

Cross-country Employment Propensity of Finnish Migrants: Evidence from Linked Register Data

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Abstract

This paper explores how individual employment propensity interrelates across countries and time, using data that link population registers from Sweden and Finland. Migrants are observed before emigration, after emigration, and in a follow-up in cases both where they were still living in the host country and if they had return migrated. The interrelation is found to be strong, suggesting that migrants' employment problems need not necessarily be due to failures in integration policies or because of problems in assimilation induced by migration as an event. They could also be explained by the fact that many persons, in latent subgroups, have inherently elevated failure risks.

Keywords: employment propensity; integration; Finland; Sweden.

Introduction

In the majority of industrialised countries, immigrants have lower relative employment rates than natives (OECD, 2001). The Finnish immigrant population in Sweden, which constitutes the largest group of foreign-born, close to 200,000 persons, is no exception. In 2001, the employment rate of Finnish immigrants aged 36-50 years was roughly 75 per cent, as compared with over 85 per cent for native Swedes (Saarela and Rooth, 2006). Substantial population heterogeneity underlies these numbers, however. It is specifically men with Finnish as their mother tongue who are in a poor position (Rooth and Saarela, 2006). Their employment rate

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was only 65 per cent, as compared with over 75 per cent for women with Finnish as their mother tongue. Finns with Swedish as their mother tongue, hereafter referred to as Swedish speakers, reached almost 85 per cent, i.e. about the same levels as native Swedes. The Swedish speakers originate from the Swedish-speaking population of Finland. In Finland, the Swedish speakers live intermingled with Finnish speakers, and amount to barely six per cent of the total population, or about 300,000 persons.

The reasons behind the variation in employment rates within the Finnish immigrant population in Sweden have not been fully understood. It seems that many of the Finnish speakers, men in particular, are people with inherent difficulties in finding employment due to inadequate abilities or skills, poor motivation, bad health, or other latent factors. For instance, it has been found that men from Finland are overrepresented among homeless people in Sweden (National Board of Health and Welfare, 2006), and that they have elevated risks of cause-specific diseases and deaths that are associated with poor living conditions and unhealthy behaviours (Swedish National Institute of Public Health, 2002).

A considerable part of these immigrants may consequently be people who had a poor labour market position already before migration. Therefore, their actual situation need not be attributed to poor integration only, but rather to unobserved individual characteristics. Ordinary cross sections from data registers do not contain information about such aspects. By combining registers, however, it is possible to obtain longitudinal data that can be used to illustrate some aspects of individual heterogeneity and how social disadvantage accumulates over time. In this paper we use a unique data set that combines population registers from both Sweden and Finland, which are linked at the individual level (see Saarela, 2006a; 2006b).

To the best of our knowledge, the data set used here is the first to allow for observing the same individuals in two countries. We approach the problem of latent heterogeneity,

or alternatively state dependence (cf. Heckman and Borjas, 1980; Arulampalam, 2001), by observing the interrelation between individuals' employment propensities across countries and time, in order to identify people in disadvantaged segments of the migrant population. Considering the lack of previous research in the area, and because the data were not originally constructed for this specific purpose, the paper is largely explorative and illustrative in nature.

For immigrants from Finland who lived in Sweden at the end of 1990, we observe the employment status not only at this cross section, but also in Finland before they emigrated to Sweden, and in a follow-up one decade later for both those who remained in Sweden and those who returned to Finland. The purpose is to use this information to explore the issue of how individual employment propensity interrelates across countries and time. We expect to find that previous experience influence on subsequent employment status. The likelihood of being found in a disadvantaged position might consequently be interrelated with conditions prior to migration, and it could also influence subsequent outcomes.

With this design, comparisons are not made with the native population, but instead with the Swedish-speaking migrants from Finland, whose labour market outcomes are very close to those of native Swedes. In the population register in Finland, each citizen has one unique mother tongue. By using data that link Finnish registers to Swedish ones, we can separate Finnish-speaking and Swedish-speaking immigrants. This is not possible with Swedish registers only.

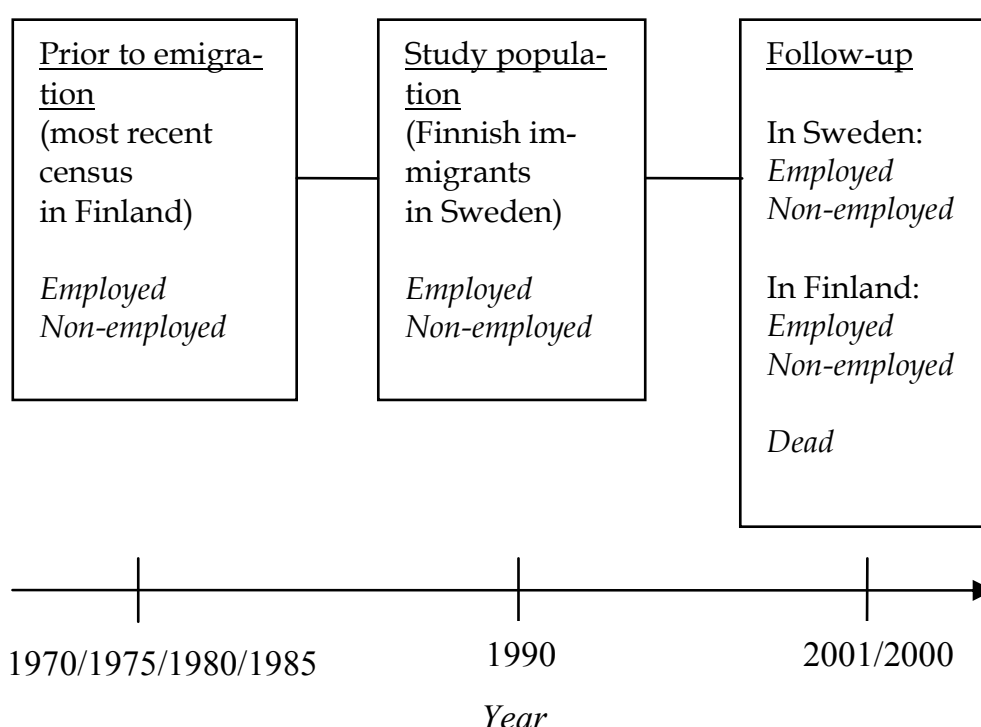
Data

The data include all persons who had emigrated from Finland after 1970 and were still living in Sweden at the end of 1990 (Statistics Sweden, 2006). They consequently describe the Finnish immigrant population in Sweden at a specific point in time, not any particular cohort of migrants. Using information about birth date, sex, municipality of residence and year of immigration, these persons were linked to the Finnish longitudinal population census file, with data from

CROSS-COUNTRY EMPLOYMENT PROPENSITY

1970, 1975, 1980, 1985, 1990, 1995 and 2000 (Statistics Finland, 2006). Thus, for all individuals with successful matching we have information from the Finnish censuses prior to emigration. For return migrants we also know the situation in subsequent censuses. Additionally, the persons were linked to the Swedish population register from 2001, using their social security number as the linkage key. Figure 1 gives an illustration of how the data are constructed.

Figure 1. Observational plan for individuals in the data



Identification when linking to the Finnish register was successful in 85.2 per cent of cases. Failures in identification are considered to be random as they occurred mainly because individuals with identical characteristics could not be separated.

For each person we observe the employment status at three points in time: (1) at the most recent census prior to emigration from Finland, (2) in 1990 in Sweden, and (3) at the follow-up. The follow-up is at the end of 2000 if the per-

son had returned to Finland; and at the end of 2001 if the person had not returned and was still living in Sweden.

Persons who were not found either in Finland in 2000 or in Sweden in 2001 are assumed to be dead. This procedure slightly overestimates the number of deaths, because persons who return migrated during 2001, or had moved to a third country are misclassified. The practical implications of these deficiencies are small, however.

Employment status in Finland refers to whether or not a person was employed (had some employment). In the censuses of 1970, 1980, 1985 and 2000 the status was recorded during a certain investigation week (the second week in December in 1970, the fourth week in October in 1980, the third week in November in 1985, and the fourth week in December in 2000). For 1975 a person was classified as employed if he or she was in the labour force at the end of the year and had had some employment during the year. Labour market status in Sweden refers to whether or not a person was employed (worked at least one hour per week) in October in the 1990 data and in November in the 2001 data. There is also for each point in time information about various socio-economic, demographic and other labour market related variables of the individuals. Since the population register in Finland has information about each person's mother tongue, this data set offers the opportunity to separate the two language groups in Sweden as well.

To focus on people in prime working ages and to eliminate most students with no prior work experience, we restrict our study to those who were at least 25 years old in the most recent census prior to emigration and who were at most 50 years old in 1990. Under analysis are 12,777 individuals, who consequently constitute all persons who fulfil the restrictions stated (not merely a sample of the population).

Results

We start our analyses by presenting a cross table of employment status at the three observation points, separated by

CROSS-COUNTRY EMPLOYMENT PROPENSITY

sex and language group (Table 1). In the follow-up we also distinguish between those who remained in Sweden and those who had returned to Finland. The main purpose of this table is to give an illustration of the number of observations

Table 1. Situation at follow-up by status before and after emigration, number of individuals (E=employed, N=non-employed)

	Follow-up				Dead	Total
	Sweden 2001		Finland 2000			
	Emp- loyed	Non- emp- loyed	Emp- loyed	Non- emp- loyed		
<u>BEFORE + AFTER</u>						
Finnish-speaking men						
E + E	934	544	252	157	217	2,104
E + N	85	289	130	167	127	798
N + E	766	450	76	115	211	1,618
N + N	92	388	55	187	170	892
Total	1,877	1,671	513	626	725	5,412
Swedish-speaking men						
E + E	473	113	72	32	43	733
E + N	25	22	21	15	17	100
N + E	242	68	23	15	26	374
N + N	9	32	10	18	9	78
Total	749	235	126	80	95	1,285
Finnish-speaking women						
E + E	1,208	440	184	106	92	2,030
E + N	120	223	71	56	37	507
N + E	1,176	427	70	75	93	1,841
N + N	90	293	32	100	48	563
Total	2,594	1,383	357	337	270	4,941
Swedish-speaking women						
E + E	442	88	25	18	30	603
E + N	25	23	7	3	6	64
N + E	309	64	16	3	20	412
N + N	17	28	6	6	3	60
Total	793	203	54	30	59	1,139

in the various categories, as a background for further analyses. One may note that due to low return migration rates (cf. Finnäs, 2003), the number of persons observed in the follow-up in Finland is fairly small for Swedish speakers, and particularly for Swedish-speaking women. On this point the results should consequently be interpreted with caution. In what follows we focus on different aspects of employment propensity that can be obtained from the data.

First, let us look at the situation in 1990. In Table 2 we present the distribution by employment status in 1990 when also the status before migration is being considered. As expected, there are substantial differences across language groups and across sexes. Less than 40 per cent of the Finnish-speaking men were employed at both these points in time, as compared with 57 per cent among the Swedish-speaking men. Adding the proportion that were non-employed before emigration but employed in 1990, we find that the proportions employed in 1990 were 68 per cent and 86 per cent, respectively. As a consequence, the share of non-employed at both points in time is substantially higher in Finnish-speaking men, 16.5 per cent, as compared with six per cent among the Swedish-speaking men. Language-group differentials in women are fairly similar but somewhat smaller than those in men.

Table 2. Distribution of employment status (%) before and after emigration, by sex and language group (E=employed, N=non-employed)

<u>BEFORE + AFTER</u>	<u>Men</u>		<u>Women</u>	
	<u>Finnish speakers</u>	<u>Swedish speakers</u>	<u>Finnish speakers</u>	<u>Swedish speakers</u>
E + E	38.9	57.0	41.1	52.9
E + N	14.7	7.8	10.3	5.6
N + E	29.9	29.1	37.3	36.2
N + N	16.5	6.1	11.4	5.3
Total n	5,412	1,285	4,941	1,139

The observation scheme makes it possible to study the interrelation in employment propensity across countries and time retrospectively by comparing the employment status before emigration for those employed and non-employed in 1990, respectively. From Table 3 one can see that there is evidently some association in this respect. The proportion who had been employed before emigration is clearly higher among those who were employed in 1990 than among those who were non-employed. It is also notable that the Finnish speakers had lower employment rates than the Swedish speakers before emigrating from Finland, and that the em-

CROSS-COUNTRY EMPLOYMENT PROPENSITY

ployment rate prior to emigration was higher for Finnish-speaking men than for Finnish-speaking women.

Table 3. Employment rate (%) before emigration by employment status in 1990

	Migrants employed in 1990	Migrants non-employed in 1990
Finnish-speaking men	56.5	47.2
Swedish-speaking men	66.2	56.2
Finnish-speaking women	52.4	47.4
Swedish-speaking women	59.4	51.6

Next, let us see what happens with the subgroups in the follow-up. Table 4 gives the employment rate in Sweden in 2001 and in Finland in 2000, respectively, according to the persons' employment status both before and after emigration. It shows that people with previous employment difficulties have low employment rates, regardless of whether they return migrate or not. This also seems to be true irrespective of language group. For Finnish-speaking men who were non-employed both before migration and in Sweden in 1990, only about one fifth were employed in the follow-up, regardless of whether they had returned to Finland or not. Among the return migrants the situation was slightly better, however. It is notable that in this disadvantaged category the outcome in Sweden for Swedish-speaking men is almost equally as poor as for Finnish-speaking men. For men who were employed already in 1990, however, the employment rate at the follow-up is substantially lower for Finnish speakers than for Swedish speakers, or barely 65 per cent as compared with barely 80 per cent.

Further, we may conclude that non-employment experience from Finland tends to be of minor importance for the group of people who had managed to obtain employment in 1990 and remain in Sweden, as their employment levels are about the same as those of people who were employed in both countries. Those who were unemployed in 1990 evi-

dently gained from returning to Finland, as the employment rate was clearly higher among return migrants, given that

Table 4. Employment rate (%) at follow-up by status before and after emigration (E=employed, N=non-employed)

<u>BEFORE + AFTER</u>	<u>Employment rate Sweden 2001</u>	<u>Employment rate Finland 2000</u>
Finnish-speaking men		
E + E	63.2	61.6
E + N	22.7	43.8
N + E	63.0	39.8
N + N	19.2	22.7
Swedish-speaking men		
E + E	80.7	69.2
E + N	53.2	58.3
N + E	78.1	60.5
N + N	22.0	35.7
Finnish-speaking women		
E + E	73.3	63.4
E + N	35.0	55.9
N + E	73.4	48.3
N + N	23.5	24.2
Swedish-speaking women		
E + E	83.4	58.1
E + N	52.1	70.0
N + E	82.8	84.2
N + N	37.8	50.0

they had been employed before emigration. In contrast to this, having been employed in Sweden does not seem to help Finnish speakers who return migrate if they had been non-employed before emigration.

The results discussed have referred to men, but the patterns are quite similar for Finnish-speaking women. As the number of Swedish-speaking women who return migrate is small, it is still difficult to say anything about language-group differences in that context.

CROSS-COUNTRY EMPLOYMENT PROPENSITY

Table 5. Distribution of employment status (%) before emigration, after emigration, and at follow-up, by sex and language group (E=employed, N=non-employed)

<u>BEFORE + AFTER + FOLLOW-UP</u>	<u>Men</u>		<u>Women</u>	
	<u>Finnish speakers</u>	<u>Swedish speakers</u>	<u>Finnish speakers</u>	<u>Swedish speakers</u>
Follow-up: Sweden and Finland				
E + E + E	25.3	45.8	29.8	43.2
E + E + N	15.0	12.2	11.7	9.8
E + N + E	4.6	3.9	4.1	3.0
E + N + N	9.7	3.1	6.0	2.4
N + E + E	18.0	22.3	26.7	30.1
N + E + N	12.1	7.0	10.7	6.2
N + N + E	3.1	1.6	2.6	2.1
N + N + N	12.3	4.2	8.4	3.1
Total n	4,687	1,190	4,671	1,080
Follow-up: Sweden only				
E + E + E	26.3	48.1	30.4	44.4
E + E + N	15.3	11.5	11.1	8.8
E + N + E	2.4	2.5	3.0	2.5
E + N + N	8.1	2.2	5.6	2.3
N + E + E	21.6	24.6	29.6	31.0
N + E + N	12.7	6.9	10.7	6.4
N + N + E	2.6	0.9	2.3	1.7
N + N + N	10.9	3.3	7.4	2.8
Total n	3,548	984	3,977	996
Follow-up: Finland only				
E + E + E	22.1	35.0	26.5	29.8
E + E + N	13.8	15.5	15.3	21.4
E + N + E	11.4	10.2	10.2	8.3
E + N + N	14.7	7.3	8.1	3.6
N + E + E	6.7	11.2	10.1	19.0
N + E + N	10.1	7.3	10.8	3.6
N + N + E	4.8	4.9	4.6	7.1
N + N + N	16.4	8.7	14.4	7.1
Total n	1,139	206	694	84

One way to summarise the consequences of the process is to study the distribution by employment status at all three points in time. Table 5 shows that roughly 45 per cent of the Swedish speakers were employed before emigration, after emigration, as well as at the follow-up. For Finnish speakers, the corresponding number is less than 30 per cent. Again, women have a more favourable distribution than the Finnish-speaking men. The proportion found in the very disad-

vantaged category with people who had been non-employed at all three points in time is much higher in Finnish-speaking men than in the other groups, or 12 per cent, as compared with less than five per cent for the Swedish speakers and about 8.5 per cent for the Finnish-speaking women. The proportion of people who had been non-employed at any two points in time is also remarkably high in Finnish-speaking men, or almost 25 per cent, as compared with less than 12 per cent for the Swedish speakers and under 20 per cent for the Finnish-speaking women.

As the patterns observed may be interrelated with individuals' personal characteristics, it is essential to see what happens when we account for the presence of background variables. To investigate whether distributional differences in observable characteristics impact on the findings, we therefore estimate logistic regression models for employment status. Separate models are calculated for men and women in each language group, for those who remained in Sweden and those who returned to Finland, respectively. The background variables included are age, education, time in Sweden, marital status, children, and region of residence. They are all measured in Sweden in 1990.

In terms of an odds ratio, the relative difference between 0.227 and 0.632 (see Table 4) is 0.17, i.e. $[(0.227/(1-0.227))/[0.632/(1-0.632)]]$. This means that the odds of being employed in Sweden in 2001, for Finnish-speaking men who were employed before emigration and non-employed after emigration, are 83 per cent lower than for those who were employed both before and after emigration. Accounting for the background variables changes this ratio to only 0.19, as can be seen in Table 6, which summarises the estimation results. Also the other odds ratios change only marginally when we include the background variables in the estimations. Applying other categorisations of the background variables, or measuring them at other points in time, produces very similar conclusions. The interrelation between employment propensity across countries and time is consequently not confounded by standard socio-economic and

CROSS-COUNTRY EMPLOYMENT PROPENSITY

demographic characteristics of the individuals, and the patterns discussed earlier (on the basis of Table 4) largely remain.

Table 6. Odds ratios for employment at follow-up according to status before and after emigration (E=employed, N=non-employed)

<u>BEFORE + AFTER</u>	<u>Sweden 2001</u>		<u>Finland 2000</u>	
	<u>Raw</u>	<u>Adjusted</u>	<u>Raw</u>	<u>Adjusted</u>
Finnish-speaking men				
E + E	1	1	1	1
E + N	0.17	0.19 (0.15-0.25)	0.48	0.51 (0.37-0.71)
N + E	0.99	0.94 (0.79-1.11)	0.41	0.44 (0.30-0.64)
N + N	0.14	0.16 (0.12-0.20)	0.18	0.24 (0.16-0.35)
Swedish-speaking men				
E + E	1	1	1	1
E + N	0.27	0.33 (0.16-0.65)	0.62	0.60 (0.21-1.70)
N + E	0.85	0.81 (0.55-1.18)	0.68	0.65 (0.24-1.70)
N + N	0.07	0.06 (0.02-0.13)	0.25	0.21 (0.06-0.75)
Finnish-speaking women				
E + E	1	1	1	1
E + N	0.20	0.20 (0.15-0.26)	0.73	0.66 (0.41-1.06)
N + E	1.00	0.86 (0.73-1.02)	0.54	0.54 (0.34-0.85)
N + N	0.11	0.11 (0.08-0.15)	0.18	0.21 (0.13-0.35)
Swedish-speaking women				
E + E	1	1	1	1
E + N	0.22	0.18 (0.09-0.35)	1.68	1.66 (0.17-16.3)
N + E	0.96	0.73 (0.50-1.08)	3.84	6.66 (1.07-41.7)
N + N	0.12	0.10 (0.05-0.21)	0.72	0.66 (0.11-3.94)

95% confidence intervals for adjusted odds ratios are given in parentheses.

The logistic regression models have been estimated separately across sexes, language groups and countries of follow-up.

Variables included in the estimations of adjusted odds ratios are age (five-year intervals), length of education (five categories), time of emigration (most recent census in Finland, which corresponds to time spent in Sweden in five-year intervals), civil status (whether married), children (whether children 0-15 years of age in the household), and region of residence (nine categories). They are all measured in 1990.

Discussion and conclusions

This paper has shown that within any migrant population there can be great diversity, even if one restricts empirical analyses to people who have similar observable characteristics and who have been born in the same country. Our analyses, which have focused on individuals' labour market experiences across countries and time, reveal that there are

latent subgroups that perform substantially worse than others, regardless of whether they return migrate or not. Employment status before emigration appears to impact not only on the individual's employment position after emigration, but there also seems to be a simultaneous effect of the status before and after emigration on future outcomes.

Unobserved individual characteristics consequently appear to be very important with regard to employment prospects in the long run, both in the host country labour market and in the home country labour market if the person returns. In our specific case this has been illustrated by the fact that, within the Finnish-speaking male population of migrants, a substantially larger number have had consistent employment difficulties as compared to Swedish-speaking migrants and women.

The data used are unique as they allow us to observe the same individuals in two countries, but there are also some limitations. The time intervals between observations are fairly long and it is not possible to follow cohorts of migrants over time. We have therefore attempted to establish relative associations, rather than being specifically concerned with exact quantifications. We are nevertheless convinced that our findings provide essential insights, as they further increase the awareness of the complexity involved when studying migrant populations. The paper could also be seen as a complement to research on related topics, such as state dependence and selective migration (see, e.g. Arulampalam et al., 2000; Borjas and Bratsberg, 1996).

An obvious policy implication is that migrants' employment problems need not necessarily be due to failures in integration policies and other targeted measures, or because of problems in assimilation induced by migration as an event. They could also be due to the fact that many persons, in latent subgroups, have inherently elevated failure risks. If policy interventions are still undertaken to improve the situation among migrants, they should concentrate on attempting to identify the high-risk groups already at an early stage. As our results point out, if a person succeeds in becoming em-

ployed in the new country, his or her future employment opportunities also clearly improve if he or she was without a job before emigrating.

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References

- Arulampalam, W. (2001). Is Unemployment Really Scarring? Effects of Unemployment Experiences on Wages. *Economic Journal*, 111, 585-606.
- Arulampalam, W., Booth, A. L. & Taylor, M. P. (2000). Unemployment Persistence. *Oxford Economic Papers*, 52, 24-50.
- Borjas, G. J. & Bratsberg, B. (1996). Who Leaves? The Outmigration of the Foreign-born. *Review of Economics and Statistics*, 78, 165-176.
- Finnäs, F. (2003). Migration and Return-migration among Swedish-speaking Finns. In R. Höglund, M. Jäntti & G. Rosenqvist (eds.), *Statistics, Econometrics and Society: Essays in Honour of Leif Nordberg*. Research Reports, No. 238. Statistics Finland, Helsinki, 41-54.
- Heckman, J. J. & Borjas, G. (1980). Does Unemployment Cause Future Unemployment? Definitions, Questions and Answers from a Continuous Time Model of Heterogeneity and State Dependence. *Economica*, 47, 247-283.
- National Board of Health and Welfare (2006). Hemlöshet i Sverige 2005. Omfattning och karaktär. Socialstyrelsen, Stockholm.
- OECD (2001). The Employment of Foreigners: Outlook and Issues in OECD Countries. In *OECD Employment Outlook 2001*. OECD, Paris, 167-206.
- Rooth, D.-O. & Saarela, J. (2006). Modersmål och arbetsmarknadsutfall: finsk- och svenskspråkiga finländare i Sverige. *Ekonomisk Debatt*, 34, 56-65.

- Saarela, J. (2006a). Länkade registerdata från Sverige och Finland: möjligheter och problem. Föredrag. *Ekonomiska Samfundets Tidskrift*, 59, 153-156.
- Saarela, J. (2006b). Muuttoliiketutkimuksessa otetaan kansainvälisiä edistysaskeleita. *Hyvinvointikatsaus*, No. 3, 51-56.
- Saarela, J. & Rooth, D.-O. (2006). How Integrated are Finns on the Swedish Labour Market? Outcomes of Free Labour Mobility. *International Migration*, 44, 119-152.
- Statistics Finland (2006). *Rekisteriseloste: Väestölaskentojen pitkitäistiedosto 1970-1995*. Available at http://www.stat.fi/meta/rekisteriselosteet/rekisteriseloste_vaestolaskenta70-95.html (accessed June 7, 2006).
- Statistics Sweden (2006). *Registret över totalbefolkningen (RTB)*. Available at http://www.scb.se/templates/Standard____22840.asp#Variabelinne%511 (accessed June 7, 2006).
- Swedish National Institute of Public Health (2002). *Födelselandets betydelse. En rapport om hälsan hos olika invandrargrupper i Sverige*. Statens Folkhälsoinstitut, Stockholm.