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Moving from Sweden**

Fredrik W. Andersson
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Fredrik W. Andersson

Statistics Sweden

Eskil Wadensjö

Stockholm University and IZA

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IZA – Institute of Labor Economics

Schaumburg-Lippe-Straße 5–9
53113 Bonn, Germany

Phone: +49-228-3894-0
Email: publications@iza.org

www.iza.org

ABSTRACT

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The proportion of the population being of working age is decreasing. One way to counteract this development is accepting labor immigration. In this article, we look at the part of labor immigration that comes from what is called third countries (countries outside EEA). Some of those who come to Sweden stay only for a short time. We investigate whether those who leave and those who stay differ in terms of various characteristics. We find that those who are highly educated and have higher incomes leave Sweden to a greater extent than others who come.

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Corresponding author:

Eskil Wadensjö
Swedish Institute for Social Research
University of Stockholm
SE-106 91 Stockholm
Sweden

E-mail: eskil.wadensjo@sofi.su.se

Labor migrants from non-EEA countries moving from Sweden

Fredrik W Andersson and Eskil Wadensjö

The proportion of the population being of working age is decreasing. One way to counteract this development is accepting labor immigration. In this article, we look at the part of labor immigration that comes from what is called third countries (countries outside EEA). Some of those who come to Sweden stay only for a short time. We investigate whether those who leave and those who stay differ in terms of various characteristics. We find that those who are highly educated and have higher incomes leave Sweden to a greater extent than others who come.

An increasing proportion of Sweden's population is elderly. The most important factor behind this development is that more and more people are living to an advanced age. In the slightly longer term, this development is reinforced by the fact that fertility has fallen. If few children are born one year, a couple of decades later fewer will be at the age when establishment on the labor market usually takes place. The fact that a larger proportion of the population is elderly means that the support burden for those who are gainfully employed increases. It is important to counteract this development in various ways to reduce the increasing support burden for those of working age. One way is through labor immigration. Changes in the composition of the demand for labor also mean that labor immigration can counteract a shortage of labor in certain professions.

Sweden is part of the common labor market of the Nordic countries and the EEA¹, and many have come from these countries to Sweden to work during various periods of the post-war period. However, other countries in Europe have the same type of development of the population as Sweden. An increasingly larger proportion of the population consists of elderly people and the proportion in the labor force is decreasing. There have also been wage increases in various countries within the EEA, making it less attractive to move to Sweden than before.² This means that labor immigration from countries outside the EEA, often referred to as labor immigration from third countries, is taking on a more important role. In this article, we study this form of labor immigration.

¹ EEA consists of the EU countries and EFTA countries.

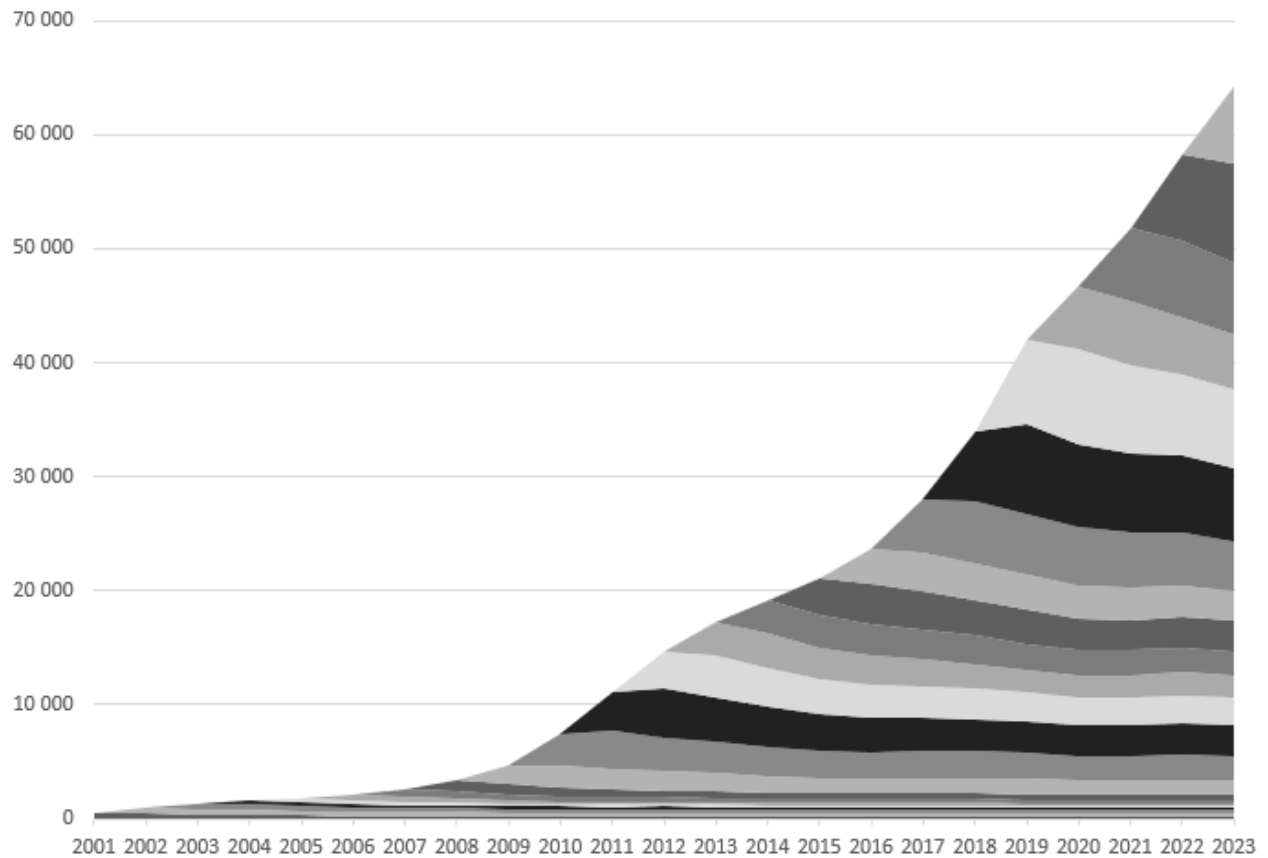
² Eurostat publishes yearly comparisons of the wages in EU. See also Beyer, Yi Li and Weber (2025) for an analysis of the economic development in EU in the two decades after its enlargement in 2004.

The effect of labor immigration is greater if those who come stay and work in Sweden for a longer period of time. It is then important that those who have established themselves well in the labor market choose to stay. In this article, we investigate whether this is the case by examining how a cohort of labor immigrants from third countries is doing. The cohort consists of those who came from third countries as labor immigrants in 2021, worked in Sweden in 2022 and who either moved from Sweden in 2023 or stayed.

Labor immigration from third countries is extensive. Between 2001 and 2023, 110,800 labor immigrants from third countries registered in Sweden. Of them, 64,200 were employed in 2023. See Figure 1. This is a significant addition of skills to the labor market in Sweden.

A first step is to study how the propensity to re-emigrate varies with income – does the propensity to move differ between those with different incomes? The second step is to see if and how the propensity to move varies with the income people have given different characteristics, and to especially compare those with different levels of education. Finally, we examine how the propensity to stay differs between those whose spouse also has a job in Sweden compared to those whose spouse does not have a job but is in Sweden.

Figure 1. Labor migrants from third countries who have arrived 2001 or later and who were employed up to 2023



Source: Statistics Sweden, Arbetskraftsinvandrare från tredje land, Report from the study for the government called “Work in Sweden”, 2024.

Note: Every tier represents in chronological order a cohort of labor migrants employed in Sweden.

Data and method

The labor immigrant statistics we use have been developed specifically for a government assignment with the aim, among other things, of attracting, establishing and retaining labor immigrants. The survey uses microdata from Statistics Sweden (SCB). The individual population is developed through special processing of Statistics Sweden's database STATIV and includes individuals who come to Sweden for the first time, are from third countries and have received a work permit different years. This makes it possible to analyze the inflow of labor immigrants over time, calculate the total number of labor immigrants who are registered in Sweden, and the number employed at different times.

Labor immigrants who intend to stay in Sweden more than a year must register. Once they are registered, we can calculate the number of individuals in different labor market statuses

according to Statistics Sweden's database BAS (LMS³) on a monthly basis from January 2020. We also link information on individuals' occupations from the occupational register to categorize whether their occupation can be categorized as high, medium, low or unknown degree of skilled occupations. For labor immigrants who are not registered in the population register, information is missing in BAS. See also SCB (2021). Previously, Engdahl and Sjödin (2024) and SCB (2024) have studied the group of labor immigrants from third countries and found that they largely come from India, have occupations in the IT area, are employed as software producers and computer consultants, etc., and have incomes that are generally high. Gradually, more labor immigrants have arrived and an increased proportion have highly qualified occupations.

To better understand who of the labor migrants that choose to move from Sweden, we examine the labor immigrants from third countries who received a work permit in 2021. Those from third countries who had permits to stay in Sweden for other reasons, such as family-related ones, and who later obtained a work permit are not included in the analysis. We limit the study further by only including individuals who, according to the database BAS were employed in 2022, and were between 18 and 64 years old. In a final step, the individuals who moved from Sweden and the individuals who still remained in Sweden are classified by seeing who was registered in Sweden in 2023. Unfortunately, there is no information on which country those who left Sweden have moved to. Have they moved to the country they came from (are citizens or were born in) or have they moved to another country, for example another country in the EEA?

A total of 6,661 people received a work permit in 2021 and were employed according to BAS in 2022. Just over a quarter of them were women and the average age of the group was 34.4 years. Less than half had a partner who was registered with them as married or as a cohabitant with children. Almost half of the partners who were in Sweden were employed in the same year. The largest group (47.7 percent) of labor immigrants had a highly skilled profession, while only one in eight had a low-skilled profession.

As of December 31, 2023, 386 individuals were no longer registered in Sweden. This means that of those who received a work permit in 2021 and were employed in 2022, 5.8 percent moved from Sweden. Using the account of individual characteristics in Table 1, we see that

³ See Andersson and Gamerov (2024) about further information about the LMS.

there is a certain overrepresentation of individuals who moved who had a highly qualified profession, higher incomes and whose partner was not employed.

Table 1. Descriptive statistics over individuals who arrived from third countries in 2021 and were employed in 2022, and of those in that group who moved from Sweden in 2023

Variables	Employed 2022 (6661 individuals)			Moved 2023 (386 individuals)		
	Average/share	Median	Std.	Average/share	Median	Std.
Age	34,4	33	7,1	34,6	33	7,3
Share women	25,6%			29,8%		
<i>The occupational qualification level</i>						
Low	12,8%			4,4%		
Middle	32,3%			22,8%		
High	47,7%			58,3%		
Unknown	7,2%			14,5%		
Labor income thousand SEK)	539	487	346	654	542	522
Partner	43,3%			38,1%		
Employed partner	46,8%			30,6%		
Children	24,2%			22,5%		
<i>Human development index regarding the country they have arrived from</i>						
Low	2,5%			0,8%		
Middle	30,4%			35,5%		
High	36,9%			28,0%		
Very high	27,9%			35,5%		
Unknown	2,3%			0,3%		

Source: BAS, STATIV and LISA, Statistics Sweden. Own calculations.

Method

In order to answer the question of which labor immigrants from third countries choose to leave Sweden, we focus in particular on whether the most successful (which is a proxy for high competence – have a higher income than their expected income based on their characteristics) have a higher propensity to move from Sweden than the less successful individuals. This is a group that is important for employers in Sweden and could contribute to strengthening Sweden’s international competitiveness.

The first step in trying to understand which individual factors are associated with moving from Sweden is to conduct a multivariate analysis with the dependent variables moved from

Sweden (0,1). We use a logistic regression approach to see whether, for example, the most successful individuals still have a higher probability of moving when we control for individual-specific characteristics.

Andersson Joona and Wadensjö (2013) investigate whether individuals who are considered to be most successful in the labor market have a higher propensity to become entrepreneurs. Inspired by this study, we choose to classify labor immigrants in a similar way. By using an income regression for all employed people in Sweden, where the dependent variable is the logarithm of labor income and covariates that control for factors such as foreign-born, age, age squared, employment in the business sector, educational level, gender, any partner and any children under 11 years, we can calculate each individual's unexplained share of their labor income, that is, the residual. In this way, we can identify the most successful individuals and the least successful individuals in the population compared to their characteristics. Individuals with the highest residuals, belonging to the highest decile of the distribution, are assumed to be the most successful, while those with the lowest residuals, belonging to the lowest quartile, are assumed to be the least successful.

In a first step, we descriptively investigate which individuals move from Sweden by analyzing the share of movers in two different dimensions based on the deciles of the residuals from the income regression and the deciles of labor income. For each group, the share that has moved from Sweden is then calculated. The results in Table 2 show that both the distributions of labor income and income residuals are U-shaped. Individuals who belong to the group of successful labor immigrants and those with high income have a higher propensity to move from Sweden. Opposite results are seen for the group of labor immigrants who belong to groups of less successful labor immigrant's and have low incomes. One exception, however, is that the individuals who are the least successful and have the lowest labor income tend to move to a greater extent.

Table 2. Percentage of labor migrants who have moved from Sweden according to labor income and income residuals

		Labor income deciles										
		1	2	3	4	5	6	7	8	9	10	Per cent
Income residual deciles	1	15,8	4,2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	9,8
	2	5,6	2,1	2,3	0,0	9,1	0,0	0,0	0,0	0,0	0,0	2,4
	3	0,0	1,3	6,7	4,3	3,4	0,0	8,0	0,0	0,0	0,0	3,8
	4	0,0	3,4	1,1	1,4	3,4	17,6	2,3	10,6	4,8	0,0	4,4
	5	0,0	2,2	0,0	2,1	6,9	0,0	4,2	3,0	4,3	0,0	2,7
	6	0,0	0,0	1,5	2,1	4,8	2,9	6,7	7,3	8,9	36,4	5,9
	7	0,0	0,0	1,2	4,2	7,0	1,4	8,0	5,8	4,2	5,4	4,4
	8	0,0	2,8	2,8	5,2	0,0	9,5	8,3	4,3	5,3	7,0	5,5
	9	0,0	2,5	4,0	9,7	4,3	10,8	5,4	5,4	5,0	10,1	6,7
	10	0,0	0,0	4,8	3,7	6,9	10,7	10,2	6,6	7,9	8,5	7,8
Per cent		12,2	2,0	2,8	3,9	4,8	6,6	7,0	5,7	5,9	8,8	5,8

Note. The higher value for the decile for labor income the higher income and the higher value for the decile of the income residual the more successful individuals.

Source: BAS, Statistics Sweden. Own calculations.

Econometric Results

Previously presented results indicate that labor that could contribute to improving Sweden's international competitiveness is leaving Sweden. However, we cannot say anything about why individuals choose to move from Sweden. Is it a voluntary or involuntary decision to leave their employer that leads to the move? This study is a first step in investigating which factors explain why some people leave Sweden. It would be desirable to continue with research, including qualitative studies.

The results in Table 3 show that the differences that we previously saw in the descriptive report hold even after we held individual characteristics constant in the regression analyses. Odds ratios in Table 3 can be interpreted as over- or under-risk based on whether the coefficient is above or below the value 1.0. The results show, among other things, that the most successful individuals and individuals with highly qualified occupations have a higher probability of moving from Sweden compared to individuals who are not successful or do not have highly qualified occupations. The interpretation of the coefficients in Table 3 is that when we analyze only individuals who have a partner (second column, first row), an excess risk of 68.9 percent is seen, i.e. an individual who is classified as the most fortunate has a 68.9 percent higher risk (probability) of moving from Sweden than an individual who is in the middle range, i.e. those who are neither the least nor the most fortunate. Individuals with lower educational levels and low-skilled occupations have a lower probability of moving.

Table 3. The probability that labor migrants move from Sweden according to family situation, odds ratio

	All	With partner	No partner
Most successful	1.475*** (0.200)	1.689** (0.372)	1.351* (0.237)
Least successful	1.197 (0.273)	1.159 (0.419)	1.355 (0.401)
<i>Middle HDI</i>	1,0	1,0	1,0
High HDI	0.705** (0.0963)	0.782 (0.166)	0.657** (0.118)
Low HDI	0.338* (0.201)	1.030 (0.747)	0.143* (0.145)
Very high HDI	1.017 (0.130)	0.839 (0.183)	1.135 (0.184)
Low labor income	1.061 (0.250)	1.081 (0.524)	0.978 (0.269)
Age	0.964 (0.0543)	0.923 (0.110)	0.992 (0.0681)
Age # Age	1.001 (0.000720)	1.001 (0.00147)	1.000 (0.000905)
<i>Unknown qualification level</i>	1,0	1,0	1,0
Lowly qualified occupation	0.439** (0.163)	0.633 (0.427)	0.409** (0.184)
Middle-high qualified occupation	1.034 (0.289)	0.620 (0.302)	1.215 (0.418)
Highly qualified occupation	1.653* (0.459)	1.702 (0.783)	1.474 (0.507)
<i>Unknown education</i>	1,0	1,0	1,0
Pre-high school education	0.0780** (0.0785)		0.103** (0.104)
High school education	0.314*** (0.125)	0.198 (0.205)	0.349** (0.152)
Higher education	0.830 (0.120)	0.980 (0.268)	0.765 (0.133)
Woman	1.131 (0.136)	0.967 (0.225)	1.340* (0.203)
Partner	0.666*** (0.0956)		
Children	1.174 (0.200)	1.046 (0.203)	1.579 (0.746)
Partner not employed		1.815*** (0.330)	
Constant	0.0788** (0.0860)	0.0813 (0.193)	0.0514** (0.0683)
Observations	6508	2725	3690
Pseudo R ²	0.040	0.049	0.046

Source: BAS, STATIV and LISA, Statistics Sweden. Own calculations.

Note: Exponential coefficients; Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

This means that people with lower incomes and less skilled occupations are less inclined to leave Sweden. This may be because they have fewer alternatives and opportunities in other countries. Frödin and Kjellberg (2017) state that labor immigrants from third countries who are recruited for low-skilled jobs in the restaurant and cleaning industries often already have a connection to Sweden. They apply for these jobs in order to obtain a work permit and stay in Sweden. This is in line with the fact that low-skilled occupations have coefficients that are significantly lower than 1.0 regardless of family situation.

In addition, we find that family situation plays an important role. In cases where the labor immigrant has a partner and the partner is employed, the probability of moving is lower. The result is not unexpected, but we are not aware of any previous quantitative studies that have addressed the phenomenon. It is also notable that labor immigrants who come from countries with a high HDI (Human Development Index) are less likely to move from Sweden than individuals who come from countries with a medium HDI.

Conclusions

Between 2001 and 2023, 110,800 labor immigrants from third countries have been registered in Sweden. Of them, 64,200 were employed in 2023. This indicates a significant contribution of labor and skills to the labor market in Sweden. Labor immigration is a way of counteracting an ageing population. The main result is that the migrants who should be most attractive for strengthen international competitiveness have left Sweden to a greater extent than others. A policy-relevant result is that there are opportunities for various actors to reduce the risk of labor immigrants leaving Sweden, for example by helping the partner of a labor immigrant to become employed. But there may be more that can be done to reduce the likelihood that those with highly qualified jobs leave Sweden. For this, other types of data are required, such as those related to the conditions of labor immigrants. Interviews with those who have returned are a possibility, but interviews with those who stay can also provide information to answer the question of why some stay and others return. At the same time, data shows that individuals with lower incomes and lower-skilled occupations move from Sweden less often. This may be because they have fewer alternatives and opportunities outside Sweden. But there may also be other explanations. Frödin and Kjellberg (2017) argue that migrant workers from third countries who are recruited for low-skilled jobs often already have connections to Sweden and therefore seek such jobs in order to come to Sweden and stay. However, we find that those with the worst outcomes are also overrepresented among those who leave. Surveys are also important for this group.

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