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Pieter Bevelander
Christer Lundh

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Pieter Bevelander
*IMER, Malmö University
and IZA Bonn*

Christer Lundh
Göteborg University

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ABSTRACT

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This article studies the importance of local conditions for the employment integration of refugees in Sweden, this in contrast to most studies on immigrant economic integration primarily conducted on the national level or for the larger cities. The data used in the analysis is on male and female natives and twelve refugee groups for the year 2003. Besides monitoring the regional variation in employment integration of twelve refugee groups, this paper, with the use of logistic regressions, estimates the effect of individual and human capital characteristics, internal migration, municipality, local labour market and economic sector factors on the refugees' odds of being employed. The local variations of refugees' integration into the labour market were partly a result of internal migration, in most cases from less to more populated municipalities. The job opportunities were better in Stockholm than in other big cities like Malmö and Göteborg. The local unemployment and employment rates, a proxy for the local supply of jobs, significantly affected the individual refugees' chances to obtain employment. This also applies to the size of the labour market through increased diversification in the supply of job openings. We also find that the structure of the local economy affected the refugees' probability of obtaining employment. Areas with lower general education and skill levels were positively related, whereas, for example, university localities were negatively related to refugees' employment chances. Refugees had higher probabilities of being employed in industry in less population-dense areas and in the private service sector in larger cities.

Corresponding author:

Pieter Bevelander
IMER
Malmö University
205 06 Malmö
Sweden
E-mail: pieter.bevelander@imer.mah.se

Introduction[1]

Like in many other Western European countries, most immigrant groups in Sweden have lower employment levels than natives. However, there are large differences among different immigrant groups. In particular, refugees are poorly integrated into the Swedish labour market integration. In most studies, conducted primarily on the national level, the weaker labour market integration of refugees is explained by differences in human capital, discrimination in the labour market, changing composition of sender countries, economic transformation or institutional conditions. Also for Sweden, most studies on immigrant economic integration have been conducted on the national level or for the larger cities. The few studies on the regional level show large differences in economic integration for different groups and regions, thereby supporting the approach of studying the economic integration of refugees on the regional and local levels more systematically. In this study the employment integration of refugees in a local and regional perspective is in focus. The aim is to analyze the importance of local labour market conditions for the probability of obtaining refugees' employment in Sweden. The questions at hand are:

(a) is there a regional variation in the employment chances of refugees, and if so

(b) what factors explain this variation (individual and human capital characteristics, size and features of the municipality of residence, characteristics of the local labour market and the local economy)?

This article proceeds with an outline of the background followed by earlier research on employment integration in general and regional variations in particular. After this we describe the data and method used in the analysis. We proceed with the results of the analysis and end with a conclusion.

Background

Besides the import of capital (Marshall program) and technological know-how from the US, the renewal and economic growth of Western Europe, after the Second World War, was also based on the availability of labour. When the internal labour reserve from the agricultural sector and among married women no longer matched the labour demand, an extensive labour migration from less developed areas in Europe (Finland, Ireland and the Mediterranean) to the industrial centers in Western Europe took place between 1945 and 1973. In the beginning, the organized labour migration import often had the character of the so-called 'guest worker system' in which the foreign labour was viewed as temporary and did not have the right to bring in family members. However, to a large extent this labour migration led to permanent residence and in the 1950s family reunion became possible. Apart from the organized recruitment of foreign labour, migration was facilitated by various multilateral agreements. For example, migration of Nordic citizens was free from 1954 and labour migration within the EEC was free from 1968. The lower rate of economic growth and increased unemployment in the early 1970s, diminished the demand for foreign labour. As a consequence, migration policy became harsher in many European countries, among them Sweden (Castles & Miller 2003).

Labour migration to Sweden was primarily from the Nordic countries, but also from other Western European countries (1950s) and the Balkans (1960s) (Lundh & Ohlsson 1999). These labour migrants typically had no difficulties in finding employment and settling down in Sweden with their families. According to earlier studies (Wadensjö 1973; Ohlsson, 1975) foreign-born men and women had higher employment rates than natives in 1970 (see figure 1). A gradual decrease in the employment rate of foreign-born men is noticeable from the 1970s and onwards. For foreign-born women we see an increase in employment up to the middle of the 1980s, but this increase is not in parity with the increase in employment of native women. Both natives and foreign-borns were negatively affected by the economic crisis of the early 1990s, but the relative decline of the immigrant employment rate was larger. The employment gap between natives and foreign-borns has narrowed since the middle of the 1990s. The lower employment

integration of immigrants who arrived in the 1970s caused the average immigrant employment rate to decrease in the 1990s and early 2000s (Bevelander 2000).

Figure 1

As was earlier mentioned, immigration to Sweden during the 1950s and 1960s consisted primarily of labour migrants from the Nordic and European countries. Since the early 1970s, refugees and tied-movers have dominated the migration inflow, coming primarily from Eastern Europe and other non-European parts of the world. Over the last fifty years the immigrant population of Sweden has grown to over one million people, which was about 12 percent of the total population in 2003.

A snapshot of today's employment integration by country of birth shows us that almost all foreign-born groups and in particular newly arrived groups of refugees, have lower employment rates than natives. The general pattern is that natives have the highest employment rate, followed by Europeans and thereafter non-Europeans. There is, however, a large variation in employment integration of the various countries in these geographical categories. New research has shown persistence of this hierarchy for the so called second generation (Lundh et al 2002).

Earlier research

In economic migration studies, neo-classical human capital theory is the most common starting point for explaining differences in the economic integration of immigrants. The migration decision by the individual is seen as a rational choice in which the potential immigrant, given individual characteristics and migration barriers, calculates thecosts and benefits of migration. If the discounted value of future income exceeds the costs, i.e. if the net benefit is positive, the individual will choose to migrate. Thus, in the human capital approach migration is seen as an investment, expected to yield a positive return in employment opportunities or relative income in the future. The home country human capital of the individual is often not perfectly transferable between countries though, and individuals will adjust to the new labour market by investing in modifying skills and

acquiring new skills (for example language skills). During this time it is expected that immigrants, in the early years, are less productive, and have higher labour market turnover and lower employment rates than one would expect given their formal educational level. With time and increasing destination human capital, immigrants make careers and catch up with native income levels.

In Chiswick (1978) it is shown that immigrants from English-speaking countries had a higher mean income than natives after eight years in the country, and that this fast adaptation to the US labour market was due to the positive selection of immigrants by their human capital. Differences in the 'quality' of the human capital of different immigrant groups, which affect their economic integration, have also been emphasized by others (Borjas 1985). Later studies have stressed the importance of investments in education and language proficiency of the migrant after arrival (Chiswick & Miller 1994, 1995; Dustman 1994; Lindley 2002). This is also the case for Sweden, where such investments have been shown to be important factors explaining immigrants chances to obtain employment (Larsson 1999; Bevelander 2000).

In a number of studies the unexplained difference in the employment gap between groups has been interpreted as measure of discrimination (Arai, Regner & Schröder 1999; Le Grand & Szulkin 2000). In a study of the employment integration of the adopted children of Swedish parents, Rooth (2001) found that children who looked 'non-Swedish' had lower probabilities of obtaining employment than those who looked 'Swedish'. The discrimination hypothesis is also supported by qualitative studies on discrimination perceived by immigrants (Paulson 1994; Lange 1999).

As far back as the 1980s, the effect of an increasing globalization and moving out of traditional industry jobs on employment was discussed in the US. Sassen (1988), for example, showed that the economic transformation involved an increased polarization among the remaining jobs. More qualified service jobs gradually were filled by new higher educated individuals, at the same time as more unqualified service work opportunities were filled by unqualified immigrants. Earlier, industrial workers were the ones who had severe difficulties finding and keeping employment (Wilson 1996). In line with these international studies, which emphasise the demand side of the labour market as an important factor in deterring the employment integration of immigrants, a Swedish

variation on this theme is that the structural change of the economy, with a relatively decreasing industrial sector and an increasing service sector during the last few decades, has implied a long-term change to more information and communication-intense working processes. The development from the late 1970s and during the 1980s and 1990s involved on the one hand an ever-increasing increased demand for employees with a proportionately higher general competence, while unskilled labour was made redundant by efficiency improvements. On the other hand, the change during the 1980s and 1990s towards flexible work organisations led to a strong increase in teamwork and computer-based production. Without reducing the importance of formal education and skill, this process led to an increase in the importance of informal competence, which includes, for instance, Swedish-specific proficiency, language skills and the understanding of different patterns of behaviour in teamwork and in relations with authorities and labour market organisations (Lundh & Ohlsson 1994, Bevelander 2000 and Scott 1999).

Sociologically orientated research on international migration and economic integration of immigrants emphasises not only human capital but also social capital (Putnam, Leonardi & Nanetti 1992; Putnam 2000) and group characteristics which cause neighbourhood and network effects (Portes 1995). Group characteristics are primarily based on different types of social capital and the capacity of individuals, by means of membership in networks or larger social relationships to use scarce resources. It is this social capital, combined with individual characteristics, that affects the individual's finding work or making a career in the labour market. Immigrants have in general a weaker destination-country-specific social capital and use their own ethnic network to find their way in a new country. Hence, it is not unexpected that in many countries we find concentrations of individuals with the same ethnic background. This is even so in countries like Sweden where the housing policy has aimed at the opposite effect. Segregation and difficulties integrating in the labour market, for example due to discrimination, can correspond with the idea of a labour market consisting of two queues: a job queue and a labour queue in which immigrants are more or less at the end of the labour queue (Thurow 1975; Waldinger 2001) or, as an alternative, to the creation of ethnic labour markets (Piore 1979). In some cases the concentration of an ethnic group to certain areas, enclaves, has had positive effects on the labour market integration of this

particular ethnic group, for example through knowledge transfer, ethnic trade or by overrepresentation in a particular sector of the economy (Portes & Bach 1985; Lazaer 1990; Waldinger & Lichter 2003). In other cases negative enclave effects have been measured (Portes & Senesenbrenner 1993; Borjas 1998). For Sweden, Edin, Fredriksson & Åslund (2003) find positive effects of neighbourhood on the employment of immigrants, partly due to self selection through internal migration.

Institutional factors are also seen as having an important effect on the labour market integration of immigrants. The rules and regulations on the Swedish labour market may induce a stronger insider/outsider situation for immigrants in comparison to, for example, the US labour market. In the US, immigrants end up in lower paid jobs than natives, whereas in Sweden immigrants are overrepresented as non-employed but when employed little difference is measured in payment (Lundh et al 2002; Bengtsson, Lundh & Scott 2005). The effect of a compulsory dispersal policy between 1985 and 1994 on newly arrived refugees, who obtained a residence permit, was also subject to economic analysis. Comparing immigrants arriving before and after the implementation of the policy, Edin *et al.* (2000) suggest that earnings were 25 percent lower eight years after arrival because of the new policy. Idleness had also increased by about six percent for those groups that came during the reform (from 1985), relative to immigrants that came between 1982 and 1983. Franzén (1997) discusses the same problems but refers to how refugees were treated by local labour market authorities. In a follow-up study, she finds that the implemented integration strategy by the employment offices did not have the expected results. Seeing the refugees as a homogenous group instead of a diverse population, the various authorities' lack of interest in earlier labour market experience, together with a generally negative attitude towards the skills of the immigrants, led to a destructive pattern of clientisation of refugees to the social security system.

An immigrant's incentive to move internally is large and has consequences for the population structure and increases pressure on the infrastructure and welfare sector (Frey 1996). Swedish studies indicate a high internal movement of immigrants not followed by an upward social movement, which could be expected (Ekberg 1993; Andersson 1996; Åslund 2000).

Without denying the importance of several of the explanations mentioned earlier, this paper is more in line with those explanations that have shown the importance of a change in economic structural factors for the weaker employment integration of immigrants. In this case we will use the regional variation in the explanatory variables to test several earlier hypotheses.

Regional studies

Most of the studies mentioned earlier on the employment integration of immigrants are about the country as a whole. Some studies show, on the other hand, that there exist large differences in employment integration among geographical areas. There are for example large differences in economic integration in the larger Swedish cities, Stockholm, Göteborg and Malmö (Bevelander, Carlson & Rojas 1997). Andersson (1996) showed that low-educated immigrants had an easier time integrating economically in Stockholm, with its higher demand for low-educated workers in the private service sector, compared to regions outside the city. For high-educated immigrants it was the other way around. In a study by Ekberg and Ohlsson (2000) on the labour market integration of immigrants from Bosnia-Hercegovina in four regions of Sweden, a correlation was found between the speed of integration and the situation of the regional labour market. For example, in one region (Gnosjö-Gislaved) 62 percent of the male Bosnia-Hercegovina population were employed, as compared to only 27 percent for Sweden as a whole. For women these proportions were basically the same. Compared to the other regions and the country as a whole, the employment rate was higher and a very large share of the employed had jobs in manufacturing.

Lundh *et al.* (2002) also found large regional variation in employment for immigrants from developing countries. The employment rate in the Stockholm region as well as the counties of Jönköping and Kronoberg was higher compared to the mean for the country as a whole for both natives and African, Asian and Latin-American immigrants. For many counties the opposite situation was measured, a lower employment rate for both natives and immigrants relative to the mean employment rate for the country as a whole. The impression from this study is that the regional labour market is of

importance for the employment integration of immigrants. Besides, this study shows that in many counties the native employment level differs largely from the level measured for the various immigrant groups. The situation sketched for the late 1990s and early years of the new millennium stands in contrast to the situation in 1978, when the employment integration for immigrants measured in different regions showed little variation (Ekberg 1983).

In an earlier study on the employment integration of immigrants in the year 2002 we showed that the employment for immigrant males was connected to the local labour market conditions (Bevelander & Lundh 2004). In line with the regional studies mentioned earlier we now focus on refugee immigrants to Sweden from 1973 onwards and to what extent the local conditions influenced the employment integration in the Swedish municipalities for the year 2003. Besides distinguishing individual characteristics, we separate the effects of the labour market and industrial sector of the municipality. We also integrate the selection of internal movement of immigrants into the models.

Data and method

As mentioned earlier, the general aim of this study is to monitor and analyze regional aspects of the employment integration of refugees in Sweden for the year 2003. The general hypothesis we test is that the probability of obtaining employment is dependent on individual characteristics, conditions that characterize the municipality in which the individual is living and the labour market conditions of the municipality.

The data used in this study comes from individual registers held by Statistics Sweden for the year 2003. The sample and core group under study are individuals, native- and foreign-born, who are 25-60 years old and immigrated to Sweden primarily as refugees or related to refugees from 1973 onwards, the year in which labour migration from outside the Nordic countries to Sweden virtually stopped. The lower-age boundary is chosen mainly because of the presumption that individuals older than 24 have finished their studies and are supposed to participate in the labour market. The upper-age

demarcation is chosen because many individuals older than 60 actually leave the labour market as a consequence of early retirement schemes. The dependent variable in the logistic regressions is 'being employed or having obtained employment' compared to not being employed at the time of measurement, in November in 2003.

Table 1

The explanatory variables in the analysis, see table 1, can be divided into the following groups: individual variables, municipality variables, labour market variables and economy variables.

The variables 'age' and 'age squared' are used to control for employment variation between age groups. 'Marital status' distinguishes between those who are married/living together and those who are not. The variable 'children' is a dichotomous variable splitting males with and without children. For females this variable is categorized into those without children, one child, two children and three or more children. The immigrant-specific variable 'year of arrival' makes it possible to infer something about the different cohorts of the various refugee groups.

The key variable in the human capital model of labour market integration, the 'educational level', is included to study the effect of education on the job chances of the various refugee groups.

In this study the concept of 'refugee' is larger than in a strictly juridical sense and includes all immigrants from refugee countries, irrespective of whether they have refugee status or residence permits based on humanitarian reasons or family reunion. The countries that have been classified like this are: Yugoslavia, Bosnia-Herzegovina, Poland, Rumania, Hungary, Turkey, Lebanon, Syria, Chile, Iran, Iraq and Ethiopia.[2]

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[2] From 1993 onwards 'Yugoslavia' refers to individuals born in Serbia Montenegro and 'Bosnia-Herzegovina' to individuals born in Bosnia-Herzegovina. Since the former Yugoslavia was split into four separate countries in the early 1990s, it was made possible for individual immigrants who had arrived earlier to change the record of their country of birth in the database of Sweden Statistics. For nationalistic reasons many immigrants have done so, in particular Bosnians. Nevertheless, we believe that some Bosnians who immigrated 1974-1993 are still categorized as Yugoslavian in our data, and that Yugoslavians in this period also include some Croatians and Slovenes.

Regarding the individual variables in the model, these are well established in human capital theory and the expected effects have been confirmed in many studies. We expect that the chance to be employed is larger for individuals with higher education, and increases with higher labour market experience (age) and with increased adaptation time (years in a new country). We also know that for married males the probability of being employed is higher compared to unmarried males. Having under-aged children in the household is expected to have a negative effect on the labour supply of women but not of men, depending on the gender role patterns in the family, which in turn can be seen as a result of a rational economic decision (Becker 1991) or as social construction (Stanfors 2003).

The variable 'internal migration' is dichotomous and split, on the one hand, into individuals that in 2003 lived in a municipality of the same type in which they settled upon having obtained residence permits in Sweden, and on the other hand, into individuals that in 2003 lived in a municipality type other than in which they settled upon having obtained residence permits. In other words, they moved internally in Sweden between different municipality types. Based on theory and earlier studies, we expect that labour migration is directed towards regions with better labour market conditions, but know that short distance movements are not especially labour market related. When it comes to refugee immigrants there are no *a priori* expectations that internal migration is more or less labour market related or based on other factors like living closer to fellow countrymen and family. Here we are interested in the effect of internal migration on refugees' employment chances *per se*, but we also control for internal migration in the regressions in order to get more precise estimates of the effects of local factors.

Table 2

The aim of including municipality variables in the study is to capture other effects at the local level, which cannot directly be measured in terms of labour market and economy structure (see below). The variable 'municipality type', is based on an own categorization by population size and density (see table 2). The variable is included in the

model based on the hypothetical thought that it captures differences in employment due to population size and density in the municipality.

The variable 'municipality contribution' includes all cost and equalization contributions from the government to the municipality. The variable 'municipality tax level' is a percentage. Together these variables are intended to mirror the economic stability of the municipality. A small municipality contribution and a low tax level are assumed to indicate a good municipality economy. The presence of a university or university college is expected to reduce the employment chance of refugees. First, we expect that some will move to municipalities with universities to study in the first place. Second, we may assume that a fair number of students (native and immigrants) look for short-term unskilled jobs, thus competing with refugees. Third, it is more likely that the general educational and skill level is higher in cities with universities.

The labour market variables are assumed to reflect the condition of the local labour market. The 'unemployment level' in the municipality is the share of the male and female labour force in the ages 20-64 that are unemployed or in labour market policy programs. In line with this, the employment level in the municipality is based on the share employed of the total population in the ages 25-60. The unemployment level is assumed to express the business cycle of the specific municipality as well as to some extent a more structural unemployment situation. The employment level in the municipality is assumed to express the labour market situation in a somewhat longer term, as it is dependent on the local sectors of the economy, the direction of the local population's education and occupational structure and risk of early retirement. In both cases we expect that a low unemployment level and high employment level increase the probability of obtaining employment for the individual refugee. The variable 'size of local labour market' is the logged number of employed in the local labour market in which the municipality of the individual is situated.[3] The hypothesis is here that the larger the labour market the higher the chances of work, this for example through a higher diversification of jobs and higher turnover rate.

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[3] The local labour market is based on a division of Sweden into 81 different local labour markets and done by Nutek (www.nutek.se). See appendix 3 in Bevelander and Lundh 2004.

The economy variables are included to measure the geographical differences in the economic structure and the prerequisites for economic activity. The variable 'relative size public sector' is the share employed in the public sector. In the same way we construct the variables relative size of the manufacturing sector and relative size of the private sector. Since these variables are heavily correlated they are not used in the same models.

The variable 'entrepreneurial climate' is based on data from a study conducted by the Confederation of Swedish Enterprise (Svenskt Näringsliv) in 2003, in which answers in a questionnaire were weighted 67 percent and basic statistical facts on the municipality 33 percent.[4] The higher the value obtained by a municipality, the higher the rank it received.

The variables 'educational level' and 'occupational level' concern mean levels in the municipality. The educational level is classified into three sub-levels: 1= primary education, 2= secondary education and 3= university education. Based on this classification the mean educational level in the municipality is calculated for both males and females in the ages 25-60. The occupational level is created by categorizing a branch of occupation (1 digit level) in accordance with SSYK (Standard for Swedish Occupational Classification)[5]. In this way we have four levels of occupation 1= without demand for education, 2= demand for secondary education, 3= demand for secondary education with additional education or shorter university education and 4= demand for longer university education or higher. Based on this classification the mean occupational level in the municipality is calculated for both males and females in the ages 25-60. These variables are highly correlated (Pearsons R=0.88).

Regarding the economy variables our expectations are partly different for males and females. Today no formal barriers exist between male and female jobs, but to a large extent males and females are working in different industries and occupations. It would not be surprising if path dependency in the Swedish labour market affected the search behaviour of refugees. Since the supply of male jobs is much larger in the private sector,

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[4] The database 'Local Entrepreneurial Climate' (Lokalt företagsklimat) is constructed by the Confederation of Swedish Enterprise and contains data and a total ranking of municipalities from 2002 onwards (http://www.kfakta.se/).
[5] Standard för svensk yrkesklassificering.

we expect the size of the local private sector to have a positive effect on the probability of obtaining employment for refugee males. Since the supply of female jobs is more equally distributed between the private and public sector, our expectation in this case is less strong. Thus, the private sector may accordingly represent more potential employment for refugees, especially males. In line with this, the entrepreneurial climate in the municipality that mirrors the optimism of local employers in the private sector should affect refugees' employment chances. We expect higher employment possibilities for refugees in municipalities with employers that are positive about the economic climate in the municipality.

The hypothesis that a transformed economy has made it more difficult for refugees to obtain employment, with unskilled assembly line jobs being replaced by jobs in the service sector, often with a higher educational level, is tested by the variables 'educational level' and 'occupational level' in the municipality. The variables 'relative size of manufacturing sector' and 'relative size of private sector' are also likely to support this hypothetical explanation. If the hypothesis that refugees have difficulties entering the labour market is explained by changes in the structure of the economy, which in turn had effects on the work content, generally higher educational and occupational levels in the municipality should have a negative effect on refugees' chances to obtain employment. Since this transformation is different in different parts of the country, it is plausible that it is easier to find unqualified work in the industrial sector outside the larger cities. In the larger cities, on the other hand, we can expect that the private service sector, with a larger diversification of jobs, has unqualified jobs that are less frequently found in smaller cities and municipalities.

The statistical analysis consists of logistic regressions to predict the effects of the various variables on the odds of an individual obtaining work.[6]

Results

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[6] The odds are defined as p/(1-p), in which p= the probability. When analyzing a phenomenon with a small probability of occurrence, the calculated odds ratio is close to the relative probability. In the text though, we will use less exact formulations, for example: the chance or probability of having or obtaining employment. Statistically strictly we calculate the effect of various factors on the odds of having employment.

Regional variation

Before we analyze the main issue of this study, this section monitors the differences in employment levels between natives and the various refugee groups as well as the regional variation in employment levels. Compared to native males and females the employment rate for all the studied refugee groups is lower, at the same time as the differences among the groups are very large (see table 3).

Table 3

The table shows that 71 percent of the men from Bosnia-Herzegovina were employed as compared to only 39 percent for the Iraqi men. For women the difference was even larger; 65 percent of Bosnian women were employed compared to only 29 percent of the Iraqi women. Even if we control for differences in age, education, marital status, household composition and years since migration, refugees from Bosnia-Herzegovina, Chile and Rumania more successful than refugees from the Middle East and Africa (see table 4). All the refugee groups still had a considerable lower probability of being employed than natives.

Table 4

Besides large differences in employment levels between natives and refugee groups and among refugee groups there are, as mentioned earlier, large regional differences in employment levels. Table 5 shows that the employment rate for natives in 2003 was highest in the municipalities of Gnosjö (men) and Värnamo (women) and lowest in the municipalities of Övertorneå (men) and Ljusnarsberg (women). The difference between the 'best' and 'worse' municipality was thus between 17-25 percentage points for natives. The table also shows that various refugee groups had a local 'best' employment level close to or *even* over the general employment rate for natives, for example: refugee men and women from Bosnia-Herzegovina and Chile as well as men from Yugoslavia and Iran. Likewise, refugee groups that had a generally low employment level could have

high levels in certain municipalities, for example Ethiopian and Iraqi men in the municipality of Järfälla.

Table 5

Table 5 also shows that the difference between the 'best' and 'worse' municipality for refugee groups was larger than for natives. In many cases this measured difference could be up to 40-50 percentage points. As mentioned earlier, this situation was relatively new for the Swedish labour market – during the 1970s the regional differences in employment levels for natives and immigrants were more similar (Ekberg 1983). In this regard it is important to mention that the difference between the 'best' and 'worse' employment levels within each every refugee group to a large extent was larger than the mean difference among the different groups.

These results underpin the importance of studying to what extent these regional differences in employment depend on different local conditions, for example the size or the economy of the municipality, the local labour market or the type of economy of the municipality. In this context it is also important to study to what extent the regional differences in employment integration for the various refugee groups are due to selection by internal migration.

Internal migration

The importance of human capital and other individual characteristics for career and income has been shown in many studies. Even labour-market-related migration can bbe interpreted in human capital terms in which the individual invests for higher future labour market integration, better work or income. Since we know that a large part of the internal migrations is not labour market related, it is interesting to investigate the dimension and pattern of internal migration by refugees.

Table 6

Table 6 shows how the studied refugee groups were distributed by municipality type at the moment they were nationally registered for the first time and in 2003. The table tells us that a majority of the refugees were settled in the big cities or other larger cities in the beginning but that, on the other hand, a net-immigration to these municipalities also came about. In 2003, 75 percent of the refugee population was settled in the big cities and other larger cities. Equally apparent is the net-emigration from the three last mentioned municipality types in the table. The same direction is observed for the native population but the concentration to the big cities and other larger cities was considerably lower than for the studied refugee groups.

When we study the various refugee groups in the same way as we pictured the refugee population in table 6, we see large differences among the various groups both by municipality of first settlement and municipality in 2003 (see appendix). A relatively large number of refugees from Poland and Hungary had already, as their first settlement, ended up in the big cities, and the internal migration of individuals of these groups was fairly low. The same can be said for refugees from Turkey, with the difference that their first municipality to a larger extent was the municipality category 'other larger cities' (50,000-200,000). Refugees from Bosnia-Herzegovina first settled to much lesser degree in the big cities (11 percent) and, on the other hand, were spread over all municipality types. To a large extent this may be explained by the fact that the number of Bosnian refugees increased heavily in the early 1990s at the same time as the 'Sweden-wide-strategy' was used in the refugee settlement policy by the Swedish authorities.

When it comes to type of municipality in 2003 the refugee groups again showed large differences. Bosnians and Yugoslavs had a smaller part of their population settled in big cities and larger cities (60-65 percent), whereas more than 80 percent of the refugees from Turkey, Iran, Iraq, Chile and Ethiopia were settled in these kinds of agglomerations. This could have been due to differences in preferences, but presumably also mirrors differences in the possibility of influencing the choice of type of municipality, for example the time a refugee had been in the country and the settlement policy that was in prevalence when the refugee arrived in Sweden. Large refugee groups from former Yugoslavia came primarily during the 1990s, while other groups like refugees from

Turkey, Iran, Chile and Ethiopia came before this period. Refugees from Iraq, as a relatively 'late' refugee group, showed a high internal migration to the big cities.

From the tables in the appendix it is evident that only a small part of the refugee population lived in municipalities with less than 20,000 inhabitants, including countryside municipalities. For some groups this is only a few percentage points. This is of course important when validating the high employment level of refugees in small municipalities, for example Gnossjö municipality (<10,000) or Värnamo, Vetlanda, Tingsryd and Alvesta municipality (larger municipality, 10,000-20,000) (see also table 5). A policy implication of these results could be that in the future labour market policy measures should be prioritized to the larger agglomerations in Sweden so a larger share of the refugee population can be reached. On the other hand, this should not interfere with learning from *how* local conditions in other parts of the country contribute to alleviate the difficulties of refugees in finding jobs, and it is not an argument to stop refugee settlement outside the larger cities either.

Table 7

Table 7 shows that individual characteristics and human capital affect the probability of being employed for refugee men and women in Sweden. The results for these variables are in agreement with earlier studies and will not be commented on further.[7]

We discussed earlier the extent of selection by refugees by means of internal migration. The question that arises is whether refugees moved from unemployment to work, or whether the internal migration was determined by other factors, for example to live with family or fellow countrymen. This question can not be conclusively answered by cross-sectional data, but some observations could shed some light over this problem. Therefore, the models shown in table 7 include a variable for internal migration and internal migration interacted with country of birth.

The table shows that there is a general positive effect of internal migration on the odds of being employed (model A).[8] There are visible differences visible among the

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[7] In the following regressions these variables will be included in the model but not presented. (Available on request).
[8] Not significant for males.

various refugee groups (model B). For men from Bosnia-Herzegovina, Iran and Iraq the movement is associated with a higher chance of being employed. For refugees from Rumania, Lebanon, and Ethiopia we found the opposite. For women a positive effect is found for refugees from Yugoslavia, Bosnia, Turkey, Syria, Iran and Iraq and a negative effect for refugees from Poland, Hungary and Ethiopia.

Our conclusion from this is that there was a general positive effect of internal migration on the odds of being employed for refugees and that the direction of the migration was from lesser municipalities to larger agglomerations. To a large extent this indicates that a selective emigration from smaller municipalities contributed to the fact that the employment level in these municipalities was higher than it would have been without this migration.

Municipality types

In the earlier sections it became clear that human capital and other individual factors affected the ability of refugees to integrate into the Swedish labour market. Internal migration could have had an effect on this. In this section we add factors to the model that mirror the features of the municipality as a residential unit.

Table 8

Table 8 shows the effects of different municipality variables on the probability of refuges' obtaining employment. As expected, refugees had a lower probability of getting work in municipalities that had a university. This in turn was due to several factors that we cannot separate in this study. First, some refugees studied and did not work. Second, native students competed with refugees for unqualified jobs. Third: the general level of education of the workforce in these municipalities was higher. This latter effect can also be seen as an economic structural feature (see below).

The measured effects that are supposed to mirror the municipality economy are not totally as expected. The probability for a refugee to be employed, was, as expected, higher in municipalities with a lower contribution from the government and through the municipality equalization system. In other words, the probability was higher in

municipalities that were not favoured by the system. Contrary to our expectations the analysis shows that the probability of being employed was larger in municipalities with higher tax levels. This applied to both men and women.

The employment chances of refugees were different in different types of municipalities. Compared to big cities (together) the probability was higher in all other types of municipalities. Especially the smaller municipalities and those in the countryside stand out as advantageous for refugees' labour market integration (Model A). When we instead distinguish between the three big cities (Stockholm, Göteborg and Malmö), we find a partly different result (Model B). The earlier types of municipalities were still advantageous for integration but the difference in employment chances in the three big cities were very large. The probability of being employed was clearly higher in Stockholm than in the other two cities. The probability for refugees to be employed in Malmö, especially for men, was the lowest compared to all other types of municipalities and big cities. The fact that less than 10 percent of the refugee population was settled in the three smallest municipality types (<20,000) in 2003 has to be taken into consideration when evaluating the higher odds ratios for these municipality types.

Local labour market

The effect of local labour market variables on the probability of having employment for refugees is presented in table 9. As expected the local unemployment level had a negative effect on the probability of being employed for refugees. The unemployment level mirrors how the business cycle situation affected the local labour market, but also to some extent the structural situation of the local labour market. In the table we also find a positive effect for the variable the local employment level, which is assumed to reflect the long-term labour market conditions such as the structure of the labour market and the education- and occupational choices by the local population.

Table 9

Table 9 shows as well that the size of the local labour market had a positive effect on the probability of being employed for refugees. So, even if the number of individuals competing for jobs is larger, a larger labour market involves a larger variation in then umber of potential jobs than a smaller labour market. Again, no measurable difference is visible between men and women in this respect and all coefficients are significant at the 1 percent level. If in one or more refugee groups, women are more expected than men to have a preference for domestic work, this does not affect the main result.

Economic sectors

The structure of the local economy also had an effect on the work possibilities of the refugees. In tables 10 (men) and 11 (women), it is evident that the entrepreneurial climate had a positive effect on the refugees' probability of being employed (Model A). Presumably it was the manufacturers' positive attitude to the world around and optimism for the future that affected the willingness to hire.

The hypothetical explanation that the weaker labour market position for refugees was due to the economic transformation also finds some support in the tables. If the economic transformation led to the effect that unskilled and low-skilled jobs disappeared and were replaced by more qualified work that needed higher education and more 'Sweden specific' skills, is it possible that this was influenced by general the occupational level in the municipality. In municipalities with a higher transformation pace it is expected that the mean educational and occupational levels were higher and that this had a negative effect on the chances for refugees to obtain employment than in municipalities with lower educational and occupational levels. As can be seen from Model A, the tables show a negative effect of both the general educational and occupational levels on the chances to be employed by refugees. Consequently, a larger share of unqualified jobs increased the refugees' employment chances. The effects are visible for both men and women, but not significant for women.

Table 10

Table 11

From model B in tables 10 and 11 we infer that there was a general positive effect of the relative size of the manufacturing and private service sectors in the municipality for refugees. This is the opposite of what we find in model A in the same tables, that is that the relative size of the public service sector had a negative effect on the probability of being employed for refugees. In other words, the chance of work was higher in municipalities with larger manufacturing and private service sectors compared to municipalities dominated by a public service sector. These effects were dependant on the fact that the majority of 'male' jobs were in the private sector. The general chance to obtain employment was therefore smaller in municipalities with a large public sector. For women we do not have the same expectations since the supply of 'female' jobs were more equally distributed between the public and private sector. Notwithstanding this fact, we observe the same effects of the sectors for both women and men. An illustration of this is found in table 12 in which we see that the share employed in the public sector was less for the refugee groups as a whole compared to natives.

Table 12

Models C and D show that there were differences between types of municipality according to how different sectors affected employment for refugees. In the big cities, the relative size of the manufacturing sector had a negative effect on refugees' employment chances, while the opposite can be observed for the private service sector. The relatively bad employment situation for the former traditional industrial city of Malmö compared to the better employment situation in Stockholm can be taken as an example of this situation. In smaller sized municipalities and cities the size of the manufacturing sector had a positive effect on the probability of being employed for refugees. The relative size of the private service sector had a positive effect on the refugees' employment chances in most of the municipality types (not in smaller municipalities and the rural area).

Conclusion

Immigrant and refugee economic integration in general is predominantly studied using national data. Furthermore, studies focus to a larger degree on geographical areas, mainly larger cities, in which immigrants and refugees are overrepresented in the population. This study instead has its focus on the employment integration of refugees in a local and regional perspective. The main aim is to analyze the importance of local labour market conditions on the probability of obtaining employment for refugees in Sweden. Besides monitoring the regional variation in the employment level of refugees, it also uses several factors at the local level to explain the variation in the employment integration of refugees. The factors included in the analysis are, apart from individual and human capital characteristics, factors connected to the structure of the municipality the individual was living in, factors associated with the local labour market and factors related to the economic structural conditions of the municipality.

The analysis shows a large variation in local employment integration for natives and the various refugee groups. The measured difference in the employment rate for various refugee groups between municipalities was in many cases up to 40-50 percentage points. Moreover, the difference between the lowest and highest employment rate for every refugee group in many cases was larger than the mean difference among the different refugee groups. This result underlines the significance of analyzing to what degree these regional or local differences in employment rate were due to conditions at the local level.

With the use of logistic regressions we model to what extent various local factors affected the odds of being employed for refugee men and women. The results indicate that a selection on the labour market, i.e. a move within the country to another local labour market increased the chances to be employed.

When it comes to difference between municipality types and its effects on the employment situation of refugees, the analysis shows that smaller municipalities and municipalities with no university increased the probability of being employed for refugees. From this we understand that refugees had an easier time integrating into the labour market in more economic 'traditional' parts of Sweden.

Labour market factors included in the analysis indicate that these factors also affected the employment integration of refugees. Both employment and unemployment levels as well as the size of the local labour market show significant effects on the odds of being employed for refugee men and women. To us this means that both business cycle variations and more long-term labour market factors affected the employment integration of refugees.

The economic structure of the local labour market also affected the probability of obtaining employment for refugees. Refugees also had a higher probability of being employed in the manufacturing and private sectors. Furthermore, areas with lower general education and skill levels were positively related to refugees' employment chances. Finally, refugees had higher probabilities of being employed in industry in less population-dense areas and in the private service sector in larger cities. So, municipalities with either a large private service or manufacturing sector were the ones in which refugees had larger chances to be employed.

To conclude, the effects of local municipalities, labour markets and economic structure are not random but systematic. This means that we infer something on how various local factors affected the labour market integration of refugees. Additionally, is it encouraging that studying the variation in local conditions can shed some new light over the existing hypothetical explanations of the labour market integration of refugees.

Figure 1: Employment rate native and foreign born men and women, 1960 – 2003.
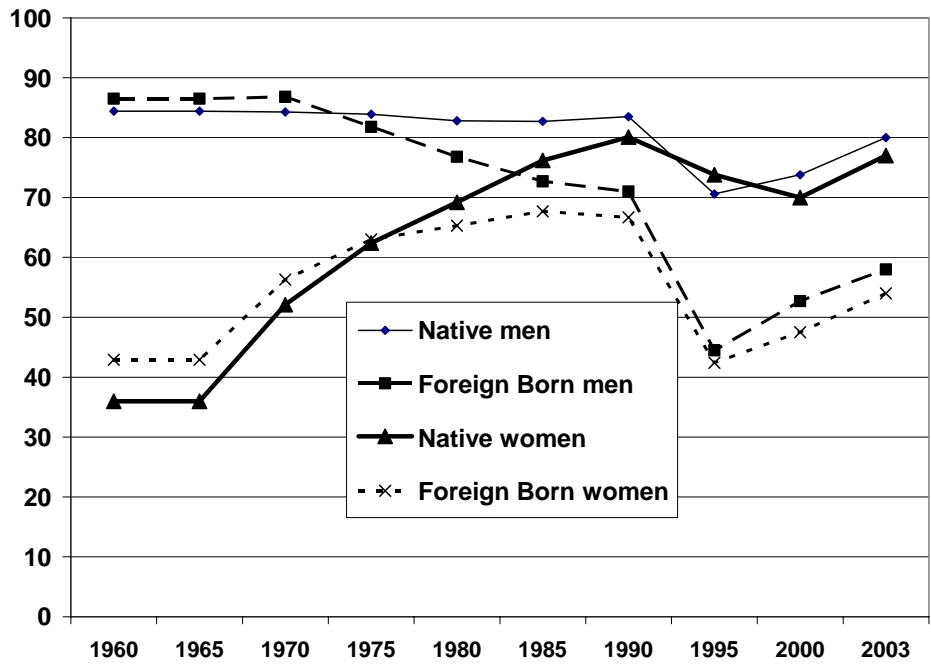
Source: Bevelander 2000, 2005 and 2006.

Table 1: Descriptives.

Variables	Categories(type)	Mean (share)	St. Dev.	Mean (share)	St. Dev.
Individual		**Males**		**Females**	
Age	Continuous	42.58	10.33	42.70	10.35
Age squared	Continuous	-	-	-	-
Marital status	Not married	45.1	-	35.9	-
	Married	54.9	-	64.1	-
Children	Males: 0, Females: 0	61.5	-	53.0	-
	Males: 1+, Females: 1	38.5	-	18.3	-
	Females: 2	-	-	20.8	-
	Females: 3+	-	-	8.0	-
Educational level	Primary schooling	18.5	-	13.8	-
	Secondary schooling	50.5	-	49.1	-
	University	31.0	-	37.1	-
Immigration period	Not immigrated	90.8	-	91.1	-
	1974-1983	1.6	-	1.8	-
	1984-1993	3.7	-	3.4	-
	1994-2003	3.9	-	3.7	-
Country of birth	Sweden	93.4	-	93.8	-
	Yugoslavia	0.9	-	0.8	-
	Bosnia-Herzegovina	0.8	-	0.8	-
	Poland	0.4	-	0.9	-
	Rumania	0.2	-	0.2	-
	Hungary	0.1	-	0.2	-
	Turkey	0.6	-	0.5	-
	Lebanon	0.4	-	0.3	-
	Syria	0.3	-	0.3	-
	Chile	0.5	-	0.5	-
	Iran	1.0	-	0.8	-
	Iraq	1.1	-	0.7	-
	Ethiopia	0.2	-	0.2	-
Internal migration	Stayed	57.8	-	55.4	-
	Moved	42.2	-	44.6	-
Municipality					
University	No	55.5	-	55.1	-
	Yes	44.5	-	44.9	-
Tax level in municipality	Continuous	31.24	0.94	31.24	0.94
Municipality contribution	Continuous	3934.29	4548.13	3934.29	4548.13
Municipality type	Big cities	17.0	-	17.3	-
	Stockholm	8.8	-	9.0	-
	Göteborg	5.4	-	5.4	-
	Malmö	2.8	-	2.9	-
	Other larger cities	36.2	-	36.5	-
	Medium sized cities	25.3	-	25.4	-
	Larger municipalities	12.4	-	12.2	-
	Smaller municipalities	4.0	-	3.9	-
	Rural area	5.1	-	4.8	-
Local labour market					
Employment level	Continuous	75.22	4.41	73.24	4.49
Unemployment level	Continuous	5.56	1.88	5.52	1.88
Size local labour market	Continuous	255652	293899	255652	293899
Local economic structure					
Relative size public sector	Continuous	37.35	7.91	37.32	7.97
Relative size manufacturing sector	Continuous	18.34	9.67	18.17	9.59

Relative size private sector	Continuous	44.04	10.90	44.21	10.88
Entrepreneurial climate	Continuous	68.95	12.81	68.95	12.81
Educational level	Continuous	2.17	0.15	2.17	0.15
Occupational level	Continuous	2.50	0.16	2.27	0.18

Source: Statistics Sweden.

Table 2. Municipality types.

Municipality type	Number of municipalities	Population	Definition
Big cities	3	1,502,751	>200,000
Other larger cities	39	3,237,288	50,000-200,000
Medium sized cities	73	2,274,339	20,000-50,000
Larger municipalities	83	1,143,816	10,000-20,000
Smaller municipalities	44	344,842	<10,000
Rural area	48	455,334	< 7 individuals per km^2

Source: Statistics Sweden.

Table 3. Employment rates of 2003 for men and women in ages 25-60 by country of birth.

Country of birth	Men		Women	
	Percent	*Number*	*Percent*	*Number*
Sweden	85	1,887,296	82	1,799,901
Yugoslavia	61	17,626	52	15,359
Bosnia-Herzegovina	71	16,470	65	15,300
Poland	64	7,882	64	16,942
Rumania	68	3,431	65	4,330
Hungary	61	2,307	63	2,958
Turkey	60	12,584	45	9,667
Lebanon	52	8,431	36	5,944
Syria	57	5,701	41	5,131
Chile	69	10,021	64	9,512
Iran	59	20,864	52	16,012
Iraq	39	22,0812	29	14,364
Ethiopia	59	4,452	62	3,696

Source: Statistics Sweden.

Table 4: *Individual and human capital characteristics.* The odds ratio of obtaining employment in 2003 by sex and country of birth (ages 25-60).*

Country of Birth	Men	Women
Sweden	1.000	1.000
Yugoslavia	**0.387**	**0.498**
Bosnia-Herzegovina	**0.689**	**0.768**
Poland	**0.479**	**0.480**
Rumania	**0.524**	**0.562**
Hungary	**0.408**	**0.467**
Turkey	**0.336**	**0.342**
Lebanon	**0.219**	**0.226**
Syria	**0.271**	**0.283**
Chile	**0.602**	**0.610**
Iran	**0.313**	**0.293**
Iraq	**0.154**	**0.167**
Ethiopia	**0.361**	**0.632**

Source: Statistics Sweden

* Control for age, age squared, marital status, children in household, educational level and years since immigration. These variables are not shown in the table, are available upon request.
Bold, **bold** + *italic* and bold + *italic* + underlined indicates significance on 0.01, 0.05 and 0.1 level.
Nagelkerke R^2 = 0.127(men) and 0.111 (women).

Table 5: Employment rates of 2003 for 'best' and 'worse' municipality. Selected refugee group (ages 25-60).*

Country of birth	Municipality	Men		Women	
		Municipality	*Percent*	*Municipality*	*Percent*
Sweden	'best'	Gnosjö	93	Värnamo	90
	'worse'	Övertorneå	68	Ljusnarsberg	73
Yugoslavia	'best'	Vetlanda	94	Alingsås	77
	'worse'	Hörby	41	Mellerud	24
Bosnia-Herzegovina	'best'	Tingsryd	94	Sigtuna	94
	'worse'	Karlshamn	48	Landskrona	40
Poland	'best'	Kävlinge	82	Alvesta	84
	'worse'	Ronneby	46	Gävle	53
Rumania	'best'	Alvesta	85	Sundbyberg	87
	'worse'	Trelleborg	54	Åstorp	34
Hungary	'best'	Uppsala	80	Jönköping	82
	'worse'	Malmö	40	Helsingborg	39
Turkey	'best'	Kungälv	77	Nacka	59
	'worse'	Lund	40	Borlänge	15
Lebanon	'best'	Nässjö	73	Norrköping	57
	'worse'	Kalmar	30	Halmstad	13
Syria	'best'	Upplands Väsby	76	Sandviken	58
	'worse'	Västerås	48	Trollhättan	26
Chile	'best'	Gnosjö	93	Mark	85
	'worse'	Partille	43	Kristianstad	36
Iran	'best'	Kungsbacka	88	Stenungsund	74
	'worse'	Härnosand	34	Karlskrona	26
Iraq	'best'	Järfälla	69	Sollentuna	54
	'worse'	Sandviken	13	Sandviken	5
Ethiopia	'best'	Järfälla	84	Järfälla	77
	'worse'	Malmö	37	Malmö	38

Source: Statistics Sweden
* N>29.

Table 6: The distribution of refugees by sex, type of municipality of first settlement and municipality of residence in 2003. Selected refugee group (ages 25-60).

Type of municipality	Men		Women	
	First Municipality	*2003 Municipality*	*First municipality*	*2003 municipality*
Big cities	22.6	34.7	25.3	33.9
Other larger cities	34.2	41.4	35.0	41.3
Medium sized cities	19.0	16.3	18.6	16.9
Larger municipalities	14.8	5.6	13.3	6.0
Smaller municipalities	3.8	1.2	3.6	1.3
Rural area	5.6	0.8	4.3	0.6

Source: Statistics Sweden.

Table 7:*Individual and human capital characteristics.* The odds ratio of obtaining employment in 2003. Selected refugee group (ages 25-60). *

Variables	Men		Women	
	Model A	*Model B*	*Model A*	*Model B*
Age	**1.115**	**1.114**	**1.283**	**1.282**
Age squared	**0.998**	**0.998**	**0.997**	**0.997**
Marital status				
Not married	1.000	1.000	1.000	1.000
Married	**1.379**	**1.380**	**1.213**	**1.214**
Children				
None	1.000	1.000	1.000	1.000
One	**1.654**	**1.655**	**1.104**	**1.103**
Two	-	-	**1.105**	**1.106**
Three or more	-	-	**0.742**	**0.741**
Educational level				
Primary education	1.000	1.000	1.000	1.000
Secondary education	**1.666**	**1.663**	**1.949**	**1.949**
University	**1.948**	**1.944**	**2.304**	**2.308**
Immigration year				
1974-1983	1.000	1.000	1.000	1.000
1984-1993	**0.857**	**0.854**	**0.901**	**0.891**
1994-2003	**0.423**	**0.426**	**0.372**	**0.370**
Country of birth				
Yugoslavia	1.000	1.000	1.000	1.000
Bosnia-Herzegovina	**1.696**	**1.644**	**1.624**	**1.715**
Poland	1.022	1.037	*1.059*	**1.154**
Rumania	**1.142**	**1.241**	**1.220**	**1.320**
Hungary	**0.872**	<u>*0.881*</u>	0.997	*1.140*
Turkey	**0.834**	**0.836**	**0.611**	**0.680**
Lebanon	**0.537**	**0.593**	**0.415**	**0.453**
Syria	**0.699**	**0.695**	**0.542**	**0.574**
Chile	**1.231**	**1.252**	**1.176**	**1.288**
Iran	**0.718**	**0.680**	**0.601**	**0.593**
Iraq	**0.415**	**0.372**	**0.368**	**0.352**
Ethiopia	**0.727**	**0.799**	<u>*1.076*</u>	**1.233**
Internal migration				
None	1.000	1.000	1.000	1.000
Migrated	1.002	0.963	**1.101**	**1.208**
Interactions				
Migrated*Bosnia-H		1.066		**0.891**
Migrated*Poland		0.964		**0.793**
Migrated*Rumania		*0.835*		*0.821*
Migrated*Hungary		0.984		**0.712**
Migrated*Turkey		0.984		<u>*0.894*</u>
Migrated*Lebanon		**0.833**		**0.826**
Migrated*Syria		1.013		<u>*0.873*</u>
Migrated*Chile		0.971		**0.811**
Migrated*Iran		*1.116*		1.023
Migrated*Iraq		**1.267**		**1.157**
Migrated*Ethiopia		<u>*0.870*</u>		**0.746**

Source: Statistics Sweden

* **Bold**, **bold** + *italic* and bold + *italic* + <u>underlined</u> indicates significance on 0.01, 0.05 and 0.1 level.
Nagelkerke R^2 = 0.132 and 0.133 (men), 0.178 and 0.179 (women).

Table 8: *Municipality types.* The odds ratio of obtaining employment in 2003. Selected refugee group (ages 25-60).*

Variables	Men		Women	
	Model A	*Model B*	*Model A*	*Model B*
University				
No	1.000	1.000	1.000	1.000
Yes	**0.846**	0.777	**0.888**	**0.838**
Tax level	*1.020*	1.044	1.004	**1.048**
Contribution	**0.996**	0.997	**0.996**	**0.997**
Type of municipality				
Big cities	1.000		1.000	
Stockholm		1.000		1.000
Göteborg		**0.831**		**0.773**
Malmö		**0.615**		**0.722**
Other larger cities	**1.141**	**0.921**	**1.129**	**0.929**
Medium sized cities	**1.147**	**0.860**	**1.171**	*0.918*
Larger municipalities	**1.424**	0.999	**1.288**	0.968
Smaller municipalities	**1.813**	**1.231**	**1.520**	1.124
Rural area	**1.914**	*1.184*	**1.861**	*1.265*

Source: Statistics Sweden

* Control for age, age squared, marital status, children in household, educational level and years since immigration, country of birth and internal migration. These variables are not shown in the table, but are available upon request.

Bold, **bold** + *italic* and bold + *italic* + underlined indicates significance on 0.01, 0.05 and 0.1 level.

Nagelkerke R^2 = 0.145 and 0.146(men) and 0.187 and 0.188 (women).

Table 9: *Local labour markets.* The odds ratio of obtaining employment in 2003. Selected refugee group (ages 25-60).*

Variables	Men	Women
Employment level	**1.028**	**1.020**
Unemployment level	**0.920**	**0.932**
Size local labour market	**1.020**	**1.020**

Source: Statistics Sweden

* Control for age, age squared, marital status, children in household, educational level and years since immigration, country of birth and internal migration. These variables are not shown in the table, but are available upon request.

Bold, **bold** + *italic* and bold + *italic* + underlined indicates significance on 0.01, 0.05 and 0.1 level.

Nagelkerke R^2 = 0.150(men) and 0.190 (women).

Table 10: *Local economic structure.* The odds ratio of obtaining employment in 2003. Selected refugee group (men in ages 25-60). *

Variables	Model A	Model B	Model C	Model D
Relative size public sector	**0.993**			
Entrepreneurial climate	**1.003**			
Educational level	**0.802**			
Occupational level	**0.780**			
Relative size manufacturing sector		**1.011**	0.980	
Relative size private sector		**1.018**		**1.027**
Municipality type				
Big cities		1.000	1.000	1.000
Other larger cities		**1.454**	*0.932*	**4.229**
Medium sized cities		**1.594**	1.117	**4.425**
Larger municipalities		**1.857**	1.066	**7.408**
Smaller municipalities		**2.263**	*0.728*	**17.136**
Rural area		**2.150**	1.160	**9.786**
Interactions				
Manufacturing*Other larger cities			**1.021**	
Manufacturing*Medium sized cities			**1.016**	
Manufacturing*Larger municipalities			**1.023**	
Manufacturing*Smaller municipalities			**1.039**	
Manufacturing*Rural area			*1.023*	
Private sector*Other larger cities				0.980
Private sector*Medium sized cities				0.982
Private sector*Larger municipalities				0.972
Private sector*Smaller municipalities				0.950
Private sector*Rural area				0.966

Source: Statistics Sweden

* Control for age, age squared, marital status, children in household, educational level and years since immigration, country of birth and internal migration. These variables are not shown in the table, but are available upon request.
Bold, **bold** + *italic* and bold + *italic* + underlined indicates significance on 0.01, 0.05 and 0.1 level.
Nagelkerke R^2 = 0.133, 0.138, 0.137 and 0.139.

Table 11: *Local economic structure.* The odds ratio of obtaining employment in 2003. Selected refugee group (women in ages 25-60).*

Variables	Model A	Model B	Model C	Model D
Relative size public sector	0.961			
Entrepreneurial climate	**1.004**			
Educational level	0.879			
Occupational level	0.860			
Relative size manufacturing sector		**1.007**	0.971	
Relative size private sector		**1.014**		**1.030**
Municipality type				
Big cities		1.000	1.000	1.000
Other larger cities		**1.386**	**0.824**	**5.151**
Medium sized cities		**1.537**	1.001	**5.113**
Larger municipalities		**1.618**	0.933	**6.826**
Smaller municipalities		**1.881**	**0.631**	**15.153**
Rural area		**1.998**	1.167	**9.848**
Interactions				
Manufacturing*Other larger cities			**1.030**	
Manufacturing*Medium sized cities			**1.025**	
Manufacturing*Larger municipalities			**1.029**	
Manufacturing*Smaller municipalities			**1.043**	
Manufacturing*Rural area			*1.024*	
Private sector*Other larger cities				0.976
Private sector*Medium sized cities				0.979
Private sector*Larger municipalities				0.973
Private sector*Smaller municipalities				0.951
Private sector*Rural area				0.967

Source: Statistics Sweden

* Control for age, age squared, marital status, children in household, educational level and years since immigration, country of birth and internal migration. These variables are not shown in the table, but are available upon request.

Bold, **bold** + *italic* and bold + *italic* + <u>underlined</u> indicates significance on 0.01, 0.05 and 0.1 level.

Nagelkerke R^2 = 0.179, 0.183, 0.182 and 0.184.

Table 12: Distribution by sex and sector of employment. Selected refugee groups and natives (ages 25-60).

Country of birth	Men			Women		
	Public sector	*Private sector*	*Self employed*	*Public sector*	*Private sector*	*Self employed*
Sweden	22.2	67.6	10.3	55.1	40.3	4.6
Yugoslavia	17.0	74.6	8.3	45.8	50.2	4.0
Bosnia-Herzegovina	14.9	81.4	3.7	45.3	52.9	1.8
Poland	20.1	68.0	11.9	48.7	44.9	6.5
Rumania	19.4	73.0	7.6	47.7	47.9	4.4
Hungary	20.6	67.1	12.2	46.6	45.4	7.9
Turkey	13.7	50.8	35.4	46.4	41.9	11.7
Lebanon	14.9	54.1	31.0	42.1	41.9	16.0
Syria	16.6	48.0	35.4	46.8	41.1	12.1
Chile	26.7	68.7	4.6	54.3	43.8	2.0
Iran	29.2	50.2	20.6	59.3	32.0	8.7
Iraq	23.2	58.3	18.5	54.0	38.7	7.3
Ethiopia	36.7	58.0	5.3	61.4	37.2	1.4
All Refugees	20.8	63.6	15.7	50.0	44.0	6.0

Source: Statistics Sweden.

Appendix

Selected refugee groups by type of municipality of first settlement and municipality of residence in 2003.
Males (percent)

Country of birth	Municipality	Big cities	Larger cities	Medium sized cities	Larger munici-pallities	Smaller munici-palities	Rural area
Yugoslavia	First	21.4	26.8	22.3	17.3	6.2	6.1
	2003	27.7	35.5	23.8	9.9	2.3	0.8
Bosnia-Herzegovina	First	11.1	22.8	25.4	24.0	7.6	9.1
	2003	26.3	33.2	25.0	11.5	3.1	0.7
Poland	First	41.4	33.1	13.8	9.6	1.0	1.1
	2003	41.6	35.6	14.8	6.3	1.0	0.8
Rumania	First	23.9	28.7	19.2	24.3	3.1	0.9
	2003	32.1	35.7	17.2	12.6	2.3	0.3
Hungary	First	41.2	29.2	13.2	14.1	2.0	0.3
	2003	45.8	30.6	14.5	7.6	1.3	0.2
Turkey	First	29.4	48.2	13.6	4.6	1.7	2.5
	2003	30.8	53.7	11.1	2.4	0.7	1.3
Lebanon	First	15.7	33.0	23.9	15.9	2.7	8.7
	2003	32.7	42.3	18.9	4.5	0.6	1.1
Syria	First	17.0	48.3	16.4	11.5	2.4	4.4
	2003	23.0	59.1	13.8	3.1	0.4	0.6
Chile	First	25.1	37.3	15.6	17.2	3.0	1.8
	2003	33.2	44.9	15.2	4.7	1.4	0.6
Iran	First	17.6	35.4	19.9	15.5	3.4	8.3
	2003	41.3	41.7	13.3	2.4	0.7	0.6
Iraq	First	26.1	35.3	17.3	12.4	3.1	5.8
	2003	39.0	42.6	13.3	3.7	0.6	0.7
Ethiopia	First	22.0	34.3	17.9	12.1	6.6	7.1
	2003	52.7	35.8	8.7	2.1	0.3	0.4

Source: Statistics sweden

Selected refugee groups by type of municipality of first settlement and municipality of residence in 2003.
Females (Percent)

Country of birth	Municipality	Big cities	Larger cities	Medium sized cities	Larger munici-pallities	Smaller munici-palities	Rural area
Yugoslavia	First	20.8	26.4	23.2	17.3	6.7	5.6
	2003	29.0	35.7	23.2	9.3	2.3	0.5
Bosnia-Herzegovina	First	10.5	22.6	25.3	24.8	7.8	8.9
	2003	25.3	33.9	25.6	11.5	3.0	0.7
Poland	First	37.1	32.8	17.4	9.4	1.5	1.7
	2003	36.4	34.6	18.3	8.2	1.4	1.2
Rumania	First	25.9	31.2	19.6	19.0	3.3	1.0
	2003	31.3	36.8	17.4	11.8	2.1	0.7
Hungary	First	39.5	33.1	14.7	10.0	2.2	0.5
	2003	42.4	32.0	16.4	7.3	1.7	0.3
Turkey	First	28.8	50.6	12.6	4.0	2.1	2.0
	2003	31.4	55.7	9.8	1.8	0.4	0.8

Lebanon	First	18.0	35.6	22.6	15.3	1.7	6.7
	2003	31.8	44.2	18.7	4.2	0.5	0.6
Syria	First	19.8	50.8	15.2	8.8	1.7	3.7
	2003	23.7	60.2	12.2	3.1	0.4	0.4
Chile	First	24.5	37.5	15.6	17.6	3.0	1.7
	2003	31.0	45.4	16.1	5.5	1.4	0.5
Iran	First	24.8	36.2	17.5	11.8	3.3	6.5
	2003	41.2	43.0	13.0	1.9	0.4	0.4
Iraq	First	29.6	39.2	17.0	9.1	1.9	3.3
	2003	38.3	44.1	13.4	3.3	0.6	0.3
Ethiopia	First	30.1	37.8	15.1	7.6	4.8	4.7
	2003	51.2	35.7	10.0	2.0	0.7	0.1

Source: Statistics Sweden

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