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Effects of work requirements on welfare migration

Karin Edmark

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Effects of work requirements on welfare migration*

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Abstract

This study tests for a migration response to the implementation of stricter rules for welfare benefit receipt, in the form of mandatory participation in activation programs for welfare recipients, in Stockholm town districts. The hypothesis is that welfare benefit prone individuals will choose to live in a town district that has no program if they dislike the loss of leisure due to program participation more than they value the contents of the program, and vice versa. The results give some indications of a negative effect of the program on the outmigration of welfare prone individuals. This is however not robust to changes in comparison group nor in the sample of town districs. The conclusion that can be drawn is that there are no indications that activation programs lead to outmigration of welfare prone individuals.

Keywords: welfare migration, welfare-to-work, difference-in-difference-in-differences

JEL: H53, H70, I38, R23

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1 Introduction

The increasing numbers of welfare benefit recipients has given rise to a new trend in the welfare benefit policy of the Western world, in the form of a shift in focus from the rights to the obligations of recipients of welfare. In the U.S., as well as in many European countries, policies have been implemented that restrict the availability of welfare benefits, for example by introducing time limits or by conditioning benefit receipt on participation in job search or job training programs. Such policies are often described by the term "workfare", since they require that the recipients to some extent work for their welfare benefits (see e.g. Blomberg et al. (2006)).

Sweden is no exception to this trend. In 1998, a change in the Social Service Act enabled local municipalities and town districts to strengthen the rules for benefit eligibility, by conditioning benefit receipt on participation in programs for job search and job training. The law has been used by several municipalities and town districts to implement a new type of labour market program for recipients of welfare benefits that are capable of working, so called activation programs. The implementation of such programs is highly decentralized: the municipalities, or, in case of larger towns, the town districts, are responsible for the decision of whether or not to start a program, as well as for the program design.

Welfare caseloads have fallen dramatically in many town districts that have implemented activation programs, something that is often interpreted as a sign of success of the activation policy. However, no study has yet confirmed that it is the activation programs that have increased the employment rates among recipients of welfare[1], and there is in fact little information on what happens to the individuals that end the program. For example, a survey on the Stockholm town district Skärholmen points out that information on the cause for ending the activation program is lacking for as much of 56% of the participants, and that only 18% state that they are employed after the program (see Thorén (2005)). Similar figures are given in Ekström (2005), who studies the same town district and also notes that the third most common category is "having moved from the town district": 11% state this as the cause for ending the program.

We hence do not know if the activation programs have helped parti-

[1] While there have been a number of evaluations of single activation programs, these have been descriptive in character, and have not been able to isolate program effects from for example business cycle effects.

cipants to become employed, or if the reduction in welfare caseloads is due to other factors, such as improved labour market conditions in general or even to outmigration of welfare prone individuals from municipalities and districts that have implemented stricter activation policies.

This paper tests if the implementation of activation programs in Stockholm town districts affected the moving choices of welfare prone individuals. The fact that the implementation of such programs increases the obligations of recipients of welfare, suggests that it would increase the likelihood that welfare prone individuals move from a town district that has an activation program. However, it is also possible that the services of the program are appreciated by the participants, and that the effect on migration goes the other way. The expected aggregate effect on migration is hence unknown, and depends on how the individuals value the stricter rules and loss of leisure time against the services of the program. If a large share of the target population avoids the program by moving, the effectiveness of the program to reduce welfare benefit dependency is naturally diminished. Evaluating whether this is the case is therefore interesting from a policy perspective.

An important prerequisite for the hypothesis of welfare migration is that welfare prone individuals are not restricted from moving, for example due to housing constraints. Considering the tight housing market in the Stockholm area, this is an important issue for this study. However, looking at the sample of this study, we see that welfare prone individuals seem to be even more mobile than the rest of the population: 9 percent of the individuals that receive welfare benefits at some point during the year, move between town districts during the year, while the corresponding figure for those that do not receive benefits is 6.4 percent.[2]

The previous literature on migration responses to local welfare benefit policy, has in general focused on the effects of differences in local welfare benefit generosity, and often use American state level data. The evidence of this literature is mixed: some studies estimate large welfare migration, while other studies report no effects.[3]. The results from the recent, methodologically more credible, studies, however suggest that welfare generosity does affect migration, but that the effect is rather small (see e.g. McKinnish (2005) and McKinnish (2007), Gelbach (2004), and

[2] For reasons that are given in footnote 16, individuals that have immigrated to Sweden during the last three years are excluded from the sample.

[3] See Meyer (2000) and Moffitt (1992) for overviews of the early literature.

Meyer (2000)). The exception is Fiva (2007), who finds large migration effects when studying Norwegian municipalities.

The only previous paper, to my knowledge, that tests for migration responses to stricter rules for welfare benefit eligibility is Kaestner et al. (2001), who test if the introduction of time limits, financial sanctions for non-compliance, and strict work eligibility rules in US states affected outmigration from the state. They compare the migration response among groups of women that differ in the propensity to receive welfare benefits, and find that the use of time limits increased outmigration among welfare prone individuals. No separate effects could however be estimated for financial sanction or work exemption policies, since the states using such policies were also using time limits.

In contrast to other studies of welfare migration, Kaestner et al. (2001) also study the situation *after* migration has taken place, as a further test of the cause for moving. Interestingly, they find that many of those that moved from the more strict states, were employed after the move. This result may suggest increased labour market mobility in the states that have implemented the stricter rules. However, an alternative explanation is that the moves were not at all related to differences in the welfare benefit policy, but rather to different employment possibilities. For example, it can be the case that jurisdictions that experience a declining economic situation are more willing implement stricter welfare benefit rules. If so, moves that look like welfare migration may in fact be motivated by an unfavorable labor market. This highlights the difficulties of controlling for other factors that affect migration. However, controlling for the characteristics of all possible moving-combinations is in general not feasible.

In this study, there is no need to control for varying labour market characteristics of the local jurisdictions, since all individuals live within the same municipality, i.e. in the same local labour market area. An individual who finds a job in another town district does not have to move, since one can easily commute within the municipality. For the purpose of this study, it is also important to point out that all individuals face the same welfare benefit level, since this is set at the municipal level. By limiting the analysis to Stockholm town districts, we minimize the risk of omitted variable bias due to differences in local characteristics, and can hence pinpoint the effect of work requirements on migration. In addition, the fact that merely a short-distance move is necessary in order to end up under a different benefit policy, makes the migration hypothesis a plausible

story. It is for example likely that individuals are better informed of the welfare benefit policies of the town districts in the vicinity, and that moving costs are lower for short-distance moves.

The fact that the starting year of the activation programs differs among the town districts in our sample, means that two sources of variation can be exploited to identify the effect of the program on the moving choices of welfare prone individuals. First, we can compare the moving choices of welfare prone individuals before and after the law revision, in town districts that did and did not start an activation program after the revision, in a district-level difference-in-differences analysis. Second, we can add a further component to the analysis, and compare the migration difference-in-differences estimates for groups that differ in the propensity to receive welfare benefits. The idea is that the moving behaviour of individuals with a high propensity to use welfare will be affected by the programs, while individuals that are not welfare prone will not be affected. Combining this approach with the district level analysis yields a difference-in-difference-in-differences estimator. This approach gives good possibilities to control for the effects of unobserved trends that affect migration. This is an advantage, compared to most other studies of welfare migration, which rely on comparison group based difference-in-differences analysis.

The results of this study give some indications of a *negative* migration response to the activation programs among welfare prone individuals; i.e. welfare prone individuals are *less* likely to move from the town district, compared to less welfare prone groups, when there is an activation program in place. This is contrary to the positive welfare migration effects that are found in most previous studies. However, the result is not robust to changes in comparison group nor to changes in the sample of town districts. The conclusion that can be drawn from the study is hence that there are at least no indications that the activation programs lead to outmigration of welfare prone individuals.

The outline of the remaining paper is as follows: section 2 describes the background of the activation programs, section 3 provides a simple theoretical framework for the effects of the activation program on migration, and section 4 describes the data and the definition of comparison groups. Section 5 contains a description of the empirical specification, section 6 provides a graphical analysis, and section 7 shows the results. Finally, section 8 concludes.

2 Description of the activation programs

This section will give a short background and description of the activation programs. As was described in the introduction, the starting point for the implementation of the programs was the 1998 revision of the Social Service Act. The Act gave town districts and municipalities increased authority to demand that recipients of welfare participate in activities such as job training or other labour market related activities.[4] The law was first and foremost intended for young persons under the age of 25, but has in practise been applied to all individuals capable of working, regardless of age (see Socialstyrelsen (2005)).

The new regulation has been used by several town districts and municipalities to implement activation programs[5]. These are targeted to recipients of welfare that are capable of working, and generally consist of scheduled job search combined with job training. Non-compliance with the program requirements results in total or partial withdrawal of welfare benefits.

Local labour market programs for recipients of welfare existed also before the revision of the Social Service Act. What differentiates the activation programs from the previous programs is first and foremost the clear connection between program participation and receipt of welfare benefits. In addition, while the previous programs were often targeted to some subgroup of benefit recipients, such as immigrant women, the new activation programs in general encompass all recipients of welfare that are able to work.

As described in the previous section, this paper focuses on the town districts in the municipality of Stockholm. During the period under study there are 18 town districts in Stockholm[6], each of which is run by a political board. The town district is the lowest administrative unit, and is responsible for the implementation of the greater part of municipal services, including social services. The welfare benefit norm is however set at the municipal level, and is hence the same across all town districts in our sample. It is only whether the town district has an activation program

[4] See 4-5§ in the 4th chapter of the Social Service Act (SoL 2001:453).

[5] Salonen and Ulmestig (2004) estimate that there were about 800 programmes of this type in 2002, which means that a municipality often has several different types of programs. For example, there is often a special program for young persons under the age of 25.

[6] In 2007 the number of town districts was reduced to 14.

or not that differs between the districts in our sample, and not the level of benefits received. This means that we can identify effects on migration of stricter rules for benefit eligibility separately from effects of different benefit generosity.

Since the detailed contents of the activation programs vary across town districts, it is difficult to give a detailed over-all picture of the activation programs in our sample. However, we will here give a short description of one of the most well-known cases, the activation program of the town district Skärholmen, in order to illustrate the contents of a typical activation program. Skärholmen was one of the first town districts to start an activation program, and has served as model for other town districts and municipalities.

The Skärholmen activation program requires participants to spend 3 hours daily in program activities, in a rotating schedule that alternates between mornings and afternoons, in order to complicate black work outside the program. The first period in the program is spent on individual job search in the facilities of the program. How long this is varies between individuals. Some individuals, who are assessed to be in need of job training, leave for job training/practise almost immediately, while others may spend up to a maximum of 3 months in job search. Each participant is assigned a personal job coach, who provides individual job search assistance. The program furthermore provides computers for job search on the internet and for writing job applications, and the participants can use telephone and envelopes and postal stamps free of charge. If the program participant fails to find a job during this period, he/she gets a job training proposal from the program officials. This can be in the street cleaning team or some other activity that is arranged within the program, or it can be at an ordinary workplace. There is no limit on the time period that an individual can participate in the program.[7]

Activation programs in other town districts are similar to the Skärholmen case in the broad design of the program. However, features such as the required attendance varies across districts. This will be more discussed in section 4.2, which describes how the data on activation programs was collected and defined.

This section has given an overview of the activation programs in the Stockholm municipality. In the next section, we will analyze their potential

[7] See e.g. Ekström (2005) and Thorén (2005).

effects on migration.

3 Theoretical framework

In order to analyze how the utility of a recipient of welfare benefits is affected by the introduction of an activation program, we develop a simple two-period model. In the model, the individual is either unemployed and receives welfare benefits, or is employed and receives a wage.[8] The activation program is assumed to affect the utility of a recipient of welfare in two ways: first, by decreasing the leisure time available to the individual, and second, by increasing the probability of finding a job in the next time period.

We start by assuming that the utility level for an individual who is unemployed and receives welfare benefits, in the case of no activation program, depends solely on the amount of leisure time, l, and the welfare benefit level, b:

$$U^i = u(l, b), \tag{1}$$

while an individual who has a job and does not receive welfare benefits has the following utility level:

$$U^i = u(l - h, y). \tag{2}$$

In equation (2), the amount of leisure is reduced with the time spent working, h, which is assumed to be constant, and y is the net of tax wage income, where $y > b$ is assumed to hold. Having a job hence gives a higher income but also reduces the leisure time.

Let us assume that the individual is an unemployed recipient of welfare benefits in period one, with a probability of having a job in period two equal to p. We assume that time preferences are captured by the individual time discount factor ρ_i, and write the expected two-period utility as:

$$U^i = u_t(l, b) + \frac{1}{1 + \rho_i} \left[p u_{t+1}(l - h, y) + (1 - p)\, u_{t+1}(l, b) \right] \tag{3}$$

[8] We hence assume that a recipient of welfare benefits does not work. This is a reasonable assumption, since the activation programs are directed to unemployed individuals. In addition, during 1994-2003, among all individuals in the municipality of Stockholm, aged 18-65, the share of employed among those that received welfare benefits at least some time during the year was 31%, to be compared to 77% among the corresponding population that did not recieve welfare benefits at any time during the year.

How will the introduction of an activation program affect the utility level of our representative individual? The program affects the individual utility in two ways: First, it reduces the leisure time in case of unemployment by g, which is the time spent in the program. Second, participation in the program increases the probability of finding a job through the job search and job training activities, so p is also a function of the time spent in the program, g:

$$U^i = u_t(l-g,b) + \frac{1}{1+\rho_i}\left[p\left(g\right)u_{t+1}(l-h,y) + \left(1-p\left(g\right)\right)u_{t+1}(l-g,b)\right] \tag{4}$$

The effect of the program on the utility level of the individual is shown in equation (5), where equation (4) is differentiated with respect to g. In period one, there is a negative effect through the reduction in the amount of leisure time. In period two, there are however both positive and negative effects: the increased probability of finding a job and hence having a higher income has a positive effect on the utility level, whereas if the individual remains on welfare benefit the effect in period 2 is negative, as in period 1, through the reduction in leisure time. If the utility levels in case of unemployment and employment are equal, i.e. equations (1) and (2) equal, the effect is unambiguously negative, while if the utility of working is higher, the total effect can be either positive or negative. It can be noted that the more the individual values current against future utility, reflected in a higher value of ρ_i, the more relative weight will be given to the negative effect of the activation program on the current utility level.

$$\begin{aligned}\frac{\partial U^i}{\partial g} &= -\frac{\partial u_t(l-g,b)}{\partial\left(l-g\right)} + \\ &+\frac{1}{1+\rho_i}\left[\begin{array}{c} p'\left(g\right)u_{t+1}(l-h,y) - \\ \left(p'\left(g\right)u_{t+1}(l-g,b) + \left(1-p\left(g\right)\right)\frac{\partial u_{t+1}(l-g,b)}{\partial(l-g)}\right)\end{array}\right]\end{aligned} \tag{5}$$

Unless the positive and the negative effects cancel, the introduction of an activation program in the jurisdiction is hence expected to affect the utility level of the individual, negatively or positively. Will this affect the moving pattern of welfare prone individuals? If the utility-differential between living in a town district with and without an activation program is sufficiently large to outweigh the cost of moving, it is possible that the introduction of activation programs in some of the town districts will give rise to migration of the welfare-receiving population.

We will then see more moves *from* the districts that have activation programs if the total effect on utility is *negative*, and *to* the same districts if the total effect on utility is *positive*. This is illustrated in equation (6), which shows the utility levels of town districts A and B, where B has an activation program, while A does not. The moving cost is denoted c. Importantly, since all town districts belong to the same labour market as well as have the same benefit level, so that y and b are the same in all districts, nothing else is assumed to affect the moving choices of the individuals. That is, it is only the presence of the activation program, g, that differs between U_B and U_A.

$$
\begin{aligned}
& If \quad U_B^i - U_A^i > c \quad \Longrightarrow \textit{move to district } B, \textit{ and v.v.} \qquad (6)\\
= \; & \left(u_{B,t}(l-g,b) + \frac{1}{1+\rho_i} \left[p\left(g\right) u_{B,t+1}(l-h,y) + \left(1-p\left(g\right)\right) u_{t+1}(l-g,b) \right] \right) \\
& - \left(u_{A,t}(l,b) + \frac{1}{1+\rho_i} \left[p u_{A,t+1}(l-h,y) + \left(1-p\right) u_{t+1}(l,b) \right] \right) \\
> \; & c
\end{aligned}
$$

Can we say anything about which result is more probable in practise – migration *to* of *from* a town district that has an activation program? Blomberg et al. (2006) have studied the attitudes among activation program participants in six Stockholm town districts, five out of which are included in the analysis of this paper. Their survey results give a mixed picture: while around half of the respondents are over-all positive to the services of the programs, the beliefs in the possibilities of the program to actually help them find a job is quite low: over half of the respondents think that the possibilities of the program to help them find a job are "very small" or "quite small". Less than a third believe that the chances of getting a job have increased due to the program. Furthermore, about 40 percent state that they would not take part in the program if participation were not mandatory for benefit receipt, while 30 percent state that they would.

The attitudes among participants also seem to vary between town districts. The results in Blomberg et al. (2006) suggests that the residents in Skärholmen are most dissatisfied with the activation program. Considering the findings in Thorén (2005), one might suspect that this is due to a lack of resources. She argues that the personal job-search coaches in the activation program of Skärholmen have too many clients and that there

are too few computers available to enable efficient job search. If this is the case, there may even be negative effects of program participation on the probability of finding a job in this case.

4 Data

The study uses individual register data, which contains information on the amount of welfare benefits received, age, sex, country of birth, education level, disposable income, family situation (civil status and number of children), and employment status for all individuals aged 18–65[9]. The data covers 10 years of pooled cross-sections during the period 1994–2003. This section starts by describing the data collection and definition of the activation programs, and continues with describing the town districts of the sample, as well as the target and comparison groups that are used in the analysis.

4.1 Activation programs

The information that is used in this study to define the starting year of the activation programs was gathered in a survey to the social service units in all town districts in the municipality of Stockholm. The survey contains questions on the starting year and basic contents of the activation programs, as well as on local labour market programs for recipients of welfare that were in place during the years preceding the revision of the Social Service Act.[10] The surveys were in most cases complemented with telephone interviews.[11]

Based on the survey information, we define a town district as having an activation program if it has a program: 1) that has scheduled activity daily or almost daily; 2) that encompasses all individuals capable of working; and 3) where receipt of welfare benefits is strictly conditional on program participation.

Table 1 shows the starting year and minimum hours of weekly attendance of the activation programs in the town districts of our sample. The

[9] Data on individuals comes from Statistics Sweden.
[10] The survey form can be found in the appendix.
[11] Additional information was obtained for the following town districts: Kista, Rinkeby, Spånga-Tensta, Hässelby-Vällingby, Enskede-Årsta, Farsta, Vantör, Hägersten and Skärholmen.

six richest town districts of the municipality are excluded from the analysis, since the share of welfare recipients in these districts is very low[12]. In addition, one town district, Skarpnäck, is excluded due to the difficulties of defining a starting year for the activation program. The sample hence consists of 11 town districts.

Table 1: Starting year and weekly required attendance of activation programs

Town District	*Activation program*	*Hours/week*
Rinkeby	1998	8
Skärholmen*	1999	15
Kista	2001	9
Farsta	2001	4
Älvsjö	2002	15
Spånga-Tensta**	2003	5
Liljeholmen	2003	15
Hägersten	2003	15
Hässelby-Vällingby	2004	8
Enskede-Årsta	2004	4
Vantör	2004	4

*The activation program in Skärholmen started on a small scale in the autumn of 1998. From 1999, the program however operated at a large scale, which is why we choose this as the starting year.

**Spånga-Tensta had an ambitious local labour market program in place during 1997-2000, although this cannot be characterized as an activation program. We therefore test the robustness of the results for the exclusion of Spånga-Tensta throughout the analysis.

As can be seen in the table, the required hours of attendance varies significantly between the town districts, and it is therefore possible that the migration effects of the program varies between districts. We will take account of this in the analysis by, in addition to using the full sample of town districts, also estimate the migration regression for only two town districts: one with a strict activation program, and one with no program during the period.

[12] These are Kungsholmen, Norrmalm, Östermalm, Maria-Gamla Stan, Katarina-Sofia and Bromma.

It can be added that most of the town districts that have low hours of required attendance have implemented activation programs during the last year of the sample period, 2003, or even outside of the sample period. These will be used as control groups for having no activation program in the regressions (this is the case for example for Enskede-Årsta and Vantör, where only 4 hours of weekly attendance is required).

4.2 Town districts

For the empirical investigation, it is important to know if there are large differences between the town districts that need to be considered in the analysis. This section therefore gives a short description of the 11 town districts in the study.[13]

Table 2 shows descriptive statistics for a set of socioeconomic characteristics for the town districts in the sample. The variables are based on our register data on individuals aged 18–65, and show the average values over the period 1994–2003. *Welfare* denotes the share of the individuals that received welfare benefits at some point during the year, *Move out* is the share that moved from the town district to some other district within the municipality of Stockholm, *Pop 18–65* is the number of individuals aged 18–65, and *Immigr* shows the share of individuals that are born outside Sweden. *Disp Income* is the average disposable income of inhabitants in the town district, and *Empl* denotes the share of inhabitants that are employed.

As can be seen in the table it was generally the poorer town districts, with high rates of welfare recipients, low employment rates and a high share of immigrant population, that started activation programs early on. This suggests that it may be important to control for district-specific factors that can have affected the decision to start a program and that are at the same time correlated with migration. As will be further discussed below, we will use several difference-in-differences based approaches that control for town district-specific fixed effects and town district-specific time trends. In addition, district-specific covariates for the share of immigrant population, average disposable income and employment level will be included in some of the specifications.

[13] As was mentioned in the previous section, the six richest town districts are excluded from the analysis, since the shares of welfare recipients in these districts are very low, and one town district, Skarpnäck, is excluded due to the difficulties of defining a starting year for the activation program.

Table 2: Town district characteristics

Town District	*Welfare*	*Move out*	*Pop 18–65*	*Immigr*	*Disp Income*	*Empl*
Rinkeby	0.35	0.07	86,855	0.80	83,500	0.41
Skärholmen	0.14	0.06	169,228	0.42	118,500	0.64
Kista	0.17	0.05	174,231	0.53	120,600	0.63
Farsta	0.11	0.05	243,016	0.21	133,200	0.71
Älvsjö	0.05	0.06	112,856	0.15	147,400	0.78
Spånga-Tensta	0.18	0.06	188,605	0.47	122,700	0.63
Liljeholmen	0.07	0.09	180,212	0.18	142,300	0.74
Hägersten	0.06	0.07	168,880	0.17	144,700	0.75
Hässelby-Vällingby	0.07	0.05	322,649	0.20	145,000	0.76
Enskede-Årsta	0.06	0.08	258,024	0.18	145,200	0.76
Vantör	0.13	0.07	192,120	0.28	126,700	0.69

4.3 Target and comparison groups

As discussed the in the introduction, we will follow the previous literature on welfare migration and compare the moving choices of more and less welfare prone individuals. How shall the more welfare prone target groups and the less welfare prone comparison groups be defined? Meyer (2000) points out that one should avoid defining the target and comparison groups based on actual benefit receipt, since this can give rise to so called participation bias. This type of bias arises since the payoff of applying for welfare benefits varies with the benefit policy of the jurisdiction. In the case of our town districts, it is possible that applying for welfare benefits is less attractive in town districts that have an activation program, since benefit receipt in this case requires active participation in the program. This means that individuals that did not receive welfare benefits in a more strict town district, may choose to apply for benefits once they are in a less strict district, even though the motives for moving there were not related to the local welfare benefit policy.

Most studies deal with this type of bias by defining target and comparison groups that differ in welfare propensity based on characteristic that are *not* affected by the welfare benefit generosity. We follow this approach and compare the migration responses to differences in welfare benefit policy in several groups that differ in the likelihood of being recipients of welfare benefits. The hypothesis is that more welfare-prone groups will respond to policy differentials by moving, while individuals that are

comparable in every sense except being less welfare prone, will not.

Ideally, we would like to compare individuals that are similar in every sense but the likelihood to seek welfare benefits. However, if we make the comparison groups too similar, we risk to also eliminate differences in welfare-propensity. We hence face a trade-off: on the one hand we want the groups to be sufficiently similar to eliminate the risk for omitted variable bias, on the other hand, sufficiently different to capture differences in welfare-propensity. The same trade-off applies to the question of how many individual covariates that shall be included in the regressions. We want to control for all characteristics that differ between the groups and that may affect the moving decision, but not for important determinants for the likelihood of receiving welfare. Our strategy is to use several comparison groups, which differ from the welfare prone group to varying degrees, and to show results both with and without individual covariates.

As suggested by Meyer (1995) using several comparison groups can also be useful as a means to reduce the risk of bias due to unobserved group-specific trends. The idea is that if the comparison groups are sufficiently different from each other, then we can also expect them to yield different biases. Similar results from different comparison groups hence strengthen the case that the result is due to the introduction of the activation program, and not just the effect of some omitted factor. However, the fact that we want all comparison groups to be comparable to the target group, as previously discussed, naturally puts a limit to how much the comparison groups can differ.

Based on these considerations, we define a set of target and control groups, based on factors that affect the probability to receive welfare benefits, but that are not affected by the welfare benefit policy. In addition, we base our comparison groups on factors that predict long-term welfare dependency. According to our data, and to Spahic (2002), an individual is more likely to be a long-term welfare recipient if he/she is: young, foreign-born; a single mother; low-educated; or socially unstable, for example being a drug addict or suffering from mental illness.[14] Based on this information, we define two categories of welfare prone target groups: first, being a Swedish-born, single mother (with children living at home),

[14] Spahic defines long-term recipiency as receiving benefits during at least 10 months during a period of 2 years, while we look at those that receive welfare benefits during both 1996 and 1995, or both 1996 and 1993, irrespective of the time on welfare.

and second, being born in a non-Western country[15].

The comparison groups for the two sets of target groups are defined as follows: First, we compare our group of single mothers with single or cohabiting women without children, as well as with married or cohabiting mothers.[16] As in the case of single mothers, we only include Swedish-born individuals. Second, we compare individuals born in a non-Western country with individuals born in a Western country (except Sweden), and with individuals born in Sweden, respectively. Since it is plausible that the migration pattern of recent immigrants differs from other residents', we exclude those that have immigrated during the last 3 years from the sample.[17] In addition, during the first years in the country, refugees are in general entitled to compensation for participation in Swedish and introductory courses. The compensation is in about the same amount as the welfare benefit level, and is included in our data on welfare benefits. Unless we exclude recent refugees from the sample, our data will therefore overstate the likelihood that an individual born in a foreign country is a recipient of welfare.

Table 3 shows the average welfare participation rates and the average migration rates for the different groups over the period 1994–2003, using data on all individuals aged 18–65 in the 11 town districts of our sample. Column 1, *Obs*, shows the number of observations, and column 2, *Welfare*, the share of individuals that receive welfare benefits (of any amount). As can be seen in the table, the likelihood of being a recipient of welfare benefits is clearly higher for the more welfare prone groups.

The table also shows the average share that moves from the town district during a year, *Move out*; the average age of the individuals in our sample, *Age*; and the average shares with low and high levels of education, respectively, *Low* and *High*. Low education level is defined as having finished at most secondary education, while a high education level is defined as having finished higher education. There is some variation between the

[15] This category contains all countries except Europe, North America and Oceania.

[16] The reason for including cohabiting women in the former group, is that our data does not allow us to separate single women without children from cohabiting women without children.

[17] One reason for this is that the decision of where to settle may change as the information about the new country increases, and that this may lead to more moves taking place during the first years. In addition, refugees to Sweden in the early 1990s were not free to decide the municipality of placement. They were however free to move immediately after placement. We can therefore expect some adjustments in the settlements of refugees, for example moves to municipalities with a large number of nationals.

groups in these variables, particularly in the education level. As discussed in section 4.3, it is not obvious it is not obvious that we want to control for these individual characteristics. Our solution is to show results both with and without controls for the age- and education structure. We will use age dummy variables, with one dummy for each five-year age category, and the education dummy variables equal the variables for low and high education that are given in the table.

Table 3: Description data on welfare prone and comparison groups.

Comparison group	*Obs*	*Welfare*	*Move out*	*Age*	*Education*	
					Low	*High*
Single mothers	115,446	0.15	0.06	38.6	0.51	0.24
Single/cohabiting women without children	264,293	0.05	0.09	39.6	0.49	0.34
Married/cohabiting mothers	258,828	0.04	0.04	38.7	0.47	0.38
Born in:						
Non-western country	314,030	0.29	0.07	37.9	0.41	0.26
Western country	225,525	0.11	0.04	45.8	0.44	0.27
Sweden	1,476,493	0.06	0.06	40.61	0.48	0.32

There is also a considerable variation in sample sizes. The smallest of the groups, Single mothers, contains about 115,000 observations, while the largest group, Swedish-born, contains almost 1.5 million observations. These differences naturally affect the likelihood that a significant result is obtained. Since the hypothesis to be tested is that the activation program has an effect on the target group, but not on the comparison groups, it is however comfortable that the comparison groups are in all cases but one larger than the target groups.

5 Graphical analysis

Before moving on to the regression analysis, it is interesting to look at the migration pattern of the individuals in our sample graphically. By plotting the yearly outmigration rates from town districts that started activation programs early and late, and for the different target and comparison groups, respectively, we can see if a change in the moving choices is

visible for welfare prone individuals after the introduction of the activation programs.

We start by dividing the town districts into four groups: The first group consists of the early program-starters, Rinkeby and Skärholmen, who started activation programs in 1998 and 1999. We denote this group *Td99*, since we expect to see an effect on the migration of welfare prone individuals around 1999 in these districts. The second group is denoted *Td01*, for the same reason, and consists of Kista, Farsta and Älvsjö, out of which Kista and Farsta started activation programs in 2001, and Älvsjö started a program in 2002. Finally, we construct one group, *Td03*, with the town districts that started activation programs in 2003: Spånga-Tensta, Liljeholmen, and Hägersten; and one group, *Td04*, with the town districts that started activation programs in 2004 (i.e. outside the sample period of this study): Hässelby-Vällingby, Enskede-Årsta and Vantör.

Graphs 1-6, which can be found in the Appendix, show the trends in the share that moves from the town district for the four groups of town districts. As in the rest of the paper, only moves within the Stockholm municipality are included. Separate graphs are shown for each of the target and control groups.

The graphs give no clear indication of a change in the migration decisions of welfare prone individuals after the introduction of activation programs in the town district groups. On the contrary, the over-all impression is that the outmigration for the respective group follows relatively similar trends in the four town district groups.

In spite of the lacking evidence on welfare migration from the graphs, we move on to the regression analysis, where we have better possibilities to control for other factors, such as district specific trends that may affect the migration choices of individuals.

6 Estimation strategy

As discussed in the previous sections, the data contains different sources of variation – between town districts and between groups of individuals. We start by using the town district variation in a difference-in-differences analysis (DD), and then add the group variation in welfare propensity to construct a difference-in-difference-in-differences estimator (DDD).

Before the law revision of 1998, there was no activation program in any town district. After 1998, most town districts have chosen to implement

activation programs, but the starting year varies between districts, as was illustrated in Table 2. This means that we can compare the migration rates before and after the implementation of activation programs in the different town districts.

It is illustrative to describe this estimation strategy in a table. Let us, for simplicity, assume that there are only two town districts and two time periods. Let us also assume that one of the districts, denoted *Program*, starts an activation program in period 2, while the other district, *No program*, does not. How is outmigration from the *Program*-district affected by the start of the activation program? One way to measure this could be to look at the difference in outmigration before and after the program start, in the town district that starts a program, i.e. $(B - A)$ in Table 4. This estimate however also captures other factors that change between the two periods, and is hence likely to give a biased measure of the program-effect.

The DD-method is based on the idea that the influence of other factors can be controlled for by comparison with a town district which is comparable in every aspect that affects outmigration, but that has not implemented the program. An unbiased estimate of the effect of the activation program on outmigration can hence be obtained by taking the difference in the migration change over the two periods between the *Program*-district and the *No Program*-district, $(B - A) - (D - C)$.

Table 4: Description Difference-in-differences

Period / Town district	*Before*	*After*	After-Before
Program	A	B	$(B - A)$
No program	C	D	$(D - C)$
Difference-in-differences (DD):			$(B - A) - (D - C)$

The DD-estimator in Table 4 hinges on the assumption that any unobserved trends in migration are the same in both town districts. By adding the comparison of groups that differ in the propensity to receive welfare benefits to the analysis, this assumption can be relaxed. This is done by taking the difference of the differences-in-differences-estimates for the target and the control group, i.e. $DDD = DD_T - DD_C$, as is illustrated in Table 5. The idea is that the non-welfare prone group will be similarly

affected as the welfare prone group by unobserved town districts factors, but unaffected by the activation program. Subtracting the outmigration rates of this group will hence control for effects of unobserved town specific trends, and the resulting estimate will measure only the effect of the activation program. The important assumption in this case is that any unobserved town district-specific factors affect the migration-decisions in both groups similarly.

Which of the approaches, DD or DDD, is more appropriate to use in this setting? As described above, DDD has the advantage that it controls for town district specific unobserved migration trends that affect the welfare prone and the comparison groups alike. Since we cannot rule out that such trends are present, we will use the DDD-method. However, if the unobserved migration trends are in fact similar across town districts, adding the comparison group based comparison to the analysis is an unnecessary step. We will therefore also show the results of the DD-estimation. As we shall see in the next sections, both estimators yield fairly similar results. This is a reassuring result, which suggests that unobserved migration trends are probably not a big problem in this case. However, none of the used methods can control for trends that differ both between groups and regions.

Table 5: Description Difference-in-difference-in-differences

	Period / Town district	*Before*	*After*	After-Before
Target	*Program*	A_T	B_T	$(B_T - A_T)$
	No program	C_T	D_T	$(D_T - C_T)$
DD_T :				$(B_T - A_T) - (D_T - C_T)$
Control	*Program*	A_C	B_C	$(B_C - A_C)$
	No program	C_C	D_C	$(D_C - C_C)$
DD_C :				$(B_C - A_C) - (D_C - C_C)$
$DDD = DD_T - DD_C$:				$((B_T - A_T) - (D_T - C_T))$ $-((B_C - A_C) - (D_C - C_C))$

The DD- and the DDD-estimators will be used to estimate the effect of the activation programs on outmigration from the town districts. The description above assumed only two town districts and two time periods. In this study, there are several town districts, and they start activation programs during different years. The intuition behind the DD-estimator

for our data is however the same as for the two-period case; i.e. it controls for time-varying factors that affect all town districts similarly, and it controls for fixed town district characteristics. The DDD-estimator furthermore controls for town district-specific trends, through the inclusion of district-by-year fixed effects.

The resulting DD-estimation equation, corresponding to Table 4, for our pooled cross-section for the individuals in 11 town districts over 10 years, is given in equation (7):

$$probit\left(move_{ijt}\right) = \beta_0 + \beta_1 A_j + \beta_2 D_t + \beta_3 prog_{jt} + \beta_4 X_{ijt} + \beta_5 Z_{jt} + \varepsilon_{ijt}. \quad (7)$$

In equation (7), the dependent variable $move_{ijt}$ is a dummy variable which equals one if individual i moves out of town district j in year t, and zero otherwise. (As was described in the previous sections, only moves within the municipality of Stockholm are included.) The main explanatory variable is the dummy variable $prog_{jt}$, which equals one if town district j has an activation program in year t, and is zero otherwise. A positive value of β_3 hence indicates that more individuals move out of the town district after the start of the program, while a negative coefficient value indicates that less individuals move out of the district when there is an activation program in place. Fixed town district effects are denoted A_j and year effects are denoted D_t. Finally, a set of individual covariates for the age- and education level, X_{ijt}, is included, as well as a set of town district level covariates, Z_{jt}.

The DDD-estimator that adds the group based comparison to the DD-estimator and which corresponds to Table 5, is given in equation (8)[18]:

$$\begin{aligned} probit\left(move_{ijt}\right) \;=\; & \beta_0 + \beta_1 T_{ij} + \beta_2 A_j + \beta_3 D_t + \beta_4 \left(T_{ij} \cdot A_j\right) \\ & + \beta_5 \left(T_{ij} \cdot D_t\right) + \beta_6 \left(A_j \cdot D_t\right) + \beta_7 prog_{jt} \\ & + \beta_8 \left(T_{ij} \cdot prog_{jt}\right) + \beta_9 X_{ijt} + \beta_{10} Z_{jt} + \varepsilon_{ijt}. \quad (8) \end{aligned}$$

In equation (8), coefficient β_8 is of primary interest. It measures the extent to which the migration response to an activation program differs between the target and the control group, where the dummy variable T_{ij} is one if the individual belongs to the more welfare prone target group. As in equation (7), A_j and D_t denote town district and year specific fixed effects, X_{ijt} contains individual age- and education dummy variables, and

[18] Similar estimation strategies are used in e.g. Yelowitz (1995) and Ruhm (1998).

Z_{jt} denotes a set of town district covariates. Equation (8) furthermore includes the second-order interactions between the control group dummy and the district and year fixed effects, $(T_{ij} \cdot A_j)$ and $(T_{ij} \cdot D_t)$. Finally, town-district specific year effects, $(A_j \cdot D_t)$, control for year effects that differ between the town districts.

The following section present the results of the estimations of equations (7) and (8).

7 Results

This following sections show the results from running the estimations described in the previous section. Results will be given both for the full sample of 11 town districts, and for alternative samples.

7.1 Full set of town districts

We start by estimating the DD-equation in (7) on our two groups of welfare prone individuals: single mothers and individuals born in non-Western countries, respectively, using the data set on the 11 town districts that were described in section 4.1. As discussed in the previous sections, we expect that the moving decisions of welfare prone individuals will be affected by the activation program, however, the direction of the effect will depend on whether the individual views the program as something primarily negative or positive.

It is informative to also estimate equation (7) for the control groups. Since these are less welfare prone than the target groups, we expect to see smaller effects of the program on these groups. A different result is an indication either of miss-specification of the control- and target-groups, or of bias due to some omitted town district specific factor, which is correlated with the district's decision to start a program.

The results of the DD-estimations are shown in the first sections of Table 6 and 7. The tables show the marginal effects of the activation program on the probability to move from the district, for an individual with average characteristics. The results come from separate regressions for each target and comparison group. The specification in column (1) includes the activation program dummy together with fixed town district specific effects and year effects. In specification (2), the individual age-and

education dummy variables are added, and specification (3) also includes the town district specific covariates.

Table 6: Probit estimates, marginal effect of activation program on out-migration, target and comparison groups based on civil status and motherhood

		(1)	(2)	(3)
DD-estimates	Single mothers (SM)	-.004	-.005**	-.005*
		(.0028)	(.0025)	(.0028)
	Log pseudolikelihood	-26388.706	-24831.946	-24831.708
		n=115446	n=114278	n=114278
	Single/cohabiting women (SW)	.002	-.001	.001
		(.0024)	(.0022)	(.0023)
	Log pseudolikelihood	-81442.557	-74977.421	-74971.562
		n=264293	n=262748	n=262748
	Married mothers (MM)	-.002	-.003**	-.002
		(.0015)	(.0013)	(.0014)
	Log pseudolikelihood	-41023.44	-37508.565	-37502.588
		n=258828	n=257565	n=257565
DDD-estimates	SM-SW	-.008*	-.006	
		(.0040)	(.0037)	
	Log pseudolikelihood	-107773.38	-99880.784	
		n=379739	n=377026	
	SM-MM	-.001	-.000	
		(.0028)	(.0025)	
	Log pseudolikelihood	-67364.334	-62364.931	
		n=374274	n=371843	
	Controls:			
	individual level covariates	no	yes	yes
	town district level covariates	no	no	yes

Note: The standard errors in parenthesis are robust to heteroscedasticity. ***, ** and * denote significance at the 1, 5 and 10 percent level, respectively. Town district fixed effects and year fixed effects are included in all specifications. The DDD-specifications also includes district-by-year-effects.

Table 7: Probit estimates, marginal effect of activation program on out-migration, target and comparison groups based on country of birth

		(1)	(2)	(3)
DD-estimates	*Country of birth:*			
	Non-Western country (NW)	-.001	-.002	.001
		(.0016)	(.0016)	(.0017)
	Log pseudolikelihood	-75683.204	-68675.945	-68666.048
		n=314030	n=290012	n=290012
	Western country (W)	-.002	-.002	.001
		(.0016)	(.0015)	(.0017)
	Log pseudolikelihood	-39218.682	-35883.777	-35872.489
		n=225525	n=214861	n=214861
	Sweden (S)	-.0003	-.002**	-.0004
		(.0008)	(.0007)	(.0008)
	Log pseudolikelihood	-332595.55	-307661.89	-307645.74
		n=1476493	n=1465322	n=1465322
DDD-estimates	NW-W	.003	.002	
		(.0026)	(.0025)	
	Log pseudolikelihood	-114808.89	-104535.62	
		n=539555	n=504873	
	NW-S	.001	.003	
		(.0019)	(.0018)*	
	Log pseudolikelihood	-408140.34	-376864.89	
		n=1790523	n=1755334	
	Controls:			
	individual level covariates	no	yes	yes
	town district level covariates	no	no	yes

Note: The standard errors in parenthesis are robust to heteroscedasticity. ***, ** and * denote significance at the 1, 5 and 10 percent level, respectively. Town district fixed effects and year fixed effects are included in all specifications. The DDD-specifications also includes district-by-year-effects.

Table 6 and 7 also show the results from the DDD-estimation in (8). As was discussed in section 6, an advantage with this approach is that the differential effects that are obtained are not affected by town district-specific trends that affect the target and control group similarly. The DDD-estimates were obtained by running separate regressions for each

comparison group together with the relevant target group, in order to facilitate the interpretation of the coefficients.

For the DDD-estimator the specification including town district covariates is however dropped due to multicollinearity. The effects of these variables are probably picked up by the town district-specific year effects.

The DD-results in Table 6 show a significant negative marginal effect of the activation program on outmigration of around -0.005 for single mothers, when individual characteristics are controlled for. This indicates that having an activation program reduces the probability that a single mother, with average characteristics, will move from the town district with 0.5 percentage points. This is a rather large effect, considering that the average yearly migration rate for this group is 6 percent. However, we also see a negative effect of about similar magnitude for married mothers in specification (2), although this effect is not significant as town district covariates are included. This indicates that the negative effect may not be due to the activation program, but to some other factor that affects single and married mothers alike.

Turning to the DD-estimates in Table 7, we see that negative marginal program effects are found also for the target and control groups based on country of birth, although in this case the effect is only significant in specification 2 for Swedish-born individuals. (That a significant effect is found for this group is not surprising, considering its large sample size.)

The DD-estimates hence yield negative point estimates for all groups, except for single/cohabiting women without children. Is it plausible that this is due to confounding district-specific trends that are correlated with the introduction of activation programs, and that affect outmigration in most of our target and control groups negatively? That is, can it be the case that the activation programs are started when town districts, for some reason, experience low outmigration? This is possible, although my prior beliefs would go the other way: that districts introduce stricter programs when the economic situation of the district is bad, and outmigration therefore plausibly high.

Turning to the DDD-estimates, the results in Table 6 show that the probability to move out of the town district is around 0.8 percentage points lower for single mothers if there is an activation program in place, compared to single/cohabiting women with no children. This effect is however only significant at the 10 percent level in specification (1), and turn insignificant as individual characteristics are controlled for. When comparing

single and married mothers, no significant differences in the program effect are found.

The DDD-estimates in Table 7 show a positive outmigration effect of the program for individuals born in a non-Western, country compared to Swedish-born, which is marginally significant as individual covariates are included in the specification. In contrast to the result for single mothers, this indicates that welfare prone individuals are more likely to move from a town district that has an activation program, which is consistent with the hypothesis that recipients of welfare try to avoid the obligation to participate in the program by moving.

Although it could be the case that there are heterogeneous effects of the program on different groups of welfare recipients, a more prudent interpretation of the results is probably preferable. As pointed out by Meyer (1995), the fact that the results vary with the choice of comparison group, suggests that the effects may be due to some comparison group-specific and district-specific omitted variable that is not controlled for in our estimations. One way to reduce the risk for this type of bias is to reduce the sample to districts that are as similar as possible in factors that are assumed to affect migration. In the next section, we do this by selecting only the six poorest of the town districts.

7.2 Sensitivity analysis: varying the set of town districts

7.2.1 Limiting the sample to the six poorest town districts

Table 2 in section 4 showed systematic differences in the socioeconomic variables between town districts that implemented activation programs early after the 1998 law revision, and town districts that implemented programs late during the period under study. In order to obtain a more comparable group of districts, we select only the six poorest town districts and re-run the DDD-estimations using this sample. The resulting town districts are: Rinkeby, Skärholmen, Farsta, Kista, Spånga-Tensta and Vantör. As can be seen in Table 2, essential variation in the starting year for the activation program is kept in this sample: two of the town districts implement the program in 1998 and -99, two in 2001, and the remaining two in 2003 and 2004. The DDD-results for this sample are shown in Table 8.[19]

[19] Note that the abbreviations used in the table are the same as in Table 6 and 7.

Table 8: Probit estimates, marginal effect of activation program on out-migration, six town districts

		(1)	(2)
DDD-estimates	SM-SW	-.006	-.004
		(.0053)	(.0048)
	Log pseudolikelihood	-42151.517	-38660.239
		n=159596	n=158007
	SM-MM	-.002	.001
		(.0039)	(.0036)
	Log pseudolikelihood	-29805.839	-27764.847
		n=166058	n=164551
DDD-estimates	NW-W	-.001	-.001
		(.0030)	(.0030)
	Log pseudolikelihood	-76790.644	-69731.082
		n=373860	n=347412
	NW-S	-.001	-.000
		(.0021)	(.0020)
	Log pseudolikelihood	-187684.7	-172546.45
		n=866440	n=840647
	Controls:		
	individual level covariates	no	yes
	town district level covariates	no	no

Note: The standard errors in parenthesis are robust to heteroscedasticity. ***, ** and * denote significance at the 1, 5 and 10 percent level**,** respectively. Town district fixed effects, year fixed effects, and district-by-year-effects are included in all specifications.

As can be seen in Table 8, the marginal effects are fairly similar to the full-sample estimates of the previous section, but are never significantly different from zero. This can be due to the fact that the estimation power is reduced because of the smaller number of observations. It can however also be the case that the significant effects that were obtained in some specifications in the previous section, were due to some omitted factor that was related to differences in the economic situation between early and late program starters.

7.2.2 Comparing two representative town districts

The previous sections yield rather ambiguous results: some significant, albeit not too easily interpretable, effects are obtained when all eleven town districts are included. However, when only the six poorest of the town districts are analyzed, no significant effects of the program are found.

An issue to consider in light of these results, is that the design of the activation programs vary between town districts, as was commented in section 2. This means that the activation programs can differ in for example the number of hours of attendance that are required, or in the quality of the services that are offered in the program. This naturally affects the results.

In a final attempt to pin down the effects of stricter activation rules on migration, we select two districts that are as similar as possible in economic conditions, but that differ as much as possible in the strictness of the activation policy. The selected town districts are Skärholmen and Vantör. As can be seen in Table 2, these are fairly similar in all variables except the share of immigrants. However, Skärholmen can be described as having one of the stricter activation programs. As was described in section 2, it has among the highest requirement for the number of hours of attendance (a minimum of 3 h a day). In addition, as was discussed in section 3, studies point to a lack of resources to meet the needs of the program participants, as well as to more negative attitudes to the program among the participants compared to other town districts (see Blomberg et al. (2006) and Thorén (2005)). This suggests that recipients of welfare would probably prefer not to have to participate in the program. Vantör, on the other hand, has no activation program during the time period under study.[20] If there is a positive effect on outmigration of stricter rules in the form of activation programs, it is thus likely to turn up here.

The DDD-results for this sample of town districts are shown in Table 9.[21] As can be seen in the table, they show no evidence of a migration effect of the activation program when we compare single mothers with single/cohabiting women with no children, or with married mothers. The differential migration effect for being a single mother, compared with a single woman with no children, is marginally significant in specification (1), but not as individual covariates are included. The coefficient for

[20] As could be seen in Table 1, an activation program was started in Vantör in 2004.
[21] Note that the abbreviations used in the table are the same as in Table 6 and 7.

the program effect when comparing single and married mothers is never significantly different from zero.

Table 9: Probit estimates, marginal effect of activation program on out-migration, two town districts

		(1)	(2)
DDD-estimates	SM-SW	-.015	-.012
		(.0085)*	(.0078)
	Log pseudolikelihood	-18179.734	-16744.424
		n=63676	n=63188
	SM-MM	-.008	-.004
		(.0061)	(.0058)
	Log pseudolikelihood	-11671.782	-10890.232
		n=61131	n=60714
DDD-estimates	NW-W	-.013	-.014
		(.0047)***	(.0045)***
	Log pseudolikelihood	-21356.064	-19564.121
		n=108925	n=102791
	NW-S	-.007	-.006
		(.0041)*	(.0038)
	Log pseudolikelihood	-68705.251	-63300.987
		n=298062	n=291709
	Controls:		
	individual level covariates	no	yes
	town district level covariates	no	no

Note: The standard errors in parenthesis are robust to heteroscedasticity. ***, ** and * denote significance at the 1, 5 and 10 percent level, respectively. Town district fixed effects, year fixed effects, and district-by-year-effects are included in all specifications.

A negative significant marginal effect is however estimated when individuals born in non-Western country and a Western country (except Sweden) are compared. This suggests that individuals of non-Western origin are about 2 percentage points less likely to move from a town district when there is an activation program in place, compared to individuals of Western origin. This is a large effect considering that the average migration rate for these groups in the full sample are 0.04 and 0.07 (see Table

3). The effect is in line with the hypothesis that welfare prone individuals value the services of the program, and hence want to stay in the town district to a higher extent when the program is in place, i.e. not the result we expected considering the negative attitudes among the activation program participants that were expressed in Blomberg et al. (2006). However, in order to make this interpretation, we would like to see a similar result for the difference in migration response when using Swedish-born individuals as comparison group. Whereas there is a marginally significant effect in specification (1), this turns insignificant as individual covariates are included.

8 Concluding remarks

To conclude, we find some evidence indicating that the more welfare prone target groups are less likely to move from a town district that has an activation program, compared to the less welfare prone comparison groups. This result is primarily obtained in the comparison between single mothers and single/cohabiting women without children in the regression on 11 town districts, and in the comparison between non-Western-born and Western-born individuals in the regression on two town districts. This could be interpreted as evidence that welfare prone individuals are more likely to stay in town districts that have an activation program, possibly because they value the services of the program.

However, the over-all results suggest that this is too strong an interpretation of the results. While significant differences in the effects on more and less welfare prone individuals are obtained in several specifications, these vary with the choice of comparison group as well as with the sample of town districts, and it is hence probably wiser not to interpret the results as a result of the differences in local welfare benefit policy.

What we can say, however, is that the aggregate results show no evidence of a positive effect of the activation program on the outmigration of welfare prone individuals from the town districts, i.e. it does not seem that welfare prone individuals avoid the obligations to participate in the programs by moving. This is a reassuring result, which means that letting the town districts decide on the implementation and design of the activation programs has not led to harmful welfare-migration effects.

The non-significant results of this study contrast to the significant, albeit often economically small, effects found in other studies of welfare

migration. What is the reason for this divergence? It is of course possible that the lack of welfare migration is specific to the sample used in this case. However, it is also possible that the difference in results is due to an omitted variable bias in the previous literature, which is not present in this study. As was explained in the introduction, the fact that this study uses variation in the welfare policy within a municipality, where that labour market conditions and other region-specific characteristics are the same for all individuals, greatly reduces the risk for omitted variable bias.

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A Appendix

A.1 Survey to the social service units of the town districts

(Note that the survey was conducted 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 activation or other labour market related programs for unemployed individuals that are capable of working and 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 the following activities are 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 systematically reported to the social service officials?
Yes ☐
No ☐
Comments:

8. Can absence (without acceptable cause) 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 that are capable of working and 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/programs. 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 systematically reported to the social service officials?

Yes ☐

No ☐

If yes, in which way:

8. Could absence (without acceptable cause) lead to rejection of the welfare benefit application?

Yes ☐

No ☐

Comments:

[The same set of questions were repeated for all programs/activities in the list.]

A.2 Graphs outmigration

Figure 1:

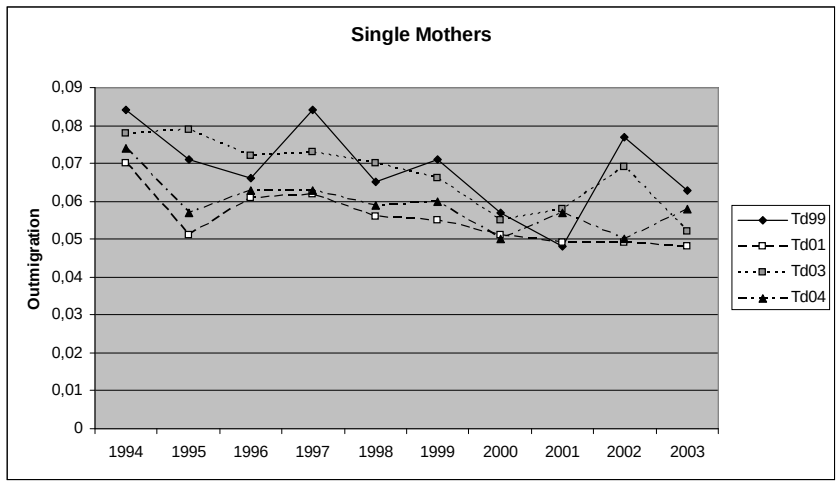


Figure 2:

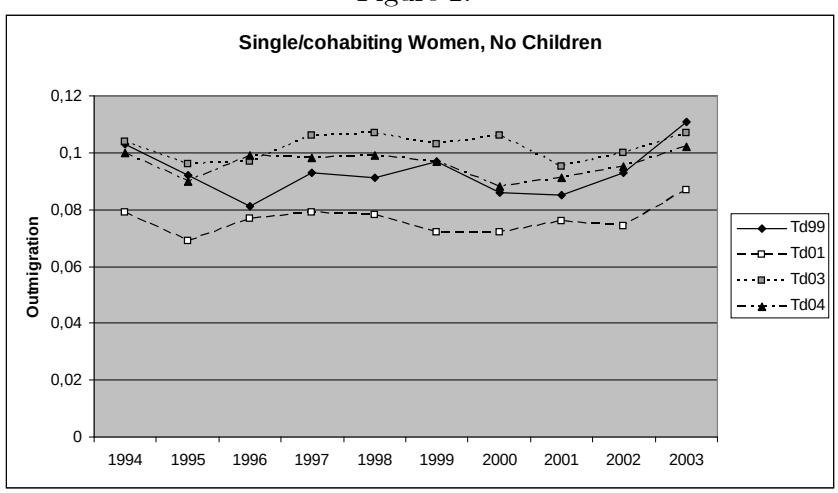
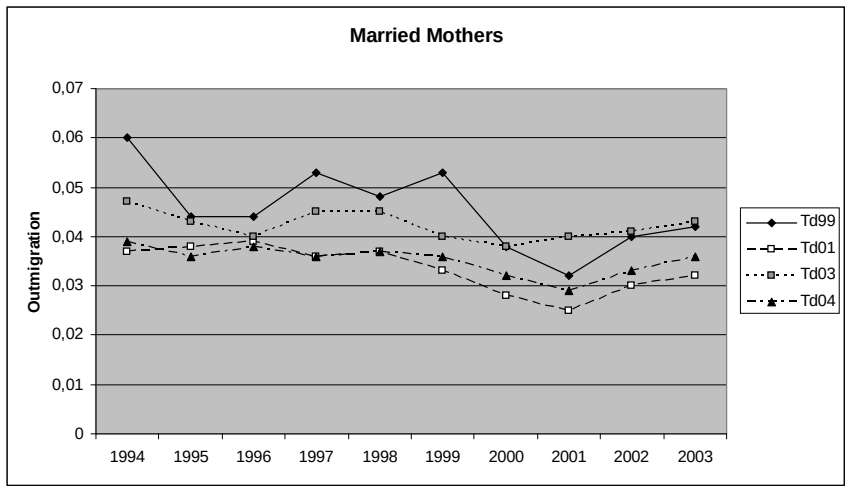


Figure 3:



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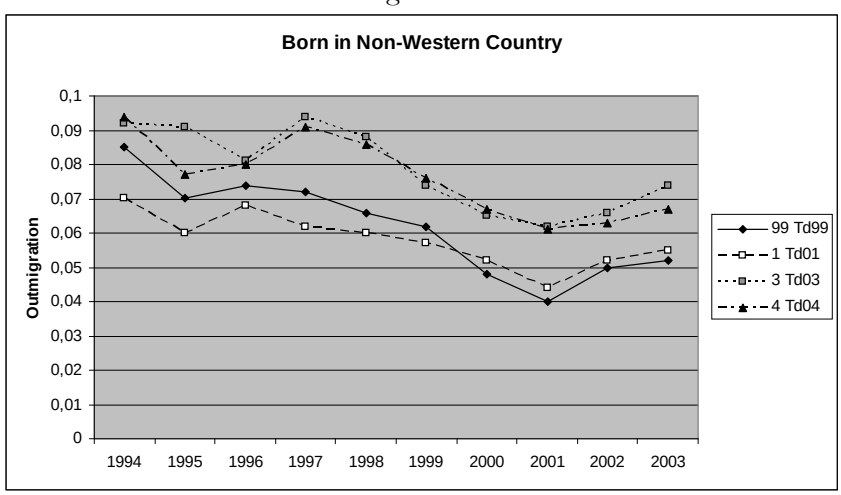


Figure 5:

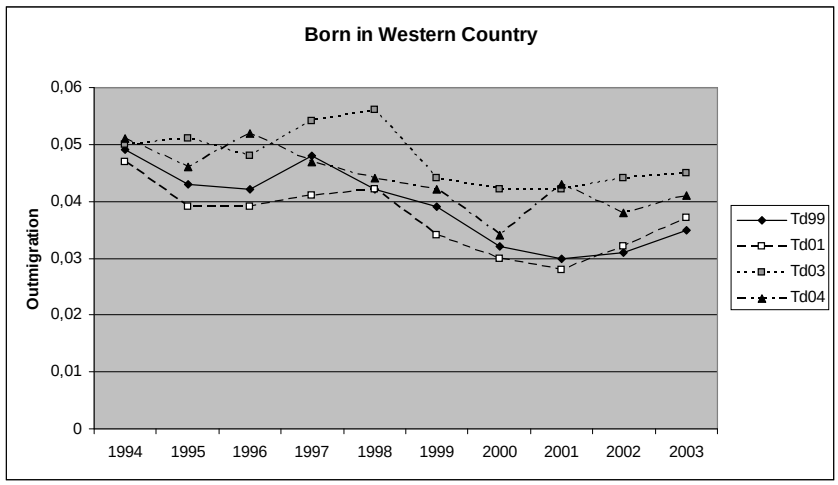
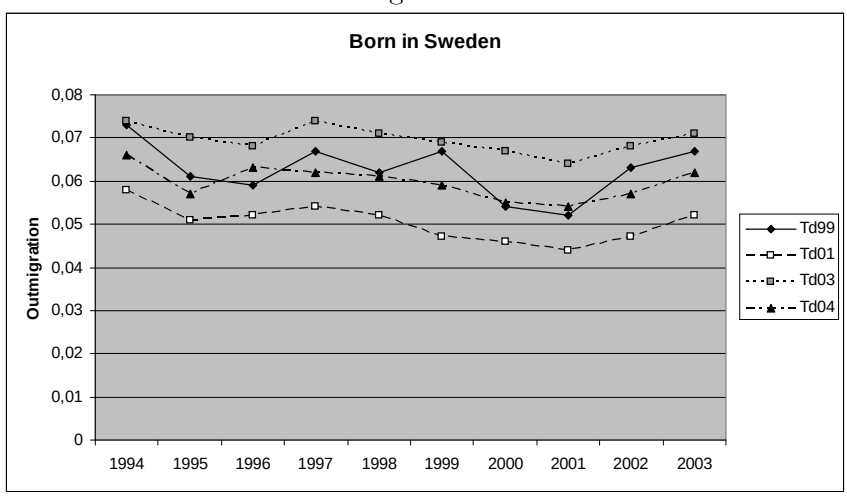


Figure 6:



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