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**The Neighbourhood Can Have Strong Effects on Social Assistance Receipt – The Case of Young Adults in Metropolitan Sweden.** [x]

Keywords: Neighbourhood, Social Assistance, Sweden, Immigrants

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**Abstract**

Using large samples of persons born in 1985 we investigate the relationship between the neighbourhood where young people grew up and the probability that they will receive social assistance when aged 19 to 21, for the three Swedish metropolitan regions - Stockholm, Gothenburg and Malmö. We also investigate to what extent use of social assistance receipt and other parental characteristics affect the probability of social assistance receipt as a young adult. Logistic regressions are estimated for the majority population and "visible minorities".

A main result is that the rate of social assistance receipt in the neighbourhood has a sizable effect on the probability of receiving social assistance as a young adult. We discuss several possible explanations for this. We also find that the probability of receiving social assistance is negatively correlated with having completed secondary school and positively correlated with having become a young mother. The probability of social assistance receipt is strongly positively linked to social assistance receipt in the parental home and negatively linked to income in the parental home. Having parents with long educations decreases the probability of receipt for the majority population while among "visible minorities" it does not though receipt decreases by year since immigration.

## 1. Introduction

In many rich countries, the period between leaving childhood and adulthood – when being able to support oneself from paid work – has lengthened. Because of this, a relatively large number of school-leavers in countries with a Nordic welfare state apply for social assistance and after a means test, receive benefits. The topic of this study of metropolitan Sweden is just what makes some receive social assistance benefits while others do not. Specifically, we want to know whether there is a positive relation between social assistance use in the neighbourhood and the probability of receiving social assistance when the person is a young adult, as well as the extent to which social assistance receipt and other characteristics of the parental home affect the probability of receiving social assistance as a young adult.

There are several reasons why social assistance receipt in the neighbourhood in which the young person lives may positively affect subsequent receipt of social assistance. One is the diffusion of information. The various details of eligibility in means-tested programs, such as social assistance, are not widely known among the general public. Furthermore, people may feel ashamed to receive social assistance and there are indications that non-take-up of social assistance is widespread. However, due to social interactions, the situation can be rather different if many in a person's social network receive social assistance, especially one's own parents.

Another possible reason for why the neighbourhood might affect social assistance receipt is the way in which social welfare offices and other parts of the welfare state treat income problems among young adults. Since social assistance is a multi-target residual programme which is individually tested, it differs from social insurance programs in many respects. The latter typically have rules that are relatively easy to access and are implemented with a high degree of uniformity across jurisdictions. The way in which social welfare offices process applications for social assistance can be more varied.

Much has been written about how the neighbourhood affects various aspects of human behaviour; for surveys see for example Durlauf (2004) or Galster (2008). For Sweden, the country under study in this paper, the literature has grown rapidly. One reason for this is that residential segregation has increased during a period when new waves of immigrants have arrived. The issue of residential segregation has assumed more importance on the political agenda as well. Another reason is the availability of good data which makes it possible to link information on individuals over time for large samples.

A problem which has long been discussed in the literature on neighbourhood effects is that of self-selection (Manski, 1992, Durlauf, 2004). A statistical correlation between characteristics of the neighbourhood and the probability of receiving social assistance (or other outcomes) is not necessarily a causal relation since the probability of receipt and the choice of place of residence may be influenced by the same underlying factors. Nevertheless, irrespective of whether the neighbourhood characteristics are the reason for or merely associated with the frequency of social assistance receipt, the relations that we find are relevant for social policy since they indicate whether measures to decrease the need for social assistance should be implemented.

This paper analyses the probability of social assistance receipt between the ages of 19 to 21 among all men and women born in 1985 and residing in the three metropolitan areas of Stockholm, Gothenburg and Malmö when they were 16 years old. Explanatory variables are

measured when the young adult was aged 16 and include characteristics of the parental household as well as various characteristics of the neighbourhood. Over a period of time, social assistance receipt in Sweden has become much more common within the "visible immigrant minority population" than among other groups. The term "visible minority" is used by the National Board of Health and Welfare for immigrants and children of immigrants from Southeast Europe (Greece and former Yugoslavia), Africa, Asia and Latin America (National Board of Health and Social Welfare, 2010: 184).[1]

The main result of the paper is that the rate of social assistance receipt in the neighbourhood has a sizable effect on the probability of receiving social assistance as a young adult. This applies both to the majority population and to the visible immigrant minority. We also find that not having completed secondary education as well as having become a mother at an early age sizeably increases the probability of receipt. The presence of two adults in the household and higher disposable income in the parental home decrease the probability of social assistance receipt in both populations. Receipt of social assistance by the parental household strongly increases the probability of receipt. Finally, a long parental education decreases the probability of receipt for the majority population, but not for visible minorities, while among visible minorities the risk lessens by year since immigration.

The structure of the paper is as follows: The next section discusses the increasingly difficult transition into adulthood. The system of social assistance in Sweden is described in Section 3 and the literature most relevant for our study is surveyed in Section 4. Section 5 presents the three metropolitan areas of Sweden and the concept of neighbourhood we employ. Section 6 describes the samples and Section 7 the results. Section 8 summarises the study and comments on the results.

## 2. The more difficult transition from youth to adulthood

In rich countries, the age at which young adults are usually able to fully support themselves is higher than it was one or two generations ago. An important reason for this is that younger cohorts remain in education for longer periods. Furthermore, it has become more difficult for a young person to find a regular job that pays enough to live on. In addition, the number of young adults who neither study, work or search for a job has increased substantially in recent years.[2]

There are several reasons why youth unemployment has become a larger problem. Empirical studies, such as those summarised by Maching (2009), indicate that in rich countries, the demand for less qualified labour (workers with short education and no work experience) has developed less favourably than for persons with higher qualifications. Furthermore, laws or collective agreements regulating layoffs tend to protect those who have a job, but also make entry into the first job more difficult. It is sometimes claimed that minimum wages have become relatively high, which makes less-qualified labour less attractive. Furthermore, as

[1] We use this term for lack of a better one. Labour market and economic outcomes for immigrants and children of immigrants from these countries differ so substantially from those of immigrants with a Nordic, Western or Eastern European background, that separate analysis is called for.

[2] Franzén and Kassman (2005) followed persons aged 20 to 24 who were neither economically active nor students, in Sweden 1993-94. Seven years later about half had a satisfactory labour market situation and one out of eight was studying or on parental leave. However, the proportion without known activity or long-term unemployed was twice as high as among others in the same cohort.

young adults typically have no work histories they are not entitled to unemployment insurance benefits to the same extent as older workers.

The way in which rich countries handle the economic problems of young adults varies across welfare regimes. For example, in countries belonging to the Southern (or Mediterranean) regime, much of the problems are cushioned by the families. Many young adults stay in the parental home and can benefit from having to pay little or nothing for housing and meals. By contrast, in countries that have the Nordic or Social Democratic Model, young adults leave their parental home at a much earlier age.[3] Yet, in these countries, too, it is common for parents to transfer money to their adult children, even though there is no legal obligation (see Fritzell and Lennartson, 2005, Björnberg and Latta, 2007).

During the last two decades, the incomes of young adults have lagged behind those of other groups in Sweden. Johansson and Palmer (2010) show that while disposable household income in Sweden for the total population was considerably higher in 2007 than in 1991, this was not the case for persons aged 20 to 25. Furthermore, young adults without completed upper-secondary school were more likely to be poor than those with longer educations. The authors also found that relatively many young adults experienced years in financial poverty as young adults, but also that poverty for most had been transitory.

Poverty among young adults in Sweden also has a clear ethnic profile (Biterman ed, 2007). Both foreign-born young adults and native-born with foreign-born parents have a higher rate of social assistance receipt than the average for their age group. This should be seen in context of the large problems many immigrants from low income countries, as well as their children, face in finding a job.[4] By contrast, gender differences in poverty rates as well as in rates of social assistance receipt are small among young adults.

/Table 1 about here/

Social assistance receipt at ages 19 to 21 is a good predictor of social assistance receipt at age 28. This is shown in Table 1, for persons born in 1978.[5] The table also shows that the predictive power is larger within the majority population than among visible minorities. Most persons who received social assistance when aged 19 to 21 years did not do so at age 28 when income from work or parental insurance was the main source of income for approximately half of them, but the percentage is substantially lower than for persons who were not social assistance recipients at ages 19 to 21. (The difference is most pronounced in the majority population).

## 3. Social assistance in Sweden

In Sweden, receipt of social assistance ("Försörjningsstöd", "Ekonomiskt bistånd" previously "Socialbidrag") requires both an application from the individual and a decision taken at the social welfare office, a branch of the municipality which (with some exceptions) finances the expenditures on social assistance. Many municipalities have small populations and therefore

[3] For example, Iacovou and Skew (2010) report that in Sweden in 2007, 50 percent of men aged 21 and women aged 20 did not live with their parents. In Italy the corresponding ages were age 30 for men and age 28 for women. See also Albertini and Kohli (2012).
[4] See for example Bengtsson et al (2005), Rooth and Ekberg (2003), Gustafsson and Zheng (2006), Åslund et al (2009) and Ahmed and Ekberg (2009).
[5] The table is based on the data presented in Section 6.

have only one social welfare office, but in larger cities there are several with different catchment areas. There is evidence indicating that many persons who believe that they are eligible for social assistance refrain from applying (Gustafsson, 2002). There are a number of reasons for this; that the amounts are small and not worth the effort and time cost for application, or that it feels humiliating or shameful to apply.

Potential claimants contact the relevant social welfare office and this may (though far from always), result in an appointment with a social worker and a formal claim.[6] A typical application is for one month and the claimant has to provide information on the composition of the household, its income from all sources and any assets, as well as on housing expenditures and in some cases other expenditure as well. A benefit unit consists of one or two adults (married or cohabiting) and their dependent children. A person is considered a child if under the age of 18, or under 20 if still completing upper-secondary school. Parents are not legally required to support their adult children, and children are not required to support their parents. When the majority of a birth cohort finishes upper secondary school at age 19, the social welfare offices receive a number of applications from person of this age who are not full-time students. Immigrants with a short, or relatively short, period of residency in Sweden also have a relatively high probability of receiving social assistance.[7]

Once submitted, the application is reviewed by a social worker, a process involving checking information and performing calculations, and thereafter a decision is taken. Results from empirical studies using hypothetical identical applications show rather large variation in decisions.[8] To be eligible for social assistance, the benefit unit must have a low income and be unable to make a living any other way. Since many young adults have no assets, they can receive social assistance if they are actively searching for a job. In return, the municipality can require adults under 25 years of age to take part in certain programs (trainee jobs or other skill-enhancing measures) if the person has not been offered a suitable labour market program by the Employment Service. To receive social assistance for a second month the claimant has to hand in a new application and the process is repeated.

## 4. Literature review

We are aware of three previous studies of metropolitan Sweden that have aimed to address the issue of whether the neighbourhood where a person grows up affects the probability of receiving social assistance as a young adult. The studies differ in birth cohort covered, age at which receipt is studied and in method of analysis (definition of neighbourhood, the statistical analysis).[9]

Brännström (2004) analysed a large sample born in 1953 and living in Stockholm in 1963 by a matching technique and found no effect of having lived in a disadvantaged neighbourhood on the probability of social assistance receipt at ages 16 to 19. The two studies referring to a more recent period find more evidence of such effects. Mood (2004) used parish level data

[6] For empirical studies on how the intake functions see Minas (2005 and 2006).
[7] See for example Franzén (1997), Hammarstedt (2002), Halleröd (2003), Hansen and Lofstrom (2003), Bergmark and Bäckman (2004) and Mood (2011).
[8] See Gustafsson et al, (1993) and Strantz (2007).
[9] Åslund and Fredriksson (2009) is also of relevance to our study. The authors found that refugees living in Sweden had a higher probability of receiving social assistance if they were placed in a municipality with many social assistance recipients.

relating to 1990 to 1999 for the city of Stockholm and analysed inflow as well as outflow rates for persons aged 20 to 25 using fixed-effect regression models. Her results indicate that the higher the proportion of people in the parish receiving social assistance, the higher the percentage of non-recipients who enter receipt. Brännström (2012) followed a very large sample of persons born in 1977 to 1979 in Sweden's three metropolitan areas during a twelve year period. This study used a hurdle regression framework to analyse how neighbourhoods, as classified into six categories, affect the probability of subsequent social receipt as well as the number of months of receipt. Bivariate analysis indicated a strong relation between the type of neighbourhood and subsequent receipt but most of the relation disappeared when parental characteristics were entered into the model.

Our study uses the same database as Brännström (2012) but there are potentially important differences. First, we follow individuals until the ages of 19 to 21. We consider these to be the ages when possible effects of the neighbourhood in which the person was living at age 16 can be assumed to be largest. Second, unlike Brännström (2012), we include the percentage of households in the neighbourhood receiving social assistance as an explanatory variable, and do not merely rely on a broad classification of neighbourhoods into a small number of categories. Third, our statistical analysis is conducted separately for the majority population and for visible immigrant minorities. These three differences combined mean that we can expect to find stronger neighbourhood effects. A fourth difference is that we study the 1985 birth cohort.

In addition to possible neighbourhood effects, we also want to study the extent to which social assistance receipt in the parental home is associated with social assistance receipt as an adult. We are aware of three studies that have addressed the issue of intergenerational links in social assistance receipt for Sweden. Stenberg (2000) studied the birth cohort of 1953 growing up in Stockholm and their receipt of social assistance during the years 1982 and 1983. The results indicate that receipt of social assistance is transmitted across generations even after controlling for several other parental characteristics.

Ringbäck Weitoft et al (2008) studied a large national cohort and related receipt of social assistance at ages 25 to 26 in 2002 to a number of parental variables measured in 1990-1992, including the duration of social assistance receipt. They found that the odds of social assistance receipt increased with the duration of parental receipt, a relation which could be causal or due to factors correlated with both parental and child receipt. Edmark and Hanspers (2011) used a sibling difference method in order to control for unobserved family heterogeneity. It was applied to a small national sample of siblings with an eight-year difference in age. The results indicate that while social assistance receipt is highly positively correlated across generations conditioned on a large set of household variables, there is no support for a causal effect of parents' social assistance use on social assistance use by the offspring.

## 5. Research area and definition of neighbourhood

Of Sweden's approximately nine million inhabitants, 3.3 million live in the three metropolitan regions. The Stockholm metropolitan region, including and surrounding the capital, is the most populous. In this study, 24 municipalities (city level units) are included in this region. The second largest, the Gothenburg metropolitan region includes eight municipalities. The smallest metropolitan region consists of the city of Malmö and eight neighbouring municipalities. The population studied in this paper is persons born in 1985 who lived in one

of the three metropolitan areas in 2001. Some preliminary analysis indicates that issues of residential segregation are rather similar in the three regions, and we therefore pool individuals living in the three regions in the statistical analysis.

In this study we use a definition of "neighbourhood" which has been constructed for research purposes. Unlike definitions used in some earlier Swedish studies, it is identical for all three regions studied. It has been previously used for mapping how residential segregation has developed (National Board of Health and Social Welfare, 2010). The neighbourhoods usually have a population of between 4 000 and 10 000 inhabitants (for details, see Biterman ed., 2007). We focus on urban neighbourhoods and have excluded rural neighbourhoods and neighbourhoods with fewer than 500 observations.

In the data, neighbourhoods are classified by socio-economic and ethnic type. Each classification includes eight different levels from "very rich in resources" to "very poor in resources" and from "very homogenous Swedish population" to "very large concentration of visible immigrants". We have crossed these dimensions after reducing the number of levels. Some of the resulting categories were pooled because they did not include a sufficient number of observations or omitted because there were no such neighbourhoods ("rich neighbourhood with a concentration of ethnic minority households" and "poor neighbourhood with a concentration of natives"). This left us with seven categories.

/Figure 1 about here/

Figure 1 shows that persons born in 1985 in the majority population and the visible minority immigrant population were distributed rather differently across the seven categories of neighbourhoods in 2001. Nearly two-thirds of the 16-year-olds from the majority population lived in neighbourhoods with an average income above the mean, as compared with only about 16 percent of those from the "visible minority population". While less than eight percent of the majority population lived in poor neighbourhoods, the corresponding was the case for as many as half of the visible minority population.

/Figure 2 about there/

Our data allows us to compare at age 16, the 1985 birth cohort with that of 1974, in order to see how residential segregation has changed.[10] Figure 2 shows that the proportion of 16-year-olds in the three metropolitan areas who are from visible minority households increased from 8 to 19 percent during the decade from 1990 to 2001. The comparatively high concentration of visible immigrant minorities in some types of neighbourhoods is a new phenomenon. Figure 2 also shows that this change meant drastic increases of visible immigrant minorities in neighbourhoods where the concentration of visible minority immigrants was already large.

From the data, we also calculate neighbourhood characteristics based on all households in the neighbourhood. Of particular interest is the rate of social assistance receipt (among all persons) in the neighbourhood. We also compute the share of children in the neighbourhood population, measures of education as well as the proportion of households with more than one adult present.

/Figure 3 about here/

[10] Biterman et al (2008) show that segregation among children measured by parental income increased between 1990 and 2002.

Figure 3 shows the percentage of 16-year-olds in different types of neighbourhoods who lived in households receiving social assistance in 2001. As the figure indicates, the proportion was far larger for "visible minority" youth than for the majority population. As might be expected, the proportion is lowest in rich neighbourhoods with a mainly native population and highest in poor neighbourhoods with a high concentration of visible minorities. In the latter, almost half of all young adults belonging to the visible minority population lived in a household receiving social assistance in their teens.

## 6. Samples

The individual data we work with comes from various registers at Statistics Sweden. It covers all individuals who were born in 1985 and who lived in one of the three Metropolitan areas in 2001. Parental information refers to year 2001.[11] As social assistance receipt is much more frequent among households with immigrant background we divide the sample into two; one sample containing those with parents born in Sweden, Europe other than southeast Europe, Anglo-America or Oceania ("the majority population", 24 582 observations), and one of those with parents born in southeast Europe, Africa, Latin America or Asia ("visible minorities", 5 930 observations). We follow all young adults during ages 19 to 21 irrespective of domicile as long as they remain within Sweden. The only attrition is the small number of persons who emigrated or died.

/Table 2 about here/

Table 2 lists the main variables used and their means for the two samples. Quartile income refers to equivalent disposable income of all Swedish households that included a child born in 1985.[12] As mentioned, characteristics of the background households refer to 2001. Disposable income includes wages, capital income and transfer income, all net-of-tax. While only 15 percent of the 16-year-olds in the majority sample had a parental household in the first income quartile, this was the case for as many as 61 percent of the visible minority sample. We find that only 4 percent of the 16-year-olds in the majority population sample lived in households receiving social assistance, but as many as 35 percent in the visible immigrant sample. Parental education is coded in eight levels plus a variable indicating that no information is available. In the majority sample, 51 percent had at least one parent with post-secondary education, but only 28 percent in the visible minority sample. In the majority sample 86 percent had completed upper-secondary school, when aged 21, while the corresponding proportion for the visible minority sample was 76 percent.[13] Very few in our samples had become parents before the age of 21.

We also use a variable indicating whether there was one adult woman or man, but not two adults, present in the household.[14] For both populations we include dummies indicating parents' region of birth and for the visible immigrant minority also dummies for years since

[11] The "parental household" includes the child, and the parent or parents, registered at the same address as the child. If the child lives with one parent and he/she is married or cohabitates and has a child with a new partner, he/ she is also included, but only if they have a child.

[12] For details on equivalence scale see the documentation for the Lisa data base: http://www.scb.se/statistik/_publikationer/AM9901_1990I09_BR_AM76BR1104.pdf

[13] Compulsory school in Sweden is 9 years and starts at the age of 7. The majority of teenagers continue to upper-secondary school which is three years.

[14] See, however, note 12, above.

immigration. Just under half of visible minority children have parents born in the Middle East or North Africa while the other half has parents from a wide range of regions. There is considerable variation in years since the family's immigration.[15]

## 7. Results

The proportions of young adults receiving social assistance in the two samples are shown in Table 3. At age 19, eight percent of the majority population sample received social assistance, at age 20, nine percent and at age 21, seven percent. In the visible minority sample the percentages were much higher, with a maximum of 34 percent at age 19. Not more than three percent of the majority sample received social assistance each year between age 19 and 21,while as many as 14 percent received social assistance during for at least one of those three years. By contrast, 17 percent of the visible minority sample received social assistance during all three years while almost half received it at least once while aged 19 to 21. Figure 4 shows that, as expected, rates of receipt among young adults vary substantially by type of neighbourhood and for those who grew up in one category of neighbourhoods they are higher among visible minorities than among the majority.

/Table 3 about here/

/Figure 4 about here/

To see whether these relations can be attributed to differing parental characteristics, we estimated logistic regression models. We define the outcome variable "social assistance receipt" as equal to 1 if the young adult had received social assistance for at least one month during each year when aged 19, 20 or 21. Thus, receipt requires some persistence.[16] We work with three specifications. The first includes household and individual characteristics, the second adds six dummies indicating in which category of neighbourhood the young adult grew up in, and in the third we also add characteristics measured at the neighbourhood level. Of particular interest is whether the proportion receiving social assistance in the neighbourhood is positively related to the probability of receipt as a young adult. Estimates for the majority population are reported in Table 4 and for the visible migrant minority population in Table 5.

/Table 4 about here/

/Table 5 about here/

First we comment on estimates for individual characteristics with an emphasis on those from the full model. We find that if the young adult had completed upper-secondary education at

[15] Disaggregation of the samples by category of neighbourhood shows some relations worth comments. Visible minority households that live in rich or above average income neighbourhoods have lower household income than majority parents living in the same category of neighbourhood. In the majority population it is more common to live with one parent only, in cases where the household resides in a poor neighbourhood (table available from authors on request).

[16] Results from sensitivity analyses indicate small differences in results when we had defined the dependent variable as receipt in one or two of the three years. The same is the case when we restrict the sample to young adults who have lived in a specific neighbourhood for at least 4 years.

age 19, the probability of social assistance receipt is reduced to about one-fourth in the majority population and to approximately half in the visible minority population. By contrast, having become a young mother (in both populations) or a young father (in the visible minority population) clearly increases the probability of receipt. These results are similar across specifications as are the results on how parental characteristics affect receipt. In both populations we find that the presence of two adults in the parental household reduces the probability of social assistance receipt relative to one adult present. There are also clear negative relations between parental income and social assistance receipt as young adults, while receipt of social assistance by the parental household increases the odds of receipt as a young adult by five or six times. This is consistent with findings from previous studies on intergenerational links in social assistance receipt surveyed in Section 4.

For the majority population we also find that a parent with a long education reduces the probability of receipt, but for the visible minority population there is no significant effect. A factor that does matter for this group is years since the family immigrated. This finding is consistent with what previous studies have found (see footnote 8).

The second specification included dummies for neighbourhood type. For the majority population, we find a clear picture showing that in the neighbourhoods that are more prosperous and where fewer immigrants live, the probability of social assistance receipt is lower, but this is not the case for the visible minority population. This is consistent with Mood (2004) and Brännström (2011). However, in the third specification which includes specific neighbourhood characteristics, none of the odds-ratios associated with the broad neighbourhood categories differ significantly from one at the 5-percent level. Instead the probability of receipt of social assistance as a young adult significantly increases with a higher rate of receipt in the neighbourhood. According to the point estimate, a difference of 10 percentage points in social assistance receipt in the neighbourhood implies a difference in probability of receipt for a young adult of 4 percent, a far from trivial number.

/Figure 5 A, B, C about here/

In order to illustrate how the proportion of social assistance receipt in the neighbourhood affects the probability of receipt as young adults, we have calculated predicted probabilities, shown in Figure 5. We have first chosen three sets of individual and household characteristics such that one of them (individual A) is associated with a low probability of receiving social assistance and one (individual C) with a high probability. The third (individual B) has the characteristics common in the joint sample. Then we attributed different ethnic backgrounds to individuals with these characteristics and predicted their probabilities of receiving social assistance at ages 19, 20 and 21 as the percentage of recipients in the neighbourhood varies from 1 to 60 percent (the minimum and maximum observed in our data).

As Figure 5 shows, for individual A, varying the proportion of social assistance receipt in the neighbourhood between 1 and 10 percent makes virtually no difference to the predictions. However, when the majority of the population in the neighbourhood receives social assistance the probabilities are higher and increase clearly by rate of receipt in the neighbourhood. This is in contrast with the pattern for person C for whom the predicted probability of receipt varies substantially by rate of receipt in the neighbourhood when the rate is low. At higher rates of receipt in the neighbourhood the predicted probability of receipt is already so high that there is little room for additional increases. Figure 5 also shows that when other parental

and individual characteristics are the same value, the predicted probabilities of receipt are similar in the majority population and for visible minority youth with a relatively long period of residence in Sweden. Figure 5 also shows that individual characteristics have larger effects for the majority sample than for the visible minority, i.e. the differences between individuals A and C are larger among the majority population. For the ”average” individual (B) it is clear that individual receipt varies strongly by receipt of social assistance in the neighbourhood. A majority individual B goes from about 2 percent probability of receiving social assistance if receipt is low in the neighbourhood to about 15 percent if it is high. For a newly arrived immigrant the predicted probabilities vary from 4 percent to nearly one-third.

A recent study (Lindbeck et al. 2011) attributes differences in utilisation of sickness benefits between different areas in Sweden to differences between local social norms or “benefit cultures”. We would hesitate to draw such conclusions for social assistance. Alternative interpretations are differences in information on eligibility conditions for social assistance across neighbourhoods, as well as differences in how the local welfare state (municipalities and social welfare offices) are functioning. Thus, more research is needed to better understand why probabilities of social assistance receipt are influenced by the neighbourhood rate of social assistance receipt.

## 8. Conclusions

This study addresses the issue of whether the probability of receiving social assistance as a young adult varies according to the neighbourhood where a young person grew up within the Stockholm, Gothenburg and Malmö regions in Sweden. The study also aims to throw light on to what extent parents’ receipt of social assistance, other parental characteristics, the education of the young adult, as well as the young adult’s being a parent her- or himself can affect the probability of social assistance receipt as a young adult. Our sample is of individuals born in 1985 and receipt was observed during the age 19 to 21. Parents are not obliged to support children of these ages and many enter social assistance for the first time. As social assistance receipt is more frequent among visible immigrants than among the majority we have estimated logistic regressions separately for the two populations. Neighbourhoods were characterised by a classification taking income and the proportion of visible immigrants into account, but we also included specific neighbourhood characteristics such as the rate of social assistance receipt in the neighbourhood.

A main result from the study is that a higher rate of social assistance receipt in the neighbourhood is associated with a substantially higher probability of receiving social assistance as a young adult. This applies both to the majority population and the visible minority. There may be several reasons behind a positive link between the frequency of social assistance receipt in the neighbourhood and the probability of receipt for a young adult. They include how well information on eligibility is spread among young adults, reluctance towards applying, as well as the possibility that applications are processed differently by different local welfare offices. We have also found that not having completed upper-secondary education as well as having become a mother at a young age sizeably increases the probability of receipt.

Another main result from this study is that young adults are more likely to receive social assistance if the household in which they grew up received assistance. This applies both to the majority population and the visible immigrant population. Such a relation should not necessarily be interpreted as causal, however. The probability of social assistance receipt as a

young adult is also higher in cases where there was only one adult in the parental home and where household income was low. This is not surprising. Many people find it degrading to receive social assistance and the conditions for eligibility may include divesting oneself of assets such as a car. Parents with low income - in particular parents who need social assistance themselves - are less likely to have the means to help their children avoid it. Finally, a long parental education decreases the probability of receipt within the majority population, but not for visible minority young adults. Among the latter, the probability decreases by length of time since the family's immigration.

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**Table 1 The relation between social assistance receipt (SA) at ages 19 to 21 and receipt of social assistance at age 28 as well as main source of income.** 1978 birth-cohort. Percent.

| | | Did not receive SA at age 19, 20 and 21. | Received SA at age 19, 20 and 21 |
|---|---|---|---|
| **Social assistance receipt at age 28** | | | |
| **Men** | Majority | 3 | 27 |
| | Visible minorities | 7 | 22 |
| **Women** | Majority | 2 | 23 |
| | Visible minorities | 7 | 19 |
| **Main income from work or parental leave at age 28.** | | | |
| **Men** | Majority | 78 | 49 |
| | Visible minorities | 59 | 49 |
| **Women** | Majority | 71 | 50 |
| | Visible minorities | 60 | 52 |

**Table 2, Descriptives for background household of individuals born in 1985 (percent)**

| | Majority | Visible minority |
|---|---|---|
| **Quartile 1** | 15% | 61% |
| **Quartile 2** | 19% | 21% |
| **Quartile 3** | 26% | 12% |
| **Quartile 4** | 41% | 7% |
| **Social assistance** | 4% | 35% |
| **Educational level in the HH** | | |
| **Less than 9 years of elementary schooling** | 1% | 13% |
| **Elementary schooling 9 years** | 7% | 15% |
| **Upper-secondary 2 years** | 26% | 23% |
| **Upper-secondary 3 years** | 13% | 16% |
| **Post-secondary lt 3 years** | 18% | 11% |
| **Post-secondary 3 years or more** | 30% | 15% |
| **Post-graduate studies** | 3% | 2% |
| **Education info missing** | 0% | 5% |
| **Individual completed upper-secondary when 19 years old** | 75% | 61% |
| **Individual completed upper-secondary when 21 years old** | 86% | 76% |
| **Individual woman child 0-3 years** | 2% | 4% |
| **Individual man child 0-3 years** | 1% | 2% |
| **Two adult person HH** | 68% | 66% |
| **No adult woman in the HH** | 6% | 5% |
| **No adult man in the HH** | 26% | 29% |
| **Background country for HH** | | |
| **Sweden** | 92% | |
| **Other Nordic countries** | 4% | |
| **Other western Europe** | 1% | |
| **Other northeastern Europe** | 3% | |
| **Southern Europe** | | 20% |
| **Middle East and North Africa** | | 49% |
| **South America** | | 9% |
| **Other Africa** | | 10% |
| **Other Asia** | | 10% |
| **Immigration year of the family** | | |
| **Before 1980** | | 18% |
| **1980-1986** | | 26% |
| **1987-1990** | | 18% |
| **1991-1994** | | 25% |
| **1995-1998** | | 11% |
| **1999-2001** | | 3% |
| **N** | 24582 | 5930 |

**Table 3 Share with social assistance (SA) for individuals born 1985 (percent).**

| | Majority | Visible minority |
|---|---|---|
| **SA age 19** | 8% | 34% |
| **SA age 20** | 9% | 32% |
| **SA age 21** | 7% | 26% |
| **SA ages 19, 20 and 21** | 3% | 17% |
| **SA ages19 or 20 or 21** | 14% | 47% |

**Table 4. Models estimating the risk of receiving social assistance at age 19, 20 and 21. Logistic regression. Cohort 1985 – the majority**

| | Model 1 | | | Model 2 | | | Model 3 | | |
|---|---|---|---|---|---|---|---|---|---|
| | OR | (95% Wald conf limits) | | OR | (95% Wald conf limits) | | OR | (95% Wald conf limits) | |
| **Man** | 0,83 | *0,71* | *0,98* | 0,83 | *0,70* | *0,97* | 0,82 | *0,70* | *0,96* |
| ***Background country for HH Ref: Sweden*** | | | | | | | | | |
| **Other Nordic countries** | 1,05 | *0,78* | *1,43* | 0,93 | *0,68* | *1,26* | 0,94 | *0,69* | *1,27* |
| **Other western Europe** | 1,23 | *0,75* | *2,02* | 1,11 | *0,67* | *1,83* | 1,11 | *0,67* | *1,84* |
| **Other northeast Europe** | 1,55 | *1,12* | *2,15* | 1,32 | *0,95* | *1,84* | 1,27 | *0,91* | *1,78* |
| ***Highest educational level in HH. Ref: Gymnasium 2 years*** | | | | | | | | | |
| **Graduate program** | 0,36 | *0,13* | *0,98* | 0,43 | *0,16* | *1,17* | 0,37 | *0,13* | *1,02* |
| **Post-secondary ≥ 3 yrs** | 0,52 | *0,39* | *0,67* | 0,59 | *0,45* | *0,77* | 0,55 | *0,42* | *0,72* |
| **Post-secondary < 3 years** | 0,53 | *0,40* | *0,70* | 0,57 | *0,43* | *0,76* | 0,56 | *0,42* | *0,75* |
| **Upper-secondary 3 years** | 0,85 | *0,67* | *1,08* | 0,87 | *0,68* | *1,11* | 0,87 | *0,68* | *1,11* |
| **Elementary schooling** | 1,15 | *0,93* | *1,43* | 1,09 | *0,88* | *1,35* | 1,08 | *0,87* | *1,33* |
| **Lt elementary schooling** | 1,69 | *1,12* | *2,55* | 1,53 | *1,01* | *2,31* | 1,53 | *1,01* | *2,32* |
| **No information** | 1,83 | *1,07* | *3,15* | 1,80 | *1,04* | *3,13* | 1,67 | *0,96* | *2,90* |
| ***Quartile for disposable income Ref: Quartile 1*** | | | | | | | | | |
| **Quartile 2** | 0,76 | *0,63* | *0,93* | 0,77 | *0,64* | *0,94* | 0,79 | *0,65* | *0,95* |
| **Quartile 3** | 0,55 | *0,45* | *0,68* | 0,58 | *0,47* | *0,72* | 0,59 | *0,47* | *0,73* |
| **Quartile 4** | 0,28 | *0,21* | *0,36* | 0,31 | *0,24* | *0,41* | 0,32 | *0,24* | *0,41* |
| **BHH receives SA** | 6,79 | *5,67* | *8,13* | 6,31 | *5,26* | *7,57* | 6,04 | *5,03* | *7,25* |
| **BHH adults** | 0,52 | *0,44* | *0,62* | 0,54 | *0,46* | *0,64* | 0,58 | *0,49* | *0,69* |
| **At least upper-secondary school age 19** | 0,23 | *0,20* | *0,27* | 0,24 | *0,21* | *0,28* | 0,24 | *0,21* | *0,28* |
| **Man and child 0-3 years** | 1,70 | *0,91* | *3,19* | 1,65 | *0,88* | *3,06* | 1,63 | *0,87* | *3,05* |
| **Women have child 0-3 years** | 3,39 | *2,55* | *4,50* | 3,12 | *2,34* | *4,15* | 3,17 | *2,38* | *4,23* |
| ***Neighbourhood type Ref: ekoetngr7*** | | | | | | | | | |
| **EKOETNGR1** | | | | 0,31 | *0,22* | *0,44* | 1,32 | *0,68* | *2,55* |
| **EKOETNGR2** | | | | 0,42 | *0,32* | *0,55* | 1,39 | *0,83* | *2,33* |
| **EKOETNGR3** | | | | 0,51 | *0,35* | *0,74* | 1,37 | *0,80* | *2,35* |
| **EKOETNGR4** | | | | 0,54 | *0,39* | *0,74* | 1,29 | *0,80* | *2,09* |
| **EKOETNGR5** | | | | 0,73 | *0,56* | *0,95* | 1,49 | *1,00* | *2,22* |
| **EKOETNGR6** | | | | 0,73 | *0,52* | *1,03* | 1,11 | *0,74* | *1,68* |
| ***Percentages in the neighbourhood*** | | | | | | | | | |
| **Children** | | | | | | | 0,84 | 0,28 | 2,50 |
| **Post-secondary education** | | | | | | | 0,98 | 0,96 | 1,00 |
| **Upper-secondary education** | | | | | | | 0,97 | 0,93 | 1,01 |
| **No educational information** | | | | | | | 0,96 | 0,92 | 1,00 |
| **Receiving social assistance** | | | | | | | 1,04 | 1,02 | 1,06 |
| **Two adults in HH** | | | | | | | 0,98 | 0,97 | 1,00 |

**Table 5. Models estimating the risk of receiving social assistance at age 19, 20 and 21. Logistic regression. Cohort 1985 - visible minorities**

| | Modell 1 | | | Modell 2 | | | Modell 3 | | |
|---|---|---|---|---|---|---|---|---|---|
| | OR | (95% Wald conf limits) | | OR | (95% Wald conf limits) | | OR | (95% Wald conf limits) | |
| **Man** | 1,20 | 1,02 | 1,41 | 1,19 | 1,01 | 1,40 | 1,19 | 1,01 | 1,40 |
| ***Background country for HH Ref: Southern Europe*** | | | | | | | | | |
| **Middle East and North Africa** | 1,23 | 0,98 | 1,55 | 1,26 | 1,00 | 1,59 | 1,42 | 1,12 | 1,80 |
| **South America** | 1,21 | 0,86 | 1,70 | 1,24 | 0,88 | 1,74 | 1,42 | 1,00 | 2,01 |
| **Other Africa** | 1,37 | 1,03 | 1,82 | 1,39 | 1,04 | 1,84 | 1,57 | 1,17 | 2,10 |
| **Other Asia** | 0,76 | 0,55 | 1,06 | 0,78 | 0,56 | 1,09 | 0,83 | 0,59 | 1,16 |
| Year of immigration for BHH *Ref: 4 years or less in the country* | | | | | | | | | |
| **faminvbf1980** | 0,34 | 0,23 | 0,49 | 0,34 | 0,23 | 0,49 | 0,37 | 0,25 | 0,54 |
| **faminv8086** | 0,50 | 0,37 | 0,67 | 0,50 | 0,37 | 0,67 | 0,54 | 0,40 | 0,72 |
| **faminv8790** | 0,68 | 0,52 | 0,90 | 0,68 | 0,51 | 0,89 | 0,68 | 0,52 | 0,90 |
| **faminv9194** | 0,81 | 0,64 | 1,04 | 0,81 | 0,63 | 1,03 | 0,83 | 0,65 | 1,06 |
| **faminv9598** | 0,73 | 0,56 | 0,96 | 0,73 | 0,56 | 0,96 | 0,78 | 0,59 | 1,02 |
| ***Highest educational level in HH: Ref: Gymnasium 2 years*** | | | | | | | | | |
| **Graduate program** | 0,75 | 0,32 | 1,74 | 0,76 | 0,33 | 1,78 | 0,78 | 0,33 | 1,83 |
| **Post-secondary ≥3yrs** | 0,85 | 0,63 | 1,13 | 0,86 | 0,64 | 1,15 | 0,87 | 0,65 | 1,16 |
| **Post-secondary < 3 yrs** | 0,85 | 0,62 | 1,17 | 0,86 | 0,63 | 1,19 | 0,86 | 0,62 | 1,18 |
| **Upper-secondary 3 yrs** | 1,02 | 0,78 | 1,34 | 1,02 | 0,78 | 1,34 | 1,02 | 0,78 | 1,33 |
| **Elementary schooling** | 1,18 | 0,91 | 1,54 | 1,19 | 0,91 | 1,54 | 1,23 | 0,94 | 1,60 |
| **Lt elementary schooling** | 1,18 | 0,91 | 1,54 | 1,17 | 0,90 | 1,52 | 1,20 | 0,92 | 1,56 |
| **No information** | 1,55 | 1,12 | 2,15 | 1,55 | 1,12 | 2,15 | 1,63 | 1,17 | 2,28 |
| ***Quartile for disposable income Ref: Quartile 1*** | | | | | | | | | |
| **Quartile 2** | 0,72 | 0,58 | 0,91 | 0,73 | 0,58 | 0,92 | 0,74 | 0,58 | 0,93 |
| **Quartile 3** | 0,47 | 0,33 | 0,67 | 0,49 | 0,34 | 0,70 | 0,51 | 0,35 | 0,72 |
| **Quartile 4** | 0,49 | 0,29 | 0,83 | 0,51 | 0,30 | 0,87 | 0,52 | 0,31 | 0,88 |
| **BHH receives SA** | 5,69 | 4,75 | 6,81 | 5,59 | 4,67 | 6,70 | 5,41 | 4,50 | 6,49 |
| **BHH adults** | 0,61 | 0,51 | 0,73 | 0,61 | 0,51 | 0,73 | 0,64 | 0,53 | 0,76 |
| **At least upper-secondary school age 19** | 0,56 | 0,48 | 0,65 | 0,56 | 0,48 | 0,65 | 0,55 | 0,47 | 0,65 |
| **Man with child 0-3 yrs** | 2,74 | 1,69 | 4,46 | 2,71 | 1,66 | 4,40 | 2,71 | 1,66 | 4,41 |
| **Woman with child 0-3 yrs** | 2,72 | 1,99 | 3,72 | 2,67 | 1,95 | 3,65 | 2,71 | 1,97 | 3,71 |
| ***Neighbourhood type Ref: ekoetngr7*** | | | | | | | | | |
| **EKOETNGR1** | | | | 0,68 | 0,37 | 1,26 | 1,28 | 0,54 | 3,02 |
| **EKOETNGR2** | | | | 0,86 | 0,64 | 1,15 | 1,17 | 0,72 | 1,92 |
| **EKOETNGR3** | | | | 0,78 | 0,55 | 1,12 | 1,12 | 0,68 | 1,87 |
| **EKOETNGR4** | | | | 1,00 | 0,65 | 1,53 | 1,09 | 0,66 | 1,81 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **EKOETNGR5** | 0,92 | 0,76 | 1,12 | 1,04 | 0,78 | 1,40 |
| **EKOETNGR6** | 1,18 | 0,92 | 1,50 | 1,05 | 0,78 | 1,42 |
| ***Percentages in the neighbourhood*** | | | | | | |
| **Children** | | | | 0,16 | 0,06 | 0,45 |
| **Post-secondary education** | | | | 1,01 | 0,98 | 1,03 |
| **Upper-secondary education** | | | | 1,03 | 0,99 | 1,07 |
| **No educational information** | | | | 1,01 | 0,97 | 1,05 |
| **Two adults in the HH** | | | | 1,01 | 0,99 | 1,03 |
| **Receiving social assistance** | | | | 1,04 | 1,02 | 1,06 |

**Figure 1**
**Distribution of the two samples across neighbourhood categories year 2001**

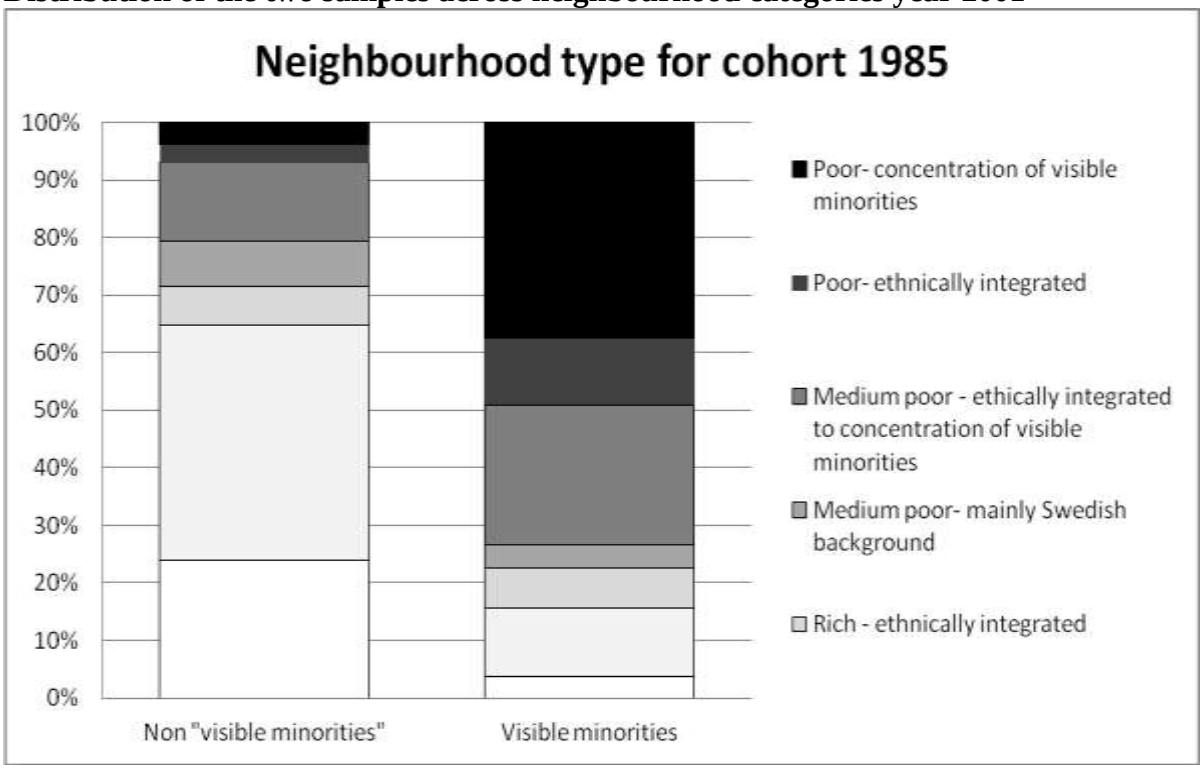



**Figure 2.**

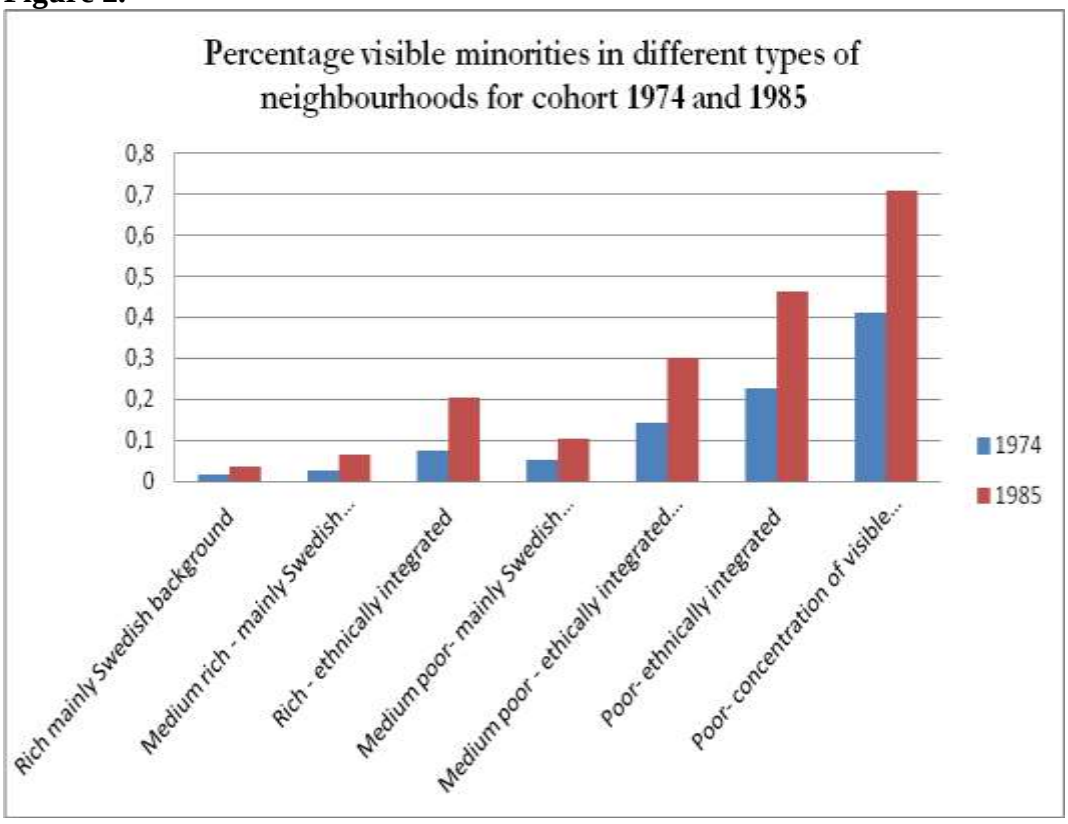


**Figure 3**

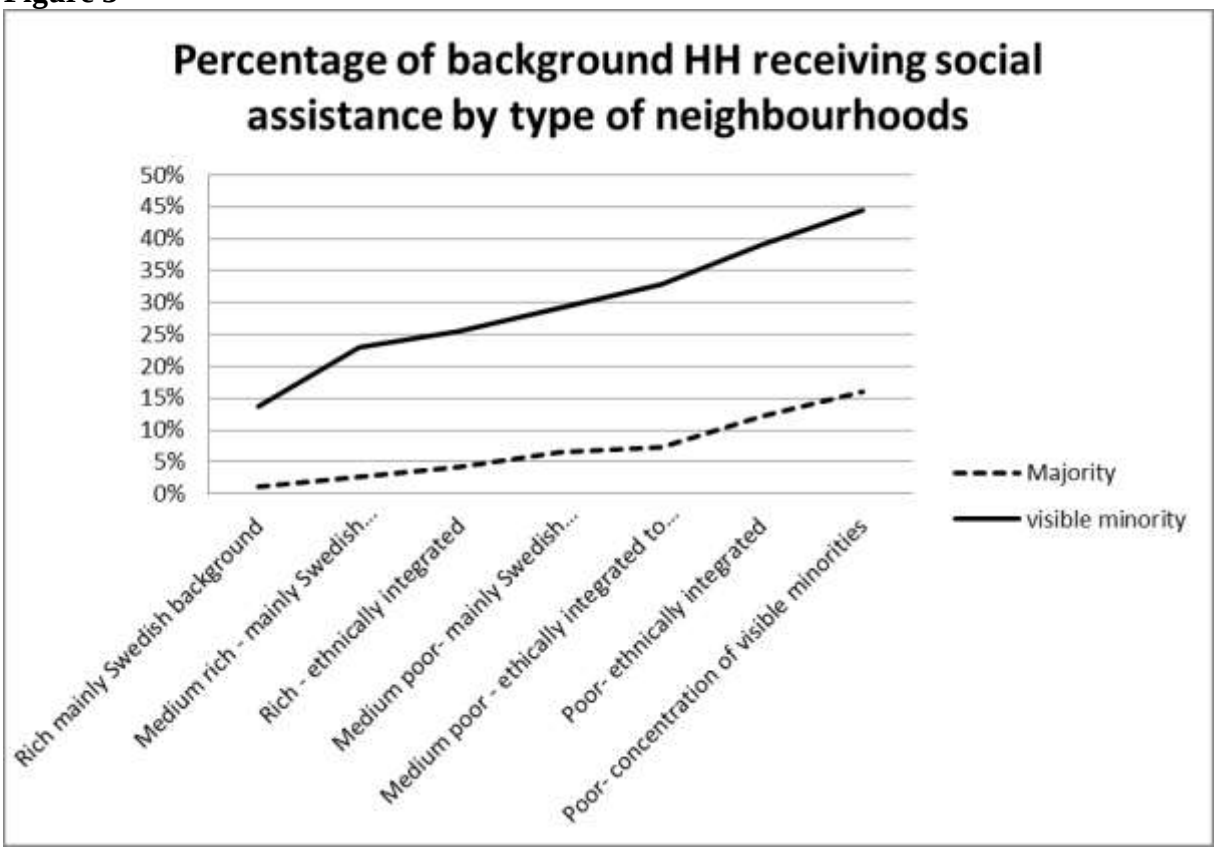



**Figure 4.**

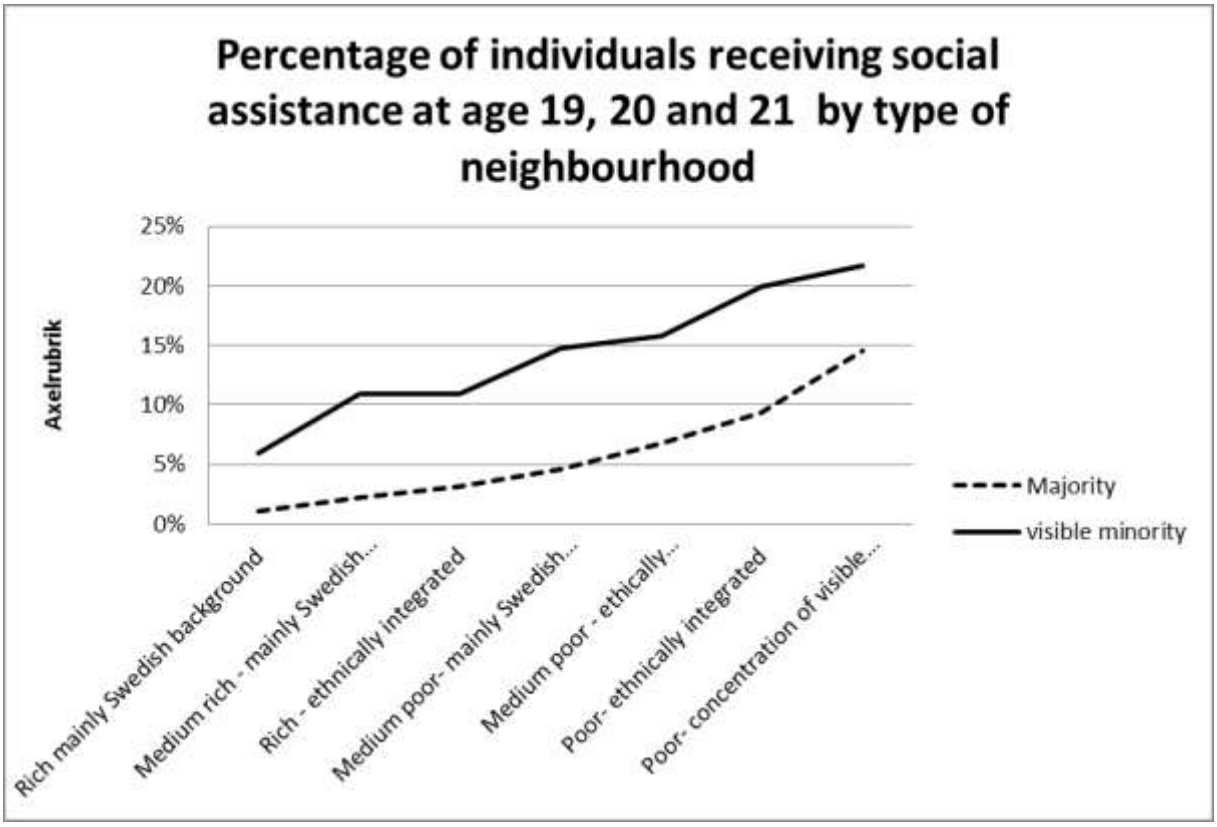
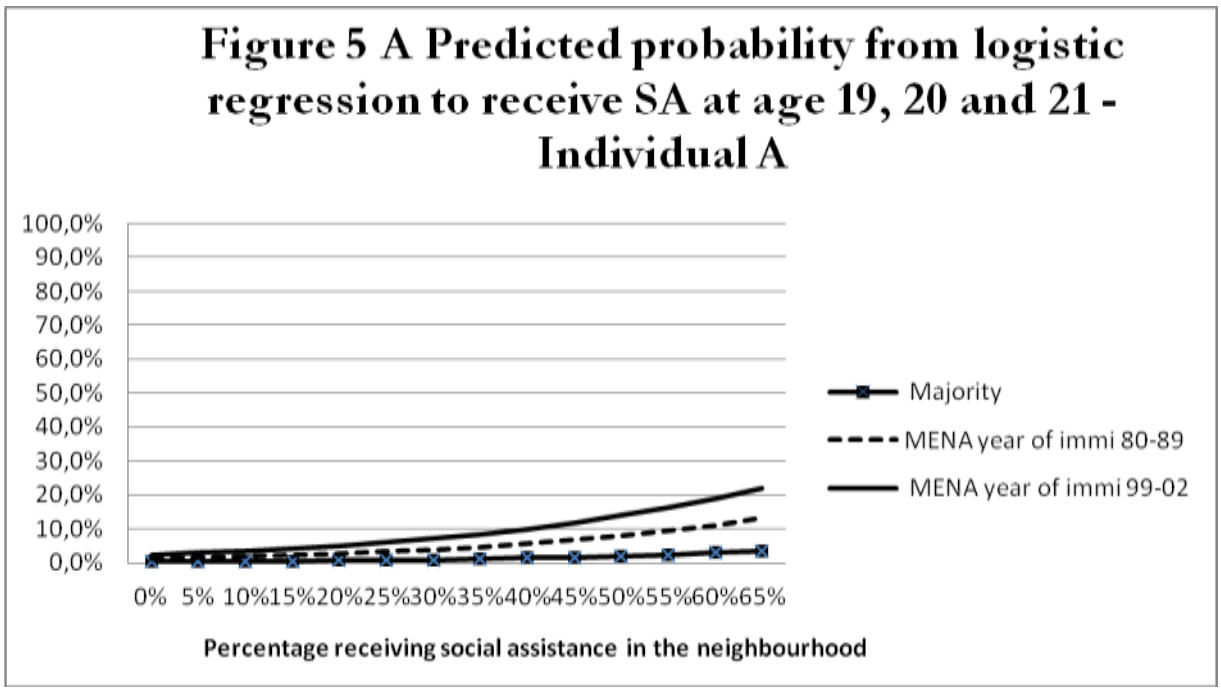
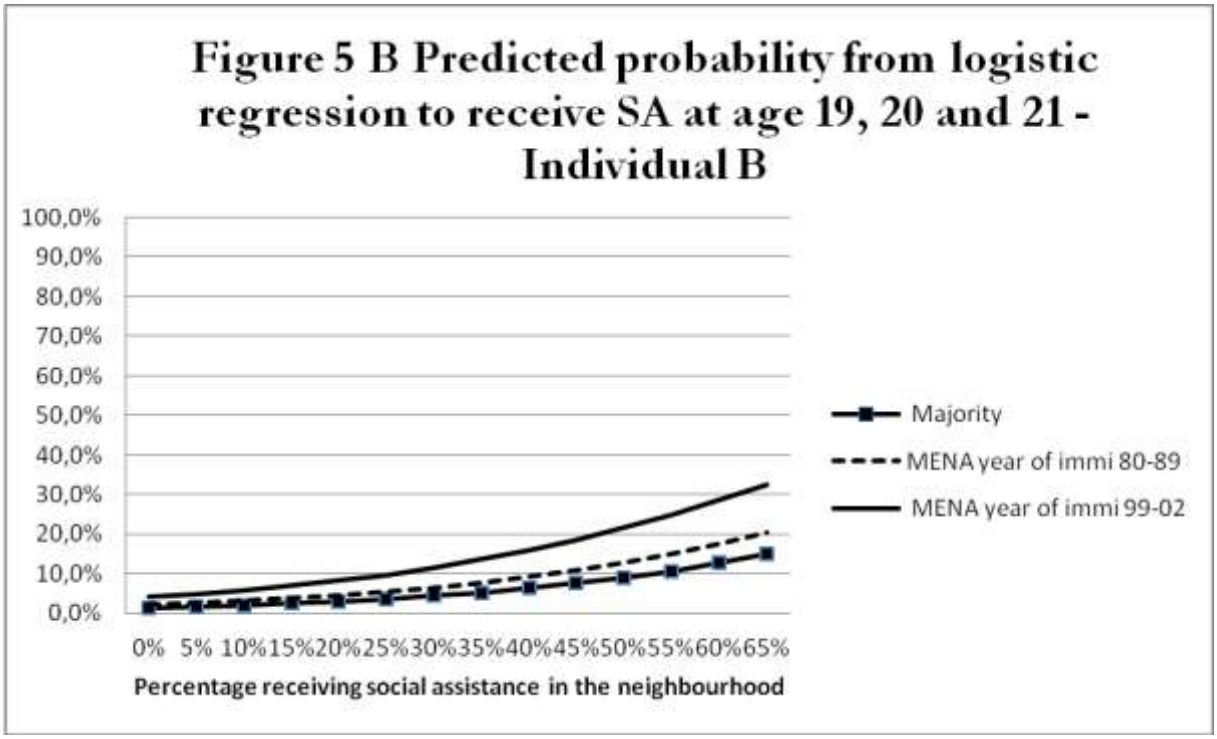
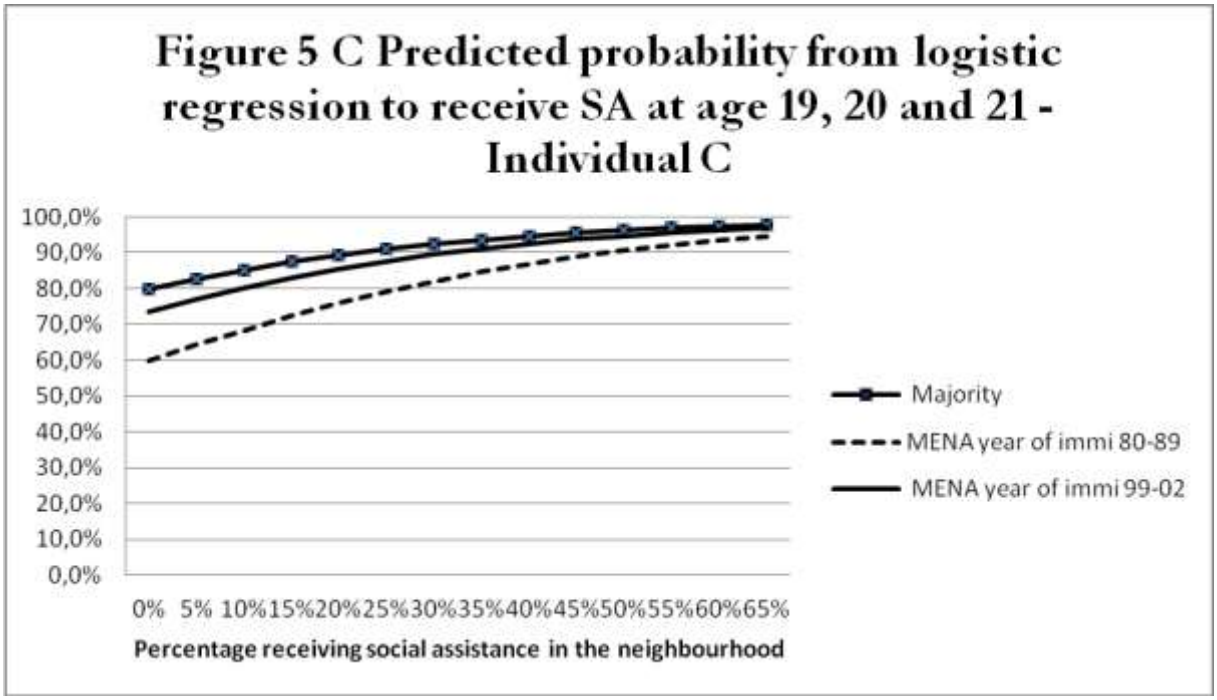



**Figure 5 Predicted probabilities of receiving social assistance at ages 19-21**






**Individual A**: At least one parent has 3 or more years of post-secondary education, household belongs to the highest income quartile, does not receive social assistance and includes two adults. The individual has secondary education at age 19 and no child aged 0-3.
**Individual B**: Highest education in the household is two-year secondary school, household belongs to the second income quartile, does not receive social assistance and includes two adults in the household. The individual has secondary education at age 19 and no child aged 0-3.
**Individual C:** No parent has more than primary education, household belongs to the lowest income quartile, receives social assistance and includes only one adult. The individual has no secondary education at age 19 but a child aged 0-3.