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by

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Abstract

This study investigates conditions favouring early labor market integration for immigrants in Sweden. The study is based on a survey among immigrants just two and a half years after they received a permanent residence permit. Factors such as work experience; Swedish spouse and the local labor market conditions influence the likelihood in getting a job during the first years in Sweden. The results also indicate gender differences. The level of education only matters for men while fluency in language is favourable only for women. Surprisingly, those participating in an introduction program organized by the local municipalities do not have a higher probability of getting work early after arrival.

Keywords: Immigrants, employment probability

***JEL classification*: F22; J15; J24**

1. Introduction

The riots in Paris in November 2005 have raised urgent questions about the European integration and the consequences of non-integration. They highlight the challenges for refugees and other immigrants to enter a host country's labor market. The process of labor market integration is, however, yet poorly understood by economic research. Some studies indicate that the duration of residence seems to be important. Studies on U.S. data indicate though that employment differentials between immigrants and natives disappear after ten years of residence (Chiswick et al 1997). A Swedish study shows however that duration of residence has a significant effect on employment probabilities even up to and including the first 20-25 years of residence. After 20 years, immigrant men still have an employment rate 15 percent points lower than that of men born in Sweden, according to Nekby (2003). Local labor market conditions also seem to be important factors influencing employment among immigrants for at least ten years (Rooth & Åslund 2006).

Most studies in the field of immigrant integration on the labor market have a long-run perspective. In this study we instead focus on the immigrants' first years in the host country. We try to find determinants that affect the probability of having work two and a half years after being granted a residence permit in Sweden. A first question of our study is what factors that affect an early labor market entrance. A second question is how intervention in the form of special introduction programs aiming at facilitating labor market entrance affects the probability of getting work. Thirdly, we study whether there are any differences in labor market outcomes, between immigrants eligible for such introduction programs, and other immigrants. Finally, if there are differences, we want to investigate possible explanations for these.

The study is based on unique data from a survey done approximately 30 months after immigrants in Sweden got permanent residence permits. In the survey, 1674 individuals have reported their education, earlier work

experience, fluency of language and other factors thought to affect their chances of getting a job. These are used in a logistic model to find correlations with labor market entrance. The study includes both immigrants that are submitted to introduction programs and those that are not. This makes possible some preliminary conclusions about the effectiveness of these programs that are provided by the municipalities where the immigrants are resident. Our study concerns the area of integration policy since it focuses upon immigrants' first years in Sweden after the granting of a residence permit, while immigration and return migration policies are not discussed.

We conclude that earlier work experience, Swedish spouse, language fluency and the local labor market conditions influence positively men in getting a job during the first years in Sweden, while the level of education only matters for. Surprisingly, those participating in an introduction program organized by the local municipalities do not have a higher probability of getting work.

The rest of this paper is organized as follows. In the next section (Chapter 2) we give a brief description of the institutional settings in Sweden. This is followed by a short overview of the theory and our conjectures (Chapter 3). Data and method are presented in Chapter 4, followed by the empirical result in Chapter 5. The two last chapters include empirical results, discussion and conclusions (Chapters 7-8).

2. Institutional settings in Sweden

As in many other OECD countries, a large numbers of immigrants have settled in Sweden during the nineties. Even earlier, Sweden has hosted immigrants, so a relatively large part of the current population is foreign-born, approximately 12 percent. As in many countries, the average unemployment rate in Sweden is higher among immigrants than for natives and earnings differ substantially (Aguilar & Gustafsson 1991, Edin et al. 2004, Ekberg 1994, Ekberg & Hammarstedt 2002, Vilhelmsson 2002, Hammarstedt 2003).

2.1 Definition of immigrants

A refugee is here defined as a foreign citizen who has been granted a residence permit because he or she has sought and been given sanctuary. An immigrant is a foreign citizen who has been granted permission to settle for whatever reason. Hence, all refugees are immigrants but not all immigrants are refugees. The population in this study includes refugees and their relatives and immigrants who are related (married) to Swedish citizens or married to immigrants with permanent residence permits. Other immigrants such as adopted children; students and economic immigrants are not included.

2.2 Integration policy

The integration policies of the Nordic countries are quite similar. Policies are made at the national levels and implemented at the municipal levels. In Denmark, Norway and Sweden, local municipalities are responsible for offering the refugees an introduction program. In Sweden, up until 1985 the national Labor Market Board was in charge of immigration issues. In 1985 the formal responsibility for handling refugee issues was handed over to the national Immigration Board.[1] This assigned immigrants to a municipality that in turn was to provide him or her with an apartment and an introduction program.

[1] In 1998 the Immigration Board was divided in two; the Migration Board and the Integration Board.

Until 1985, immigrant settlement was concentrated to a few geographic regions. From that year, the government implemented a settlement policy that involved close to all municipalities (277 out of 284). Later, evaluations have found this policy to be a failure (Ekberg 2004, Edin et al 2004). The refugees were often placed in municipalities with plenty of empty apartments but few jobs. The policy, in its extreme version, ended in 1991 but the present policy still bears some resemblance. Today, the authorities in a Migration Board reception center, initially place most asylum seekers and refugees, while waiting for a permit decision. They often stay there a long time because of complex legal processes. If the immigrant finally gets a permanent residence permit, he or she meets with the Migration Board to discuss which municipality to move to. Only a small proportion of the immigrants are placed in a municipality chosen by them. Currently, 166 of 290 Swedish municipalities have a written agreement[2] with the Swedish Integration Board that obligates them to provide introduction programs to immigrants that come in this way. This obligation is limited to an agreed number of immigrants per year, which therefore imposes a constraint on where immigrants initially can be settled.

2.3 Introduction program

After placement, refugees and their relatives who come within two years are eligible for an introduction program in the municipality where they have been offered residence. The responsibility for offering this program rests with the municipality. The program should be customized to the individual immigrant, so as to allow him or her to develop the skills he or she needs to be able to enter the Swedish labor market or education system. An essential part of the program is Swedish language studies. However, Swedish language study is offered to all immigrants coming to Sweden, including those not eligible for an introduction program.

[2] In the agreement, the Swedish Integration Board and the local government define how many refugees that the municipality in question will receive.

The introduction program is supposed to provide the immigrant with contacts with the labor market through, for example, work experience training, at-work language training and study visits at local places of work. The caseworkers on the programs are also supposed to collaborate with study- and vocational supervisors, employment offices, employees etc.

Following what is known as the Allowance Ordinance[3], municipalities receive a grant from the government to cover their expenses for direct economic support (to immigrants) and the introduction activities arranged for those immigrants that the municipalities agree to receive. These grants are given for a period of three years. Many immigrants coming to Sweden are however not eligible for a place in an introduction program and will not be offered participation in introductory activities by most municipalities. This group contains, among others, relatives of refugees that are allowed to come and join their family after two years. But even for this group the local authority has to offer language education. Also, a few municipalities offer introduction programs for those immigrants too.

2.4 Differences in introduction programs

The designs of the introduction programs depend on the municipalities' organisational structures but are also supposed depend on the immigrants' individual needs. Svantesson (2005) reports a follow-up study monitoring the performance of the introduction programs in the 52 largest recipient municipalities. The study was conducted by extensive questionnaires to local government caseworkers about a sample of immigrants who had participated in introduction programs. The sample covered all immigrants who had been given a permanent residence permit during the four first months of 2002.[4] The report concludes that there are large differences between the introduction programs of the municipalities surveyed.

[3] The Allowance Ordinance (SFS1990:927) defines the immigrants that the municipalities get economic support to integrate. The grant is given for three years and is supposed to cover different expenses such as economic support for refugees, education and introduction programs.
[4] The sample contained 2 783 individuals out of a total population of 4 561.

The duration of introduction programs varied a lot between municipalities. Almost 25 percent of the immigrants that had started in an introduction program had not finished by June 2004, i.e. more than two years after they had been given residence permit. In some municipalities, the individual introduction program was initiated rapidly after the residence permit was granted and the Swedish language education begun within a relatively short period after the date of registration in the population records. In other municipalities immigrants had to wait several months before starting the Swedish for Immigrants (SFI) courses. The number of weekly hours and total time in an introduction program also varies between municipalities.

Also, the degree of labor market contact in the programs varied between the municipalities. Only two out of three immigrants came into some kind of contact with the labor market during their introduction.

3. Theoretical framework and conjectures

The economic theory of human capital is often referred to when immigrants' success in the labor market is studied. When refugees or economic immigrants arrive in the host country they lack skills that are valuable in the labor market. Since skills are not perfectly transferable, immigration yields an initial loss of human capital. Human capital theory has been used to explain differences between economic immigrants and political refugees. A refugee has a lower possibility to return to the source country and is more "stuck" in the host country compared to other immigrants (Borjas 1989).

Language skills are often seen as the most important form of human capital. Chiswick & Miller (1995) define language fluency as a function of three conceptual variables: economic incentives, exposure and efficiency. The authors find, among other conclusions, that language fluency is shown to be associated with significantly higher earnings.

Another theory has focused on the immigrant's family situation. Long (1980), using data from the US, found that newly arrived immigrant women worked more hours than other immigrant women. To explain this, he suggested what he called the Family Investment Hypothesis. This conjecture states that newly immigrated women finance their husband's investment in human capital during the first years in the new country. However, Rashid (2002) rejected this hypothesis in a test on Swedish data. The empirical result indicated that the behaviour of married immigrant women in Sweden is not consistent with the Family Investment Hypothesis. Rashid suggests though that Long's hypothesis is not valid under Swedish conditions because in that particular case all refugees are granted public economic support during an introductory period.

3.1 Conjectures

From these theories, several conjectures can be derived about the determinants of early entrance to the labor market in the host country. The expected signs of these effects are shown in Table 1.

- From human capital theory, it follows that human capital, as captured by variables such as earlier work experience and higher education, should be an advantage in getting a job. Individuals that have previous work experience can therefore be expected to have a higher probability of getting a job in the host country than those that lack experience. Also, high-skilled individuals can be expected to have higher probability of getting a job than low-skilled individuals, all other things being equal.

- As language skill is one of the most important forms of human and cultural capital, language fluency can be expected to increase the probability of getting a job.
- Immigrants that have had the opportunity to take part in an introduction program in a municipality should have a higher

probability to get work than those who have not been offered such a program. The programs should give valuable country specific-skills.

- Since all refugees are granted public economic support during an introduction period, males and females are expected to have the same probability of getting work.

- Immigrants married to Swedish partners will have a higher probability of having a job early. These immigrants are exposed to the Swedish language at an early stage and will also acquire valuable Swedish specific skills through family and social networks.

- The placement of the immigrant in different municipalities is likely to be an important factor influencing short-term employment probability. The structure of the labor market and the unemployment rate in the municipality where the immigrant is placed are expected to have an influence on the probability of getting a job. Therefore, higher unemployment in the local labor market is expected to lower the probability of getting a job. Also, a large service sector will benefit the immigrants. Highly advanced manufacturing firms can be assumed to be less willing to hire immigrants early after their arrival because of their lack of specific skills.

Table 1. Expected signs from the conjectures

Earlier eduction	+
Earlier work experience	+
Swedish language skill	+
Participation in an introduction program	+
Gender	0
Having a Swedish born spouse	+
Unemployment in the local labor market	-
Share of private service sector in the local labor market	+

4. Data and method

In this study, almost all data was collected through a survey. In the sections below we introduce the sampling design, the questionnaire and the variables of interest.

4.1 Sampling design

Table 2 presents the size of the population, the sample and responses for this study. The total population of immigrants and refugees who got a permanent residence permit in one of the 52 largest recipient municipalities between January and April 2002 consisted of 4 561 individuals.

The immigrants are divided into two different subgroups, subgroup A and B. Subgroup A contains immigrants that are subject to the Allowance Ordinance (SFS 1990:927) and thereby eligible for an introduction program, while Subgroup B includes those that are not. Refugees are subject to the Allowance Ordinance and so are their relatives who come within two years. The group that is not subject to the Allowance Ordinance contains tight movers to Swedes and relatives of refugees who have come after the two-year limit. In the population, 1 908 individuals were subject to the Allowance Ordinance and 2 653 were not subject to the Ordinance.

Stratified sampling was used with eight strata and two stratification variables. The first of these variables categorized two subgroups of immigrants, those subject to the Allowance ordinance, Subgroup A, and those not subject to the Allowance ordinance, Subgroup B. The second variable groups municipalities. Since the three largest municipalities in Sweden (Stockholm, Göteborg and Malmö) host a considerable larger number of immigrants than other municipalities, the three was separated into one stratum each, while a fourth group consists of the 49 remaining municipalities.

Within the three largest municipalities a sample of 100 individuals[5] was selected from each subgroup of immigrants. The 49 other municipalities were treated together as a fourth stratum in which 1 027 individuals from the Allowance Ordinance were randomly drawn. 1 157 individuals who were not subject to the Ordinance were drawn the same way.

The total sample thereby contains 2 783 immigrants. Before distributing the questionnaire, Statistics Sweden found however that the sample contained 123 individuals that did not belong to the population (because of death, emigration etc) so the net sample was in fact 2 660 individuals[6]. 837 individuals in each group answered the questionnaire, which means that a larger proportion of those subject to the Ordinance answered.

Table 2. Population, sample and replies in survey.

Population	**4 561**
Subgroup A	1908
Subgroup B	2653
Survey sample	**2 783**
Subgroup A	1 327
Stratum: Stockholm 100	
Göteborg 100	
Malmö 100	
Other cities 1027	
Subgroup B	1 456
Stratum: Stockholm 99	
Göteborg 100	
Malmö 100	
Other cities 1157	
Net sample due to over-coverage	**2 660**
Replies	**1 674**
Subgroup A	837
Subgroup B	837

[5] In the Stockholm stratum, Group B, only 99 individuals were drawn.

[6] The non-response analysis is made from the adjusted sample of 2 660. When it comes to differences in answers between the two subgroups, the analysis is made from the over-covered sample. This is because we could not distinguish from which group the over-coverage came.

4.2 Questionnaire

In cooperation with the Swedish Board of Integration a survey was designed with a questionnaire that was sent to immigrants in the sample. Appendix A contains an English version of selected parts of our questionnaire. The questions capture individual characteristics. In most cases the respondents were asked to indicate their replies on ordinal or nominal scales. The Swedish questionnaire was a simple-language-revised version. A special department at the Swedish Integration Board had revised the wording to make it as simple and understandable as possible.

The questionnaire was sent out on the 18 October 2004, a letter explaining the purpose of the survey accompanied the questionnaire. The respondents were promised anonymity. After two written reminders, of which the second contained another copy of the questionnaire, the data gathering was called off at the end of November. At this time, 1674 individuals had answered the questionnaire giving a response rate of 63 percent. In Appendix A2 we present an analysis of the non-responses indicating no clear bias of the responses.[7] In the next section, we also discuss the problem of non-responses due to the fact that some respondents did not answer all questions.

4.3 Data

Dichotomous logistic regressions have been used to find the relevant and significant determinants of the probability of an early labor market entrance. Since the primary purpose of this study is to examine what factors that affect the probability of getting a job within two and a half years after granting a residence permit, the binary dependent variable is *Employed*. The respondent answered the question “What are you doing at present?” and the ones who answered “Work” and “Work as self-employed” were recoded as 1, all other answers were recoded 0. Both employees and self-employed persons are coded as employed. The purpose of the study is to examine what determines if a person has any job at all, part time or full time, at the time the respondent answered the questionnaire. The binary dependent variable is therefore 1 if the

respondent has any kind of work, no matter how many hours. 71 percent of the respondents did not have a job. However, the employed share of respondents eligible for an introduction program was just 18 percent as shown in Table 3, while the corresponding share of those not eligible for the introduction programs is approximately four out of ten.

Table 3. Employed in different subgroups. Percent.

	Subgroup A Eligible for introduction programs	Subgroup B Not eligible for introduction programs
Not employed	82	60
Employed	18	40
Total	100	100

The explanatory variables sex and age come from register-based data, Statistics Sweden. Other explanatory variables shown in Table 4 capture socioeconomic status, origin, language skills, status of the local labor market and finally whether the individual is eligible or not for an introduction program. The socioeconomic variables are recoded by the survey. The degree of fluency in the host country language, Swedish, is self-assessed. Respondents choose among five alternatives: “very well”, “well”, “neither good nor badly”, “badly”, and “very badly”. Similar measures have been used by Chiswick (1991,1995). For the regression this was recoded into a binary variable, “well” and “not well”, where the former includes “very well” and “well”.

To control for the structure of the labor market two explanatory variables are included. The first is the share of the local labor force that worked in private service industries in the municipality 2003. The second variable is the average unemployment rate in the municipality 2004. These variables come from

[7] The non-response analysis was primarily performed by Statistics Sweden and they used registered based data of

Statistics Sweden. Alternatively, we will control for fix municipality category effects. For this purpose, the municipalities were classified in nine categories according to a grouping scheme used by The Swedish Association of Local Authorities.[8][9]

The variable that captures whether the individual is subject to the Allowance Ordinance or not, comes from the Integration Board which administrates the grants to the municipalities. In one of the regression we explore an alternative variable. This variable, *Introduction*, comes from another survey where caseworkers answered a question whether the immigrant had participated in a program or not. Unfortunately, we do not have information on all individuals in the sample, so this regression is based on only 1204 observations. This variable will be further discussed in Chapter 5.

Some of the 1674 respondents did not provide an answer to all questions. The question with most missing responses (88 missing) is the one asking if the respondent has children. A large part of these dropouts belong to Subgroup A (67 percent). Another question with several missing responses, asks if the respondent is married or living with a partner. 27 respondents did not answer this question. 55 percent of them belong to Subgroup A.

In the base regression model a total of 163 responses were dropped due to missing variables, leaving 1 511 observations. We have also made regressions using parts of the dataset. The number of observations used will therefore be reported for each model.

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the respondents to find biases.

[8] The municipalities are categorized as metropolitan municipalities, suburban municipalities large cities, commuter municipalities, sparsely populated municipalities, manufacturing municipalities, other municipalities more than 25,000 inhabitants, other municipalities with 12,500 - 25,000 inhabitants and other municipalities with less than 12,500 inhabitants.

[9] Municipality category dummy variables are used instead of plain municipality dummy variables because of the low number of observations for several municipalitites. When using fix municipality effects we lose approximately 20 observations.

Table 4. Description of variables, sample mean, standard deviation and number of observations.

Variables	Description	Mean	N of obs
Dependent variable:	Employed	0.29	1 511
Explanatory:			
Gender	Male	0.43	1 511
Age	Age of immigrant	35	1 511
Age squared	Square of age divided by one hundred	13	1 511
Married 1	Married to or living together with a partner	0.84	1 511
Married 2	Married to or living with a Swede	0.25	1 411
	Married to or living with a non Swede	0.58	
	Single	0.17	
Children	Children in the household	0.60	1 511
Parental Status and sex	Female with children	0.36	1 511
	Female with no children		
	Male with children	0.21	
	Male with no children	0.24	
		0.19	
Education before immigration	No education or < 9 yrs		1 511
	secondary school,	0.17	
	9 yrs secondary school,	0.11	
	upper secondary school,	0.35	
	university,	0.33	
	other education which can not be coded into the other categories	0.04	
Work experience before immigration	No work experience	0.25	1 511
	1-5 years	0.30	
	6-10 years	0.19	
	11-15 y ears	0.10	
	16-20 years	0.07	
	> 20 years	0.09	
Origin	Europe	0.31	1 511
	Africa	0.06	
	Asia	0.56	
	N America/Oceania	0.03	
	South America	0.04	
Language fluency	Self assessed Swedish language fluency	0.54	1 511
Unemployment Rate	The mean unemployment rate of the local labor market 2004	4.56	1 511
Service industry Share	Share of private service sector in the local labor market.	45.34	1 511
Eligible to Introduction	Subject to the Allowance Ordinance and thereby eligible for introduction program	0.49	1 511

5. Empirical results

In this section we present the result of the logistic regression estimates. First, in Table 5, we present the estimated determinants of immigrants' early labor market integration. Later, we will show the results of further investigations on issues like gender differences and participation in an introduction program. We present the marginal effects calculated at the mean values of the variables. The marginal effect is the effect of a small increase in the explanatory variable on the probability of being employed. The marginal effect shows how many percentage points the probability increases or decreases, when an explanatory variable changes, things equal.

Model 1 in Table 5 is the base case regression result, showing factors that affect the probability of being employed. In model 1, all 1511 individuals are included. Model 2 controls for Swedish spouse. In this model, additionally 100 observations were dropped because of lack on information of whether the immigrant is living with a Swedish partner or not. In model 3 we control for fix differences between municipality categories, by including municipality category dummies, instead of using variables capturing the structure of the local labor market.

The diagnostic tests show significant fit. Age, sex, children in household, region of origin, work experience, fluency in language, eligibility for an introduction program, the unemployment rate of the municipality of residence and the structure of the local labor market, respectively, all show significant effects. The results indicate that immigrants from Europe have an advantage compared to immigrants from Asia or Africa. Asians have eleven, and Africans ten, percentage points lower probability of getting a job than Europeans. Further, as conjectured, the result shows that the structure of the local labor market is important for the immigrant. It is positive if the unemployment rate is low and if the service sector employment share is large.

Table 5. Binominal logistic models estimates of employment probability. Model 1 is the base case model. In Model 2 marital status is recoded. Model 3 includes fix municipality category effects, which is the difference between Model 1 and Model 3.

	Model 1	**Model 2**	**Model 3**
Sex	0.172***	0.179***	0.173***
	(0.029)	(0.030)	(0.026)
Age	0.042***	0.048***	0.041***
	(0.013)	(0.014)	(0.011)
Age squared	- 0.062***	- 0.068**	- 0.060**
	(0.018)	(0.019)	(0.015)
Married/living with partner	0.019	-	0.020
	(0.028)		(0.034)
Married/living with a Swede	-	REF	-
Married/living with a non Swede	-	- 0.070*	-
		(0.038)	
Single	-	-0.060*	-
		(0.035)	
Children	- 0.071***	- 0.060**	- 0.068***
	(0.026)	(0.028)	(0.026)
Education:			
No education or	REF	REF	REF
< 9 years secondary school			
9 years secondary school	0.012	0.036	0.008
	(0.048)	(0.053)	(0.050)
Upper secondary school	0.058	0.059	0.056
	(0.038)	(0.038)	(0.040)
University	0.037	0.025	0.039
	(0.040)	(0.042)	(0.041)
Other type of education	- 0.027	- 0.038	- 0.032
	(0.053)	(0.054)	(0.061)
Work Experience:			
No work experience	REF	REF	REF
1-5 years	0.115**	0.105**	0.115***
	(0.050)	(0.052)	(0.040)
6-10 years	0.090**	0.068	0.10**
	(0.046)	(0.048)	(0.048)
11-15 y ears	0.172***	0.131**	0.168***
	(0.062)	(0.056)	(0.064)
16-20 years	0.236***	0.193**	0.240**
	(0.078)	(0.082)	(0.080)
> 20 years	0.176**	0.127	0.180**
	(0.074)	(0.080)	(0.087)
Birth Region:			
Europe	REF	REF	REF
Africa	- 0.087**	- 0.102***	- 0.089**
	(0.034	(0.038)	(0.038)
Asia	- 0.116***	- 0.118***	- 0.120***
	(0.025)	(0.026)	(0.029)
North America /Oceania	0.062	0.028	0.067
	(0.082)	(0.084)	(0.078)
South America	- 0.027	- 0.037	- 0.028
	(0.049)	(0.054)	(0.050)
Fluency in language	0.057**	0.053**	0.054**
	(0.024)	(0.026)	(0.024)
Eligible to introduction	- 0.145***	- 0.128***	- 0.139***
	(0.026)	(0.027)	(0.029)

Unemployment rate	- 0.049*** (0.012)	-0.042*** (0.014)	-
Structure of labor market	0.003** (0.001)	0.003** (0.001)	-
Municipalities category	-		Yes
Log Likelihood No of observations Pseudo R2	-779 1511 0.1437	-726 1411 0.1445	-782 1511 0.1408

***, **, *, indicate significance at 1, 5 and 10% levels, respectively. Coefficients are marginal effects. Standard errors within parentheses, Model 1 & 2 are corrected for clustering on municipality.

Surprisingly, immigrants that are subject to the Allowance Ordinance and thereby eligible for an introduction program do not have a significantly higher probability of being employed. In fact the effect is significantly negative. This result holds after controlling for differences between municipality categories[10].

The variable *marital status*, married or not, has no significance in model 1. However, as shown in model 2, when categorizing this variable into whether the married immigrant is living with a Swede or not, it is an advantage to be married to a Swedish spouse.

The results also show that children in the household have a negative effect on the likelihood of being employed. Whether this result holds for both women and men, or if this may be a gender issue we will further investigate, together with other gender issues, below.

Gender differences

The results reveal that it is more difficult for women to get into the labor market early. Men seem to have a 17 percent point higher probability of getting a job than women.[11] There is hence an obvious discrepancy in labor force participation between immigrant men and women. In many countries there are gender differences in labor force participation and traditionally, women have had lower employment rates. In Sweden though, gender

[10] Fix municipality effects will not be controlled for further in the study since the differences between the estimates in Model 1 & 3are very small.

[11] 23 percent of the women are employed while for men this proportion is 37.

differences in labor force participation are quite small. This result therefore implies a discrepancy in labor force participation, not only between immigrant men and women, but also between newly immigrated women and other women in Sweden.

As presented earlier, children affect the labor market entrance probability negatively, but the estimates in Table 5 do not show whether this is the case for both women and men. To investigate such gender differences, the base case model is estimated separately for men and women. The results, shown in Table 6 (model 1a & 1b), reveal a significant negative coefficient of the variable *children* for women, while this variable has no significant influence on men's average probability of getting a job. Further, we ran the basic binomial regression but with a recoded variable on marital and parental status. This result, in model 2, shows that men - with or without children- have a higher probability than women with children of getting a job. Also for women without children the probability of getting a job is higher. To summarize, these results indicate that women with children in the household have a more serious problem entering the labor market at an early stage after arrival.

Table 6. Binominal logistic models estimates of employment probability. Model 1a & 1b separates males and females. Model 2 has a recoded variable on sex and children.

	Model 1a Men	**Model 1b Women**	**Model 2**
Age	0.054**	0.028**	0.043***
	(0.219)	(0.011)	(0.013)
Age squared	-0.087***	-0.038**	-0.062***
	(0.030)	(0.016)	(0.016)
Female with children	--	--	REF
Female without children	--	--	0.122***
			(0.040)
Male with children	--	--	0.234***
			(0.046)
Male without children			0.264***
			(0.042)
Married/living	0.001	0.014	0.003
with a partner	0.058)	(0.034)	(0.029)
Children	-0.001	-0.103***	--
	(0.042)	(0.031)	
Education:			
No education or	REF	REF	REF
< 9 years secondary school			
9 y secondary school,	0.061	0.005	0.015
	(0.088)	(0.045)	(0.048)

Upper secondary school	0.172***	-0.019	0.055
	(0.064)	(0.040)	(0.038)
University	0.168**	0.033	0.037
	(0.078)	(0.042)	(0.040)
Other type of education	0.085	-0.080*	-0.029
	(0.110)	(0.046)	(0.053)
Work Experience:			
No work experience	REF	REF	REF
1-5 year	0.1534**	0.101**	0.114**
	(0.071)	(0.048)	(0.050)
6-10 year	0.070	0.135**	0.087*
	(0.068)	(0.061)	(0.046)
11-15 y ear	0.179**	0.218**	0.166***
	(0.088)	(0.094)	(0.063)
16-20 year	0.350***	0.167*	0.232***
	(0.105)	(0.094)	(0.078)
> 20 year	0.259*	0.183*	0.171**
	(0.132)	(0.103)	(0.074)
Birth Region:			
Europe	REF	REF	REF
Africa	- 0.070	-0.109***	-0.083**
	(0.071)	(0.032)	(0.038)
Asia	- 0.012**	-0.117***	-0.116***
	(0.054)	(0.028)	(0.024)
N America/Oceania	- 0.023	0.104	0.069
	(0.130)	(0.106)	(0.082)
South America	(0.093)	-0.016	-0.026
		(0.042)	(0.048)
Fluency in language	0.040	0.054**	0.054**
	(0.039)	(0.028)	(0.024)
Allowance Ordinance	-0.204***	-0.088**	-0.144**
	(0.035)	(0.039)	(0.026)
Unemployment rate	-0.071***	-0.031**	-0.048**
	(0.028)	(0.013)	(0.013)
Structure of labor market	0.004*	0.002*	0.002*
	(0.002)	(0.001)	(0.001)
Log Likelihood	-365	-401	-777
No. of observations	654	857	1511
Pseudo R2	0.154	0.127	0.1458

***, **, * indicate significance at 1, 5 and 10% levels respectively. Coefficients are marginal effects; robust standard errors corrected for clustering on municipality are reported in parentheses.

Furthermore, fluency in language significantly affects the employment probability of the group as a whole, but when separating men and women this turns out to be a gender issue. To have a high degree of fluency in language increases the employment probability only for women in this model. Likewise, there are gender differences when it comes to education. In the overall model, education does not have any significant impact on the probability of entering the labor market. However, when estimating separate equations for men and women, upper secondary school and university

education have a significant positive effect on the probability for men but no significant effect for women.

Another interesting difference is that *birth regions* also affect immigrant women and men differently. Both women and men from Asia have a significantly lower probability to get a job than European women and men, but the largest discrepancy in probability is between European women and Asian women, not between men.

Introduction program

After controlling for the various variables included in the regression model the lack of a positive influence of being part of the Ordinance subgroup (A), and thereby eligible for an introduction program, remains. The probability of having a job is considerably lower for a person belonging to this subgroup. We have therefore further investigated whether this difference may be due to ineffective introduction programs or unobservable differences between individuals in the two groups.

A first question is whether there are differences in individual characteristics between the groups that could explain the differences in outcomes. In Appendix B1 we present a description of the variables separately for the two subgroups. An equation was estimated with subgroup membership as the dependent and individual characteristics as explanatory variables. The results confirm that there are significant individual differences between the immigrants in the two groups.[12]

The variable that records group membership, here called “Allowance Ordinance” and “not Allowance Ordinance” is not a perfect measure of whether the individual has participated in an introduction program. As shown in Svantesson (2005), eleven percent of the individuals not eligible for the introduction program got the program anyway. This is because some

municipalities offer introduction programs to immigrants regardless of why they were granted a permanent residence permit.[13] Even not all immigrants subject to the Allowance Ordinance participate in a program.

We have therefore conducted regressions based on a sub-sample of 1 204 for which we have additional evidence (from the follow-up survey to caseworkers) whether the individuals have followed an introduction program or not.[14] This variable, called *Introduction,* comes from a question in an earlier survey where caseworkers answered a question whether the immigrant had participated in a program or not. The answers are recoded from the answers "yes", "has not yet started" and "the immigrant is unknown to the municipality". The former answer has been coded as 1 the later as 0. The question was answered between June and August 2004.

The result is shown in Table 7, model 1, and the estimation results, is similar to the previous results. The marginal effect of participation in a program is significantly negative. Those participating in the introduction program have a 12 percent points lower probability to get a job.

Table 7. Binominal logistic model estimates of employment probability. The variable Introduction is used instead of Eligible to introduction in all three models. Model 2 &3 separates Subgroup A & B.

	Model 1 Subgroup A & B	Model 2 Subgroup A	Model 3 Subgroup B
Sex	0.166*** (0.029)	0.118*** (0.030)	0.250*** (0.050)
Age	0.042*** (0.013)	0.017 (0.011)	0.049 (0.032)
Age squared	- 0.064*** (0.024)	- 0.029** (0.0150)	- 0.074* (0.042)
Married/living with partner	0.000 (0.032)	-0.256 0.040)	0.001 (0.073)
Children	- 0.056** (0.030)	0.049 (0.040)	- 0.136*** (0.027)
Education: No education or < 9 years secondary school	REF	REF	REF

[12] Sex, age, marital status, children, region of origin and work experience all prove to be significant explanatory variables. Education does not.

[13] There were just a few municipalities that offered introduction program to immigrants who were not subject to the Ordinance. But in Malmö, Eskilstuna, Eslöv and Sollentuna a large share of these immigrants participated in an introduction program.

[14] We have information about whether the individual has taken part in a program or not for 1 336 of the 1 674 individuals but only 1 204 is used in the regression due to missing variables as in Chapter 4.

9 years secondary school	0.026	0.111	0.010
	(0.062)	(0.093)	(0.072)
Upper secondary school	0.069	0.083	0.033
	(0.044)	(0.064)	(0.070)
University	0.057	0.123*	0.017
	(0.051)	(0.072)	(0.080)
Other type of education	- 0.019	0.004	- 0.024
	(0.071)	(0.073)	(0.107)
Work Experience:			
No work experience	REF	REF	REF
1-5 years	0.144**	0.138**	0.171*
	(0.057)	(0.054)	(0.093)
6-10 years	0.156***	0.093	0.251***
	(0.059)	(0.062)	(0.096)
11-15 y ears	0.224***	0.137**	0.352***
	(0.071)	(0.063)	(0.111)
16-20 years	0.281***	0.146*	0.378***
	(0.088)	(0.084)	(0.081)
> 20 years	0.212**	0.046	0.326***
	(0.092)	(0.111)	(0.123)
Birth Region:			
Europe	REF	REF	REF
Africa	- 0.109***	- 0.105***	- 0.077
	(0.041)	(0.030)	(0.036)
Asia	- 0.154***	- 0.143***	- 0.145***
	(0.034	(0.050)	(0.044)
North America /Oceania	0.004	--	0.018
	(0.076)		(0.095)
South America	- 0.043	0.395	- 0.060
	(0.047)	(0.050)	(0.069)
Fluency in language	0.029	0.034	0.123
	(0.030)	(0.038)	(0.041)
Introduction	- 0.118***	- 0.218***	- 0.028
	(0.035)	(0.079)	(0.093)
Unemployment rate	- 0.049***	-0.017	-0.063***
	(0.012)	(0.184)	(0.022)
Structure of labor market	0.003*	-0.002	0.008***
	(0.001)	(0.001)	(0.002)
Log Likelihood	-621	-241	-356
No of observations	1204	591	613
Pseudo R2	0.1460	0.1736	0.1301

***, **, *, indicate significance at 1, 5 and 10% levels, respectively. Coefficients are marginal effects; robust standard errors corrected for clustering on municipality are reported in parentheses.

We further investigated this issue conducting separate regressions for the two subgroups (A and B). The results are shown in model 1 & 2 in Table 7. The *Introduction* variable coefficient is not significantly positive in any of the two subgroups. However, it is significantly negative only in Subgroup A, i.e. among individuals subject to the Allowance Ordinance.

Network; relatives and friends

One reason for our finding that immigrants that are not eligible for the programs have a higher probability of getting a job may be that those individuals have superior cultural skills and social networks in the host country, for instance through Swedish relatives. Such advantages are difficult to measure. However, in the survey respondents that had a job were asked how they got it. Among the non-eligible, connections to relatives and friends often resulted in a job and 38 percent of the individuals in this group say that this was the way they go a job. In the eligible group this is the case for fewer, 23 percent. Still there are networks and connections in both groups. A further regression was therefore based on a sub-sample omitting all individuals that had reported having a job that they obtained with the help of friends or relatives. The result is shown in Table 8. The difference between the individuals, eligible or not eligible for the introduction programs, remains. The difference in probability to get a job now is smaller but there is still a significant difference.

Table 8. Binominal logistic model estimates of employment probability. Immigrants with jobs that they have obtained with the help of relatives and networks are omitted.

	Marginal effects	**Robust Stand. Error**
Subgroup/Eligible to introduction	-0.094***	0.035
Log Likelihood	- 594	
No. of observations	1324	
Pseudo R2	0. 1487	

***, **, *, indicate significance at 1, 5 and 10% levels, respectively.
Note: This table presents selected results. The regression results is presented in Table B2 in Appendix B.

7. Discussion

In this study, we have investigated the factors affecting the probability of immigrants having a job approximately 30 months after being granted a residence permit. Also, the effect of whether special programs can help has been studied.

The results indicate that there are gender differences in the probability of being employed. Males with earlier work experience, higher education, and that come from an economically developed region have the highest probability of getting a work. Women have a lower probability than men of getting a job. For a woman, higher education does not improve the chances of getting a job in an early stage of residence, while it does so for men. Moreover, fluency in language seems to affect employment probabilities for women only. These gender differences are somewhat surprising and raise questions for further studies.

Women with children are also less likely to find a job, in spite of government funding of introduction programs that support both women and men equally. These differences could possibly be explained by difficulties in getting childcare, or discrimination or be the result of cultural differences and views on who shall support the family.

Marital status does not have an impact on the likelihood of being employed, while being married to a Swede seems to favor labor market entrance. This is an expected result. Immigrants from Europe and America have a higher probability of getting work in Sweden soon after arrival than immigrants from Africa or Asia. Whether this is a question of discrimination or a question of cultural distance this study does not tell.

As conjectured, the structure of the local labor market and the unemployment rate in the local labor market also affect the probability of an immigrant entering the market. A higher proportion of jobs in the private service industries seem to benefit immigrant entrances.

A surprising outcome is the differences among the two subgroups, A and B. The category including persons eligible for the introduction programs have a smaller probability of being employed. When controlling for age, gender, work experience and other individual variables, the results still point in the direction that being eligible for an introduction program does not increase the probability to having a job. There can however be unobservable differences, such as cultural skills, between the groups that are not captured in a regression but even when controlled for social networks the eligibility variable remains significantly negative.

To some extent, this result can be caused by unobserved differences between participants and non-participants to the program. However, Svantesson (2005) found in a follow-up study that almost 25 percent of those who had started in a program were still in some form of introduction activities in June 2004. This means that a considerable portion of the immigrants were still in programs 30 months after receiving residence permits. It therefore seems that some part of the differences in employment probability outcome may be due to lock-in caused by the programs Whether such an effect will be balanced in the long term by increased probability of getting a job is cannot be seen from this study, but could be revealed if a later follow-up is made.

8. Conclusions for policy and further research

This study raises further questions about the effectiveness of the integration policy in Sweden. First, the study raises questions about the present settlement policy. While the results indicate that local labor market conditions are important for the immigrant, the Swedish Board of Integration does not take this into account in their selection of municipality. Most refugees do not have deep knowledge of the differences between local labor markets and cannot base their decisions on where to move on a well-concluded consideration of this aspect.

Secondly, we have shown some factors leading to an early labor market entrance that can be affected by policies. One such example is language fluency. A question that can be asked is therefore whether the present language training system is designed so as to give the best possible support to immigrants, especially for women.

Finally, our study suggests that individuals participating in the introduction programs do not have a higher probability making an early entrance in the labor market. The study does not give any definite explanations to this result so the field is open to further investigation. Can it be that the programs lock-in the program participants and reduce their job search activity during the time they participate in the program? Do these programs lead the immigrants into studies instead of work? Are individuals in the programs not as motivated as the individuals outside the programs to seek for work? Another question open for further investigation is whether the caseworkers, which often are social-workers, have the ability and skills required to make the design of the introduction program efficient enough. Finally, as already noted, a follow-up after a few years of the group of immigrants studied here may tell whether the introduction programs are beneficial in the long term.

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Appendix A

Table A1 Selected (and translated) parts of the questionnaire.

Are you married and/or living together with a partner.

1 ☐ Yes
2 ☐ No If no, go to the next question.

b) If yes. **Was your spouse born in Sweden?**

1 ☐ Yes
2 ☐ No

Do you have any children in the household?

1 ☐ Yes
2 ☐ No

What education did you have before coming to Sweden?

Which Swedish education is it comparable with? Just tell us the highest education.

1 ☐ No education
2 ☐ Secondary school, less than 9 years
3 ☐ 9 years secondary school,
4 ☐ Upper secondary school,
5 ☐ University level
6 ☐ Other education,_____
7 ☐ Can not answer

How many years did you work (all together) before coming to Sweden?

1 ☐ Not at all
2 ☐ 1–5 years
3 ☐ 6–10 years
4 ☐ 11–15 years
5 ☐ 16–20 years
6 ☐ More than 20 years

What are you doing at present?

1 ☐ Work (as employed)
1 ☐ Work (as employed) at a workplace where I first practiced
1 ☐ Work as self-employed
1 ☐ Job-seeking
1 ☐ Studying Swedish
1 ☐ Studying at Secondary schoo1-level
1 ☐ Studying at Upper secondary school-level
1 ☐ Studying at University-level
1 ☐ Practising at a workplace
1 ☐ Participating in a program through the unemployment office
1 ☐ Parenting with governmental support
1 ☐ Working at home without salary

1 ☐ Absent because of sickness

1 ☐ Early retired

1 ☐ Doing something else like, _____

How did you get the job?

1 ☐ By answering an ad
1 ☐ Work-agency
1 ☐ By contacting the employee myself
1 ☐ Through connections via relatives, friends

1 ☐ Other ways; _____

How well do you speak Swedish?

Make your own assessment!

1 ☐ Very well

2 ☐ Well

3 ☐ Neither well nor badly

4 ☐ Badly

5 ☐ Very badly

!

Appendix A2 Statistics Sweden Non-repsonse analysis.

		Responses		Non responses		Sample		
	Sex	**Number**	**%**	**Number**	**%**	**Number**	**%**	
	Men	728	62,4	438	37,6	1166	100	
	Women	946	63,3	548	36,7	1494	100	
	All	1674	62,9	986	37,1	2660	100	
	5-year classes							
	20 - 24	220	58,8	154	41,2	374	100	
	25 - 29	359	61,2	228	38,8	587	100	
	30 - 34	355	62,1	217	37,9	572	100	
	35 - 39	274	66,5	138	33,5	412	100	
	40 - 44	193	65,2	103	34,8	296	100	
	45 - 49	113	69,3	50	30,7	163	100	
	50 - 54	70	63,1	41	36,9	111	100	
	55 - 59	49	63,6	28	36,4	77	100	
	60 - 64	36	61	23	39	59	100	
	65 - 69	5	55,6	4	44,4	9	100	
	All	1674	62,9	986	37,1	2660	100	
	10- year classes							
	20 - 29	579	60,2	382	39,8	961	100	
	30 - 39	629	63,9	355	36,1	984	100	
	40 - 49	306	66,7	153	33,3	459	100	
	50 - 59	119	63,3	69	36,7	188	100	
	60 - 69	41	60,3	27	39,7	68	100	
	All	1674	62,9	986	37,1	2660	100	
	Marital status							
	Married	1179	65	635	35	1814	100	
	Not married	369	60,7	239	39,3	608	100	
	RP	.	.	1	100	1	100	
	S	109	53,4	95	46,6	204	100	
	Ä	16	50	16	50	32	100	
	All	1674	62,9	986	37,1	2660	100	
	Income							
	None (0)	1019	63,5	585	36,5	1604	100	
	1 - 84 999	536	61,8	331	38,2	867	100	
	85 000 -159 999	90	64,7	49	35,3	139	100	
	160 000 -234 999	19	52,8	17	47,2	36	100	
	235 000 -309 999	4	66,7	2	33,3	6	100	
	310 000 -	6	75	2	25	8	100	
	All	1674	62,9	986	37,1	2660	100	
	Area							
	Big cities	598	57,8	436	42,2	1034	100	
	Not Big cities	1076	66,2	550	33,8	1626	100	
	All	1674	62,9	986	37,1	2660	100	
	Due to the Ordinance	837	63	490	37	1327	100	
	Not due to the Ordinance	837	57,5	619	42,5	1456	100	

Appendix B

Table B1. Descriptives of variables. Subgroups presented separately.

Variables	**Description**	**Mean In subgroup A**	**Mean In subgruop B**
Dependent variable:	Employed	0.19	0.39
Explanatory:			
Gender	Male	0.53	0..35
Age	Age of immigrant	37	32
Age squared	Square of age divided by one hundred	15	11
Married 1	Married to or living together with a partner	0.76	0.91
Married 2	Married to or living with a Swede	0.03	0.46
	Married to or living with a non Swede	0.71	0.44
	Single	0.26	0.10
Children	Children in the household	0.68	0.52
Parental Status and sex	Female with children	0.36	0..35
	Female with no children	0.11	0..31
	Male with children	0.32	0.17
	Male with no children	0.21	0.17
Education before immigration	No education or < 9 yrs secondary school,	0.22	0.13
	9 yrs secondary school,	0.13	0.10
	upper secondary school,	0.32	0.36
	university,	0.29	0.36
	other education which can not be coded into the other categories	0.03	0.05
Work experience before immigration	No work experience	0.33	0.18
	1-5 years	0.22	0.37
	6-10 years	0.17	0.21
	11-15 y ears	0.12	0.09
	16-20 years	0.05	0.07
	> 20 years	0.11	0.08
Origin	Europe	0.19	0.41
	Africa	0.05	0.08
	Asia	0.75	0.39
	N America/Oceania	0.00	0.05
	South America	0.01	0.07
Language fluency	Self assessed Swedish language fluency	0.48	0.59
Total no of observation		733	778

Table B2. Binominal logistic model estimates of employment probability. Immigrants with jobs that they have obtained with the help of relatives and networks are omitted.

	Marginal Effects	**Robust Standard Error**
Sex	0.151***	(0.029)
Age	0.030***	(0.011)
Age squared	- 0.044***	(0.015)
Married/living with a partner	0.011	(0.032)
Children	- 0.029***	(0.024)
Education:		
No education or < 9 years secondary school	REF	
9 y secondary school,	-0.010	(0.048)
Upper secondary school	0.045	(0.036)
University	0.064*	(0.038)
Other type of education	- 0.011	(0.052)
Work Experience:		
No work experience	REF	
1-5 year	0.087**	(0.045)
6-10 year	0.084**	(0.045)
11-15 y ear	0.140**	(0.066)
16-20 year	0.238***	(0.093)
> 20 year	0.143**	(0.074)
Birth Region:		
Europe	REF	
Africa	- 0.060**	(0.035)
Asia	- 0.110***	(0.027)
North America /Oceania	0.213	(0.069)
South America	- 0.086***	(0.029)
Fluency in language	0.067***	(0.021)
Eligible to introduction	- 0.094***	(0.024)
Unemployment rate	- 0.035***	(0.012)
Structure of labour market	0.002	(0.001)
Log Likelihood	-595	
No of observations	1324	
Pseudo R2	0.1487	