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# *TIME USE AND HOUSEHOLD PRODUCTION IN POOR GERMAN FAMILIES*

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# TIME USE AND HOUSEHOLD PRODUCTION IN POOR GERMAN FAMILIES

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## ABSTRACT

New developments in poverty research call for turning away from a one-dimensional view of poverty - no longer conceiving it simply as income poverty but instead broadening it by looking at more than one dimension of living. A theory developing in this way has to be empirically remodeled. The time budget survey of the German National Office of Statistics, recently made available for scientific use, was suitable for the purpose. Using the data, it could be shown that income poverty is associated with further important indicators of well-being and welfare, like for examples children's health and school performance, adults' time use abilities and involvement in social networks. However, not all low income households are affected to the same degree by this kind of multiple poverty. Even in insecure circumstances, households can be better off or worse off. The variance detected in this investigation could be explained partly by differences in human capital endowments and in time use. Some key results are:
1. Besides parents' formal education, their time use has also an impact on children's success in school. Fathers' over average time spent in watching TV has an negative impact. For single parents, a trade-off was found between children's school performance and the adult's labour force participation.
2. There are problems with using abundant time. TV-utilization and the statement that a person has too much leisure are associated.
3. There are problems with matrimonial division of labour. The more time the wife spends in working a paid job the more the husband complains that he does too much household work.
4. The ability of poor families to take part in social networks depends on their skills and time resources.

The concluding section discusses implications for social policy and the teaching of home economics.

JEL classification: D1, D2, D6, I1, I2, I3
Keywords: poverty, household production, life styles, time use

# 1. Introduction

Traditionally economists define poverty in terms of income. All households with an income below a particular threshold are considered to be poor. This threshold depends of course on household composition, or, in other words, has to be adjusted by so called equivalence numbers. Nevertheless, the basic idea is that poverty is seen as poverty in terms of income.

More recent developments have expanded this view of poverty. Here Gary Becker‘s (1965) concept of household production should first be mentioned. According to Becker the utility of a household is the output of the production of the household. Inputs are time, money and human capital. So money income, which describes the amount of market goods used in household production, can only be one indicator for the real welfare of the household. The household's resources of time and human capital have to be considered as well as money income. Hence assessing the welfare of a household requires examining simultaneously its money income, time use and capabilities. The same holds, mutatis mutandis, for poverty. It follows that research is needed into the questions of whether poor households are able to compensate, at least to a certain degree, for the lack of money by arranging household production in particular ways, or, if their situation is even worse than indicated by income, because the reason for the lack of money income is the same as that for the poor standard of the household's management - insufficient human capital.

A second development involves approaches that see income only as one dimension of the situation of the household or its standard of living.[1] Other dimensions for assessing this

[1] See for example Atkinson (2002) or Piorkowsky(2003b).

situation would be, e.g., the household's living conditions, its integration into social networks, the health of the household members, their access to education, information and political participation. A further point that should be mentioned in this context is the quality of time use. Especially the non working poor often have a lot of time. Are they able to use this time in productive, meaningful activities? Are they able to enjoy leisure time? Or is abundant time a burden, whose use involves boredom, discouragement, or even despair? [2]

The three views on poverty, listed so far, are interconnected. Money income surely continues to be a key variable in explaining poverty. Time, however, also plays an important part.

With respect to time use, researchers currently have the opportunity of carrying out studies using the recently published data of the time use survey 2001/2002 of the Statistisches Bundesamt Deutschland[3].

The sample size is about 5500 households with about 14500 members. Data were collected by the following methods:

- household questionnaires
- personal questionnaires (to be filled in by all household members older than 10 years)
- time diaries (to be filled in by all household members older than 10 years).

The usual socio-economic and socio-demographic data were collected for households and their members. In particular, data are available for household composition, income, living conditions, profession and education, health and satisfaction. Based on the time diaries, a file

[2] See to this Steedman (2001) and Rinderspacher (2002).

[3] Germany's National Office of Statistics.

was constructed that indicates how much time was used for which activity each day. The list[4] of activities covers about 270 items. The activities are classified hierarchically by subject. For example, we have activity 312 "baking" which comes under activity group 31 "preparing meals", which in turn is subsumed under activity field 3 "housekeeping".

The empirical investigation presented below is based on a 95% scientific-use-file which was handed out to a group of social scientists in 2003. The sample size is 5171 households with a total of 13 859 persons. As some of the data are missing and as this investigation only looks at families with children, the sample sizes actually used are smaller and vary depending on the variables used.

The aim of this investigation is to discover connections between income poverty, household production and life situations by using the recently available German time use data, described above. The plan of the study will be expanded in the next section.

## 2. The Design of the Investigation

The present study is restricted to families with children[5]. These can be divided into those with two parents and those with single mothers (or fathers). The point of departure is the framework of household production. Therefore, the variables of the time use survey were examined to find those that could be interpreted as outputs of household production. The German time use survey gives a precise image of household production inputs, but

[4] The detailled list is given in Appendix A1.

[5] Household members younger than 19 years.

unfortunately not of outputs. Nevertheless, a handful of output indicators could be captured. They are listed in Tables 1 and 2.

Some remarks about these variables! According to Becker the "quality of children" is an important output of household production. Under this "quality" he includes, among other criteria, children's education and health. Knowing the specifics of the German educational system, we can find proxies for children's performance at school. Children attend primary school aged from 7-10. On the basis of their marks in primary school, they are "recommended" to three different types of secondary school and attend these between the ages of 11-16:

"Hauptschule", extended primary education

"Realschule", secondary education, focusing on preparing for vocational training

"Gymnasium", secondary education, focusing on preparing for university.

Omitting details, it can be said that these schools form a hierarchy.

After the age of 16, young people continue their education either by taking vocational training or at the "Gymnasium", which prepares them for university.

Time use survey data has variables that show what kind of school children attend. So it was possible to construct the indices SEKmCHILDn, which give some hints for children's success at school. Time use survey data also includes a variable that describes the state of health of a person. Although what is collected is only the self-estimated state of health, it might nevertheless be used as a proxy for children's real health.

The next variables in Tables 1 and 2 are QUANTHOUSE... and QUANTLEISURE.... They are based on the respondents' answers to the questions of whether they think that they are doing too little housework, just enough housework or too much housework and whether

they have too little leisure, just enough leisure or too much leisure. They do not directly measure the output of household production but they do tell us something on the productivity of time use.

**Tab. 1 Output indicators for couples**

| Variable | Content | Measures |
|---|---|---|
| SEK1CHILD1 | Kind of school child1 attends from ages 12 to 15 | 2=Gymnasium<br>1= Haupt/Realschule<br>0=else |
| SEK1CHILD2 | Kind of school child2 attends from ages 12 to 15 | |
| SEK1CHILD3 | Kind of school child3 attends from ages 12 to 15 | |
| SEK2CHILD1 | Kind of school child1 attends from ages 17 to 18 | 2=Gymn., 1=vocational training, 0=else. |
| SEK2CHILD2 | Kind of school child2 attends from ages 17 to 18 | |
| HEALTHCHILD1 | Health state of child1 | Range from 0 (very bad) to 4 (very good) |
| HEALTHCHILD2 | Health state of child2 | |
| HEALTHCHILD3 | Health state of child3 | |
| QUANTHOUSEFATHER | Self assessment of the amount of time used for housekeeping by father/mother | 1=too little 2=right<br>3= too much |
| QUANTHOUSEMOTHER | | |
| QUANTLEISUREFATHER | Self assessment of the amount of personal leisure by father/mother | 1=too little 2=right<br>3= too much |
| QUANTLEISUREMOTHER | | |
| SATLEISUREFATHER | Satisfaction with personal leisure | Range from 1 (very content) to 7 (very discontent) |
| SATLEISUREMOTHER | | |
| LINCFATHER | Father's labour income | Income classes from 0-13 |
| LINCMOTHER | Mother's labour income | |
| EXPHELP | Help given to others by household members | Comparative index based on questions P071 – P0714 |

**Tab. 2 Output indicators for single parents**

| Variable | Content | Measures |
|---|---|---|
| SEK1CHILD1 | Kind of school child1 attends from ages 12 to 15 | 2=Gymnasium<br>1= Haupt/Realschule<br>0=else |
| SEK1CHILD2 | Kind of school child2 attends from ages 12 to 15 | |
| SEK1CHILD3 | Kind of school child3 attends from ages 12 to 15 | |
| SEK2CHILD1 | Kind of school child1 attends from ages 17 to 18 | 2=Gymn., 1=vocational training, 0=else |
| SEK2CHILD2 | Kind of school child2 attends from ages 17 to 18 | |
| HEALTHCHILD1 | Health state of child1 | Comparative from 0 (very bad) to 4 (very good) |
| HEALTHCHILD2 | Health state of child2 | |
| HEALTHCHILD3 | Health state of child3 | |
| QUANTHOUSEADULT | Self assessment of the amount of time used for housekeeping by adult | 1=too little 2=right<br>3= too much |
| QUANTLEISUREADULT | Self assessment of the amount of personal leisure by adult | 1=too little 2=right<br>3= too much |
| SATLEISUREADULT | Satisfaction with personal leisure | Range from 1 (very content) to 7 (very discontent) |
| LINCADULT | Adult's labour income | Income classes from 0-13 |
| EXPHELP | Help given to others by household members | Comparative index based on questions P071 – P0714 |

The function of the variables SATLEISURE... is similar. Its measures indicate personal satisfaction about leisure. The possibility of enjoying leisure might depend on human capital and is therefore a further indicator for productivity in household production. Additionally, SATLEISURE...,together with QUANTLEISURE..., allows us to look at the problem of whether abundant time leads to boredom.

The variables LINC... document labour income earned[6] by adult household members. Labour income gives hints for the productivity of the household, as finding and keeping a job presuppose a certain capacity to replicate the work force in the household.

Finally the variable EXPHELP was constructed as an indicator that summarizes various kinds of help given by household members to other households. Clearly it reflects the ability of the household to produce services useful to others.

Descriptive statistics of the output indicators listed above are given in Tables 3 and 4, columns 2-4.

Now, among these indicators we look for those which are correlated with income poverty. The question is, which indicators show poor results when income is low. For this a binary variable POOR is defined as follows. 60 % of national median income is fixed as the

[6] Respondents could either indicate exact net labour income or indicate only the income class their net income comes under. Many made use of the second possibility. So as not to lose data we unify all observations to income classes. There are 13 classes in equidistant intervals from class 0 (€ 0-250 p.m.) to class 12 (€ 4750 – 5000 p.m). Class 13 is € 5000 p.m. and more. Given this, we treat LINC... as a comparative variable. As classes 0-12 are equidistant with relatively small steps, there is little loss of information for the observations for which exact income is available.

poverty threshold. For Germany in 2001, this number is € 9455 per year for a single adult. For households with more than one person, the following equivalence numbers are used:

1 for an additional adult

0.5 for a child.

This approach is similar to both the former OECD-scale and the German social assistance scale. If the net income of a household is below the poverty thresholds defined above, then POOR=1, otherwise POOR=0.

Column 5 in Tables 3 and 4 shows correlations between the output indicators and income poverty (defined by POOR). Column 6 gives the corresponding levels of significance.

**Tab. 3 Descriptive statistics, correlations und levels of significance of the indicators for two parents**

| Variable | Obs. | Mean | Std. | Correlation with POOR (Spearman) | Significance |
|---|---|---|---|---|---|
| SEK1CHILD1 | 394 | 1.46 | 0.61 | -0.15 | 0.0016 |
| SEK1CHILD2 | 291 | 1.47 | 0.57 | -0.23 | 0.0001 |
| SEK1CHILD3 | 58 | 1.36 | 0.64 | -0.39 | 0.0004 |
| SEK2CHILD1 | 157 | 1.43 | 0.83 | -0.25 | 0.003 |
| SEK2CHILD2 | 291 | 1.03 | 1 | -0.21 | 0.0001 |
| HEALTHCHILD1 | 956 | 3.26 | 0.63 | -0.05 | 0.08 |
| HEALTHCHILD2 | 570 | 3.30 | 0.62 | -0.03 | 0.23 |
| HEALTHCHILD3 | 117 | 3.29 | 0.62 | -0.12 | 0.11 |
| QUANTHOUSEFATHER | 1314 | 1.69 | 0.59 | 0.06 | 0.0225 |
| QUANTHOUSEMOTHER | 1401 | 2.11 | 0.70 | 0.02 | 0.17 |
| QUANTLEISUREFATHER | 1416 | 1.38 | 0.54 | 0.1 | 0.0003 |
| QUANTLEISUREMOTHER | 1405 | 1.33 | 0.50 | 0.04 | 0.0723 |
| SATLEISUREFATHER | 1413 | 4.33 | 1.65 | -0.03 | 0.16 |
| SATLEISUREMOTHER | 1399 | 4.47 | 1.65 | -.04 | 0.09 |
| LINCFATHER | 1426 | 7.89 | 3.52 | -0.42 | 0.0001 |
| LINCMOTHER | 1422 | 2.28 | 2.84 | -0.31 | 0.0001 |
| EXPHELP | 1422 | 4.14 | 4.00 | -0.04 | 0.06 |

**Tab. 4 Descriptive statistics, correlations und levels of significance of the indicators for single parents**

| Variable | Obs. | Mean | Std. | Correlation with POOR (Spearman) | Significance |
|---|---|---|---|---|---|
| SEK1CHILD1 | 175 | 1.44 | 0.59 | -0.18 | 0.0066 |
| SEK1CHILD2 | 62 | 1.26 | 0.68 | -0.41 | 0.0001 |
| SEK1CHILD3 | 13 | 1.08 | 0.86 | -0.83 | 0.0001 |
| SEK2CHILD1 | 54 | 1.15 | 0.88 | -0.24 | 0.043 |
| SEK2CHILD2 | 20 | 1.10 | 0.97 | -0.05 | 0.42 |
| HEALTHCHILD1 | 354 | 3.21 | 0.65 | 0.07 | 0.07 |
| HEALTHCHILD2 | 136 | 3.21 | 0.67 | -0.07 | 0.20 |
| HEALTHCHILD3 | 25 | 3.32 | 0.75 | -0.18 | 0.19 |
| QUANTHOUSEADULT | 459 | 1.94 | 0.69 | 0.10 | 0.0186 |
| QUANTLEISUREADULT | 460 | 1.36 | 0.50 | 0.11 | 0.0127 |
| SATLEISUREADULT | 459 | 4.38 | 1.75 | -0.06 | 0.12 |
| LINCADULT | 465 | 4.02 | 3.48 | -0.62 | 0.0001 |
| EXPHELP | 465 | 0.34 | 0.57 | -0.05 | 0.16 |

First, it can be seen that all variables SEKmCHILDn that are proxies for children's success at school, are negatively correlated with POOR. With one exception, significance is convincing. This means that children from poor families profit less from public education than children from wealthier households or, in other words, they do worse at school and vocational training than those that are not poor.[7]

In the following, the variables SEKmCHILDn are combined in a single comparative index EDUCHILDREN, which measures the average educational success of all children in a household, in order to avoid loss of observations because of missing items. The exact definition of EDUCHILDREN is given in Appendix A2.

For children's health state the results are less uniform. In two parent families children's health is negatively correlated with POOR, however, only health of child 1 is significant. For single parent families, health of the first child is positively correlated with poverty, health

[7] On this point, the German time use survey just replicates well-known results, e.g. Haveman and Wolfe (1995),

states of the second and third child are negatively correlated. So it can at least be said that for two parent families income poverty is negatively correlated with health. This means that poor children have an higher risk of having poorer health.[8] For the same reasons as with the educational dummies, in the following we will use an index HEALTHCHILDREN. Its exact definition is given in Appendix A2.

Now let us turn to the variables that describe assessments of time use ability. QUANTHOUSEMOTHER does not have good significance, but QUANTHOUSEFATHER[9] and QUANTHOUSEADULT do. These are positively correlated with POOR. This means that adults in poor families tend to say that they spend too much time on housework. The same result can be found for the assessment of the amount of leisure. QUANTLEISURE/FATHER/MOTHER/ADULT are positively and significantly correlated to POOR. So poor people tend to respond that they have too much leisure.

SATLEISUREFATHER/MOTHER/ADULT are negatively correlated to POOR. Given the value measures of SATLEISURE (1=very content, 7=very discontent), this means that income poverty is connected with dissatisfaction about one's leisure. So, to summarize, poor people think that they have too much leisure and are dissatisfied about this. As the significances of the QUANTLEISURE variables are better than that of the SATLEISURE variables, in the following we will use the QUANTLEISURE variables as indicators for problems with the enjoyment of leisure. For the same reasons, and with the same intention, QUANTHOUSEFATHER and QUANTHOUSEADULT will be used.

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Ermisch and Francesconi (2001), Schimpl-Neimanns (2000), Deutsches PISA-Konsortium (2001).

[8] For the connection of income and poverty in Germany see Statistisches Bundesamt (1998) and e.g. Waller (2003).

Concerning labour income, Tables 3 and 4 show that there is a strict negative correlation between income earned and income poverty. This result cannot be surprising, nevertheless labour income will be included in the list of poverty indicators.

Finally it turned out that EXPHELP, the help given to other households, is negatively correlated to POOR at a quite tolerable level of significance. So poor households are less able to engage in social networks, and this might have consequences when a household itself needs help from others.

With the results given in Tables 3 and 4 and the above comments, we get the below list of variables that will be used as dependent variables in this investigation:

- EDUCHILDREN
- HEALTHCHILDREN
- QUANTHOUSEFATHER
- QUANTHOUSEADULT
- QUANTLEISUREFATHER
- QUANTLEISUREMOTHER
- QUANTLEISUREADULT
- LINCFATHER
- LINCMOTHER
- LINCADULT
- EXPHELP .

[9] Compare to this Spruijt, Duindam (2003).

These variables all have the following three properties:

- they are correlated with income poverty
- they are widely recognized as indicators of social situations
- they may be interpreted as output indicators in the framework of household production theory.

Having shown the prerequisites, we can turn to the particular questions of this investigation. The above variables can indicate poverty in terms of several dimensions. To see this, we looked at all families in the time budget data, both the poor and the not poor ones. Now we focus on the poor. Is there a noticeable variation in the variables listed above among the poor? And, if yes, what are the reasons for these differences?

The relevance of these questions for social politicy is obvious. If households are living in income poverty, what are their chances of improving their situation with regard to other dimensions of their well-being? What kind of interventions are suggested by the results we find?

As the indicators above can be interpreted as household production outputs, we will try to find explanatory variables among household production inputs. Production theory traditionally sees capital, labour and know-how as inputs. Money capital is not very relevant at this point, because, as we said, the sample consists of poor families. So we concentrate on time use and human capital as input factors of household production. Looking through the items given in the time budget survey, we were able to select as possible regressors the variables in Tables 5 and 6.

## Tab. 5 Description of input variables - two parents

| Variable | | Content | Labels |
|---|---|---|---|
| EPSFATHER | EPSMOTHER | 0/1 dummies, describing mother's and father's (highest) school leaving degree: 1= successfully terminated 0= otherwise . | Extended primary school |
| SSFATHER | SSMOTHER | | Secondary school preparing for vocational training |
| ABIFATHER | ABIMOTHER | | Secondary school preparing for university |
| VTFATHER | VTMOTHER | 0/1 dummies, describing mother's and father's post-school qualifications | Vocational traninig=1 0= else |
| UNIFATHER | UNIMOTHER | | 1 = University 0 = else |
| HEALTHFATHER | HEALTHMOTHER | Health state of mother and father | Ordinal from 0 (very bad) to 4 (very well) |
| HELP | | Amount of help received by the household | Ordinal Index based on items H081-H0815 |
| ZH0FATHER | ZH0MOTHER | Time for..Reviving physically | Minutes per day |
| ZH1FATHER | ZH1MOTHER | Paid work | |
| ZH2FATHER | ZH2MOTHER | Learning | |
| ZH3FATHER | ZH3MOTHER | Housekeeping and family care | |
| ZH4FATHER | ZH4MOTHER | Voluntary work | |
| ZH5FATHER | ZH5MOTHER | Social life and entertainment | |
| ZH6FATHER | ZH6MOTHER | Sports and outdoor activities | |
| ZH7FATHER | ZH7MOTHER | Hobbies and games | |
| ZH8FATHER | ZH8MOTHER | Utilizing the media | |

## Tab. 6 Description of input variables - single parents

| Variable | Content | Labels |
|---|---|---|
| EPSADULT | 0/1 dummies, describing mother's or father's (highest) school leaving degree: 1= successfully terminated 0= else . | Extended primary school |
| SSADULT | | Secondary school preparing for vocational training |
| ABIADULT | | Secondary school preparing for university |
| VTADULT | 0/1 dummies, describing mother's or father's post-school qualifications | Vocational traninig=1 0= else |
| UNIADULT | | 1 = University 0 = else |
| HEALTHADULT | Health state of single parent | Ordinal from 0 (very bad) to 4 (very well) |
| HELP | Amount of help received by the household | Ordinal Index based on items H081-H0815 |
| ZH0ADULT | Time for..Reviving physically | Minutes per day |
| ZH1ADULT | Paid work | |
| ZH2ADULT | Learning | |
| ZH3ADULT | Housekeeping and family care | |
| ZH4ADULT | Voluntary work | |
| ZH5ADULT | Social life and entertainment | |
| ZH6ADULT | Sports and outdoor activities | |
| ZH7ADULT | Hobbies and games | |
| ZH8ADULT | Utilizing the media | |

**Tab 7 Descriptive statistics – poor two parent families**

| Variable | Observations | Mean | Std. | Min | Max |
|---|---|---|---|---|---|
| EDUCHILDREN | 121 | 1.14 | 0.60 | 0 | 2 |
| HEALTHCHILDREN | 153 | 3.21 | 0.59 | 1 | 4 |
| QUANTHOUSEFATHER | 249 | 2.02 | 0.9 | 1 | 4 |
| QUANTLEISUREFATHER | 249 | 1.52 | 0.64 | 1 | 4 |
| LINCFATHER | 250 | 4.75 | 3.17 | 0 | 10 |
| LINCMOTHER | 250 | 0.52 | 1.29 | 0 | 7 |
| | | | | | |
| EPSFATHER | 250 | 0.40 | 0.49 | 0 | 1 |
| EPSMOTHER | 250 | 0.20 | 0.40 | 0 | 1 |
| SSFATHER | 250 | 0.34 | 0.47 | 0 | 1 |
| SSMOTHER | 250 | 0.55 | 0.50 | 0 | 1 |
| ABIFATHER | 250 | 0.23 | 0.42 | 0 | 1 |
| ABIMOTHER | 250 | 0.22 | 0.42 | 0 | 1 |
| VTFATHER | 250 | 0.82 | 0.38 | 0 | 1 |
| VTMOTHER | 250 | 0.78 | 0.42 | 0 | 1 |
| UNIFATHER | 250 | 0.12 | 0.33 | 0 | 1 |
| UNIMOTHER | 250 | 0.10 | 0.30 | 0 | 1 |
| HEALTHFATHER | 249 | 2.74 | 0.82 | 0 | 4 |
| HEALTHMOTHER | 249 | 2.84 | 0.70 | 0 | 4 |
| | | | | | |
| HELP | 250 | 1.22 | 0.85 | 0 | 7 |
| | | | | | |
| ZH0FATHER | 247 | 643 | 95 | 410 | 1240 |
| ZH1FATHER | 247 | 260 | 198 | 0 | 823 |
| ZH2FATHER | 247 | 8 | 39 | 0 | 340 |
| ZH3FATHER | 247 | 191 | 127 | 0 | 716 |
| ZH4FATHER | 247 | 23 | 44 | 0 | 260 |
| ZH5FATHER | 247 | 91 | 77 | 0 | 503 |
| ZH6FATHER | 247 | 26 | 45 | 0 | 240 |
| ZH7FATHER | 247 | 18 | 35 | 0 | 243 |
| ZH8FATHER | 247 | 171 | 89 | 0 | 463 |
| | | | | | |
| ZH0MOTHER | 247 | 665 | 88 | 420 | 1036 |
| ZH1MOTHER | 247 | 50 | 112 | 0 | 746 |
| ZH2MOTHER | 247 | 12 | 50 | 0 | 433 |
| ZH3MOTHER | 247 | 411 | 137 | 47 | 727 |
| ZH4MOTHER | 247 | 20 | 50 | 0 | 440 |
| ZH5MOTHER | 247 | 102 | 80 | 0 | 546 |
| ZH6MOTHER | 247 | 26 | 41 | 0 | 250 |
| ZH7MOTHER | 247 | 13 | 21 | 0 | 107 |
| ZH8MOTHER | 247 | 130 | 79 | 0 | 453 |

**Tab. 8 Descriptive statistics – poor single parent families**

| Variable | Observations | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| EDUCHILDREN | 110 | 1.22 | 0.60 | 0 | 2 |
| QUANTHOUSEADULT | 189 | 2.02 | 0.66 | 1 | 3 |
| QUANTLEISUREADULT | 187 | 1.43 | 0.53 | 1 | 3 |
| LINCADULT | 191 | 1.52 | 2.06 | 0 | 6 |
| EXPHELP | 191 | 0.29 | 0.50 | 0 | 2 |
| | | | | | |
| EPSADULT | 191 | 0.21 | 0.41 | 0 | 1 |
| SSADULT | 191 | 0.50 | 0.50 | 0 | 1 |
| ABIADULT | 191 | 0.26 | 0.44 | 0 | 1 |
| VTADULT | 191 | 0.76 | 0.43 | 0 | 1 |
| UNIADULT | 191 | 0.14 | 0.34 | 0 | 1 |
| HEALTHADULT | 191 | 2.66 | 0.80 | 0 | 4 |
| HEALTHCHILDREN | 137 | 3.29 | 0.55 | 2 | 4 |
| HELP | 191 | 1.35 | 1.00 | 0 | 6 |
| | | | | | |
| ZH0ADULT | 191 | 645 | 80 | 380 | 913 |
| ZH1ADULT | 191 | 113 | 144 | 0 | 683 |
| ZH2ADULT | 191 | 13 | 53 | 0 | 400 |
| ZH3ADULT | 191 | 346 | 144 | 7 | 906 |
| ZH4ADULT | 191 | 22 | 49 | 0 | 460 |
| ZH5ADULT | 191 | 116 | 80 | 0 | 430 |
| ZH6ADULT | 191 | 24 | 32 | 0 | 146 |
| ZH7ADULT | 191 | 14 | 25 | 0 | 190 |
| ZH8ADULT | 191 | 137 | 87 | 0 | 500 |

Note: 98 % of the single parents are mothers.

The part played by the human capital indicators is clear and not unusual. HELP is an average indicator that gives information about the amount of help the household has obtained from other households. Taken with EXPHELP, it will enable an estimate to be made of the extent to which the household was able to engage in, and profit from, social networks.

The variables ZH... describe the time use of the adult family members. Only the most general activity categories were used. The time use survey would offer much more detailed information about the kind of activities, but the number of regressors had to be kept in a reasonable relation to the number of observations. When necessary, the author had the

regressors split up into more detailed sub-categories. Important or interesting results are mentioned in the text, however, without giving the tables.

Descriptive statistics concerning poor families for these regressors are given in Tables 7 and 8. Tables 7 and 8 also show the descriptive statistics for the output indicators children's education and health, parents' labour income and assessment of their own time use, and, finally, on the help the household exports, for the sub-sample of the poor. Comparing the standard deviations to the means, it can be seen that the variance of well-being is also noticeable among the sub-sample of the poor.

So the remaining task is to analyse which of the possible regressors - human capital and time use variables - can contribute to explaining the variance of the output indicators among the poor.

## 3. Results

The following method was chosen to find possible explanations for output differences among poor households. For each of the variables EDUCHILDREN, HEALTHCHILDREN, QUANTHOUSE..., QUANTLEISURE..., LINC..., EXPHELP a multivariate analysis, using human capital dummies and time use variables as independent variables, was made. As the dependent variables are ordinal, the SAS-Procedure "ordered Probit" was used.[10] All regressors with an $\alpha$>10 % were excluded.[11] The results of the probit estimations are

[10] SAS-Institute (1999, p. 2831 f.).

[11] $\alpha$ gives the probability that a coefficient estimated as a positive value will have a negative value in reality, or that a coefficient estimated as a negative value will have a positive value in reality.

documented in detail in Appendix A3. Table 9 gives an overview of these results. Estimated coefficient values and levels of significance ($\alpha$) are omitted. Table 9 just shows the direction of the correlations with + (the more...the more...) and - (the more ...the less..). A missing entry means that there is no significant connection at a 10 %-level. Dependent variables are listed in the top row, regressors are listed at the left and the right margins.

Table 9 provides a great many explanations and the interpretations are therefore arranged under particular leadings.

**Human capital formation among children**

Children's success at school depends on the parents' own education.[12] This is a well-known, widely documented result. Besides this, however, time use variables also play an important part.[13] The more time the father or the single parent needs for paid work, the poorer is the performance of his or her child(ren) at school. Looking at the couples, we find additionally that the father's time spent in voluntary work and media utilization (watching TV) has a negative impact to his children's education. In summary, time that is not available for interaction with the children hinders children's human capital formation. In this context,

[12] ABIMOTHER is highly correlated with ABIVATER. For this multicollinearity either ABIFATHER or ABIMOTHER can stay in the set of significant regressors. In short, both mother's and father's university qualifications have a positive influence on the children's school performance.

[13] The influence of domestic time use on children's success at school was shown by Hufnagel (2003) using data of the German Socio-Economic Panel as well.

**Tab. 9 Synopsis: Significant regressors for poor families' output indicators**

| Couples | | | | | | | | | Single parent families | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + :positive connection, the more..the more<br>- : negative connection, the more...the less.<br><br>Level of significance is 10 %. | EDUCHILDREN | HEALTHCHILDREN | QUANTHOUSEFATHER | QUANTLÖEISUREFATHER | QUANTLEISUREMOTHER | LINCFATHER | LINCMOTHER | EXPHELP | EDUCHILDREN | HEALTHCHILDREN | QUANTHOUSEADULT | QUANTLEISUREADULT | LINCADULT | EXPHELP | For variable names see Tables 1,2,5,6. |
| EPSFATHER | | | | | | | | | | | | | | | |
| EPSMOTHER | | | | | | | | | | | | + | - | - | EPSADULT |
| SSFATHER | | | | | | | | | | | | | | | |
| SSMOTHER | | | - | | | | + | | + | | | | - | - | SSADULT |
| ABIFATHER | + | | | | | | + | | | | | | | | |
| ABIMOTHER | | | - | | | | | | + | | | | | - | ABIADULT |
| VTFATHER | | | | | | + | | | | | | | | | |
| VTMOTHER | | | - | | | | | + | | | + | | | | VTADULT |
| UNIFATHER | | | | - | | | | | | | | | | | |
| UNIMOTHER | | | | | | | | | | + | | | | | UNIADULT |
| HEALTHFATHER | | | | | | | | + | | | | | | | |
| HEALTHMOTHER | | + | | | | + | | | + | + | | | + | | GESUNDADULT |
| | | | | | | | | | | | | | | | |
| HELP | | | | | | | | + | | | | | | + | HELP |
| | | | | | | | | | | | | | | | |
| ZH0FATHER | | | | | | | | | | | | | | | |
| ZH1FATHER | - | | | - | - | + | - | | | | | | | | |
| ZH2FATHER | | + | | | | | | | | | | | | | |
| ZH3FATHER | | | + | - | - | + | | | | | | | | | |
| ZH4FATHER | - | | | | | | | + | | | | | | | |
| ZH5FATHER | | | | | - | | | | | | | | | | |
| ZH6FATHER | | | | | | | | | | | | | | | |
| ZH7FATHER | | | | | | | | | | | | | | | |
| ZH8FATHER | - | | | | - | | + | | | | | | | | |
| | | | | | | | | | | | | | | | |
| ZH0MOTHER | | | | | | | | - | | | | | | | ZH0ADULT |
| ZH1MOTHER | | | + | + | | - | + | - | - | - | | | + | | ZH1ADULT |
| ZH2MOTHER | | | | | | | | | | | | | | | ZH2ADULT |
| ZH3MOTHER | | | | + | | | | - | | | + | - | - | + | ZH3ADULT |
| ZH4MOTHER | | - | | + | | | | | | | | | | | ZH4ADULT |
| ZH5MOTHER | | | | | + | | | | | | | | | | ZH5ADULT |
| ZH6MOTHER | | | | | | | | - | | | | | | | ZH6ADULT |
| ZH7MOTHER | | | | | | | | | | | | + | | + | ZH7ADULT |
| ZH8MOTHER | | | | + | + | | - | | | | | + | | | ZH8ADULT |

the finding that the single mother's health[14] state positively influences children's success at school should also be included.

Concerning the children's health state, we find a positive correlation with their mother's health state. There are several possible reasons for this correlation. First, biological predispositions could be responsible. Second, a mother might teach her children her healthy life style, or the children may copy it. Third, there may be certain household conditions that are favourable for health, and both mothers and children profit from them. The last two hypotheses can be supported by the observation that there are educational regressors that have a positive influence on children's health, i.e. adult's university degree and father's use of time for studying.

Finally, we should conclude with the result, that the adult's paid working time and the mother's time spent in voluntary work are associated with a poorer state of children's health.

**Assessments of time use**

The indication that too much household work was done coincides with the real amount of household work. Further fathers complain that they have to do much homework the more time their wives spend doing paid work. On the other hand, the mother's vocational qualifications seem to lessen the feeling that too much housework has to be done. Fathers' estimates that they have too much leisure are associated with less own work (paid or in the

[14] Only the self-estimated health state is available in the German time use survey. Working with data of the German Socio-Economic Panel, the author found, however, that self-estimation correlates quite well with more objective proxies for the health state.

household) and more work of their wives (paid, household or voluntary). Fathers with a university degree have fewer problems with the amount of leisure. Wives complain less about having too much leisure, the more the husband is engaged in paid work, social life or watching TV. If she says she has too much leisure, it is connected with more time spent in media utilization and participation in social life.

For single parents, we also find that the statement that too much household work is done has a real basis in housekeeping time use. This is supported if the woman has completed vocational training. Her estimation of having too much leisure is associated with little housework and a lot of time for hobbies and media utilization. Completing extended primary school also favours the feeling of having too much leisure.

In conclusion, one can say that using abundant time in a productive way involves certain problems. Doing a lot of work at home often leads to the statement that too much of this is done. Media utilization (i.e. mainly watching TV) and sayings that you have too much leisure are connected. More formal education seems to lessen the feeling of having too much leisure.

**Acquiring labour income**

It is not surprising that labour income and time use for paid work are positively correlated. It is also well known that labour income is higher the more human capital is available. Among the couples, the working hours of husband and wife prove to be substitutes. We also find that the income earned by the father is positively correlated with mother's health, surely a hint for the fact that domestic conditions like a partner's sickness may reduce earning opportunities. Another result is that men engaged in paid work are also engaged in household

work. For the mothers, it holds, that more time used for paid work is associated with more time spent by the husband watching TV and less own time spent in watching TV.

Single parents do more paid work the better their health is. Paid work reduces the time used for housework.

It should be concluded that:

1. in two parent families the partners substitute in the acquirement of labour income.
2. in single parent families, labour force participation lowers the amount of housework, children's success at school and children's health.

**Social networks**

Table 9 shows that the outside help given by the household is positively correlated with help given to the household. This allows us to speak of the social network of the household in the sense of mutual giving and taking. For couples, we find that giving help is favoured by the human capital variables as the mother's vocational training and the father's health state. It seems clear that the father's time used in voluntary work leads to a higher value for the index EXPHELP. For the mother it holds that the more she works and the more time she takes for personal care and sports, the lower is her contribution to the outside help given by the household.

For single parents, we find that household work and hobbies have a negative influence on the amount of help given to others.

To conclude, it seems that the involvement in social networks depends on time resources and the abilities to contribute to the process of mutual giving and taking.

The results described above may be summarized as follows. Let us define human capital in a broad sense and include not only formal education and vocational training but also health, competence in managing the household and everyday life and life style. In this sense, human capital proves to play a central part in explaining why there are differences in the welfare indicators.

What is involved is primarily the transfer of human capital from parents to children. The more human capital the parents have the more can be given to their children. However, the opposite also holds, the less they have, the less they have to give to their children. This provides an explanation for the often described formation "dynasties" of social welfare recipients.

Human capital is also involved when we turn to the question of whether abundant time can be used in a meaningful way. It seems to be connected with problems of finding useful or enjoyable ways of using time and not suffering boredom, e.g. filling in time by watching TV.

Here, it could be seen that there are obviously problems with the matrimonial division of labour. Husbands especially complain that they have to do too much housework if their wife has income from working and if they do not have higher formal education. So it seems that gender irrelevant acceptance of duties is not as widespread as it should be, considering poor households' need to earn money. Besides this, earned income is positively correlated with the adults' human capital, a well-known result that this investigation replicates. For

single parents, there is a trade-off between going out to work and the children's success at school and health state.

Finally, concerning social networks, we have to recognise that these cannot be a cure-all of social policy. The possibility of engaging in them and thus profiting from them is conditional on the ability to make own contributions. Thus the poor are hindered once more by their lack of human capital.

Human capital transfer (in the broad sense defined above), or if this is impossible, the provision of adequate substitute services, thus turns out to be the key for social policy. Some implications of this will be discussed in the following section.

## 4. Implications

In this section implications for social policy and the teaching of home economics are sketched. Although there are interconnections, the section is split into two parts.

**Social policy**

Our investigation has shown that poverty and joblessness are not identical. Willingness and ability to work also exist among the poor. These can only be realised, however, if suitable jobs are available to them. This is the task of economic policy.

We found further, like the PISA-survey and others, that human capital "inherits". But not all poor households are affected to the same degree by the lack of human capital. There are different kinds of school careers for the children from poor households, too. This shows that there is a potential that could be open to further development by an adequate educational policy. Demands for specific provisions in the framework of public education to compensate poor children for the disadvantages associated with poverty are supported by the results of this investigation.

Given the principle of subsidarity, parallel action, including counselling both within the school system and outside it, should be planned. This holds especially for the promotion of children's health. Various investigations report that success in this field is conditional on changes in domestic circumstances.[15]

Concerning the group of single parents, here we found a specific trade-off. Statistically mother's paid work has an negative impact on her children's success at school and health state. This seems to support the concept of the so called "Mutter-Kind-Modelle" (Mother-Child-Model), which prolong the time before the mother goes back to work by the use of relatively generous social transfers. However, Table 9 also showed that doing housework makes mothers very tired, when the single parent has vocational training. Hence, the interest of both single mothers and society in going back to work cannot be ignored. However, compensating provisions should be made in the field of public education and child care, if one decided to enforce single parents' economic independence.

[15] For Germany Küppers-Hellmann (2001), Lach (2001).

**Teaching of Home economics**

It is well known that academic and vocational training play a central role in getting gainful employment. Additionally, however, this investigation was able to demonstrate that education is also helpful for using abundant time and for the ability to take part in social networks.

Now let us turn particularly to the teaching of home economics, from pre-school to post-school education.

The first thing to stress is that parents with a low own formal education can also contribute to their children's success at school. How this could be done in detail cannot be seen directly from Table 9, however, we can work it out. It involves supervising homework, staying in contact with the school, giving emotional stability to the children, promoting and directing their curiosity, and so on. The present investigation further showed, that supporting and encouraging the children is a task that concerns fathers as well as mothers.

The correlation found between mothers' and children's health states supports the hypothesis mentioned above, that a sensible life style has to be implemented for the whole household.

Households that have their backs to the wall with respect to their financial circumstances cannot afford friction in their matrimonial division of labour. So gender education should stress the value of flexibility in doing different tasks. Attitudes that undervalue household work would be completely wrong in this context.

A last educational goal is to teach a sensible life style. More specifically this would mean showing the ways in which disposable time can be used productively to manage everyday life und that there is no need to allow leisure to flow passively and watch TV too much.

For many years Home economics and its teaching have recognized the need to extend the curricula by imparting everyday life competence[16]. Education to cope with and overcome income poverty is alive and well kept in this discipline.

[16] See for example Piorkowsky (2003b).

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**Zeitbudgeterhebung 2001/02**
**Aktivitaeten und**
**Aktivitaetsbereiche**

**0 PERSOENLICHER BEREICH/ PHYSIOLOGISCHE REGENERATION**
000 Nicht genauer bezeichnete Taetigkeiten

**01 SCHLAFEN**
010 Nicht genauer bezeichnete Taetigkeiten
011 Schlafen
012 Krank im Bett, etc.

**02 ESSEN UND TRINKEN**
020 Nicht genauer bezeichnete Taetigkeiten
021 Mahlzeiten einnehmen

**03 ANDERE TAETIGKEITEN IM PERSOENLICHEN BEREICH**
030 Nicht genauer bezeichnete Taetigkeiten
031 Waschen oder Anziehen
039 Andere eindeutig bestimmte Taetigkeiten

**90 WEGEZEITEN PERSOENLICHER BEREICH / PHYSIOLOGISCHE REGENERATION (BEREICH 0)**
901 Wegezeiten Persoenlicher Bereich / Physiologische Regeneration

**1 ERWERBSTAETIGKEIT**
100 Nicht genauer bezeichnete Erwerbstaetigkeit

**11 HAUPTERWERBSTAETIGKEIT**
110 Nicht genauer bezeichnete Haupterwerbstaetigkeit
111 Bezahlte Arbeitszeit der Haupterwerbstaetigkeit (ohne Zeiten der Qualifizierung/ Weiterbildung, siehe 13)

**12 NEBENERWERBSTAETIGKEIT**
120 Nicht genauer bezeichnete Nebenerwerbstaetigkeit
121 Arbeitszeit der Nebenerwerbstaetigkeit, sofern sie im Tagebuch erkennbar ist (ohne Zeiten der Qualifizierung/ Weiterbildung, siehe 13)

**13 QUALIFIZIERUNG/ WEITERBILDUNG FUER DEN BERUF WAEHREND DER ARBEITSZEIT**
130 Nicht genauer bezeichnete Taetigkeiten
131 Besuch von Unterricht und Lehrveranstaltungen fuer den Beruf innerhalb der Arbeitszeit (z.B. von Seminaren, Kursen, Konferenzen u.ae.)
132 Besuch von Informationsveranstaltungen, Messen u.ae.
133 Lernen in selbstorganisierten Gruppen (z.B. mit Kolleg(inn)en)
134 Selbstlernen, insbesondere durch Nutzung von Fachbuechern und -zeitschriften, Unterrichts-, Fernunterrichtsmaterialien, Lehrbriefen u.ae. Druckerzeugnissen
135 Selbstlernen, insbesondere durch Nutzung des Computers - ohne Internet – (z.B. Lernprogramme auf CD-ROM)
136 Selbstlernen – insbesondere durch Nutzung des Internets (z.B. Internet Based Learning oder Online-Recherche)
137 Selbstlernen, insbesondere durch Nutzung von Fernsehen/ Video und Radio
138 Sonstiges Selbstlernen
139 Andere eindeutig bestimmte Taetigkeiten

**14 TAETIGKEITEN IN VERBINDUNG MIT DER ERWERBSTAETIGKEIT**
140 Nicht genauer bezeichnete Taetigkeiten
141 Unbezahlte Arbeiten fuer den Erwerbsbereich ausserhalb der Arbeitszeit
142 Mit der Erwerbstaetigkeit eines anderen verbundene, unbezahlte Zeit
143 Praktikum
149 Andere eindeutig bestimmte Taetigkeiten

**15 MIT EIGENER ARBEITSSUCHE VERBUNDENE ZEIT**
150 Nicht genauer bezeichnete Taetigkeiten
151 Arbeitssuche ueber das Arbeitsamt oder einer Arbeitsvermittlungsagentur
152 Eigene Arbeitssuche
159 Andere eindeutig bestimmte Taetigkeiten

**16 MIT ERWERBSTAETIGKEIT VERBUNDENE PAUSEN**
161 Pause waehrend der Arbeitszeit (sowohl Haupt- als auch Nebenerwerbstaetigkeit)

**91 WEGEZEITEN ERWERBSTAETIGKEIT (BEREICH 1)**
911 Auf dem Weg zur Arbeit (Haupterwerb)
912 Auf dem Weg zur Arbeit (Nebenerwerb)
913 Wegezeiten Qualifizierung/ Weiterbildung waehrend der Arbeitszeit
919 Andere/ unbestimmte Wegezeiten in Verbindung mit Erwerbstaetigkeit

**2 QUALIFIKATION/BILDUNG**
200 Nicht genauer bezeichnete Taetigkeiten

**21 SCHULE UND HOCHSCHULE (LEHRVERANSTALTUNGEN)**
210 Nicht genauer bezeichnete Taetigkeiten
211 Unterricht und Vorlesungen
212 Pausen in der Schule/ Universitaet (siehe 161)
219 Andere eindeutig bestimmte Tätigkeiten

**22 HAUSAUFGABEN/ VOR- UND NACHBEREITUNG VON LEHRVERANSTALTUNGEN (SCHULE/HOCHSCHULE)**
220 Nicht genauer bezeichnete Taetigkeiten
221 Besuch von zusaetzlichen Unterrichts-und Lehrveranstaltungen ausserhalb des Stunden-/Studienplans von Schule/ Hochschule (z.B. Repetitorien, Nachhilfekurse)
222 Besuch von Informationsveranstaltungen, Messen u.ae. (z.B. Ausstellungen und Messen mit inhaltlichem Bezug zur Ausbildung, Besuch eines Fachvortrags)
223 Lernen mit selbstorganisierten Gruppen (z.B. mit Freund(inn)en, Kommiliton(inn)en, Eltern)
224 Selbstlernen, insbesondere durch Nutzung von Fachbuechern und -zeitschriften, Unterrichts-, Fernunterrichtsmaterialien, Lehrbriefen u.ae. Druckerzeugnissen
225 Selbstlernen, insbesondere durch Nutzung des Computers – ohne Internet – (z.B. Lernprogramme auf CD-ROM)
226 Selbstlernen, insbesondere durch Nutzung des Internets (z.B. Internet Based Learning, gezielte Recherche fuer Hausarbeit)
227 Selbstlernen, insbesondere durch Nutzung von Fernsehen/ Video und Radio (z.B. Telekolleg, Lehrvideos)
228 Sonstiges Selbstlernen (z.B. Vokabeln lernen aus dem eigenen Heft)
229 Andere eindeutig bestimmte Tactigkeiten (z.B. Referat abtippen)

**23 QUALIFIKATION/ FORT- UND WEITERBILDUNG AUS PERSOENLICHEN GRUENDEN (nicht fuer Beruf oder Schule/ Universitaet)**
230 Nicht genauer bezeichnete Taetigkeiten
231 Besuch von Unterricht und Lehrveranstaltungen aus persoenlichen Gruenden (Seminare, Kurse, Vorlesungen, Konferenzen u.ae. (z.B. Sprachkurs fuer den Urlaub, Kurs zur Geburtsvorbereitung)
232 Besuch von Informationsveranstaltungen, Messen u.ae. (z.B. Ausstellungen und Messen aus persoenlichen Gruenden)
233 Lernen in selbstorganisierten Gruppen (z.B. mit Freund(inn)en, Kolleg(inn)en, Kommiliton(inn)en, Eltern/ Kindern)
234 Selbstlernen, insbesondere durch Nutzung von Fachbuechern und -zeitschriften, Unterrichts-, Fernunterrichtsmaterialien, Lehrbriefen u.ae. Druckerzeugnissen
235 Selbstlernen, insbesondere durch Nutzung des Computers – ohne Internet – (z.B. Lernprogramme auf CD-ROM)
236 Selbstlernen, insbesondere durch Nutzung des Internets (z.B. Internet Based Learning)
237 Selbstlernen, insbesondere durch Nutzung von Fernsehen/ Video und Radio
238 Sonstiges Selbstlernen (z.B. aus den selbstgeschriebenen Unterlagen)
239 Andere eindeutig bestimmte Taetigkeiten

**24 QUALIFIKATION/ FORT- UND WEITERBILDUNG FUER DEN BERUF AUSSERHALB DER BEZAHLTEN ARBEITSZEIT**
240 Nicht genauer bezeichnete Taetigkeiten
241 Besuch von Unterricht und Lehrveranstaltungen (Seminare, Kurse, Vorlesungen, Konferenzen u.ae.) zur Qualifizierung fuer den Beruf ausserhalb der Arbeitszeit
242 Besuch von Informationsveranstaltungen, Messen u.ae. (z.B. Fachmessen fuer den Beruf)
243 Lernen mit selbstorganisierten Gruppen (z.B. mit Freund(inn)en, Kolleg(inn)en, Kommiliton(inn)en)
244 Selbstlernen, insbesondere durch Nutzung von Fachbuechern und -zeitschriften, Unterrichts-, Fernunterrichtsmaterialien, Lehrbriefen u.ae. Druckerzeugnissen



# Appendix

## A 1 List of activities used by the Statistisches Bundesamt Deutschland

245 Selbstlernen, insbesondere durch Nutzung des Computers – ohne Internet – (z.B. Lernprogramme auf CD-ROM)
246 Selbstlernen, insbesondere durch Nutzung des Internets (z.B. Internet Based Learning)
247 Selbstlernen, insbesondere durch Nutzung von Fernsehen/ Video und Radio
248 Sonstiges Selbstlernen (z.B. aus den selbstgeschriebenen Unterlagen)
249 Andere eindeutig bestimmte Taetigkeiten

**92 WEGEZEITEN QUALIFIKATION/ BILDUNG (BEREICH 2)**
921 Wegezeiten Schule/ Universitaet
922 Wegezeiten Zusaetzliche Qualifikation/ Bildung
929 Andere/ unbestimmte Wegezeiten in Verbindung mit Qualifikation

**3 HAUSHALTSFUEHRUNG UND BETREUUNG DER FAMILIE**
300 Nicht genauer bezeichnete Taetigkeiten

**31 ZUBEREITUNG VON MAHLZEITEN**
310 Nicht genauer bezeichnete Taetigkeiten
311 Mahlzeiten vor- und zubereiten
312 Backen
313 Geschirreinigung/ Tisch decken, abraeumen
314 Haltbarmachen/ Konservieren von Lebensmitteln
319 Andere eindeutig bestimmte Taetigkeiten

**32 INSTANDHALTUNG VON HAUS UND WOHNUNG**
320 Nicht genauer bezeichnete Taetigkeiten
321 Reinigung der Wohnung
322 Reinigung des Hofs, Keller, Garage, etc., Abfallbeseitigung
323 Heizung
324 Verschiedene Ruesttaetigkeiten und Vorbereitungen im Haushalt
329 Andere eindeutig bestimmte Taetigkeiten

**33 HERSTELLEN, AUSBESSERN UND PFLEGEN VON TEXTILIEN**
330 Nicht genauer bezeichnete Taetigkeiten
331 Waschen
332 Buegeln und mangeln
333 Herstellung von Textilien
334 Ausbessern von Textilien
339 Andere eindeutig bestimmte Taetigkeiten

**34 GARTENARBEIT, PFLANZEN- UND TIERPFLEGE**
340 Nicht genauer bezeichnete Taetigkeiten
341 Pflanzenpflege/ draussen
342 Pflanzenpflege/ drinnen
343 Pflanzenpflege ohne Ortsangabe
344 Nutztierpflege
345 Haustierpflege
346 Den Hund spazieren fuehren
347 Tierpflege, bei der nicht erkennbar ist, ob es sich um Nutz- oder Haustierpflege handelt
349 Andere eindeutig bestimmte Taetigkeiten

**35 BAUEN UND HANDWERKLICHE TAETIGKEITEN**
350 Nicht genauer bezeichnete Taetigkeiten
351 Hausbau und Renovierung
352 Wohnungsreparaturen
353 Herstellung, groessere Reparaturen von Ausstattungsgegenstaenden des Haushalts
354 Wartung und kleinere Reparaturen von Haushaltsgegenstaenden
355 Fahrzeugreparatur und –pflege
359 Andere eindeutig bestimmte Taetigkeiten

**36 EINKAUFEN UND INANSPRUCHNAHME VON FREMDLEISTUNGEN**
360 Nicht genauer bezeichnete Taetigkeiten
361 Einkaufen
362 Persoenlicher Besuch bei/ Inanspruchnahme von Dienstleistungsunternehmen und Verwaltungseinrichtungen/ Behoerdengaenge
363 Personengebundene Dienste
364 Medizinische Dienste
369 Andere eindeutig bestimmte Taetigkeiten

**37 HAUSHALTSPLANUNG UND -ORGANISATION**
370 Nicht genauer bezeichnete Taetigkeiten
371 Haushaltsplanung und –organisation
372 Tele - Shopping, Einkaufen per Telefon
373 Einkaufen per Internet, E – Banking
379 Andere eindeutig bestimmte Taetigkeiten

**38 KINDERBETREUUNG**
380 Nicht genauer bezeichnete Kinderbetreuung
381 Koerperpflege und Beaufsichtigung
382 Hausaufgabenbetreuung, Anleitungen geben
383 Spielen und Sport mit eigenen Kindern bzw. Kindern, die im Haushalt leben
384 Gespraeche mit eigenen Kindern bzw. Kindern, die im Haushalt leben
385 Mit dem Kind schmusen
386 Kind begleiten und Termine im Zusammenhang mit dem Kind wahrnehmen
387 Betreuung von kranken und pflegebeduerftigen Kindern
388 Vorlesen/Geschichten erzaehlen
389 Andere eindeutig bestimmte Taetigkeiten

**39 UNTERSTUETZUNG, PFLEGE UND BETREUUNG VON ERWACHSENEN HAUSHALTSMITGLIEDERN**
390 Nicht genauer bezeichnete Taetigkeiten
391 Unterstuetzung von erwachsenen Haushaltsmitgliedern
392 Pflege und Betreuung von kranken oder aelteren erwachsenen Familienangehoerigen

**93 WEGEZEITEN HAUSHALTSFUEHRUNG UND BETREUUNG DER FAMILIE (BEREICH 3)**
931 Wegezeiten in Verbindung mit Haus-, Gartenarbeit und Tierpflege (Bereiche 31-34)
932 Wegezeiten Bauen und handwerkliche Aktivitaeten
933 Wegezeiten Einkaufen und Inanspruchnahme von Fremdleistungen (einschliesslich Haushaltsplanung)
934 Wegezeiten Kinderbetreuung
935 Wegezeiten Unterstuetzung von erwachsenen Haushaltsmitgliedern
936 Wegezeiten Pflege und Betreuung von Erwachsenen, die im eigenen Haushalt leben
939 Andere/ unbestimmte Wegezeiten in Verbindung mit Haushaltsfuehrung und Betreuung der Familie

**4 EHRENAMTLICHE TAETIGKEIT, FREIWILLIGENARBEIT, INFORMELLE HILFE**
400 Nicht genauer bezeichnete Taetigkeiten

**41 AUSUEBUNG VON AEMTERN ODER EHRENAMTLICHEN FUNKTIONEN**
410 Nicht genauer bezeichnete Taetigkeiten
411 Ehrenamtliche oder freiwillige Arbeit fuer eine Organisation
412 Ehrenamtliche Mithilfe und Unterstuetzung
419 Andere eindeutig bestimmte Taetigkeiten

**42 INFORMELLE HILFE FUER ANDERE HAUSHALTE**
420 Nicht genauer bezeichnete Taetigkeiten
421 Kinderbetreuung
422 Gartenarbeit
423 Putzen, aufraeumen
424 Einkaufen und Besorgungen
425 Bei Nachbarn, Freunden, Verwandten nach dem Rechten sehen
426 Versicherungs-, Aemter- und Behoerdenangelegenheiten
427 Gespraeche, Ratschlaege bei Problemen
428 Alten- und Krankenpflege
429 Reparieren und Bauen
430 Reparatur und Wartung von Fahrzeugen
431 Tierpflege
432 Zubereitung von Mahlzeiten
433 Transport und Umzuege
434 Finanzielle Hilfe
439 Andere eindeutig bestimmte Taetigkeiten

**44 TEILNAHME AN VERSAMMLUNGEN**
440 Nicht genauer bezeichnete Taetigkeiten
441 Politische und soziale Versammlungen
442 Teilnahme an religioesen Aktivitaeten/ Zeremonien
443 Gebet, geistliche und geistige Entspannung
449 Andere eindeutig bestimmte Taetigkeiten

**94 WEGEZEITEN EHRENAMTLICHE TAETIGKEIT, FREIWILLIGENARBEIT, INFORMELLE HILFE (BEREICH 4)**
941 Ausuebung von Aemtern oder ehrenamtlichen Taetigkeiten
942 Informelle Hilfe fuer andere Haushalte
944 Teilnahme an Versammlungen
949 Andere/ unbestimmte Wegezeiten in Verbindung mit Ehrenamtlicher Taetigkeit oder Informeller Hilfe fuer andere Haushalte

**5 SOZIALES LEBEN UND UNTERHALTUNG**
500 Nicht genauer bezeichnete Taetigkeiten

**51 SOZIALE KONTAKTE**
510 Nicht genauer bezeichnete Taetigkeiten
511 Gespraeche
512 Zu Besuch/ Besuch empfangen
513 Familienfeiern und Feste privater Art
514 Telefonate
519 Andere eindeutig bestimmte Taetigkeiten

**52 UNTERHALTUNG UND KULTUR**
520 Nicht genauer bezeichnete Taetigkeiten
521 Kino
522 Besuch von Theater und Konzerten
523 Kunstausstellungen und Museen
524 Bibliotheken
525 Besuch sportlicher Ereignisse
526 Ausfluege, Zoo, Zirkus, Vergnuegungsparks, Kirmes, Besichtigungen etc.
527 Ausgehen (z.B. Cafes, Bistros, Kneipen, Discos, ohne Essen, z.B. Gaststaetten)
529 Andere eindeutig bestimmte Taetigkeiten

**53 AUSRUHEN/ AUSZEIT**
531 Ausruhen/ Auszeit
532 Zeit ueberbruecken

**95 WEGEZEITEN SOZIALES LEBEN UND UNTERHALTUNG (BEREICH 5)**
951 Soziale Kontakte
952 Unterhaltung und Kultur (ohne Besuch von Sportveranstaltung)
953 Besuch von Sportveranstaltungen
959 Andere/ unbestimmte Wegezeiten in Verbindung mit Sozialem Leben und Unterhaltung

**6 TEILNAHME AN SPORTLICHEN AKTIVITAETEN BZW. AKTIVITAETEN IN DER NATUR**
600 Nicht genauer bezeichnete Taetigkeiten

**61 KOERPERLICHE BEWEGUNG**
610 Nicht genauer bezeichnete Taetigkeiten
611 Spazieren gehen
612 Wandern
613 Joggen, Walking
614 Fahrrad fahren, Radwandern, Mountainbiking
615 Ski fahren, Schlittschuh laufen, Rodeln, Eishockey
616 Ballspiele
617 Rueckschlagspiele
618 Gymnastik, Turnen
619 Fitness, Aerobic
620 Koerperliche Entspannungsuebungen
621 Schwimmen, Wassergymnastik
622 Rudern, Kanu, Segeln, Surfen
623 Inline-Skating, Skateboard
624 Kampfsport (Judo, Karate, Aikido, Boxen)
625 Kegeln, Bowling, Boule spielen
626 Tanzen/ Tanzsport
627 Schiesssport, Sportschuetzen
628 Leichtathletik
629 Reiten
639 Andere eindeutig bestimmte Taetigkeiten

**64 JAGEN, FISCHEN UND SAMMELN**
640 Nicht genauer bezeichnete Taetigkeiten
641 Jagen und Fischen
642 Beeren, Pilze und Kraeuter sammeln
649 Andere eindeutig bestimmte Taetigkeiten

**65 RUESTZEITEN FUER SPORTLICHE AKTIVITAETEN**
650 Nicht genauer bezeichnete Taetigkeiten
651 Ruestzeiten fuer sportliche Aktivitaeten

**96 WEGEZEITEN TEILNAHME AN SPORTLICHEN AKTIVITAETEN (BEREICH 6)**
961 Eigene Sportausuebung

**7 HOBBYS UND SPIELE**
700 Nicht genauer bezeichnete Taetigkeiten

**71 KUENSTLERISCHE TAETIGKEITEN**
710 Nicht genauer bezeichnete Taetigkeiten
711 Visuelle und handwerkliche Kuenste
712 Darstellende Kuenste, Musizieren
713 Literatur und Schreiben
719 Andere eindeutig bestimmte Taetigkeiten

**72 TECHNISCHE UND ANDERE HOBBYS**
720 Nicht genauer bezeichnete Taetigkeiten
721 Sammeln etc.
722 Modellbau und Basteln
723 (Video-) Filmen/ Fotografieren
724 Experimentieren (z.B. Elektro-, Chemiebaukasten)
725 Korrespondenz
729 Andere eindeutig bestimmte Taetigkeiten

**73 SPIELE**
730 Nicht genauer bezeichnete Spiele
731 Gesellschaftsspiele
732 Spiele allein
733 Computerspiele
734 Gluecksspiele
739 Andere eindeutig bestimmte Taetigkeiten

**97 WEGEZEITEN HOBBYS UND SPIELE (BEREICH 7)**
971 Kuenste, Hobbys und Spiele

**8 MASSENMEDIEN**
800 Nicht genauer bezeichnete Taetigkeiten

**81 LESEN**
810 Nicht genauer bezeichnete Taetigkeiten
811 Zeitungen lesen
812 Zeitschriften lesen
813 Buecher lesen
814 Sich vorlesen lassen / Zuhoeren beim Vorlesen
819 Andere eindeutig bestimmte Taetigkeiten

**82 FERNSEHEN UND VIDEO**
820 Nicht genauer bezeichnete Taetigkeiten
821 Fernsehen
822 Videos ansehen

**83 RADIO, MUSIK- ODER ANDERE TONAUFNAHMEN**
830 Nicht genauer bezeichnete Taetigkeiten
831 Radio hoeren
832 Anhoeren von Musik- oder anderen Tonaufnahmen
833 Anhoeren von Hausmusik / musikalischen Darbietungen im privaten Kreis

**84 COMPUTER**
840 Nicht genauer bezeichnete Taetigkeiten
841 Programmierung, Installierung und Reparatur des Computers
842 Informationen durch den Computer gewinnen
843 Kommunikation ueber den Computer
849 Andere eindeutig bestimmte Taetigkeiten

**98 WEGEZEITEN MASSENMEDIEN (BEREICH 8)**
981 Massenmedien

**99 SONSTIGE WEGEZEITEN / HILFSCODES**
**Sonstige Wegezeiten**
990 Unbestimmtes Reisen/ unbestimmte Wegezeiten
991 Reisen/ Fahren um seiner selbst willen
992 Reisen/ Fahren zum oder vom Urlaubsort
993 Reisen/ Fahren zur oder von der Zweitwohnung oder dem Wochenendhaus
**Hilfscodes**
995 Ausfuellen des Tagebuches
998 Nicht bestimmt verwendete Freizeit
999 Unbestimmte Zeitverwendung (keine Angaben)

## A2 Definitions of the variables EDUCHILDREN and HEALTHCHILDREN

We consider all children aged 11-18 living in a given household. For the n-th child in the household the following dummies are used:

HRSKINDn =1, if the child attends "Hauptschule" (extended primary school) or "Realschule" (secondary school preparing for vocational training), =0 otherwise.

GYMKINDn =1, if the child attends "Gymnasium" (secondary school preparing for university), =0 otherwise

BABKINDn =1, if the child undergoes a vocational training, =0 otherwise.

From this we form the index:

$$BILDUNGKINDn = HRSKINDn + 2 \cdot GYMKINDn + BABKINDn$$

The index EDUCHILDREN then is the mean of the indexes BILDUNGKINDn, taken over all children n living in one household. The weights used in BILDUNGKINDn need not be discussed, because EDUCHILDREN is used as an ordinal variable in the ordered Probit .

Health state is documented in the time use survey data as an 4 level ordinal variable. HEALTHCHILDREN is just the mean health state of all children in aged 11-18 living in one household.

## A3 Probit results

The following tables show coefficient estimates and α-errors. It should be noted that - contrary to intuition - in Probit results negative coefficients stand for a positive relation (the more .. the more) whereas positive coefficients stand for a negative relation (the more... the less) between dependent and independent variable. Only regressors with an α-error < 10 % were considered.

**Tab. 10 Poor couples: Dependence of the index EDUCHILDREN on time use and parents' education. Observations=121, Pseudo-$R^2$=9 %.**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | -2.67 | 0.0001 |
| Intercept2 | 0.046 | 0.31 |
| Intercept3 | 0.17 | 0.04 |
| Intercept4 | 0.21 | 0.02 |
| Intercept5 | 1.86 | 0.0001 |
| Intercept6 | 2.04 | 0.0001 |
| Intercept7 | 2.1 | 0.0001 |
| ABIFATHER | -0.48 | 0.09 |
| ZH1FATHER | 0.0012 | 0.08 |
| ZH3FATHER | 0.0021 | 0.0466 |
| ZH8FATHER | 0.0038 | 0.005 |

**Tab. 11 Poor couples: Dependence of the index HEALTHCHILDREN on time use and parents' education. Observations=149, Pseudo-$R^2$ = 10 %.**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | -1.45 | 0.0024 |
| Intercept2 | 0.92 | 0.0128 |
| Intercept3 | 1.04 | 0.0056 |
| Intercept4 | 1.43 | 0.0002 |
| Intercept5 | 1.50 | 0.0001 |
| Intercept6 | 2.94 | 0.0001 |
| Intercept7 | 3.04 | 0.0001 |
| Intercept8 | 3.31 | 0.0001 |
| Intercept9 | 3.35 | 0.0001 |
| HEALTHMOTHER | -.45 | 0.0002 |
| ZH2FATHER | -0.004 | 0.0792 |
| ZH4MOTHER | 0.0026 | 0.0803 |

**Tab. 12 Poor couples: Dependence of the index QUANTHOUSEFATHER on time use and parents' education. Observations=243, Pseudo-$R^2$=6 %.**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | -1.21 | 0.0001 |
| Intercept2 | 1.53 | 0.0001 |
| Intercept3 | 1.88 | 0.0001 |
| VTMOTHER | 0.48 | 0.0056 |
| SSMOTHER | 0.65 | 0.0005 |
| ABIMOTHER | 0.56 | 0.0108 |
| ZH3FATHER | -0.001 | 0.0704 |
| ZH1MOTHER | -0.0015 | 0.0272 |

**Tab. 13 Poor couples: Dependence of the index QUANTLEISUREFATHER on parents' time use and education. Observations=244, Pseudo-$R^2$=9 %.**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | 0.33 | 0.42 |
| Intercept2 | 1.46 | 0.0001 |
| Intercept3 | 2.70 | 0.0001 |
| UNIFATHER | 0.43 | 0.0972 |
| ZH1FATHER | 0.0025 | 0.0001 |
| ZH3FATHER | 0.0016 | 0.0395 |
| ZH1MOTHER | -0.027 | 0.0014 |
| ZH3MOTHER | -0.0018 | 0.0154 |
| ZH4MOTHER | -0.0028 | 0.0701 |
| ZH8MOTHER | -0.0019 | 0.0803 |

**Tab. 14 Poor couples: Dependence of the index QUANTLEISUREMOTHER on parents' time use and education. Observations=244, Pseudo-$R^2$=10 %**

| Variable | Coeffizient | α |
|---|---|---|
| Intercept | -0.37 | 0.48 |
| Intercept2 | 1.56 | 0.0001 |
| ZH1FATHER | 0.0022 | 0.0011 |
| ZH3FATHER | 0.0022 | 0.0088 |
| ZH5FATHER | 0.0027 | 0.0857 |
| ZH8FATHER | 0.0025 | 0.0500 |
| ZH5MOTHER | -0.0028 | 0.0257 |
| ZH8MOTHER | -0.0045 | 0.0002 |

**Tab. 15 Poor couples: Dependence of father's labour income class on education and time use. Observations=245, Pseudo-$R^2$=10 %.**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | 1.06 | 0.006 |
| Intercept2 | 0.04 | 0.1547 |
| Intercept3 | 0.09 | 0.0232 |
| Intercept4 | 0.31 | 0.0001 |
| Intercept5 | 0.54 | 0.0001 |
| Intercept6 | 0.90 | 0.0001 |
| Intercept7 | 1.20 | 0.0001 |
| Intercept8 | 1.84 | 0.0001 |
| Intercept9 | 2.51 | 0.0001 |
| Intercept10 | 2.96 | 0.0001 |
| HEALTHMOTHER | -0.22 | 0.0265 |
| VTFATHER | -0.35 | 0.0586 |
| ZH1FATHER | -0.0033 | 0.0001 |
| ZH3FATHER | -0.0013 | 0.0443 |
| ZH1MOTHER | 0.0028 | 0.0001 |

**Tab. 16 Poor couples: Dependence of mother's labour income class on education and time use. Observations =245, Pseudo-$R^2$=22 %.**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | 1.62 | 0.0001 |
| Intercept2 | 0.10 | 0.0420 |
| Intercept3 | 0.42 | 0.0001 |
| Intercept4 | 0.92 | 0.0001 |
| Intercept5 | 1.53 | 0.0001 |
| Intercept6 | 1.83 | 0.0001 |
| Intercept7 | 2.05 | 0.0001 |
| RSMOTHER | -0.48 | 0.0441 |
| ABIFATHER | -0.68 | 0.0062 |
| ZH1FATHER | 0.0012 | 0.0554 |
| ZH8FATHER | -0.0034 | 0.0262 |
| ZH1MOTHER | -0.0051 | 0.0001 |
| ZH8MOTHER | 0.0044 | 0.0205 |

**Tab. 17 Poor couples: Dependence of the outside help given by the household on time use and human capital. Observations=244, Pseudo-$R^2$=7 %**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | -2.45 | 0.0068 |
| Intercept2 | 0.49 | 0.0001 |
| Intercept3 | 0.88 | 0.0001 |
| Intercept4 | 1.25 | 0.0001 |
| Intercept5 | 1.47 | 0.0001 |
| Intercept6 | 1.80 | 0.0001 |
| Intercept7 | 2.07 | 0.0001 |
| Intercept9 | 2.48 | 0.0001 |
| Intercept8 | 2.24 | 0.0001 |
| Intercept10 | 2.70 | 0.0001 |
| Intercept11 | 2.86 | 0.0001 |
| Intercept12 | 2.95 | 0.0001 |
| Intercept13 | 3.06 | 0.0001 |
| Intercept14 | 3.20 | 0.0001 |
| Intercept15 | 3.30 | 0.0001 |
| Intercept16 | 3.40 | 0.0001 |
| Intercept17 | 3.56 | 0.0001 |
| Intercept18 | 3.82 | 0.0001 |
| VTMOTHER | -0.43 | 0.0098 |
| HEALTHFATHER | -0.14 | 0.0868 |
| HELP | -0.16 | 0.0486 |
| ZH4FATHER | -0.006 | 0.0002 |
| ZH0MOTHER | 0.0026 | 0.0075 |
| ZH1MOTHER | 0.0012 | 0.0989 |
| ZH3MOTHER | 0.0016 | 0.0155 |
| ZH6MOTHER | 0.0037 | 0.0329 |

**Tab 18 Poor single parents: Dependence of the index EDUCHILDREN on the adult's time use and education. Observations=110, Pseudo-$R^2$= 6%.**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | -0.65 | 0.1087 |
| Intercept2 | 0.35 | 0.0099 |
| Intercept3 | 0.40 | 0.0050 |
| Intercept4 | 2.05 | 0.0001 |
| Intercept5 | 2.16 | 0.0001 |
| SSADULT | -0.62 | 0.0163 |
| ABIADULT | -0.86 | 0.0110 |
| HEALTHADULT | -0.27 | 0.0485 |
| ZH1ADULT | 0.002 | 0.0080 |

**Tab 19 Poor single parents: Dependence of the index HEALTHCHILDREN on the adult's time use and education. Observations =135, Pseudo-$R^2$ = 3 %**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | -1.21 | 0.0008 |
| Intercept2 | 0.33 | 0.0197 |
| Intercept3 | 0.38 | 0.0103 |
| Intercept4 | 2.05 | 0.0001 |
| Intercept5 | 2.07 | 0.0001 |
| Intercept6 | 2.29 | 0.0001 |
| UNIADULT | -0.52 | 0.0897 |
| HEALTHADULT | -0.24 | 0.0514 |
| ZH1ADULT | 0.0011 | 0.0985 |

**Tab. 20 Poor single parents: Dependence of the index QUANTHOUSEADULT on the adult's time use and education. Observations=189 , Pseudo-$R^2$= 3%.**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | -0.08 | 0.7647 |
| Intercept2 | 1.64 | 0.0001 |
| VTADULT | -0.54 | 0.0063 |
| ZH3ADULT | -0.001 | 0.0841 |

**Tab. 21 Poor single parents: Dependence of the index QUANTLEISUREADULT on the adult's time use and education. Observations=187 Pseudo-$R^2$= 9 %.**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | 0.34 | 0.28 |
| Intercept2 | 2.17 | 0.0001 |
| HSADULT | -0.48 | 0.037 |
| ZH3ADULT | 0.0016 | 0.0221 |
| ZH7ADULT | -0.0077 | 0.0370 |
| ZH8ADULT | -0.0034 | 0.0018 |

**Tab. 22 Poor single parents: Dependence of adult's labour income class on education and time use. Observations=191, Pseudo-$R^2$= 28 %.**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | 0.77 | 0.17 |
| Intercept2 | 0.026 | 0.32 |
| Intercept3 | 0.25 | 0.0018 |
| Intercept4 | 0.63 | 0.0001 |
| Intercept5 | 1.53 | 0.0001 |
| Intercept6 | 2.82 | 0.0001 |
| ZH1ADULT | -0.0065 | 0.0001 |
| ZH3ADULT | 0.0015 | 0.0808 |
| EPSADULT | 0.63 | 0.0263 |
| SSADULT | 0.58 | 0.0075 |
| HEALTHADULT | -0.23 | 0.0847 |

**Tab. 23 Poor single parents: Dependence of the outside help given by the household on time use and human capital. Observations=191, Pseudo-$R^2$=10 %**

| Variable | Coefficient | α |
|---|---|---|
| Intercept | 0.44 | 0.40 |
| Intercept2 | 1.70 | 0.0001 |
| EPSADULT | 1.43 | 0.0092 |
| SSADULT | 1.24 | 0.0163 |
| ABIADULT | 1.31 | 0.0148 |
| HELP | -0.27 | 0.0030 |
| ZH3ADULT | -0.0016 | 0.0279 |
| ZH7ADULT | -0.0098 | 0.0066 |