

# Personality and dislike for inequality: Typifying inequality aversion with respect to locus of control

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## **Abstract**

In this paper we find an individual non-cognitive characteristic that generates heterogeneity on individuals' taste for equality. This is individuals' locus of control (LOC), a personality measure that defines individuals as externals or internals depending on individuals' perception about the role of external (e.g., luck and others) or internal (e.g., effort and own decisions) forces driving their lives. The empirical analysis shows that external individuals are more inequality averse than internal individuals. This relates to the idea that individuals' degree of tolerance towards inequality depends on the importance they assign to own effort or luck to determine individuals' outcomes. Even though policy making cannot affect individuals' personality and despite personality seems to be fairly time persistent, understanding the relationship between LOC and inequality aversion will help us assess the importance of fairness feelings on shaping preferences for equality. The empirical analysis uses the German SOEP, a large representative panel data set for Germany.

**Keywords:** Inequality aversion, life satisfaction, locus of control, effort, fairness.

**JEL-Codes:** D31; I31

## **I. Introduction**

There is an increasing amount of empirical evidence showing that individuals, to a certain degree, dislike inequality. There are several reasons why individuals may dislike inequality, ranging from self-interest to altruistic motives. Regardless of the drivers of this inequality dislike, it seems clear that preferences for inequality will be heterogeneous. On one side, they will depend on individual characteristics. For example, if individuals dislike inequality because they are (afraid) of falling into the bottom of the income distribution, the degree of dislike for inequality will strongly depend on individual characteristics, such as family background or education level. Similarly, their inequality aversion will depend on their risk attitudes and thus the probability that they assign to moving within the income distribution (Ferrer-i-Carbonell and Ramos, 2010). If instead individuals' taste for equality is mainly driven by altruistic or fairness motives, their degree of dislike for inequality will depend, for example, on whether they think that the current income distribution is the outcome of luck or individual effort. This paper focuses on the relationship between taste for equality and individuals' perception about the fairness of the income generating process. It has been argued that individuals show a larger degree of tolerance towards inequality if they think it is the outcome of individual effort rather than of other variables such as luck, family background or nepotism (Alesina, Di Tella and MacCulloch, 2004).

Although institutional, cultural and historical circumstances are crucial in determining how much a society thinks that their income distribution is the outcome of a fair or an unfair process, individual's personality traits play also a very important role. In psychology one important aspect of personality is the Locus of Control (LOC). That is the extent to which individuals perceive that the control of their life is external (depends on others, luck, etc) or internal (the course of own life depends on own decisions and effort). Since the literature has argued that individuals taste for equality may depend on whether they perceive that the income generating process depends or not on individuals' effort, this personality measure is a natural candidate to affect individuals' taste for equality. In this paper we want to empirically test whether the locus of control measure is a dimension introducing heterogeneity on individuals' preferences for equality.

Even though policy cannot affect individuals' personality and this seem to be a fairly time persistent and difficult to change individual characteristic, understanding the relationship between LOC and inequality aversion will help us assess the importance of fairness feelings on shaping preferences for equality.

This paper contributes to the literature by corroborating the dislike for inequality in Germany (a Western country) and by identifying an important source of heterogeneity in the taste for equality. It does so by using self-reported satisfaction as a proxy for utility. The empirical analysis uses a large representative sample. Although there is an increasing amount of work showing individual's taste for equality, little has been done to identify and understand the nature and origins of inequality aversion. Ferrer-i-Carbonell and Ramos (2010) provide empirical evidence about the mediating role of risk attitudes in shaping inequality aversion, while Alesina, Di Tella and MacCulloch (2004) conjecture about the importance of mobility beliefs to explain the different attitudes to inequality of Americans and Europeans.

## **2. Preferences for equality and Locus of control**

As we outlined in the Introduction, preferences for equality are heterogeneous. Sources of such heterogeneity include fairness concerns (Alesina, Di Tella and MacCulloch, 2004; Alesina and La Ferrara, 2005), own mobility prospects (Bénabou and Ok, 2001), or risk aversion (Ferrer-i-Carbonell and Ramos, 2010).

Individuals may also differ in their taste for equality due to shocks or circumstances that affect groups of similar people. For instance, growing up in recession or experiencing a radical political or economic transition conditions the tolerance individuals have for inequality (Hirschman and Rothschild, 1973; Grosfeld and Senik, 2010). This may thus explain variation among different cohorts or across countries.

In this paper we contend that personality is also important to understand people's attitudes toward equality. We examine one important aspect of personality, locus of control (LOC), which captures individual's perception of their command of their life (Rotter, 1954 and 1966). Individuals with low external LOC believe that their behavior is guided by their personal decisions and efforts and not by external circumstances, whereas those with high external LOC believe that factors external to them drive their life. Hence, while low external locus of control promotes self-directed behavior, high external locus of control inhibits one's agentic abilities.

A corpus of field and laboratory experiments in psychology has proven the importance of the interplay between personality traits and the responsiveness to social comparisons. The hedonic response to favorable and unfavorable life outcomes is found to depend on certain non-cognitive skills (personality traits?) including neuroticism, self-esteem, optimism and happiness. Moreover, the extent to which one finds social comparisons inspiring or threatening

is known in the field of psychology to depend on whether one finds a sense of control over the dimension under evaluation. People with low external LOC believe that her behavior is guided by her personal decisions and efforts and not by external circumstances and reap lower emotional benefits from an advantageous position (Wood and Van der Zee, 1997).

We argue (and want to test) that individuals who believe that the control over their life is external, for instance, because others exert a greater influence over their life, or because luck is an important factor shaping their life outcomes, will be *less* tolerant towards inequality than those individuals who feel that they are in control of their life and destiny. The argument is related to a sense of fairness or deservingness. People with high external LOC may sense that her position in the social ladder is mostly driven by elements which are beyond her control, that she does not have the means to change her situation. Such perceived lack of agency, if generalized to the situation of everyone else, may lead to a belief that the distribution of economic advantage is unfair. Contrary to that, low external LOC individuals will believe that they are reaping the return of their decisions and behavior, and thus will find the unequal distribution of advantage more acceptable.

Note that importantly, locus of control is likely to influence the exertion of effort, as it determines the belief as to how important effort is to achieving one's goals. This may lead to a self-fulfilling prophecy: People with low external locus of control may thus exert higher effort, because they think that effort matters, and indeed obtain more advantage.

The literature that examines the role of fairness in explaining individuals' attitudes towards equality is mostly experimental, and there is no evidence based on large, representative samples. Survey data has instead been widely used to analyze the related concept of preferences for redistribution. This literature examines the relevance of the fairness motive to explaining people's preference for equality by means of direct questions about the role that the government should have at reducing disparities between the rich and the poor.<sup>1</sup> One of the potential shortcomings of such empirical approach is strategic answering to the redistribution questions. Our empirical approach avoids such problems, as it employs direct evidence on subjective well-being and measured inequality.

### **3. Empirical strategy**

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<sup>1</sup> For instance, Alesina and La Ferrara (2005), and Alesina and Giuliano (2009) use the following General Social Survey question: "Some people think that the government in Washington should do everything to improve the standard of living of all poor Americans (they are at point 1 on this card). Other people think it is not the government's responsibility, and that each person should take care of himself (they are at point 5). Where are you placing yourself in this scale?"

### **3.1. Measures of utility, LOC, and inequality**

In order to estimate inequality aversion and how this depends on individuals' locus of control, we use self-reported life satisfaction as a proxy measure of utility. Life satisfaction is the answer to a typical life satisfaction question in which individuals are asked to report their degree of satisfaction with their life on a numerical scale. This measure has been used in the literature to proxy for individuals' utility so as to understand individuals' preferences. In order for the answers to the satisfaction question to be meaningful for our analysis we need to assume that individuals are able and willing to answer satisfaction questions; that there is indeed a unequivocal relation between what is measured and the concept of utility; and that answers are interpersonal comparable, i.e. an individual reporting a 8 is strictly happier than one reporting a 4 (see Ferrer-i-Carbonell and Frijters, 2004).

In the last years there is an increasing number of evidence supporting these assumptions and the reliability of reported satisfaction and its usefulness as a proxy for utility and thus to describe preferences and understand behavior. The earlier evidence came mainly from psychologists and other scientists who accumulated evidence of the correlation between reported satisfaction and more objective measures of satisfaction or well-being, such as the amount of smiling in the questionnaire (Sandvik, Diener and Seidlitz, 1993), changes in facial muscles (Kahneman, 1999), objective measures of health (Blanchflower and Oswald, 2008 and Steptoe and Wardle, 2005), and physical measures of brain activity (Urry et al., 2004). Recently, however, there is new evidence showing that reported happiness can predict behavior and thus needs to be related to the theoretical concept of utility. For example, Clark (2001) shows that reported job satisfaction can predict future job quits; Guven, Senik, and Stichnoth (2012) find that the satisfaction gap between spouses explains the probability of a future divorce; Oswald, Proto and SgROI (2009) report a positive causal correlation between reported satisfaction and individuals' productivity; and Helliwell, (2007) finds a positive correlation between suicide and reported well-being. There is also evidence on the existence of a common shared concept of satisfaction or happiness: individuals are quite good at predicting other individuals' happiness (or emotions) by looking at pictures and videos (Diener and Lucas, 1999 and Sandvik, Diener and Seidlitz, 1993).

The main aim of the paper is to estimate the effect of inequality on self-reported satisfaction and to empirically test whether this relationship depends on individuals' external LOC. External LOC measures the degree to which individuals feel that their life is not under their own control but it depends on external factors, such as the action of others or luck as

opposed to effort and own decisions. The notion of LOC was developed by Julian Rotter and since then it has become an important concept to define personality within psychology.

In our data (see section 4), the LOC items are only introduced in one single year. In order to exploit the time and regional inequality variation, the empirical analysis needs to use multiple years. Although personality traits tend to be fairly time persistent especially in adulthood (Roberts and Del Vecchio, 2000, Costa and McCrae, 2002), recent studies point to changes in personality over the life-cycle following changes in individual circumstances. The literature reports that the most important personality changers are age (Roberts et al., 2006, Soto et al., 2011) and major life events, such as marriage, divorce, widowhood, and transitions into an out of employment (Kandler et al. 2010, Specht et al., 2011). To accommodate for this, the regression analysis uses the residuals predicted from an equation in which we regress the measure of LOC on age, labor market status (unemployed, not active, reference: employed) and marital condition (living or not with a partner at home). The predicted residuals represent that part of the LOC that is independent of age, employment and marital status. The empirical analysis uses these residuals as a measure of LOC.

### 3.2 Econometric approach

The empirical strategy is to estimate a self-reported satisfaction equation to identify the effect of the gini coefficient on satisfaction and how this depends on individuals' locus of control. To this end, we estimate the following equation:

$$LS_{nt} = \alpha + \beta Gini_{ft} + \gamma Gini_{ft} * \widehat{LOC}_{nt} + \delta \widehat{LOC}_{nt} + \theta x_{nt} + \lambda \bar{z}_n + \xi M_{ft} + \rho Y + \pi N + \varepsilon_{nt} + \eta_n$$

Where  $LS$  is individual  $n$  life satisfaction reported in year  $t$ ,  $Gini$  is yearly measured at the federal level,  $\widehat{LOC}_{nt}$  are the residuals obtained from regressing the LOC measure on individuals age, employment and marital status (see section 3.1),  $x$  are individual characteristics such as income, nationality, household composition and health, and  $\varepsilon$  is an iid error term. In addition, the regression includes nuts2<sup>2</sup> (N) and yearly (Y) dummy variables to capture all those unobservable regional/time characteristics that can correlate with the gini coefficient and co-determine life satisfaction. In this way, we pill from the gini coefficient any other macro effect. Since unemployment and GDP are strongly related to inequality and at the same time have been put forward as important macro determinants of life satisfaction, we do include

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<sup>2</sup> There are 39 NUTS2 in Germany.

those two separate variables ( $M$  in the equation) despite we control for the regional and time dummy variables.

The interaction term between the *Gini* and the LOC aims at capturing whether there is heterogeneity in inequality aversion. Our prediction is that individuals that report being more external (here measured as larger LOC) are more inequality averse and we therefore expect  $\gamma$  to be negative.

In the empirical analysis we exploit the panel structure of the data by introducing an individual random effect  $\eta$ . In the present context, and given the rather time persistent nature of the LOC measure, this option is preferable to the individual fixed effect approach. Nevertheless, we need to be aware that the random effect model imposes the rather unrealistic assumption of zero correlation between the individual effect and the explanatory variables. In order to address this issue we introduce what is known as the Mundlack term (Mundlack, 1978). That is, we introduce the individual mean over the years of those variables that are bound to be correlated with the individual time persistent unobservable effects ( $Z$  in the equation). These terms  $Z$  capture the correlation and allow us to interpret the  $\theta x$  coefficients as free of this shortcoming. The literature has shown that, if introducing the term  $Z$ , the coefficients of the explanatory variables (expressed in yearly terms) are very similar between the fixed and the random effect model. This means that the Mundlack terms are able to capture the existing correlation between the explanatory variables and the individual time persistent unobservable term.

Since imposing cardinality and regressing the life satisfaction equation with a linear model does not change the results with respect the trade-offs between variables (Ferrer-i-Carbonell and Frijters, 2004), we regress life satisfaction with a GLS linear random effect model as opposed to taking into account the ordinal nature of the dependent variable.

The *Gini* is calculated at the federal level and therefore clustering for federal states seems the obvious option. Nevertheless, and since the number of clusters is very small, clustering by federal state can produce biased results (Angrist and Pischke, 2008). The literature has adopted various solutions to address this problem. In this paper we will present the results without clustering (only with robust standard errors at the federal level) in the main text and in the Appendix we present a table with three alternative econometric approaches. The results are very similar in terms of statistical significance, although the standard deviations do vary across econometric approaches. The three different approaches are: (i) we cluster robust

standard errors by federal state assuming that the number of clusters is large; (ii) we conduct block bootstrapping, which consists on drawing blocks of data defined at the reference group level and then computing standard deviations from the different subsamples. A cluster bootstrap that assumes independence across clusters but not within clusters is equivalent to computing cluster-robust standard errors (Cameron and Trivedi, 2010); and (iii) we follow Cameron et al. (2007) and Hansen (2007)<sup>3</sup> suggestion of relying on a t-student distribution with  $G-K$  degrees of freedom (where  $G$  is the number of groups and  $K$  the number of independent variables) instead of a normal distribution when presenting cluster-robust inference when the number of clusters is small.

#### **4. Data**

The data set used in the empirical analysis is the German SOEP household panel data (for details see Wagner, Frick and Schupp, 2007; and Frick, et al., 2007). This data set contains information on a wide range of personal and household information, including a set of subjective questions on satisfaction. In 2005 the questionnaire included a battery of questions aimed at capturing the individual “Locus of Control” (LOC). Since these questions were only asked in 2005 and despite the fact that LOC is rather time consistent and that we adjust for observable determinants of LOC (see section 3.1), the empirical analysis will focus on the years around 2005 only. That is, we run the empirical analysis on the years 2000-2010, which includes about 160.000 observations and 18.000 individuals.

As explained in section 3.1, the empirical analysis uses a life satisfaction question as a proxy measure of utility. In our data, the life satisfaction question runs as follows: How satisfied are you with your life, all things considered? The answer to this question is known as Life Satisfaction (LS) and can take 11 discrete values (from 0 to 10).

In the German SOEP, the external dimension of the LOC is measured with 6 items<sup>4</sup>:

(i) haven't achieved what I deserve, (ii) what you achieve depends on luck, (iii) others make the crucial decisions in my life, (iv) possibilities are defined by social conditions, (v) abilities are more important than effort, (vi) little control over my life.

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<sup>3</sup> Cameron et al., 2007 and Hansen, 2007 have 10 Canadian provinces, whereas we have 15 federal states.

<sup>4</sup> Internal LOC was also measured in the SOEP. However, this construct exhibited a very limited amount of internal consistency in the data (Cronbach alpha = 0.167), meaning that the surveyed items are not at all appropriate for measuring the underlying scale. This forced us to exclude internal LOC from the analysis.



Each of these questions has to be answered on a 1 to 7 scale, where 1 stands for “disagree completely” and 7 for “agree completely”. In the empirical analysis we use the average over the six items. The higher the score the more external the individual is. This is the more the respondents feel that their life is much driven by external factors such as luck and others.

## 5. Results

The results presented in Table 1 (which are consistent with those using alternative econometric approaches to deal with clustering and that can be found in the appendix) clearly indicate that individuals' locus of control is an individual characteristic generating heterogeneity in the preferences over inequality. The more external individuals are, e.g., the less they attribute one's situation to own decisions and efforts, the more inequality averse. In addition individuals with an external locus of control are, everything else given, unhappier.

The residuals of the estimated external locus of control range from -3.26 to 3.74. This means that while the estimated coefficient of the Gini index is -0.713 for the average respondent (which is very similar to the mode), it is -2.81 for individuals with the maximum score on external locus of control. This coefficient is even positive (1.11) for the least external individuals. More precisely, the estimated relationship between the Gini index and life satisfaction is positive for nearly 10% of the individuals, although for some of them the coefficient is very small. In terms of income it means, for example, that a respondent at the mean of the external locus of control measure would be indifferent between a 0.05 drop of inequality and a decrease of 11.5% of own income.

**Table 1: Life satisfaction, Inequality and LOC. German SOEP 2000-2010**

	<b>Coeff</b>	<b>t</b>	<b>Coeff</b>	<b>t</b>
Constant	10.313	12.83	11.874	14.97
<i>Region &amp; time characteristics</i>				
Gini (year/federal state)	<b>-0.734</b>	<b>-2.23</b>	<b>-0.713</b>	<b>-2.17</b>
Gini * External Locus of Control			<b>-0.560</b>	<b>-3.70</b>
External Locus Of Control			-0.150	-3.49
Unemployment Rate (year/federal state)	-0.029	-8.58	-0.029	-8.64
GDP growth (year/federal state)	-0.001	-0.44	-0.001	-0.43
<i>Individual &amp; household characteristics</i>				
Ln(age)	-4.731	-10.70	-4.767	-10.93
Ln2(age)	0.601	9.93	0.607	10.18
Individual is a male	-0.044	-2.53	-0.048	-2.84
Individuals is German born	0.056	1.66	0.010	0.29
Ln(household income)	0.326	18.22	0.326	18.23

Individual has a partner	0.180	9.28	0.199	10.40
Individual is unemployed	-0.607	-24.58	-0.703	-28.38
Individual does not work	0.015	1.03	-0.038	-2.57
Individual is disable	-0.460	-20.32	-0.444	-19.86
Savings (amount in euros)	0.000	4.69	0.000	4.72
Ln(number of adults)	-0.272	-7.64	-0.271	-7.62
Ln(number of children +1)	0.056	2.86	0.054	2.77
Ln(years of education)	0.285	2.26	0.270	2.14

*Individual means across 10 years (Mundlack)*

Mean: Ln(household income)	0.520	14.74	0.373	10.77
Mean: Ln(years of education)	0.013	0.09	-0.185	-1.37
Mean: Ln(number of adults)	-0.467	-7.52	-0.317	-5.19
Mean: Ln(number of children +1)	0.037	1.15	0.005	0.16
Mean: Savings (amount in euros)	0.000	1.06	0.000	0.95

Number of Observations	163232	163232
Number of individuals	18598	18598
R-Squared		
	within: 0.031	0.032
	between: 0.217	0.264
	overall: 0.139	0.166

**Note:** GLS Individual random effects with robust standard errors at the federal level. Regional (nuts2) and time dummy variables are included.

The other coefficients presented in the table are consistent with the usual findings in the literature. Surprisingly enough, while unemployment rate at the federal level has a negative and statistically significant coefficient on life satisfaction, economic growth does not seem to matter from a statistical perspective. This coefficient may be explained by the fact that the GDP per capita in the years 2000-2010 was, on average, very high. This would be consistent with the Easterlin Paradox. In contrast with other studies (and with earlier waves of the German SOEP), the effect of years of education is clearly positive and statistically significant. In many countries however one finds indeed a positive and statistically significant coefficient for years of education.

## 6. Conclusions

Individuals' preferences for equality are known to be heterogeneous. Fairness concerns are one such important source: individuals who believe that effort is a key determinant of social advantage view the distribution of relevant social outcomes, such as income, as fairer and thus are more tolerant with inequalities. Even though the literature usually warns that effort must be understood as a broad thing rather than in *strict sensus*, (see for instance Alesina and Angeletos, 2005) it never spells out what should effort include or exclude. In this paper we

argue that behind the fairness motive there is a sense of control of her life, which ultimately takes her to achieving social advantage. Furthermore, we draw on the psychological literature and suggest the construct of locus of control as a measure to capture such sense of control, and provide empirical evidence about the influence of locus of control on aversion to inequality.

Locus of control is a construct that measures the extent to which individuals believe that they control their life. People with a low external (i.e. internal) locus of control believe that their own actions determine the rewards that they obtain, while those with a high external locus of control believe that their own behavior does not matter much and that rewards in life are generally outside of their control. Fairness then arises because people do something to obtain the rewards, and not because the rewards themselves are deemed just or appropriate.

Using panel data from the German Socio-Economic Panel for 2000-2010, and several estimation strategies, we find robust evidence that shows that individuals' locus of control is an individual characteristic generating heterogeneity in the preferences over inequality. More precisely, the more externals individuals are found to be the more inequality averse. Therefore, our estimates are consistent with our premise that locus of control captures the idea of (lack of) fairness or legitimacy of economic and social advantage. It is, thus, not surprising to find the positive relationship between inequality aversion and external locus of control. Furthermore, individuals with an external locus of control are also unhappier, *ceteris paribus*.

## Appendix

As the gini index is measured at a higher level of aggregation than is individual life satisfaction, is advisable to cluster the standard errors at the level of aggregation of comparison income (Moulton, 1990). In this Appendix we present three alternative econometric approaches intended to assess the robustness of the results. In our data the number of clusters is naturally set at 15 but we need many clusters for group level asymptotics to work well. To address this issue we do a set of robustness checks and apply three different econometric approaches to estimate the same model.

First, we ignore the few clusters problem and apply traditional clustering robust standard errors based on asymptotic properties when the number of clusters is large. Then we address the few clusters problem by conducting block bootstrapping. This consists on drawing blocks of data defined at the federal state level and then computing standard deviations from the different subsamples (Cameron and Trivedi, 2010). The number of extractions was set at 100, a value that maintains computational time at feasible levels and assures enough precision. The third set of results is based on a t-student distribution with  $G-k$  degrees of freedom (where  $G$  is the number of groups and  $K$  the number of independent variables) rather than on standard normal distribution. The benefits of this strategy in the presence of few clusters have been highlighted by Donald and Lang (2007), Hansen (2007) and Cameron et al. (2008).

**Table A: Life satisfaction, German SOEP 2000-2010**

	<b>Coeff</b>	<b>t</b>	<b>Coeff</b>	<b>t</b>	<b>Coeff</b>	<b>t</b>	<b>Inference t-value</b>
Constant	11.874	14.97	11.874	11.34	11.874	13.89	
Gini (year/federal state)	<b>-0.713</b>	<b>-2.17</b>	<b>-0.713</b>	<b>-2.31</b>	<b>-0.713</b>	<b>-2.47</b>	
GINI * External Locus of Control	<b>-0.560</b>	<b>-3.70</b>	<b>-0.560</b>	<b>-2.02</b>	<b>-0.560</b>	<b>-2.78</b>	<b>-4.164</b>
External Locus Of Control	-0.150	-3.49	-0.150	-2.17	-0.150	-3.03	<i>Conf. Interval</i>
Unempl. Rate (year/federal state)	-0.029	-8.64	-0.029	-8.75	-0.029	-7.54	<b>[-6.16, -2.17]</b>
GDP growth (year/federal state)	-0.001	-0.43	-0.001	-0.44	-0.001	-0.45	
Ln(age)	-4.767	-10.93	-4.767	-9.51	-4.767	-11.95	
Ln2(age)	0.607	10.18	0.607	9.09	0.607	11.05	
Individual is a male	-0.048	-2.84	-0.048	-4.63	-0.048	-5.18	
Individuals is German born	0.010	0.29	0.010	0.31	0.010	0.41	
Ln(household income)	0.326	18.23	0.326	13.63	0.326	13.30	
Individual has a partner	0.199	10.40	0.199	5.84	0.199	5.68	
Individual is unemployed	-0.703	-28.38	-0.703	-27.57	-0.703	-30.85	
Individual does not work	-0.038	-2.57	-0.038	-2.81	-0.038	-2.77	
Individual is disable	-0.444	-19.86	-0.444	-14.68	-0.444	-16.65	
Savings (amount in euros)	0.000	4.72	0.000	4.11	0.000	4.03	

Ln(number of adults)	-0.271	-7.62	-0.271	-5.06	-0.271	-6.27
Ln(number of children +1)	0.054	2.77	0.054	3.46	0.054	3.25
Ln(years of education)	0.270	2.14	0.270	2.42	0.270	2.81
Individual means across 10 years:						
Mean: Ln(household income)	0.373	10.77	0.373	9.46	0.373	10.42
Mean: Ln(years of education)	-0.185	-1.37	-0.185	-1.39	-0.185	-1.58
Mean: Ln(number of adults)	-0.317	-5.19	-0.317	-4.60	-0.317	-4.69
Mean: Ln(number of children +1)	0.005	0.16	0.005	0.11	0.005	0.12
Mean: Savings (amount in euros)	0.000	0.95	0.000	1.43	0.000	1.57
Number of Observations	163232		163232		163232	
Number of individuals	18598		18598		18598	
R-Squared						
within	0.032		0.032		0.032	
between	0.264		0.264		0.264	

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