

Unemployment at a Young Age and Later Unemployment in Native Swedish and Immigrant Young Adults

Magnus Helgesson^{1*}, Bo Johansson^{1,2}, Tobias Nordqvist², Ingvar Lundberg^{1,2}, Eva Vingård^{1,2}

¹Department of Medical Sciences, Occupational and Environmental Medicine, Uppsala University, Uppsala, Sweden

²Occupational and Environmental Medicine, Uppsala University Hospital, Uppsala, Sweden

Email: *magnus.helgesson@medsci.uu.se

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ABSTRACT

The youth unemployment rate is increasing in many countries and unemployment affects future work participation. Immigrants have more difficulties than natives in succeeding on the labour market. This study examined the long-term effect of unemployment on future unemployment in Sweden. All immigrants born during 1968-1972 and a random sample of native Swedes of the same age are included. The follow-up period was 15 years, 1993-2007. Unemployed individuals had an elevated risk of unemployment during follow-up. The risk of unemployment increased with the length of unemployment in 1992. Immigrants had a higher risk of unemployment both at baseline and follow-up compared with native Swedes, but followed the same pattern as native Swedes when exposed to unemployment. For individuals with ≥ 100 days of unemployment in 1992, participation in an Active Labour Market Program (ALMP) increased the risk of future unemployment, whereas both higher educational level at baseline and attainment of a higher educational level between 1993 and 1997 decreased the risk. In addition to the human suffering caused, this can result in increased welfare payments and loss of productivity and tax income to a society. Immigrants seem not to be more vulnerable to unemployment than native Swedes.

KEYWORDS

Unemployment; Immigrants; Young Adult; Education; Active Labour Market Program (ALMP)

1. Introduction

In recent decades, youth unemployment has increased in countries around the world. In the European Union, almost a quarter of the young population are outside the labour market. The youth (15 - 24 years) unemployment rate in the EU was on average 22 per cent in the last quarter of 2011, compared with around eight per cent for older workers [1]. Sweden entered a deep recession at the beginning of the 1990s when the unemployment rate increased rapidly; this was seen especially among young individuals. The situation was rather similar to the situation in Europe today, with an unstable financial market and rapidly rising unemployment [2,3]. There is considerable variation between countries regarding the youth unemployment rate, since the issue of unemployment is

also reflected by political perspectives. Studies reveal that unemployment can lead to deteriorating health [4], later sickness absence and disability pension [5]. The consequences of unemployment can therefore be costly, both for individuals and societies.

Two longitudinal studies, one from Sweden and one from Norway, conclude that periods of unemployment in late adolescence increase the risk of future unemployment [6,7]. The probability of future spells of unemployment is higher for individuals who were young when they experienced their first period of unemployment, according to a European longitudinal study [8]. Active Labour Market Programs (ALMPs) have become a common feature in most OECD countries during the last few decades, although the forms and extent of such programs differ [9]. ALMPs have been seen to mitigate the health consequences of unemployment [10,11], while making it

*Corresponding author.

possible for unemployed individuals to remain near the labour market, thereby maintaining skills and social contacts [9].

Compared with many other countries, Sweden has a relatively large immigrant population. In the 1950s and 1960s, immigration was mainly labour-driven, and as a consequence of this, the labour participation by immigrants was sometimes higher than for native Swedes. After the early 1970s, this changed to immigration of refugees and family members seeking reunification. Today around 15 per cent of the Swedish population is born outside Sweden [12]. Immigrants after 1970s have different problems to enter the Swedish labour market. The road to work is often long for immigrants and their unemployment rate and disability pension rate are higher than for Swedes [13].

2. Aim

The main aim of the study was to examine if exposure to unemployment in a recession period was associated with future unemployment for native Swedish and immigrant young men and women living in Sweden. Other aims was to investigate: 1) if there was a dose-response relationship between unemployment and the risk of ≥ 100 days of unemployment in the follow-up, 2) if participation in Active Labour Market Programs (ALMPs) affected future unemployment in individuals on long-term unemployment (≥ 100 days), 3) if education at baseline moderated future unemployment and 4) if attainment of education after a long period of unemployment affected future unemployment among individuals on long-term unemployment (≥ 100 days) in 1992.

3. Materials and Methods

3.1. Study Population

The study was a prospective cohort study based on registers. The study group comprised all immigrants aged 20 - 24 years who were living in Sweden in 1992 and had immigrated before 1990 ($n = 25,607$). A random sample of native Swedes in the same age group ($n = 174,016$)

were also included in the study (Table 1). Immigrant refers to a person born in a country outside Sweden with two non-Swedish-born parents. Native Swede refers to a person born in Sweden with two Swedish-born parents. The motivation for the age span is the notion that all individuals will experience their first recession in adulthood.

The cohort was followed from 1993 to 2007. To be classified as unemployed the person was to be enrolled as a possible recipient for support from the Swedish Public Employment Service and instantly ready to take a job in 1992. People classified as having no days of unemployment had a paid job, studied, received sickness benefit or were outside the labour market. Around 58,000 individuals in our cohort studied to some extent in 1992 and around 7000 individuals were, according to our registers, outside the labour market and did not receive any benefits from welfare.

To form a cohort that was as healthy as possible and reduce health selection into the cohort, the following were excluded from the analyses: individuals who had received unemployment benefit in 1990 and 1991, individuals who received disability pension from 1990 to 1992, and individuals who were hospitalised due to pulmonary, cardiovascular, musculoskeletal and psychiatric diagnoses in the period from 1990 to 1992. Individuals who left Sweden temporarily or permanently during the follow-up were also excluded due to the absence of sufficient data concerning their whereabouts.

In this study, participation in ALMP meant taking part for at least one day in any of the following six programs in 1992 or 1993: 1) Vocational education, 2) Vocational rehabilitation, 3) Job training, 4) ALU (employment development programme), 5) Public relief jobs, 6) Trainee replacement programme. Most of the programs had a maximum length of six months and all were financed by the state. In the registers it was not possible to differentiate on program level and participation in programs were dichotomized. Education was divided into three levels: elementary, upper secondary and university, and was measured at baseline and in 1997. We measured an increase in the level of education (one or two step).

Table 1. Distribution of unemployment in 1992 for individuals in the study.

		Total	No days of unemployment	1 - 99 days of unemployment	≥ 100 days of unemployment
Native Swedes	Women	83,406	59,397 (71.2%)	15,278 (18.3%)	8731 (10.5%)
	Men	90,610	60,042 (66.2%)	16,403 (18.1%)	14,165 (15.6%)
Immigrants	Women	13,544	8471 (62.5%)	2781 (20.5%)	2292 (16.9%)
	Men	12,063	6756 (56.0%)	2400 (19.9%)	2907 (24.1%)
Total		199,623	134,666	36,862	28,095

3.2. Outcomes

The groups were observed from 1993 to 2007 with regard to number of days of unemployment in each of three five-year periods. The outcomes were divided into short term unemployment (1 - 99 days) and long term unemployment (≥ 100 days) in each period. One hundred days of unemployment or more is an official measure of long-term unemployment among young individuals at the Swedish Public Employment Service and the time point when individuals are entitled to extra support in the form of e.g. ALMPs. When measuring a dose-response relationship between unemployment at baseline and during follow up, groups of approximately 50 days were used from 1 - 50 days up to > 300 days.

3.3. Statistical Analysis

Odds ratios with 95 percent confidence intervals were analysed for the studied outcomes by logistic regression methods using SAS version 9.2. Potential confounders included in the analyses were age (continuous), income from work in 1991 (continuous) and income from sickness absence in 1990 and 1991 (continuous), region of origin (12 regions), place of residence in Sweden (25 areas), educational background (three levels). Most of the analyses were made separately for men and women, and separately for native Swedes and immigrants. When the results were stratified on origin only, adjustments were also made for sex.

3.4. Registers Used

Data were obtained from the LISA (*Longitudinal Inte-*

gration Database for Health Insurance and Labour Market Studies) database for unemployment, participation in ALMPs, sickness absence, education, income and native country and residence. The National Patient Register provided data on hospitalisation.

4. Results

This study revealed that exposure to both long-term unemployment (≥ 100 days) and short-term unemployment (1 - 99 days) at a young age were associated with future unemployment during 15 years of follow up (**Table 2**). The unemployment rate was higher at baseline for immigrants, but followed a similar curve as native Swedes at follow up for future unemployment. There was an increasing risk of future unemployment for every step of 50 days until the maximum exposure to unemployment noted in this study of 300 days or more (**Table 3**). Individuals that participated in an Active Labour Market Program in 1992 or 1993 had increased risk of future unemployment in the period from 1998 to 2002 (**Table 4**). During the first five-year interval of follow-up, educational level at baseline had an effect on the results (**Table 5**). Individuals who had attained higher education between 1992 and 1997 had a decreased risk of future unemployment in the period from 1998 to 2002 (**Table 4**). There were no differences in future unemployment between individuals who studied at baseline and individuals who did not study. Immigrants had higher probability to be outside the labour market and at the same time not receiving benefits from the Social Insurance compared to native Swedes.

Table 2. Adjusted OR* (CI 95%) for ≥ 100 days of future unemployment for individuals who were unemployed 1 - 99 or ≥ 100 days in 1992, compared with individuals with no unemployment in 1992.

		1993-1997		1998-2002		2003-2007		
		n	OR	n	OR	n	OR	
Native Swedes	Women	1 - 99 days	10,456	3.55 (3.41 - 3.69)	4633	1.63 (1.56 - 1.70)	2914	1.33 (1.26 - 1.40)
		≥ 100 days	7101	6.90 (6.51 - 7.31)	3677	2.54 (2.41 - 2.67)	2260	1.84 (1.74 - 1.94)
	Men	1 - 99 days	11,373	4.54 (4.37 - 4.72)	4337	1.82 (1.74 - 1.90)	2722	1.47 (1.40 - 1.55)
		≥ 100 days	11,282	7.92 (7.57 - 8.29)	4794	2.52 (2.41 - 2.63)	3000	1.92 (1.83 - 2.02)
Immigrants	Women	1 - 99 days	2245	3.97 (3.56 - 4.42)	1375	1.58 (1.44 - 1.74)	858	1.31 (1.18 - 1.44)
		≥ 100 days	2046	7.64 (6.63 - 8.82)	1360	2.25 (2.03 - 2.48)	835	1.59 (1.44 - 1.76)
	Men	1 - 99 days	1976	4.37 (3.87 - 4.94)	1187	1.81 (1.64 - 2.01)	747	1.30 (1.16 - 1.45)
		≥ 100 days	2583	7.78 (6.82 - 8.88)	1579	2.20 (1.99 - 2.42)	1049	1.63 (1.47 - 1.80)

*Adjusted for: Age, education, income in 1991, residence in Sweden 1992, native country and sickness absence in 1991-92. Note: OR = oddsratio; n = number of exposed individuals.

Table 3. Adjusted OR* (CI 95%) for ≥ 100 days of future unemployment for individuals, both native Swedes and immigrants, exposed to different lengths of unemployment in 1992, compared with individuals with no unemployment in 1992.

		1993-1997		1998-2002		2003-2007	
		n	OR	n	OR	n	OR
1 - 49 days	Native Swedes	10,916	3.58 (3.46 - 3.71)	4378	1.57 (1.51 - 1.64)	2763	1.29 (1.24 - 1.36)
	Immigrants	1982	3.65 (3.28 - 4.06)	1169	1.52 (1.39 - 1.67)	724	1.19 (1.08 - 1.31)
50 - 99 days	Native Swedes	10,913	4.66 (4.49 - 4.85)	4592	1.88 (1.81 - 1.96)	2873	1.49 (1.42 - 1.56)
	Immigrants	2239	4.73 (4.23 - 5.28)	1393	1.85 (1.69 - 2.02)	881	1.40 (1.28 - 1.54)
100 - 149 days	Native Swedes	7915	5.94 (5.66 - 6.23)	3443	2.16 (2.06 - 2.26)	2191	1.70 (1.62 - 1.79)
	Immigrants	1768	6.44 (5.61 - 7.40)	1069	1.93 (1.75 - 2.13)	707	1.55 (1.40 - 1.72)
150 - 199 days	Native Swedes	4718	7.88 (7.36 - 8.44)	2200	2.59 (2.44 - 2.74)	1331	1.85 (1.73 - 1.97)
	Immigrants	1141	6.95 (5.82 - 8.30)	736	2.26 (2.00 - 2.55)	447	1.50 (1.32 - 1.70)
200 - 249 days	Native Swedes	3145	10.18 (9.29 - 11.15)	1512	2.96 (2.76 - 3.18)	898	2.00 (1.85 - 2.17)
	Immigrants	812	8.41 (6.71 - 10.54)	531	2.40 (2.08 - 2.77)	354	1.80 (1.56 - 2.07)
250 - 299 days	Native Swedes	1640	11.53 (10.10 - 13.17)	799	3.07 (2.79 - 3.38)	502	2.23 (2.01 - 2.48)
	Immigrants	500	11.94 (8.60 - 16.58)	329	2.68 (2.23 - 3.22)	208	1.75 (1.46 - 2.10)
≥ 300 days	Native Swedes	965	14.94 (12.32 - 18.12)	517	3.70 (3.27 - 4.20)	338	2.70 (2.36 - 3.09)
	Immigrants	408	17.82 (11.32 - 28.04)	274	2.78 (2.26 - 3.43)	168	1.68 (1.37 - 2.06)

*Adjusted for: Sex, origin, age, income in 1991, residence in Sweden 1992, native country and sickness absence in 1991-92.

Table 4. Adjusted OR* (CI 95%) for ≥ 100 days of future unemployment during the period 1998-2002, for unemployed individuals who participated in ALMP in 1992/1993 or had higher educational level in 1997 compared to 1992, compared with individuals who neither participated in ALMP or had the same educational level both in 1997 and 1992.

		Education		ALMP		ALMP + Education	
		n	OR	n	OR	n	OR
Native Swedes	Women	2141	0.67 (0.63 - 0.70)	6433	2.02 (1.94 - 2.11)	933	1.10 (1.01 - 1.19)
	Men	1689	0.81 (0.76 - 0.86)	7005	2.00 (1.92 - 2.08)	717	1.59 (1.45 - 1.75)
Immigrants	Women	403	0.58 (0.51 - 0.67)	2133	1.90 (1.74 - 2.07)	193	0.89 (0.73 - 1.08)
	Men	343	0.72 (0.62 - 0.84)	2044	1.85 (1.69 - 2.03)	168	1.04 (0.84 - 1.30)

*Adjusted for: age, income in 1991, residence in Sweden 1992, native country and sickness absence in 1991-92.

5. Discussion

5.1. Future Unemployment

Unemployment in early working life affected future unemployment 15 years after exposure. This finding was in line with studies from Sweden and Norway [6,14]. In

Sweden, school-leavers who became unemployed directly after elementary school at the age of sixteen, were found to have an elevated risk of unemployment at a follow-up point five years later (OR: men 2.4; women 1.8) [6]. In the Norwegian study, unemployed individuals (aged 17 - 20 years) were revealed to have a higher pro-

Table 5. Adjusted OR* (CI 95%) for ≥ 100 days of future unemployment during the period 1993-1997 for individuals who had different educational backgrounds and were unemployed 1 - 99 or ≥ 100 days in 1992, compared with individuals with no unemployment in 1992.

		Elementary school		Upper secondary school		University		
		n	OR	n	OR	n	OR	
Native Swedes	Women	1 - 99 days	1497	4.46 (3.88 - 5.14)	7767	3.82 (3.65 - 4.00)	1173	2.32 (2.11 - 2.56)
		≥ 100 days	1614	9.94 (8.27 - 11.94)	4853	7.40 (6.91 - 7.93)	610	3.92 (3.40 - 4.52)
	Men	1 - 99 days	1501	5.83 (5.12 - 6.63)	8480	4.92 (4.70 - 5.15)	1.358	2.70 (2.46 - 2.97)
		≥ 100 days	2037	13.24 (11.39 - 15.39)	8203	8.60 (8.15 - 9.08)	1.002	3.69 (3.30 - 4.13)
Immigrants	Women	1 - 99 days	731	5.41 (4.32 - 6.78)	1284	3.64 (3.17 - 4.19)	139	2.37 (1.69 - 3.30)
		≥ 100 days	741	9.84 (7.43 - 13.04)	1121	7.19 (5.96 - 8.67)	93	5.40 (3.29 - 8.88)
	Men	1 - 99 days	677	5.66 (4.39 - 7.30)	1107	4.46 (3.81 - 5.22)	98	2.28 (1.57 - 3.33)
		≥ 100 days	933	11.23 (8.46 - 14.90)	1390	7.76 (6.54 - 9.21)	115	3.29 (2.22 - 4.88)

*Adjusted for: Age, income in 1991, residence in Sweden 1992, native country and sickness absence in 1991-92.

bability of further unemployment, measured in three periods. The risk is shown to be higher among men than women, and there is no difference between those with higher education and those with lower education [14]. The study population in the current study was older and thus closer to the labour market and the follow-up period was longer.

A dose-response relationship between unemployment in 1992 and the risk of ≥ 100 days of future unemployment in a five year period was observed. An English study has a similar outcome, the longer the period of unemployment in age 16 to 23 the more months of unemployment later on [15]. The similarity with UK is interesting because the relatively large differences in labour market regulations and Social Insurance policies between Sweden and the UK.

Health selection can be an explanation for the association between present unemployment and future unemployment. We tried to exclude non-healthy individuals as far as possible from information in our registers to minimize this potential bias. Sickness absence two years prior to measurement of unemployment and psychiatric illness in early adulthood has an effect on later unemployment, according to a Swedish study. People with poor health seem to have harder to get a job [16]. Unemployment can also be a signal to employers that something is wrong and the productivity of the worker is low. Employers may therefore not be willing to take the risk of hiring that person and unemployment becomes a stigma [17]. A study from Sweden reveals that workers with high exposure to temporary job contracts have a worse perceived

health than other workers. There seems also to be a selection into short term job contracts by individuals that have worse health [18].

From the 1970s and continuously companies have reorganized in order to become more flexible and better adapted to market fluctuation. The core-periphery theory tries to explain why unemployment leads to further unemployment. The "core" of a company consists of managers and other key positions in the company. Around this core there is a "periphery" of workers who have more temporary job contracts and who are the first to be dismissed when the need for workers decreases [19]. Around 14 per cent of the workforce in Europe is considered to be in the peripheral labour market [18]. However the labour market laws in Sweden protect workers from easy dismissal and this theory is of less importance here according to laws and regulations between employer associations and trade unions.

5.2. Immigrants

This study showed that immigrants per se had a higher general risk of unemployment than did native Swedes. Previous research have indicated that the mental health of young immigrants in general are worse than the mental health of young native Swedes [20] which may lead to health selection into unemployment in higher extent among immigrants. Immigrants in all age groups were hit harder by the crisis in the early 1990s compared to native Swedes [21]. This study showed, however, that unemployed immigrants followed the same pattern as unem-

ployed native Swedes when exposed to unemployment, *i.e.* immigrants were no more vulnerable to exposure to unemployment than were native Swedes. Immigrant status can be considered a modifier for future unemployment, not a cause. Nor were immigrants worse off than native Swedes when participating in ALMPs. Immigrants and native Swedes participated equally in the labour force until the early 1980s. Thereafter the gap between the unemployment rate of immigrants and that of native Swedes has gradually increased (SCB). The potential reasons for this are many, *e.g.* changed pattern of immigration and a changed labour market with higher educational needs. Changed attitudes towards immigration in society can also be an explanation [22]. Immigrants are in many cases newcomers to the Swedish Social security system, but that is also true for young native Swedish individuals. This means that young native Swedes and immigrants are equally hit by disqualification from receiving welfare benefits [21]. Studies have also shown that the risk of future social security payments is higher for immigrants than for native Swedes [23,24]. This study comprises a young cohort and the general discrepancy between native Swedes and immigrants may have become diluted because most of the young immigrants came to Sweden in early or late childhood and have participated in the Swedish education system.

5.3. Active Labour Market Programs (ALMPs)

Participation by long-term unemployed individuals in ALMPs increased the risk of future unemployment compared with non-participants. There is evidence from Norwegian and German studies that participation in programs, especially among young people, leads to an increased risk of further participation in other programs and later unemployment [23-25]. There are, however, differences between programs. Works with wage subsidies seem to be a way back to the labour market in Sweden [26], also short programs seems to be effective according to a German study [24]. Unfortunately we could not differentiate between different ALMPs in this study. Participation in programs may not, however, in general be beneficial for future work participation. One reason can be lock-in effects; *i.e.* programme participation in ALMP:s decreases the search process for a real job, and hence delays return to the regular labour market [9]. Participation in one ALMP tends to increase the risk of participation in another ALMP later on [24,26,27]. It seems especially difficult to develop successful programs for young people and immigrants [24].

In a Norwegian study, those who took part in ALMPs had better psychological health compared with the rest of unemployed individuals [25]. If this result can be gener-

alized the negative effect of ALMPs is underrated. If there is a selection into ALMPs by individuals, who are far from the labour market, this can partly explain the unfavourable results in this study.

5.4. Education

There was a negative relation between education and the risk of future unemployment. Higher educational level meant lower risk of future unemployment. Hammer found no significant effect on educational level and future unemployment [14]. In the study by Hammer, the cohort was 17 - 20 years of age when education was measured, which excludes a university education. In the current study, the population was 25 - 29 years old when attainment of education was measured; most of them would have had time to finish both upper secondary and university studies. Therefore, education probably had a stronger impact on future unemployment in the current study. Long-term unemployed individuals who had a higher educational level in 1997 compared with 1992, and hence had studied during the recession, had a decreased risk of future unemployment. The labour market in all western countries has changed since the prosperous times in the 1950s and the 1960s where there was abundance of manual labour jobs. Most jobs on the labour market of today will need some sort of education, without skills and education the individual have much fewer opportunities.

58.000 individuals in our cohort had income from studies in the baseline year 1992. There were however no differences in outcome between individuals that studied and individuals that did not study. One possible reason can be that it is possible to get income for different forms of studies, all from simple workshops to university studies.

5.5. Strengths and Weaknesses

Sweden has a well-developed register system, which allows a comprehensive longitudinal approach. There is also considerable scope to make adjustments for a number of confounding factors. In our investigation we have followed a cohort, established in 1992, for 15 years and measured the number of days of unemployment year by year. The current study had a large study population and was a total investigation of immigrants.

As with all registers there are, however, some shortcomings. Data on educational background were self-reported if an immigrant had never participated in the Swedish school system. The information was therefore more uncertain in this group and missing values were more common. There were about 7000 individuals who did not work, at least not in the regular labour market, or who received benefits of some kind from society. These indi-

viduals are classified as being outside the labour market and are thus included in the reference group of people who are not unemployed. If the group of people outside the labour market were unemployed the ORs might be underestimated. Information about poor health, and foremost poor mental health, is not comprehensive in registers for a young population. There is therefore not possible to preclude health selection into unemployment.

6. Conclusion

Unemployment among young individuals was associated with unemployment as long as 15 years after first exposure. Participation in ALMPs did not decrease the risk of future unemployment but higher education at baseline, as well as attainment of higher education in the first five years, did. Young immigrants had a higher general risk of unemployment, but they followed the pattern of native Swedes when exposed to unemployment. Health selection, as well as sickness in early years in connection with individual characteristics, may explain part of the association between present and future unemployment. It is important to reduce unemployment, regardless of the cause, among young individuals in order to avoid social exclusion further on, preserve economic growth, and reduce future spending on welfare.

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