in Sweden.

As mentioned in the chapter 3 on methods, the variable documenting participants' education level has many missing values in all three countries, and should be interpreted with caution. Sweden has a lower share of missing values (due to improved registration recent years, see Chapter 4), and generally has a higher share of persons registered with secondary (19%) and tertiary (29%) education levels. Norway and Denmark have about the same share registered with tertiary education; Denmark has more participants with secondary education than Norway, which also implies that Norway has a higher share of persons with only primary education.

Settlement patterns differ somewhat. Sweden has a higher share who settle in the capital compared to Norway and Denmark, while Denmark and Norway have higher shares of persons settled in other large cities. Thus, the three countries have about the same share (27–29%) that settle in the most central areas (metropolitan and other large cities). However, since Sweden has a relatively high share of persons settled in the middle category (cities), it has fewer first settlements in towns or remote/rural areas than Norway and Denmark. While under 30% of Swedish refugees are settled in less-central areas (towns or remote/rural areas), the share is over 50% for Danish and Norwegian refugees.

In Sweden, 46% of the participant group are family members of refugees, significantly higher than in Denmark (19%) and Norway (14%). In Norway, only 1% participants were granted a residence permit on the basis of subsidiary protection, as against 18% for Denmark and 23% for Sweden. However, Norway has a relative high share of convention refugees (72%) and UN Quota refugees (13%). These differences may reflect differences in procedures for issuing residence permits, but we have not studied this aspect.

6.2 Correlations between individual characteristics and employment and education outcomes

The regression analyses include the individual characteristics presented in Table 4; in addition, they control for year of settlement (cohort), local employment rates and years since settlement (YSS). For separate presentation and description of the regressions for each country, see Appendix 2. In the following section, we present and discuss cross-national differences. The results from the regression analyses separate between 1) men and women, and 2) the two outcomes: employed in November, and enrolled in education in October.

6.2.1 Determinants of employment

Tables 6 and 7, showing the employment regressions for the three countries, indicate some interesting differences. First, regarding the impact of years since settlement for men, we see that the estimates are similar during the first two years for men in Norway and Sweden, whereas employment rises a bit more slowly in Denmark. But after these first years, employment for men starts to rise faster in Norway and reaches higher levels than Denmark and Sweden the following years, but stagnates in the sixth to eight year. By contrast, Denmark and Sweden do not experience a similar stagnation for men. For female participants, all three countries show a steady increase throughout all eight years after settlement, but the pace has differs. Employment for women seems to rise very slowly in Denmark; in Sweden there is a moderate increase, while Norway has a steeper increase than the other two countries.

It is not possible to identify a 'pure' relationship between years since settlement and employment from the relationship with calendar time or cohort year. Estimating the same model with cohort years instead of calendar time, we find very similar effects for all other variables. As can be seen from Tables 6 and 7, the relationship between calendar time and outcomes vary widely between the countries. These relationships are quite different from the relationship between cohort year and outcomes, so we cannot know whether they reflect pure calendar time effects, cohort differences or differences in interventions over time.

The three countries have rather similar patterns when it comes to differences between age-groups for men, where the youngest age-groups are more likely to be employed than older participants. One difference is worth noticing: while the oldest age-group have substantially lower levels of employment than the reference group in Norway and particularly in Denmark, this difference is not apparent in Sweden. For women, the results are less clear-cut. In both Norway and Sweden, the two older age-groups do worse than the younger ones; this discrepancy is larger in Norway than Sweden. In Denmark, female participants aged 26–35 are actually more likely to be employed than those aged 20–25, but the results are not significant for the older age-groups.

Differences in employment probabilities for men depending on educational level appear similar in all three countries: those with tertiary (university-level) education have between 3 and 4 ppt higher probability of being employed compared to those with

the lowest level of education. However, in both Sweden and Norway, men with secondary education are more likely to be employed than the reference group or those with tertiary education; that is not the case in Denmark. For women the pattern is slightly different. In both Denmark and Norway, but not Sweden, participants with secondary education have higher employment rates than those with tertiary education. However, in Sweden, the difference between secondary and tertiary education is relatively less. Additionally, in Sweden, women seem to gain more from having higher education, in terms of greater probability of employment, than men.

Concerning the country of birth, the patterns in Sweden and Norway are quite similar: female and male immigrants from Afghanistan, Eritrea, Iran and Syria are more likely to be employed than are immigrants from Iraq. Whereas both male and female immigrants from Somalia are less likely to be employed in Norway, this applies only to male Somali participants in Sweden. Also in Denmark, Somali men have the lowest employment rates, while Afghan and Syrian men and Eritrean and Iranian women have the highest employment rates. Otherwise, in Denmark there are fewer significant differences between nationalities. Employment levels are higher for female immigrants from 'other countries' than Iraqi immigrants in all three countries, but only in Sweden and Norway for men. Further, in Sweden, immigrant women from Somalia are more likely than Iraqi women to be employed, whereas Somali women are significantly less likely to be employed in Norway (no significant differences in Denmark).

Another important difference between the countries appear to be the impact of type of residence permit. The reference category here is 'Convention'. In Sweden and Norway, refugees who have been resettled through the UN Quota system have lower employment probabilities than convention refugees, unlike the case in Denmark. In contrast, male immigrants who have been reunified with their families have higher employment rates in all three countries, but the difference is greater in Denmark (6 ppt) than in Norway (4 ppt) or Sweden (1 ppt). The opposite pattern is apparent for family-reunified women in Norway, but there is almost no difference in Sweden and Denmark.

Refugees who are not located in metropolitan areas when they arrive have lower employment probabilities in all the three countries, although the differences are greater in Sweden than in Norway and Denmark, and almost zero for women in Norway. We return to an in-depth discussion of regional difference in section 8.

Finally, unemployment rate in the municipalities where the refugees are staying in the current year shows the expected negative relationship with employment only in Norway and Sweden. Perhaps observation-year effects reflect year-specific labour-market differences, and local variation matters less extent in Denmark, where there are shorter distances between municipalities because of their geographic proximity.[15]

[15] This is supported by the finding that, as described in section 6.2.3, the local unemployment rate shows the expected negative relationship in Denmark if calendar time is excluded or replaced by cohort year.

Table 5: Determinants of employment, 2008–2016, men

VARIABLES	Denmark	Norway	Sweden
Years since settlement: 0 is reference			
1	0.122***	0.135***	0.152***
	(0.00568)	(0.00388)	(0.002)
2	0.232***	0.301***	0.311***
	(0.00799)	(0.00491)	(0.003)
3	0.318***	0.463***	0.390***
	(0.0101)	(0.00578)	(0.003)
4	0.363***	0.586***	0.441***
	(0.0121)	(0.00656)	(0.004)
5	0.394***	0.643***	0.487***
	(0.0148)	(0.00752)	(0.005)
6	0.405***	0.667***	0.540***
	(0.0193)	(0.00870)	(0.006)
7	0.440***	0.670***	0.565***
	(0.0248)	(0.0104)	(0.007)
8	0.432***	0.664***	0.593***
	(0.0361)	(0.0134)	(0.009)
Observation year: 2008 is reference			
2009	-0.0903***	-0.128***	-0.038***
	(0.0296)	(0.0109)	(0.004)
2010	-0.141***	-0.176***	-0.054***
	(0.0327)	(0.0115)	(0.005)
2011	-0.137***	-0.240***	-0.080***
	(0.0321)	(0.0116)	(0.005)
2012	-0.199***	-0.278***	-0.102***
	(0.0322)	(0.0115)	(0.005)
2013	-0.225***	-0.301***	-0.078***
	(0.0323)	(0.0117)	(0.005)
2014	-0.255***	-0.323***	-0.056***
	(0.0315)	(0.0119)	(0.005)
2015	-0.250***	-0.354***	-0.049***
	(0.0315)	(0.0121)	(0.005)
2016	-0.122***	-0.363***	-0.018***
	(0.0316)	(0.0125)	(0.006)
Age at settlement: 20–25 is reference			
26–35	-0.0165*	-0.0210***	-0.024***
	(0.00951)	(0.00673)	(0.005)
36–45	-0.0813***	-0.0795***	-0.068***
	(0.0163)	(0.0115)	(0.007)
46–55	-0.200***	-0.121***	-0.043***
	(0.0255)	(0.0190)	(0.008)
Age in the year of observation: 20–25 is reference			
26–35	-0.0383***	0.0543***	0.022***
	(0.0108)	(0.00659)	(0.005)
36–45	-0.0757***	0.0438***	-0.007
	(0.0167)	(0.0107)	(0.007)
46–55	-0.0800***	-0.0496***	-0.095***
	(0.0236)	(0.0171)	(0.008)
Children 0–6 years	-0.0349***	0.0380***	0.006**

	(0.00993)	(0.00591)	(0.003)
Married	-0.00587	-0.0352***	0.007**
	(0.00805)	(0.00528)	(0.003)
Education: Primary education is reference			
Upper secondary education	0.0177	0.0466***	0.047***
	(0.0115)	(0.00788)	(0.003)
University	0.0316***	0.0367***	0.039***
	(0.0109)	(0.00594)	(0.003)
Missing value	0.0116	0.0272***	-0.017***
	(0.00809)	(0.00532)	(0.005)
Country of birth: Iraq is reference			
Afghanistan	0.0482**	0.161***	0.116***
	(0.0240)	(0.0148)	(0.007)
Eritrea	0.000255	0.0889***	0.061***
	(0.0251)	(0.0113)	(0.006)
Iran	-0.0253	0.0910***	0.105***
	(0.0236)	(0.0150)	(0.008)
Somalia	-0.0705***	-0.0236**	-0.016***
	(0.0256)	(0.0117)	(0.005)
Syria	0.0575**	0.134***	0.100***
	(0.0226)	(0.0121)	(0.005)
Other countries	-0.00513	0.0572***	0.085***
	(0.0230)	(0.0112)	(0.006)
Reasons for being granted a permit: Convention is reference			
UN Quota Status	0.00981	-0.0679***	-0.052***
	(0.0183)	(0.00745)	(0.005)
Subsidiary protection	-0.0205*	-0.0254	-0.029***
	(0.0117)	(0.0241)	(0.005)
Family reunification	0.0637***	0.0399***	0.012***
	(0.0203)	(0.0111)	(0.003)
Other	-0.0393***		0.050***
	(0.0147)		(0.008)
Region of residence: Metropolitan area is reference			
Other large cities	-0.0613***	-0.0447***	-0.143***
	(0.0160)	(0.00919)	(0.005)
Cities	-0.0590***	-0.0559***	-0.128***
	(0.0159)	(0.00847)	(0.004)
Towns	-0.0722***	-0.0704***	-0.126***
	(0.0151)	(0.00827)	(0.004)
Rural/remote municipalities	-0.0806***	-0.0751***	-0.098***
	(0.0165)	(0.00831)	(0.005)
Log unemployment	0.00560	-0.0997***	-0.101***
	(0.0155)	(0.00795)	(0.005)
Constant	0.440***	0.443***	0.326***
	(0.0364)	(0.0183)	(0.012)
Observations	33799	101691	240,545
R-squared	0.122	0.242	0.216

Table 6: Determinants of employment, 2008–2016, women

VARIABLES	Denmark	Norway	Sweden
Years since settlement: 0 is reference			
1	0.0267***	0.105***	0.050***
	(0.00389)	(0.00473)	(0.001)
2	0.0618***	0.213***	0.132***
	(0.00582)	(0.00582)	(0.002)
3	0.108***	0.313***	0.186***
	(0.00814)	(0.00668)	(0.003)
4	0.165***	0.396***	0.224***
	(0.0111)	(0.00760)	(0.004)
5	0.214***	0.467***	0.256***
	(0.0143)	(0.00865)	(0.004)
6	0.235***	0.525***	0.300***
	(0.0180)	(0.00986)	(0.005)
7	0.241***	0.557***	0.346***
	(0.0224)	(0.0115)	(0.006)
8	0.265***	0.576***	0.398***
	(0.0334)	(0.0146)	(0.009)
Observation year: 2008 is reference			
2009	-0.0588***	-0.0495***	-0.013***
	(0.0204)	(0.00830)	(0.002)
2010	-0.0666***	-0.0695***	-0.026***
	(0.0226)	(0.00904)	(0.003)
2011	-0.0365	-0.100***	-0.053***
	(0.0232)	(0.00906)	(0.003)
2012	-0.0697***	-0.117***	-0.067***
	(0.0229)	(0.00903)	(0.003)
2013	-0.0908***	-0.132***	-0.055***
	(0.0227)	(0.00941)	(0.003)
2014	-0.105***	-0.158***	-0.042***
	(0.0218)	(0.00976)	(0.004)
2015	-0.0938***	-0.172***	-0.035***
	(0.0216)	(0.0102)	(0.004)
2016	-0.0575***	-0.180***	-0.007*
	(0.0215)	(0.0107)	(0.004)
Age at settlement: 20–25 is reference			
26–35	0.0224***	-0.00811	0.002
	(0.00776)	(0.00683)	(0.004)
36–45	-0.00802	-0.0329***	-0.014**
	(0.0150)	(0.0117)	(0.006)
46–55	-0.0349	-0.119***	-0.030***
	(0.0247)	(0.0187)	(0.006)
Age in the year of observation: 20–25			
26–35	-0.00616	0.0133**	0.004
	(0.00915)	(0.00651)	(0.004)
36–45	-0.0237	0.0372***	0.002
	(0.0148)	(0.0107)	(0.005)
46–55	-0.0234	-0.00448	-0.038***
	(0.0220)	(0.0169)	(0.006)
Children 0–6 years	-0.0399***	-0.117***	-0.073***

	(0.00691)	(0.00528)	(0.002)
Married	-0.00667	0.0247***	0.011***
	(0.00763)	(0.00533)	(0.002)
Education: Primary education is reference			
Upper secondary education	0.0203**	0.0515***	0.077***
	(0.0102)	(0.00972)	(0.003)
University	0.0187*	0.0359***	0.086***
	(0.00973)	(0.00793)	(0.003)
Missing value	0.0350***	0.00762	-0.005*
	(0.00738)	(0.00516)	(0.003)
Country of birth: Iraq is reference			
Afghanistan	0.00155	0.0320***	0.043***
	(0.0157)	(0.0114)	(0.005)
Eritrea	0.0562***	0.144***	0.081***
	(0.0198)	(0.0109)	(0.005)
Iran	0.0417**	0.0872***	0.076***
	(0.0181)	(0.0141)	(0.007)
Somalia	0.00113	-0.0606***	0.020***
	(0.0169)	(0.0102)	(0.004)
Syria	0.0279*	0.0912***	0.034***
	(0.0152)	(0.0116)	(0.004)
Other countries	0.0627***	0.121***	0.082***
	(0.0159)	(0.0102)	(0.005)
Reasons for being granted a permit: Convention is reference			
UN Quota Status	0.00696	-0.0340***	-0.020***
	(0.0157)	(0.00644)	(0.005)
Subsidiary protection	-0.0229**	-0.0401*	-0.030***
	(0.00973)	(0.0208)	(0.003)
Family reunification	-0.00438	-0.0411***	0.005*
	(0.00890)	(0.00583)	(0.003)
Other	-0.0564***		0.027***
	(0.0144)		(0.006)
Region of residence: metropolitan area is reference			
Other large cities	-0.0429***	-0.00156	-0.091***
	(0.0139)	(0.00824)	(0.004)
Cities	-0.0436***	-0.0130*	-0.066***
	(0.0139)	(0.00771)	(0.004)
Towns	-0.0633***	-0.00404	-0.055***
	(0.0131)	(0.00773)	(0.004)
Rural/remote municipalities	-0.0721***	-0.0000865	-0.027***
	(0.0144)	(0.00787)	(0.005)
Log unemployment	0.0299**	-0.0340***	-0.059***
	(0.0143)	(0.00644)	(0.005)
Constant	0.0988***	0.190***	0.170***
	(0.0279)	(0.0167)	(0.010)
Observations	21743	85518	214,355
R-squared	0.0925	0.188	0.158

Notes: Each column contains the results from a separate OLS regression; see the methods section for details. Statistically significant differences are denoted thus: * p < 0.1, ** < 0.05, *** p < 0.01.

6.2.2 Determinants of education

Tables 8 and 9 compare the education regressions for the three countries, and show some interesting differences. Regarding the impact of years since settlement we can note differences from the start, and the patterns are rather similar for men and women. The estimates are generally lower for Denmark, rising slowly in the first years, with a slight increase after three to four years. Education enrolment rises faster in Norway, and reaches higher levels than Denmark in all ensuing years. Sweden has a sharp increase in the first two years after settlement, decreasing after the fourth year.

In Norway and Sweden, education enrolment appears to be lower in recent years as compared to 2008, as seen from the estimates of the year dummies. At least in Sweden, this might be explained by an improvement in general labour-market conditions – as unemployment decreases there are more employment opportunities, and fewer might choose to enrol in education. In Denmark, however, the probability of being enrolled in education is significantly higher in all years after 2008.

Concerning age at settlement, we note similar patterns for men and women. Denmark has a slight cumulative decrease in education enrolment when comparing the older age-groups to the younger ones. In Norway, the youngest age-group is more likely to be enrolled in education than the other groups, but there are very small differences between the other age-groups. As shown in Tables 8 and 9, Sweden has the same pattern as the other two countries, but with a greater decrease for older age-groups.

Although women with children are less likely to be enrolled in education in all three countries, this negative effect is higher in Sweden than in Denmark and Norway. Married women are less likely to be enrolled in education in all three countries; for men, this negative correlation is evident only in Norway and Sweden.

The relevance of education levels on arrival differs among countries and by gender. In Denmark, there is only a small increase in the probability of education enrolment for women who had higher levels of education on arrival. For men, only university levels have a significant positive effect. The group with missing education is enrolling in education to a higher extent. The result suggest that the missing category include some with education from home. In Sweden however, the probability of being enrolled in education rises considerably with increased education levels on arrival, for both men and women. In Norway, those with higher educational levels on arrival are also more likely to be enrolled in education, but we note a gender difference: for men, the probability rises with education levels on arrival, whereas women with tertiary education on arrival do not have higher levels of enrolment than those with secondary levels.

Regarding the country of origin, we find different patterns for women and men. In Norway and Sweden, female immigrants from Afghanistan and especially from Iran are more likely to be enrolled in education than are those from Iraq. Eritrean women in Norway are also more likely to be enrolled in education, but this is not apparent in the other two countries. Denmark has fewer significant nationality-related differences, but, as in Norway and Sweden, Iranian women have slightly higher levels than do Iraqi women. Additionally, in all three countries Somali women are less likely to be enrolled in education than are Iraqi women. Among male participants we find only minor differences between nationalities in Denmark, but Iraqis are more likely to be enrolled in education

than men of other nationalities – in direct contrast to Norway and Sweden. Eritrean and Iranian men have the highest estimates in Norway, while the Iranian and Afghani men have the highest estimates in Sweden. Additionally, the difference between estimates for country of origin is larger in Sweden.

There are only minor differences regarding the grounds for being granted a resident permit. Women who received a permit based on subsidiary protection have lower levels of education enrolment than convention refugees in Norway and Sweden, but not in Denmark. For men, there are no differences between the categories in Sweden. In Norway, UN Quota refugees and men in family reunification do slightly better than convention refugees, and in Denmark, the same positive estimate is found for men who have been granted residence permits on grounds of subsidiary protection.

Table 7: Determinants of enrolment in education, 2008–2016, men

VARIABLES	Denmark	Norway	Sweden
Years since settlement: 0 is reference			
1	0.00780***	0.0543***	0.133***
	(0.00115)	(0.00232)	(0.002)
2	0.0317***	0.135***	0.171***
	(0.00290)	(0.00344)	(0.002)
3	0.0820***	0.206***	0.154***
	(0.00508)	(0.00439)	(0.003)
4	0.105***	0.204***	0.138***
	(0.00662)	(0.00502)	(0.004)
5	0.0983***	0.184***	0.127***
	(0.00789)	(0.00568)	(0.004)
6	0.0852***	0.155***	0.109***
	(0.00988)	(0.00621)	(0.005)
7	0.0738***	0.136***	0.081***
	(0.0120)	(0.00698)	(0.005)
8	0.0926***	0.105***	0.064***
	(0.0194)	(0.00786)	(0.006)
Observation year: 2008 is reference			
2009	0.0149**	-0.00337	-0.019***
	(0.00711)	(0.00387)	(0.005)
2010	0.0164**	-0.0130***	-0.017***
	(0.00801)	(0.00424)	(0.006)
2011	0.0243***	-0.0284***	-0.026***
	(0.00809)	(0.00422)	(0.006)
2012	0.0182**	-0.0313***	-0.043***
	(0.00778)	(0.00392)	(0.006)
2013	0.0188**	-0.0289***	-0.063***
	(0.00748)	(0.00396)	(0.006)
2014	0.0147**	-0.0305***	-0.064***
	(0.00673)	(0.00419)	(0.006)
2015	0.0230***	-0.0261***	-0.064***
	(0.00647)	(0.00452)	(0.006)
2016	0.0191***	-0.0200***	-0.049***
	(0.00636)	(0.00493)	(0.006)
Age at settlement: 20–25 is reference			
26–35	0.00253	-0.0360***	-0.037***
	(0.00377)	(0.00499)	(0.005)
36–45	-0.0265***	-0.0456***	-0.105***
	(0.00520)	(0.00717)	(0.006)
46–55	-0.0622***	-0.0355***	-0.178***
	(0.00727)	(0.00943)	(0.007)
Age in the year of observation: 20–25			
26–35	-0.0126***	-0.000347	-0.026***
	(0.00474)	(0.00502)	(0.005)
36–45	-0.0118**	-0.0282***	-0.003
	(0.00537)	(0.00735)	(0.006)
46–55	0.0132**	-0.0738***	0.043***
	(0.00626)	(0.0107)	(0.007)
Children 0–6 years	0.0101**	0.00412	0.008***

	(0.00397)	(0.00363)	(0.002)
Married	-0.00280	-0.0337***	-0.023***
	(0.00302)	(0.00340)	(0.002)
Education: Primary education is reference			
Upper secondary education	0.00439	0.0534***	0.073***
	(0.00271)	(0.00553)	(0.002)
University	0.0182***	0.0787***	0.175***
	(0.00355)	(0.00401)	(0.002)
Missing value	0.0578***	0.0275***	-0.002
	(0.00367)	(0.00344)	(0.004)
Country of birth: Iraq is reference			
Afghanistan	-0.0388***	0.0442***	0.112***
	(0.0125)	(0.00871)	(0.006)
Eritrea	-0.0185*	0.0715***	0.073***
	(0.0100)	(0.00625)	(0.005)
Iran	-0.0138	0.0648***	0.128***
	(0.0106)	(0.00884)	(0.008)
Somalia	-0.0387***	0.0266***	0.087***
	(0.0121)	(0.00612)	(0.004)
Syria	-0.0262***	0.0334***	0.044***
	(0.00995)	(0.00622)	(0.004)
Other countries	-0.00835	0.0487***	0.060***
	(0.0111)	(0.00587)	(0.004)
Reason for being granted a permit: Convention is reference			
UN Quota Status	-0.0103	0.0276***	0.008
	(0.00749)	(0.00476)	(0.005)
Subsidiary protection	0.0209***	-0.0131	-0.003
	(0.00530)	(0.0109)	(0.004)
Family	0.00199	0.0132**	0.006**
	(0.00693)	(0.00662)	(0.003)
Other	-0.0126**		-0.015***
	(0.00536)		(0.006)
Region of residence: metropolitan area is reference			
Other large cities	-0.00181	-0.00411	0.037***
	(0.00524)	(0.00586)	(0.004)
Cities	0.00555	-0.0183***	0.042***
	(0.00542)	(0.00533)	(0.003)
Towns	0.00525	-0.0161***	0.025***
	(0.00498)	(0.00531)	(0.003)
Rural/remote municipalities	0.00509	-0.0252***	0.029***
	(0.00576)	(0.00529)	(0.004)
Log unemployment	0.00667	-0.0128**	-0.044***
	(0.00576)	(0.00512)	(0.004)
Constant	-0.0218**	0.0177*	0.125***
	(0.00868)	(0.00937)	(0.010)
Observations	34250	103894	240,545
R-squared	0.0888	0.0874	0.095

Table 8: Determinants of enrolment in education, 2008–2016, women

VARIABLES	Denmark	Norway	Sweden
Years since settlement: 0 is reference			
1	0.00496***	0.0504***	0.112***
	(0.00116)	(0.00304)	(0.002)
2	0.0175***	0.107***	0.186***
	(0.00254)	(0.00401)	(0.003)
3	0.0485***	0.166***	0.198***
	(0.00488)	(0.00487)	(0.003)
4	0.0951***	0.201***	0.205***
	(0.00764)	(0.00553)	(0.004)
5	0.116***	0.209***	0.195***
	(0.00984)	(0.00624)	(0.004)
6	0.126***	0.201***	0.188***
	(0.0128)	(0.00698)	(0.005)
7	0.115***	0.173***	0.180***
	(0.0152)	(0.00776)	(0.006)
8	0.109***	0.159***	0.156***
	(0.0210)	(0.00949)	(0.008)
Observation year: 2008 is reference			
2009	0.00234	-0.00921***	0.003
	(0.00627)	(0.00306)	(0.004)
2010	-0.00185	-0.00821**	-0.004
	(0.00761)	(0.00363)	(0.005)
2011	0.00910	-0.0226***	-0.024***
	(0.00793)	(0.00355)	(0.005)
2012	0.0106	-0.0279***	-0.032***
	(0.00817)	(0.00345)	(0.005)
2013	0.00858	-0.0258***	-0.032***
	(0.00776)	(0.00367)	(0.005)
2014	0.00277	-0.0303***	-0.019***
	(0.00647)	(0.00390)	(0.005)
2015	-0.00137	-0.0176***	-0.021***
	(0.00592)	(0.00432)	(0.005)
2016	-0.00299	-0.00824*	-0.006
	(0.00559)	(0.00475)	(0.005)
Age at settlement: 20–25 is reference			
26–35	0.00264	-0.0444***	-0.020***
	(0.00428)	(0.00484)	(0.004)
36–45	-0.0209***	-0.0493***	-0.072***
	(0.00787)	(0.00712)	(0.006)
46–55	-0.0471***	-0.0507***	-0.201***
	(0.0116)	(0.00952)	(0.007)
Age in the year of observation: 20–25			
26–35	-0.00209	0.0124**	-0.030***
	(0.00488)	(0.00494)	(0.004)
36–45	-0.00318	-0.0165**	-0.028***
	(0.00725)	(0.00726)	(0.006)
46–55	0.0114	-0.0662***	0.045***
	(0.00937)	(0.0101)	(0.007)
Children 0–6 years	-0.0108***	-0.0334***	-0.076***

	(0.00344)	(0.00352)	(0.002)
Married	-0.0205***	-0.0195***	-0.017***
	(0.00443)	(0.00344)	(0.002)
Education: Primary education is reference			
Upper secondary education	0.0152***	0.0610***	0.094***
	(0.00368)	(0.00650)	(0.003)
University	0.0217***	0.0531***	0.166***
	(0.00504)	(0.00506)	(0.003)
Missing value	0.0547***	0.0132***	-0.001
	(0.00361)	(0.00320)	(0.003)
Country of birth: Iraq is reference			
Afghanistan	0.00704	0.0435***	0.047***
	(0.00956)	(0.00728)	(0.005)
Eritrea	0.00184	0.0452***	-0.016***
	(0.0109)	(0.00616)	(0.005)
Iran	0.0297***	0.101***	0.144***
	(0.0107)	(0.0100)	(0.008)
Somalia	-0.0156*	-0.0156***	-0.017***
	(0.00823)	(0.00585)	(0.004)
Syria	0.00473	0.0197***	0.013***
	(0.00826)	(0.00648)	(0.005)
Other countries	0.0164*	0.0360***	0.026***
	(0.00884)	(0.00572)	(0.004)
Reason for being granted a permit: Convention is reference			
UN Quota Status	-0.0140*	0.00654	-0.007
	(0.00733)	(0.00406)	(0.005)
Subsidiary protection	-0.00364	-0.0362***	-0.017***
	(0.00533)	(0.0107)	(0.003)
Family reunification	-0.00276	-0.00941***	0.011***
	(0.00430)	(0.00350)	(0.003)
Other	-0.0171**		-0.003
	(0.00811)		(0.006)
Region of residence: metropolitan area is reference			
Other large cities	-0.00495	-0.0177***	0.022***
	(0.00636)	(0.00512)	(0.004)
Cities	-0.00438	-0.0147***	0.015***
	(0.00671)	(0.00492)	(0.003)
Towns	0.00182	-0.0221***	0.002
	(0.00629)	(0.00483)	(0.004)
Rural/remote municipalities	0.00227	-0.0235***	0.006
	(0.00760)	(0.00491)	(0.005)
Log unemployment	0.00194	-0.00550	-0.047***
	(0.00703)	(0.00531)	(0.005)
Constant	-0.00949	0.0380***	0.185***
	(0.00997)	(0.00939)	(0.011)
Observations	22054	87143	214,355
R-squared	0.0931	0.0908	0.116

Notes: Each column contains the results from a separate OLS regression; see the methods section for details. Statistically significant differences are denoted thus: * p < 0.1, ** < 0.05, *** p < 0.01.

6.3 Estimated employment trajectories

Based on the estimates from the regression analyses in 6.2, we can draw estimated employment trajectories – controlling for all other variables in the model – that illustrate how employment evolves for different subgroups over time, which in contrast to the figures in Chapter 5 are adjusted for observed characteristics, local labour-market conditions and settlement models. Because the estimates in the regression models show average estimates concerning time, a decomposition of these estimates, illustrating their development over time, could reveal relevant cross-country differences. In this section, we therefore re-estimated the model presented in the previous section for different sub-groups in order to predict employment trajectories that are specific to the group. We focus on the following subgroups: gender, age and education levels at arrival. Trajectories at higher years since settlement are based on fewer observations and therefore subject to larger uncertainty, particularly in Denmark.

First, we present the estimated employment trajectories for all participants separated by gender. Secondly, we have conducted separate regression analyses for subgroups of the sample to see if there are cross-national differences in how selected subgroups fare in the labour market.

6.3.1 Gender differences

Figure 9: Estimated employment trajectories with years since settlement, by gender

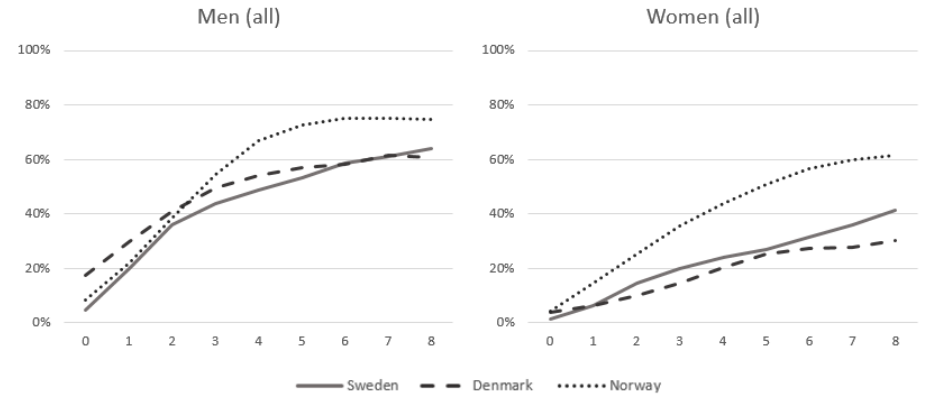
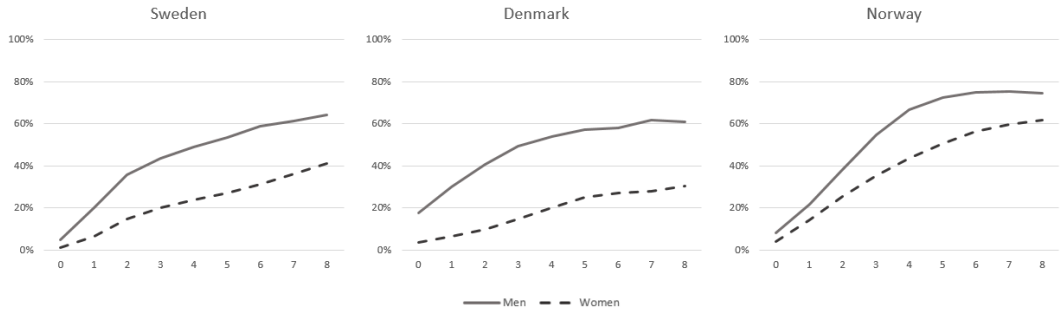


Figure 9 shows that the trajectory over the first two years is very similar in all three countries. Male participants in Denmark have somewhat higher employment probabilities in the first years after settlement compared with those in Norway and Sweden. After six years, the employment probabilities in Denmark and Sweden converge at approximately 60%, with Sweden slightly surpassing Denmark in the last year. In Norway, the trajectory for employment is higher, with an estimated 10–15 ppt higher employment probability for refugee men with long residence. For women, the difference between countries is even larger. All three countries start out with the same low employment levels at the time of settlement, but Norway shows a relatively steep increase in employment rates, and has better estimated employment rates than Denmark and

Sweden for all years of analysis. Sweden and Denmark have rather similar patterns; however, Sweden does slightly better than Denmark most years after settlement, and the gap increases further in the seventh and eighth year after settlement.

Figure 10: Estimated employment trajectories for men and women with years since settlement, by country



We notice an interesting difference when comparing the differences between genders in each country. Figure 10 shows that, although there is a substantial employment gap between men and women in all three countries, this gap is substantially lower in Norway than in Sweden or Denmark: the average estimated employment gap between men and women for all years after settlement is 15 ppts in Norway, 21 in Sweden and as much as 29 in Denmark.

6.3.2 Differences between age-groups

Figure 11: Estimated employment trajectories for men with years since settlement, age-groups

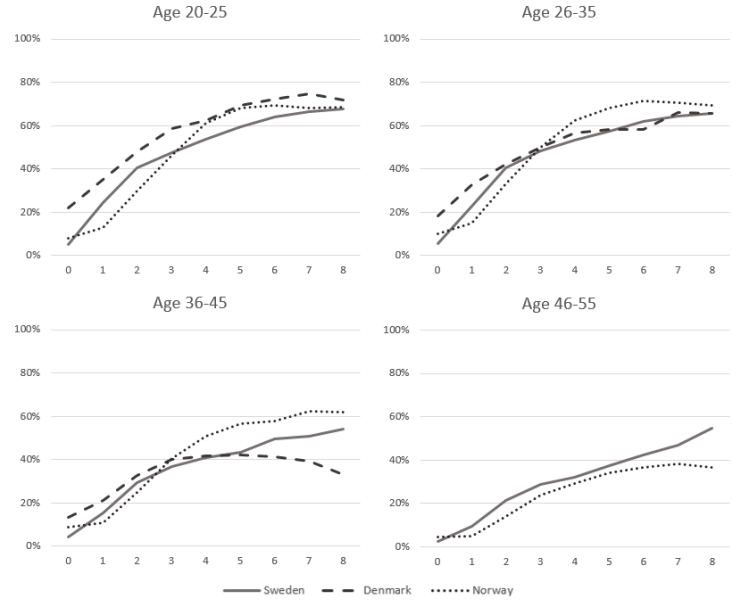
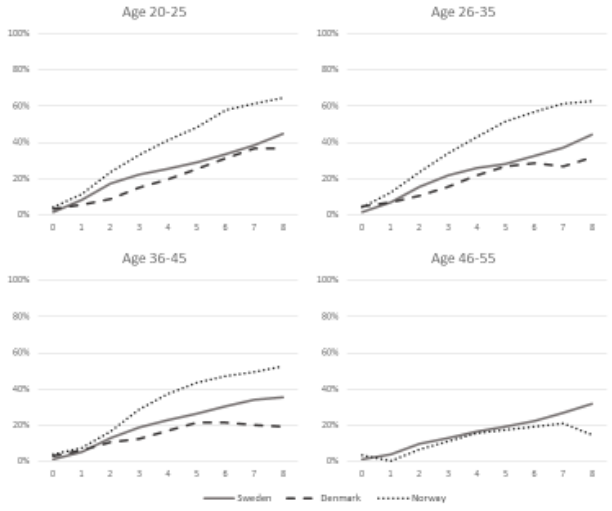


Figure 11 shows differences in the estimated trajectories for different age-groups for men. For all countries, employment levels decrease with age; however, similarly to the case for women, Sweden has the smallest difference between age-groups. For Denmark, we have not shown the trajectory for the oldest age-group (46–55), because this group had very few participants in the last years of analysis (eight years after settlement: only 26 men). Denmark has the best results for the youngest age-group, and generally higher employment rates for the first years of analysis. Norway emerges with the best results after the third year for the two middle age-groups, while Sweden has better estimated employments rates for the oldest age-group. The trajectories indicate that the lower employment rates over time in Denmark could be driven by lower employment for the older age-groups.

Figure 12: Estimated employment trajectories for women with years since settlement, by age-groups



From Figure 12 we see that, for all countries, the trajectories for women show that the two youngest age-groups do better than the older ones; however, Sweden has the smallest difference between age-groups. Norway does substantially better for all groups except for the oldest ones, whereas Sweden has a slightly better trajectory than Norway. Thus, although Norway is generally improving in getting women integrated in the labour market, Sweden does relatively better at including women aged 46–55 in the workforce. For the Danish case, we have not shown the trajectory for the oldest age-group (46–55), because this group has very few participants the last years of analysis (eight years after settlement, the group has only 13 women). The estimated trajectories indicate that one plausible reason for the relatively lower long-term employment levels for Danish participants is that the older age-groups – and particularly those aged 36–45 – fall behind over time compared to Sweden and Norway.

6.3.3 *Differences between education levels on arrival*

Figure 13: Estimated employment trajectories for men, years since settlement, by education

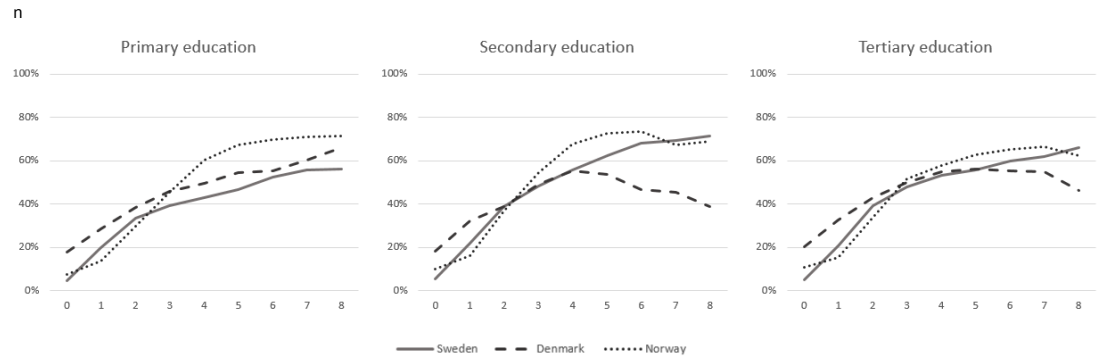
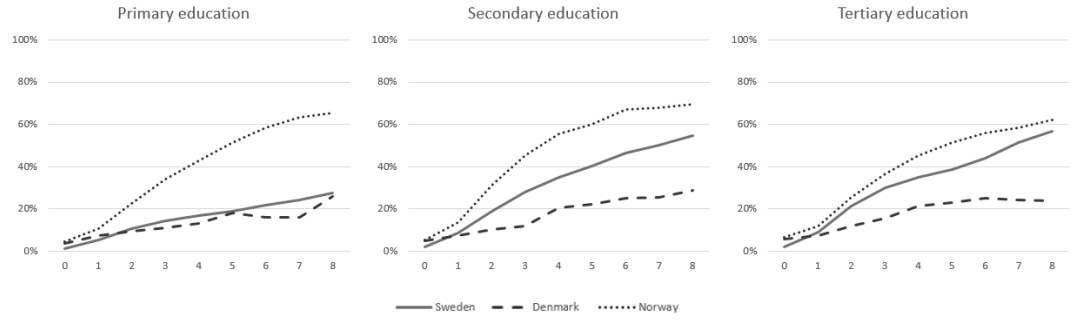


Figure 13 shows that both Norway and Denmark have higher estimated employment trajectories for men with lower education compared to Sweden. Denmark has the best results the first years, but is surpassed by Norway in the fourth year after settlement. Although Denmark has relatively higher estimated employment levels for persons with secondary and tertiary in the first years after settlement, these levels stagnate and decline for both groups. The drop is significant but is probably overstated because some refugees with an education from abroad are included in the missing category. The employment rate of the group with missing education rises to 70% for men after eight years.

Norway and Sweden start out at similar levels; then, Norway surpasses Sweden after 2–3 years, and Sweden surpasses Norway the eight years of analysis. One plausible explanation is that Norway's overall better employment rates are driven by the relative success in integrating participants with lower education levels, who constitute a large majority of the participants. Although subject to high insecurities, the Danish trajectories indicate that the lower long-term employment rates could be partly driven by the declining results for participants with higher educational levels.

Figure 14: Estimated employment trajectories for women, years since settlement, by education



As noted in 6.3.1 above, Norway has substantially better estimated employment rates than Sweden and Denmark for women. However, Figure 14 shows interesting relative differences between education levels on arrival. Norway does substantially better for all three categories compared to Denmark. In a supplementary analysis, we find that the employment rate for those with missing information on education only rises to 37% after eight years in Denmark. The low employment rate does not seem to be due to misreporting of education, as may be the case for men. For Sweden on the other hand, even though estimated employment levels are also far below those in Norway for the refugees with primary education, the results are substantially better for women who have secondary and tertiary education levels at arrival, indicating that Sweden may be relatively better than Denmark at exploiting existing education to improve labour market integration.

6.4 Do differences in refugee characteristics explain the employment gaps between countries?

In this section we examine whether the documented differences in the refugee's characteristics across the countries are sufficiently large to explain differences in employment levels between the three countries.

We explore this predicting the change in employment that would occur if refugees in one country were similar to those in another country in terms of observed characteristics[16]. This comparison depends upon which country the refugees are staying in, i.e. from which set estimated of employment coefficients the change is predicted. The country from which the comparison is made is the *reference country*.

Using the estimated coefficients presented in Chapter 6.2, we focus on the characteristics of the refugees. The results for women are presented in Table 9, which shows the ppt change in employment levels, when changing the given characteristic.

The first column compares Norway and Denmark, with Norway as reference country. It shows the employment change we would expect if female refugees in Norway

[16] This corresponds to the explained part in a Oaxaca decomposition (Oaxaca 1973; Blinder 1973)

had the same characteristics as female refugees in Denmark. We see, for instance, that employment would be 0.02 ppt lower if Norway had the same share of refugees aged 26 to 35 at settlement as in Denmark.[17] The total expected change for groups of covariates is shown in italics; this is simply the sum of the changes from the individual characteristics within the group (the sum is not, unlike the case of individual coefficients, dependent on the chosen reference group). For instance, if Norwegian refugees had the same age distribution at settlement as in Denmark, the expected employment change in Norway would be -0.02 ppts. This is similar to the coefficient for the 25–36 age-group, because in the other age-groups cancel each other out.

Examining all characteristics in a similar way, we find that the characteristic that induces the largest change in employment is whether one is married or not. If the same high share of Norwegian female refugees were married at settlement as in Denmark, employment could be expected to fall by 3.54 ppts, because marital status is negatively associated with employment. Employment would change by approx. one ppt if the distribution of country of birth and type of residence permit were the same as in Denmark, but in the opposite directions. In total, if female refugees in Norway had the same mean level in characteristics as the female refugees in Denmark, we would expect employment to be 3.59 ppts lower in Norway.

Also the next column compares female refugees in Denmark and Norway, now from the Danish perspective. We see that the employment level of female refugees in Denmark would rise by 1.51 ppts if they had the same characteristics as female refugees in Norway. Marital status remains the most important variable, but the association between marital status and employment is stronger in Norway than in Denmark.

The third and fourth columns compare female refugees in Sweden and Norway. The third column shows that employment would be 2.6 ppts higher for Swedish female refugees if they had the same characteristics as female refugees in Norway. As above, marital status at settlement is the primary reason for the change, but the distribution of country of birth adds a further 1.67 ppts to the employment gap, due particularly to the larger share from Eritrea in Sweden. On the other hand, education levels are better for Swedish refugees (for those where it can be observed), and therefore narrows the gap. Concerning Norwegian refugees, employment could be expected to be almost 7 ppts lower if they had the same characteristics as female refugees in Sweden. Also here, marital status and country of birth add to, as do the distribution of age at settlement and type of residence permit. There are large differences in the group above 46 years of age, and those with subsidiary protection in Sweden and Norway. Because these characteristics are 'penalized' more (larger negative regression coefficients) in Norway than in Sweden, they add to the employment gap as regards Norway, but less so for Sweden.

[17] The result arises because the share in the group is 2 percentage points greater in Denmark than in Norway, and the estimated coefficient to being 26–35 years old is -0.01 in Norway, compared to the reference group. Therefore, employment is expected to fall when the share in this group rises; when it rises to the level as in Denmark the expected change in employment is -0.01*2 = -0.02 percentage points.

Finally, we would not expect employment to change by more than a few percentage points if female refugees in Denmark and Sweden swapped characteristics. The change would be greater in Denmark: an expected 1.9 ppt drop. With the exception of education, the differences all favour Danish refugees. As education emerges as more advantageous in Sweden than in Denmark, the negative effect of other characteristics is countered to a higher extent in Sweden: the employment change would be only 0.7 ppts if Swedish female refugees had the same characteristics as Danish refugees.

Table 9: Employment change for changes in refugee characteristics, women, percentage points (ppt)

Change in: **to characteristics in:**	**NO** **DK**	**DK** **NO**	**SE** **NO**	**NO** **SE**	**DK** **SE**	**SE** **DK**
Age at settlement	*-0.02*	*-0.05*	*0.28*	*-0.91*	*-0.42*	*0.28*
26–35	-0.02	-0.05	0.01	0.03	-0.15	0.01
36–45	-0.03	0.01	0.08	-0.18	-0.04	0.06
46–55	0.03	-0.01	0.19	-0.77	-0.23	0.20
Age in the year of observation	*-0.29*	*-0.32*	*0.18*	*0.05*	*-0.47*	*0.35*
26–35	-0.05	-0.02	0.02	-0.06	0.00	0.00
36–45	-0.26	-0.17	-0.01	0.13	-0.25	-0.02
46–55	0.02	-0.13	0.17	-0.02	-0.23	0.37
Children and marriage	*-3.61*	*1.19*	*2.00*	*-3.26*	*0.18*	*-0.24*
Children 0–6 years	-0.08	-0.02	0.08	-0.17	0.03	0.04
Married	-3.54	1.21	1.93	-3.09	0.15	-0.28
Education	*0.42*	*-0.19*	*-2.48*	*1.32*	*0.40*	*-1.64*
Upper secondary	0.20	-0.08	-1.15	0.77	0.23	-0.85
University	0.22	-0.12	-1.33	0.55	0.17	-0.79
Country of birth	*1.18*	*0.38*	*1.67*	*-2.46*	*-1.23*	*1.46*
Afghanistan	0.04	0.00	0.07	-0.05	0.00	0.12
Eritrea	-2.77	0.00	0.99	-1.76	0.40	-0.57
Iran	0.41	1.08	0.05	-0.06	-0.22	0.41
Somalia	0.91	-0.20	-0.03	-0.08	0.02	-0.33
Syria	1.69	0.02	-0.30	0.79	-0.28	0.34
Other	0.90	-0.52	0.88	-1.30	-1.14	1.49
Reason for being granted residence permit	*-1.26*	*0.50*	*0.94*	*-1.49*	*-0.37*	*0.49*
Resettled	0.15	0.00	-0.15	0.25	-0.02	-0.06
Subsidiary protection	-0.83	0.03	1.12	-1.50	-0.38	0.50
Family reunification	-0.59	0.47	-0.03	-0.24	0.04	0.04
Joint	-3.59	1.51	2.60	-6.75	-1.91	0.70

Note: Note: Each number shows the explained employment difference when changing mean characteristic: $\beta_j(\bar{X}_j - \bar{X}_k)$, where β_j is the OLS estimate in country *j* of a characteristic with mean $\bar{X}_j$, and $\bar{X}_k$ is the mean in country *k*. The numbers are based on the regression in Chapter 6, and gender-specific mean characteristics.

From Table 10, showing the results for male refugees, we should expect at most around a 2 percentage point (ppt) change in employment if male refugees in Norway and Denmark swapped characteristics. There are relatively large differences in country of origin

between male refugees in Denmark and Norway, so we would expect Norwegian male refugees to have 2.4 ppt. higher employment if they were from the same countries as male refugees in Denmark. But the impact is countered by differences in other characteristics, like fewer with family residence permit and lower age in Denmark.

The characteristics of male refugees also explain at most 1.29 ppts of the differences in employment between male refugees in Sweden and Norway. There are differences between refugees that would alter employment by a few percentage points, such as a higher share granted subsidiary protection in Sweden than in Norway (who do not do well in terms of employment, relatively speaking), but it is countered by higher shares of Swedish refugees coming from Syria (who do well relatively in both countries), and more being better educated (at least for those for whom there is information on education).

Finally, we would expect employment to decrease by 4.6 ppt in Denmark if make refugees had the same characteristics as Swedish male refugees, and likewise to increase in Sweden if they had the same characteristics as male Danish refugees. The reason lies mainly in the country of birth of refugees and age at settlement, with larger shares in Denmark from Iran and Syria, and larger shares being less than 35 years old at settlement – groups that do relatively well in terms of employment in both countries.

In sum, observed characteristics may change the employment level for female refugees in Norway, compared to Sweden by nearly 7 ppt (implying lower employment in Norway). This means that a relatively large part of the difference – but far from all – in the higher employment level in Norway presented in Chapter 5.2 can be explained by differences in observed characteristics. Further, employment for male refugees in Sweden would show a nearly 5 ppt increase if they had the same characteristics as refugees in Denmark. But for other pairwise comparisons the characteristics are expected to alter employment levels by only 1 to 3 percentage points, which in some cases is likely to be within the margin of statistical uncertainty.

Table 10: Employment change for changes in characteristics, men, percentage points (ppt)

Change in:	NO	DK	SE	NO	DK	SE
to characteristics in:	DK	NO	NO	SE	SE	DK
Age at settlement	*-0.09*	*0.10*	*0.53*	*-1.12*	*-1.57*	*0.46*
26–35	0.03	-0.02	-0.13	0.11	0.07	-0.10
36–45	-0.12	0.12	0.38	-0.45	-0.34	0.28
46–55	0.00	0.00	0.28	-0.79	-1.30	0.28
Age in the year of observation	*-0.22*	*-0.99*	*0.55*	*-0.22*	*-1.56*	*0.97*
26–35	-0.25	-0.18	0.07	-0.18	-0.05	-0.03
36–45	-0.23	-0.39	0.03	0.19	-0.72	0.07
46–55	0.26	-0.41	0.44	-0.23	-0.79	0.93
Children and marriage	*0.62*	*0.41*	*-0.17*	*0.75*	*-0.43*	*-0.12*
Children 0–6 years	0.15	-0.02	-0.03	-0.13	-0.05	-0.06
Married	0.47	0.43	-0.14	0.89	-0.38	-0.07
Education	*0.18*	*-0.05*	*-1.50*	*1.46*	*0.78*	*-1.32*
Upper secondary education	0.22	-0.08	-0.88	0.88	0.25	-0.66
University	-0.04	0.03	-0.62	0.58	0.53	-0.66
Country of birth	*2.37*	*-2.04*	*0.51*	*-0.43*	*-1.43*	*2.60*
Afghanistan	0.34	-0.10	0.20	-0.28	-0.18	0.44
Eritrea	-1.94	0.01	1.07	-1.55	0.00	-0.27
Iran	0.68	0.19	-0.06	0.05	0.18	0.73
Somalia	0.27	-0.81	0.02	-0.03	-0.90	0.20
Syria	3.09	-1.33	-1.34	1.80	-0.56	0.97
Other	-0.06	-0.01	0.62	-0.42	0.03	0.53
Reason for being granted a permit	*-0.50*	*0.55*	*1.37*	*-1.06*	*-0.41*	*0.84*
Resettled	0.08	0.01	-0.15	0.19	-0.02	-0.09
Subsidiary protection	-0.50	0.40	1.55	-1.36	-0.69	0.98
Family reunification	-0.08	0.13	-0.03	0.10	0.30	-0.06
Joint	2.35	-2.03	1.29	-0.63	-4.62	3.42

Note: Each number shows the explained employment difference when changing mean characteristic: $\beta_j(\bar{X}_j - \bar{X}_k)$, where β_j is the OLS estimate in country *j* of a characteristic with mean $\bar{X}_j$, and $\bar{X}_k$ is the mean in country *k*. The numbers are based on the regression in Chapter 6, and gender-specific mean characteristics.

Summarizing discussion

Our analyses reveal that Norway has substantially better results for women than Denmark and Sweden, both in absolute numbers and relatively, regarding the male/female employment gap. This gap is substantially lower in Norway than in Sweden and particularly in Denmark.

We have explored three main sources of variation that may explain differences across countries: Characteristics of refugees, initial settlement patterns and trajectories with time since settlement. Initial settlement patterns are further discussed in Chapter 7, so we turn to the first and third here.

One interesting finding is that in Denmark there are only minor or insignificant differences regarding country of origin, whereas Norway and Sweden have large differences. We have also found substantial differences regarding age and marital status at settlement, type of residence permit and education levels on arrival.

The observed refugee characteristics explain nearly seven percentage points of the employment gap between women in Norway and Sweden. This is considerable, but far from the differences that emerge, particularly after some time in the country. We also found that employment of male refugees would increase by nearly five percentage points in Sweden if they had the same characteristics as refugees in Denmark. This corresponds to the overall observed differences. For other pairwise comparisons the characteristics are expected to alter employment levels by only 1–3 percentage points, which in some cases is likely to fall within the margin of statistical uncertainty.

There are however important differences as to how integration into the labour market evolves with time in the country, across gender, age and education. Concerning age on arrival, Denmark has the best results for men aged 20–25, Norway has the best results for the two middle age-groups (26–35 and 36–45), and Sweden has better results for those aged 46–55. Norway's substantially better results for women is reflected in their doing better for the three youngest age-groups; however, similarly to male participants, Sweden also does better for female participants who were aged 46–55 years on arrival. Concerning education on arrival, Sweden has greater employment differences between refugees with different education levels; further, the gap between Norway and Sweden is less for participants with higher education levels on arrival. Denmark has a declining employment rate for the highly educated over time; but, at least for men, this might be due partly to selected measurement of education. It appears that the returns for employment may be higher in Sweden than in the other two countries.

Additionally, Sweden also has substantially higher probabilities for education enrolment for those with higher education on arrival (see Tables 7 and 8). These findings could indicate that Sweden is better at getting participants with higher education on arrival to get complementary education, which has been shown to have a positive effect on employment (Bratsberg et al. 2017; Arendt 2018).

7. Measures in the integration programmes

This chapter will document to what extent the three countries use different measures in the integration programs, and analyse how the different program measures relates to employment and education outcomes. As noted in Chapter 3, the three countries operate with different categories in classifying programme measures, which complicates cross-national comparison. However, there are three categories that are similar in all countries: *language training, regular education* and *subsidized employment*. We first present an overview of the use of programme measures in each country, and discuss differences between the countries. Then we present regression analyses of how the programme measures affect employment outcomes in each country, before comparing them cross-nationally.

7.1 Descriptive analyses of programme measures

In this section, we analyse differences in the participation of different programme measures within the first three years after settlement. For each country, we first present the development over time, focusing on differences between cohorts[18]. Second, to explore if there are differences in how often the measures are used for different groups, we present simple (uncontrolled) correlations between measures and selected background characteristics that are particularly relevant when comparing the countries' programme policies and implementation of these policies, including gender, age, family status, education levels and region of residence. Lastly, we summarize cross-country differences and discuss if different national policies may explain differing usage of programme measures.

As we use data from 2016, all figures for the 2016 cohort refer to activities during the participants' first year in the programme, and for the 2015 cohort, the first two years. For these cohorts the share might be lower compared to previous cohorts, but this will be commented on in each analysis. It should also be noted that the same person could have several different activities included in his/her individualized integration plans: the measures are not mutually exclusive.

[18] As an outset, we focus on any use or no use. We acknowledge that there may be differences that such analyses do not uncover, and that e.g. the amount or timing of use may matter. This is left for future research.

Table 11: Participation in different types of programme measures within the first three years after settlement, cohorts 2008–2016, DENMARK

	2008–2009	2010–2011	2012–2013	2014–2015	2016	Total
Language training	86	91	94	96	93	93
Higher regular education*	4	3	3	1	.	2
Lower regular education**	5	4	4	2	1	2,1
Subsidized employment	17	16	12	16	13	14
Internship	48	60	57	69	61	62
Other labour-market programmes	86	87	71	33	21	40
Other training	10	21	65	88,6	81,8	73,3

Note: The variables indicate if an individual has participated in an activity at any point in time during the first three years in the country. Note that for the two last cohorts this will be equivalent to having participated during their first (cohort 2016) and first and second year (cohort 2015).
*ISCED >2, **ISCED >1.

7.1.1 Programme measures in Denmark

Table 11 shows the shares who participate in specific measures in the Danish integration programme. Regarding language training the share is rather stable over time, at 86–96%, whereas participation in subsidized employment varies between 12–17%. Participation in regular education is rather stable for the 2008–2013 cohorts (between 7% and 9% combined), but there is a decline for the 2014–2016 cohorts. If this is caused by a change in usage or caused by the shorter analysis period for the 2015 and 2016 cohorts is unknown. The most significant changes in participation patterns concern the share who participate in other labour-market programmes: this drops from 71% in 2012–13 to 33% in 2014–15, and other training, which increased from 21% in 2010–11 to 65% in 2012–13. This shift is probably due in part to changes in registration practice, as other training programmes were recorded separately only from 2011. If participation in other training takes place in the first or second year, it is recorded separately only to a limited extent for cohorts who settled before 2013. During the same years, the share participating in internships rises from 57% to 69%. This is probably related to the change in focus that which led to the new Danish integration programme implemented in July 2016. Further, Denmark does not have a substantial decline for the 2016 cohort (only for regular education), although measures are registered only during the first year.

Table 12: Participation in different types of programme measures for different groups, cohorts 2008–2016, DENMARK.

	Language training	Higher regular education*	Lower regular education**	Subsidized employment	Internship	Other labour-market programmes	Other training
Women	92	1	1	5	46	39	70
Men	94	2	2	20	73	41	75
Age at migration							
20–25	94	3	4	15	61	43	72
26–35	94	2	1	15	66	38	75
36–45	92	1	0	12	62	38	74
46–55	87	0	0	6	45	36	72
Not married	94	3	4	17	66	43	74
Married	93	1	1	12	60	38	73
No children =<6 years	94	2	1	10	53	40	70
Children =<6 years	93	2	2	15	64	40	74
Level of education							
Primary education	96	1	1	16	68	39	76
Secondary education	96	1	1	17	68	37	77
Tertiary education	91	2	2	16	64	39	69
Region of residence							
Copenhagen metropolitan area	88	3	2	20	56	42	61
Other large cities	95	2	2	11	62	33	79
Cities	94	2	2	12	63	44	71
Towns	94	1	2	18	63	35	78
Rural/remote areas	93	2	2	16	64	40	76

Note: *ISCED >2, **ISCED >1.

Table 12 splits Danish participation patterns by different subgroups. We find substantial gender differences in participation patterns, with men far more likely to participate in subsidized employment and internships than are women. A similar, but less pronounced, pattern is seen across age, family composition and residence permit type: Persons aged more than 46, married persons and those without small children participate less in these on-the-job activities.

There are relatively limited differences in who participating in language training. For all types of activities we find a fairly even spread across education and first region of residence[19]. One plausible explanation for the few differences regarding the region of first residence is that Danish legislation regulating the integration programme is much more specific as to which measures should be applied for different groups than the case in Norway and Sweden.

[19] An exception is that those for whom information on education is missing participate more in regular education, but this is due to the scheme regarding education from abroad, as noted in section XX.

Finally, enrolment in regular education, which is not necessarily a part of the integration programme, is far more common among the unmarried, the young, and people with small children.

7.1.2 *Programme measures in Norway*

Table 13: Participation in different types of programme measures within the first three years after settlement, cohorts 2008–2016, NORWAY

	2008–2009	2010–2011	2012–2013	2014–2015	2016	Total
Language training	98	97	96	97	95	96
Regular education	8	18	31	26	10	19
Subsidized employment	15	13	15	11	3	11
Work Practice [c]	24	28	30	23	7	22
Language practice	54	55	51	47	24	46
Course by municipality	78	78	80	69	0	60
Approval of education	6	5	5	3	0	4
Other measures	40	53	61	44	0	39

Note: The variables indicate if an individual has participated in an activity at any point in time during the first three years in the country. Note that for the two last cohorts this will be equivalent to having participated during their first (cohort 2016) and first and second year (cohort 2015).

Table 13 shows the share who participate in specific measures in the Norwegian integration programme. Almost all participants take language courses during the first years in the programme during the period analysed here. Compared to earlier cohorts, the 2016 cohort have an almost similar share of participants that have taken language courses, which indicates that language courses start in the first year of the programme for most participants. For the other measures, the 2014–2015 cohorts and particularly the 2016 cohort have relatively lower levels, which could indicate that these measures normally come later in the programme period, and are therefore not registered in our data, which includes measures only until 2016.

Focusing on the development for the cohorts who has had the possibility to participate during at least two years, we find relative stability in the shares who participated in subsidized employment (13–15%), language practice (51–55%), courses by the municipalities (78–80%) and approval of education (5–6%). Other measures have become more common during this period, such as labour market programmes and particularly regular education, which rose from 8 to 31%.

Table 11 shows that the various measures have either stable or increasing numbers (excluding the 2014–2016 cohorts, which have a shorter period of analysis). This trend indicates that instead of one measure replacing another, people are participating in an increasing number of activities during their programme.

Table 14: Participation in different types of programme measures for different groups, cohorts 2008–2016, NORWAY

	Lan-guage	Regular education	(Subsi-dized) em-ployment	Labour-market pro-grammes	Lan-guage practice	Ap-proval of edu-cation	Course provided by munici-pality	Other measures
Women	97	19	8	20	47	3	64	43
Men	96	20	13	23	45	4	57	37
Age at migration								
20–25	97	26	10	20	43	3	58	39
26–35	98	14	12	25	49	4	61	41
36–45	98	8	11	25	52	4	61	39
46–55	98	4	9	21	47	4	63	40
Not married	95	22	10	20	41	3	55	36
Married	98	15	12	25	52	4	67	44
No children =<6 years	96	24	13	24	46	3	62	41
Children =<6 years	96	19	10	22	45	4	65	40
Level of education								
Primary education	98	18	14	29	55	5	71	49
Secondary education	98	10	15	29	49	13	65	42
Tertiary education	95	20	8	17	37	2	53	35
Region of residence								
Oslo metropolitan area	96	12	13	29	37	3	78	49
Other large cities	93	15	11	21	28	5	67	42
Cities	98	18	7	21	47	3	68	48
Towns	97	24	12	20	54	4	53	35
Rural/remote areas	97	22	12	24	52	3	47	32

Table 14 splits participation patterns by subgroups in Norway. For most measures, there are only minor differences between participation for men and women, but men participate more often in labour market programmes and subsidized employment.

We find few differences between age-groups except for participation in regular education, where the share declines substantially with age. Participants without young children are also more likely to get regular education as part of the programme than those with no children.

The pattern is different across education levels on arrival. Those with primary education participate more in regular education and less in on-the-job activities like subsidized employment and labour-market programmes than those with higher education levels. It is less common to participate in regular education and language practice in Oslo and other large cities compared to less central areas, but the larger cities have a larger share who attend courses provided by the municipalities.

7.1.3 *Programme measures in Sweden*

Table 15: Participation in various types of programme measures within the first three years after settlement, cohorts 2011–2016, SWEDEN

	2011	2012–2013	2014–2015	2016	Total
Language training	97	96	94	62	92
Regular education	21	21	22	4	20
Subsidized employment	25	34	32	7	29
Labour-market preparatory courses[c]	78	77	79	50	75
Labour market programmes[d]	88	88	89	58	85
Civic orientation	49	45	44	27	43
Hindrance[e]	23	29	27	8	25

c Labour market preparatory courses include for example social activities, validation and job search activities.
d Labour market programmes include for example, preparatory education (FUB), work practice and labour market training
e Hindrance means that the individual is temporarily prevented from participating in other activities due to, for example, parental leave.

Table 15 shows the shares who participate in specific measures in the Swedish integration programme. Because we use data from 2016, all figures for the 2016 cohort refer to activities during their first year in the programme, and that explains the lower relative attendance in all activities.

For the cohorts that have had the possibility to participate during at least two years, we find no differences, except for the subsidized employment. Almost all participate in language training, whereas less than half have participated in civic orientation. Close to 90% have participated in some type of 'labour market programme' (*arbetsmarknadspolitiskt programme*). This broad programme includes 'preparatory education' (*förberedande och orienterande utbildning – FUB*) which is the single most-used programme for newly arrived immigrants. Labour-market programmes also include work practice and labour market training, but only a smaller share of immigrants take part in this within the integration programme (see Arbetsförmedlingen 2018a). Around 30% of participants have had some form of subsidized employment. The share who have participated in regular education is stable between cohorts at around 20%. Within the Swedish integration programmes, there is a special type of code if an individual has an integration plan but temporarily are prevented from participating in any activities. This could be, for example, due to parental leave or sickness absence. The average share is between 23 and 29%, but it is much more common that women are prevented from participating.

Table 16: Participation in different types of activities/measures/programmes within the integration programme for different groups, cohorts 2011–2016, SWEDEN

	Language training	Regular Education	Subsidized employment	Civic orientation	Labour market programme	Labour market preparatory courses
Women	92	20	16	43	83	75
Men	92	20	38	43	87	75
Age at migration						
20–25	90	28	33	43	85	73
26–35	91	21	32	42	85	74
36–45	93	16	25	43	86	77
46–55	93	10	18	46	86	79
Not married	91	24	36	42	85	75
Married	92	16	24	44	85	75
No children =<6 years	92	21	32	43	86	75
Children =<6 years	91	17	21	42	84	75
Level of education						
Primary education	92	8	26	44	86	76
Secondary education	93	21	31	44	87	75
Tertiary education	91	34	31	41	83	74
Region of residence						
Stockholm metropolitan area	93	23	45	37	74	76
Other large cities	89	17	29	47	85	75
Cities	91	20	26	44	86	76
Towns	93	19	25	42	88	75
Rural/remote areas	92	18	27	44	90	74

Table 16 splits participation patterns by subgroups. We see that men have subsidized employment to a much larger extent than women, 38% compared to 16%, and that younger age-groups participate more often the older participants, and that those who are not married and have no children participate more often. We do not find large differences according to level of education, although participation is slightly less common in the group with primary education.

In general, we see very few differences between different groups as regards the use of language training, civic orientation, labour market programmes and labour market preparatory courses. One exception: newly arrived refugees living in the Stockholm metropolitan area participate in civic orientation as well as labour market programmes to a lesser extent than those living in other regions. On the other hand, subsidized employment and regular education appear more common in the Stockholm region. Whether this is a consequence of choices made by PES caseworkers, or can be explained by differences in the composition of the immigrant groups, is not evident here.

There are also some differences in the participation rate in regular education; younger and non-married participants and participants without young children participate to a greater extent, and participation rates are much higher among those who

have university education. For this group, it seems likely that this involves some form of complementary education within the Swedish educational system.

7.1.4 Comparative analysis of participation in programme measures

As mentioned, the three countries operate with different categorizations for measures in the programme, which hinders a comparison of all measures; however, they all distinguish between three similar measures: regular education, subsidized employment and language courses.

There are substantial differences between the countries concerning the usage of regular education in the programs. In Denmark, only 7-9 % participate in regular education (in the education system, with public student grants), as this is only rarely offered as part of the integration program. Instead, they may be offered education as an active labour market program, but we cannot separate the use of such measures in the Danish data. In Sweden, just over 20% of the participants have attended regular education as part of the programme since 2011, while in Norway, regular education has gone from being a rarely used measure to being used by over 30% of the participants. Otherwise, there are mostly the same patterns across countries concerning who participates in regular education, except for participants with different educational levels on arrival. While there is a larger share of persons with higher education levels on arrival who participate in regular education in Denmark and Sweden, the opposite pattern in apparent in Norway. One problem with this category is that, in Sweden and Norway, the datasets do not distinguish between different levels of education for all years (as is the case in the Danish data). In Norway, the dataset does provide this separation for 2016: we see that only 16% of those who got regular education in connection with the programme were enrolled in education levels equal to ISCED 3 and 4, while the rest participated in lower levels equal to primary education. If these figures are representative for the other cohorts, that could explain why 'regular education' as a measure is more common for those with initially lower education levels in Norway. A similar analysis cannot be extracted from the Swedish data, but since 'regular education' as a measure is considerably more common among those with higher education levels on arrival in Sweden, it could indicate that they would participate in higher education levels in the programme. This difference is further discussed in 8.2.1 below.

On January 1, 2018 a so-called educational obligation (*utbildningsplikt*) was introduced in Sweden. This means that it became possible for case workers at the PES to assign newly arrived in the introduction programme to adult education. The idea is that individuals who are judged to need additional education in order to find a job should apply for education, accept education that is offered and participate in the education that they are assigned to. If the individual does not participate or drop out, there could be sanctions in the form of reduced benefits. The puspose of this obligation is to increase participation in adult education among low educated participants.

There are also large differences between the usage of subsidized employment across countries. In Sweden, about 30% participate in subsidized employment – nearly twice as many as Norwegian and Danish participants, which have between 11% and 17%

participating in subsidized employment. There are minor differences between the other background variables across countries, but in all three countries, men participate in subsidized employment more than women do. This discrepancy is substantially greater in Sweden (men 38% / women 16%) and Denmark (20% / 5%), and lowest in Norway (13% / 8%). This finding is particularly interesting, because it reflects cross-national differences concerning the employment gap between men and women described in Chapter 6.3, Figure 10, where the employment gap is greater in Sweden and particularly Denmark, compared to Norway.

It should be noted that during the studied time period, the so-called Extra jobs (*Extratjänster*) in Sweden had not yet been introduced. This form of subsidized employment was introduced in November 2015 and it has mainly been women who has received this subsidy, hence increasing participation in subsidized employment among women. This subsidy made it possible for employers in the public sector, non-profit organizations and organizations engaged in cultural activities to receive a subsidy to hire a newly arrived immigrant or a person that has been unemployed for a long time. However, In the budget agreement in December 2018, it was decided to cut back on funding to the PES and as a result, the PES decided to stop assigning unemployed to extra jobs effective as from January 1, 2019. (Arbetsförmedlingen 2018b).

A large majority in all three countries attend language courses. There are only minor differences between the cohorts, except for the Swedish 2016 cohort, which had fewer participants who had started language courses.

7.2 Correlation between programme measures and employment outcomes

In this section, we analyse the short-term correlation between participation in different types of programme measures and employment and education enrolment three years after settlement. We present the results for each country separately, before comparing and discussing cross-national similarities and differences.

Since we have information on programme measures starting only from the 2011 cohort in Sweden, and our last year of data is 2016, these regressions are estimated for the 2011, 2012 and 2013 cohort, and outcomes are then measured in 2014, 2015 and 2016. All estimates are from separate regressions where we control for one activity at a time. Hence, we have not accounted for how different activities are combined and interact with each other. We control for the same independent variables as in Tables 5–8, except years since settlement.

Table 17: Correlation between participation in different types of programme measures and employment after three years for the cohorts 2011–2013, Denmark

	Employed		Enrolled in education	
	Women	Men	Women	Men
Language training	0.0691*	0.135***	0.0305	-0.00519
	(0.0378)	(0.0467)	(0.0205)	(0.0235)
Observations	1385	2225	1397	2253
R-squared	0.0571	0.0638	0.0883	0.115
Higher regular education*	0.212**	0.219***	0.425***	0.497***
	(0.0903)	(0.0539)	(0.0956)	(0.0519)
Observations	1385	2225	1397	2253
R-squared	0.063	0.0673	0.174	0.239
Lower regular education*	0.163**	0.167***	0.311***	0.369***
	(0.0769)	(0.0490)	(0.0824)	(0.0468)
Observations	1385	2225	1397	2253
R-squared	0.0610	0,0656	0.146	0.203
Subsidized employment	0.302***	0.233***	0.0244	-0.0139
	(0.0559)	(0.0270)	(0.0252)	(0.0125)
Observations	1385	2225	1397	2253
R-squared	0.101	0.0926	0.0879	0.116
Internships	0.0731***	0.0768***	0.0364***	0.00835
	(0.0182)	(0.0224)	(0.0109)	(0.0117)
Observations	1385	2225	1397	2253
R-squared	0.0663	0.0654	0.0947	0.116
Other labour-market pro-	0.00310	-0.0311	-0.00271	-0.0230
	(0.0203)	(0.0267)	(0.0116)	(0.0143)
Observations	1385	2225	1397	2253
R-squared	0.055	0.0612	0.0872	0.116
Other training	-0.0240	-0.104***	-0.0169	-0.0329***
	(0.0194)	(0.0229)	(0.0126)	(0.0117)
Observations	1385	2225	1397	2253
R-squared	0.0560	0,0691	0.0885	0.118

Note: **:** Each estimate is from a separate regression where YSS=3. The same independent variables as in Table 5 are included, except YSS. Robust standard errors clustered at the individual level in parentheses. *** p<0,01; ** p<0,05; * p<0.1

Table 17 shows that Danish participants in language training have a 7 ppt (women) and 14 ppt (men) higher employment rate than do non-participants. This is a bit surprising, as previous studies have indicated that of language training has poor short-run effects. This may be a case of selection, as those who do not participate in language training are likely to be a special group with other problems besides unemployment.

Male and female participants in subsidized employment have 23 and 30 ppt higher employment rates in the year following the integration programme than those who do not participate in subsidized employment.

Similarly, persons who enrol in regular education have much higher employment and education enrolment rates than those who do not, and this correlation is stronger for those enrolled in higher education levels than those in lower education. The results with education as an outcome reflects that those who enrol in higher education within the integration programme are still enrolled also after the programme.

There are also a 7 ppt differences in employment rates between participants and non-participants in internships for both men and women; men who participate in internships enrol more often in regular education than do non-participants. We find no differences in employment and education between those who participate in other labour market programmes and those who do not, and a negative correlation for those who participate in 'other training'. It should also be noted that the aim of these activities is not to lead directly to employment, but that to prepare participants for other, more work-oriented activities.

Table 18: Correlation between participation in different types of programme measures and employment after three years for the cohorts 2011–2013, Norway

	Employed		Enrolled in education	
	Women	Men	Women	Men
Language training	-0.124***	-0.148***	-0.0904***	-0.0813***
	(0.00803)	(0.00882)	(0.00634)	(0.00690)
Observations	11836	13378	11839	13381
R-squared	0.129	0.0935	0.0983	0.0762
Regular education	-0.0472***	-0.120***	0.0381***	0.0301**
	(0.0127)	(0.0140)	(0.0120)	(0.0124)
Observations	11836	13378	11836	13378
R-squared	0.106	0.0722	0.0897	0.0718
Subsidized employment	0.327***	0.231***	-0.00491	-0.0513***
	(0.0237)	(0.0171)	(0.0170)	(0.0127)
Observations	11836	13378	11836	13378
R-squared	0.129	0.0859	0.129	0.0859
Work practice	0.0358***	-0.0195	-0.00818	-0.0408***
	(0.0129)	(0.0124)	(0.00933)	(0.00880)
Observations	11836	13378	11839	13381
R-squared	0.111	0.0741	0.0818	0.0676
Language practice	-0.0410***	-0.120***	-0.0466***	-0.0672***
	(0.00878)	(0.0104)	(0.00629)	(0.00737)
Observations	11836	13378	11839	13381
R-squared	0.112	0.0828	0.0851	0.0710
Course provided by municipality	-0.00402	-0.0267*	0.0296***	0.0199*
	(0.0118)	(0.0156)	(0.00949)	(0.0119)
Observations	11836	13378	11839	13381
R-squared	0.106	0.0820	0.0818	0.0670
Approval of education	0.00131	-0.118***	0.0273	0.0990**
	(0.0437)	(0.0434)	(0.0382)	(0.0401)
Observations	11836	13378	11839	13381
R-squared	0.110	0.0745	0.0818	0.0670
Other measures	-0.0915***	-0.0878***	-0.0380***	-0.0424***

	(0.00915)	(0.0119)	(0.00711)	(0.00881)
Observations	11836	13378	11839	13381
R-squared	0.117	0.0776	0.0836	0.0678

Note: Each estimate is from a separate regression where YSS=3. The same independent variables as in Table x are included, except YSS. Robust standard errors clustered at the individual level in parentheses. *** p<0,01; ** p<0,05; * p<0.1

Table 18 shows that participation in language training has a strong negative correlation with both employment and education enrolment, with a 12 ppt (women) and 15 ppt (men) difference in employment rates, and 8–9 ppt lower enrolment in education for both genders. This finding is in line with earlier studies that indicate that language training has poor short-run effects. Although smaller, the same negative correlation is also apparent for language practice, where women have 4–5 ppt and men 7–12 ppt lower employment rates and education enrolment than non-participants do.

Turning to education, those who enrol in regular education during the introduction period have lower employment rate than non-participants, 12 ppt for men and 5 ppt for women. However, we note a small positive correlation (3–4 ppt) between participation in regular education during the programme and enrolment in education three years after settlement.

Female and male participants in subsidized employment have 33 and 23 ppt higher employment than those who do not participate in subsidized employment. There is also a positive correlation for work practice for women, with 4 ppt higher employment rates than for non-participants; however, a similar result is not found for men.

For those whose education is formally approved as part of the programme, there is no significant difference on employment probabilities for women, but a positive correlation between education enrolment for women who get their education approved (3 ppt). Male participants whose education is approved actually have 12 ppt lower employment rates than non-participants, however they are more likely to be enrolled in education (10 ppt higher education enrolment) than those whose education has not been formally approved. Those who have participated in courses provided by the municipality have 2–3 ppt higher enrolment in education, but the figure is insignificant or negative for employment. Those who participated in 'other measures' have lower employments rates than non-participants.

Table 19: Correlation between participation in different types of programme measures and employment after three years for the cohorts 2011–2013, SWEDEN

	Employed		Enrolled in education	
	Women	Men	Women	Men
Language training	-0.022	-0.057***	0.048***	-0.032*
	(0.018)	(0.021)	(0.017)	(0.018)
Observations	60,215	63,935	60,215	63,935
R-squared	0.097	0.102	0.131	0.086
Regular education	0.117***	0.067***	0.298***	0.257***
	(0.011)	(0.012)	(0.012)	(0.011)
Observations	54,89	56,991	54,89	56,991
R-squared	0.105	0.105	0.198	0.151
Subsidized employment	0.340***	0.275***	-0.026**	-0.053***

	(0.012)	(0.009)	(0.011)	(0.007)
Observations	54,961	59,569	54,961	59,569
R-squared	0.181	0.168	0.131	0.092
Labour market preparatory courses	-0.035***	-0.051***	-0.010	-0.012
	(0.009)	(0.010)	(0.009)	(0.008)
Observations	58,875	62,347	58,875	62,347
R-squared	0.096	0.104	0.133	0.088
Labour market programme	0.030***	0.009	-0.003	-0.018
	(0.010)	(0.014)	(0.010)	(0.011)
Observations	59,686	63,645	59,686	63,645
R-squared	0.098	0.103	0.132	0.087
Civic orientation	-0.002	-0.023***	0.010	0.005
	(0.007)	(0.009)	(0.008)	(0.007)
Observations	56,254	58,452	56,254	58,452
R-squared	0.092	0.102	0.131	0.087
Hindrance	-0.103***	-0.156***	-0.054***	-0.045***
	(0.008)	(0.013)	(0.009)	(0.010)
Observations	56,103	55,996	56,103	55,996
R-squared	0.102	0.113	0.133	0.090

Note: Each estimate is from a separate regression where YSS=3. The same independent variables as in Table 5 are included, except YSM. Standard errors clustered at the individual level in parentheses. *** p<0.01, ** p<0.05, * p<0.1

For language training, labour market programmes and labour market preparatory education, it is quite difficult to interpret the results (Table 19), since a majority of those in the integration programme participate in these activates at some point (see Table 15). Moreover, the aim of these activities is not to lead directly to employment, but to prepare participants for other, more work-oriented activities.

For subsidized employment, we find a strong positive correlation between having participated and the probability of being employed after three years. This could be caused by a selection of individuals that are more 'job-ready' into these activities already during the introduction period. Interestingly, having had subsidized employment is negatively correlated with enrolment in regular education, although the size of the estimated coefficients is much smaller. Having been enrolled in regular education during the introduction period is also positively correlated with being employed, especially for enrolment in higher education after leaving the integration programme.

Not surprisingly, we find a negative correlation between having been prevented from participating in activities at some point during the introduction period and employment and education.

7.2.1 Discussion of cross-national differences

Interpreting the results for language training is rather difficult, as almost all participants have this included in their programme. Results for the three countries differ: Sweden shows positive effects for women, and negative effects for men; Danish participants in language training have higher employment rates than non-participants, while the converse is apparent in Norway. We do not know why these different results occur, but they

suggest that participants are exempted from language training for different reasons in the three countries.

Another caveat to the analysis, besides the difficulty of analysing the impact of a programme in which almost all participate, is the possibly of 'lock-in' effects from some programmes. This would mean that while in the programme, participants have difficulties in looking for regular employment, so the short-term impact might be negative.

The impact of participating in regular education during the programme period varies. Denmark has a strong correlation between participation in regular education during the programme and employment and enrolment in higher education three years later. Although the estimates are larger for those participating in higher education during the programme, there is also a substantial effect for those participating in lower education. The opposite pattern applies in Norway. While there is a slight positive correlation between participation in regular education during the programme and enrolment in higher education after the programme, there is a negative correlation for employment. Although the majority of those who participate in regular education in the Norwegian programme participate in primary education, the impact diverges from the Danish results. This may reflect a stronger selection into education in Denmark, where very few participate in this measure. Although the Swedish data do not separate between education levels for 'regular education' as a programme measure, the descriptive analysis (Table 16) shows that this measure is more common for those with higher education levels on arrival. Similarly to Denmark, the Swedish regression analysis shows a positive correlation between participation in regular education and employment, particularly for enrolment in higher education after the programme. Combining these insights, we may assume that 'regular education' in Sweden includes more complementary education for those with higher education on arrival (the majority), which could explain why Sweden has better results than Norway. Another potential explanation is that refugees enrol more often in vocational programmes in Denmark, which involve work practice, where they are registered as employed. At least in Denmark, a large share of those registered as being enrolled in education were also registered as being employed (see Figure 1 and 2 in chapter 5).

In all three countries, subsidized employment is the measure with the highest positive effects on employment rates, between 23 and 34 ppt higher than for non-participants, and between 7 and 10 ppt higher for women than for men. Earlier research on the effect of subsidized employment showed that measures which resemble regular employment, such as subsidized employment, are the most effective in terms of transition to employment. This is also found when studying the effect of various interventions for newly arrived refugees and family migrants and foreign-born more specifically (Kvinge and Djuve 2006, Svantesson and Aranki 2006, Clausen et al. 2009, Hardoy and Zhang 2010, Heinesen et al. 2013, Butschek and Walter 2014). Still, as discussed in earlier studies, the positive association between employment and participation in these activities may be due partly to selection: that those selected to receive subsidized employment are those with better prospects of getting employed in the first place. Also, as subsidized employment is also registered as employment, it might reflect that participants continues in subsidized employment after the program, which we know to be

true at least for Sweden. This interpretation is also supported by a sensitivity analysis we conducted, using the Danish health data. This analysis shows that the high estimates are reduced when controlling for participants' health, and that those who do not participate in subsidized employment (or an internship) have nearly twice as many healthcare contacts than those who do (for description of sensitivity analysis, see Appendix 1). However, this 'argument of selection' could be challenged by the Swedish results. Sweden has around twice the share of participants who have subsidized employment as a programme measures compared to Norway and Denmark; still, the estimates for employment rates match Norwegian levels and are actually better than the Danish results. These results indicate that there is a potential for using subsidized employment for a larger share of participants in Norway and Denmark.

Except for medium-sized positive estimates for internships (Denmark), labour market programmes (Sweden) and work practice (Norway), none of the other measures have positive (or significant) estimates for employment rates. However, as mentioned, the aim of these other activities is not necessarily to lead directly to employment, but to prepare participants for other, more work-oriented activities. Thus, these activities are by nature less likely to show short-term results for employment. Here it is important to stress our study's limitation, looking only at short-term results (only three years after settlement) as some measures may have other long-term effects. Card et al. (2018) summarize the results of over 200 recent studies on the effects of various active labour market programmes (ALMP) in a meta-analysis.[20] Even though their results are mainly for general populations, and not refugees, it is worth emphasizing that one of the conclusion is that the impact of programme participation is on average close to zero in the short run but becomes more positive two to three years after completion of the programme. They also conclude that the time profile of average impacts in the post-programme period varies with type of ALMP: job search assistance has similar impacts in both the short and the long run, whereas programmes that emphasize human capital accumulation have small (or even negative) short-term impacts but greater (positive) impacts later.

A sensitivity analysis conducted on our Danish data for older cohorts shows that similar results are found after six years, but that both male and female participants in internship have higher employment rates, and male participants in regular education do not have higher employment rates than non-participants (see Appendix 2). The latter indicates that the association between employment after the programme and education in the programme occurs because individuals enrolled in education are registered as employed, as is the case in many vocational education programmes. This was found in Arendt (2018).

[20] A meta-analysis is a type of analysis where estimates from a large number of individual studies are analysed together and overall conclusions are drawn on the basis of these estimates.

8. Analysis – differing refugee settlement models

The dispersal of refugees to different municipalities within a host country is one of the first policy decisions made during the settlement process. It is an important decision for maximizing integration and economic self-sufficiency, and as a first step toward more comprehensive integration into society (Bansak et al., 2018). Demark, Norway and Sweden have chosen alternative models of refugee settlement that differ on who decides where the refugee should settle: the central government, the municipalities or the refugees themselves. The Danish and Norwegian models both prioritize state/municipally steered settlement, but the Danish models distribute the refugees through central allocation, while the Norwegian model is based on voluntary municipal settlement agreements. The main principle in the Swedish model is individual autonomy. However, as not all refugees manage to find own housing, this model of free settlement in Sweden is combined with municipally assisted settlement through voluntary municipal settlement agreements. This chapter describes and discusses the dispersion of refugees across municipalities as they settle, the pattern of secondary movement in the following years, and the correlation between both initial and secondary settlement patterns and labour market integration outcomes. We define a 'secondary movement' as occurring when the refugee changes residence from the initial municipality of residence to another municipality. At the end of this section we analyse predictors for refugee secondary movement. Who is most likely to move? How does secondary movement of refugees affect integration in the labour market and enrolment in education?

8.1 Initial settlement of refugees

Table 20 shows refugees' domicile by centrality in the year of settlement from 2008 until 2016. The measure of centrality was defined in chapter 3.4.2 and is based on the settlement municipality. When comparing centrality across the three countries it should of course be kept in mind that size of the municipalities differs and the distance to the nearest city is, on average, much smaller in Denmark than in Norway and Sweden. A larger proportion of refugees (16%) are initially settled in the metropolitan area in Stockholm, compared to both Oslo and Copenhagen, with 11% and 8% respectively. The low share who settles in the metropolitan area in Denmark is to be expected because the Danish settlement model account for the number of non-western immigrants already living in the municipalities. The numbers suggest that a similar outcome is obtained in Norway through voluntary agreements with selected municipalities. This difference between Sweden and the other two countries also hold when looking more

broadly at larger urban areas: More than 72 per cent of the refugees settled in cities or the metropolitan area in Sweden, whereas this is only the case for 48-49 percent in Denmark and Norway.

Table 20: Domicile of refugees and family reunified to refugees in Denmark, Norway and Sweden, cohorts 2008–2016 by centrality of settlement municipality, in per cent

Centrality / Country	Denmark	Norway	Sweden
Metropolitan area	8	11	16
Other large cities	20	16	11
Cities	19	22	46
Towns	39	26	18
Rural/remote municipalities	13	25	10
Total	100%	100%	100%

Not surprisingly, the officially-steered settlement policy in Denmark and Norway disperses refugees to all regions of the country and to the least-central municipalities. Norway seems to have the most dispersed refugee settlement of the three Scandinavian countries, with 1 out of 4 refugees initially settled in rural areas. Denmark has an overrepresentation of refugees initially settled in towns (39%) compared with Sweden (18%) and Norway (26%). The Swedish model promotes refugees' agency to settle where they want; in practice that means that refugees in Sweden are much more likely to settle in metropolitan areas than are refugees in Norway or Denmark. Table 2 in Chapter 4 showed that the distribution of initial settlement in urban and rural areas has been rather stable over time, except in Norway, where there has been an increase in settlement in rural and remote municipalities for more recent cohorts, with a parallel decline for Oslo and other large cities.

In the regression analyses in Chapter 6, we included a variable that estimated the correlation between the initial settlement municipality (by centrality) and employment. These estimates are repeated in Table 20 (men) and Table 21 (women) below. In all three countries, male participants who are settled in the capital are most likely to be employed. Interestingly, both Denmark and Norway have an explicit dispersal policy and about half of settlements are in less-urban areas (see Table 18). However, for both these countries, male participants who are settled in towns or rural/remote areas actually have a lower probability of being employed than the other categories, particularly compared to those settled in the capital (the reference category). In Sweden, those who settle in Stockholm region are far more likely to be employed than those who settle elsewhere; however, unlike Norway and Denmark, those who settle in other large cities are actually less likely to be employed than those in less central areas. We find similar patterns for women in Sweden and Denmark, but with lower estimates. However, for Norway the estimates for women settle in rural municipalities are close to zero.

Table 21: Region of residence correlation with employment, 2008–2016, Men (controlled for all variables included (Chapter 6.2.1)

VARIABLES	Denmark	Norway	Sweden
Region of residence: Metropolitan area is reference			
Other large cities	-0.0613***	-0.0447***	-0.143***
	(0.0160)	(0.00919)	(0.005)
Cities	-0.0590***	-0.0559***	-0.128***
	(0.0159)	(0.00847)	(0.004)
Towns	-0.0722***	-0.0704***	-0.126***
	(0.0151)	(0.00827)	(0.004)
Rural/remote municipalities	-0.0806***	-0.0751***	-0.098***
	(0.0165)	(0.00831)	(0.005)

Table 22: Region of residence correlation with employment, 2008–2016, Women (controlled for all variables included table x (Chapter 6.2.1)

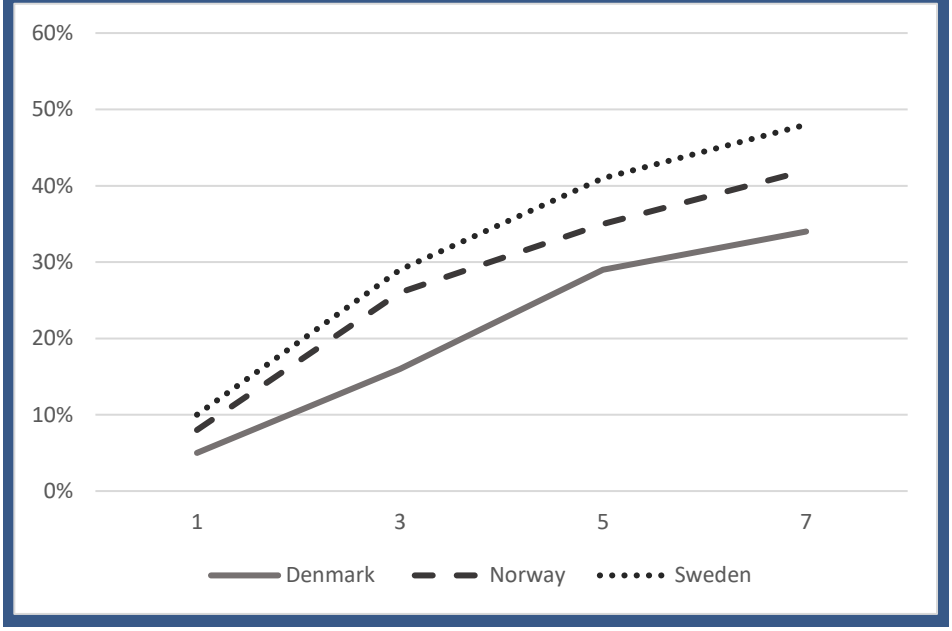
VARIABLES	Denmark	Norway	Sweden
Region of residence: metropolitan area is reference			
Other large cities	-0.0429***	-0.00156	-0.091***
	(0.0139)	(0.00824)	(0.004)
Cities	-0.0436***	-0.0130*	-0.066***
	(0.0139)	(0.00771)	(0.004)
Towns	-0.0633***	-0.00404	-0.055***
	(0.0131)	(0.00773)	(0.004)
Rural/remote municipalities	-0.0721***	-0.0000865	-0.027***
	(0.0144)	(0.00787)	(0.005)

8.2 To stay, or leave?

After initial settlement, refugee are in principle free to move to another municipality. Nevertheless, there are strong economic incentives for them to stay, at least in Denmark and Norway, as long as they receive the introduction benefit as participant in the integration programme. If we look at the two first refugee cohorts (2008/09) in our sample, which we can follow for seven years, we find as expected that that only a few (5–10%) moved in the first year after settlement. After three years in the country, 16% of the refugees in Denmark had moved to another municipality. In Sweden and Norway, there were far more secondary movers (29% and 26%, respectively). After seven years, almost half of the refugees in Sweden had moved from the first municipality where they settled. In Denmark approximately one out of three had moved. Refugees in Norway were more eager to move on compared with refugees in Denmark: 42% of refugees in Norway had moved from their initial domicile after seven years. The difference in re-

settling patterns may to some extent reflect that municipalities are smaller and average distances larger in Norway and Sweden than in Denmark.

Figure 15: Proportion of refugees settled in 2008/2009 who have moved from the municipality first settled, by years since settlement. In per cent



The descriptive statistics in Figure 15 give an overview of the secondary movement of the first two cohorts (2008/09). In this section we explore which predictors are correlated with the probability of refugees resettling after their first domicile. Who are the refugees that tend to stay, and who are the movers? The analysis of determinants for resettlement is presented in Table 19, where the outcome is coded as 1 if the refugee has resettled and zero if he/she stays. The model is specified as a duration model, so individuals are excluded from the analysis after one resettlement. It means that the coefficients are interpreted as the probability of a resettlement given no previous resettlement. The analysis includes the same variables as presented in previous chapters. The analysis has been conducted separately for men and women and includes the same variables as presented in previous chapters. We include years since migration, observation year, age on arrival, age at observation year, family situation (married and/or small children), level of education, country of origin, type of refugee permit granted, centrality of the municipality of settlement, and local unemployment as predictors for resettlement.

The analysis presented in Table 19 shows that years since arrival is a strong predictor of first resettlement in Norway. After the initial two years (years 0 and 1) the probability of resettlement increases rapidly. There is an estimated 25 and 35 ppt higher probability for refugee women and men in Norway to resettle the year after they have completed the initial two years of the introduction programme. The probability falls from

then on but remains high. In Denmark, year since settlement is not such a strong predictor of resettlement, and the degree of resettlement does not evolve as clearly with year since settlement compared with Norway. Resettlement peaks after four years for both men and women, with an estimated 5 and 8 ppt higher resettlement, compared with the year after the end of the integration programme. In Sweden, however, the results show that refugees resettle within the first two years; with increasing duration of residence the probability of resettlement actually decreases. The coefficients for observation year are negative for Denmark and Norway when we compare the observations in 2009 with the following years. In Sweden, the coefficients are small but positive. This indicates that the magnitude of secondary movement is somewhat reduced over time in Denmark and Norway, but not in Sweden.

An interesting result is that refugees with secondary and higher education are more likely to resettle than are lower- skilled refugees with primary education in Denmark and Sweden. In Norway, we find the opposite. Except for refugee women with tertiary education in Norway, higher-skilled refugees are less likely to resettle than are refugees with primary school as the highest completed education. This is an indication of positive selection of secondary movers in Denmark and Sweden, and negative selection in Norway. If refugees are married or have small children, they are more likely to stay in the municipality of first settlement than are refugees without such family ties.

In Norway there is a strong correlation between the centrality of first settlement and the probability of moving. Refugee women and men settled in rural areas have an estimated 12–13 ppt greater probability of moving than refugees settled in metropolitan area. Refugees settled in other cities are also more like to move than those settled in the Oslo area. Also in Denmark and Sweden, refugees settled in more remote areas tend to move, but those settled in towns or cities outside of Stockholm and Copenhagen are less likely to move.

There are notable cross-country differences. In Sweden refugees from Iraq are least likely to move, compared with refugees from Afghanistan, Eritrea, Iran, Somalia, Syria or other countries. In Denmark, on the contrary, refugees from Iraq are one of the groups most likely to move. Only Iranian women move more frequently than refugees from Iraq. In Norway, there are generally small and insignificant differences among different groups of refugees based on their country of origin and the likelihood of moving. Refugees from Afghanistan and Eritrea are the two groups less likely to move.

For the Swedish sample we can differentiate between refugees who have found their own domicile (EBO) and those who have been assisted by the state to find a place to stay (ABO). Since the Swedish settlement model also include this assisted settlement (ABO), it can be considered a hybrid model with an element of officially steered settlement combined with individual agency. As expected, the analysis indicates that EBO, who decided initially for themselves where to live, are less likely to move after settlement than are refugees who have been assisted with settlement

We also see that, in all three countries, the local unemployment rate has a significant effect on the probability for refugees to move. In Denmark and Norway, refugees settled in municipalities with relatively higher unemployment rates are more likely to move than are refugees settled in areas with more favourable labour market conditions.

In Sweden we find the opposite: refugees settled in areas with higher unemployment rates are less likely to move. This finding we will discuss in the next section where we analysis the association between secondary movement and the probability of being employed or in education. Do refugees who move from their first municipality of settlement have better chances of getting a job or continuing their education?

Table 23: Determinants of first resettlement

	Denmark		Norway		Sweden	
VARIABLES	Women	Men	Women	Men	Women	Men
Years since settlement: 1 is reference						
2	0.005	0.012***	0.249***	0.350***	-0.040***	-0.061***
	(0.004)	(0.004)	(0.00436)	(0.00413)	(0.002)	(0.002)
3	0.035***	0.053***	0.133***	0.189***	-0.059***	-0.073***
	(0.006)	(0.006)	(0.00406)	(0.00423)	(0.002)	(0.003)
4	0.053***	0.080***	0.124***	0.150***	-0.065***	-0.083***
	(0.008)	(0.008)	(0.00432)	(0.00444)	(0.003)	(0.003)
5	0.036***	0.060***	0.131***	0.143***	-0.067***	-0.091***
	(0.009)	(0.009)	(0.00493)	(0.00497)	(0.003)	(0.003)
6	0.006	0.039***	0.127***	0.133***	-0.070***	-0.092***
	(0.008)	(0.010)	(0.00548)	(0.00561)	(0.003)	(0.004)
7	0.026**	0.045***	0.119***	0.123***	-0.063***	-0.094***
	(0.012)	(0.012)	(0.00613)	(0.00655)	(0.004)	(0.004)
8	0.007	0.037***	0.111***	0.0849***	-0.070***	-0.086***
	(0.014)	(0.014)	(0.00747)	(0.00785)	(0.004)	(0.005)
Year of observation: 2009 is reference						
2010	-0.024	-0.006	-0.0632***	-0.0829***	0.009	0.022***
	(0.016)	(0.017)	(0.00434)	(0.00500)	(0.006)	(0.006)
2011	-0.018	-0.030**	-0.0617***	-0.0818***	0.015***	0.011*
	(0.016)	(0.015)	(0.00366)	(0.00418)	(0.005)	(0.006)
2012	-0.030**	-0.034**	-0.0507***	-0.0715***	0.026***	0.023***
	(0.015)	(0.014)	(0.00339)	(0.00397)	(0.005)	(0.006)
2013	-0.029**	-0.033**	-0.0351***	-0.0425***	0.020***	0.024***
	(0.015)	(0.014)	(0.00311)	(0.00341)	(0.005)	(0.006)
2014	-0.015	-0.023	-0.0219***	-0.0368***	0.013**	0.019***
	(0.014)	(0.014)	(0.00341)	(0.00355)	(0.005)	(0.006)
2015	-0.015	-0.006	-0.0115***	-0.0183***	0.008	0.019***
	(0.014)	(0.014)	(0.00375)	(0.00389)	(0.005)	(0.006)
2016	-0.007	-0.017	-0.0113***	0.0299***	0.000	0.003
	(0.014)	(0.014)	(0.00387)	(0.00403)	(0.005)	(0.006)
Age at entry: 20–25 is reference						
26–35	-0.002	-0.019***	-0.00477	0.00526	-0.008***	-0.003
	(0.007)	(0.007)	(0.00377)	(0.00459)	(0.003)	(0.003)

36–45	0.001	-0.015	0.0000503	0.0122*	-0.020***	-0.010**
	(0.010)	(0.009)	(0.00591)	(0.00700)	(0.004)	(0.004)
46–55	0.010	-0.038***	0.00188	0.0138	-0.029***	-0.020***
	(0.016)	(0.013)	(0.00916)	(0.0103)	(0.005)	(0.006)
Age in the year of observation: 20–25						
26–35	-0.010	-0.010	-0.00477	0.00526	-0.011***	-0.002
	(0.007)	(0.007)	(0.00377)	(0.00459)	(0.003)	(0.004)
36–45	-0.022**	-0.021**	0.0000503	0.0122*	-0.017***	-0.016***
	(0.010)	(0.009)	(0.00591)	(0.00700)	(0.004)	(0.005)
46–55	-0.034**	-0.013	0.00188	0.0138	-0.019***	-0.027***
	(0.016)	(0.013)	(0.00916)	(0.0103)	(0.006)	(0.006)
Children 0–6 years	-0.006*	-0.009**	-0.00392	-0.0205***	-0.018***	-0.030***
	(0.004)	(0.004)	(0.00449)	(0.00524)	(0.002)	(0.002)
Married	-0.027***	-0.020***	-0.0206***	-0.0375***	-0.010***	-0.001
	(0.005)	(0.004)	(0.00635)	(0.00738)	(0.002)	(0.002)
Education: Primary education is reference						
Secondary	0.015**	0.006	-0.0270***	-0.0428***	0.006***	0.005**
	(0.007)	(0.005)	(0.00899)	(0.0103)	(0.002)	(0.002)
Tertiary	0.010*	0.015***	-0.00347	0.0120***	0.021***	0.020***
	(0.005)	(0.005)	(0.00326)	(0.00402)	(0.002)	(0.002)
Missing value	0.004	-0.000	-0.0733***	-0.106***	-0.006**	-0.020***
	(0.004)	(0.004)	(0.00342)	(0.00368)	(0.003)	(0.005)
Country of birth: Iraq is reference						
Afghanistan	0.007	-0.027***	-0.0121**	-0.0180***	0.012***	0.016***
	(0.009)	(0.010)	(0.00480)	(0.00627)	(0.004)	(0.004)
Eritrea	-0.031**	-0.022	-0.0327***	-0.0119**	0.014***	0.016***
	(0.015)	(0.013)	(0.00448)	(0.00492)	(0.003)	(0.004)
Iran	0.027**	0.007	-0.00578	0.00756	0.039***	0.033***
	(0.010)	(0.010)	(0.00605)	(0.00694)	(0.005)	(0.005)
Somalia	-0.032***	-0.040***	-0.00525	-0.000713	0.012***	0.011***
	(0.010)	(0.011)	(0.00451)	(0.00517)	(0.002)	(0.003)
Syria	-0.017**	-0.025***	-0.0116*	-0.000582	0.023***	0.037***
	(0.008)	(0.009)	(0.00644)	(0.00619)	(0.003)	(0.003)
Other countries	-0.021***	-0.043***	-0.0228***	-0.00742*	0.017***	0.022***
	(0.008)	(0.009)	(0.00392)	(0.00447)	(0.003)	(0.003)
Region: Capital area as reference						
Large cities	-0.014**	-0.022***	0.0205***	-0.00172	-0.061***	-0.071***
	(0.006)	(0.007)	(0.00291)	(0.00360)	(0.003)	(0.003)
Cities	-0.007	-0.027***	0.0296***	0.0359***	-0.046***	-0.058***
	(0.007)	(0.007)	(0.00277)	(0.00358)	(0.003)	(0.003)
Towns	0.011	0.009	0.0811***	0.0922***	-0.004	-0.023***
	(0.006)	(0.007)	(0.00322)	(0.00392)	(0.003)	(0.003)

Rural areas	0.030***	0.030***	0.123***	0.131***	0.015***	0.005
	(0.008)	(0.008)	(0.00388)	(0.00425)	(0.004)	(0.004)
Reasons for being granted a permit: Convention is reference						
UN Quota Status	-0.009	-0.036***	-0.0803***	-0.0821***	-0.034***	-0.027***
	(0.007)	(0.007)	(0.00252)	(0.00275)	(0.005)	(0.006)
Subsidiary protection	0.011*	0.010*	-0.0365***	-0.0309***	-0.026***	-0.022***
	(0.006)	(0.005)	(0.00930)	(0.0102)	(0.005)	(0.005)
Other asylum	-0.001	-0.008			-0.010***	-0.007***
	(0.007)	(0.007)			(0.002)	(0.002)
Family reunification	-0.001	-0.003	-0.0543***	-0.0567***	-0.028***	-0.025***
	(0.005)	(0.008)	(0.00245)	(0.00402)	(0.004)	(0.004)
Resettlement group (Sweden): EBO is reference						
ABO					0.013***	0.010**
					(0.004)	(0.005)
Other (resettled and family					0.006**	0.008***
reunification)					(0.002)	(0.002)
Log(Unemployment)	0.069***	0.116***	0.0160***	0.0167***	-0.027***	-0.062***
	(0.010)	(0.010)	(0.00532)	(0.00561)	(0.004)	(0.005)
Constant	-0.026	-0.064***	0.00792	-0.0258***	0.215***	0.297***
	(0.021)	(0.019)	(0.00780)	(0.00859)	(0.011)	(0.012)
Observations	12,877	18,893	60,25	66,369	132,723	138,389
R-squared	0.031	0.055	0.140	0.214	0.034	0.041

8.3 Do they move for work, or further education?

The pattern of resettlement may vary across countries for several reasons. Refugees in Denmark are allowed to resettle within the integration programme period only if the new host municipality accepts it, and that is likely to depend on the employment situation of the refugee. However, resettlement is also likely to depend on employment opportunities after the integration programme. To explore the association between resettlement, employment and education, we have estimated models similar to those in Chapter 6, with resettlement as explanatory variable. We have excluded the year of settlement and immigrants who settle in 2016, as resettlement cannot occur for these observations. The results are presented in Table 19 with employment, in education or employed or in education as dependent variables. Here we have excluded the other covariates for simplicity but all the other variables are included in the model, to estimate the net effect of resettlement on employment and education.

The main finding shown in Table 19 is that refugees in Norway and Sweden who move are less likely to be employed than those who stay, whereas this is not the case in Denmark. Similar results hold for education. For refugee men in Norway, the estimated employment is almost 10 ppt lower for movers compared with stayers. For refugee

women the estimated employment gap between stayers and movers is 7.5 ppt in favour of women who stay in the municipality where they first settled. The effect of resettlement on employment is negative also in Sweden, but the coefficients are smaller than in Norway for both men and women. In Denmark male refugees who move have an estimated 5.8 ppt higher employment rate than refugees who stay. For female refugees, the effect of resettlement on employment is not significant in Denmark. It should be stressed that the associations are not causal, as they may reflect both an effect of moving on subsequent employment as well as the reverse; the effect on moving from having found a job farther away..

Table 24: Determinants of resettlement on employment and education

	Denmark		Norway		Sweden	
	Women	Men	Women	Men	Women	Men
Employed	-0.001	0.058***	-0.0747***	-0.0952***	-0.016***	-0.023***
	(0.017)	(0.016)	(0.00640)	(0.00576)	(0.004)	(0.004)
Observations	13,674	20,506	68,451	78,634	154,996	163,412
R-squared	0.0856	0.0917	0.187	0.243	0.131	0.152
Education	0.033***	0.047***	-0.00191	-0.00981**	-0.008**	-0.010***
	(0.012)	(0.0098)	(0.00433)	(0.00387)	(0.003)	(0.003)
Observations	13,858	20,778	70,061	80,822	154,996	163,412
R-squared	0.0990	0.0953	0.0903	0.0909	0.101	0.095
Employed or education	0.021	0.096***	-0.0704***	-0.0909***	-0.021***	-0.024***
	(0.018)	(0.015)	(0.00651)	(0.00557)	(0.004)	(0.004)
Observations	13,858	20,778	70,061	80,822	154,996	163,412
R-squared	0.113	0.110	0.226	0.289	0.164	0.149

Note: OLS estimates of the effect of resettlement from separate linear regressions, corresponding to the models in Table X. Robust standard errors in parentheses, * p < 0.1, ** p < 0.05, *** p < 0.01.

The effect of resettlement on education is weaker than for employment in both Sweden and Norway, but the analysis indicates that refugees who move are less inclined to be enrolled in education than are refugees who stay. In Denmark both male and female refugees who move from the initial municipality have an estimated 2-5 percentage point higher probability of being enrolled in education.

8.4 Cross-country differences: discussion

In Chapter 2.3.5 we presented the settlement models in the three Scandinavian countries, and from this analysis we derived two hypotheses to be investigated. First, we expected secondary movement to increase after two or three years in Norway and Denmark, and the first years after the initial settlement in Sweden. This assumption was derived from country-specific settlement policies regulating the right to free movement, concerning initial settlement and concerning the right to move after initial settlement. The latter is connected to being entitled to financial benefits and participation

in the integration programme. In Denmark and Norway, refugees lose those rights if they move before the end of the introduction period: a three-year restriction in Denmark and two years in Norway. Sweden has no such restrictions on movement after initial settlement. Refugees – not only those who self-settle, but also those who have received settlement assistance – will be eligible for financial benefits and participation in the integration programme even if they move to another municipality (Hernes & Tronstad, 2014, p. 53).

The analysis in this chapter partly confirms this hypothesis. The descriptive analysis of the 2008 and 2009 cohorts indicates that secondary movement increases with duration of residence in all three countries. Nevertheless, the multivariate analysis including all cohorts (except those who settle in 2016) reveals, as expected, a steep increase in secondary movement in Norway after completion of the integration programme (which normally lasts for two years). As expected, we found that secondary movement peaks in Denmark three to four years after settlement. However, the effect of duration of residence and secondary movement is not as strong as in Norway. The analysis indicates that refugees in Sweden, as expected in our hypothesis, move more frequently within the first or second year after settlement than do refugees in Norway or Denmark. A likely explanation for this finding might be that the average distances are much smaller in Denmark, and hence the necessity to move smaller.

Secondly, our hypothesis was that where refugees were settled initially could explain why they did not stay, but moved on to other municipalities. This could be related to lack of labour market opportunities locally, and lack of social networks. We expected that the Norwegian and especially Danish settlement models, based on the principle of dispersed settlement, would initially lead to more spread settlement than in Sweden, and that dispersed settlement policy would lead to more secondary movement of refugees in Denmark and Norway. For the Swedish settlement model our expectations were different for refugees who self-settled (EBO) and for those who were settled by public assistance (ABO). With refugees who initially self-settle, it could be expected that they were already settled in a desirable community, and would be less inclined to move. For refugees settled by public assistance, the expectation would be a higher degree of secondary settlement because they had not initially chosen where to live.

The analysis confirms a larger concentration of first settlement in urban areas in Sweden than in Norway and Denmark: A small majority of refugees in Denmark and Norway were settled in rural areas or towns. By contrast, almost three out of four refugees in Sweden settled in predominantly urban areas (metropolitan area, other large cities or cities). Analysis of the determinants for secondary movement confirmed that refugees initially settled in rural and remote areas were far more likely to move, in both Norway and Denmark. In Sweden, there is not such a clear pattern of secondary movement when we compare the centrality of the initial settlement. Nevertheless, we found that refugees settled by public assistance (ABO) were more likely to move than those who self-settled (EBO).

A recent study of domestic migration of immigrants in Norway (Stambøl, 2016) shows that refugees move to regions where they can find people with the same background, unlike labour migrants and Nordic immigrants, who generally move to areas

with fewer other immigrants or Nordic immigrants. In general, immigrants who move between labour market regions have a slightly greater tendency to enter employment and or education than immigrants who do not make such moves (Stambøl, 2016). In our analysis, this seems to be the case for refugees in Denmark. When they move from the municipality of first settlement their employment and enrolment in education increase. For refugees in Norway, but also in Sweden, the probability of employment decreases for refugees who move. As the analyses are descriptive, it may be caused by selection. In Sweden, refugees who are settled in areas with relatively low unemployment rates are more likely to move – in contrast to Denmark or Norway. This indicates that refugees in Sweden are less responsive to regional differences in labour market opportunities than are refugees in Denmark and Norway, as well as labour migrants and Nordic immigrants in general, as found in Stambøl (2016).

9. Hypotheses: discussion

We began this report by presenting three main hypotheses as to why there might be cross-national differences in the employment outcomes for Scandinavian integration programmes. As shown in Chapter 5, we found substantial differences in labour market outcomes between the three countries, between genders and other subgroups, cohorts, and development over time. For male refugees, employment rates are higher in Denmark than in Norway and Sweden after the first few years in the country. After three years, employment rates are 45-46% in Denmark and Norway and 40% in Sweden. After seven years it is highest in Norway and lowest in Denmark. Refugee women have the highest employment rate in Norway in all the years after arrival, and after seven years, 45% of the refugee women are employed in Norway, whereas this is only the case for 35% in Sweden and 27% in Denmark.

Here we combine findings from the previous chapters to discuss possible explanations for these differences in labour market outcomes. This chapter is structured according to the three main hypotheses presented in the introduction: that cross-national differences in labour market integration outcomes are caused partly by differences in 1) the individual characteristics of the refugee population; 2) the use of programme measures; and 3) national policies regulating refugee settlement patterns. Lastly, in discussing each hypothesis, we also note some limitations of our study.

9.1 Different refugee population – different outcomes?

According to the first hypothesis, cross-national differences in labour market integration outcomes are caused partly by differences in the individual characteristics of the countries' refugee population, implying that the countries could initially have refugee populations with different preconditions for rapid labour market integration.

The hypothesis is only partly confirmed. The observed refugee characteristics explain nearly seven percentage points of the employment gap between women in Norway and Sweden. This is considerable, but far from the differences that emerge, particularly after some time in the country. We also found that employment of male refugees would increase by nearly five percentage points in Sweden if they had the same characteristics as refugees in Denmark. This corresponds to the overall observed differences. For other pairwise comparisons the characteristics are expected to alter employment levels by only 1–3 percentage points, which in some cases is likely to fall within the margin of statistical uncertainty. Thus, the Oaxaca decomposition does moderate some of the cross-national differences, but does not explain the entire difference between the national employment outcomes.

A limitation of the findings is that our approach is descriptive, and we have included only a relatively limited set of characteristics. For instance, it could be relevant to have better measures of experience and training from the home country, proficiency in English/ the local language, as well as mental and physical health problems.

9.2 Different usage of programme measure – different outcomes?

According to our second hypothesis, cross-national differences in labour market integration outcomes are caused partly by differences in the countries' usage of different programme measures, both generally and for certain subgroups. Our analysis and earlier studies of programme measures show that two types of measures in particular have positive associations with labour market integration: these are education and subsidized (private) employment (see literature review in Chapter 2.2.4). We find are substantial cross-country differences concerning the usage of these types of measures. It is difficult to know exactly how much of the overall outcomes can be explained by different usage; however, our analyses reveal interesting contexts for why one country has relatively better outcomes for particular subgroups or cohorts than the others do.

9.2.1 Different usage of regular education as a programme measure

Sweden stands out with over 20% attending regular education during the programme. Unfortunately, the Swedish data do not distinguish between types of education levels, so we do not know how large share of the participants get primary or secondary education as part of the programme. However, the descriptive statistics show that participants with higher education levels on arrival get regular education as a programme measures more often than those with primary education on arrival, making it plausible to assume that those participants get supplementary education and not primary levels – but that is a point for further research to confirm. Additionally, slightly more than 20% of the participants in Sweden are enrolled in higher education the first and second year after settlement (Tables 7 and 8). Both these findings indicate that participants in Sweden with higher education levels on arrival get supplementary education in the first years after settlement. This is line with the main findings for employment, where Swedish participants have lower employment rates in the first years after settlement, but catch up or even surpass Norwegian and Danish levels after eight years. A plausible interpretation here could be that the Swedish emphasis on investing in supplementary education in the initial years leads to higher employment levels in the long run. It is stressed that this is our interpretation of the descriptive results, and that further research is needed to confirm the interpretation.

The analysis indicates that supplementary education for those with higher education levels on arrival is less common in Denmark and Norway. The Danish data does not allow us to separate regular education obtained as part of the integration programme,

which is not language training. Therefore, the amount of primary education in the integration program may be slightly underreported in Denmark. In Denmark, fewer participants get regular education during the programme period, and fewer participants are also enrolled in higher education after the programme period than in Norway or Sweden.

In Norway, 'regular education' as a programme measure has been used more often over the years, but unlike Sweden, regular education is more commonly used for participants with primary education levels on arrival. Consequently, most participants get education at primary levels as part of the programme. This could explain why regular education in Norway shows a negative impact on employment three years after settlement, and only a small increase in enrolment in higher education after the programme. However, it is worth noticing that Norwegian participants in regular education with primary education levels have higher estimated employment rates than both Sweden and Denmark from the fourth year after settlement. This could indicate that the investment in primary education does have a positive long-term impact, and should be investigated more closely in future studies. Still, these findings show the limitation of our study's short-term measurement of three years after settlement for programme measures (limited by available data on programme measure in Sweden prior to 2011).

In summary, the findings show that Sweden has invested more in regular education in the integration program period particularly for the refugees with an education from abroad, than have Norway, and particularly than Denmark. Norway, on the other hand, has focused more on educating those with low education levels on arrival. Our findings also show that the employment differences in the longer run correspond to the differences in investments. The results therefore indicate that the higher long-term employment outcomes could be caused partly by the investment in education in Sweden and Norway. These findings and our interpretation of them correspond well with the sub-hypothesis presented in Chapter 2.2.5, based on Karlsdóttir et al. (2017, p. 5), that the Norwegian validation processes have focused more on low-skilled workers, while Sweden has focused more on those with higher qualifications. The Danish integration programme has focused on providing language training supplemented by employment support, focusing on job-search and job-training. Although not included in the current data, this strategy has been even further emphasized in the most recent revision of the integration program in 2016. We lack good data on regular education besides language training, but enrolment in secondary or tertiary regular education is very limited, within and after the integration programme. This might explain why Denmark's employment rates are higher the first years after settlement, whereas less emphasis on upgrading the participants' education levels in the initial years leaves them more vulnerable to labour market fluctuations in the long run.

9.2.2 Different usage of subsidized employment as a programme measure

In line with earlier studies, our analysis shows that subsidized employment has a positive association on labour market outcomes in all three countries. Although the

general usage of this measure cannot explain the overall results in each country, usage could shed light on some of the findings for specific cohorts and subgroups: 1) the relatively low employment gap between men and women in Norway; 2) the relatively high employment rates for young Danish men.

First, one major finding is that Norway has substantially better employment rates for women and a relative low employment gap between men and women, compared to Sweden and (particularly) Denmark (Figure 10). Interestingly, comparative analysis of who participates in the various programme measures shows a parallel pattern for participation in subsidized employment between the genders in all three countries. Norway has the smallest relative gap between men and women participating in the programme, followed by Sweden, and lastly, Denmark. This is in line with the sub-hypothesis expecting that fewer female Danish participants would engage in labour market measures during the programme, compared to female Norwegian and Swedish participants. The sub-hypothesis was based on the policy difference between Denmark and the other two countries concerning the introduction benefit. Norway and Sweden provide a special introductory benefit[21] for each participant regardless of the financial situation of the family as a whole; this has been explicitly justified and promoted as a measure to increase the participation of women in the programme (Hernes & Tronstad, 2014, p. 85). By contrast, participants in Denmark receive means-tested social assistance for the family as a whole; only those who receive social assistance are obliged to participate in employment-related measures. We stress that we have not investigated whether the Swedish and Norwegian introduction benefits are the cause of the cross-national differences in female participation in subsidized employment, but it is worth noticing that the analysis shows that the usage corresponds with that expectation. The counter-productive implications of the family-means income testing and that only social assistance recipients are incentivized to participate in the integration program also highlighted in a recent Danish study of the impact of the previous version of the Danish integration benefits called Start-aid (Andersen, Dustmann & Landersø 2019).

Second, although Denmark has the largest gap between the share of men and women who get subsidized employment (men 20% / women 5%), this also means that a large share of the men, 20%, get subsidized employment as part of the programme. Additionally, the descriptive statistics show that the youngest age-groups get this measure more often than the older ones. These findings could shed light on why Denmark has higher estimated employment levels than Norway and Sweden for young men aged 20–25.

An additional finding is that Sweden has approximately twice as many participants who get subsidized employment as a programme measure than Norway or Denmark. Based on this, we would expect employment levels to be higher in Sweden compared to Norway and Denmark, everything else being equal, but this is not what we see. Due to the positive correlation between having subsidized employment and subsequent

[21] Not to be confused with the *integration benefit* in Denmark, which is a reduced and means-tested social assistance level , in place in some form until 2012, and re-introduced in another form in 2015.

employment, it is possible that employment rates would have been lower in Sweden with a lower usage of subsidized employment.

A potential problem with the data is that a person is registered as 'employed' if he or she has positive earnings. This means that participants who are paid during work practice and participants in subsidized employment are registered as employed. This may to some extent inflate the employment results, particularly in Sweden. An analysis of type of employment, regular or subsidized, after leaving the program using Swedish data indicate that former participants to a fairly large extent have subsidized employment also after the integration programme.

9.3 Different settlement patterns – different outcomes?

According to our third hypothesis, cross-national differences in labour market integration outcomes are caused partly by differences in the national policies regulating refugee settlement patterns. Although our analyses cannot show statistically how much of the difference between the countries' employment outcomes can be attributed to the different settlement models, our analyses show the inherent conflict between the two main goals of Scandinavian settlement policies: 1) dispersed settlement and 2) favourable labour markets.

Our analysis of initial settlement patterns shows that the Swedish settlement model, which gives the refugees the possibility to self-settle anywhere in the country, does lead to more concentrated settlement in more urban (72%) areas compared to the 'steered' settlement models in Norway and Denmark (approx. 50%). Thus, not surprisingly, the Danish and Norwegian settlement models achieve the goal of dispersed settlement better than the Swedish model. However, our analysis of the correlation between first settlement and employment shows that the goal of dispersed settlement and employment chances may not always go hand in hand. In all three countries, male participants who are settled in the capital are the ones most likely to be employed. Additionally, for both Denmark and Norway, male participants (and female in Denmark) settled in towns or rural/remote areas actually have a lower probability of being employed than those settled in the other categories, particularly those settled in the capital. Here we emphasize that there are substantial differences in the results in each country, and that there are cases of less urban municipalities with very good employment results for their participants. Still, this analysis shows that balancing different goals of dispersed settlement and promoting good employment opportunities is challenging.

The analysis of resettlement, also shows that those who are settled in the most remote areas are the ones most likely to move, and that they tend to move to more urban areas. These patterns clearly work against the political goal of dispersed settlement. But, do the refugees move from being outside the labour market, and towards employment? In Denmark and Norway, refugees settled in municipalities with relatively higher unemployment rates are more likely to move than those settled in areas with favourable labour market conditions. In Sweden the analysis indicates the opposite: refugees

settled in areas with higher unemployment rate are less likely to move. More importantly, the analysis of the correlation between resettlement and employment shows divergent results in the three countries. Male participants in Denmark have a higher probability of being employed after resettlement; however, the results for women are insignificant. On the other hand, refugees in Norway and Sweden who move are less likely to be employed than those who stay. Thus – with Danish male participants as the exception – resettlement from the initial municipality does *not* improve the chances of employment. Combined with the findings showing that refugees who are settled in the most remote areas are the ones most likely to move, this indicates that the motive for moving might be to live in more urban areas, irrespective of the employment opportunities for the individual. The results may be different for Denmark because the municipalities are larger and the average distances far smaller.

These results should, however, be interpreted with some caution. It is possible that the choice to move from the initial location not only affects the probability to be employed, but that labour market status (employed/in education/unemployed) in the initial location also affects the probability of moving. If those who are more likely to find employment in their initial location also are less likely to move (since they have a job), this could be part of the explanation for why we find that those who move are less likely to be employed also after moving.

10. Conclusions

This study has compared labour market integration of refugees in Scandinavia through longitudinal comparative analysis, and additionally, searched for explanations for cross-national differences by combining statistical analyses with in-depth analyses of national policies and governance structures. Here we sum up our findings. Who should learn what from whom in the Scandinavian countries?

10.1 Which country has the best labour-market outcomes?

Our analyses show that which country has the best results depends on when the outcomes is measured. Denmark has the best initial employment levels, for both men and women, in the first years after settlement. Then, because employment rates in Denmark have a less steep growth, the other two countries catch up or surpasses Danish employment levels over time. After two to four years in the country, participants in the integration programme in Norway generally have higher employment levels than participants in the integration programme in Sweden and Denmark. However, this employment gap between Norway and the other two countries decreases for male participants over time, but remains (Sweden) or increases (Denmark) for female participants. For Sweden, it takes several years until male participants approach or surpass Norwegian or Danish employment levels. However, Sweden does slightly better for female participants then Denmark, at least in the long run. In all three countries, the more recent cohorts do better than the earlier ones (except for female participants in Denmark); the improvement for more recent cohorts compared to earlier cohorts is greatest in Sweden. Concerning education enrolment, we find the opposite pattern: Sweden has the most persons enrolled in education, followed by Norway, while Denmark generally has significantly lower levels of persons enrolled in education.

10.2 Who should learn what from whom?

As Damm and Åslund (2017, p. 11) argue, the considerable heterogeneity of refugees as a group indicates that there is not likely to be one single measure or reform that will dramatically change the employment market integration of refugees. Our report has sought merely to not document the overall outcomes, but, more importantly, to find whether these countries have better results for certain subgroups and not others. Our analysis of estimated employment trajectories does find that all three countries have relatively better employment results for some subgroups than others.

Although the comparative analysis of the countries' usage of different programme measures give some indications as to why one country has better results for a particular groups (see detailed discussion in Chapter 7), this is not apparent in all cases. Additionally, different usage of programme measure will probably not provide the full picture as to why one country outperforms the others. Thus, in the search for cross-national learning, a good starting point would be to explore the guidelines, strategies and implementation of measures in the country that has the best employment outcomes for a particular subgroup. That is a task for future studies; however, our analysis shows which countries have the best results for the following groups:

- Norway has substantially better employment rates for women, adjusted for observed population differences, and a relatively low employment gap between men and women compared to Sweden and (particularly) Denmark.
- The three countries top the estimated employment trajectories for different age-groups for male participants. Denmark has the best estimated outcomes for men aged 20–25, Norway for those aged 26–45, and Sweden for those aged 46–55. Although Norway generally shows better employment outcomes for women, Sweden also has higher estimated outcomes for female participants aged 46–55.
- Denmark generally has better estimated employment rates in the first years, for all groups of education levels on arrival. However, Norway has the best employment results over time for those with lower education, while Sweden has the best employment trajectories for those with secondary and tertiary education in the eighth (last) year of analysis.

This leads us to the question of cross-national differences concerning the usage of different programme measures. Our analysis of programme measures shows that Sweden has almost twice the share of participants who receive subsidized employment during their integration programme. Although the positive effect of subsidized employment has been shown in many earlier studies, all studies note that this measure is rarely used. Two often-stated explanations of why subsidized employment is not used more commonly are that that it can be hard to attract employers to hire persons on subsidized employment, and that subsidized employment is a measure that works only for those with good preconditions for employment. As Sweden not only has twice the share participating in this measure compared to Norway and Denmark, but also has substantially more participants in absolute numbers, it is relevant to know more about what Sweden has done to achieve this. Two questions in particular are relevant for cross-country learning. First, what is the reason Sweden has so many participants on certain measures (could it be specific policies, the organization under the Employment Agency, implementation by caseworkers, etc.)? Second, how have they managed to get enough employers to employ participants on subsidized employment?

Concerning the usage of regular education as a programme measures, our findings indicate that the increased long-term employment outcomes in Sweden could be caused partly by their investment in supplementary education for participants with

higher education levels on arrival. Additionally, Norway's focus on educating those with low education levels on arrival could provide the context to the relatively better long-term results for this group. Still, future studies should explore how each country's focus on education has impacted these groups, and whether there are other elements that make them better at getting these groups employed in the long run.

In relation to these findings, it is relevant to note that the Danish integration programme has been very focused – and successfully so – on achieving a rapid transition to employment and self-sufficiency, and uses education to a much lower extent than Denmark or Norway. This could shed light on why Denmark's employment rates are higher the first years after settlement, and is further strengthened by the reform of the programme in July 2016, which explicitly highlighted that a rapid transition to employment should be prioritized. However, our study indicates that this emphasis may have negative long-term effects on employment outcomes. One reason could be that less emphasis on upgrading education levels in the initial years of the programme leaves participants more vulnerable to labour market fluctuations in the long run.

References

Andersson Joona, P., Lanninger, A. W., & Sundström, M. (2016). Reforming the Integration of Refugees: The Swedish Experience. *IZA Discussion Papers*(IZA DP No. 103070).

Andersson Joona, P., & Nekby, L. (2012). Intensive Coaching of New Immigrants: An Evaluation Based on Random Program Assignment*. *The Scandinavian Journal of Economics, 114*(2), 575–600. doi:10.1111/j.1467-9442.2011.01692.x

Arbetsförmedlingen. (2017). *Kunskapsöversikt: Nyanländas etablering på den svenska arbetsmarknaden*. Working paper 2017:5.

Arbetsförmedlingen (2018a). *Arbetsförmedlingens återrapportering 2018. Årsrapport aktiviteter i etableringsuppdraget 2017*. Retrieved from https://www.arbetsformedlingen.se/Om-oss/Statistik-och-publikationer/Rapporter.html.

Arbetsförmedlingen (2018b). *Arbetsförmedlingen stoppar nya extratjänster och moderna beredskapsjobb*. December 2018. Retrieved from https://arbetsformedlingen.se/om-oss/press/nyheter/nyhetsarkiv/2018-12-21-arbetsformedlingen-stoppar-nya-extratjanster-och-moderna-beredskapsjobb.

Arendt, J. N., Bolvig, I., Kolodziejczyk, C., & Petersen, J. S. (2016). *Kommunernes integrationsindsats på beskæftigelsesområdet – Effektive indsatser, veje igennem systemet og benchmarking mellem kommunerne*. Retrieved from: https://www.kora.dk/media/5251083/11104-kommunernes-integrationsindsats.pdf

Arendt, J. N., Pohl Nielsen, C., & Jakobsen, V. (2016). The importance of origin and destination country skills for labor market attachment of immigrants from Pakistan, Iran and Turkey. In *Nordic Journal of Migration Research* 6 (2), 72–80.

Arendt, J. N., & Pozzoli, D. (2013). *Effekter af beskæftigelses- og uddannelsesrettede indsatser for ikke-vestlige ledige indvandrere – En oversigt over danske og internationale kvantitative studier*. Retrieved from https://www.kora.dk/media/1856848/10594_effekter-af-aktivering_indvandrere_ikke-vestlige_endelig_140114.pdf

Askim, J., & Hernes, V. (2017). Bosetting av flyktninger: Hvem bør få siste ord, kommunene, staten eller flyktningen selv? In J. Askim, K. Kolltveit, & P. G. Røe (Eds.), *Smartere styring*. Oslo: Universitetsforlaget.

Bansak, K., Ferwerda, J., Hainmueller, J., Dillon, A., Hangartner, D., Lawrence, D., & Weinstein, J. (2018). Improving refugee integration through data-driven algorithmic assignment. *Science, 359*(6373), 325–329. doi:10.1126/science.aao4408

Bevelander, P. (2011). The Employment Integration of Resettled Refugees, Asylum Claimants, and Family Reunion Migrants in Sweden. *Refugee Survey Quarterly, 30*(1), 22–43. doi:10.1093/rsq/hdq041

Bevelander, P., Bilde, H., Dahlstedt, I., Eskelund, M., Møller Hansen, L., Macura, M., & Østby, L. (2013). *Scandinavia's Population Groups Originating from Developing Countries: Change and Integration*. TemaNord 2013:561, Copenhagen: Nordic Council of Ministers

Bevelander, P., & Lundh, C. (2007). Employment integration of refugees: The influence of local factors on refugee job opportunities in Sweden. (IZA Discussion Paper Series; No. 2551). Institute for the Study of Labor (IZA), Bonn.

Bevelander, P., & Pendakur, R. (2014). The labor 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. doi:10.1080/1369183X.2013.849569

Bjerre, J., Mortensen, L. H., & Drescher, M. (2016). *Ikke-vestlige indvandrere på arbejdsmarkedet i Danmark, Norge og Sverige: Hvordan klarer Danmark sig?* Retrieved from http://www.dst.dk/Site/Dst/Udgivelser/nyt/GetAnalyse.aspx?cid=28102

Blinder, A. S. (1973). Wage Discrimination: Reduced Form and Structural Estimates. *Journal of Human Resources* 8 (4): 436–455.

Borevi, K. (2010). Sverige: Mångkulturalismens flaggskip i Norden. In G. Brochmann & A. Hagelund (eds.), *Velferdens grenser*. Oslo: Universitetsforlaget.

Borevi, K., & Bengtsson, B. (2015). The tension between choice and need in the housing of newcomers: A theoretical framework and an application on Scandinavian settlement policies. *Urban Studies, 52*(14): 2599-2615. Doi:10.1177/0042098014548137

Borevi, K., Jensen, K. K., & Mouritsen, P. (2017). The civic turn of immigrant integration policies in the Scandinavian welfare states, *Comparative Migration Studies, 15:9*. doi:10.1186/s40878-017-0052-4

Bratsberg, B., Raaum, O., & Røed, K. (2017). Immigrant labor market integration across admission classes. *Nordic Economic Policy Review, TemaNord 2017:520*.

Breidahl, K. N. (2017). Scandinavian exceptionalism? Civic integration and labor market activation for newly arrived immigrants. *Comparative Migration Studies, 5*(1), 2.

Brochmann, G., & Hagelund, A. (2010a). Norge: Landet for den gyldne middelvei. In G. Brochmann & A. Hagelund (eds.), *Velferdens grenser* (pp. 211–287). Oslo: Universitetsforlaget.

Brochmann, G., & Hagelund, A. (2010b). *Velferdens grenser*. Oslo: Universitetsforlaget.

Brochmann, G., Hagelund, A., Borevi, K., Jønsson, H. V., & Petersen, K. (2012). *Immigration policy and the Scandinavian welfare state, 1945–2010*. Basingstoke: Palgrave Macmillan.

Butschek, S. and Walter, T. (2014). What active labour market programmes work for immigrants in Europe? A meta-analysis of the evaluation literature. *IZA Journal of Migration*, 3(48)

Card, D., Kluve, J., and Weber, A. (2018). What works? A meta-analysis of recent active labor market programme evaluations, *Journal of European Economic Association*, 16(3), 894–931.

Clausen, J., Heinesen, E., Hummelgaard, H., Husted, L., & Rosholm, M. (2009). The effect of integration policies on the time until regular employment of newly arrived immigrants: Evidence from Denmark. *Labor Economics, 16*(4), 409–417. doi:https://doi.org/10.1016/j.labeco.2008.12.006

Damm, A. P. (2005). *The Danish Dispersal Policy on Refugee Immigrants 1986–1998: A Natural Experiment?* Aarhus: Department of Economics, Aarhus School of Business.

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

Damm, A. P. (2014). Neighborhood quality and labor market outcomes: Evidence from quasi-random neighborhood assignment of immigrants. *Journal of Urban Economics, 79*, 139–166.

Damm, A. P., & Rosholm, M. (2010). Employment effects of spatial dispersal of refugees. *Review of Economics of the Household, 8*(1), 105–146.

Damm, A. P., & Åslund, O. (2017). Forword. *Nordic Economic Policy Review, TemaNord 2017:520*.

Djuve, A. B. (2011). Introductory programs for immigrants: Liberalism revisited, or changing ideas of citizenship? *Nordic Journal of Migration Research, 1*(3), 113–125.

Djuve, A. B. (2016). *Refugee migration – a crisis for the Nordic model?* Retrieved from Oslo:

Djuve, A. B., & Kavli, H. C. (2007). *Integrering i Danmark, Sverige og Norge: Felles utfordringer – like løsninger?* København: København: Nordisk ministerråd.

Edin, P.-A., Fredriksson, P., & Åslund, O. (2003). Ethnic enclaves and the economic success of immigrants – Evidence from a natural experiment. *Quarterly Journal of Economics, 118*(1), 329–357.

Emilsson, H. (2015). A national turn of local integration policy: multi-level governance dynamics in Denmark and Sweden. *Comparative Migration Studies, 3*(1), 1.

Enes, A. (2014). *Tidligere deltagere i introduksjonsprogramt 2007–2011*.Statistisk sentralbyrå, Rapporter 2014/15

Fasani, F., Frattini F. and L. Minale (2018). (The Struggle for) Refugee Integration into the Labor Market: Evidence from Europe. IZA Discussion Paper No. 11333.

Goodman, S. W., & Wright, M. (2015). Does mandatory integration matter? Effects of civic requirements on immigrant socio-economic and political outcomes. *Journal of Ethnic and Migration Studies, 41*(12), 1885–1908.

Hansen, H. & M. L. Schultz-Nielsen (2015). Kontanthjælpen gennem 25 år – Modtagere, regler, incitamenter og levevilkår fra 1987 til 2012. Rockwool Fondens Forskningsenhed. København: Gyldendal.

Hardoy, I. and Zhang, T. (2010). Innvandrere i arbeid: Hjelper arbeidsmarkedstiltak?, *Søkelys på arbeidslivet*, 27(4), 343–363.

Hayfron, J. E. (2001). Language training, language proficiency and earnings of immigrants

in Norway. *Applied Economics,* 33(15), 1971–1979.

Heinesen, E., Husted, L., & Rosholm, M. (2013). The effects of active labor market policies for immigrants receiving social assistance in Denmark. *IZA Journal of Migration, 2*(1), 15. doi:10.1186/2193-9039-2-15

Hernes, V. (2017). Central coercion or local autonomy? A comparative analysis of policy instrument choice in refugee settlement policies. *Local Government Studies, 43*(5), 798–819. doi:10.1080/03003930.2017.1342627

Hernes, V. (2018a). Cross-country convergence in times of crisis? Integration policies before, during and after the refugee crisis. *West European Politics*, Vol. 41, 2018, issue 6

Hernes, V. (2018b). *When integration and immigration policies meet and compete – a comparative analysis of Scandinavian integration policies during the refugee crisis*. Working paper, Department of Political Science, University of Oslo

Hernes, V., & Tronstad, K. R. (2014). *Komparativ analyse av introduksjonsprogram i Norge, Sverige og Danmark*. NIBR-report 2014:19, Oslo

Husted, L., Heinesen, E., & Andersen, S. (2009). Labor market integration of immigrants: estimating local authority effects. *Journal of Population Economics, 22*(4), 909–939. doi:10.1007/s00148-008-0185-8

Jenkins, S. (1995). Easy Estimation Methods for Discrete-Time Duration Models. *Oxford Bulletin of Economics and Statistics* 57(1): 129–138.

Kaarsen, N., Vasiljeva , K., & Skovgaard, S. N. (2016). *Hvor skal flygtningene bo?* Retrieved from kraka.org: http://www.kraka.org/sites/default/files/public/flyttemoenstre_med_kommentarer_og_fn.pdf

Karlsdóttir, A., Sigurjónsdóttir, H. R., Ström Hildestrand, Å., & Cuadrado, A. (2017). *Policies and measures for speeding up labor market integration of refugees in the Nordic region: A knowledge overview*. Retrieved from Stockholm: http://norden.diva-portal.org/smash/record.jsf?aq2=%5B%5B%5D%5D&af=%5B%5D&searchType=SIMPLE&sortOrder2=title_sort_asc&language=en&pid=diva2%3A1172581&aq=%5B%5B%5D%5D&sf=all&aqe=%5B%5D&sortOrder=author_sort_asc&onlyFullText=false&noOfRows=50&dspwid=-5795&dswid=-4028

Kvinge, T. and Djuve, A.B. (2006). *Bruk av arbeidsmarkedstiltak for ikke-vestlige innvandrere. Hvem deltar, og hvordan er sysselsettningseffektena?* Fafo-rapport 517. Retrieved from https://www.fafo.no.

KS. (2018). Disse kommunene får bosette. Retrieved from http://www.ks.no/fagomrader/helse-og-velferd/flyktninger/bosetting/rekordlavt-antall-flyktninger-skal-bosettes-i-2018/

Lethienne, D. and P. Ronkowski. (2018). A decomposition of the unadjusted gender pay gap using Structure of Earnings Survey data. Statistical working papers. Eurostat Unit: Labour market statistics and lifelong learning. Luxembourg: Eurostat.

Lov om ændring af integrationsloven og forskellige andre love (Bedre rammer for at modtage og integrere flygtninge og styrket virksomhedsrettet integrationsprogram m.v.), (2016b). https://www.retsinformation.dk/Forms/R0710.aspx?id=181799

Migration Policy Group. (2017). International Key Findings. *Ufullstendig henvisning*

NOU 2017: 2. (2017). *Integrasjon og tillit – Langsiktige konsekvenser av høy innvandring* Oslo: Justis- og beredskapsdepartementet.

Oaxaca, R. (1973). Male-Female Wage Differentials in Urban Labor Markets. *International Economic Review* 14 (3): 693–709.

OECD. (2015). *Indicators of Immigrant Integration 2015. Settling In.* . Retrieved from https://dx.doi.org/10.1787/9789264234024-en

Olsen, B. (2018). *Flyktninger i og utenfor arbeidsmarkedet 2016*. Statistisk sentralbyrå, SSB-rapporter 2018/1

Petersen, K., & Jønsson, H. V. (2010). Danmark: Den nationale velfærdsstat møder verden. In G. Brochmann & A. Hagelund (Eds.), *Velferdsens grenser*. Oslo: Universitetsforlaget.

Pyrhönen, N., Leinonen, J., & Martikainen, T. (2017). *Nordic migration and integration research: Overview and future prospects*. NordForsk Policy Paper , vol. 3/2017 , vol. 3 , NordForsk , Oslo .

Rambøll Management Consulting. (2017). *Notat: Myndighedstiltag til fremme af flygtninges arbejdsmarkedstilknytning*. Retrieved from København:

Ruist, J. (2017). The fiscal impact of refugee immigration. *Nordic Economic Policy Review, TemaNord 2017:520*.

Sarvimäki, M. (2017). Labor market integration of refugees in Finland. *Nordic Economic Policy Review, TemaNord 2017:520*.

Schultz-Nielsen, M. L. (2017). Labor market integration of refugees in Denmark. *Nordic Economic Policy Review, TemaNord 2017:520*.

Stambøl, L. (2016). A cohort integration analysis of work and education participation among internal mobile and non-mobile immigrants by reason for immigration. Louvain-la-Neuve: European Regional Science Association (ERSA), 56th Congress of the European Regional Science Association: "Cities & Regions: Smart, Sustainable, Inclusive?", 23–26 August 2016, Vienna.

Svantesson, E. and Aranki, T. (2006). *Do introduction programmes affect the probability of immigrants getting work?*. Working Paper 3, Handelshögskolan, Örebros universitet. Retrieved from https://www.oru.se/globalassets/oru-sv/institutioner/hh/workingpapers/workingpapers2006/wp-3-2006.pdf.

Tronstad, K. R. (2015). *Introduksjonsprogram for flyktninger i norske kommuner Hva betyr organiseringen for overgangen til arbeid og utdanning?*. NIBR-report 2015:2, Oslo.

Tronstad, K. R., & Hernes, V. (2017). Integrering av flyktninger. In J. Askim, K. Kolltveit, & P. G. Røe (Eds.), *Smartere styring*. Oslo: Universitetsforlaget.

Udlændinge- og Integrationsministeriet. (2016a). Flygtninge bliver boende i deres første bopælskommune. Retrieved from http://uim.dk/nyheder/integration-i-tal/Nr-1-1-marts-2016/flygtninge-bliver-boende-i-deres-forste-bopaelskommune

Undervisningsministeriet (2014). Vejledning om danskuddannelse til voksne udlændinge m.fl.(Nr. 9128 af 20. marts 2014). *http://uim.dk/publikationer/vejledning-om-danskuddannelse-til-voksne-udlaendinge-m-fl*

Åslund, O., Forslund, A., & Liljeberg, L. (2017). Labor market entry of non-labor migrants – Swedish evidence. *Nordic Economic Policy Review, TemaNord 2017:520*.

Appendix 1: Sensitivity analysis in the Danish sample

We conducted several sensitivity analyses in the Danish sample. First, we looked at results after six years in the country (obviously for different settlement cohorts). Similar results are found, except that both male and female participants in internship have higher employment rates, and male participants in regular education do not have higher employment rates than non-participants. The latter indicates that the association between employment after the programme and education in the programme occurs because individuals enrolled in education are registered as employed, as is the case in many vocational education programmes. This was found in Arendt (2018).

We also controlled for differences in health, proxied by whether the groups were hospitalized and the number of contacts with general practioners. This reduces the differences slightly (in absolute value), particularly for subsidized employment and internships, and the latter becomes insignificant. The results confirm that the positive association between employment and participation in these activities may partly be due to selection. This is also seen by the fact that those who do not participate in subsidised employment or internship have nearly twice as many healthcare contacts as those who do. For instance, 8% of participants in internships have more than 20 annual contacts with general practitioners, as against only 3% among non-participants. Similar differences are not seen between participants and non-participants in other activities.

As a final robustness check we estimated relative differences by comparing outcomes for participants in two different measures, instead of participants versus non-participants. All these pairwise comparisons are also conditioned upon participation in language training, as persons who do not participate in language training may be a particularly negatively selected group. The pairwise estimations confirm that participants in subsidized employment have larger employment rates than participants in internships and other labour market programmes, and that participants in internships have higher employment than participants in other labour market programmes. There is no difference between participants in subsidized employment and regular education, after three or six years.

Appendix 2: Country specific results

Determinants of employment and education enrolment in Norway

Table 1: Determinants of employment and education enrolment in all years, 2008 – 2016, NORWAY

	Employed		In education	
VARIABLES	Women	Men	Women	Men
Years since settlement: 0 is reference				
1	0.105***	0.135***	0.0504***	0.0543***
	(0.00473)	(0.00388)	(0.00304)	(0.00232)
2	0.213***	0.301***	0.107***	0.135***
	(0.00582)	(0.00491)	(0.00401)	(0.00344)
3	0.313***	0.463***	0.166***	0.206***
	(0.00668)	(0.00578)	(0.00487)	(0.00439)
4	0.396***	0.586***	0.201***	0.204***
	(0.00760)	(0.00656)	(0.00553)	(0.00502)
5	0.467***	0.643***	0.209***	0.184***
	(0.00865)	(0.00752)	(0.00624)	(0.00568)
6	0.525***	0.667***	0.201***	0.155***
	(0.00986)	(0.00870)	(0.00698)	(0.00621)
7	0.557***	0.670***	0.173***	0.136***
	(0.0115)	(0.0104)	(0.00776)	(0.00698)
8	0.576***	0.664***	0.159***	0.105***
	(0.0146)	(0.0134)	(0.00949)	(0.00786)
Observation year: 2008 is reference				
2009	-0.0495***	-0.128***	-0.00921***	-0.00337
	(0.00830)	(0.0109)	(0.00306)	(0.00387)
2010	-0.0695***	-0.176***	-0.00821**	-0.0130***
	(0.00904)	(0.0115)	(0.00363)	(0.00424)
2011	-0.100***	-0.240***	-0.0226***	-0.0284***
	(0.00906)	(0.0116)	(0.00355)	(0.00422)
2012	-0.117***	-0.278***	-0.0279***	-0.0313***
	(0.00903)	(0.0115)	(0.00345)	(0.00392)
2013	-0.132***	-0.301***	-0.0258***	-0.0289***
	(0.00941)	(0.0117)	(0.00367)	(0.00396)
2014	-0.158***	-0.323***	-0.0303***	-0.0305***
	(0.00976)	(0.0119)	(0.00390)	(0.00419)
2015	-0.172***	-0.354***	-0.0176***	-0.0261***
	(0.0102)	(0.0121)	(0.00432)	(0.00452)
2016	-0.180***	-0.363***	-0.00824*	-0.0200***
	(0.0107)	(0.0125)	(0.00475)	(0.00493)
Age at settlement: 20-25 is reference				
26-35	-0.00811	-0.0210***	-0.0444***	-0.0360***
	(0.00683)	(0.00673)	(0.00484)	(0.00499)
36-45	-0.0329***	-0.0795***	-0.0493***	-0.0456***
	(0.0117)	(0.0115)	(0.00712)	(0.00717)
46-55	-0.119***	-0.121***	-0.0507***	-0.0355***
	(0.0196)	(0.0202)	(0.00993)	(0.0100)
Age in the year of observation: 20-25				
26-35	0.0133**	0.0543***	0.0124**	-0.000347
	(0.00651)	(0.00659)	(0.00494)	(0.00502)
36-45	0.0372***	0.0438***	-0.0165**	-0.0282***
	(0.0107)	(0.0107)	(0.00726)	(0.00735)

46-55	-0.00448	-0.0496***	-0.0662***	-0.0738***
	(0.0169)	(0.0171)	(0.0101)	(0.00983)
Children 0-6 years	-0.117***	0.0380***	-0.0334***	0.00412
	(0.00528)	(0.00591)	(0.00352)	(0.00363)
Married	0.0247***	-0.0352***	-0.0195***	-0.0337***
	(0.00533)	(0.00528)	(0.00344)	(0.00340)
Education: Primary education is reference				
Secondary education	0.0515***	0.0466***	0.0610***	0.0534***
	(0.00972)	(0.00788)	(0.00650)	(0.00553)
Tertiary education	0.0359***	0.0367***	0.0531***	0.0787***
	(0.00793)	(0.00594)	(0.00506)	(0.00401)
Missing value	0.00762	0.0272***	0.0132***	0.0275***
	(0.00516)	(0.00532)	(0.00320)	(0.00344)
Country of birth: Iraq is reference				
Afghanistan	0.0320***	0.161***	0.0435***	0.0442***
	(0.0114)	(0.0148)	(0.00728)	(0.00871)
Eritrea	0.144***	0.0889***	0.0452***	0.0715***
	(0.0109)	(0.0113)	(0.00616)	(0.00625)
Iran	0.0872***	0.0910***	0.101***	0.0648***
	(0.0141)	(0.0150)	(0.0100)	(0.00884)
Somalia	-0.0606***	-0.0236**	-0.0156***	0.0266***
	(0.0102)	(0.0117)	(0.00585)	(0.00612)
Syria	0.0912***	0.134***	0.0197***	0.0334***
	(0.0116)	(0.0121)	(0.00648)	(0.00622)
Other	0.121***	0.0572***	0.0360***	0.0487***
	(0.0102)	(0.0112)	(0.00572)	(0.00587)
Reasons for being granted a permit: Convention is reference				
UN Quota Refugees	-0.0340***	-0.0679***	0.00654	0.0276***
	(0.00644)	(0.00745)	(0.00406)	(0.00476)
Subsidiary protection	-0.0401*	-0.0254	-0.0362***	-0.0131
	(0.0208)	(0.0241)	(0.0107)	(0.0109)
Family reunification	-0.0411***	0.0399***	-0.00941***	0.0132**
	(0.00583)	(0.0111)	(0.00350)	(0.00662)
Other				
Region of residence: Stockholm metropolitan area is reference				
Other large cities	-0.00156	-0.0447***	-0.0177***	-0.00411
	(0.00824)	(0.00919)	(0.00512)	(0.00586)
Cities	-0.0130*	-0.0559***	-0.0147***	-0.0183***
	(0.00771)	(0.00847)	(0.00492)	(0.00533)
Towns	-0.00404	-0.0704***	-0.0221***	-0.0161***
	(0.00773)	(0.00827)	(0.00483)	(0.00531)
Rural/remote municipalities	-0.0000865	-0.0751***	-0.0235***	-0.0252***
	(0.00787)	(0.00831)	(0.00491)	(0.00529)
Log unemployment	-0.0776***	-0.0997***	-0.00550	-0.0128**
	(0.00852)	(0.00795)	(0.00531)	(0.00512)
Constant	0.190***	0.443***	0.0380***	0.0177*
	(0.0167)	(0.0183)	(0.00939)	(0.00937)
Observations	85518	101691	87143	103894
R-squared	0.188	0.242	0.0908	0.0874

Note: Robust standard errors in parentheses, *** p<0,01, ** p<0,05, * p<0,1

We see that employment and education enrolment vary between men and women with refugee background in Norway. R-squared (R^2), at the bottom of the table, indicates how much of the variance in employment or education enrolment can be explained by the independent variables. In the two first models for employment, the independent variables explain 19–24% of the variance. R-squared in the two last models are lower, only 9%.

Years since settlement have an expected and positive impact on both employment and education. The probability of being employed increases with duration of residence for women; however, it stagnates for men after the sixth year. This time-trend is stronger for men than for women. For education enrolment, probability increases with duration of residence the first years, and then stagnates and declines for both genders. Table 5 shows that refugees who arrive as young adults (20–25 years) are far more likely to be either employed or in education than refugees who are older when they arrive. Having children below the age of six has a significant negative impact on labour market establishment and a smaller impact on education enrolment for women, while there is a positive impact on employment probability for men with young children. Being married is negatively correlated with educational enrolment for both refugee women and men, but negatively correlated only with employment for men: it is positively correlated with employment for women.

Refugees who have completed secondary or tertiary education at the time of immigration are more likely to get a job or to continue education after the integration programme than refugees with only primary education. However, those with secondary education actually have a greater probability of being employed than those with tertiary education. The same pattern is found for education enrolment for women; for men, however, those with tertiary education have the highest probability of being enrolled in education. Table 1 shows that refugees from Iraq, the reference category, have worse outcomes in both employment and education enrolment than do refugee men and women from Eritrea, Iran, Syria and those from 'other countries'. Refugees from Somalia are least likely to have a job in comparison with groups originating from different countries, but Somali men are more likely to be enrolled in education than are Iraqi men.

Regarding domicile, Table 1 shows that refugees who settle in metropolitan areas are more likely to be in education or in employment than are refugees settled in other cities or rural areas. The exception is refugee women, whose employment probabilities are not significantly higher in metropolitan areas than in rural areas or towns. When we divide refugees into categories based on their permit, we find that convention refugees have the highest employment probabilities, except for men on family reunification. Both men and women with subsidiary protection are less likely to be enrolled in education, but male participants who came as quota refugees or in connection with family reunification have higher probability of being enrolled in education.

The estimates for local unemployment rate (logged) shows that the higher the municipal unemployment rate the lower is the probability of being employed. The local unemployment rate also appears to have a small and negative impact on participation in regular education for refugee men.

Determinants of employment and education enrolment in Sweden

Table 2: Determinants of employment and education enrolment, 2008-2016, SWEDEN.

	Employed		In education	
VARIABLES	Women	Men	Women	Men
Years since settlement: 0 is reference				
1	0.050***	0.152***	0.112***	0.133***
	(0.001)	(0.002)	(0.002)	(0.002)
2	0.132***	0.311***	0.186***	0.171***
	(0.002)	(0.003)	(0.003)	(0.002)
3	0.186***	0.390***	0.198***	0.154***
	(0.003)	(0.003)	(0.003)	(0.003)
4	0.224***	0.441***	0.205***	0.138***
	(0.004)	(0.004)	(0.004)	(0.004)
5	0.256***	0.487***	0.195***	0.127***
	(0.004)	(0.005)	(0.004)	(0.004)
6	0.300***	0.540***	0.188***	0.109***
	(0.005)	(0.006)	(0.005)	(0.005)
7	0.346***	0.565***	0.180***	0.081***
	(0.006)	(0.007)	(0.006)	(0.005)
8	0.398***	0.593***	0.156***	0.064***
	(0.009)	(0.009)	(0.008)	(0.006)
Observation year: 2008 is reference				
2009	-0.013***	-0.038***	0.003	-0.019***
	(0.002)	(0.004)	(0.004)	(0.005)
2010	-0.026***	-0.054***	-0.004	-0.017***
	(0.003)	(0.005)	(0.005)	(0.006)
2011	-0.053***	-0.080***	-0.024***	-0.026***
	(0.003)	(0.005)	(0.005)	(0.006)
2012	-0.067***	-0.102***	-0.032***	-0.043***
	(0.003)	(0.005)	(0.005)	(0.006)
2013	-0.055***	-0.078***	-0.032***	-0.063***
	(0.003)	(0.005)	(0.005)	(0.006)
2014	-0.042***	-0.056***	-0.019***	-0.064***
	(0.004)	(0.005)	(0.005)	(0.006)
2015	-0.035***	-0.049***	-0.021***	-0.064***
	(0.004)	(0.005)	(0.005)	(0.006)
2016	-0.007*	-0.018***	-0.006	-0.049***
	(0.004)	(0.006)	(0.005)	(0.006)
Age at settlement: 20-25 is reference				
26-35	0.002	-0.024***	-0.020***	-0.037***
	(0.004)	(0.005)	(0.004)	(0.005)
36-45	-0.014**	-0.068***	-0.072***	-0.105***
	(0.006)	(0.007)	(0.006)	(0.006)
46-55	-0.030***	-0.043***	-0.201***	-0.178***
	(0.006)	(0.008)	(0.007)	(0.007)
Age in the year of observation: 20-25				
26-35	0.004	0.022***	-0.030***	-0.026***
	(0.004)	(0.005)	(0.004)	(0.005)
36-45	0.002	-0.007	-0.028***	-0.003
	(0.005)	(0.007)	(0.006)	(0.006)
46-55	-0.038***	-0.095***	0.045***	0.043***
	(0.006)	(0.008)	(0.007)	(0.007)
Children 0-6 years	-0.073***	0.006**	-0.076***	0.008***

	(0.002)	(0.003)	(0.002)	(0.002)
Married	0.011***	0.007**	-0.017***	-0.023***
	(0.002)	(0.003)	(0.002)	(0.002)
Education: Primary education is reference				
Secondary education	0.077***	0.047***	0.094***	0.073***
	(0.003)	(0.003)	(0.003)	(0.002)
Tertiary education	0.086***	0.039***	0.166***	0.175***
	(0.003)	(0.003)	(0.003)	(0.002)
Missing value	-0.005*	-0.017***	-0.001	-0.002
	(0.003)	(0.005)	(0.003)	(0.004)
Country of birth: Iraq is reference				
Afghanistan	0.043***	0.116***	0.047***	0.112***
	(0.005)	(0.007)	(0.005)	(0.006)
Eritrea	0.081***	0.061***	-0.016***	0.073***
	(0.005)	(0.006)	(0.005)	(0.005)
Iran	0.076***	0.105***	0.144***	0.128***
	(0.007)	(0.008)	(0.008)	(0.008)
Somalia	0.020***	-0.016***	-0.017***	0.087***
	(0.004)	(0.005)	(0.004)	(0.004)
Syria	0.034***	0.100***	0.013***	0.044***
	(0.004)	(0.005)	(0.005)	(0.004)
Other	0.082***	0.085***	0.026***	0.060***
	(0.005)	(0.006)	(0.004)	(0.004)
Reasons for receiving a permit: Convention is reference				
UN Quota Refugees	-0.020***	-0.052***	-0.007	0.008
	(0.005)	(0.005)	(0.005)	(0.005)
Subsidiary protection	-0.030***	-0.029***	-0.017***	-0.003
	(0.003)	(0.005)	(0.003)	(0.004)
Family reunification	0.005*	0.012***	0.011***	0.006**
	(0.003)	(0.003)	(0.003)	(0.003)
Other	0.027***	0.050***	-0.003	-0.015***
	(0.006)	(0.008)	(0.006)	(0.006)
Region of residence: Stockholm metropolitan area is reference				
Other large cities	-0.091***	-0.143***	0.022***	0.037***
	(0.004)	(0.005)	(0.004)	(0.004)
Cities	-0.066***	-0.128***	0.015***	0.042***
	(0.004)	(0.004)	(0.003)	(0.003)
Towns	-0.055***	-0.126***	0.002	0.025***
	(0.004)	(0.004)	(0.004)	(0.003)
Rural/remote municipalities	-0.027***	-0.098***	0.006	0.029***
	(0.005)	(0.005)	(0.005)	(0.004)
Log unemployment	-0.059***	-0.101***	-0.047***	-0.044***
	(0.005)	(0.005)	(0.005)	(0.004)
Constant	0.170***	0.326***	0.185***	0.125***
	(0.010)	(0.012)	(0.011)	(0.010)
Observations	214 355	240 545	214 355	240 545
R-squared	0.158	0.216	0.116	0.095

Note: Robust standard errors in parentheses, *** p<0,01, ** p<0,05, * p<0,

In Swedish case, the R-squared value shows that the included control variables explain between 16 and 22% of the variation in employment and 12 and 9% of the variation in education enrolment (Table 2). In comparison with the other countries, this is not particularly low.

Both employment and education increase with years since settlement, although education enrolment appears to peak after four years and decline thereafter. Age and education have the expected impact on employment and education enrolment – higher for the younger age-groups and for those with higher education. Having children below the age of six has a significant negative impact on labour market establishment for women, but not for men. Being married is positively correlated with employment and negatively correlated with participation in education.

Regarding country of birth it appears that the reference group – those born in Iraq – has the worst outcomes. Exceptions are men born in Somalia, who are significantly less likely to be employed (but more likely to participate in education) and women born in Somalia, who are less likely to participate in regular education (but more likely to be employed). This finding is consistent with the results reported in Ruist (2018), who finds that employment, measured in terms of having reached a certain level of income, in the cohorts that immigrated between 2010 and 2014 is lowest among men born in Somalia and women born in Iraq. The size of the coefficient estimates indicate that men and women from Eritrea and Iran are employed to a greater extent than those from Iraq.

Concerning admission category, both male and female family migrants are more likely to be employed than those who come as convention refugees. However, both resettled and those who receive a residence permit for subsidiary protection are less likely to be employed than are convention refugees.

There seem to be quite large regional differences: employment in the Stockholm metropolitan area is between 3 and 9 ppt higher for women located elsewhere Sweden and between 10 and 14 ppt higher for men. The pattern for education enrolment is, however, the converse. The reason might be that lack of employment opportunities in areas outside Stockholm pushes immigrants into education instead. In the longer run this might lead to smaller regional differences if investments in regular education lead to better employment opportunities after some additional years in the country.

Lastly, we see that the log unemployment rate has the expected impact on employment – the higher the municipal unemployment rate, the lower is the probability of being employed. Rather surprisingly, the local unemployment rate also appears to have a negative impact on participation in regular education.

Determinants of employment and education enrolment in Denmark

Table 3: Determinants of employment and education enrolment, 2008-2016, DENMARK

	Employed		In education	
VARIABLES	Women	Men	Women	Men
Years since settlement: 0 is reference				
1	0.0267***	0.122***	0.00496***	0.00780***
	(0.00389)	(0.00568)	(0.00116)	(0.00115)
2	0.0618***	0.232***	0.0175***	0.0317***
	(0.00582)	(0.00799)	(0.00254)	(0.00290)
3	0.108***	0.318***	0.0485***	0.0820***
	(0.00814)	(0.0101)	(0.00488)	(0.00508)
4	0.165***	0.363***	0.0951***	0.105***
	(0.0111)	(0.0121)	(0.00764)	(0.00662)
5	0.214***	0.394***	0.116***	0.0983***
	(0.0143)	(0.0148)	(0.00984)	(0.00789)
6	0.235***	0.405***	0.126***	0.0852***
	(0.0180)	(0.0193)	(0.0128)	(0.00988)
7	0.241***	0.440***	0.115***	0.0738***
	(0.0224)	(0.0248)	(0.0152)	(0.0120)
8	0.265***	0.432***	0.109***	0.0926***
	(0.0334)	(0.0361)	(0.0210)	(0.0194)
Observation year: 2008 is reference				
2009	-0.0588***	-0.0903***	0.00234	0.0149**
	(0.0204)	(0.0296)	(0.00627)	(0.00711)
2010	-0.0666***	-0.141***	-0.00185	0.0164**
	(0.0226)	(0.0327)	(0.00761)	(0.00801)
2011	-0.0365	-0.137***	0.00910	0.0243***
	(0.0232)	(0.0321)	(0.00793)	(0.00809)
2012	-0.0697***	-0.199***	0.0106	0.0182**
	(0.0229)	(0.0322)	(0.00817)	(0.00778)
2013	-0.0908***	-0.225***	0.00858	0.0188**
	(0.0227)	(0.0323)	(0.00776)	(0.00748)
2014	-0.105***	-0.255***	0.00277	0.0147**
	(0.0218)	(0.0315)	(0.00647)	(0.00673)
2015	-0.0938***	-0.250***	-0.00137	0.0230***
	(0.0216)	(0.0315)	(0.00592)	(0.00647)
2016	-0.0575***	-0.122***	-0.00299	0.0191***
	(0.0215)	(0.0316)	(0.00559)	(0.00636)
Age at entry: 20-25 is reference				
26-35	0.0224***	-0.0165*	0.00264	0.00253
	(0.00776)	(0.00951)	(0.00428)	(0.00377)
36-45	-0.00802	-0.0813***	-0.0209***	-0.0265***
	(0.0150)	(0.0163)	(0.00787)	(0.00520)
46-55	-0.0349	-0.200***	-0.0471***	-0.0622***
	(0.0247)	(0.0255)	(0.0116)	(0.00727)
Age in the year of observation: 20-25				
26-35	-0.00616	-0.0383***	-0.00209	-0.0126***
	(0.00915)	(0.0108)	(0.00488)	(0.00474)
36-45	-0.0237	-0.0757***	-0.00318	-0.0118**
	(0.0148)	(0.0167)	(0.00725)	(0.00537)
46-55	-0.0234	-0.0800***	0.0114	0.0132**
	(0.0220)	(0.0236)	(0.00937)	(0.00626)
Children 0-6 years	-0.0399***	-0.0349***	-0.0108***	0.0101**

	(0.00691)	(0.00993)	(0.00344)	(0.00397)
Married	-0.00667	-0.00587	-0.0205***	-0.00280
	(0.00763)	(0.00805)	(0.00443)	(0.00302)
Education: Primary education is reference				
Secondary	0.0203**	0.0177	0.0152***	0.00439
	(0.0102)	(0.0115)	(0.00368)	(0.00271)
Tertiary	0.0187*	0.0316***	0.0217***	0.0182***
	(0.00973)	(0.0109)	(0.00504)	(0.00355)
Missing value	0.0350***	0.0116	0.0547***	0.0578***
	(0.00738)	(0.00809)	(0.00361)	(0.00367)
Country of birth: Iraq is reference				
Afghanistan	0.00155	0.0482**	0.00704	-0.0388***
	(0.0157)	(0.0240)	(0.00956)	(0.0125)
Eritrea	0.0562***	0.000255	0.00184	-0.0185*
	(0.0198)	(0.0251)	(0.0109)	(0.0100)
Iran	0.0417**	-0.0253	0.0297***	-0.0138
	(0.0181)	(0.0236)	(0.0107)	(0.0106)
Somalia	0.00113	-0.0705***	-0.0156*	-0.0387***
	(0.0169)	(0.0256)	(0.00823)	(0.0121)
Syria	0.0279*	0.0575**	0.00473	-0.0262***
	(0.0152)	(0.0226)	(0.00826)	(0.00995)
Other countries	0.0627***	-0.00513	0.0164*	-0.00835
	(0.0159)	(0.0230)	(0.00884)	(0.0111)
Reasons for being granted a permit: Convention is reference				
UN Quota Status	0.00696	0.00981	-0.0140*	-0.0103
	(0.0157)	(0.0183)	(0.00733)	(0.00749)
Subsidiary protection	-0.0229**	-0.0205*	-0.00364	0.0209***
	(0.00973)	(0.0117)	(0.00533)	(0.00530)
	(0.0144)	(0.0147)	(0.00811)	(0.00536)
Family reunification	-0.00438	0.0637***	-0.00276	0.00199
	(0.00890)	(0.0203)	(0.00430)	(0.00693)
Other asylum	-0.0564***	-0.0393***	-0.0171**	-0.0126**
Region of residence: Copenhagen metropolitan area as reference				
Large cities	-0.0429***	-0.0613***	-0.00495	-0.00181
	(0.0139)	(0.0160)	(0.00636)	(0.00524)
Cities	-0.0436***	-0.0590***	-0.00438	0.00555
	(0.0139)	(0.0159)	(0.00671)	(0.00542)
Towns	-0.0633***	-0.0722***	0.00182	0.00525
	(0.0131)	(0.0151)	(0.00629)	(0.00498)
Rural areas	-0.0721***	-0.0806***	0.00227	0.00509
	(0.0144)	(0.0165)	(0.00760)	(0.00576)
Log(Unemployment)	0.0299**	0.00560	0.00194	0.00667
	(0.0143)	(0.0155)	(0.00703)	(0.00576)
Constant	0.0988***	0.440***	-0.00949	-0.0218**
	(0.0279)	(0.0364)	(0.00997)	(0.00868)
Observations	21743	33799	22054	34250
R-squared	0.0925	0.122	0.0931	0.0888

Note: *Robust standard errors in parentheses, * p < 0.1, ** p < 0.05, *** p < 0.01

Table 3 shows how employment and education enrolment vary with the independent variables for men and women in Denmark. The independent variables explain only 9–

12% of the variance in employment and education; particularly for employment, this is lower than in the other two countries.

Overall, we can divide the independent variables into three groups depending upon their partial associations with the outcomes: years since settlement, observation year and for men, and age at settlement have relatively strong associations. Initial region of residence and country of origin have medium associations, and family composition variables, first residence permit type and education from abroad have the weakest associations.

The employment rate rises much faster with time in Denmark for men than for women, whereas the opposite holds for educational trajectories, although at a much slower pace. During the first eight years after settlement, the employment rate rises by 43 percentage points (ppt) above the level in the first year for men, whereas the corresponding figure for women is only 27 ppt. Education enrolment peaks already after four years for men, and after six for women, reaching respectively a 10 and 12 ppt higher level than in the first year.

There is a significant time-trend in both male and female employment, stronger for men than for women. Employment rates decrease from 2008 to 2014–15 by 9 ppt for women and up to 26 ppt for men, and then rise slightly in 2016. These time-trends are much greater than in Norway or Sweden. They may be explained by differences across cohorts who settle in different years, as business-cycle effects or as effects of integration efforts over time. The observed U-shape indicates that it reflects one of the two latter. No time-trends are observed in education enrolment patterns for women, but there is a slightly higher share of men in education after 2008 and it peaks in 2015.

The employment rate also varies substantially with age at settlement for men: Those who settle in Denmark when aged 46–55 have 20 ppt lower employment rates than those who settle when aged 20–25.

The next set of variables with medium associations are region of residence, country of origin and residence permit. Men from Afghanistan and Syria have 5–7 ppt higher employment rates than men from Iraq, but 3–4 ppt lower education enrolment. In contrast, the employment rates are 4–6 ppt higher for women from Eritrea, Iran and other countries than for women from Iraq. Women from Iran and other countries also have higher education enrolment. Education enrolment does not vary with initial region of residence, but both men and women residing outside the capital area have 4–8 ppt lower employment rates.

Marital status, having small children, residence permit type and education from abroad show only weak associations with employment and education enrolment. For instance, persons with tertiary education have 2–3 ppt higher employment or education enrolment than persons with primary education only,[22] and persons with small children have 4 ppt lower employment rates than those with no children or with older children. An exception is men with family reunification as ground for their residence permit, who

[22] The strongest association is observed for those with missing home country education, and this might be a result of the data collection method used by Statistics Denmark, where only immigrants who have no Danish education are surveyed, and therefore, the missing category may contain persons with education from Denmark.

have 6 ppt higher employment rates than those permits granted on the basis of asylum. The local unemployment rate has no relationship to employment or education, except for women, where the association is weak but positive for employment. If we disregard calendar time, or control for settlement year instead of calendar time, the association between local unemployment and employment is negative as expected. These results indicate that calendar time picks up on a national business cycle, and that local unemployment matters less than in Denmark than in Norway or Sweden. This seems realistic, given the shorter geographical distances in Denmark.

Appendix 3. The Oaxaca decomposition

This appendix explains the Oaxaca decomposition which is used in chapter 6. The method was developed independently by Oaxaca (1973) and Blinder (1973) for the analysis of gender wage gaps. The given formulations are amongst other inspired by Lethienne and Ronkowski. (2018).

The decomposition is based on linear regression models for each of the groups that are being compared, in our case countries. For country j the regression model is:

$$Y_{it}^{j} = \alpha^{j} + \beta^{j} X_{it}^{j} + \epsilon_{it}^{j}$$

In our application, the regression coefficients describe how much employment rates, *Y*, in country *j* vary with characteristics *X* in country *j*, when other characteristics are held constant. In short, we refer to the coefficients as rewards to characteristics, even though they do not have a causal interpretation.

By means of the Oaxaca decomposition, we decompose the difference in mean employment rates between country *j* and *k* into an explained part and an unexplained part. It is conducted with one of the countries as reference, say, country *j*:

$$\Delta^{jk} = \bar{Y}^{j} - \bar{Y}^{k} = E^{jk} + U^{jk}$$

Where:

$$E^{jk} = \beta^{j}\left(\bar{X}^{j} - \bar{X}^{k}\right)$$

$$U^{jk} = \alpha^{j} - \alpha^{k} + \bar{X}^{k}\left(\beta^{j} - \beta^{k}\right)$$

In chapter 6 we only describe the part of the employment differences that is explained by refugee characteristics or settlement models, i.e. excluding years since migration, calendar time and local unemployment. The explained part, *E*, can be interpreted as the change in employment levels in country *j* that would occur (all else equal) if immigrants in country *j* had the same mean characteristics as immigrants in country *k*.

The explained parts will be different when each of the countries are used as reference country, if the rewards to the different characteristics differ between the countries.