

The Effects of Work Requirements on Welfare Participation*

Matz Dahlberg, Kajsa Johansson and Eva Mörk

WORK IN PROGRESS (?) - DO NOT QUOTE

First version: June 2007

This version: October 22, 2007

Abstract

In this paper we investigate whether the introduction of stricter work requirements has any effects on welfare participation, employment and disposable income. To be able to identify a causal effect, we make use of a variation in the data that was generated by welfare reforms in some of the town districts in the municipality of Stockholm. The reforms implied that the town districts introduced much stricter work requirements for individuals on welfare. The data is very suitable for examining the question at hand for two reasons. First, the reforms were clean in the sense that no other instruments, like time limits or tax credits, were introduced at the same time, implying that we are able to estimate the direct effects of work requirements. Second, the reforms were initiated at different time points in different town districts, which will ease identification. Overall, we find that work requirements decrease welfare participation and disposable income, has typically no effect on employment, but that it increases the probability of studying. We do however also find heterogeneous effects; work requirements do for example have a positive effect on employment for immigrants and young people.

Keywords: Welfare reform, Work requirements, Difference-in-differences

* Comments from seminar participants at Uppsala University and SUDSWEC are gratefully acknowledged.

1 Introduction

The idea that work requirement is an efficient tool in poverty-alleviation programs has a long history in societal program design. The basic mechanism, which is formalized in Besley and Coate (1992), is that work requirements provide the correct incentives for recipients of poor relief, since they make welfare a less attractive alternative for the beneficiaries. There are two arguments to why this may reduce the number of people on welfare; the screening argument and the deterring argument. The screening argument goes as follows: tougher requirements on activation can make some individuals (those that actually can be self-supporting) refrain from seeking social assistance. This does not only include individuals that consciously reduced their working hours in order to be eligible for social assistance, but also individuals that were not aware of their true ability of getting a job (some of these will manage to get a job as they increase their efforts, thereby reducing the number of people on welfare). Since governments typically cannot observe individuals' true working capacity, work requirements hence make people self-select. The deterrent argument focuses on the origins of poverty; do individuals need social assistance because they have experienced bad luck or because of choices made earlier on in life? If it is the latter, work requirements may affect the choices made by the individuals, since welfare is now a less attractive alternative, thereby the probability that they will ever need social assistance is reduced.

So far, there exists no clear empirical test of the hypotheses that stricter work requirements imply fewer people on welfare. The US reforms aimed at reducing welfare caseloads in the 1990s, which have been tremendously evaluated, consisted of a mixture of different instruments, such as time-limits, work requirements, financial sanctions and an increased reliance on the earned income tax credit.¹ It is therefore not possible to investigate the pure effect of stricter work requirements using US data. A similar argument goes for the other countries that have had major welfare reforms (such as Canada, Germany, and the UK); in neither of these countries has it been possible to separately identify the effects from stricter work requirements. Sweden, on the other hand, has undertaken welfare reform where stricter work requirements on welfare receivers have been implemented, but where those stricter requirements have not been accompanied by financial incentives, like an EITC, or time limits. The purpose of this paper is therefore to investigate empirically whether stricter work requirements reduce the number of people on welfare, using data from the Swedish welfare

¹ For an overview of the evidence from the U.S. reform, see, e.g., Blank (2002) and Moffitt (2007).

reform. The reform implied that stricter work requirements were implemented gradually over the period 1998 to 2004 in city districts in the Stockholm municipality, making the reform well suited for econometric evaluation. Since we have access to very rich individual-level register data, we can also investigate whether the effects of work requirements are heterogeneous across, e.g., different age groups and different country of birth. Finally, since we use data from town districts within a single local labor market we can easily control for common macro economic shocks, something that is hard to do when using, e.g., data on U.S. states.

The right to impose stricter work requirements on welfare receivers in Sweden was introduced by a change in the Social Services Act in 1998. The new law made it possible for municipalities and city districts to demand participation in activities provided by the municipalities and city districts in return for social assistance, such as internships and supervised job search. These programs have been known under the name “activation programs” and in general receiving social assistance has become conditioned on participation in these programs if unemployment is the cause for welfare dependency. According to the official descriptions, the aims of the programs are to facilitate job search for the unemployed and “coaching” the participants to become self-supporting. The organization of the programs also makes it possible for the welfare administration to monitor the willingness to work, and in a case study by Hjertner Thorén (2005) it is argued that in practice, activation programs are more focused on controlling the clients’ willingness of work than on tailoring individual programs. The existence of activation programs has clearly increased the cost of being unemployed and hence made welfare a less attractive alternative. It is the effect of these work requirements that we will investigate in this paper.

The data we are using are individual register data that we combine with data from a survey to the Stockholm city districts. The purpose of the survey is to determine the starting year of activation programs in each city districts. Overall, we find that work requirements decrease welfare participation and disposable income, has typically no effect on employment, but that it increases the probability of studying. However, the effects are different for different groups; work requirements do for example have a positive effect on employment for immigrants and young people.

The remainder of the paper is organized as follows: the next section describes the Swedish welfare system and the activation programs. In section 3 the data used is described, and in section 4 we present the empirical strategy that is employed. The results are presented in section 5.

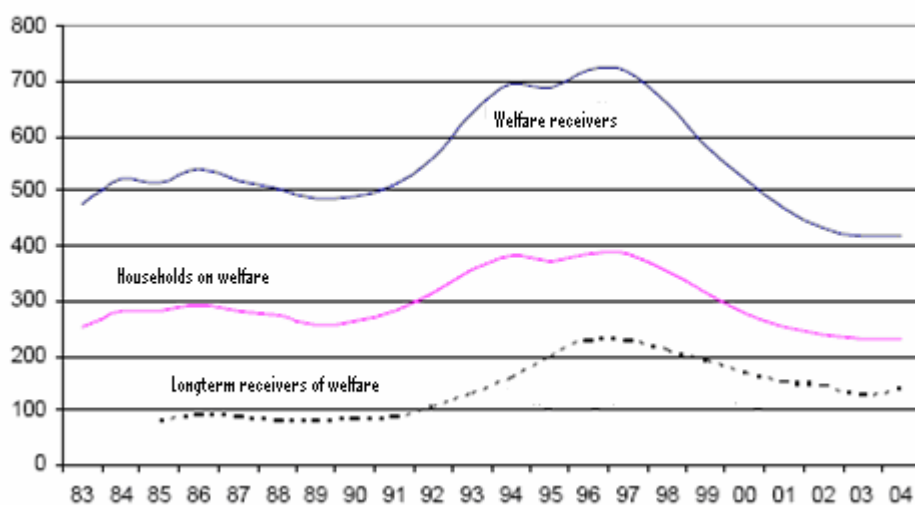
2 The Swedish context

2.1 Welfare in Sweden

The Swedish social security system is often considered as one of the most extensive and generous systems in western welfare states. As opposed to the situation in many other countries (i.e. US and UK), receiving welfare is not dependent on having children. The Social Services Act constitutes the framework for social assistance in Sweden. It is constructed as a frame law, which means that the interpretation and enactment of the law is delegated to each municipality. Since 1982 the law ensures all Swedish and foreign citizens living in Sweden the right to obtain social assistance (in the rest we will denote this as “welfare benefits”) in the absence of other means of economic support. To be eligible for welfare benefits all means including savings and valuable assets must be exhausted. The benefit level should ensure a reasonable standard of living and the municipalities have been able to decide the exact level of the benefit based on the recommendations from the National Board of Health and Welfare. Since 1998 the recommendation has been replaced by a minimum level.

In 2007 400,000 individuals (or about 4.5 percent of the population) receive welfare or benefits directed to newly arrived immigrants. About 31 percent of these receive welfare during more than 10 months during a year, and are therefore defined as long term receivers. *Figure 1* describes the development of welfare receivers since the mid-eighties up to 2004. As can be seen from the figure, since the end of the nineties there has been a drop in both the number of households on welfare as in the number of long term receivers (more than 10 months during a year). However, in 2004 these numbers have again started to increase. Furthermore, welfare receivers are not evenly spread across different groups in society, and the probability to receive welfare is largest among unemployed youths without eligibility for unemployment benefits, single women with children and individuals born outside western countries.

Figure 1 Welfare receivers (1000 of units) 1983-2004.



Source: SOU 2007:2

During the 1980's the right to welfare was loosely tied to work demands, reflecting ideas of universalism. However, the 1990's recession led to difficulties in financing the social welfare system and as a consequence, the right to welfare became subject to lower standards and stricter means-testing in the 1990's. According to Johansson (2001) the definition of a suitable job has been widened, and the obligation to participate in labor market programs has increased during the 1990's. The requirement that the individual should be available to the labor market when receiving welfare was present before, but in the beginning of the 1980's the National Board for Health and Welfare defined it as involving searching for jobs and not turning down any suitable offers. A "suitable job" had been perceived as a job matching the skills and qualifications of the individual and in line with collective agreements concerning working environment and benefits. During the 1990's the definition has become extended to include participation in internships and labor market projects. These changes, which became formalized through a change in the law in 1998, have made it possible for municipalities to demand participation in local labor market programs from youths younger than 25 (and older if special reasons existed) with the benefit as only compensation for unemployment. Not participating in the program is interpreted as not being available at the labor market and may therefore possibly result in loss of welfare benefits (see Johansson, 2001).²

² Many of the changes prescribed by the 1998-law reflected trends that had been in practice earlier; Salonen and Ulmestig (2001) show that many municipalities seem to have applied rules similar to the new policy even before 1998. Also, the rule has been used in a wider sense, for example it has been extended to apply to other groups than youths.

In this paper, we will focus on the city districts in the municipality of Stockholm. Noteworthy is that there did not exist any large scale activation programs in any of city districts analyzed before 1998 when the Social Service Act was changed. Next, we will turn to a description of the programs in place in Stockholm.

2.2. Activation programs in Stockholm

The municipality of Stockholm is by far Sweden's largest municipality with approximately 780,000 inhabitants in 2006. During the period during which the studied policy changes occurred there was 18 city districts (see Map in the appendix).³ The city districts are responsible for the majority of the municipality's services within their geographical areas. The district's responsibilities include refugee reception services, recreational programs for children and youth, pre-school, income support, budgetary counseling and debt restructuring, consumer advisory services, local business and labor market initiatives, local urban environment issues, maintenance of parks, services and care for the disabled, social services, care and treatment and family law and elderly services. The municipality sets taxes and allocates funds between the city districts. It also defines the overall goals and guidelines. The political composition in the District Councils is equivalent to that of the municipal council.

The earliest examples of activation programs in Stockholm are from 1998 and 1999 when Rinkeby and Skärholmen introduced programs intended to enroll all unemployed welfare recipients with job searching activities. They were followed by Kista and Farsta in 2001 and since then many other city districts have followed. Since 2004 there are programs for activation in force in all of the 18 city districts. In this paper we have excluded the districts in the city centre since the programs employed there do not cover all unemployed welfare recipients and are somewhat different in spirit to the programs in the suburbs. Also, the way these districts work may differ from the rest of the city due to their relatively small caseload.

Some of the current programs are extensions of previous programs, but in general the ambitions of the current programs are higher. Most significantly, the programs presently in force include *all* unemployed welfare recipients, which was not the case earlier. In addition, all programs require some amount of daily or weekly activity and there is a close connection between attendance and granting of benefits. In the old days, job seeking activities were often

³ Since January 1, 2007, the number of city districts has decreased to 14.

limited to occasional contacts with an employment counselor whose role mostly consisted of discussing the client's situation and possibly arranging labor market training. The cooperation between social administration and consultants was scarce and a common view is that the follow-up was insufficient (Hjertner Thorén, 2005; and own interviews). The current programs use a common reporting system in which the attendances of the participants are registered daily. Most importantly, the register is open to social workers, which means that absence is immediately detected, which lead to reduced benefits.

In 2006 the municipality of Stockholm released a report on the programs subject to this study. The report gives a comprehensive overview of the programs employed by the city districts, and also includes an analysis of the program participants registered in four of the city districts. The study of the registered participants encompasses 2,662 individuals who have participated or still participates in an activation program. Blomberg *et al.* (2006) find that 21 percent of the program participants studied have found ways of supporting themselves since having entered the program, but the analysis does not take in to account that some of the participants may have been enrolled to the program right before ending up in the study. The majority (58 percent) of those leaving the program do so because they find jobs. Note however, that these figures say nothing about causal effects of the programs.

In order to give a better understanding of what the programs, we will below describe the program in Skärholmen in more detail. The program in Skärholmen is one of the most documented programs (see Ekström, 2005; Hjertner Thorén, 2005, for a more detailed description) and is to large extent comparable to other, less documented programs in other parts of the city. For example, since the beginning in 1998–1999 three other city districts (Hägersten, Liljeholmen and Älvsjö) have joined the project and now the four districts share the facilities in Skärholmen.

In 1998 the city district of Skärholmen began to apply a method that has later become known as "the Skärholmen model". During the first year the activities were only directed to students who were unemployed during the summer, but in 1999 the program was extended to *all* unemployed receivers of welfare benefits. In the Skärholmen model the central component is job-seeking activities for unemployed, especially unemployed receiving financial support. Job-seeking activities are facilitated by providing job seekers with an individual labor market "coach" and material which may alleviate job search – such as computers, telephones and

stationery. In addition to job seeking activities, the program involves participation in internships, shorter education such as computer courses and other activities arranged by the city district, such as gardening or cleaning in the community.

Welfare applicants whose main motivation for applying for welfare is categorized as “unemployment” by the welfare services are immediately sent to “The Jobcentre”, the local employment agency that administers the job seeking activities for welfare receivers in the city district. Usually, the applicants have to meet Jobcentre personnel before their application is processed. Sometimes the applicant is given suggestions on jobs to seek or other activities on their first visit. As long as a person has not found a job or an activity to participate in, the program requires three hours of daily attendance at the Jobcentre, either in the morning or in the afternoon. Every second week the schedule rotates in order to prevent black market work. Also, internships are sometimes used to test the willingness to work. There is a large amount of cooperation between the welfare office and the coaches at the work centre. Not participating actively at the centre will be reported to the welfare administrator who can decline the recipients their welfare benefit.

3 Data

In this study we will use data from two different sources. First, in order to categorize when the different city districts launched work requirements, we have conducted a questionnaire addressed to the heads of the welfare administration in each city districts. The questionnaire was complemented with telephone interviews. Based on the information from the questionnaire and the interviews, we can determine which year an “ambitious” program was launched in the city districts. Table 1 below shows when the activation programs were implemented and the number of required hours per week that the beneficiary has to be present at the activation centre. However, in some districts it is impossible to establish when the “ambitious” program begun (Skarpnäck) and which program should be considered as the first ambitious program (Spånga-Tensta). Skarpnäck is therefore excluded completely, and Spånga-Tensta is also excluded as a sensitivity analysis. In addition, the most central city districts are excluded from the sample altogether as the share of receivers of social assistance is very low in this part of the city and as their methods are difficult to categorize.

Table 1 Activation programs currently in use in Stockholm city districts.

District	Year	Required hours
		per week
Bromma	2004	8
Enskede-Årsta	2004	4
Farsta	2001	4
Hägersten	2003	15
Hässelby-Vällingby	2004	8
Kista	2001	9
Liljeholmen	2003	15
Rinkeby	1998	8
Skärholmen	1999	15
Spånga-Tensta	2003	5
Vantör	2004	4
Älvsjö	2002	15

The data from the questionnaire is combined with individual register data from Statistics Sweden. The register data contains yearly information on all individuals aged 18–64 living in the municipality of Stockholm, over the years 1993 through 2003. Table 2 below reports summary statistics on the variable used in this paper. In order to measure the effects of welfare participation we use a dummy (*Welfare receiver*) that indicates whether the individual lives in a household that received welfare during the year. We see that this is true for approximately 10 percent of all individuals in our sample. A potential problem with this measure of welfare participation is that it is quite crude in the sense that an individual is considered as being a welfare participant if he or she has received social assistance at some point during a year. Since the length of assistance is not considered, we might underestimate the effect of work requirements on welfare participation. When estimating the effect, we only use those individuals that switches from receiving *some* welfare income one year to receiving *no* social assistance the other year for identification. There might however be individuals that receive social assistance in both years but that significantly reduce their income from welfare. It is therefore also interesting to investigate the effect on the amount of welfare money received during a year (*Welfare benefit*).

Since we are interested in what happens to individuals that potentially leaves welfare, we will also investigate the effects on employment, self-employment and education. We use four different measures of employment: A dummy indicating whether the individual worked as

least 1 hour in November, a variable that measures how many months the individual was employed in the year, a dummy indicating whether the individual was employed all 12 months, and income earned from employment. Self-employment is defined as dummy variable that takes the value 1 if the individual's registered income from own company exceeds 50 percent of the median minimum wage according to collective agreements. The dummy variable we use for measuring whether an individual study ("In education") is based on information whether the individual has a study loan or receives study benefits (taking the value 1 if study loan and/or study benefit, 0 otherwise). Finally, we will investigate what happens with the economic well-being of individuals by investigating effects on disposable income.

Table 2 Summary statistics

Variable	Mean	Std. Dev.	Min	Max
<u>Outcome variables</u>				
Welfare receiver	.114	.318	0	1
Welfare benefits	2,847.5	11,358.5	0	510,800
Employed in November	.701	.458	0	1
Employed all year	.615	.487	0	1
Months employed	8.119	5.321	0	12
Income from employment				
Self-employed				
In education				
Disposable income*	1,520.02	2,576.38	-15,515	2,239,108
<u>Control variables</u>				
Woman	.499	.500	0	1
Age 18–25	.154	.360	0	1
Age 26–35	.263	.440	0	1
Age 36–45	.356	.479	0	1
Age 46–64	.228	.420	0	1
With young children (<7 years)	.190	.392	0	1
Born in Sweden	.723	.447	0	1
Born in Nordic country	.049	.216	0	1
Born in Western country	.032	.176	0	1
Born in East European Country	.042	.200	0	1
Born in other country	.158	.365	0	1
Elementary school< 9 years	.211	.408	0	1
Elementary school 9 years	.258	.439	0	1
High school	.196	.397	0	1
College/University<2 years	.163	.369	0	1
College/University>2 years	.163	.370	0	1
Ph D	.009	.095	0	1
Immigration 2–4 years ago	.024	.152	0	1
Immigration 5–9 years ago	.060	.237	0	1
Immigration 10–14 years ago	.050	.217	0	1
Immigration>15 years ago or not at all	.867	.339	0	1
1 child	.200	.400	0	1
More than 1 child	.206	.404	0	1

* The variable disposable income is only available for the years 1995–2003.

In the empirical analysis we will also control for a number of individual specific characteristics. Summary statistics for those are also given in Table 2.⁴

The 18 city districts are rather heterogeneous with respect to demographic composition and outcome variables. Table 3 presents summary statistics from 1993 on the outcome variables as well as the share foreign born. We see from the Table that Rinkeby seems to be somewhat of an outlier both with respect to welfare participation and the share of foreign born, whereas these shares are considerably lower in Bromma, Enskede-Årsta and Älvsjö. Comparing the figures in Table 3 with the year of implementation of work requirements shown in Table 1, it is worth noting that it is the city-districts with the highest welfare participation that seems to have implemented the policy first. In the next section we will discuss how we handle this in the empirical analysis.

Table 3 City district characteristics in 1993.

	Share welfare receivers	Average welfare benefits	Share employed (November)	Average disposable income*	Share of foreign born individuals
Bromma	0.06	1,087	0.76	149,045	0.12
Enskede-Årsta	0.08	1,525	0.73	129,633	0.16
Farsta	0.13	2,431	0.70	124,991	0.17
Hägersten	0.08	1,449	0.73	130,481	0.15
Hässelby-Vällingby	0.08	1,288	0.74	137,476	0.15
Kista	0.19	3,847	0.67	120,446	0.42
Liljeholmen	0.10	1,922	0.71	122,920	0.16
Rinkeby	0.34	6,955	0.42	90,850	0.78
Skärholmen	0.13	2,092	0.66	119,657	0.32
Vantör	0.14	2,606	0.68	120,665	0.20
Älvsjö	0.07	1,050	0.76	140,942	0.14
Spånga-Tensta	0.17	3,209	0.64	1,24,431	0.42

* The variable disposable income is only available for the years 1995–2003.

4 Econometric methodology

When investigating the effect of a specific policy on individual behavior, the econometric challenge is to separate effects of the policy from other factors that also affect individual behavior. If one only compares the behavior of the individual before and after a policy change, there is a major risk that one also captures the changes in the behavior that depends on factors outside the policy. One way to isolate the effect of the policy from all other things that may affect individual behavior between two periods in time is to compare the changes in

⁴ Exact definitions of all variables as well as the names of the data sources are given in Appendix C.

behavior of individual residing in a city district that has implemented the policy with changes in the behavior of individual residing in a city district that has *not* implemented the policy. The idea is that we will be able to clean the effect of the policy from everything else that may affect individual behavior. This approach is denoted the difference-in-differences approach (hereafter denoted DD) and will be used in this paper.

Assume that there are two city districts, A and B , and two time-periods, 1 and 2 . Assume further that city district A implements a policy in period 2, whereas city district B does not. The DD-estimator of the effect of the policy on outcome Y is then given by

$$DD = (Y_{A2} - Y_{A1}) - (Y_{B2} - Y_{B1}). \quad (1)$$

In this paper we study a case where there are more than 2 city districts that have implemented a policy at different periods of time. In this case, the econometric specification of equation (1) is given by

$$Y_{ijt} = \alpha_j + \tau_t + \beta \text{program}_{jt} + \theta X_{ijt} + \varepsilon_{ijt}, \quad (2)$$

where Y_{ijt} is the outcome of interest for individual i in city district j in time-period t , α_j are city district-specific fixed effects, τ_t is time-specific fixed effects that are common for all city districts, and program_{jt} is an indicator variable that takes the value 1 if the policy is implemented in city district j at time t . The effect of the policy is given by the parameter β . Finally, X_{ijt} is a vector of covariates that takes into account that different districts may have different population-structure. If these covariates affect both the likelihood that the policy is implemented and the outcome of interest, excluding these gives bias estimates of β . If these covariates only affect the outcome-variable, including them increases the efficiency in the estimations.

In order for β to be a causal effect, we need an identifying assumption which is that, if the policy had not been implemented, Y would have changed in the same way as in the city districts that did not implement the policy. The city-districts implemented the policy in different periods of time. We know that these years (1998–2003) were characterized by

decreasing unemployment rates until 2001 and then a small increase. We also know that labor market conditions matter differently for different groups, i.e., the weaker the group is with respect to labor market attachment, the more sensitive is the groups to fluctuations in labor market conditions. Given that the city-district with the potentially weakest groups were those that implemented work requirements first, one might worry that the treatment dummy in equation (2) would capture this pattern rather than a true treatment effect. In order to avoid this potential problem, we will therefore allow the parameter vector θ to vary over time, i.e., the equation that form the basis for our empirical analysis is given by equation (3)

$$Y_{ijt} = \alpha + \gamma A_j + \delta T_t + \beta program_{jt} + \theta_t X_{ijt} + \varepsilon_{ijt}. \quad (3)$$

Also we will estimate (3) separately for more well-fare prone groups in order to investigate whether work requirements work for those mostly in need.

5 Results

5.1 Baseline estimates

5.1.1 Effects on welfare participation

According to the theoretical prediction from the Besley and Coate (1992) model, welfare participation should decrease when work requirements are introduced. We start by examining this hypothesis.

Using a difference-in-differences (DD) approach, we estimate the effect of the introduction of work requirements on the probability for an individual to receive welfare sometime during a year. We use a linear probability model, controlling for several observed as well as unobserved characteristics of the city districts.

The results from the regression are shown in the first column in Table 4. The DD-estimate in the first row shows a significant and negative effect on welfare participation; the introduction of work requirements leads to a 1.3 percentage point reduction in the probability of being a welfare participant. To get an impression of the magnitude of this effect, we can note that the estimate constitute approximately 11.4 percent of the average welfare participation rate in the

sample (the average rate is 11.4 percent). An average decrease in welfare participation of about 11.4 percent must be considered as a fairly large effect.

As mentioned earlier, a potential problem with this measure of welfare participation is that it is quite crude in the sense that an individual is considered as being a welfare participant if he or she has received social assistance at some point during a year. Since the length of assistance is not considered, we might underestimate the effect of work requirements on welfare participation. When estimating the effect, we only use those individuals that switches from receiving *some* welfare income one year to receiving *no* social assistance the other year for identification. There might however be individuals that receive social assistance in both years but that significantly reduce their income from welfare. Therefore we also investigate the effect on the amount of welfare money received during a year (*Welfare benefit*).⁵

From the results, presented in the last column in Table 4, it is clear that we get a significant and negative effect; the introduction of stricter work requirements leads to a decrease in income coming from social assistance of 243.50 SEK. Since the average in the sample is 2,848 SEK, the estimate implies that, on average, the introduction of work requirements leads to a decrease in social assistance income of 8.5 percent. It is interesting to note that even though the magnitude of this effect is somewhat lower than the one obtained when estimating the effect on the probability of being a welfare receiver, it is still fairly similar.

Table 4. Effect on the probability of receiving welfare, DD-estimates

	(1)	(2)
	Welfare receiver	Welfare benefit
DD-estimate	-0.013** (0.001)	-243.50** (27.40)
R-squared	0.17	0.11
City district fixed effect	Yes	Yes
Time effects	Yes	Yes
Individual characteristics ¹	Yes	Yes
Time varying parameters on individual covariates	Yes	Yes
No. of observations	2,615,215	2,615,215

Robust standard errors in parentheses. * significant at 5%; ** significant at 1%

¹ Gender, education level, immigration year, region of birth, children and age.

⁵ Another outcome could have been the number of days over a year that an individual receives welfare, but this information is not available.

5.1.2 Effects on employment and the probability of studying

The results in the previous section indicate that the introduction of stricter work requirements seem to have been reducing welfare participation and the amount of income that an individual receives from social assistance. But what are the effects on other outcomes? The predictions from the Besley and Coate (1992) model are not explicit about other outcomes, but implicitly there is an understanding that work requirements should have positive effects on the employment rate and, possibly, other labor market outcomes. Therefore we will next examine the effects of work requirements on employment. This outcome will also say something about what happens to the individuals that have left welfare.

We use four measures for the employment variable. The first is a dummy taking on the value one if the individual was employed in November in a given year, zero otherwise. The second is the number of months employed during a year. The third is a dummy indicating whether an individual has been employed a whole year or not, and the fourth measures income from employment. The results are presented in Table 5.

The effects on employment status in November, presented in the first column, show an insignificant effect, both statistically and economically. The same is true for the effect on the number of months employed, presented in the second column. The effect on full-year employment, presented in the third column, shows a negative and significant effect; the introduction of work requirements leads to a 0.3 percentage point lower probability for the individual of being employed the whole year. The economic significance of the effect is however small; the probability that an individual is employed the full year decreases with only 0.48 percent of the average sample figure of 63 percent. Finally, also income from employment is negatively affected; the introduction of work requirements leads to a decrease in income from employment of 4,547 SEK.

From Table 5 it is clear that those individuals who end being on welfare do not get employed. So what happens? One potential explanation is that self-employment increases. Another is that an individual who end welfare start studying. Below we will therefore investigate the effects of work requirements on the probability that people are self-employed or in the education system. Column (1) in Table 6 shows that there is no effect on the probability of self-employment but that there is a significant increase in the probability of studying (indicated by either having a study loan or receiving study benefits).

Table 5. Effects on employment.

	(1)	(2)	(3)	(4)
	Employed (in November)	Months employed	Employed all year	Income from employment
DD-estimate	-0.000 (0.001)	-0.006 (0.013)	-0.003** (0.001)	-4,547.5** (385.8)
R-squared	0.14	0.15	0.15	0.24
City district fixed effect	Yes	Yes	Yes	Yes
Time effects	Yes	Yes	Yes	Yes
Individual covariates ¹	Yes	Yes	Yes	Yes
Time varying parameters on individual covariates	Yes	Yes	Yes	Yes
No. of observations	2,615,215	2,615,215	2,615,215	2,615,215

Robust standard errors in parentheses. * significant at 5%; ** significant at 1%

¹ Gender, education level, immigration year, region of birth, children and age.

Table 6. Effects on probability of self-employment and studies.

	(1)	(2)
	Self-employment	Student
DD-estimate	0.000 (0.000)	0.005** (0.001)
R-squared	0.01	0.28
City district fixed effect	Yes	Yes
Time effects	Yes	Yes
Individual covariates ¹	Yes	Yes
Time varying parameters on individual covariates	Yes	Yes
No. of observations	2615215	2169508

Robust standard errors in parentheses. * significant at 5%; ** significant at 1%

¹ Gender, education level, immigration year, region of birth, children and age.

5.1.3 Effects on economic well-being

So far we have found that work requirements leads to a lower degree of welfare participation but, if anything, decreased employment. So on net, how well are the individuals faring in economic terms? Thanks to good information on the individual's disposable income we are able to analyze this, something that has not been done in earlier studies on the U.S. welfare reform. The results are presented in Table 7 below. It turns out that, on net, the introduction of stricter work requirements leads to a significant decrease in disposable income of 1,812 SEK. This amounts to 1.2 % of the average sample figure of 152,002 SEK.

Table 7. Effects on disposable income.

	Disposable income
DD-estimate	-1,818.3** (399.6)
R-squared	0.05
City district fixed effect	Yes
Time effects	Yes
Individual characteristics ¹	Yes
Time varying parameters on individual covariates	Yes
No. of observations	2,169,508

Robust standard errors in parentheses. * significant at 5%; ** significant at 1%

¹ Gender, education level, immigration year, region of birth, children and age.

Disposable income is only available for the period 1995–2003.

5.2 Heterogeneous effects

So far we have estimated average effects. However, we know that there are certain groups for which welfare participation is higher. It is therefore of interest to investigate whether work requirements work better or worse for these groups. Table 8 shows welfare participations among different groups. From the table it is clear that the probability of receiving welfare is higher among those born outside Sweden (in particular for those born “other countries” (i.e. Asia and Africa)) and for families with children, especially those with a single parent. (SKRIV MER). Also, welfare might be extra harmful for young people, due to, e.g., scarring effects.⁶ We will therefore continue and investigate the effects of work requirements for families with small children, those born outside Sweden, and young and old.

We start by investigating the effects for families with small children (younger than 7). In Table 9 we show the effects on all outcome variables for two-parent households (column 1), single parent households (column 2) and female headed single parent households (column 3). We see that the effects on welfare participation are largest for the group with highest welfare participation. The probability that a female headed single-parent household with children younger than 7 receives welfare decreases with 2.3 percentage points, which corresponds to a decrease with 6 percent. The benefit received also decreases, with approximately 580 SEK (7.5 percent). Turning to the effects on employment, the story from the baseline estimates remains; income from employment decreases whereas there are no significant effects for the other measures. The probability for individuals in two-parent households to become self-employed increases however when work requirements are introduced. Finally, there are no

⁶ Nordström Skans (2004) shows that experiencing unemployment subsequent to graduation has negative effects on both unemployment and earnings at least five years after graduation.

significant effects on disposable income. Hence, with respect to economic well-being, work requirements do not seem to hurt families with young children.

Table 8. Welfare participation among different groups

	Welfare receiver	Welfare benefits	Employment			Income from work	Disp. income	Self-employed	Student
			November	Months	Full year				
All	0.101	2,365	0.72	8.32	0.632	1,587	1,549	0.029	0.119
<u>Age</u>									
18–25	0.157	2,940	0.547	6.065	0.364	75,812	82,116	0.006	0.490
55–64	0.049	1,560	0.629	7.490	0.597	152,575	176,160	0.031	0.001
<u>Country of birth</u>									
55-64 born in East Europe or other country	0.327	13,114	0.304	3.549	0.274	54,782	106,023	0.024	0.006
Born outside Sweden	0.233	5,975	0.533	6.153	0.449	96,043	121,208	0.033	0.112
Born outside Sweden and the Nordic countries	0.261	6,732	0.498	5.716	0.409	85,904	115,834	0.035	0.126
Born in East Europe or other country	0.291	7,541	0.491	5.637	0.398	82,125	114,203	0.034	0.137
Other country	0.319	8,136	0.476	5.457	0.379	76,582	111,249	0.034	0.146
<u>Family status</u>									
With small children	0.111	1,844	0.782	8.775	0.678	168,628	170,674	0.038	0.060
Single parent-households with small children	0.348	6,834	0.590	6.499	0.466	85,337	158,127	0.013	0.134
Single women with small children	0.361	7,070	0.579	6.348	0.453	78,489	156,082	0.011	0.139

Next, we will turn to the effects of work requirements for people born outside Sweden. The results are shown in Table 10. As can be seen from the Table, the effects are largest for those born in “other countries”; the probability of receiving welfare decreases with 1.7 percentage points and the welfare benefits received decreases with 525 SEK. Also, for those born outside Sweden there seems to be positive, statistically significant, effects on employment (but no significant effects on income from employment). For example, the number of months employed for people born in east Europe or in other countries increases with almost 0.08 months per year if work requirements are introduced. This corresponds to an increase with 1.3 percent.

Table 9. Effects for people with small children (younger than 7)

	(1)	(2)	(3)
	Two-parent households with young children	Single-parent households with young children	Single mothers with young children
<u>Welfare participation</u>			
Welfare reciever	-0.011** (0.002)	-0.019** (0.007)	-0.023** (0.007)
Welfare benefits	-221.0** (44.0)	-457.8* (212.3)	-581.3** (222.7)
<u>Employment</u>			
Employed (in november)	0.003 (0.003)	-0.001 (0.008)	-0.001 (0.008)
Months employed	0.011 (0.031)	-0.080 (0.086)	-0.083 (0.090)
Employed all year	-0.004 (0.003)	-0.012 (0.008)	-0.013 (0.008)
Income from employment	-6,847.0** (1,058.3)	-4,449.6* (1,747.0)	-3,836.8** (1,487.0)
Self employment	0.003* (0.001)	-0.001 (0.002)	-0.001 (0.002)
Student	0.008** (0.002)	0.012* (0.006)	0.014* (0.006)
<u>Economic well-being</u>			
Disposable income	-1,218.1 (1,516.0)	-1,552.1 (1,129.3)	-1,127.5 (1,032.2)
City district fixed effect	Yes	Yes	Yes
Time effects	Yes	Yes	Yes
Individual characteristics ¹	Yes	Yes	Yes
Time varying parameters on individual covariates	Yes	Yes	Yes
No. of observations ²	416,207	63,054	58,933

Robust standard errors in parentheses

* significant at 5%; ** significant at 1%

¹ Gender, education level, immigration year, region of birth, children and age.² For all outcomes except disposable income and student.

Table 10. Effects for people born outside Sweden

	(1)	(2)	(3)	(4)
	Born outside Sweden	Born outside Sweden and the Nordic countries	Born in East Europe or other country	Other country
<u>Welfare participation</u>				
Welfare receiver	-0.015** (0.002)	-0.014** (0.002)	-0.014** (0.002)	-0.017** (0.003)
Welfare benefits	-400.5** (69.2)	-388.1** (77.2)	-384.0** (85.8)	-525.0** (97.2)
<u>Employment</u>				
Employed (in november)	0.008** (0.002)	0.009** (0.002)	0.006* (0.003)	0.005 (0.003)
Months employed	0.089** (0.026)	0.107** (0.028)	0.074* (0.030)	0.078* (0.033)
Employed all year	0.004* (0.002)	0.006* (0.002)	0.002 (0.003)	0.002 (0.003)
Income from employment	-353.9 (549.1)	119.5 (574.4)	182.9 (590.6)	47.9 (625.7)
Self employment	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Student	0.005** (0.001)	0.006** (0.002)	0.007** (0.002)	0.008** (0.002)
<u>Economic well-being</u>				
Disposable income	-700.9 (667.8)	-693.0 (748.2)	-671.6 (817.6)	-266.9 (966.1)
City district fixed effect	Yes	Yes	Yes	Yes
Time effects	Yes	Yes	Yes	Yes
Individual characteristics ¹	Yes	Yes	Yes	Yes
Time varying parameters on individual covariates	Yes	Yes	Yes	Yes
No. of observations ²	628,651	510,879	441,738	347,200

Robust standard errors in parentheses

* significant at 5%; ** significant at 1%

¹ Gender, education level, immigration year, region of birth, children and age.

² For all outcomes except disposable income and student.

Finally, we will turn to the effects of work requirements for people younger than 26 and older than 54. Also, we will investigate whether the effects for people older than 54 are different for those born in East Europe or in another country. The results are shown in Table 11. Work requirements seem to be most efficient for young people; the probability of receiving welfare decreases with 3.4 percentage points and the probability of being employed increases with almost 1 percentage point, when work requirements are introduced. In relative terms these figures corresponds to a decrease with 22 percent and an increase with 1.7 percent. Also, for young people, income from employment increases with work requirements. For older people, however, even though the probability of receiving welfare decreases, income from

employment decreases whereas the probability of being employed and does not change. Also, disposable income decreases. However, the negative results for older people do not hold for those born outside the Western countries (see column 3).

Table 11. Effects for young and old people

	(1)	(2)	(3)
	18–25	55–64	55–64, born in East Europe or other country
<u>Welfare participation</u>			
Welfare receiver	-0.034** (0.002)	-0.003* (0.001)	-0.008 (0.010)
Welfare benefits	-616.7** (63.9)	-013.0 (57.4)	-148.4 (483.4)
<u>Employment</u>			
Employed (in November)	0.009** (0.003)	-0.005 (0.003)	-0.004 (0.011)
Months employed	0.114** (0.033)	-0.036 (0.036)	-0.093 (0.133)
Employed all year	0.007* (0.003)	-0.004 (0.003)	-0.010 (0.011)
Income from employment	1090.5* (515.3)	-4119.3** (1052.7)	-2127.1 (2566.4)
Self employment	-0.001 (0.000)	0.001 (0.001)	0.006 (0.004)
Student	0.008* (0.003)	0.000 (0.000)	0.003 (0.002)
<u>Economic well-being</u>			
Disposable income	42.0 (392.7)	-3389.0** (1106.8)	2275.0 (1728..8)
City district fixed effect	Yes	Yes	Yes
Time effects	Yes	Yes	Yes
Individual characteristics ¹	Yes	Yes	Yes
Time varying parameters on individual covariates	Yes	Yes	Yes
No. of observations ²	397,567	387,681	23,253
Robust standard errors in parentheses			
* significant at 5%; ** significant at 1%			
¹ Gender, education level, immigration year, region of birth, children and age.			
² For all outcomes except disposable income and student.			

8 Conclusions

To be written.

References

Besley, T. and S. Coate (1992), “Workfare vs. Welfare: Incentive Arguments for Work Requirements in Poverty Alleviation Programs”.

Blank, R. (2002), "Evaluating Welfare Reform in the United States", *Journal of Economic Literature*, vol 40, 1105-1166.

Blomberg, G., V. Ekström and D. Rauhut (2006), "Bidrag och motprestation: en uppföljning av arbetet med arbetslösa socialbidragstagare i sex stadsdelsområden i Stockholm stad", FoU-enheten, Stadsledningskontoret i Stockholms stad.

Ekström, V. (2005), "Individens eget ansvar och samhällets stöd – En utvärdering av "Skärholmsmodellen" vid Jobbcentrum Sydväst", FoU-enheten, Stadsledningskontoret i Stockholms stad.

Hjertner Thorén, K. (2005), "Kommunal aktiveringspolitik: en fallstudie av det praktiska arbetet med arbetslösa socialbidragstagare", Rapport 2005:11, IFAU, Uppsala.

Johansson, H. (2001) *I det sociala medborgarskapets skugga. Rätten till socialbidrag under 1980- och 1990-talen*, Lund, Arkiv.

Moffitt, R. (2007) "Welfare Reform: The US Experience", uppsats presenterad på Ekonomiska Rådets konferens "From Welfare to work", Stockholm, 7 maj, 2007.

Nordström Skans O. (2004) "Scarring effects of the first labour market experience", Working Paper 2004:14, IFAU, Uppsala.

Ruhm, C. (1998), "The Economic Consequences of Parental Leave Mandates: Lessons from Europe", *Quarterly Journal of Economics*, vol 108, 285-317.

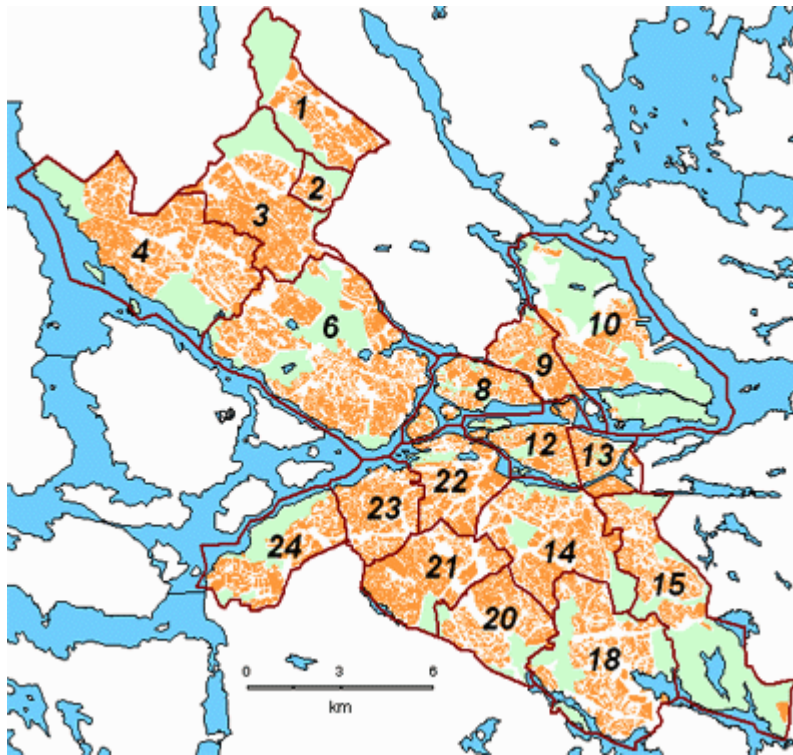
Salonen, T. and R. Ulmestig (2004), "Det nedersta trappsteget – En studie om kommunal aktivering", Institutet för vårdvetenskap och socialt arbete, Växjö universitet.

Socialstyrelsen (2005) "Hur tillämpas bestämmelsen i 4 kap. 4 § Socialtjänstlagen?"

Socialstyrelsen (2006), "Normer för ekonomiskt bistånd (socialbidrag) 1985–2005".

SOU 2007:2 "Från socialbidrag till arbete"

Appendix A: Map – city districts of Stockholm.



1. Kista
2. Rinkeby
3. Spånga-Tensta
4. Hässelby-Vällingby
6. Bromma
8. Kungsholmen
9. Norrmalm
10. Östermalm
12. Maria-Gamla stan
13. Katarina-Sofia
14. Enskede-Årsta
15. Skarpnäck
18. Farsta
20. Vantör
21. Älvsjö
22. Liljeholmen
23. Hägersten
24. Skärholmen

Appendix B: Survey to the social service unit of the town districts

(Note that the original version is in Swedish, and that this is a translated version.)

The survey refers to information on activities for unemployed individuals, capable of working, that receive welfare benefits.

1. Does your town district currently have any activation/labour market related programs for unemployed individuals, capable of working, that receive welfare benefits?

Yes

No

If no, turn to question 9 of the survey.

If yes, please name the program/programs:

2. Since which year does this program/programs exist in its current form (under the same or a different name)?

3. Does the program/s encompass all individuals, capable of working, that are unemployed and receive welfare benefits?

Yes

No

4. If you have responded "No" to question 3:

- How large a share of all individuals, capable of working, that are unemployed and receive welfare benefit are encompassed by the program?

- Which groups of individuals are targeted by the program?

5. Please, specify how and to which extent are the following activities being used in the program/programs:

a. Job-seeking activities

b. Job training activities

c. Other assigned work (for example within the municipal services)

d. Other activities, please specify which:

6. What is the minimum number of hours of weekly attendance that is required in the program/programs?

7. Is absence/non-attendance systematically reported to the social service officials?

Yes

No

Comments:

8. Can absence/non-attendance (without acceptable motivation) lead to rejection of the welfare benefit application?

Yes

No

Comments:

In the following part of the survey we ask for information on programs that were targeted to unemployed individuals, capable of working, that receive welfare benefits, before today's program/programs started.

9. Which programs have been in place under the period from 1990 until the start of today's program/programs? Under each number below, please specify the name of the program, or the main activity if a name does not exist, for example "Meeting with job counsellor". Please also specify during which years the program/activity was in place.

Program 1:

Name: _____

Time period: _____

Program 2:

Name: _____

Time period: _____

[.etc..]

Below follows a set of questions about the programs/activities that were in place before today's program/-s. Please, answer the questions about each program under the number that corresponds to the list above.

Program/Activity 1:

1. Which groups were targeted by the program/activity?
2. How large a share of all individuals, capable of working and receiving welfare benefits, were encompassed by the program/activity?
3. Please, specify to which extent the following activities were used in the program/activity:
 - a. Job-seeking activities
 - b. Job-training activities
 - c. Other assigned work (for example within the municipal services)
 - d. Other activities, please specify which:

7. Was **absence/non-attendance systematically reported to the social service officials?

Yes

No

If yes, in which way:

8. Could absence/non-attendance (without acceptable motives) lead to refusal/rejection on the welfare benefit application?

Yes

No

Comments:

Program/ Activity 2:

[The same questions were repeated for all programs/activities listed.]

Appendix C: Register data

Table C.1. Definition of variables

Variable	Database and name	Description
Dependent variables		
Welfare receiver	LOUISE: socbidp1*	Indicator variable which takes value 1 if socbidp1>0.
Welfare (100's of SEK)	LOUISE: socbidp1	The individual's share of the household's welfare benefits.
Employed in November	sys: sysst*	Indicator variable which takes the value 1 if an individual is employed for at least 1 hour in November.
Employed all year	anst: mantill & manfran	The variable take the value 1 if an individual has been employed a full year in a position which has generated more than ½ of the minimum wage for a worker within the Hotel and restaurant sector.
Months employed	anst: mantill & manfran	The number of months an individual has been employed during the year in a position which has generated more than ½ of the minimum wage for a worker within the Hotel and restaurant sector.
Disposable income	LOUISE: dispink	All income from work and social security systems, transfers minus taxes, study loan payments etc. For details, see SCB, <i>En longitudinell databas kring utbildning, inkomst och sysselsättning (LOUISE) 1990-2002</i> . 2005. p. 190.
Self-employed	anst: mantill & manfran	The variable take the value 1 if an individual has been self-employed during the year and the self-employment has generated more than ½ of the minimum wage for a worker within the Hotel and restaurant sector.
Student	LOUISE: studmed, kortstu, svux, svuxa, svuxvuxa, svuzklan, svuxalan sxxsalan	Indicator variable which takes the value on if income from student loans or benefits are positive during the year.
Variables used for heterogeneous effects		
Woman	LOUISE: kon	Indicator variable which takes value 1 if an individual is a woman.
18-25	LOUISE: fodar*	Indicator variable which takes the value 1 if an individual is within the age interval 18-25.
Young children (<7 years)	LOUISE: barn0003 & barn0406	Indicator variable for the presence of children less than 7 years in the household.
Born in Sweden	sys: fland	Indicator variable for Sweden as country of birth.
Born in Nordic country	sys: fland	Indicator variable for any of the Nordic countries as country of birth.
Born in Western country	sys: fland	Indicator variable for any of the Western countries as country of birth (Western Europe, US and Canada).
Born in Eastern Europe	sys: fland	Indicator variable for any of the Eastern European countries as country of birth.
Born in other country	sys: fland	Indicator variable for any other country of birth.
Other control variables		
26-35	LOUISE: fodar*	Indicator variable which takes the value 1 if an individual is within the age interval 26-35
36-45	LOUISE: fodar*	Indicator variable which takes the value 1 if an individual is within the age interval 36-45
46-64	LOUISE: fodar*	Indicator variable which takes the value 1 if an individual is within the age interval 45-64
Children=1	LOUISE: barn0003, barn0406, barn0715, barn1617*	Indicator variable for the presence of one child under 18 years in the household.

Children>1	LOUISE: barn0003, barn0406, barn0715, barn1617*	Indicator variable for the presence of more than one child under 18 years in the household.
Elementary school< 9 years	LOUISE: hsun*	Indicator variable which takes the value 1 if the individual's highest education is elementary school< 9 years.
Elementary school 9 years	LOUISE: hsun*	Indicator variable which takes the value 1 if the individual's highest education is elementary school 9 years
High school	LOUISE: hsun*	Indicator variable which takes the value 1 if the individual's highest education is high school.
College/University<2 years	LOUISE: hsun*	Indicator variable which takes the value 1 if the individual's highest education is College/University<2 years.
College/University>2 years	LOUISE: hsun*	Indicator variable which takes the value 1 if the individual's highest education is College/University>2 years.
Ph D	LOUISE: hsun*	Indicator variable which takes the value 1 if the individual's highest education is a Ph D degree.
Immigration 2-4 years ago	LOUISE: invar*	Indicator variable for if immigration to Sweden occurred 2-4 years ago
Immigration 5-9 years ago	LOUISE: invar*	Indicator variable for if immigration to Sweden occurred 5-9 years ago
Immigration 10-14 years ago	LOUISE: invar*	Indicator variable for if immigration to Sweden occurred 10-14 years ago
Immigration>15 years ago or not at all	LOUISE: invar*	Indicator variable for if immigration to Sweden occurred more than 15 years ago or not at all

* Variable/s used to generate the variable used.