



WP7. Deliverable 7.4.2. Assessment of the impact of the GMI.

B-Mincome's impact on life satisfaction

October 7th, 2019



Research team members:

Fabricio Bonilla

Filka Sekulova

About ICTA*

The Institute of Environmental Science and Technology (ICTA-UAB) is a multidisciplinary centre that promotes academic research and postgraduate education in the environmental sciences. It aims to improve our understanding of global environmental change, and the nature and causes of environmental problems. In addition, it studies policies, strategies and technologies to foster a transition to a sustainable economy.

*Taken from its official website: <https://ictaweb.uab.cat>

TABLE OF CONTENTS

Table of contents.....	3
Tables index.....	4
Figures index	5
1. executive Summary	6
2. Introduction.....	7
3. What is B-Mincome?	9
4. The Project’s target population.....	11
5. Methodology	13
5.1. Statistical models	13
5.2. Cross-sectional regressions	14
5.3. Panel data study.....	14
5.4. Data	15
6. Descriptive statistics.....	17
6.1. Cross-section 1: before the pilot	17
6.2. Cross-section 2: one year into the project	19
6.3. Cross-section 3: pilot’s final phase.....	23
6.4. Panel data.....	25
7. Key results and models.....	27
7.1. Cross-section 1: What determined people’s life satisfaction before B-Mincome?	27
7.2. Cross-section 2: After 1 year	31
7.3. Cross-section 3: short before the end.....	34
7.4. Panel data model.....	36
8. Discussion.....	40
8.1. Economic activity, material conditions and economic situation.....	40
8.2. Health	41
8.3. Human relations and social capital	41
8.4. Gender and ethno-cultural background.....	42
8.1. Emotions, mood and personality	42
8.2. Policy schemes	42
9. References.....	44
10. Appendixes	45
Appendix 1. List of independent variables in each cross-sectional data series	45
Appendix 2. Model 2A.2 – Comparative model with mood, emotions and self-esteem variables ..	48
Appendix 3. List of panel data variables.....	49

Appendix 4. Model 3A.2 – treatment group’s comparison model for third cross-section 51

TABLES INDEX

Table 6.1. Summary of wave 1 sample.....	17
Table 6.2. LS per gender label - Cross-section 1.....	18
Table 6.3. LS per marital status - Cross-section 1.....	18
Table 6.4. Life satisfaction per income decile, at dwelling-unit and dwelling-unit member levels - Cross-section 1	19
Table 6.5. Summary of wave 2 sample.....	20
Table 6.6. LS per gender label – Cross-section 2.....	21
Table 6.7. LS per marital status – Cross-section 2.....	21
Table 6.8. Life satisfaction per income decile, at dwelling-unit and dwelling-unit member levels – Cross-section 2.....	21
Table 6.9. Life satisfaction average for the different policy-schemes and economic activity situation – Cross-section 2	22
Table 6.10. Summary of wave 3 sample.....	23
Table 6.11. Marital status codes	24
Table 7.1. Results for general regression model 1A for cross-section 1	28
Table 7.2. Results for regression model 1B: women in cross-section 1.....	30
Table 7.3. Results for regression model 1B: men in cross-section 1.....	31
Table 7.4. General regression model for second cross-section	32
Table 7.5. Regression model for cross-section 2: behaviour of economic activity situation variables.....	32
Table 7.6. Model 3A.1: regression for treatment group in 3rd wave	34
Table 7.7. Model 3A.2: regression for control group in 3rd wave	35
Table 7.8. Panel data mixed-effects model.....	37
Table 7.9. Panel data fixed-effects model.....	38
Table 11.1. Independent variables studied in each cross-section	45
Table 11.2. Model 2A.2 – Comparative model with mood, emotions and self-esteem variables.....	48
Table 11.3. List of panel data variables	49
Table 11.4. Model 3A.2 - Treatment group's comparison model for third cross-section.....	51

FIGURES INDEX

Figure 3.1. Distribution of dwelling units among the different policy schemes.	9
Figure 3.2. Description of B-Mincome active policies.	10
Figure 6.1. Distribution of answers on life satisfaction - Cross-section 1	17
Figure 6.2. Life satisfaction average per age - Cross-section 1	18
Figure 6.3. LS distribution per gender label	18
Figure 6.4. Average LS per marital status - Cross-section 1	18
Figure 6.5. Life satisfaction average per income decile - Cross-section 1.....	19
Figure 6.6. Life satisfaction distribution - Cross-section 2	20
Figure 6.7. Life satisfaction average per age - Cross-section 2	20
Figure 6.8. Life satisfaction distribution per gender label - 2 nd wave	21
Figure 6.9. Average life satisfaction according to marital status - Cross-section 2.....	21
Figure 6.10. Life satisfaction average per income decile - Cross-section 2.....	22
Figure 6.12. Life satisfaction distribution for treatment and control group in 3rd survey wave - by percentage of respondents per LS level	23

1. EXECUTIVE SUMMARY

In this report we explore the study of life satisfaction within the B-Mincome pilot project. Implemented in Barcelona's area with the highest concentration of socio-economic poverty and deprivation, the project was expected to strongly influence people's satisfaction with life. We explore the results on subjective life satisfaction as dependent on people's conditions and situations of life, both intrinsic and extrinsic, which can be classified within the different domains of life. We highlight the general 27% increase in the rates of people's satisfaction with life through the implementation of the project. We also conclude that there are strong correlations between the reported values of life satisfaction and several of the studied independent variables.

2. INTRODUCTION

B-Mincome is a pilot project that aims to fight poverty and social exclusion through the combination of a minimum guaranteed income (GMI) with so-called active social policies. Although Barcelona has several areas with high concentration of low-income and socio-economically isolated population, the stretch of these ten neighbourhoods known as the Besòs Axis (Eix Besòs) has stood out as particularly worrisome. At the time of the preliminary analyses and project design, all ten neighbourhoods appeared within Barcelona's lowest household income quartile, and poverty and social deprivation were more highly concentrated here than anywhere else in the city (Hill-Dixon, Green, Davis, Boelman, & Sanchez, 2018). The instability and unpredictability has not only limited people's capacity to formulate long-term objectives to strive for (Sheldon & Hoon, 2007) but also generated high levels of anxiety, which reportedly has constrained their "mental bandwidth" (Mani, Mullainathan, Shafir, & Zhao, 2013) and eroded their levels of life satisfaction (Gudmundsdottir, 2013).

Eix Besòs is an ethnographically diverse area with 28% of the population born outside Spain (Ajuntament de Barcelona, 2019). A recent report by the Young Foundation (Hill-Dixon et al., 2018) describes how stories of mostly informal but valuable support networks in the neighbourhood (friends, family members) contrasted with those of tension and conflict. Other perceptions and reported experiences included, a lack or loss of community feeling and of belongingness, feelings of unfair distribution of scarce, unequally needed resources – generally blamed at local authorities – in detriment of social cohesion and trust.

The current report provides the first and raw results from the quantitative assessment of the impacts of the introduction of a Basic Income scheme. We employ a standard self-reported, or direct, approach, based on asking the participants to assign a subjective value to their level of life satisfaction (LS). Next we relate the responses to people's conditions and situations of life, both intrinsic and extrinsic, along different domains of life.

Data was collected through a survey, applied on three occasions: before the pilot was launched, in October 2017; a year after the introduction of the BI, and and nine months later, soon before the end of the project. Given data availability we undertake two types of analysis: 1) a study using the data from each specific period (cross-sectional regression), and 2) a study putting all three survey waves into a single data-set (panel-data study). Both explore the way life satisfaction changes due to changes in certain characteristics, e.g. individual/demographic, behavioural, social, economic and geographical.

The cross-sectional regressions aim to find those independent variables that most suitably explain what influences people's satisfaction with life, given certain specific, momentary conditions and situations. In this way, we identify or proxy the most important aspects that define B-Mincome's target population's life satisfaction and how these vary across space and various socio-economic determinants.

Secondly, we also conduct a panel study exploring the changes occurring in the targeted population over time. In particular, we track variations in life satisfaction (LS) levels for each individual, along with changes in the different explanatory variables, and seek to explain the former with the latter ones.

In the cross-section analysis we furthermore obtain the initial or "baseline" situation against which we compare the subsequent data, hence trying to explain how B-Mincome impacts their life satisfaction. One core finding here is that a significant increase in the life-satisfaction of the beneficiaries is observed one year after the start of the project: a 27% increase of the LS average. The final data-collection in

turn shows a practically unchanged average as compared to the second, i.e. still 27% higher than the result obtained before the project's launching.

Here we shall also mention that not all variables measured in the first wave were also part of the second and third questionnaires. Similarly, new variables were introduced in the second and also in the third waves. This makes the panel-data analysis only fit with the questions that were repeated over all three waves.

3. WHAT IS B-MINCOME?

Here we summarise what we consider the most relevant aspects of the project that give a clear image of its dynamics and implementation practicalities, along with concepts and terms important to fully understand this report.

The pilot effectively started in November 2017, although part of the treatment group dwelling units only received the first payment until December, 2017. As planned, the project is to last 24 months, which means that some households would receive their last payment in November and others in December 2019.

In the case of Barcelona the minimum guaranteed income is called Municipal Inclusion Support (*SMI*, from its acronym in Catalan and Spanish) and follows a negative income tax (NIT) format. At dwelling-unit level, the pilot designers initially calculated each household’s basic material needs according to, quantity of members, housing conditions, specific living needs, among other. Each dwelling unit thus receives a *SMI* equal to the difference between that minimum amount necessary to satisfy their basic material needs and the income earned at DU-level.

Approximately 35% of the households receives a so-called “limited” SMI, which they see reduced proportionally to any additional income they would earn. The rest of households has their SMI partially reduced by 25% for the first €250 above the basic threshold and by 35% of the remaining amounts. (Ajuntament de Barcelona, 2019).

Moreover, the design team decided to split the treatment group among conditional and non-conditional participation, i.e. part of the dwelling units are obliged to participate in an active policy in order to receive the SMI, while the others are not. Figure 4.1 shows the distribution among the different policy schemes, which resulted from a Randomised Control Trial (RCT).

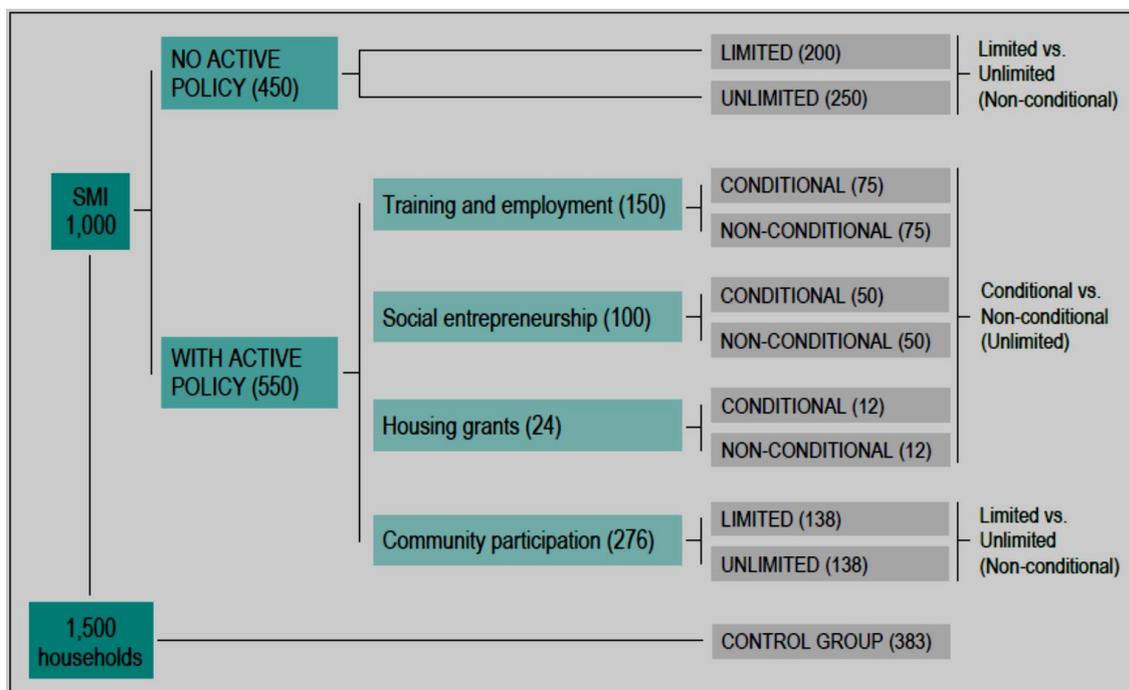


Figure 3.1. Distribution of dwelling units among the different policy schemes.

(Source: Ajuntament de Barcelona, 2019).

There is one designated person in each household as recipient of the money. This person had to be between 25 and 60 years old – i.e. within economically active age range – at the launching of the pilot. Furthermore only one member per dwelling unit is allowed to take part in the active policies although the person who receives the SMI need not be the same person taking part in the active policy.

Active policy programme	Description
Training programme and employment plans	Employment programme lasting 12 months, preceded by a three-month vocational training course
Social economy programme	Participants supported in creating cooperative, social, solidarity economy and community-interest projects.
Community participation programme	Participation in projects which benefit local organisations and community associations
Housing renovation programme	The main goal of this active policy called "Housing rent aid" is to encourage improvements to the houses owned by the household participants. This policy will allow new family incomes through the rent of available rooms of their houses.

Figure 3.2. Description of B-Mincome active policies.
 (Source: (Hill-Dixon, Green, Davis, Boelman, & Sanchez, 2018))

4. THE PROJECT'S TARGET POPULATION

The target population of B-Mincome exhibit specific characteristics and conditions that are relevant for our analysis. The report “Living in the Precariat: A portrait of life in Eix Besòs” conducted by The Young Foundation¹ (Hill-Dixon et al., 2018) in the months previous to B-Mincome’s launching, in three representative neighbourhoods out of the ten² included in the pilot, provides a detailed account of severe life conditions and experiences of the project beneficiaries.

Although Barcelona has several areas with high concentration of low-income and socio-economically isolated population, the stretch of these ten neighbourhoods known as the Besòs Axis (Eix Besòs) has stood out as particularly worrisome. At the time of the preliminary analyses and project design, all ten neighbourhoods appeared within Barcelona’s lowest household income quartile, and poverty and social deprivation were more highly concentrated here than anywhere else in the city (Hill-Dixon et al., 2018).

B-Mincome project was launched with the participation of approximately 950 (originally set at 1000) seemingly most socio-economically deprived and vulnerable households. According to the City Council (2019), “households that entered the draw demonstrated a more vulnerable socio-economic situation than, 1) the average household in Barcelona; 2) the average population at risk of poverty in the city³; and 3) the average user of municipal Social Services (according to the ECVUSS - ‘Study into Living Conditions of Users of Social Services’, 2016).”

In this sense, the Young Foundation (2018) explains how these people had to face a constant condition of precarity, defined as “life without the promise of stability”. On a daily basis, this impacts: 1) their material security, especially through inadequate and insecure housing; 2) their health, mostly psycho-emotional but also sometimes physical; and 3) their general sense of wellbeing. Indeed city council’s data showed that, at the time of the preliminary analyses and project design, the rates of material deprivation and severe material deprivation were way higher as compared to the the rest of the city, 93,4% against 44,6% and 69,0% against 15,4%, respectively (Ajuntament de Barcelona, 2019).

Moreover, for many of B-Mincome’s recipients the thus far existing welfare system has not been able to provide the reliability and security they judged necessary for them to develop a greater sense of autonomy and control over their lives (Bonilla & Sekulova, 2019). The instability and unpredictability has not only limited their capacity to formulate long-term objectives to strive for (Sheldon & Hoon, 2007) but also generated high levels of anxiety, which reportedly has constrained their “mental bandwidth” (Mani et al., 2013) and eroded their levels of life satisfaction (Gudmundsdottir, 2013).

Additionally, these experiences of precarity and unpredictability appear to have curtailed people’s empowerment and self-esteem, which has had a negative impact on their motivation to participate in community life and to relate to others in general. Many have also had to partly give up their social life due to time and material constraints, all exacerbated by the constant gambling in-and-out of precarious employment, i.e. unreliable and/or poorly paid, normally informal (Hill-Dixon et al., 2018).

¹ The Young Foundation is partner in B-Mincome’s research executive committee and in charge of an in-depth ethnographic study about the project’s social impact.

² Ciutat Meridiana, Vallbona, Torre Baró, Roquetes and Trinitat Nova in the Nou Barris district; Trinitat Vella, Baró de Viver and Bon Pastor in the Sant Andreu district; and Verneda i La Pau, and Besòs i el Maresme in the Sant Martí district.

³ According to the Barcelona sample of the Spanish National Statistics Institute ‘Study into Living Conditions’, 2016.

The possibility to find stable and decent employment was actually the most recurrent expectation mentioned by B-Mincome's participants, and not only for material/economic reasons (Bonilla & Sekulova, 2019).

In this sense, the Young Foundation (Hill-Dixon et al., 2018) describes how stories of mostly informal but valuable support networks (friends, family members) contrasted with those of tension and conflict. Many confessed having overcome situations of deeper economic deprivation or emotional instability thanks to close relationships. Others complained about what they sense was a lack or loss of community feeling, of belongingness. The differing perceptions of (dis-)connection together with the sense of living a unfair distribution of scarce, unequally needed resources – (often blamed at local authorities), have settled among the population in detriment of social cohesion and trust.

Another means of perceived disconnection were those related to the physical distance to the city center, which has often represented a badly serviced or non-existent transit ride. Despite the efforts of public officials and institutions, as well as other organisations, there seemed to be a pervasive idea of having been marginalised. In addition, the rest of the city has not been able to hide the very much prevailing stigmas of insecurity and danger associated to these neighbourhoods, which have stained the self-perception of Besòs' residents and their communities, despite the resistance of some of them to fall into that idea (Hill-Dixon et al., 2018).

Finally, it has not only been adults whose lives have been in constant state of vulnerability and on which the consequences of precarity have had a deep impact. A 38% of the target population was comprised of children under 16 years old. At the start of the project, B-Mincome's households had 4,1 members on average, which is considerably more than Barcelona's 2,5 average and the 2,6 for the users of social services (Ajuntament de Barcelona, 2019).

5. METHODOLOGY

We employ a standard self-reported, or direct, approach to happiness, based on asking the participants to assign a subjective value to their level of life satisfaction (LS). The question used is “making a general balance of your life, how satisfied are you at present?”. On a 0-to-10 scale, people are asked to give a numeric value to their satisfaction level, in which 0 represents “totally dissatisfied” and 10 represents “totally satisfied”. Among the answers, we also include the options “No answer” and “I don’t now”.

We then relate the results of this question to people’s conditions and situations of life, both intrinsic and extrinsic, which can be classified as different domains of life. We opted for the lately preferred wording “life satisfaction” because the results tend to relate to a greater number of aspects of life (Flanagan, 1978; Van Praag & Ferrer-i-Carbonell, 2011). This terminology also seems to appeal to past and present experiences, and – less strongly – future expectations, thus embracing the notion that “humans do not live exclusively in the immediate present” (Mackerron, 2012) and life satisfaction can be affected in an aggregate manner by those temporary situations and anticipations.

We applied a survey with questions that relate to different aspects of life, which we specifically classified as pertaining to the domains: human relations and social capital; employment and economic activities; physical and psychological health; material conditions and housing; emotions, mood and personality; and use of free-time. The complete list of variables, which also includes demographical data, can be found in appendix 1.

Moreover, we follow Ferrer-i-carbonell & Frijters (2004) who conclude that while the results for the abovementioned LS question are practically the same whether assumed ordinality or cardinality, “time-invariant factors related to observables are very important in explaining” people’s answers on life satisfaction. Thus, we assume that respondents coincide in their interpretation of each value and we can directly compare those life satisfaction numeric answers. Even when we do not necessarily understand the “relative difference between satisfaction answers” (Ferrer-i-carbonell & Frijters, 2004), i.e. the real-life meaning of one higher/lower point. In addition, we can explain changes in life satisfaction results as a combination of, on the one hand, changes in time-varying aspects, and on the other, time-invariant characteristics and conditions.

Thus, our approach is to include both time-varying and time-invariant variables as independent parameters within one function, with LS as a dependent variable. The model has been criticised for reducing into one single numeric expression the wide, complex spectrum of conditions and experiences that can affect people’s life satisfaction. However, it has also shown many practical advantages that make it thus far the most significant method (Mackerron, 2012).

5.1. Statistical models

The survey was applied on three occasions, the first wave was run before the pilot was launched, in October 2017; the second on October-November 2018, i.e. one year into the pilot; and the third, on July 2019, soon before the project finished. The data and results from each one of them are further detailed below. Before exploring the results, however, we proceed to clarify the statistical methods we applied. Given the availability of these three waves of responses, we are able to split the study into two parallel analyses, 1) cross-sectional regressions for each specific period, and 2) panel study on the individual and collective changes through time in life satisfaction and the explanatory variables.

In all cases, we aim to develop mathematical models (regression functions) that provide a numeric representation of life satisfaction and its determinants.

5.2. Cross-sectional regressions

The cross-sectional regressions aim to find those independent variables that most suitably explain what influences people's satisfaction with life, given certain specific, momentary conditions and situations. This means that we assume both time-invariant and time-varying aspects as fixed at that precise moment when the survey is conducted. We aggregate and compare individual responses among individuals to obtain the best fitting group of explanatory variables that determine subjective well-being in these particular moments taking into consideration variation across socio-economic and behavioural parameters.

We opt then for the ordinary least square (OLS) model, which has the form

$$L_n = \beta_0 + \beta_1 x_{1\rho} + \dots + \beta_\rho x_{n\rho} + \varepsilon_n \quad (\text{equation 5.2.1})$$

Where,

L_n is the value of life satisfaction; β_0 is the intercept value; ρ is the number of variables that result significant to explain L_n ; n is the number of observations in the sample (individuals); x represents each explanatory variable; β_ρ represents the strength (and size) of each variable's contribution to L_n ; and ε_n accounts for the error term(s).

This model represents the experienced life satisfaction as a linearly dependent variable of the set of independent variables rendered statistically significant through the estimations of β derived by minimising the sum of squared residuals. In section 7 Results, we show and analyse the resulting 'best fitting' regressions for each cross-sectional data series.

5.3. Panel data study

The main objective of the panel-data analysis is the analysis of change. In our case, we track variations in life satisfaction (LS) levels for each individual, along with changes in the different explanatory variables, and seek to explain the former with the latter ones. By measuring (asking) the same variables (questions) of the same individuals in different times, we can follow each respondent's specific changes in all of them, and aggregately correlate those with their values of LS. Thus, our panel examines "questions that cross-sectional data cannot deal with" (Andress, Golsch, & Schmidt, 2013).

Our panel, however, does not define every circumstance or characteristic that could influence people's life satisfaction. As standard in life satisfaction research there are unobserved variables that could relate to both the explanatory and the dependent variables. Those characteristics include individual-specific, time-invariant characteristics, i.e. unique attributes of each individual that do not vary over time. Statistically speaking, they reflect "the leftover variation in the dependent variable that cannot be explained by the regressors" (Katchova, 2013). If we assumed that these can (or not) be correlated to the dependent variable, we would need to apply a "fixed effects model". On the other hand, if we assumed that those individual-specific, time-invariant characteristics do not under any circumstance relate to the explored explanatory variables – or more accurately, they are statistically independent – we would require the use of a "random effects model" (Williams, 2012).

In our case it is very likely that a number of unobserved characteristics exist that correlate with life satisfaction and the explanatory variables. Given that the exact effects and duration of these circumstances and characteristics are unknown we decide to apply a model that catered for both fixed and random effects, that is, a "mixed-effects model" (MEM).

Stated differently, our model considers unobserved variables, either at the level of the individuals or related to the moment of measurement. The multi-level linear mixed model we apply has the following mathematical structure,

$$L_{it} = \beta_0 + \beta_1 x_{1it} + \dots + \beta_k x_{kit} + \gamma_1 z_{1i} + \dots + \gamma_j z_{ji} + u_i + e_{it} \quad (\text{equation 5.2.2})$$

Where,

L_{it} is the value of life satisfaction for the individual i at time t ; β_0 is the intercept value or regression constant; β_0 through β_k are the k coefficients for the time-varying x variables; x_{1it} through x_{kit} are the k time-varying independent variables for individual i at time t ; γ represent the coefficients for the j time-invariant z variables; u_i is the error term due to the time-constant explanatory variables; and e_{it} stands for the error term of unknown time-varying independent variables.

Thus, our model includes both time-varying and time-invariant independent variables, as well as components for fixed and random effects. Following Andress et al (2013), we can further explain the error terms: u_i as “unobserved heterogeneity because it captures all the variation at the unit level that is not controlled for by the independent variables in the model”; and e_{it} as “idiosyncratic error, because it captures all peculiarities that affect the dependent variable at each point in time for each unit besides the effects that are already controlled for in the model”. The latter can also be interpreted as a value for the deviation of each measurement from its model-expected value (Andress et al., 2013).

5.4. Data

The quantitative data was collected through a survey applied directly to the project participants, in three occasions, 1) shortly before the project started, in October-November 2017; 2) one year after the launch of the SMI, in November 2018; and 3) shortly before the end of the project, in July 2019.

- The first wave includes both participants of the treatment and control groups – when applied, it was unknown to which group they belonged; total sample size $n=1367$.
- The second wave includes only members of the treatment group, $n=781$.
- The third wave includes both participants of the treatment and control groups; total sample size $n=1113$.

The survey questions are based on the literature and collaborative negotiation with other research partners in the project. We process the data as follows.

- a. An exploratory data analysis on worksheet files, from which we obtain a clear picture of e.g. what the data look like, missing values, averages, apparent behaviours, etc. See section 6 Descriptive Statistics for further details.
- b. We clean the data and exclude responses ‘don’t know’ and ‘don’t answer’ on the life satisfaction question, while paying attention to outliers, or extreme values.
- c. We divide variables in life domains as defined earlier, detailed in appendix 1; this helps organise those ‘areas’ of life, which – in our study – seem to influence more or less strongly people’s subjective rating of satisfaction with life.
- d. We transform ordinal variables into dummy variables, to be included in regressions; dummy variables are binomial, which means people either experience certain condition or situation or not; for example, we turned every situation of ‘economic activity’ into a dummy, i.e. one dummy for being (1) or not being (0) full-time employed, one for part-time employment, etc. Here we only explain the dummies that eventually result significant in explaining changes in life satisfaction. We do so in sections 7 Results and 8 Discussion.

- e. Specifically, there are two variable transformations we render relevant to point out: 1) for income, we originally obtained total dwelling-unit (DU) income, with which we calculate, a) income per dwelling-unit member, b) natural logarithm for both total DU-income and income per DU-member – following human capital theory and previous studies (Andress et al., 2013), and c) the decile distribution for both total and member values; 2) for age, we calculate age squared, which tends to render a more significant effect (than age), due to the so-called U-shape between age and subjective well-being normally found in the literature. We run repetitive regressions to separately test each income-related variable, same as age and age-squared, and thus determine the best fits.
- f. For ‘frequency-of’ ordinal variables with four or more frequency categories: a) we run them as cardinal variables, given that the time-concept behind these can be considered a continuous range of options (Andress et al., 2013); and b) we create dummy variables to separate those who do/feel/experience the specific situation in question with certain regularity from the ones who do/feel/experience them occasionally or never.

Specific for cross-sectional regressions:

- g. We run OLS regressions based on the model detailed above; we do a progressive inclusion of variables per life domain and refine the model variable-per-variable (Loewe, Bagherzadeh, Araya-Castillo, Thieme, & Batista-Foguet, 2014) until we obtain the best fits, explained later in the results.
- h. For every ‘best fit’ regression: 1) we test Pearson and Spearman correlations, correspondingly, for cardinal and ordinal/dummy variables; and 2) we test for multi-collinearity via variance inflator factors (VIF). Whenever these tests render significant, we eliminate the respective variable(s) from the best-fit regressions.

Specific for panel data:

- i. The panel sample is limited to those participants who responded the three surveys: 572 people.
- j. We organise the data on worksheet files and conduct an explanatory data analysis, which we detail in section 6 Descriptive Statistics.
- k. We transfer the data in STATA using the so-called long format.
- l. We run linear mixed-effects models, which include both time-varying and time-invariant variables, as well as both fixed and random effects, i.e. effects that are reflected by our defined variables and effects not defined by these, respectively.
- m. We run a linear fixed-effects model to compare against the mixed-effects one and analyse the time-varying and the time-invariant effects of the predictors on life satisfaction results.

6. DESCRIPTIVE STATISTICS

From the exploratory data analysis aforementioned, we got familiarised with the data through worksheet files, in which we not only clean and organise the raw data but also chart some of the variables in descriptive and comparative manners. Here, we describe and present the data. We do so, firstly for each survey separately, i.e. the statistics for each cross-sectional series, and secondly for the panel data. Certainly, descriptive statistics merely serve as general, exploratory information.

6.1. Cross-section 1: before the pilot

The first survey was applied before the start of the pilot project. This means that the respondents did not know if they would be part of the treatment or control group, less so which – if any – active policy they would be assigned to. Thus, we can consider these results as a photograph of the satisfaction with life (LS) of Barcelona’s socio-economically vulnerable and precariat population. It portrays the initial baseline situation against which we compare the subsequent waves to try to explain how B-Mincome impacts their life satisfaction. For a more detailed description of the data, see our previous, preliminary report ‘Expectativas sobre y estado inicial de la felicidad’ (Bonilla & Sekulova, 2019) – available in Spanish only.

As first step in this exploratory data analysis, we exclude from the sample answers 98 and 99, ‘don’t know’ and ‘don’t answer’ of the life satisfaction question. Thus, we work with 1320 responses. Figure 6.1 shows the sample distribution. A normal one, which coincides with those regularly found in the literature.

Table 6.1. Summary of wave 1 sample

Total interviews	1367
Excluded responses (answers 98 and 99)	47
Sample studied	1320
Life satisfaction average	5,00
Standard deviation	2,63

Moreover, the sample’s age average is 41 years old, with a slightly higher concentration of respondents between 37 and 40. Due to the project’s design, respondents of the survey had to be between 25 and 60 years old. Interviewees were normally the main dwelling-unit member, and the pilot’s conditions required for them to be within that age range. Figure 6.2 shows the distribution of respondents’ age – blue dotted line (●) – and their LS-average values per age – red triangular line (Δ). The normally expected U-shape of the latter curve, showing that LS is relatively high in the beginning and later phases of people’s lives, present in many previous studies, does not appear in our sample.

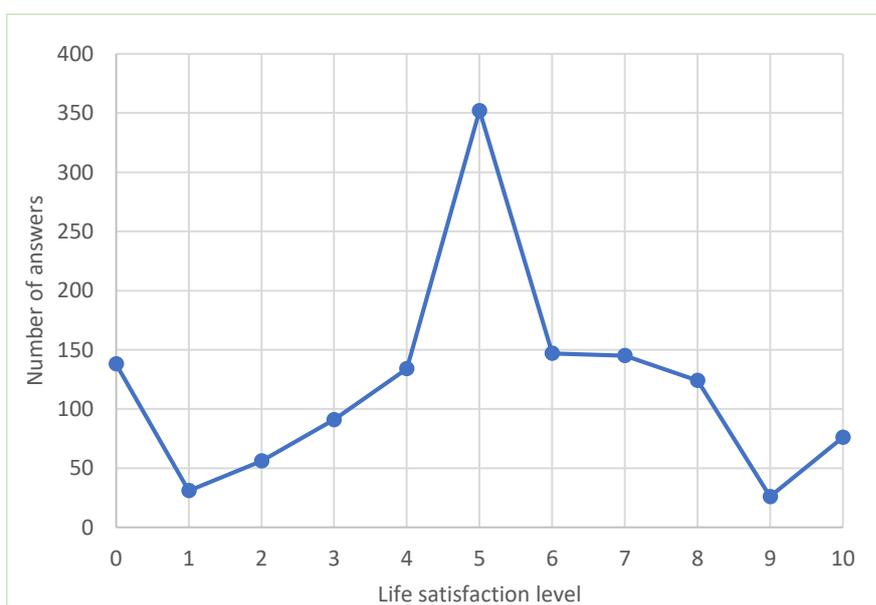


Figure 6.1. Distribution of answers on life satisfaction - Cross-section 1

In terms of the heteronormative binomial gender division, practically three-quarters of the sample are 'women', with a slightly higher average of satisfaction with life. The distribution divided by this

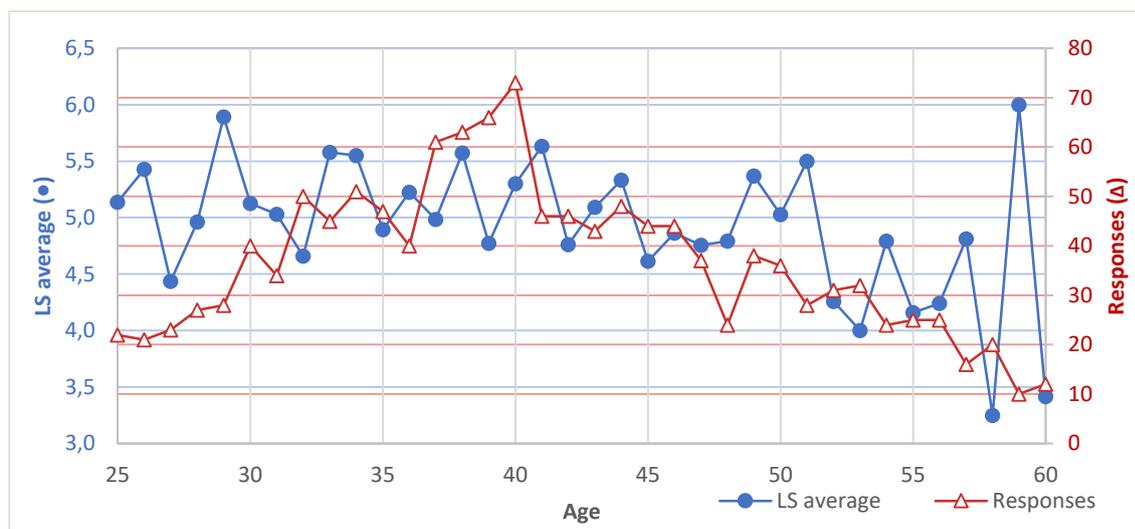


Figure 6.2. Life satisfaction average per age - Cross-section 1

gender labels follows the general LS distribution from figure 6.1. The slightly lower LS average for 'men' – pink curve (◊) – can be graphically appreciated in the slightly lower (higher) curve above (below) six (four).

Table 6.2. LS per gender label - Cross-section 1

Gender label	Responses	LS average
Men	370	4,80
Women	950	5,07

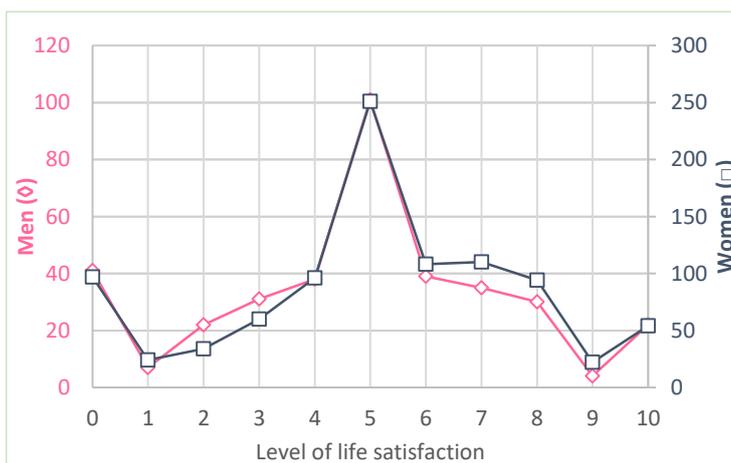


Figure 6.3. LS distribution per gender label

Table 6.3. LS per marital status - Cross-section 1

Code	Marital Status	Responses	Average LS
1	Married	544	5,13
2	Single	511	4,97
3	Divorced	152	4,95
4	Separated	87	4,60
5	Widow/er	26	4,19

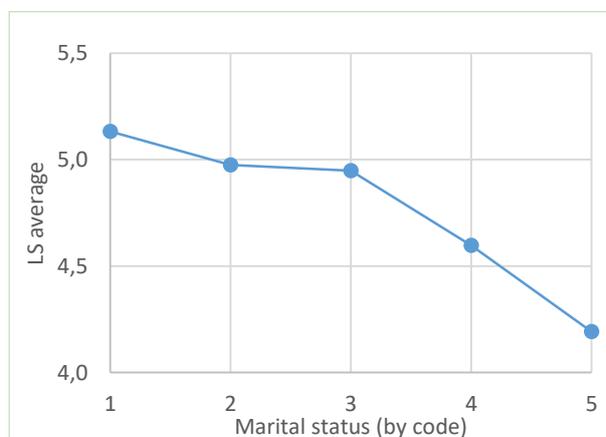


Figure 6.4. Average LS per marital status - Cross-section 1

Additionally, average LS levels for the different marital statuses show a behaviour that aligns with previous studies. The differences between averages, however, are rather small.

Table 6.4 and figure 6.5 show the average levels of life satisfaction distributed by income decile. We present both the income per dwelling unit – blue line (●) – as well as per DU-member – orange line (□). For the former, an upward trend seems to exist, while for the latter this behaviour disappears.

Table 6.4. Life satisfaction per income decile, at dwelling-unit and dwelling-unit member levels - Cross-section 1

Decile	Income per dwelling unit		Income per DU-member	
	Responses	Average LS	Responses	Average LS
1	271	4,63	272	4,76
2	99	4,93	98	5,11
3	80	4,60	81	5,22
4	71	4,99	69	4,87
5	60	5,25	60	5,20
6	57	5,58	58	5,22
7	52	4,73	54	5,30
8	45	5,73	44	5,20
9	42	5,62	42	4,64
10	33	6,03	32	4,91

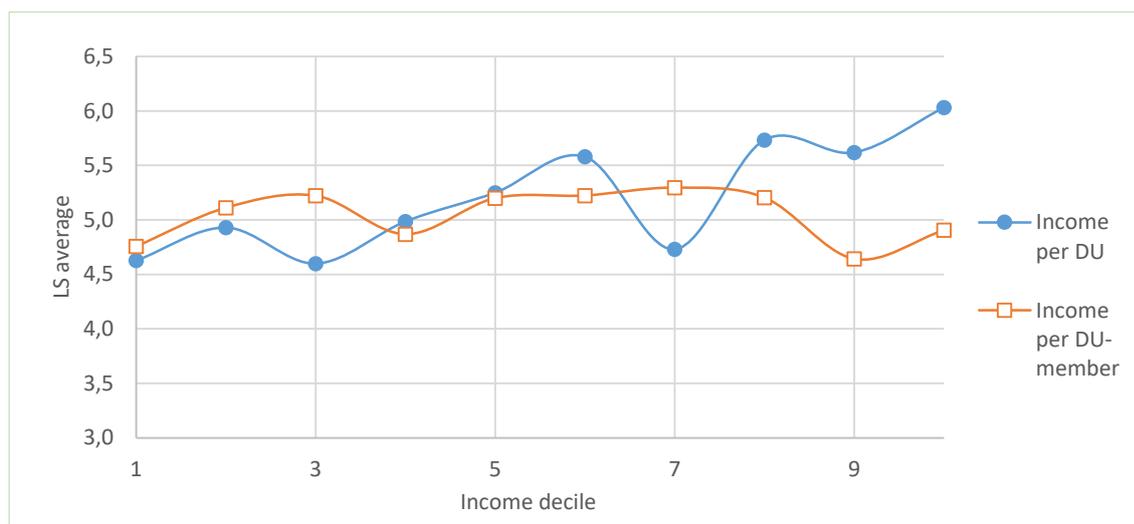


Figure 6.5. Life satisfaction average per income decile - Cross-section 1

6.2. Cross-section 2: one year into the project

The second wave of surveys was conducted in October and November 2018. This means that the participants had been receiving the Municipal Inclusion Support (SMI, from its acronym in Catalan and Spanish) for about one year. It also means they had already been assigned to the different active policies, if any.

We obtained 781 responses, from which all respondents gave a life satisfaction level between 0 and 10, which means we did not need to clean the data. The sample, in contrast to the first wave, includes participants from the treatment group only. The data does not show a normal distribution; it clearly presents a higher concentration of responses between five and eight.

Table 6.5. Summary of wave 2 sample

Total interviews	781
Excluded responses (answers 98 and 99)	0
Sample studied	781
Life satisfaction average	6,44
Standard deviation	2,63

In terms of age, this second wave gives practically the same average as the first one, 42 years old – since the survey was applied one year later. Although we cannot appreciate a clear trend in terms of the relationship between age and income, there seems to be lower life satisfaction averages – blue dotted line (●) – at older ages. Again, the normally expected U-shape of the latter curve, present in many previous studies, does not appear in this second cross-section sample.

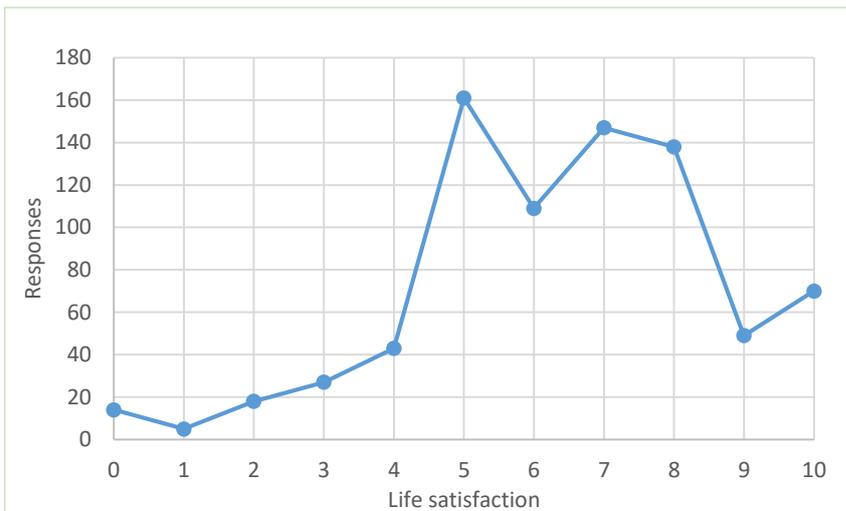


Figure 6.6. Life satisfaction distribution - Cross-section 2

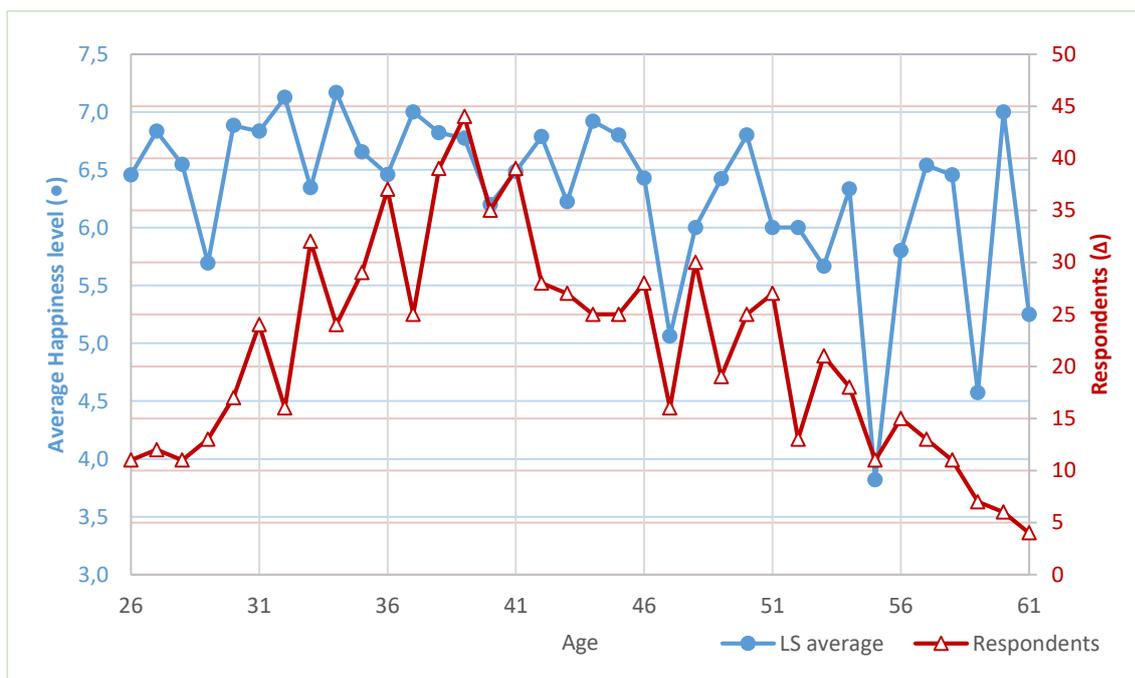


Figure 6.7. Life satisfaction average per age - Cross-section 2

Moreover, same as the first cross-sectional sample, the life satisfaction distributions of men and women are similar. Contrary to the previous sample, however, the LS average of ‘men’ and ‘women’ are practically equal. Figure 6.8’s blue-grayish line (□) shows how women give slightly more responses in lower levels of LS, and a marked difference can be seen in rates six and eight.

Table 6.6. LS per gender label – Cross-section 2

Gender label	Responses	LS average
Men	211	6,46
Women	570	6,43

Table 6.7 and figure 6.9 show the life satisfaction average for the different marital statuses in this second sample. Except for widow/er, whose number of respondents is rather low, the averages do not differ considerably from each other.

Table 6.7. LS per marital status – Cross-section 2

Code	Marital Status	Responses	Average LS
1	Married	355	6,54
2	Single	282	6,48
3	Divorced	79	6,05
4	Separated	53	6,47
5	Widow/er	10	5,00

Income per dwelling unit (DU) – blue line (●) in figure 6.10 – presents a slightly upward trend; a trend that does not appear when we divide income by DU-member – orange line (□). Yet, when divided by members, more respondents concentrate in lower deciles.

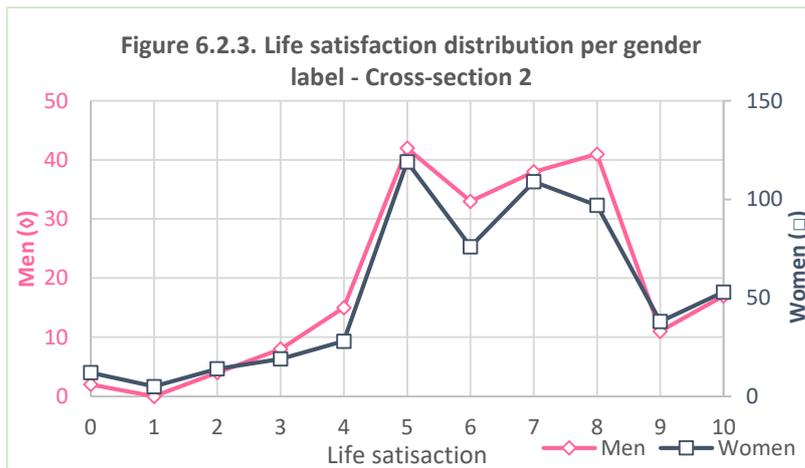


Figure 6.8. Life satisfaction distribution per gender label - 2nd wave

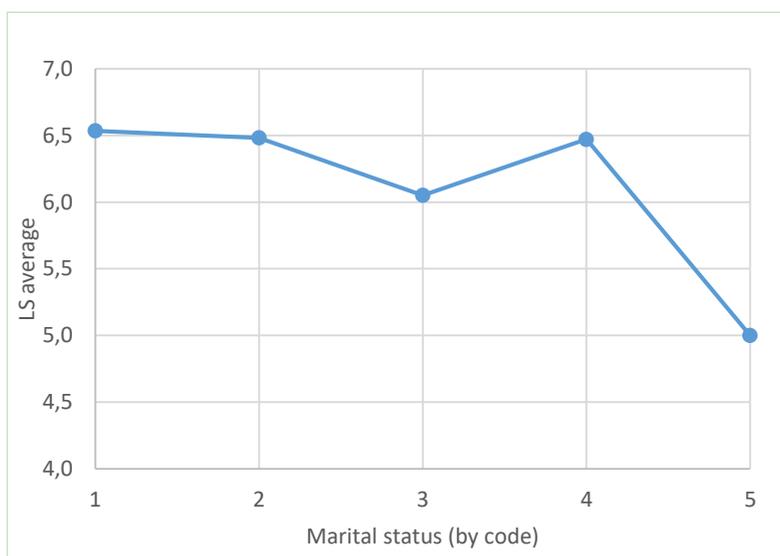


Figure 6.9. Average life satisfaction according to marital status - Cross-section 2

Table 6.8. Life satisfaction per income decile, at dwelling-unit and dwelling-unit member levels – Cross-section 2

Decile	Income per dwelling unit		Income per DU-member	
	Responses	Average LS	Responses	Average LS
1	144	6,01	144	4,76
2	103	6,08	105	5,11
3	90	6,48	96	5,22
4	81	6,44	86	4,87
5	76	6,66	79	5,20
6	71	6,49	72	5,22
7	65	6,78	64	5,30
8	60	6,67	57	5,20
9	54	6,93	48	4,64
10	37	6,70	30	4,91



Figure 6.10. Life satisfaction average per income decile - Cross-section 2

Finally, this second cross-section data was taken once the participants were assigned – and most likely taking part in – the different policy schemes. This allows us to dig into people’s life satisfaction averages specific to each of those groups. Table 6.9 thus shows the distribution of respondents in each category and their LS average. We also include the division of each category among four of the economic activity situations surveyed. We exclude the self-employed categories, given the low number of respondents thereunder.

Table 6.9. Life satisfaction average for the different policy-schemes and economic activity situation – Cross-section 2

Policy	Total respondents	LS average	Life satisfaction average (number of respondents)			
			Full-time employee	Part-time employee	Job Seeker	Other
Only SMI (unlimited)	207	6,46	6,53 (30)	6,58 (36)	6,65 (79)	5,89 (53)
Only SMI (limited)	146	6,23	6,47 (19)	7,33 (18)	6,06 (66)	5,87 (38)
SMI + Community participation (unlimited)	123	6,52	7,41 (17)	6,42 (19)	6,24 (50)	6,34 (32)
SMI + Community participation (limited)	113	6,12	6,33 (18)	7,46 (13)	5,69 (52)	6,03 (29)
SMI + Training and employment (non-conditional)	56	7,04	7,40 (30)	7,71 (7)	5,50 (8)	6,63 (8)
SMI + Training and employment (conditional)	46	7,07	7,38 (29)	7,33 (3)	6,38 (8)	6,00 (5)
SMI + Social entrepreneurship (non-conditional)	42	6,57	10,00 (2)	7,67 (6)	6,00 (24)	6,50 (8)
SMI + Social entrepreneurship (conditional)	39	6,21	8,33 (3)	6,22 (9)	5,83 (18)	6,88 (8)
SMI + Housing grants (non-conditional)	5	7,00	8,00 (1)	NA (0)	6,67 (3)	7,00 (1)
SMI + Housing grants (conditional)	4	3,25	NA (0)	NA (0)	5,00 (1)	2,67 (3)

Notes: economic activity situations full-time and part-time self-employed are excluded because of the very low number of respondents; economic situation ‘other’ includes students, retirees, pensioners, permanent sickness or disability to work, dedicated to carework, and other.

6.3. Cross-section 3: pilot’s final phase

This third and last survey wave was applied in July 2019. That is, four to five months before the end of the pilot project. Thus, it reflects the results on life satisfaction (LS) for beneficiaries aware of the soon ending SMI (monetary benefit). This wave includes 788 participants within the treatment group and 313 from the control group. These numbers correspond to the clean sample, i.e after we exclude the 98 (‘don’t know’) and 99 (‘don’t answer’) responses in ‘life satisfaction’.

Thus, the total sample LS average renders 6,01, while the treatment group reported average is almost one whole absolute point higher than the control group: 6,27 vs 5,35. Figure 6.11 shows the distribution of responses for each LS level, divided between treatment and control groups, in percentage of total responses. The near to one point difference between treatment and control LS averages can be visually recognised in the higher (lower) shares of responses above (below) 5 for the treatment group’s as compared with the control’s curve.

Table 6.10. Summary of wave 3 sample

Total interviews	1113
Excluded responses (answers 98 and 99)	1101
General LS average	6,01
Control group responses	313
Control LS average	5,35
Treatment group responses	788
Treatment LS average	6,27

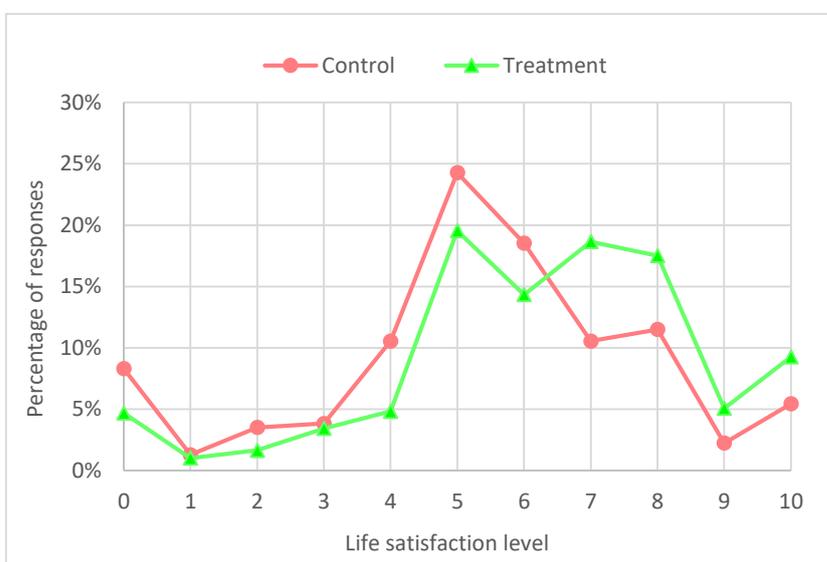


Figure 6.11. LS distribution for treatment and control groups in - by percentage of respondents per LS level - Cross-section 3

In terms of age, the relation to LS reports of both treatment and control groups resembles the second and first waves, i.e. with no clear or apparent trend. When we separate the samples by the heteronormative binomial gender division, we see how women report higher LS values, for both groups. The treatment curves, however, show a more marked peak between 5 and 8 than the control ones.

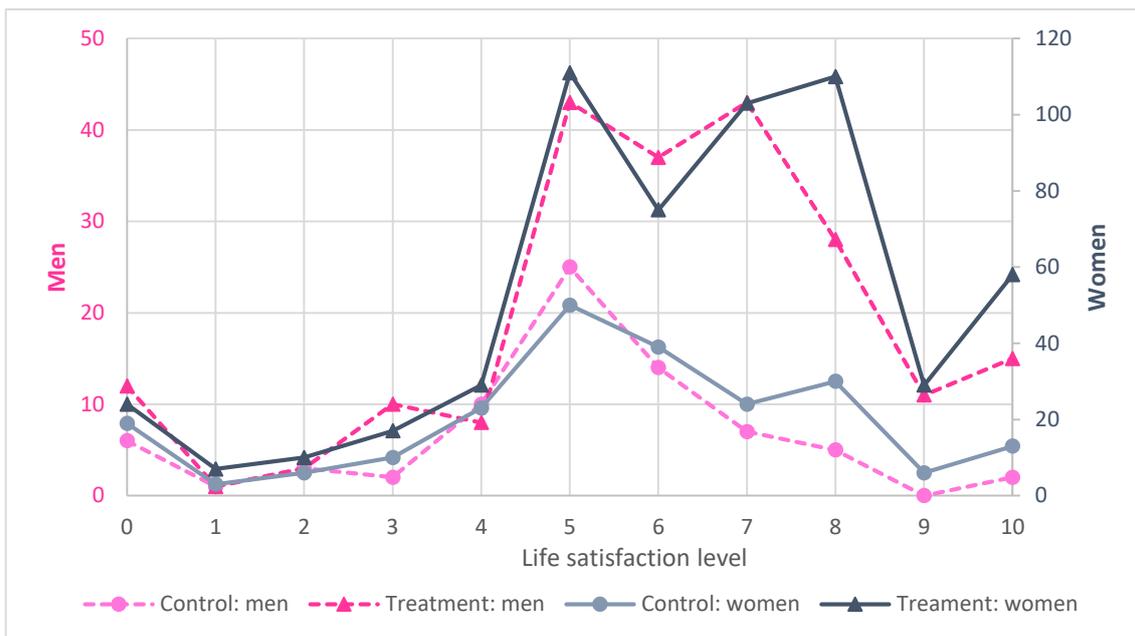


Figure 6.12. LS distribution by sex - divided between treatment and control group - Cross-section 3

Additionally, we compare both groups in their relations between marital status and life satisfaction rates. As shown in figure 6.13, the treatment group reports higher LS values than the control group, for all statuses except divorced. That exception reckoned, both lines show a similar trend.

Table 6.11. Marital status codes

Code	Marital Status
1	Married
2	Single
3	Divorced
4	Separated
5	Widow/er

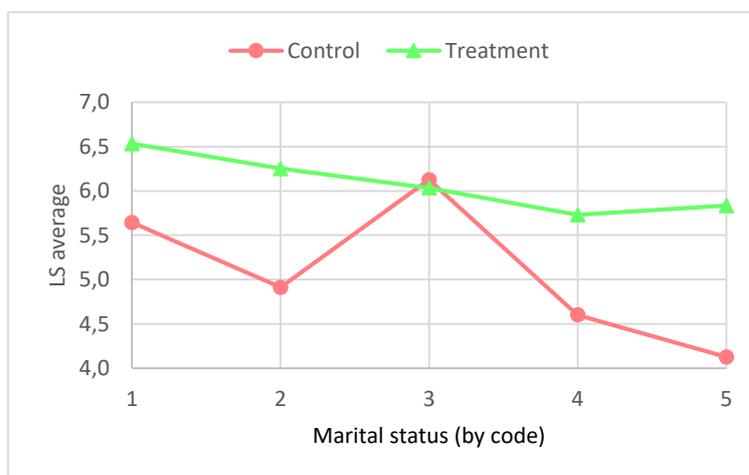


Figure 6.13. Average LS according to marital status - Cross-section 3

6.4. Panel data

The panel data is composed of the responses of those project participants who took part in all three survey waves. This limited the sample to 572 respondents, with no 98 ('don't know') and 99 ('don't answer') responses in life satisfaction. These include beneficiaries within the treatment group only. The first survey wave serves then as initial picture against which we compared the following two data collection series⁴.

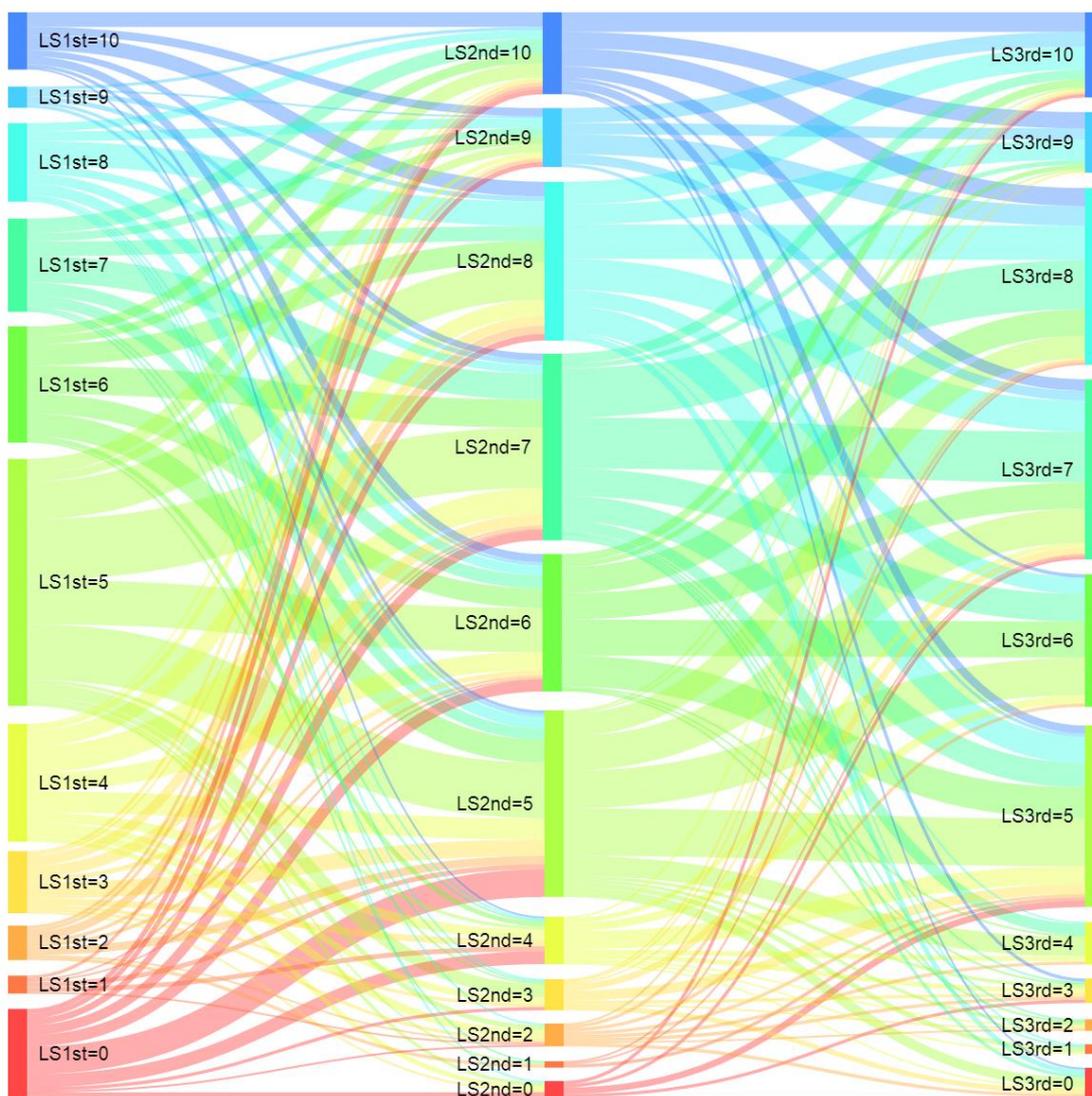


Figure 6.14. Flow diagram for LS changes throughout the project

In section 7.2 we explore more thoroughly the panel data results by means of mixed-effects regressions. Here, we shall highlight the 27% increase in the general LS average from the first into the

⁴ Here we consider relevant to mention that not all variables measured in the first wave were also part of the second and third questionnaires. Similarly, new variables were introduced in the second and also in the third waves. Being a panel analysis, only questions that were repeated in the three data collection series could be used. However, the so-called time-invariant characteristics, i.e. individual features that do not change over time, were only asked once, given the reasonably low likeliness for them to change. These included personality traits and certain demographic data. We list the panel variables in appendix 3.

second waves. The final wave in turn shows a practically unchanged average as compared to the second, i.e. still 27% higher than the result obtained before the project's launching.

Figure 6.14 shows how the rates for LS varied from the first into the second and from this into the third waves. The diagram shows the different values as 'LSX=Y' where X represents the 1st, 2nd or 3rd series, and Y gives the corresponding LS value from 0 to 10. We here highlight the clear growth of nodes for LS between 6 and 10 in the second and third waves and the consequent shrinkage of nodes between 0 and 5.

Along this line, whereas 22% of the sample report lower LS one year after the start of the programme as compared to before its implementation, 60% gave higher values the second time, more than half of which report a LS value higher by three points or more. From the second into the third wave, however, the upward trend seems to disappear. Approximately 37% of respondents give lower LS rates than in the second wave, while only 10% of the whole sample increase by at least three points, and 40% gives a higher LS.

7. KEY RESULTS AND MODELS

In this section we explore the results from the regression models of each of the three cross-sectional data series, as well as those of the panel data. Due to practical and methodological reasons, each survey wave included questions not asked in one or the other two waves. However, we sought to cover as many aspects as possible within the so-called dominions of life. In that sense, though, the panel data is limited to those questions included in the three cross-sections, and this, as we further explain, means the absence of relevant variables within our analysis.

7.1. Cross-section 1: What determined people's life satisfaction before B-Mincome?

Model 1A. In this model we present the results for the first cross-section's general regression. We exclude the variables related to mood, emotions and feelings because these could suffer from inverse-causality (endogeneity), which means that they could be a both 1) a determinants of LS and 2) influenced by LS; thus, they do not directly function as explanatory variables.

In regard to what are commonly defined as demographic determinants, we find significant results as follows. The number of members in the dwelling unit results significant, with every member equating on average to a 0,12 points more satisfied with life interviewee. Also, women are on average 0,41 points more satisfied with life than men; we consider relevant to bare in mind that the total sample (control group included) comprises 950 women and 350 men. In turn, people with an ethno-cultural background from outside the European Union report on average 0,33 points higher LS. And the presence of children in the dwelling unit does not result significant.

When it comes to human relations and social capital, having a general positive approach to trusting others⁵ is the only significantly strong predictor of life satisfaction, with people who say doing so reporting on average 0,38 higher LS. The more time they spend in social leisure activities (going out to bars, cinema, concerts or discos) also renders significant but its effect on LS results is practically negligible.

In terms of health, we obtain several relevant predictors. First, being 'permanently inactive due to sickness' is a significant negative predictor of life satisfaction; people in this situation report on average 0,55 points less than the average of every other economic activity situation. Overall, people with a bad self-reported health status present on average 0,63 points lower life satisfaction than those not in such state. As it could be expected, there is a positive correlation between "bad health status" and being "permanently inactive due to sickness". Yet, whereas most 'permanently inactive due to sickness' often report a bad health status, the opposite is not necessarily the case (meaning that a fraction of those with bad self-reported health are active/working). Thirdly, having no physical or psychological limitations to autonomously perform daily activities results to positively influence LS: people who have no limitations to walk, clean/dress themselves and do their daily activities, report on average 0,39 points higher LS than those with at least one of those limitations.

⁵ A general positive approach to trust in other means in this case a combination of three situations, 1) agreeing with the believe that people tend to help eachother; 2) disagreeing with the idea that people will take advantage of 'me' given the opportunity; and 3) feeling to have a support network – i.e. family, friends or neighbours – from whom to ask for help.

Now, what seemed to be the most influential domain of life for the participants before the project started, various economic and material conditions and situations result worth noting. First, people who are full-time employed at the time of the survey report on average 0,46 points more LS than the rest, while those unemployed and looking for a job (JobSeekDummy) are on average 0,55 points less satisfied with life. When we consider those people who had been unemployed and seeking a job for more than two years (JobSeek2yDummy) – by the time when the survey was applied, the relation to life satisfaction remains similar, which appropatenly means that long-term unemployed job-seekers do not report significantly lower levels of life satisfaction than those who have recently fallen in that situation.

Table 7.1. Results for general regression model 1A for cross-section 1

Source	SS	df	MS		Number of obs	1209
Model	1221,50	19	64,2896		F(19, 1189)	11
Residual	6946,29	1189	5,8421		Prob > F	0,000
Total	8167,79	1208	6,7614		R-squared	0,150
					Adj R-squared	0,136
					Root MSE	2,417
LS1	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Household Members	0,117425	0,054104	2,17	0,030	0,011274	0,223576
Age	0,009105	0,009418	0,97	0,334	-0,009370	0,027583
Gender	0,405156	0,168804	2,40	0,017	0,073969	0,736344
Children	0,038508	0,245806	0,16	0,876	-0,443760	0,520771
Non-EU Ethno-cultural background	0,334787	0,149185	2,24	0,025	0,042091	0,627483
Education level	0,025958	0,071742	0,36	0,718	-0,114800	0,166714
Frequency of social leisure	0,033918	0,014662	2,31	0,021	0,005152	0,062685
Positive approach to trust	0,379932	0,172737	2,20	0,028	0,041028	0,718837
Bad Health	-0,637930	0,227337	-2,81	0,005	-1,083960	-0,191900
No limitations to autonomy	0,392801	0,170157	2,31	0,021	0,058960	0,726643
Full-time employment	0,460305	0,234042	1,97	0,049	0,001122	0,919488
Job Seeker	-0,552400	0,159231	-3,47	0,001	-0,864810	-0,239990
Inactive due to sickness	-0,548000	0,302627	-1,81	0,070	-1,141750	0,045739
Possession of washing machine	1,041638	0,338910	3,07	0,002	0,376710	1,706567
Material Deprivation	-0,540190	0,172103	-3,14	0,002	-0,877850	-0,202520
Frequency of buying Phone	-0,199630	0,060417	-3,30	0,001	-0,318170	-0,081090
Frequency of buying furniture	-0,230760	0,075345	-3,06	0,002	-0,378590	-0,082940
Personality: extraverted	0,442450	0,154699	2,86	0,004	0,138937	0,745963
Frequency of electronic leisure	-0,015890	0,030365	-0,52	0,601	-0,075460	0,043688
_cons	4,479069	0,864226	5,18	0,000	2,783491	6,174647

Moreover, income – modelled as decile distribution – is rendered significant at 10% level only when we leave out two variables related to economic activity: full-time employment and unemployment. This seems to point at the economic activity being more strongly related to life satisfaction level than income itself. At least in regards to relative income, which is what the decile more precisely indicates.

In turn, people who possess a washing machine are on average 1,04 points more satisfied with life than those who do not. This result is very significant and shows the strongest correlation to LS rates. Also, being in severe material deprivation⁶ influences LS reports negatively, with those who say being in such situation reporting on average 0,54 points lower LS.

Within this predictor, more in detail, those who state not being able to afford at least one week of “out-of-home” vacations per year, report on average 0,68 points lower satisfaction with life; and those not able to afford heating their houses properly during cold weather show on average 0,62 points lower LS.

In relation to material and economic variables, at last, people who state to more frequently buy furniture and mobile phones report on average higher LS; in the case of mobile phones, people who declare to buy a new one once a year are on average 0,20 points more satisfied with life than those who say they buy one every two years, while the latter report 0,20 points more satisfied than the ones who say to buy one every five years; in the case of furniture, considering the same frequency, the coefficient is 0,23.

Finally, when it comes to personality traits, those who consider themselves (totally or moderately agree with seeing themselves as) extraverted/enthusiastic show a 0,45 points higher LS than those who do not see themselves as such or did so only slightly; all other personality types surveyed are not significant, i.e. reserved/quite, critical/reinvidicative, understanding/loving.

Model 1B. With this model we intend to show the different results for women and men before the project started. We thus explore the predictors that seem to correlate most strongly with life satisfaction, for each binomial-heteronormatively separated group.

The regressions for women, both with and without the income variable, resemble closely the general regression 1A detailed above. The general sample is comprised mostly of women, in a 3:1 relation, approximately. It therefore is only expectable for these regressions to render similar results. The ‘women regression’ that includes the decile of dwelling-unit income has a smaller number of observations; therefore we focus on the one without income.

However, contrary to men, the income parameter results significant for women; more specifically, women report on average a 0,08 points higher LS for every higher decile in the income distribution; this computes into women in decile 10 being in average 0,81 points more satisfied with life than women in the decile 1.

To highlight, also, the connection to internet results significant for women at the 5%-level, in the regression without income variable; this is the only regression in which this result appears. Those women whose dwelling-unit have access to internet connection report on average 0,34 points higher LS than those with no access.

⁶ Severe material deprivation here means not being able to afford: 1) an unexpected 750 EUR expense; 2) at least one week “out-of-home” vacations per year; 3) eating meat, chicken, fish or the equivalent vegetarian “luxurious” food at least every second day; and 4) keep the house adequately heated during cold times.

Table 7.2. Results for regression model 1B: women in cross-section 1

Source	SS	df	MS		Number of obs	893
Model	885,60	15	59,0402		F(15, 877)	10,160
Residual	5094,59	877	5,8091		Prob > F	0,000
Total	5980,20	892	6,7042		R-squared	0,148
					Adj R-squared	0,134
					Root MSE	2,410
LS1	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Household members	0,153456	0,062567	2,45	0,014	0,030657	0,276256
Age	0,024710	0,011593	2,13	0,033	0,001955	0,047465
Children	0,393056	0,322092	1,22	0,223	-0,239110	1,025218
Non-EU Ethno-cultural background	0,279998	0,172237	1,63	0,104	-0,058050	0,618044
Education level	0,095160	0,083696	1,14	0,256	-0,069110	0,259430
Frequency of social leisure	0,025614	0,014768	1,73	0,083	-0,003370	0,054600
Bad Health	-0,623940	0,267118	-2,34	0,020	-1,148210	-0,099680
No limitations to autonomy	0,461774	0,193461	2,39	0,017	0,082072	0,841477
Job Seeker	-0,489090	0,172095	-2,84	0,005	-0,826860	-0,151330
Inactive due to sickness	-0,883150	0,359245	-2,46	0,014	-1,588240	-0,178070
Possession of washing machine	1,259330	0,423053	2,98	0,003	0,429014	2,089646
Possession of Internet connection	0,340369	0,172760	1,97	0,049	0,001297	0,679440
Material Deprivation	-0,717460	0,197531	-3,63	0,000	-1,105150	-0,329770
Frequency of buying Phone	-0,214320	0,064077	-3,34	0,001	-0,340090	-0,088560
Frequency of buying furniture	-0,205510	0,089610	-2,29	0,022	-0,381380	-0,029630
_cons	3,371413	0,997324	3,38	0,001	1,413992	5,328834

When we compare men to women, we consider worth noting that:

- men report a 1,04 points higher LS average when they say to have a positive general approach to trust⁷ in people, whereas this variable does not render significant for women;
- the time spent in social leisure (i.e. bars, movies, concerts and discoteques) results significant for women and not for men, although the coefficient is very low (0,03);
- being full-time employed is highly significant for men and not for women, with a strong 1,06 coefficient;
- whereas for women general material deprivation results significant (both when income was included in the model (-0,70) and when not (-0,72)), for men only the capacity to afford an unexpected 750 EUR expense results significant (0,86);
- for both men (-0.23) and women (-0.20 model without income and -0.27 model with income) the frequency of buying furniture results significant; for the former the frequency of buying phones also renders significant (-0,38) while for the latter it is the frequency of buying clothes (-0,21/-0,15)

⁷ A generally positive approach to trust in others means in this case a combination of three situations, 1) agreeing with the believe that people tend to help eachother; 2) disagreeing with the idea that people will take advantage of 'me' given the opportunity; and 3) feeling to have a support network – i.e. family, friends or neighbours – from whom to ask for help.

- f. for men, those who rent a house were in average 0,56 points less satisfied with life than those who do not rent at a 10%-level significance; for women the housing situation and house conditions does not result significant
- g. in terms of health: in the men’s regression no health-related variable renders significant, while in the women’s (without income) both being in bad health (-0,62) and not having psycho-physical limitations to autonomy (0,46) result significant; in the regression with income, only bad health results significant at the 10%-level (-0,58)

Table 7.3. Results for regression model 1B: men in cross-section 1

Source	SS	df	MS		Number of obs	335
Model	408,89	11	37,1715		F(11, 323)	6,290
Residual	1908,24	323	5,9078		Prob > F	0,000
Total	2317,12	334	6,9375		R-squared	0,177
					Adj R-squared	0,148
					Root MSE	2,431
LS1	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Household members	0,039613	0,087564	0,45	0,651	-0,132660	0,211882
Age	-0,018500	0,015603	-1,19	0,237	-0,049200	0,012196
Non-EU Ethno-cultural background	0,371741	0,310344	1,20	0,232	-0,238810	0,982293
Education level	0,107216	0,135858	0,79	0,431	-0,160060	0,374495
Positive approach to trust	1,041435	0,325938	3,20	0,002	0,400205	1,682664
Full-time employment	1,055403	0,314605	3,35	0,001	0,436469	1,674337
Possession of washing machine	0,955719	0,556332	1,72	0,087	-0,138770	2,050211
Unexpected 750EUR expense	0,881129	0,500909	1,76	0,080	-0,104330	1,866585
Frequency of buying Phone	-0,378580	0,117072	-3,23	0,001	-0,608900	-0,148260
Frequency of buying furniture	-0,233260	0,132169	-1,76	0,079	-0,493280	0,026762
House Renting	-0,567220	0,304413	-1,86	0,063	-1,166110	0,031663
_cons	7,277973	1,344024	5,42	0,000	4,633826	9,922120

7.2. Cross-section 2: After 1 year

One year into the project, these models intend to give an insight into those conditions and situations that most strongly influence the life satisfaction (LS) of B-Mincome’s treatment group members. The people have been receiving the guaranteed minimum income for about one year, and participating – whether conditioned or not to do so – in the different policy schemes. Thus, their life realities – so we expect – can have changed considerably, hence their subjective conception of LS, consequently their statistical-mathematical representation.

Model 2A. In this model, we exclude the variables related to mood, emotional state and feelings because they could suffer from inverse-causality (endogeneity), which means that they could be both 1) determinants of life satisfaction and 2) influenced by life satisfaction. We previously run a model – let us name it 2A.2 (see appendix 2) – with three of these, which we consider to reflect people’s level of self-esteem. The exact questions refer to: feeling capable of taking decisions (coefficient 0,66), feeling helpless towards difficulties (coefficient -0,41), and feeling capable of facing their problems (coefficient 0,63) the last 30 days before the survey. And all three result highly significant.

However, whereas they render significant predictors of LS results, we cannot use them to explain the changes in LS due to that endogeneity problem. We then model practically the same independent variables as in our comparison model 2A.2, so we can contrast them to understand the effect of excluding the abovementioned predictors.

Table 7.4. General regression model for second cross-section

Source	SS	df	MS		Number of obs	758
Model	749,20	15	49,9472		F(15, 742)	13,35
Residual	2776,58	742	3,7420		Prob > F	0,0000
Total	3525,79	757	4,6576		R-squared	0,2125
					Adj R-squared	0,1966
					Root MSE	1,9344
LS2	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Age	-0,018862	0,009250	-2,04	0,042	-0,037021	-0,000702
Gender	0,073099	0,167481	0,44	0,663	-0,255694	0,401893
Children	-0,258211	0,236446	-1,09	0,275	-0,722393	0,205972
Non-EU Ethno-cultural background	0,325902	0,146567	2,22	0,026	0,038166	0,613639
Education level	0,119390	0,072872	1,64	0,102	-0,023670	0,262451
Relevance of community participation	0,528692	0,144792	3,65	0,000	0,244441	0,812943
Amount of groups of participation	0,144398	0,071946	2,01	0,045	0,003156	0,285640
Bad health	-0,844127	0,198276	-4,26	0,000	-1,233375	-0,454879
Lost sleep due to stress	-0,514237	0,169319	-3,04	0,002	-0,846391	-0,182083
Ln (Income by dwelling unit)	0,401173	0,196682	2,04	0,042	0,015054	0,787291
Job Seeker	-0,538628	0,148477	-3,63	0,000	-0,830167	-0,247197
Food deprivation	-0,810295	0,220659	-3,67	0,000	-1,243485	-0,377105
Extreme financial stress	-0,771644	0,160600	-4,8	0,000	-1,086928	-0,456360
Frequency of electronic leisure	-0,167829	0,051293	-3,27	0,001	-0,268526	-0,067131
SMI limited	-0,185913	0,152027	-1,22	0,222	-0,484368	0,112542
_cons	5,158418	1,436628	3,59	0,000	2,338079	7,978758

Thus, we see that the coefficients result larger for most of the remaining variables, which also become more significant. This means that those conditions and characteristics are on average stronger predictors of these people's life satisfaction rates, when we exclude those variables related to mood, emotional state – included self-esteem – and feelings. Here income, either modelled as logarithm or as decile distribution, results more significant at 5%-level than in the previous model. This correlation aligns with most of the findings in previous studies.

Model 2B. In this model we want to emphasise the behaviour of the variables related to the economic activity situation and the results regarding the different policy schemes. Firstly, both full-time and part-time employment result significant: people who are in the former situation being slightly more satisfied with life. Being unemployed and seeking a job, in the contrary, does not render significant.

Table 7.5. Regression model for cross-section 2: behaviour of economic activity situation variables

Source	SS	df	MS		Number of obs	731
Model	770,93	15	51,3955		F(15, 715)	14
Residual	2625,46	715	3,6720		Prob > F	0,0000
Total	3396,39	730	4,6526		R-squared	0,2270
					Adj R-squared	0,2108
					Root MSE	1,9162
LS2	Coef.	Std. Err.	t	P> t	[95% Conf.	Interval]
Age	-0,029115	0,008600	-3,39	0,001	-0,045999	-0,012232
Gender	-0,082680	0,171847	-0,48	0,631	-0,420065	0,254705
Non-EU Ethno-cultural background	0,300108	0,147812	2,03	0,043	0,009911	0,590305
Education level	0,099750	0,073777	1,35	0,177	-0,045096	0,244596
Relevance of community participation	0,599494	0,145329	4,13	0,000	0,314171	0,884817
Full-time employment	0,444909	0,223619	1,99	0,047	0,005881	0,883937
Part-time Employment	0,426845	0,238594	1,79	0,074	-0,041584	0,895273
Job Seeker	-0,178130	0,179967	-0,99	0,323	-0,531456	0,175196
Ln (Income per dwelling unit)	0,390626	0,190102	2,05	0,040	0,017401	0,763851
Food deprivation	-0,789310	0,218595	-3,61	0,000	-1,218475	-0,360146
Worry about financial situation	-0,042528	0,019664	-2,16	0,031	-0,081135	-0,003922
Feeling capable of taking decisions	0,985245	0,191002	5,16	0,000	0,610253	1,360237
Feeling helpless	-0,782136	0,149352	-5,24	0,000	-1,075357	-0,488915
Frequency of electronic leisure	-0,139799	0,051831	-2,70	0,007	-0,241558	-0,038040
SMI limited	-0,297501	0,153703	-1,94	0,053	-0,599265	0,004262
_cons	4,539382	1,437318	3,16	0,002	1,717514	7,361249

Additionally, the logarithm of household income results highly significant, while the decile distribution renders significant only at 10%-level. People with higher incomes report on average higher LS. More precisely, people in decile ten are likely to give on average 0,48 points higher LS than those in decile one.

Moreover, those who say to suffer of food deprivation report on average 0,79 points lower LS. This renders a very significant predictor of satisfaction with life, contrary to the level of worry about their financial situation: people who say to not worry at all report on average only 0,21 points higher LS than those who say to worry much.

An important finding here concerns the impact of the so-called limited SMI scheme, which required an equally large GMI reduction as any potential incomes earned. In other words, those people under a typical negative income tax scheme. People under such scheme report on average 0,29 points lower LS, as compared to all other policy schemes. This is the only policy scheme that results significant, and allows us to infer that reducing people's monetary support due to income-generating efforts – at a minimum – attenuates the otherwise rewarding effect on life satisfaction. This, we reckon, seems to resemble a so-called poverty trap, i.e. a seemingly well-intended policy feature that ends up rather reducing people's motivation and/or means to overcome material poverty or vulnerability, rather than empowering them to become economically autonomous.

Finally, the level of self-esteem renders very significantly and strongly correlated to life satisfaction. Here proxied by the feelings of being capable of taking decisions and helplessness. Those who say feeling capable of taking decisions report on average almost one point higher LS than those who say feeling incapable, while those who say feeling helpless in front of difficulties report on average 0,78 points lower LS. Whereas this allows us to infer that self-esteem is very strongly and significantly related to life satisfaction, we cannot discern the directionality of the effect, whether it is having a high satisfaction with life that gives people a strong self-esteem or the other way around.

7.3. Cross-section 3: short before the end

In this last cross-sectional model we compare the treatment and the control groups. Given that the survey had been applied four to five months before the end of the pilot project, participants of the treatment group were aware of the approaching completion of the project. While this does not necessarily influence all answers given, it is a factor to take into account. Moreover, the almost double sample surveyed within the treatment group as compared to the control one, gives the former's results stronger statistical robustness.

Table 7.6. Model 3A.1: regression for treatment group in 3rd wave

Source	SS	df	MS		Number of obs	690
Model	634,04	16	39,6272		F(16, 673)	8,62
Residual	3092,46	673	4,5950		Prob > F	0,0000
Total	3726,50	689	5,4086		R-squared	0,1701
					Adj R-squared	0,1504
					Root MSE	2,1436
LS3	Coef.	Std. Err.	t	P> t 	[95% Conf.	Interval]
Household members	-0,013848	0,064903	-0,21	0,831	-0,141285	0,113589
Age	0,001263	0,010501	0,12	0,904	-0,019355	0,021882
Gender	0,436074	0,196975	2,21	0,027	0,049315	0,822834
Children	0,198688	0,290566	0,68	0,494	-0,371836	0,769212
Non-EU Ethno-cultural background	0,278669	0,169909	1,64	0,101	-0,054947	0,612285
Education level	0,000109	0,006883	0,02	0,987	-0,013405	0,013622
Ln (Income per dwelling unit)	0,271002	0,158872	1,71	0,089	-0,040943	0,582946
Frequency of volunteering	-0,043733	0,016001	-2,73	0,006	-0,075151	-0,012314
Level of trust on neighbours	0,097264	0,030144	3,23	0,001	0,038077	0,156451
Relations quality	2,016957	0,446189	4,52	0,000	1,140866	2,893047
Bad Health	-0,768403	0,239085	-3,21	0,001	-1,237845	-0,298960
Constant stress	-0,830902	0,205104	-4,05	0,000	-1,233622	-0,428182
Full-time employment	0,409812	0,230191	1,78	0,075	-0,042168	0,861792
Bad house conditions	-0,015917	0,009946	-1,60	0,110	-0,035446	0,003611
Loss of self-confidence	-0,006054	0,006357	-0,95	0,341	-0,018536	0,006427
Frequency of electronic leisure	0,029917	0,015989	1,87	0,062	-0,001477	0,061311
_cons	2,393697	1,261338	1,90	0,058	-0,082934	4,870328

Firstly, we render most significant the importance of what we have named “relations dynamics”. This variable reflects a combination of eleven situations related to people’s satisfaction with their relations, and it includes – but is not limited to, 1) visits and invites out; 2) help and advice on both personal and

non-personal issues; 3) love and affection; and 4) the possibility to talk to others about their problems at home, work or else. People were given a scale from 1 to 5 to rate their satisfaction level in each situation. This means that those who are totally satisfied with all situations add up to 55 points, down to a minimum of 11 points for those totally dissatisfied, excluded answers “don’t know” and “don’t answer”.

The responses are rescaled on a score between 0 and 1, to make it easier to interpret. Thus, the satisfaction with social relations dynamics results very strongly and significantly correlated with life satisfaction, more so to people within the control group. In this latter, people who state to be totally satisfied with their relations report on average 2,36 points higher LS than those who are totally

Table 7.7. Model 3A.2: regression for control group in 3rd wave

Source	SS	df	MS		Number of obs	287
Model	667,31	18	37,0730		F(18, 268)	9,6
Residual	1034,57	268	3,8604		Prob > F	0,0000
Total	1701,89	286	5,9507		R-squared	0,3921
					Adj R-squared	0,3513
					Root MSE	1,9648
LS3	Coef.	Std. Err.	t	P> t	[95% Conf.	Interval]
Household members	0,085036	0,087726	0,97	0,333	-0,087685	0,257756
Age	-0,014635	0,014940	-0,98	0,328	-0,044051	0,014781
Gender	0,448841	0,290986	1,54	0,124	-0,124068	1,021750
Children	-0,733598	0,378955	-1,94	0,054	-1,479706	0,012509
Non-EU Ethno-cultural background	0,123147	0,242466	0,51	0,612	-0,354233	0,600527
Education level	-0,006654	0,021551	-0,31	0,758	-0,049084	0,035777
Level of trust on neighbours	0,078247	0,039207	2,00	0,047	0,001054	0,155439
Relations quality	2,364163	0,642569	3,68	0,000	1,099037	3,629289
Bad Health	-0,460278	0,314034	-1,47	0,144	-1,078565	0,158009
Constant stress	-0,580082	0,337728	-1,72	0,087	-1,245019	0,084855
Full-time employment	-0,000739	0,318750	-0,00	0,998	-0,628311	0,626833
Job Seeker	-0,296904	0,283349	-1,05	0,296	-0,854777	0,260970
Economic satisfaction	0,157826	0,027041	5,84	0,000	0,104585	0,211066
Difficulties to make ends meet	-1,395311	0,283806	-4,92	0,000	-1,954083	-0,836538
Possession washing machine	1,745107	0,570981	3,06	0,002	0,620927	2,869287
Bad house conditios	-0,079059	0,019291	-4,10	0,000	-0,117041	-0,041078
Loss of self-confidence	-0,001335	0,008404	-0,16	0,874	-0,017882	0,015211
Frequency of electronic leisure	-0,049611	0,120125	-0,41	0,680	-0,286119	0,186897
_cons	2,983498	1,299845	2,30	0,022	0,424292	5,542704

dissatisfied. In the treatment group, the difference equates to 2,01 points. In the case of the control group, this is the only significant predictor related to human relations and social capital; in the treatment case, to the contrary, other two variables result correlated to LS: frequency of volunteering, whose influence on LS is in this case statistically negligible; and the level of trust on neighbours, for

which people who say fully trusting them reporting on average 0,97 points higher LS than those who say not trusting at all.

In regards to income, which data we have for the treatment group only, the natural logarithm of household income results significant at 10%-level. People with higher income report on average higher LS values. However, this significance does not hold when we include either of two variables, 1) level of satisfaction with their financial situation; and 2) having serious difficulties to make ends meet. We include this model in appendix 4. In it, we find that both new variables are highly and strongly correlated with life satisfaction: those treatment group members who say being totally satisfied with their financial situation report on average 0,78 points higher LS than those totally dissatisfied, while the ones who state having serious difficulties to make ends meet report on average 0,91 points lower LS rates.

In the case of the control group, both satisfaction with the household's financial situation and the difficulties to make ends meet are even more strongly and significantly correlated to the rate of LS than in the treatment group. Those control group members totally satisfied with their economic situation report on average practically 1,60 points higher satisfaction with life as compared to those totally dissatisfied with it. And those who said having serious difficulties making ends meet report on average 1,39 points lower LS.

In regards to the economic activity, none of the variables results significant in the control group, while full-time employment is associated with higher levels of LS for the GMI beneficiaries. Two health-related variables are significant predictors of LS in the treatment group. First, those who report having a bad health status have on average 0,77 points lower levels of LS, and people who say to constantly feel stress in life had 0,83 points lower levels of subjective well-being.

7.4. Panel data model

In this panel data model we use a so-called mixed-effects model (MEM). It allows for the analysis of both time-varying and time-invariant variables, as well as continuous – cardinal – and binary – “dummy” – variables. With it, we seek to explain changes in life satisfaction rates due to fluctuations in time-varying predictors, while also exploring how time-invariant variables influence LS results. Moreover, this model takes into account the effects of unexplored and unobserved situational or individual-specific conditions and characteristics, which could or not influence people's satisfaction with life, either directly or indirectly through the observed variables. Additionally, we run a fixed-effects model⁸ with exactly the same predictors, which allows us to compare the specific effects of time-varying variables only.

Thus, our mixed-effects model results in a combination of significant time-varying and time-invariant predictors. Gender and ethno-cultural background render as significant demographic features that strongly influence people's life satisfaction. Women report on average 0,54 higher LS than men, while those with a non-EU ethno-cultural background give on average 0,35 points higher rates than those from within the EU. Given that these do not change for the participants within our sample, we can infer that people with those characteristics would likely report higher satisfaction with life than others, under similar socio-economic situations.

⁸ A fixed-effect model ignores – “drops” – time-constant characteristics, which means that its coefficients reflect how changes in the predictors impact the changes in LS rates.

Table 7.8. Panel data mixed-effects model

Mixed-effects REML regression					Number of obs =	1666
					Wald chi2(20) =	289,82
Log restricted-likelihood = -3729,00					Prob > chi2 =	0,0000
LS	Coef.	Std. Err.	z	P> z	[95% Conf.	Interval]
Household members	0,053331	0,045119	1,18	0,237	-0,035101	0,141763
Age	-0,011580	0,007166	-1,62	0,106	-0,025624	0,002465
Gender	0,545698	0,135785	4,02	0,000	0,279565	0,811831
Non-EU Ethno-cultural background	0,377161	0,118884	3,17	0,002	0,144152	0,610171
Education level	0,041662	0,058052	0,72	0,473	-0,072117	0,155441
Income decile	0,551879	0,224947	2,45	0,014	0,110992	0,992767
SMI Limited	-0,107190	0,119720	-0,90	0,371	-0,341838	0,127458
Frequency of volunteering	0,095444	0,064527	1,48	0,139	-0,031027	0,221914
Frequency of social leisure	-0,118570	0,061884	-1,92	0,055	-0,239861	0,002720
Amount of groups of participation	0,199369	0,052106	3,83	0,000	0,097244	0,301494
Support network	0,234397	0,117835	1,99	0,047	0,003445	0,465349
Bad health	-0,809315	0,159746	-5,07	0,000	-1,122410	-0,496219
Full-time employment	0,544344	0,172213	3,16	0,002	0,206813	0,881876
Job Seeker	-0,224351	0,122004	-1,84	0,066	-0,463474	0,014772
Possession of washing machine	0,490350	0,296207	1,66	0,098	-0,090205	1,070905
Material Deprivation	-0,813668	0,182971	-4,45	0,000	-1,172284	-0,455052
Food deprivation	-0,844594	0,160268	-5,27	0,000	-1,158713	-0,530475
Bad house conditions	-0,296763	0,112305	-2,64	0,008	-0,516877	-0,076650
Personality: extraverted/enthusiatic	0,314135	0,117547	2,67	0,008	0,083748	0,544523
Frequency of electronic leisure	-0,258118	0,062724	-4,12	0,000	-0,381055	-0,135180
_cons	4,848725	0,653197	7,42	0,000	3,568481	6,128968
Random-effects Parameters			Estimate	Std. Err.	[95% Conf.	Interval]
sd(Residual)			2,241093	0,038825	2,166276	2,318495

Income renders a very significantly and strongly correlated predictor of life satisfaction. We model it both as decile and as natural logarithm, and in both cases the result holds. The models we show here present the result for the decile distribution. The fact that it resulted significant in both the mixed-effects and the fixed-effects models let us infer that, 1) at any given moment, those people with higher income report on average higher LS rates, and 2) those people who over time see their income grow are also highly likely to increase their level of life satisfaction. One decile higher up the ladder results on average in 0,13 points increase in LS.

In regards to human relations and social capital, our model seems to indicate that, 1) those people who decide to participate in more community organisations or civil society groups⁹ after the start of the project, report higher LS in the second and third waves; and 2) those who believe to have a

Table 7.9. Panel data fixed-effects model

Fixed-effects (within) regression				Number of obs =	1666	
Group variable (i): Ident				Number of groups =	570	
R-sq: within = 0,1112				Obs per group: min =	1	
between = 0,0945				avg =	2,9	
overall = 0,1001				max =	3	
				F(14,1082) =	9,67	
corr(u_i, Xb) = -0.0441				Prob > F =	0	
LS	Coef.	Std. Err.	t	P> t 	[95% Conf. Interval]	
Household members	0,021453	0,135030	0,16	0,874	-0,243498	0,286404
Age	(dropped)					
Gender	(dropped)					
Non-EU Ethno-cultural background	(dropped)					
Education level	(dropped)					
Income decile	1,237301	0,300336	4,12	0,000	0,647993	1,826608
SMI Limited	(dropped)					
Frequency of volunteering	0,193391	0,072435	2,67	0,008	0,051262	0,335520
Frequency of social leisure	-0,096146	0,069650	-1,38	0,168	-0,232811	0,040518
Amount of groups of participation	0,247190	0,073086	3,38	0,001	0,103784	0,390596
Support network	0,187831	0,135186	1,39	0,165	-0,077426	0,453087
Bad health	-0,117090	0,223011	-0,53	0,600	-0,554672	0,320493
Full-time employment	0,852504	0,235302	3,62	0,000	0,390804	1,314204
Job Seeker	-0,040284	0,157425	-0,26	0,798	-0,349178	0,268610
Possession of washing machine	0,319382	0,391585	0,82	0,415	-0,448970	1,087734
Material Deprivation	-0,889089	0,201071	-4,42	0,000	-1,283622	-0,494555
Food deprivation	-0,488558	0,201110	-2,43	0,015	-0,883167	-0,093949
Bad house conditions	-0,102958	0,162201	-0,63	0,526	-0,421221	0,213058
Personality: extraverted/enthusiatic	(dropped)					
Frequency of electronic leisure	-0,210687	0,073382	-2,87	0,004	-0,354674	-0,066700
_cons	4,926207	0,788124	6,25	0,000	3,379783	6,472631
sigma_u	1,672237					
sigma_e	1,960731					
rho	0,421087	(fraction of variance due to u_i)				
F test that all u_i=0:		F(569, 1082) =	1,88		Prob > F = 0,0000	

⁹ Our question included, neighbours organisations, sport organisations, school committees, NGOs, religious groups, volunteering organisations and/or political groups.

support network report on average higher LS than those who say not to have one. In turn, the frequency of attending social leisure activities (going to the bar, cinema, concerts or discos) results significant: at a specific moment, those who say to do it more often reported higher LS; those who state doing it every day report on average 0,45 points higher LS than those who say never to attend such activities. On the other hand, the change through time of the frequency of volunteering renders significant and negatively correlated, i.e. those who during the project lowered the frequency with which they did volunteering report on average higher LS levels.

In terms of health, being in a bad health status results highly significant and strongly correlated to satisfaction with life, as expected and shown in the other regression models. Those people who say to be in such situation at any given time, are on average 0,81 points less satisfied with life than those not in bad state. Whereas there are a few people reporting different states from one survey to another, these changes are not statistically significant, which means that the correlation to LS is time-independent.

Our model also shows the high relevance of material and economic variables. Most importantly, we consider, are the effects of, 1) full-time employment, 2) material deprivation, and 3) food deprivation. At any given time, people who report to be full-time employed have higher LS rates than the rest; and stronger is the effect for those who move into full-time employment during the project. We find a very similar behaviour for material deprivation, only inverse, i.e. those who are in or fell into material deprivation report lower life satisfaction. Yet those people who state experiencing food deprivation after the start of the project see their reported LS rate decrease; overall those experiencing food deprivation at any given time report lower rates of satisfaction with life than the rest.

Moreover, we highlight the result for those people who consider themselves as extraverted/enthusiastic. This is the personality trait that resulted most strongly correlated to satisfaction with life. Given that this self-description does not vary, the effect on LS holds over time, with those who consider themselves extraverted/enthusiastic giving rates in average 0,33 points higher than for those who do not.

Finally, we shall point at the high value of the random-effects parameter. A residual of 2,23 points means that, on average, LS rates differ from the mean value with 2,23 points, some more, some less. This result shows how unobserved conditions or situations, both time- and individual-specific, strongly influence the reported rates of satisfaction with life, i.e. there are other predictors that strongly correlate with the latter that are left invisible.

8. DISCUSSION

A number of trends and key findings stick out from the results above. The regression models for each time-series provide insight on the relation between life satisfaction and the studied conditions and particular life situations at specific moments in time. The panel analysis adds to those momentary pictures a “movie”, a flowing, time-varying function of LS as explained by constant and changing situations and characteristics.

Thus, we first want to highlight those conditions or characteristics that seem to definitely be essential to B-Mincome’s participants’ satisfaction with life. These are the predictors that result significant in practically all of the models. This need not imply that these are and will always be critical elements within people’s subjective definition of life satisfaction. Rather, these are the results of our analysis on the specified set of variables tested through surveys conducted with a share of Barcelona’s most socio-economically vulnerable population, and under the framework of the B-Mincome pilot project. That said, we can deepen into those predictors that result highly significant in most or all of the models.

8.1. Economic activity, material conditions and economic situation

Initially, we can conclude that the crucial role our historical socio-economic development has given to employment and job-stability is reflected in the results. Those people who are seeking a job in the sample report on average lower rates of life satisfaction, and, more importantly, being full-time employed renders everywhere higher LS levels. A big portion of B-Mincome participants had stated to have a clear expectation that the project would give them the opportunity to find a stable and decent job that would minimise the uncertainty produced by the constant gambling in-and-out of precarious employment (Hill-Dixon et al., 2018) and so they could overcome their situation by their own means (Bonilla & Sekulova, 2019).

The second survey includes questions on stress caused by financial vulnerability, whose combination “being in extreme financial stress¹⁰”, which is a highly significant predictor of LS, (even more than full-time employment), including the panel-data study. Likewise, financial satisfaction ends up being extremely important determinant of subjective well-being (third survey).

Furthermore, and as expected, suffering severe material deprivation¹¹ and suffering food deprivation¹² appear to be critical predictors of satisfaction with life. This results hold both at cross-sectional and panel models, which means that, 1) at any given time, those people who suffer any or both of these situations are less satisfied with life; and 2) those who move out of increase their level of LS. This result is not particularly new or surprising, yet brings to the fore the importance of materiality and basic needs fulfilment for living a dignified life.

The standard income variable is significant in several of the models (cross-sections two and three and the panel-data one). This effect diminishes or gets diluted when other economic variables are included.

¹⁰ Extreme financial stress here means a combination of the following five factors in relation to their financial situation: 1) feeling very or extremely uncertain, 2) feeling very or extremely at risk, 3) feeling very threatened, 4) worrying much about it, 5) spending a lot of time thinking about it.

¹¹ Severe material deprivation means here not being able to afford: 1) an unexpected 750 EUR expense; 2) at least one week “out-of-home” vacations per year; 3) eating meat, chicken, fish or the equivalent vegetarian “luxurious” food at least every second day; and 4) keep the house adequately heated during cold times.

¹² Suffering one of two situations at least once during the previous four weeks because of lack of food: a) at least one dwelling-unit member spending a whole 24 hours without eating; or b) at least one member having to go to bed without eating.

Our guess, which cannot be completely grounded by the data, is that income and employment are strong predictors of life satisfaction only as much as they are proxies of other and deeper constructs such as the stress associated with vulnerability, material uncertainty, and poor housing. While these underlying processes are not studied, their impact is reflected in the size and direction of the income and employment parameters.

Project-wise, perhaps one of the most important finding is that those people whose income increased as a result of the GMI report higher level of life satisfaction. It is difficult to compare that result with other studies as more happiness&income-increase research has been directed to the individuals who are not particularly vulnerable. For example, it is early and difficult to speak about so-called “hedonic adaptation” in our particular case (Clark & Oswald, 1996; Easterlin, McVey, Switek, Sawangfa, & Zweig, 2010). Furthermore data on income in our case comes from household level, while the survey is done individually.

In relation to material conditions, one of the primary and significant determinants of LS in the sample is “possession of a washing machine”. This finding relates to the relatively large size of households in the sample and the amount of care work that is being undertaken within the dwelling unit. More so, variables that reflect people’s consumption patterns show up as significant only in the first wave. Before the project, the more often people say to be able to buy phones and furniture, the more satisfied with life they report to be. Yet, consumption of these gadgets does not result as significant in the third cross-section.

8.2. Health

It is no surprise that a bad self-reported health status is a very strong predictor of lower life satisfaction. In all models, those people who say to be in a bad health have almost half a point lower level of LS than the rest. Other variables that render as strong predictors in specific models are limitation to psycho-physical autonomy and being inactive due to sickness (in the cross-section regression); as well as suffering constant stress/tension (cross-sections two and three). Overall as common in the happiness economics literature health in our study is a critical predictor of life satisfaction.

8.3. Human relations and social capital

The models show a strong relation between life satisfaction and the predictors concerning human relations and social capital. A range of relational patterns have been covered above: both formal and informal, involving institutions, civil society, and community participation.

Some of the strongest predictors of LS in this range are community participation, inter-personal trust and a ‘healthy’ network of relations. More specifically, 1) a generally positive approach to trust in others¹³ is associated with higher levels of life satisfaction in the first and second waves, while a higher trust in neighbours in the third one; 2) in cross-section two, those people who consider community participation useful to get to know people/make friends report on average 0,52 points higher LS values; 3) also in cross-section two, participation in community groups or organisations is associated with higher satisfaction with life; and 4) a variable within the third survey wave called “relations dynamics”¹⁴

¹³ A generally positive approach to trust in other means in this case a combination of three situations, 1) agreeing with the believe that people tend to help eachother; 2) disagreeing with the idea that people will take advantage of ‘me’ given the opportunity; and 3) feeling to have a support network – i.e. family, friends or neighbours – from whom to ask for help.

¹⁴ This variable reflects a combination of eleven situations related to people’s satisfaction with their relations, and it includes – but is not limited to, 1) visits and invites out; 2) help and advice on both personal and non-

above is an important predictor of life satisfaction, for both participants of the treatment and control group.

Moreover, changes in community participation and the availability of a support network also appear to be positive predictors of life satisfaction. According to the panel data model, those people who started to participate in more community groups/organisations, presumably as a result of the project, report higher rates of LS; on the contrary, those who feel to be losing a support network report lower life satisfaction.

8.4. Gender and ethno-cultural background

As we detail in several of the cross-sections models, and confirm through the panel data one, there are notable differences in life satisfaction reports for distinct gender and ethno-cultural background. At any given time, being a woman tends to raise life satisfaction by almost half a point. Interestingly, ethno-cultural backgrounds outside the European Union are a positive determinant of life satisfaction, unlike having a Spanish, Catalan or European ethno-cultural origin.

8.1. Emotions, mood and personality

Our models shed a light on how close relation between emotions and mood and life satisfaction. People were asked about the frequency they felt 'happy', 'sad' and 'angry' within the previous year, and all three variables result variably strong predictors of life satisfaction, which basically provides a proof of the stability and reliability of our dependent variable. In other words, this implies that the analysis of satisfaction with life can be considered statistically robust. Yet, we have decided not to insert these variables in the models to avoid so-called double-causality.

Similarly, we find three very strong correlations that can be considered to reflect people's level of self-esteem: 1) feeling capable of taking decisions, 2) feeling helpless in times of difficulties, and 3) feeling capable of facing problems. All three result as significant predictors of LS. However, these variables suffer so-called inverse-causality (endogeneity), which means that they could be both 1) determinants of life satisfaction and 2) influenced by life satisfaction. Stated differently, we cannot conclude upon the directionality of this correlation, or whether changes in life satisfaction are a result or rather a predictor of these self-esteem-related variables.

8.2. Policy schemes

In general, the so-called limited SMI – i.e. the scheme in which people's monetary support was reduced proportionally to the additional income they made – results to reduce LS in the sample. This is the only policy whose effect appears to significantly influence subjective well-being in the sample¹⁵. People under this so-called "negative income tax" report lower LS than the rest of participants. Likely, reducing people's monetary support due to income earned through their own efforts attenuates the otherwise positive effect of that earned income on life satisfaction. This can be considered a sign of the so-called

personal issues; 3) love and affection; and 4) the possibility to talk to others about their problems at home, work or else.

¹⁵ People who answered the survey were not necessarily involved in the APs, as these were often undertaken by other members of the household. Whereas the life satisfaction question referred to the surveyed individual, the impact of the participation in the AP, and the conditionalities attached, could have affected another member of the dwellin unit.

poverty trap, i.e. a seemingly well-intended policy feature that ends up rather reducing people's motivation and/or means to overcome material poverty or vulnerability.

Finally, while none of the other policy schemes, included the active policies (APs), seems to affect the participants' LS, we do see a clear positive relation between higher levels of community involvement and subjective well-being, which is likely to be a result of the project.

9. REFERENCES

- Ajuntament de Barcelona. (2019). Report on the preliminary results of the B-MINCOME project (2017-2018) Combining a guaranteed minimum income and active social policies in deprived urban, (July), 1–42.
- Andress, H.-J., Golsch, K., & Schmidt, A. (2013). *Applied Panel Data Analysis for Economic and Social Surveys*. Springer.
- Bonilla, F., & Sekulova, F. (2019). *Expectativas sobre y estado inicial de la felicidad*.
- Clark, A. E., & Oswald, A. J. (1996). Satisfaction and comparison income. *Journal of Public Economics*, 61(3), 359–381. [http://doi.org/https://doi.org/10.1016/0047-2727\(95\)01564-7](http://doi.org/https://doi.org/10.1016/0047-2727(95)01564-7)
- Easterlin, R. A., McVey, L. A., Switek, M., Sawangfa, O., & Zweig, J. S. (2010). The happiness-income paradox revisited. *Proceedings of the National Academy of Sciences*, 107(52), 22463–22468. <http://doi.org/10.1073/pnas.1015962107>
- Ferrer-i-carbonell, A., & Frijters, P. (2004). How Important Is Methodology for the Estimates of the Determinants of Happiness ? Author (s): Ada Ferrer-i-Carbonell and Paul Frijters Reviewed work (s): HOW IMPORTANT IS METHODOLOGY FOR THE ESTIMATES OF THE DETERMINANTS OF HAPPINESS ?*. *Society*, 114(497), 641–659.
- Flanagan, J. C. (1978). A research approach to improving our quality of life. *American Psychologist VO - 33*, (2), 138. Retrieved from <https://login.are.uab.cat/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsovi&AN=edsovi.00000487.197802000.00004&site=eds-live>
- Gudmundsdottir, D. G. (2013). The Impact of Economic Crisis on Happiness. *Social Indicators Research*, 110(3), 1083–1101. <http://doi.org/10.1007/s11205-011-9973-8>
- Hill-Dixon, A., Green, H., Davis, H., Boelman, V., & Sanchez, J. (2018). Living in the Precariat A portrait of life in Eix Besòs, Barcelona, (December).
- Katchova, A. (2013). Panel Data Models Ani Katchova.
- Loewe, N., Bagherzadeh, M., Araya-Castillo, L., Thieme, C., & Batista-Foguet, J. M. (2014). Life domain satisfactions as predictors of overall life satisfaction among workers: Evidence from Chile. *Social Indicators Research*, 118(1), 71–86. <http://doi.org/10.1007/s11205-013-0408-6>
- Mackerron, G. (2012). Happiness economics from 35000 feet. *Journal of Economic Surveys*, 26(4), 705–735. <http://doi.org/10.1111/j.1467-6419.2010.00672.x>
- Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Response to comment on “Poverty impedes cognitive function.” *Science (New York, N.Y.)*, 342(6163), 1169. <http://doi.org/10.1126/science.1246799>
- Van Praag, B. M. S., & Ferrer-i-Carbonell, A. (2011). Happiness Economics: A New Road to Measuring and Comparing Happiness. *Foundations and Trends® in Microeconomics*, 6(1), 1–97. <http://doi.org/10.1561/07000000026>
- Williams, R. (2012). Panel Data 4: Fixed Effects vs Random Effects Models. In *Sociology 73994* (pp. 1–6). Retrieved from <http://www3.nd.edu/~rwilliam/stats3/Panel04-FixedVsRandom.pdf>

10. APPENDIXES

Appendix 1. List of independent variables in each cross-sectional data series

Table 10.1. Independent variables studied in each cross-section

Group	Variable	Survey wave		
		1 st	2 nd	3 rd
Demographics	Geographical location: neighbourhood	Yes	Yes	Yes
	Age	Yes	Yes	Yes
	Gender	Yes	Yes	Yes
	Marital Status: married, single, separated, divorced, widow/er	Yes	Yes	Yes
	Number of children in household (under 18)	Yes	Yes	Yes
	Ethno-cultural background: Spanish, EU except Spain, Non EU	Yes	Yes	Yes
	Formal education level	Yes	Yes	Yes
Human relations and social capital	Income at dwelling-unit level: absolute, natural logarithm and decile distribution	Yes	Yes	Yes
	Number of dwelling-unit members	Yes	Yes	Yes
	Frequency of volunteering	Yes	Yes	Yes
	Frequency of social leisure activities: going to bars, cinema, concerts or discos	Yes	Yes	Yes
	Community participation: neighbours organisation, sports organisation, AMPA, NGO, religious group, volunteering organisation, political group	Yes	Yes	Yes
	Amount of groups of community participation	Yes	Yes	Yes
	Recent changes in relations: separation from partner	Yes	No	Yes
	Recent changes in relations: meet current partner	Yes	No	No
	Recent changes in relations: death of close relative	Yes	No	Yes
	Recent changes in relations: childbirth	Yes	No	No
	Inter-personal trust: people help eachother (altruism)	Yes	Yes	Yes
	Inter-personal trust: people take advantage of eachother (distrust)	Yes	Yes	Yes
	Inter-personal trust: support network	Yes	Yes	Yes
	General positive approach to trust: positive answer to three previous variables	Yes	Yes	Yes
	Relevance of community participation: useful to get to know people/make friends	No	Yes	No
	Level of trust in neighbours	No	No	Yes
Quality of relations dynamics: visits of friends and family; receiving help on house chores; receiving recognition at work; having people who care for what could happen to them; receiving love and affection; having people to talk to about their 1) work and house issues, 2) personal and family issues and 3) financial issues; receiving invites out; receiving useful advise when something importante happens; receiving help when bed sick	No	No	Yes	
Level of quality of relations dynamics: numeric value as sum of responses in previous variable	No	No	Yes	

Group	Variable	Survey wave		
		1 st	2 nd	3 rd
Health	Self-perceived health status: excellent, very good, good, regular, bad	Yes	Yes	Yes
	Autonomy: limitations/problems to walk	Yes	No	No
	Autonomy: limitations/problems to walk	Yes	No	No
	Autonomy: limitations/problems to wash and dress	Yes	No	No
	Autonomy: limitations/problems to carry out daily activities	Yes	No	No
	Level of pain or ailment: none, slight, moderate, serious, extreme	Yes	No	No
	Capacity to concentrate in daily activities (within previous 30 days)	Yes	No	No
	Sleep lost due to stress (within previous 30 days)	No	Yes	Yes
	Constant stress/tension (within previous 30 days)	No	Yes	Yes
	Capacity to enjoy daily activities	No	Yes	Yes
	Sleep: daily average of hours slept (in previous week)	No	Yes	Yes
	Sleep: quality of sleeping time (in previous week)	No	Yes	Yes
Economic activity situation	Economic activity situation: full-time employed, part-time employed, full-time self-employed, part-time self-employed, unemployed/job seeker, other	Yes	Yes	Yes
	Inactive due to sickness	Yes	Yes	Yes
	Job seeker for more than two years	Yes	Yes	Yes
Material and economic conditions and consumption patterns	Possessions: phone, television, PC, washing-machine, car, internet connection	Yes	Yes	Yes
	Material deprivation: capacity to afford 1) an unexpected 750 EUR expense, 2) one yearly week of vacations, 3) meat, chicken, fish or equivalent vegetarian meal at least every second day, and 4) heating the house appropriately during cold times	Yes	Yes	Yes
	Severe material deprivation: not able to afford any of the four situations in previous variable	Yes	Yes	Yes
	Food deprivation: at least one DU-member spending 24 hours without eating due to lack of food (within previous four weeks)	Yes	No	No
	Food deprivation: at least one DU-member having to go to bed with hunger due to lack of food (within previous four weeks)	No	Yes	Yes
	Frequency of buying: clothes and shoes, mobile phones, electronic appliances, and furniture	Yes	No	Yes
	Perceived financial uncertainty	No	Yes	Yes
	Perceived risk due to financial situation	No	Yes	Yes
	Perceived threat from financial situation	No	Yes	Yes
	Level of concern about financial situation	No	Yes	Yes
	Time spent thinking about financial situation	No	Yes	Yes
	Extreme financial stress: suffering high levels in all previous five variables	No	Yes	Yes
	Level of satisfaction with financial situation	No	No	Yes
	Difficulties to make ends meet	No	No	Yes
Housing	House regime situation: owning, renting, free, squatting	Yes	Yes	Yes
	Bad house conditions: leaks, moisture, rottenness	Yes	Yes	Yes
Emotions, mood and feelings	Mood: frequency of lacking interest or not enjoying doing things	Yes	Yes	No
	Mood: frequency of feeling depressed, hopeless	Yes	Yes	No
	Feelings: frequency of feeling 1) angry, 2) happy and 3) sad	Yes	Yes	Yes

Group	Variable	Survey wave		
		1 st	2 nd	3 rd
Self-esteem	Feeling to have a purposeful life	No	Yes	Yes
	Feeling able to take decisions	No	Yes	Yes
	Feeling unable to overcome difficulties	No	Yes	Yes
	Feeling able to solve their problems	No	Yes	Yes
	Feeling unhappy/depressed	No	Yes	Yes
	Loss of self-confidence	No	Yes	Yes
	Feeling useless	No	Yes	Yes
	Feeling generally happy	No	Yes	Yes
Personality traits	Self-perceived personality: extraverted and enthusiastic	Yes	Yes	Yes
	Self-perceived personality: reserved and quiet	Yes	Yes	Yes
	Self-perceived personality: critical and reinvidicative	Yes	Yes	Yes
	Self-perceived personality: understanding and loving	Yes	Yes	Yes
Use of time	Frequency of: doing house chores	Yes	Yes	Yes
	Frequency of: attending religious activities	Yes	Yes	Yes
	Frequency of: electronic leisure (watching TV, movies or playing videogames)	Yes	Yes	Yes
	Frequency of: cultural/artistic activities	Yes	Yes	Yes
	Frequency of: doing sports	Yes	Yes	Yes
Policy schemes	Conditionality	No	Yes	Yes
	Type of policy scheme	No	Yes	Yes
	Limited or non-limited SMI	No	Yes	Yes

Appendix 2. Model 2A.2 – Comparative model with mood, emotions and self-esteem variables

Table 10.2. Model 2A.2 – Comparative model with mood, emotions and self-esteem variables

Source	SS	df	MS		Number of obs	615
Model	851,62	21	40,5534		F(21, 593)	11,84
Residual	2030,71	593	3,4245		Prob > F	0,0000
Total	2882,33	614	4,6944		R-squared	0,2955
					Adj R-squared	0,2705
					Root MSE	1,8505
LS2	Coef.	Std. Err.	t	P> t	[95% Conf.	Interval]
Age	-0,018747	0,009883	-1,90	0,058	-0,038157	0,000662
Gender	0,052673	0,183585	0,29	0,774	-0,307884	0,413229
Children	-0,227011	0,252209	-0,90	0,368	-0,722343	0,268321
Non-EU Ethno-cultural background	0,325078	0,158837	2,05	0,041	0,013127	0,637030
Education level	0,088015	0,078227	1,13	0,261	-0,065620	0,241651
Relevance of community participation	0,558284	0,155923	3,58	0,000	0,252055	0,864513
Amount of groups of participation	0,165371	0,075688	2,18	0,029	0,016722	0,314020
Bad health status	-0,574444	0,221805	-2,59	0,010	-1,010062	-0,138825
Lost sleep due to stress	-0,003707	0,193911	-0,02	0,985	-0,384542	0,377128
Job Seeker	-0,473044	0,157482	-3,00	0,003	-0,782335	-0,163753
Ln (Income of dwelling unit)	0,324862	0,209130	1,55	0,121	-0,085863	0,735587
Food Deprivation	-0,762811	0,240640	-3,17	0,002	-1,235422	-0,290199
Extreme financial stress	-0,623034	0,173805	-3,58	0,000	-0,964381	-0,281686
Purposeful life	0,267300	0,218291	1,22	0,221	-0,161417	0,696017
Capacity to take decisions	0,423334	0,228106	1,86	0,064	-0,024661	0,871329
Feeling helpless	-0,425165	0,177375	-2,40	0,017	-0,773524	-0,076805
Capacity of problem-solving	0,493080	0,212336	2,32	0,021	0,076057	0,910103
Feeling Useless	0,049882	0,244881	0,20	0,839	-0,431056	0,530821
Frequency of feeling angry	0,021016	0,073743	0,28	0,776	-0,123814	0,165846
Frequency of feeling sad	-0,242286	0,078666	-3,08	0,002	-0,396783	-0,087789
Frequency of electronic leisure	-0,140050	0,055699	-2,51	0,012	-0,249442	-0,030659
_cons	5,081790	1,557764	3,26	0,001	2,022385	8,141195

Appendix 3. List of panel data variables

Table 10.3. List of panel data variables

Group	Variable
Demographics	Geographical location: neighbourhood
	Age
	Gender
	Marital Status: married, single, separated, divorced, widow/er
	Number of children in household (under 18)
	Ethno-cultural background: Spanish, EU except Spain, Non EU
	Formal education level
Human relations and social capital	Income at dwelling-unit level: absolute, natural logarithm and decile distribution
	Number of dwelling-unit members
	Frequency of volunteering
	Frequency of social leisure activities: going to bars, cinema, concerts or discos
	Community participation: neighbours organisation, sports organisation, AMPA, NGO, religious group, volunteering organisation, political group
	Amount of groups of community participation
	Recent changes in relations: separation from partner
	Recent changes in relations: death of close relative
	Inter-personal trust: people help eachother (altruism)
	Inter-personal trust: people take advantage of eachother (distrust)
Inter-personal trust: support network	
General positive approach to trust: positive answer to three previous variables	
Health	Self-perceived health status: excellent, very good, good, regular, bad
Economic activity situation	Economic activity situation: full-time employed, part-time employed, full-time self-employed, part-time self-employed, unemployed/job seeker, other
	Inactive due to sickness
	Job seeker for more than two years
Material and economic conditions and consumption patterns	Possessions: phone, television, PC, washing-machine, car, internet connection
	Material deprivation: capacity to afford 1) an unexpected 750 EUR expense, 2) one yearly week of vacations, 3) meat, chicken, fish or equivalent vegetarian meal at least every second day, and 4) heating the house appropriately during cold times
	Severe material deprivation: not able to afford any of the four situations in previous variable
Housing	House regime situation: owning, renting, free, squatting
	Bad house conditions: leaks, moisture, rottenness
Emotions, mood and feelings	Feelings: frequency of feeling 1) angry, 2) happy and 3) sad
Personality traits	Self-perceived personality: extraverted and enthusiastic
	Self-perceived personality: reserved and quiet
	Self-perceived personality: critical and reivindicative
	Self-perceived personality: understanding and loving
Use of time	Frequency of: doing house chores
	Frequency of: attending religious activities
	Frequency of: electronic leisure (watching TV, movies or playing videogames)
	Frequency of: cultural/artistic activities

	Frequency of: doing sports
Policy schemes	Conditionality
	Type of policy scheme
	Limited or non-limited SMI

Appendix 4. Model 3A.2 – treatment group’s comparison model for third cross-section

Table 10.4. Model 3A.2 - Treatment group's comparison model for third cross-section

Source	SS	df	MS		Number of obs	690
Model	969,75	18	53,8750		F(18, 671)	13,11
Residual	2756,75	671	4,1084		Prob > F	0,0000
Total	3726,50	689	5,4087		R-squared	0,2602
					Adj R-squared	0,2404
					Root MSE	2,0269
LS3	Coef.	Std. Err.	t	P> t	[95% Conf.	Interval]
Household Members	-0,036705	0,061423	-0,60	0,550	-0,157310	0,083899
Age	-0,000513	0,009932	-0,05	0,959	-0,020015	0,018989
Gender	0,433825	0,186420	2,33	0,020	0,067789	0,799862
Children	0,122966	0,274901	0,45	0,655	-0,416804	0,662736
Non-EU Ethno-cultural background	0,209559	0,161173	1,30	0,194	-0,106906	0,526024
Education level	0,003675	0,006520	0,56	0,573	-0,009128	0,016477
Ln (Income per dwelling unit)	0,203385	0,150423	1,35	0,177	-0,091972	0,498742
Frequency of volunteering	-0,035672	0,015162	-2,35	0,019	-0,065443	-0,005901
Level of trust in neighbours	0,088503	0,028526	3,10	0,002	0,032493	0,144513
Relations quality	0,038952	0,007678	5,07	0,000	0,023876	0,054028
Bad health	-0,625884	0,226668	-2,76	0,006	-1,070949	-0,180820
Constant stress	-0,562636	0,196469	-2,86	0,004	-0,948404	-0,176869
Full-time employment	0,216454	0,220897	0,98	0,327	-0,217277	0,650186
Economic satisfaction	0,078517	0,012036	6,52	0,000	0,054884	0,102150
Difficulties to make ends meet	-0,912486	0,166994	-5,46	0,000	-1,240379	-0,584592
Bad house conditions	-0,012676	0,009411	-1,35	0,178	-0,031155	0,005803
Loss of self-confidence	-0,009734	0,006063	-1,61	0,109	-0,021639	0,002171
Frequency of electronic leisure	0,032702	0,015126	2,16	0,031	0,003001	0,062402
_cons	2,980471	1,202458	2,48	0,013	0,619437	5,341504