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To What Extent Is a Transition into Employment Associated with an Exit from Poverty

Abstract:
A link between lack of employment and poverty is often made implicitly, but can be difficult to enumerate in a satisfactory manner. We would therefore like to ask the question: to what extent does acquiring employment increase a poor household's probability of exiting poverty? Register data from the entire resident population of Norway serves as the basis for this analysis, which indicates that full-time does greatly increase the probability of exiting poverty. Part-time employment also has an effect, albeit a small one. Findings with respect to transfers are compatible with certain disincentives related to employment for single mothers, although similar results cannot be found for other types of households.

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1. Introduction

A link between lack of employment and poverty is often made implicitly, but can be quite difficult to enumerate in a satisfactory manner. It was, in fact, precisely the relationship between poverty and worklessness that Stephen Nickell discussed in his recent Presidential Address (2004) to the Royal Economic Society. A myriad of issues and problems—even beyond the very basics of defining poverty—immediately present themselves when trying to quantify the importance of employment for the prospects of poor households reversing their status as poor. The severity of unemployment, the extent of the social welfare system as well as the distribution of skills and wage in the relevant country all represent complicating factors for any such attempt, simply because such economic conditions make it difficult to discuss poverty as a function of worklessness alone.

Norway, however, provides us with a unique opportunity to abstract to a certain extent from such complicating factors. Obviously, some households will fall through the cracks even in the best social welfare system, but Norway's extensive system of social security nonetheless allows us to assume that poverty due to such factors as disability or loss of employment, even unemployment over several years, is somewhat limited. In addition, Norway has been able to maintain a relatively low level of unemployment over the last decade, something which cannot be said of many of the other European countries with similarly extensive social welfare systems. In addition, as Nickell (2004) describes, the dispersion of skills and wages and the low-skill labor market also have an effect on poverty levels. In particular, Britain stands out among northern European countries in this regard, because the dispersion of skills and wages is larger there than elsewhere in northern Europe. Norway is, however, characterized by low inequality and little dispersion in skills and wages[1]. A low degree of wage inequality and a redistributive tax and transfer system in Norway implies that employment might just provide a good chance for poor households to actually escape poverty, not just join the ranks of the working poor.

We would therefore like to ask the question: to what extent does acquiring employment increase a poor household's probability of exiting poverty? As the preceding discussion suggests, Norway provides us with the opportunity to ask that question in a context characterized by low employment, well-functioning social welfare systems and little wage and skill dispersion. Within that context, employment might seem to represent a very effective means of escaping poverty. However, we would

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[1] This is, in fact, documented by Nickell (2004) which presents comparative OECD data.

also like to discuss the possibility of certain disincentives in the current Norwegian system, a topic which has become quite common in many societies with extensive social welfare systems. By also including a discussion of the importance of transfers from the government for the probably of exiting poverty, we can provide insights into the possibility that some households appear to be better served by pursuing increases in transfers rather than employment.

Broadly speaking, two different approaches for the investigation of the relationship between poverty and employment have been suggested by previous studies. The first, represented by Haveman and Buron (1993), addresses the question of whether estimates of earnings by all adult households members imply sufficient income for households to avoid poverty, while the second attempts to model the probability of exiting poverty more or less directly by means of a logit or probit model with various charactertistics or events as explanatory variables (see, for example, van Leeuwen and Pannekoek (2002) as well as Oxley, Dang and Antolín (2000)).[2]

Haveman and Buron (1993) introduce the concept of "earnings capacity poverty" by posing the question of how much a household would earn given (hypothetical) full mobilization of earnings capacity among all adult members and comparing such earnings capacity with the official poverty line. In order to correct for selectivity in the observations with earnings, the earnings equation was estimated based on Heckman's two-stage method for each adult household member, and the earnings thus simulated for each member were then added up to create a measure of "net earnings capacity" (NEC) for the entire household. Corrections were made for employment limitations due to sickness or disability, and adjustments for childcare costs were subtracted before arriving at the NEC for each household. When compared with developments in official poverty the study provides very useful insights into possible changes in poverty attributable to households' relative ability to create sufficient market income.

Van Leeuwen and Pannekoek (2002) choose a more direct empirical approach by modeling the probability of exiting poverty in the Netherlands with a logistic regression in which finding a job is included as one of many explanatory variables[3]. We ask a similar question: to what extent does acquiring employment increase a poor household's probability of exiting poverty in Norway? However, our study extends the basic framework suggested by Leeuwen and Pannekoek (2002) in two

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[2] See also Jenkins (2000), who provides an overview and further references to various methods and approaches applied to modelling income dynamics in general.

[3] Oxley, Dang and Antolín (2000) use a similar approach as part of their comparison of poverty dynamics in Canada, Germany, the Netherlands, Sweden, the United Kingdom and the United States.

important ways: first, by distinguishing between different levels of employment—part-time and full-time work—and, second, by incorporating an investigation into the effect of transfers on that same probability of exiting poverty, with or without a concurrent change in employment status. Such an analysis allows us to take an initial glance at such issues as disincentives in the transfer system with respect to the prospects of escaping poverty. In other words, if one assumes that exiting poverty—increasing income above a level given by the poverty line—represents a goal for poor households, then do the data suggest that acquiring a job or, rather, obtaining an increase in transfers contributes most to the probability of poor households attaining that goal?

The rest of the paper is structured as follows: the next section explains the exact methods used to define and measure poverty. Section 3 gives a brief overview of the relationship between finding employment and exiting poverty suggested by Norwegian register data, while Section 4 turns to more detailed regression analysis and addresses the issues of model fit as well as the actual results with respect to both employment and transfers. The final discussion section summarizes the findings, considers possible shortcomings and limitations in interpretation, and suggests avenues of further research.

2. Definitions, Methods and Data

Construction of the poverty line used here was based on register data from the Norwegian national statistical office, Statistics Norway, and encompasses the entire resident population of Norway in each of the years 1995-1997. More specifically, we use a poverty line given at 50 % of median equivalent income after tax, as described in more detail below, for the entire population in the relevant year[4].

Household income after tax is defined as described in Table 1. Income data is based on official income tax records and as such does not include income from sources like illegal employment and unpaid household work. In order to avoid potential distortions as a result of large losses on the stock market or negative income from self-employment, negative employment and/or capital income was set equal to zero before calculating total household income.

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[4] See Table A.1 for the poverty line given in Norwegian crowns (NOK) for the years 1995-1997 and Table A.2 for the percentage of poor individuals in the Norwegian population during the period in question.

Table 1.   Overview of Income Components

Market income	= Employment income
	    • wages
	    • income from self-employment
	+ Capital income, for example
	    • interest
	    • stock dividends
	    • sale of stocks

Total income	= Market income
	+ Transfers, such as:
	    • welfare
	    • old-age pension
	    • unemployment benefits
	    • child allowance
	    • student grants

Income after tax	= Total income - taxes and negative transfers

We make use of two different equivalence scales to compare households of various sizes in our analysis and it is this equivalent income (after tax) that provides the basis for determining both the poverty line and the poverty status of households. In other words, the poverty line is a construction based not on actual household income levels alone. Rather, a household is classified as poor if the equivalent income (after tax) of its members lies below the poverty line. While this method makes comparison of households with different compositions possible, equivalence scales do entail underlying assumptions about the extent of the economies of scale within households, and poverty analysis can, therefore, be highly sensitive to the scale used. Our first scale, the square-root scale, assigns each household member an equivalent income by dividing total household income (after tax) by the square root of the number of household members. The second scale, the OECD scale, applies different weights to adults and children: the first adult receives weight 1, further adults the weight 0.7 and each child (under 16) the weight 0.5[5]. Total income is then divided by the total weight for household members and the amount thus obtained is allotted to each member. All household members therefore receive the same equivalent income regardless of who actually earned the income. It is on the basis of these equivalent incomes that we calculate the poverty line at 50 % of median equivalent income for individuals in the (entire) population and classify the households as poor.

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[5] Another scale in common use is the modified OECD scale, which assigns a weight of one to the first adult, 0.5 to the second adult and 0.3 to each child (under 16). In other words, the new, modified OECD scale entails larger economies of scale than the older OECD scale. For the range of household sizes most common in this study, however, the modified OECD scale is very similar to the square-root scale.

The square-root scale entails larger economies of scales within a household than the OECD scale, and, as a result, the two scales can lead to different and even conflicting results with respect to the relative level of poverty among certain groups in society. A Norwegian study of the sensitivity of poverty results with the use of different equivalence scales in conjunction with a relative poverty line given at 50% of median equivalent income indicates that the level of poverty in the entire population is generally larger when an equivalence scale with larger economies of scale is used (Lund and Aaberge, 1999). More importantly however, certain demographic groups can be highly sensitive to the choice of equivalence scale depending, in particular, on the type of household composition prevalent in those groups. Use of two different equivalence scales will therefore be particularly useful in helping us establish the extent to which our results are robust to such considerations.

A previous study of poverty given in Aaberge et al. (1999) points out that annual income might not provide the best basis for measuring (income) poverty. Poverty numbers for any given year contain a large number of cases in which the household or person are experiencing nothing more than a temporary state of low income[6]. Similarly, unemployment may also be just a temporary state for many households. We therefore restrict our population for analysis to those households that were classified as poor and had no working members in both of the years 1995 and 1996; these strict criteria should help in limiting the effect of income fluctuations and large numbers of households experiencing short-term stints of poverty. In addition, we look only at households headed by a person of working age (16-68). Therefore, the group we study includes all those working age households that did not experience a change in their status as poor and non-employed for at least two years. In the context of this study we do not include poor *working* households, because the demand that the none of the household's members were employed for the preceding two year period hopefully helps us to distil the effects of acquiring employment from such effects as increased working hours or increased wages. It is the former effect, not the latter, we are particularly interested in here.

Data on jobs were obtained from the employment register of the Norwegian National Office for Social Insurance as provided by Statistics Norway. We include information on working hours associated with employment based on the categories contained in the original data: full-time (30+ hours per week) and part-time (under 30 hours a week). An individual who has had more than one job during the course of the year is classified according to the job with the 'best' characteristics, i.e. full-time if both a full-time and a part-time job are registered. There are, however, also many instances of households with positive labor income for which no job is registered in the data. This can have many causes: the person

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[6] See, for example, Aaberge et al. (1999) or Galloway (2002).

in question may own his or her own business and is therefore not registered as an employee; the wages may be part of a contract not considered a regular employer-employee relationship (such as free-lance work) or the employer has for some reason failed to register the job with the proper authorities by the end of the year. In order to allow for some flexibility in handling such gray areas, we do retain households with (equivalent) labor income under NOK 15 000 in both of the years 1995 and 1996, but consider higher labor incomes as indicative of some type of employment. As such, households with labor income higher than NOK 15 000 in 1995 and/or 1996 are excluded from the population to be studied. Similarly, if a household has a labor income above NOK 15 000 in 1997, we assume that a household member has obtained some type of job during the course of 1997 and group such households into an additional job category ('labor income, job info not available') in the regression analysis[7].

3. Some Basic Descriptive Results

Table 2 describes our group of non-employed, poor households from the years 1995 and 1996 relative to their employment and poverty status in 1997. As we can see, a majority of the households (55%) did not acquire any form of employment and remain in poverty, while a portion (13.5%) managed to escape from poverty though remaining without employment with the OECD scale[8]. At least one household member obtained some type of employment during the year in about one-third of the households. A little less than one-third of the households managed to escape from poverty in 1997, and that event coincided with a household member finding a job of some type in approximately 17% of the households for the OECD scale. In other words, more than half of the exits from poverty occurred in households in which a positive change in employment status had also taken place.

Table 2. Poverty Status Relative to Employment Status in 1997*. OECD Scale

Employment status in 1997:	Poor (%)	Not poor (%)	Total (%)
No working member in household	55.5	13.5	69.0
Household member finds :			
Full-time work	4.8	8.5	13.3
Part-time work	4.6	3.0	7.6
Work income but no job information	6.0	4.1	10.1
Total	70.8	29.2	100.0

*For households classified as poor and with no working members in both 1995 and 1996.

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[7] Note that this also implicitly allows households classified as non-employed in 1997 to have income up to NOK 15,000 from odd jobs or other types of work not registered as regular employment with Norwegian National Office for Social Insurance.

[8] We will concentrate on results for the OECD scale in the text. See Table A.3 in the Appendix for a similar description of the households used in conjunction with the square-root scale.

Another way of approaching this issue—one parallel to modelling the exit probability with logistic regressions—is to look at the 'success rates' *within* each of the groups listed above. For example, what percentage of the households in which a member finds a full-time job escaped from poverty in 1997? These probabilities are listed in Table 3.

Table 3. Percentage of Households Escaping Poverty within Groups According to Employment Status*. OECD Scale

	Poor	**Not poor**	**Total**
Employment status in 1997:			
No working member in household	80.5	19.5	100.0
Household member finds :			
Full-time work	35.9	64.1	100.0
Part-time work	60.3	39.7	100.0
Work income but no job information	59.1	40.9	100.0
Total	70.8	29.2	100.0

*For households classified as poor and with no working members in both 1995 and 1996.

Table 3 seems to suggest that a positive change in employment status does improve a household's chance of escaping poverty, but interpretation of these figures must be tempered with a great deal of caution. Table 3 fails to take into account other characteristics that may be unevenly distributed among the various groups. Those characteristics might just be the true reason for the differences with respect to reversals in poverty status and could, for exemple, include other changes that took place in the same year, such as marriage or separation, or demographic features like the age or education of the head of the household. In an extreme case, it is conceivable that obtaining employment is accompanied by an increase in transfers from the government or improved access to certain types of social security measures, and it may just be those factors that lift the households out of poverty, not the change in employment or at least not the change in employment alone.

Any of a number of different considerations could therefore prevent the seemingly straightforward relationships suggested in Table 3 from having any force in explaining the reversals in poverty status. It is therefore we turn to modeling the probability that a household exits poverty in 1997 with the aid of logistic regressions in hope of restricting the extent to which the above-mentioned factors obscure our ability to draw any sound conclusions.

4. Regression Results

As mentioned above, we limit our analysis to those households that were classified as poor and had no working members in both of the years 1995 and 1996 and then model the probability of exiting poverty in 1997. We make use of dummy variables on the change in employment status in the households for two types of employment: full-time and part-time. Full-time employment encompasses 30 or more hours a week, while part-time refers to a job with less than 30 hours a week. One additional category is included for observations with significant labor income but no employee relationship registered in the data. However, it is also conceivable that more than one household member acquires employment. In such cases, the household is first classified according to the 'best' job obtained, i.e. full-time if one member acquires full-time employment and another part-time. Other dummy variables control for the second job and also differentiate between full-time and part-time employment with respect to the second job. Basic demographic characteristics such as the age, age squared, education and the ethnic origin of the household head are included in the model, as well as changes in household composition. The effect of acquiring a job is allowed to vary for the different types of households by means of an interaction term. The level of transfers in 1996 is considered the starting level of transfers so that a variable capturing the change in Norwegian crowns (NOK) of transfers to the households from 1996 to 1997 can be incorporated into the model. The effect of the latter variable is allowed to vary over different employment categories and household types by means of appropriate interaction terms.

Finally, a major difference can be expected in many of the variables depending on whether the household is headed by a single adult or a couple, i.e. with respect to the number of potential adult earners in the household. In order to increase the flexibility in our model along such lines, we run two different regression models, one for single adult households and one for households headed by a couple. Within each of the two regression models, household categories are further characterized by the children in the household (as of 1997): no children, youngest child pre-school age (under 7) or youngest child 7 years of age or older. This classification is based on the intuition that childcare considerations are important elements in determining parents' employment patterns as well as eligibility for certain types of transfers, both of which can in turn affect poverty status.

Estimates from the logit regressions are presented in Tables A.4 and A.5 in the Appendix. The actual level of the coefficient estimates for the two different equivalence scales and the estimated probabilities will obviously vary somewhat, but we are particularly interested in the extent to which the general pattern of effects and comparisons of different characteristics are the same with both

scales. For the sake of readability, we present and discuss results for the OECD scale in the text, but main results for the square-root scale are also presented in the Appendix. Any major discrepancies in the pattern of results for the two different equivalence scales will, however, be noted in the text.

In the following subsection we first address the issue of model fit. After that we will take a closer look at the effect of acquiring employment as well as the effect of transfers in the model. We do include basic interpretation and discussion there, but it is the final discussion section which deals with broader issues such as possible potential shortcomings, limitations in interpretation and potential for further research.

Table 4.   Probability of Exiting Poverty in 1997: Comparision of Model Predictions* and Observed Percentages According to Level of Education. OECD Scale

| Charactertistics	Observations	Observed Percentage	Model Prediction
Middle school or lower:			
No working member in household	4782	20,9	20,7
Household member finds:			
Full-time work	670	66,1	68,5
Part-time work	374	46,3	46,8
Labor income, no job info available	492	48,4	46,0
High school:			
No working member in household	1014	19,2	20,0
Household member finds:			
Full-time work	299	66,2	66,2
Part-time work	156	43,6	41,4
Labor income, no job info available	209	46,9	45,1
Higher education – first degree			
No working member in household	206	12,6	17,0
Household member finds :			
Full-time work	68	82,4	69,0
Part-time work	19	42,1	48,0
Labor income, no job info available	24	50,0	45,7

* The probability of escaping poverty in 1997 is calculated for each individual based on the estimated model coefficients. The average is then taken over the group with the relevant characteristics.

Model Fit

Table 4 gives an example of the extent to which our model can reproduce the observed proportions. We compute the column entitled "model predictions" by first determining each household's probability for leaving poverty in 1997 based on the estimated coefficients and then taking the average over the households with the relevant characteristics. If we use different education levels, we can see that the model is able to produce results that largely reflect the proportions actually observed. Another example according to ethnic origin as well as the same results with the square-root scale are presented in Tables A.6-A.8 in the Appendix.

However, comparison of such averages, while useful in establishing the degree to which the model works well, still does little to clarify which of the many attributes or events can be considered truly meaningful and to what extent. As already discussed in the previous section, differences in such aggregate descriptive statistics may only in part be due to the particular characteristic under investigation. A certain degree of selectivity or a non-random distribution of other traits within some of these groups may in fact account for some or all of the differences. The next subsection therefore focuses on analyses that help us to isolate the effects of selected variables of interest.

Figure 1. The Probability of Exiting Poverty in 1997 with employment. Reference households*
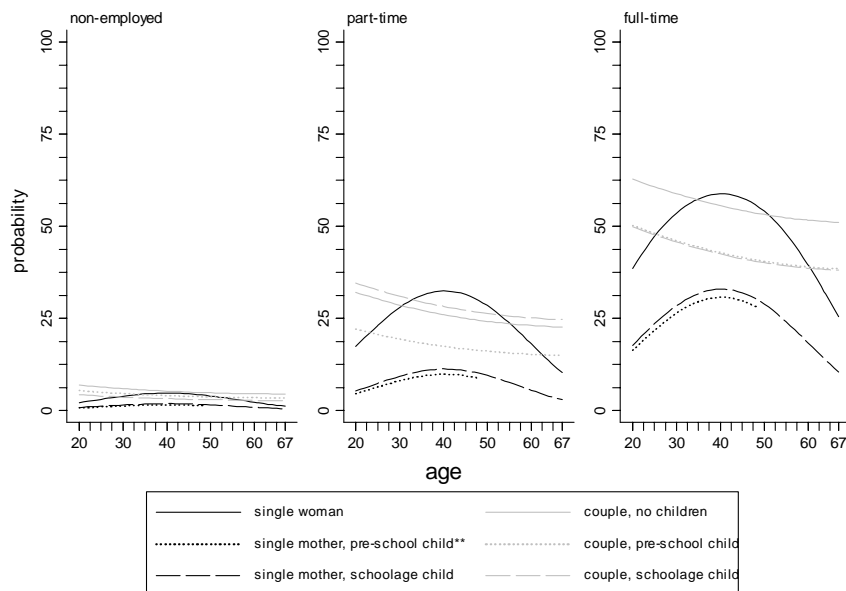
*   Head of the household assumed to be Norwegian with high school education. Level and change in transfers set equal to zero.
**   Single mother households with pre-school children are only represented up to age 48, the highest age actually observed for this household type in the data.

Effects of Employment

Figure 1 provides an illustration of the effect of employment when the age of the household head is allowed to vary. More specifically, reference households are defined as headed by a Norwegian with high school education and having experienced no change in household composition during the preceding year. We will take a closer look at transfers later on, so both the level and change in transfers have been set equal to zero for the time being.

From the figure we can see that exiting poverty is a very unlikely occurrence for households that continue to lack employment (and do not receive transfers), but acquiring employment does greatly improve the probability of exiting poverty for all of the types of reference households. The effect of part-time employment is statistically significant, but, not surprisingly, far less than that of full-time employment. We did include an interaction term in order to allow the the effect from employment to vary for different household types, but no statistically significant difference in the effect of employment relative to non-employment could be established for the households.

Figure 1 also suggests that, although acquiring full-time employment has a very large effect on the probability of exit, such employment is far from a guarantee for exiting poverty. This may be due to a number of different reasons which may also vary in their extent and importance in various groups. For the first, our employment data register the event of obtaining full-time employment during the year, but they fail to take into account when that employment was obtained and how long it lasted during the year. In an extreme case, a household member may have, for example, obtained stable full-time employment with good pay in December of the year. That employment may be sufficient to raise the entire household out of poverty in the long run, but wages from just one month as registered for our 1997 data most likely will not be. Similarly, full-time employment might come in the form of a short-term contract, one that also does not provide enough income seen from the perspective of the entire year. In the case of families in particular, it is even conceivable that low-paid, full-time employment might not be enough to raise the household above the poverty line, primarily due to the large numbers of mouths to feed. Finally, we have for the time being set transfers equal to zero, but, as we shall see shortly in the following subsection, this assumption is very unrealistic for many of the households we analyze and does effect the probability of exiting both with and without employment.

It is also interesting to note that, as illustrated in Figure 1, age itself has a different effect on the probability of exiting poverty depending on whether the household in question consists of just one adult or two adults. Although the figure suggests a downward sloping age curve for couples, the effect

is, in fact, not statistically significant. However, the age effect for single adult households is statistically significant: the probability of exiting poverty for single households increases with age up until the late-30s and begins to decline rapidly again around the age of 45. Single person and single parent households therefore seem more susceptible to factors that vary with age, while the pooling of resources from two working-age adults helps to prevent such differences over the life cycle.

A positive probability of exiting poverty with no change in employment status can be due to one of primarily two factors: increased capital income or income from odd jobs (up to NOK 15,000). Particularly the former may account for the age pattern as observed for households headed by just one adult. Young (single) households have had less of an opportunity to accumulate savings or other forms of capital which they can utilize in periods of low income. The age effect we observe may originate from this source in a couple of different ways: young households may have already used up such resources in the preceding two years of poverty and therefore have little else to fall back on or it may instead be the case that middle-aged households first start using such resources—selling their homes, cashing in on savings or investments, etc.—or start using them to a larger extent only as low income persists over the course of several years. We also do not take into consideration any form of income equivalent for owner occupied housing, a factor which may be particularly important for older households. In other words, older households may not require as much income in order to maintain their standard of living, because they have already paid off many types of large investments, perhaps long before their current income woes set in. They may also not pursue alternative sources of small income increases in anticipation of receiving an old-age pension in the not so distant future. The age effect with no employment is, however, not particularly striking, as the figure illustrates: the probability of exit is, regardless of age, very small.

The age pattern with respect to the probability of exiting poverty upon finding employment is more pronounced. While reflecting the above-mentioned income factors, it also indicates differences in the quality of the employment obtained. A middle-aged person with many years of experience on the job market may be able to obtain employment with better pay despite being out of the job market for at least two years, while younger persons with less employment experience may have to settle for low-paying jobs after such a two-year stint with no employment and low income. Similarly, older persons who have been unemployed for a couple of years may have difficulty finding good jobs, because employers take into consideration that such employees will soon retire.

14

We also included variables to control for instances of two members acquiring employment and provide an example of such effects for relevant household types in Table 5. We focus only on couples, which are the most likely to have two working members. A second full-time job increases the probability of exit greatly, but a second part-time job cannot be said to have a statistically significant effect[9].

Table 5.   Probability of Exiting Poverty in 1997 with Two Jobs for Reference Households.[#] OECD Scale

Household type:	Household finds:		
	one full-time position	two full-time positions	one full-time and one part-time position
Couple	55,6	82,2	(64,5)
Couple, youngest child under 7	42,9	73,5	(52,1)
Couple, youngest child 7 or older	42,5	73,2	(51,7)

Probabilities based on employment related coefficients that are not statistically significant from zero are listed in parentheses.
[#] Head of household assumed to be Norwegian with high school education, age 40. All other variables set equal to zero and held constant unless noted.

Both Table 1 and Figure 1 suggest that single mothers have by far the lowest probability of exiting poverty both in the case when they continue without employment and when they acquire a job. That does seem to suggest that the simultaneous demands of childcare and earning income present a problem for these types of poor households. However, in this section we have held all transfers equal to zero in order to concentrate on the effect of employment alone, an assumption that needs to be investigated further before any conclusions about the relative differences in the household types can be drawn.

The 'Redistribution Effect' of Tranfers

We now turn to the investigation of transfers, not just as a topic in its own right, but also as a valuable comparison and a complementary analysis with respect to the effect of finding employment. In this context, one must keep in mind that our regression estimates are essentially based on different groups of households—in this case, those that receive transfers or experience an increase in transfers and those who do not. In particular, not all households are eligible for all types of transfers, so the effect of transfers observed for the one group may not even be a possibility for another. Further discussion of this type of selection or heterogeneity and possible limitations with respect to the interpretation of the results here will be addressed more extensively in the final discussion section.

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[9]With the square-root scale, the hypothesis of no effect from a second, part-time job can be rejected with a Wald test, but only at a 90% confidence level.

The average level of transfers may in fact also be an important distinguishing feature for some of the household types, one which is not captured sufficiently by our analysis in the previous section. In particular, all families with children in Norway receive a basic child benefit regardless of the household's level of income. As such, one might expect that the distribution of transfers to families with children differs greatly from that for households without children. Table 6 describes the distribution of transfers for the various types of households with the OECD scale and confirms this suspicion[10]. The assumption of zero transfers, as we made in the preceding subsection, is in reality a very unlikely event for poor households with children, but is much more likely for poor households without children. On average, poor households without children receive fewer transfers than their counterparts with children, and it is single mothers who, on average, have the highest level of transfers.

Table 6.   The Distribution of Transfers by Household Type. OECD Scale

	Number	Average	Standard Deviation	25th Quantile	Median	75th Quantile
Level of transfers in 1996						
Single	5 936	13 800	18 800	0	4 200	21 200
Single parent, pre-school child	798	32 400	15 700	19 900	30 400	45 600
Single parent, schoolage children	946	31 600	17 400	17 300	30 400	47 000
Couple	1 266	19 500	19 800	0	16 100	33 400
Couple, pre-school child	866	26 600	17 700	13 300	21 000	40 400
Couple, schoolage children	703	26 400	20 600	8 900	18 400	47 500

Therefore, in order to make our analysis more realistic for the purpose of analyzing effects and comparing household types, it is useful to make some adjustment for this fact. In Figure 2 we therefore introduce 'modified reference households' which make use of the appropriate average for each respective household type in calculating the probabilities for the reference households.

The first striking result of that change in our interpretative perspective is a sort of 'redistribution effect' with regards to the probability of exiting poverty for single mothers and couples with pre-school children: those probabilities move much closer to the probabilities for the other household types both when there is no change in employment status and when employment is acquired, especially for the age range of approximately 30-50. At least in that age group, therefore, it would seem that the current system of transfers does contribute to evening out some of the differences

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[10] The amount is in terms of equivalent income, i.e. NOK 1000 in equivalent income, not in actual monetary terms.

between the family types with respect to the chances of exiting poverty both with and without changes in employment.

Figure 2.   The Probability of Exiting Poverty by Employment Status in 1997.
                              Modified Reference Households*
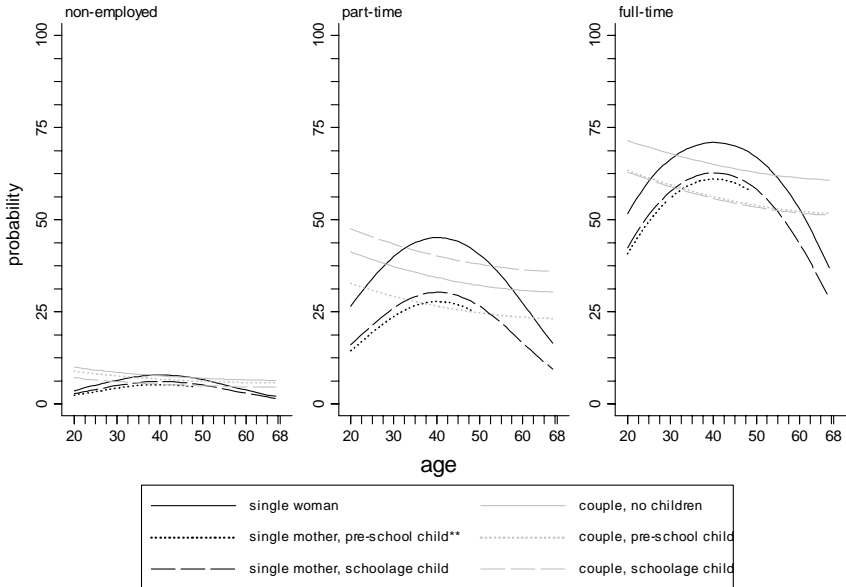
*   Head of the household assumed to be Norwegian with high school education. Level of transfers set equal for the average for the relevant house-hold type. Change in transfers set equal to zero.

**   Single mother households with pre-school children are only represented up to age 48, the highest age actually observed for this household type in the data.

Use of our 'modified reference households' in conjunction with the square-root scale presents, in some respects, a slightly different picture. With the square-root scale, our 'modified reference' single woman and single parent have very high levels of transfers (see Table A.10 in the Appendix) and, hence, a very high probability of exiting poverty. The particularly high average level of transfers for single mother households does have the effect of raising single mother households up to a probability level much more similar to that of single adult households without children both with and without employment and, in that respect, our 'modified reference households' with the square-root scale provide us with much of the same conclusion as with the OECD scale. However, couples have, on average, far fewer transfers and, therefore, with the square-root scale, are far less likely to exit poverty with or without employment (see Table A.11 in the Appendix). Hence, the square-root scale suggests that poor couples, especially those with children, are far less likely to exit poverty than their single adult counterparts, precisely because they are receiving less support from the state.

However, previous studies illustrate that very few people living as couples with children are, in fact, even classified as poor with the square-root scale (Galloway, 2002); in other words, this type of household is not even turning up in very large numbers in our population for study, i.e. households that have been *both* poor and without employment for at least two years[11]. We may not be observing high levels of transfers in that group on average because most couples with children are already receiving enough transfers or otherwise generating enough income to prevent their classification as poor (and, hence, inclusion in this study), but, nonetheless, some of those household truly are receiving fewer transfers than their single parent counterpart. This reasoning is also justified by the extent of the variation in transfers in for couples with the square-root scale (Table A.10).

In end effect, our 'modified reference households' are nothing more than a useful tool for illustrating the importance of the (starting) level of transfers in the probability of exiting poverty, especially in conjunction with comparisons between the household types. Given the large differences in the variation in the level of transfers not just between, but also *among* the groups, the averages for the different household types can be considered representative of each particular household type to varying degrees. In particular, it is harder to suggest a representative level of transfers for households without children, simply because those household types exhibit such large variation in transfers. One could even argue that the average for single mothers with the square-root scale understates the level of transfers for that group: the median for that group is actually much higher than the average. However, the basic lesson suggested by this subsection still holds and should be kept in mind: differences in the starting levels of transfers due in end effect to differences in transfer policies greatly affect the comparison of the probability of exiting poverty for different household types.

Sensitivity to Changes in Transfers
The effect of a change in the level of transfers is presented in Figure 3 for modified reference households both with and without employment. The greatest sensitivity to changes in transfers is manifested for single mothers with pre-school children. Single mothers with school age children are also more sensitive to changes in transfers than the other household types, although not as much so as single mothers with pre-school children. The other households do not differ significantly from each other. Single mother households with children therefore seem more dependent on transfers in the sense that fluctuations in that variable impact the most on that group: transfers increased by a relatively small amount are often enough to push a large percentage of such households over the poverty line.

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[11] See also Table A.12 in the Appendix.

Figure 3. Probability of Exiting Poverty in 1997. Based on a Change in Transfers[#]
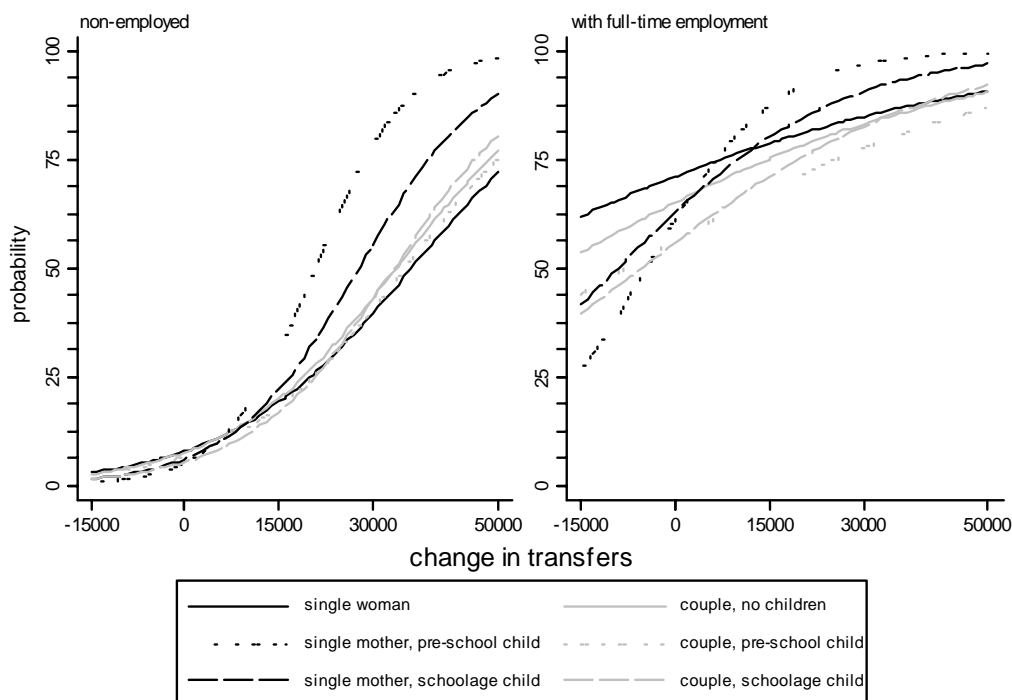
If we compare the effect of an increase in transfers with that of acquiring employment (with no change in transfers), then we can see, for example, that non-employed households with two parents and two children require an additional NOK 37,000[12] in order to have roughly the same probability of exiting poverty as the corresponding households with full-time employment and no change in transfers (0.55). Non-employed single mothers with pre-school children were able to raise their probability of escaping poverty up to approximately the same level as with full-time employment (0.61) if they received an increase of just NOK 24,000 in transfers[13]. In other words, single mothers with pre-school children and no employment required a much smaller increase in transfers than couples with children in order to raise their probability of exiting poverty up to the same level as with full-time employment.

As previously mentioned, part-time employment appears to be far less effective in raising households out of poverty than full-time employment. If we compare the effect of transfers with that of part-time employment, the potential for disincentives with respect to such employment for single mothers seem even larger.

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[12] These amounts are expressed in terms of equivalent income. In actual terms it would, for example, amount to an increase of roughly NOK 108,000 in tranfers for a household with two adults and two children.

[13] This corresponds to an actual increase of approximately NOK 48,000 for a single mother with two children.

A number of factors may account for why such disincentives may be particularly strong for single mothers. In general, relatively high marginal tax rates on even low income from wages may reduce the incentive to take on employment or limit the extent to which such work can truly lead to a substantial increase in the actual level of income, but such an effect is not immediately apparent for households other than single mothers here. There are two basic factors that make single mothers stand out. Firstly, one particular type of transfer, referred to as 'transitional benefit', targets single parents with young children only, and it is far from inconsequential[14], but, more importantly, the rules governing this type of support entail a marginal tax rate of essentially 40 % already starting at a relatively low income level.[15] Secondly, although another type of 'transitional benefit' can be used to cover up to 64 % of daycare costs, childcare considerations of households with pre-school children can nonetheless be viewed as an extra cost to employment, one that is not easily offset by income from such work alone[16].

As a result, pursuing an increase in transfers rather than 'costly' employment may actually represent the more effective means of raising the chances of exiting poverty for single mothers with children, something the households themselves may recognize. In other words, it might be a de facto practice among the single mother households we are observing; most poor single mothers with pre-school children surely recognize that part-time employment would not be worth their while and, hence, do not have such employment. Those observations we do have for employment among single mothers most likely represent cases for which the mother can reconcile with the childcare considerations and costs or otherwise fail to take into account all the above-mentioned marginal costs associated with employment. All in all, regardless of whether we are observing an effect directly or by means of such underlying forces, our results do lend support to the idea that certain disincentives may be in place.

As Figure 3 also illustrates, the model allows us to investigate the effect of simultaneous changes in employment and transfers. When households manage to acquire employment, then the increased income could result in the loss of certain types of means-tested transfers, an effect that could, theoretically, offset the positive effect of employment. Figure 3 indicates that such a decrease in transfers has but a small effect on the probability of exiting poverty for most of the household types when employment is acquired. However, consistent with our above discussion, when single mothers with full-time employment experience a drop in their levels of transfers, then their probability of exit

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[14] According to Dahl (2003), full transitional support amounted to NOK 69 360 in 1997. It could be received until the child reached the age of about 10.

[15] More specifically, transitional support is reduced by 40 % for income above NOK 42 500 and no transitional support is given for single parents with income over NOK 194 650 (Dahl (2003)). Regular child benefit, which all households with children receive regardless of income, is not affected by these regulations.

[16] See also Kjeldstad and Rønsen (2002) for a more detailed general analysis of single parents in Norway in general.

also declines greatly; by the same token, a small increase in transfers greatly increases their exit probability. This reinforces the above-mentioned suggestion that certain disincentives with respect to work may exist for single mothers with pre-school children, especially if full-time employment results in the loss of certain types of transfers to these households.

5. Discussion

The results presented here lend support to the statement that acquiring full-time employment has a very large effect on the probability of exiting poverty for poor households in Norway, although it cannot be said to guarantee a exit from poverty. Part-time employment does raise the chances of exiting poverty, but not by very much.

The existing system of transfers evens out many of the differences in the probability of exiting poverty for different types of households: in particular, the high level of transfers received by single mother households helps to raise their chances of exiting poverty almost up to the level of other households, with or without a change in employment status. There is, unsurprisingly, a positive relationship between changes in transfers and the probability of exiting poverty, and single mother households are most sensitive to such changes, both when they acquire full-time employment and when they remain non-employed. These results are compatible with the suggestion that the tax and transfer system may entail some disincentives away from work and towards increased transfers for poor single mother households with small children. A similar effect cannot be established for the other types of households: they appear much more robust to such changes in transfers. Due to the nature and shortcomings of a model such as ours, however, definitive conclusions about such behavioral issues obviously cannot be made. At best, the results can be interpreted as compatible with the possibility of such incentive features; whether those incentives are actually in place and the mechanisms by which they work would require a different approach and further analysis.

One of the topics pervasive in many of the results described above is that of unobserved heterogeneity or non-random selection. In fact, we introduced the need for a regression model such as ours by referring to the possibility of various sources of heterogeneity which may account for many of the differences exhibited from the perspective of typical head count percentages and broad statistics. Our model first isolates the very special cases of households that were classified both as poor and without any form of employment for the previous two years and then proceeds to include a large variety of variables that do go a very long way towards eliminating many potential sources of heterogeneity. However, as much as

our approach is an improvement over a simple survey of head count percentages, considerations with respect to the issues of heterogeneity and selectivity do still recommend caution in interpretation.

Our estimates are essentially based on different groups of households—those that find employment or experience some other type of change and those who do not. It is not possible to assume that the effect of employment applies without restriction to those households in which no employment was obtained. The households remaining without work may not have had any real job opportunities while the households that found employment obviously did. This could be a form of self-selection if the households that found employment were the only ones that could and did actively pursue it, or it might be due to a non-random selection based on the characteristics of the individuals in question and alternatives available to different groups in the job market. An analogous argument applies to the possibility of obtaining transfers from the government. Regardless of the form it actually takes, the possibility of such selectivity in our data can make it difficult to conclude definitively that acquiring employment or increasing transfers would have the same effect on all the households in our population. However, as we mentioned in the introduction, Norway represents one of the most successful European countries with respect to combining a generous social welfare system with low unemployment and well-functioning labor markets. In addition, the period we investigate is one in which the Norwegian economy was experiencing an economic upturn with decreasing unemployment and rising wages; in other words, a time in which opportunities on the labor market were very good. Rationing of jobs was hardly a characteristic of the period we investigate.

By the same token, the general situation in the economy, which helps us to disregard certain shortcomings more prominent in countries with larger labor market difficulties, does, however, somewhat limit the scope of applicability for our results. The effect we observe may not apply to other economic circumstances, such as rising unemployment or low economic growth. The households we investigate—the 'tough cases' that have experienced a lack of employment and were poor for at least two years—might just be the very last to experience the benefits of an economic upturn and the first to feel the effects of an economic downturn. In other words, the effect we register may not be representative over time and economic cycles if it is largely the result of the upturn exhibited in the Norwegian economy from the mid- to late-1990s. In the future, the possibility of using longer time series to further investigate our questions will help us to uncover not only the extent to which general economic conditions might affect our results, but will also provide the opportunity to establish whether or not the results we find here hold over time for the actual households in question, in other words, whether the effect we observe provides these households with more than just temporary relief from poverty.

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Table A.1. Poverty Line Based on Two Equivalence Scales

	Square-Root Scale			OECD Scale		
	1995	**1996**	**1997**	**1995**	**1996**	**1997**
Median	155 500	161 100	165 000	118 600	123 000	126 200
50% of median	77 750	80 550	82 500	59 300	61 500	63 100
60% of median	93 300	96 660	99 000	71 160	73 800	75 720
70% of median	108 850	112 770	115 500	83 020	86 100	88 340

In 1996 Norwegian kroner.

Table A.2. Poverty in the General Population. Percentage of individuals classified as poor

	Square-Root Scale			OECD Scale		
Poverty Line at	**1995**	**1996**	**1997**	**1995**	**1996**	**1997**
50% of median	7,3	6,8	6,5	3,9	3,5	3,4
60% of median	13,5	13,0	12,8	9,5	9,1	8,9
70% ofmedian	21,2	20,6	20,5	17,8	17,5	17,3

Table A.3. Poverty Status Relative to Employment Status in Household in 1997. Number of households

	Square-Root Scale			OECD Scale		
Employment status in 1997:	**Poor**	**Not poor**	**Total**	**Poor**	**Not poor**	**Total**
No working member in household	12 463	2 760	15 223	5 837	1 418	7 255
Household member finds :						
Full-time work	695	1080	1 775	503	899	1 402
Part-time work	636	545	1 181	481	317	798
Labor income, no job info available	871	622	1 493	626	434	1 060
Total	14 665	5 007	19 672	7 447	3 068	10 515

Table A.4. Regressions Results for the Probability of Exiting Poverty in 1997. OECD Scale

	Single adult		Couple	
	Estimate	Standard Error	Estimate	Standard Error
Intercept	-5.9089	0.3579	-2.1611	0.6457
Characteristics of the household head:				
Female	-0.3489	0.0883		
Age	0.1615	0.0176	-0.0252	0.0296
Age squared	-0.00200	0.000213	0.000172	0.000332
Middle school or lower	0.1339	0.0950	-0.0692	0.1593
Some education beyond high school	0.0624	0.1911	-0.1093	0.2958
Higher education-first degree	0.4670	0.2038	-0.5559	0.3779
Higher education-second degree	0.1958	0.2753	0.2352	0.3553
In education	-0.9195	0.1180	-0.8478	0.2160
Nordic	-0.3872	0.1928	-0.4297	0.2715
Western	0.2516	0.1997	0.1783	0.1754
Asian	-0.1751	0.1323	-0.4393	0.1335
African	0.1945	0.1785	-0.0227	0.2329
South or Central American	-0.7789	0.3330	0.0852	0.4483
Type of household:				
Single mother, pre-school child	-1.1570	0.2378	-0.2733	0.2408
Single mother, school age child	-0.9661	0.1945	-0.5131	0.2589
Change in household:				
Divorce/separation/loss of partner	-0.00131	0.1400	0.4952	0.1710
Have children	-0.4730	0.4461	1.1471	0.4674
Children leave household	0.1744	0.2856	0.9930	0.3690
Employment (first job in household):				
Full-time	3.3592	0.1194	3.1198	0.2509
Part-time	2.2711	0.1538	1.8489	0.3111
Labor income, job income not available	2.3286	0.1154	2.3150	0.2657
Second job in household;				
Full-time	1.0190	0.8686	1.3066	0.3607
Part-time	0.4545	0.4904	0.3720	0.2343
Interaction between household type and employment:				
Single mother, pre-school child				
Full-time	-0.0120	0.4035	-0.2401	0.3305
Part-time	-0.3304	0.4182	-0.2384	0.3999
Labor income, job income not available	0.2699	0.5054	0.0270	0.3784
Single mother, school age children				
Full-time	-0.1010	0.2958	-0.0161	0.3664
Part-time	-0.3666	0.2973	0.6260	0.4235
Labor income, job income not available	-0.0532	0.3146	0.2957	0.4201
Level of transfers in 1996 (in NOK 100)	0.00390	0.000189	0.00203	0.000230
Change in transfers from 1996 to 1997 (in NOK 100)	0.00681	0.000251	0.00739	0.000485
Interaction between change in transfers and employment:				
Full-time	-0.00406	0.000562	-0.00418	0.000787
Part-time	-0.00326	0.000624	-0.00458	0.000930
Labor income, job income not available	-0.00224	0.000578	-0.00276	0.00103
Interaction between household type and change in transfers:				
Single mother, pre-school child	0.00708	0.000864	0.000063	0.000722
Single mother, school age child	0.00303	0.000687	0.00119	0.000948

The following categories are the references for dummy variables: ethnic origin—Norwegain; education-high school; household type—no children; household change—no change; employment—no employment; second job—none.

Table A.5. Regressions Results for the Probability of Exiting Poverty in 1997. Square Root Scale

	Single adult		Couple	
	Estimate	Standard Error	Estimate	Standard Error
Intercept	-4.5046	0.2477	-2.6385	0.6175
Characteristics of the household head:				
Female	-0.1140	0.0581		
Age	0.1211	0.0118	-0.00351	0.0273
Age squared	-0.00138	0.000138	-0.00002	0.000301
Middle school or lower	0.3207	0.0650	0.1289	0.1559
Some education beyond high school	-0.1640	0.1371	0.0700	0.2883
Higher education-first degree	-0.0646	0.1589	-0.5534	0.3886
Higher education-second degree	-0.0548	0.2317	0.1149	0.3794
In education	-0.9025	0.0853	-0.9248	0.2196
Nordic	-0.6297	0.1373	-0.5493	0.2587
Western	0.5353	0.1416	0.3302	0.1848
Asian	-0.1239	0.0982	-0.3440	0.1399
African	0.2763	0.1306	-0.0999	0.2495
South or Central American	-0.8218	0.2489	-0.0974	0.4608
Type of household:				
Single mother, pre-school child	-0.8456	0.1078	-1.0109	0.2511
Single mother, school age child	-1.7001	0.0998	-1.6163	0.2984
Change in household:				
Divorce/separation/loss of partner	-0.8007	0.1227	0.6780	0.1465
Have children	0.1683	0.3277	1.0732	0.4681
Children leave household	-0.8397	0.2405	0.5620	0.4523
Employment (first job in household):				
Full-time	2.4591	0.0951	3.0537	0.2357
Part-time	1.1936	0.1257	1.8220	0.2816
Labor income, job income not available	1.4244	0.0926	2.0205	0.2379
Second job in household;				
Full-time	1.9947	1.2161	1.1297	0.4051
Part-time	-0.7270	0.5541	0.5257	0.3131
Interaction between household type and employment:				
Single mother, pre-school child				
Full-time	-0.4393	0.3138	0.2700	0.3548
Part-time	-0.0601	0.2813	0.7055	0.4226
Labor income, job income not available	0.2671	0.3373	0.1036	0.3990
Single mother, school age children				
Full-time	-0.1768	0.2254	0.2927	0.4345
Part-time	0.0845	0.2085	0.8736	0.5052
Labor income, job income not available	0.0926	0.2277	0.8799	0.4732
Level of transfers in 1996 (in NOK 100)	0.00633	0.000112	0.00345	0.000233
Change in transfers from 1996 to 1997 (in NOK 100)	0.00555	0.000172	0.00563	0.000346
Interaction between change in transfers and employment:				
Full-time	-0.00106	0.000452	-0.00255	0.000657
Part-time	-0.00160	0.000476	-0.00326	0.000695
Labor income, job income not available	0.000698	0.000447	-0.00177	0.000746
Interaction between household type and change in transfers:				
Single mother, pre-school child	0.00257	0.000462	-0.00006	0.000554
Single mother, school age child	0.00131	0.000426	0.000768	0.000812

The following categories are the references for dummy variables: ethnic origin—Norwegain; education-high school; household type—no children; household change—no change; employment—no employment; second job—none.

Table A.6. Probability of Exiting Poverty in 1997: Comparision of Model Predictions* and Observed Percentages for Selected Ethnic Groups. OECD Scale.

Charactertistics	Observations	Observed Percentage	Model Prediction
Norway:			
No working member in household	4970	22,9	22,7
Household member finds:			
Full-time work	952	65,3	65,8
Part-time work	524	41,4	40,6
Labor income, job info not available	764	40,5	42,1
Africa:			
No working member in household	324	15,7	15,6
Household member finds:			
Full-time work	52	71,2	67,6
Part-time work	52	40,4	42,3
Labor income, job info not available	50	42,0	44,3
Eastern Europe:			
No working member in household	381	18,6	18,3
Household member finds :			
Full-time work	138	63,0	64,2
Part-time work	50	50,0	48,6
Labor income, job info not available	49	46,9	48,1
Asia:			
No working member in household	1018	11,8	12,4
Household member finds:			
Full-time work	193	62,7	59,6
Part-time work	132	28,8	34,9
Labor income, job info not available	143	39,9	33,9

* The probability of escaping poverty in 1997 is calculated for each individual based on the estimated model coefficients and the average is taken over the group with the relevant characteristics.
**The number of observations in this group was too small for meaningful comparison.

Table A.7. **Probability of Exiting Poverty in 1997: Comparision of Model Predictions* and Observed Percentages According to Level of Education. Square-Root Scale**

Charactertistics	Observations	Observed Percentage	Model Prediction
Middle school or lower:			
No working member in household	11163	18,3	61,6
Household member finds:			
Full-time work	866	65,0	77,7
Part-time work	581	56,3	71,5
Labor income, job info not available	770	48,6	62,8
High school:			
No working member in household	1866	16,9	49,6
Household member finds:			
Full-time work	413	65,4	74,9
Part-time work	268	46,6	61,6
Labor income, job info not available	292	45,6	55,8
Higher education – first degree			
No working member in household	270	9,6	32,3
Household member finds :			
Full-time work	84	64,3	68,7
Part-time work	24	45,8	54,3
Labor income, job info not available	29	37,9	44,8

* The probability of escaping poverty in 1997 is calculated for each individual based on the estimated model coefficients and the average is taken over the group with the relevant characteristics.
-- indicates that the number of observations in this group was too small for meaningful comparison.

Table A.8. Probability of Exiting Poverty in 1997: Comparision of Model Predictions* and Actual Percentages for Selected Immigrants. Square-Root Scale

Charactertistics	Observations	Observed Percentage	Model Prediction
Norway:			
No working member in household	12602	19,3	62,7
Household member finds :			
Full-time work	1324	59,7	75,2
Part-time work	935	46,8	64,9
Labor income, job info not available	1173	43,0	58,9
Africa:			
No working member in household	386	12,4	25,9
Household member finds:			
Full-time work	70	64,3	69,6
Part-time work	47	53,2	51,6
Labor income, job info not available	62	33,9	47,0
Eastern Europe:			
No working member in household	454	17,2	31,0
Household member finds :			
Full-time work	124	73,4	70,7
Part-time work	50	54,0	54,3
Labor income, job info not available	52	46,2	54,5
Asia:			
No working member in household	1061	13,0	23,4
Household member finds:			
Full-time work	183	66,1	66,3
Part-time work	102	39,2	44,9
Labor income, job info not available	148	36,5	37,0

* The probability of escaping poverty in 1997 is calculated for each individual based on the estimated model coefficients and the average is taken over the group with the relevant characteristics.

Table A.9. **Probability of Exiting Poverty in 1997 According to Employment Status for Reference Households.[#] Square-Root Scale**

Household type:		Member of household acquires employment:	
	No employment	Full-time	Part-time
Single female	12,0	61,5	31,1
Single mother, youngest child under 7	5,5	30,7	15,4
Single mother, youngest child 7 or older	2,4	19,7	8,2
Couple	5,7	56,1	27,2
Couple, youngest child under 7	2,1	37,8	21,5
Couple, youngest child 7 or older	1,2	25,4	15,1

[#] Head of household assumed to be Norwegian with high school education, age 40. All other variables set equal to zero and held constant unless noted.

Table A.10. The Distribution of Transfers by Household Type. Square-Root Scale

	Number	Average	Standard Deviation	25th Percentile	Median	75th Percentile
Level of transfers in 1996						
Single	12 682	36 600	32 300	0	32 700	65 300
Single parent, pre-school child	2 125	59 400	22 300	42 500	71 800	76 500
Single parent, school age children	2 048	54 300	23 800	34 200	63 500	74 100
Couple	1 733	30 100	29 600	0	21 900	59 400
Couple, pre-school child	628	31 900	23 200	14 800	25 700	46 700
Couple, school age children	456	30 500	27 400	7 300	18 100	57 800

Table A.11. Probability of Exiting Poverty in 1997 According to Employment Status for Modified Reference Households.[#] Square-Root Scale

Household type:		Member of household acquires employment:	
	No employment	Full-time	Part-time
Single female	58,1	94,2	82,1
Single mother, youngest child under 7	71,6	95,0	88,7
Single mother, youngest child 7 or older	43,7	88,4	73,6
Couple	14,6	78,3	51,3
Couple, youngest child under 7	6,2	64,7	45,3
Couple, youngest child 7 or older	3,3	49,4	33,7

[#] Head of household assumed to be Norwegian with high school education, age 40. All other variables set equal to zero and held constant unless noted.

Table A.12. Distribution of Population for Analysis by Household Type

Household type	OECD Scale		Square-Root Scale	
	Number	Percentage of total	Number	Percentage of total
Single	5 936	56.5	12 682	64.5
Single parent with pre-school child	798	7.6	2 125	10.8
Single parent with school age child	946	9.0	2 048	10.4
Couple	1 266	12.0	1 733	8.8
Couple with pre-school child	866	8.2	628	3.2
Couple with school age child	703	6.7	456	2.3
Total	10 515	100.0	19 672	100.0

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