

# An Investigation of the Relationship between Financial Capability and Psychological Well-being in Mothers of Young Children in Poor Areas in England

A report for the Financial Services Authority  
**Edward Melhuish, Jay Belsky  
& Antero Malin**

Institute for the Study of Children, Families  
& Social Issues  
Birkbeck College, University of London

## **FSA OCCASIONAL PAPERS IN FINANCIAL REGULATION**

### **Foreword**

We are committed to encouraging debate among academics, practitioners and policy-makers in all aspects of financial regulation. To facilitate this, we are publishing a series of Occasional Papers in financial regulation, extending across economics and other disciplines.

These papers cover topics such as the rationale for regulation, the costs and benefits of various aspects of regulation, and the structure and development of the financial services industry. Since their main purpose is to stimulate interest and debate, we welcome the opportunity to publish controversial and challenging material and to publish papers that may have been presented or published elsewhere.

The main factor in accepting papers, which will be independently refereed, is that they should make substantial contributions to knowledge and understanding in the area of financial regulation.

We encourage contributions from external authors as well as from within the FSA. In either case, the papers will express the views of the author and not necessarily those of the FSA.

If you want to contribute to this series, please contact Peter Andrews or Patricia Bascunana-Ambros at:

The Financial Services Authority

25 The North Colonnade

Canary Wharf

London E14 5HS

Telephone: (0)20 7066 3104 or 3162

Email: [peter.andrews@fsa.gov.uk](mailto:peter.andrews@fsa.gov.uk) or [patricia.bascunana-ambros@fsa.gov.uk](mailto:patricia.bascunana-ambros@fsa.gov.uk)

FSA Occasional Papers are available on our website: [www.fsa.gov.uk](http://www.fsa.gov.uk). We welcome comments on these papers; please address them to the contacts above.

**An Investigation of the Relationship between Financial  
Capability and Psychological Well-being in Mothers of Young  
Children in Poor Areas in England**

**A report for the Financial Services Authority**

Edward Melhuish, Jay Belsky & Antero Malin

Institute for the Study of Children, Families & Social Issues

Birkbeck College, University of London

Address for correspondence:

Edward Melhuish,  
Institute for the Study of Children, Families & Social Issues,  
Birkbeck College, University of London,  
7 Bedford Square,  
London,  
WC1B 3RA

Email: [e.melhuish@bbk.ac.uk](mailto:e.melhuish@bbk.ac.uk)



**Table of contents**

<b>1. Executive summary</b>	<b>4</b>
<b>2. Introduction</b>	<b>5</b>
<b>3. Methods</b>	<b>8</b>
<b>4. Results</b>	<b>10</b>
- life satisfaction and financial difficulties	
- depression and financial difficulties	
- malaise and financial difficulties	
- self-esteem and financial difficulties	
- locus of control and financial difficulties	
<b>5. Summary</b>	<b>27</b>
 <b>Appendix 1: Financial hardship variables</b>	 <b>29</b>
<b>Appendix 2: Maternal psychological well-being variables</b>	<b>35</b>
<b>Appendix 3: Associations between financial hardship and psychological well-being</b>	<b>40</b>

## **1 Executive summary**

Financial difficulties lead to financial distress that in turn may lead to poorer psychological well-being. Previous work on people's financial difficulties and capability indicates that those most vulnerable to financial difficulties may well suffer with regard to their psychological state. One particularly vulnerable group are families with young children in disadvantaged areas.

This study is based upon interviews with 8,000 mothers of three-year-olds living in deprived areas in England. We considered the relationship between several measures of financial circumstances and mothers' psychological well-being, specifically life satisfaction, depression, malaise, self-esteem and locus of control. As families living in deprived areas are highly likely to have low income and other disadvantages, they are likely to show a higher incidence of financial difficulties than the country overall. Also, there are likely to be associations between income, financial difficulties, financial capability and psychological well-being.

This report considers such associations between financial variables and maternal psychological well-being in families with a young child living in disadvantaged areas. We combined some measures of financial hardship into an overall financial difficulties score. Having statistically taken into consideration effects of demographic and area characteristics, there are clear, moderately strong associations between financial difficulties and mothers' psychological well-being.

We also produced a measure of financial capability by adjusting financial difficulties for income differences. Again, there is a clear and consistent pattern of association between financial capability and mothers' psychological well-being, having adjusted for demographic and area characteristics. There is striking consistency in the pattern of relationships between financial difficulties, financial capability and mothers' psychological well-being across all measures.

Further research using statistical techniques which are more sophisticated than those employed in the current report, such as propensity matching and/or longitudinal analyses, would be needed to better illuminate the issue of causality in these relationships.

## **2 Introduction**

Financial difficulties have been linked to poorer levels of personal well-being (Drentea & Lavrakas, 2000; Kim, et al., 2003; O'Neill et al., 2005c). It is thought that financial difficulties lead to financial distress that in turn leads to poorer psychological well-being, and possibly poorer physical well-being. Financial distress is subjective and two individuals with similar income and economic resources may well have different levels of perceived financial distress. Financial distress has been defined as a reaction to the condition of one's personal financial state (Prawitz et al., 2006a, 2006b).

O'Neill et al. (2005c) studied the negative health effects of financial distress upon a sample of 3,121 clients undergoing credit counselling. Self-reported health problems associated with financial distress included anxiety, insomnia, headaches, and depression, as well as decreased health maintenance.

The Legal Services Research Centre (LSRC) recently produced a report (Pleasance, Buck, Balmer & Williams, 2007) that indicated that financial difficulties had the following negative effects upon people's lives:

- *Emotional/psychological well-being* – 89% reported worrying about their debts most or all of the time.
- *Health* – 91% described the impact of debt on their health either as 'great' or their health being affected 'to some extent', with 42% of those in work needing to take time off due to money worries.
- *Relationships* – 45% stated that their debt problems had a negative effect on relationships with partners.

Besides the individual suffering produced by financial stress, there is also a load upon the public purse in that the problems of well-being outlined above are likely to place additional loads upon the health and social services.

Of interest is that debt advice appears to have a positive impact on the lives of clients with debt problems:

- 70% of the people who had accessed debt advice felt that they had made headway against their debts twelve months after they were first surveyed.
- Of those reporting health improvements, 75% linked this to the advice.
- 70% of recorded improvements to relationships were attributed by clients to having accessed advice.

Presumably debt advice has its effects through increasing financial capability, i.e. the individual's capacity to match financial resources with needs. This can occur when the individual has the *skills and confidence to take financial opportunities, seek appropriate guidance, make informed choices, and take effective action to avoid financial difficulties.*

While there is no agreed definition of financial capability, the UK Government's definition, as set out in paragraph 2.39 of HM Treasury's paper, 'Financial Capability: The Government's long-term approach' (2007), states:

*"Financial capability is a broad concept, encompassing the people's knowledge and skills to understand their own financial circumstances, along with the motivation to take action. Financially capable consumers plan ahead, find and use information, know when to seek advice and can understand and act on this advice, leading to greater participation in the financial services market."*

The Financial Services Authority (FSA) commissioned a "comprehensive baseline survey to establish the current state of financial capability in the UK" (FSA, 2006). Following various consultations, a review of existing research on financial capability was undertaken with focus groups in both low- and high-income communities as well as individual in-depth interviews.

This work resulted in a survey instrument that has questions regarding four domains, including questions within each area relating to knowledge and understanding, skills and confidence, and attitudes.

- *Managing money:* Ability to live within one's means.
- *Planning ahead:* Coping with unexpected events and making provision for the long term.
- *Making choices:* Awareness of financial products and services on offer and being able to select the most appropriate.
- *Getting help:* Gathering information oneself or through third parties.

Using this instrument a baseline study of 5,300 adults in the UK revealed several dimensions of financial capability. A person who is financially capable needs to be able to make ends meet, keep track of money, be able to plan ahead, understand relevant criteria in choosing products and stay informed.

The FSA's research reveals that these dimensions are rather independent of one another. That is, consumers can be extremely proficient in one of these areas but completely incompetent in others.

Four key themes stood out from what was probably the most thorough attempt anywhere in the world to assess levels of financial capability:



1. Large numbers of people, from all walks of life, are not taking basic steps to plan ahead. They are not saving sufficiently for their retirement, nor are they putting money aside to offset an unexpected expense or a drop in income.
2. Although only a small proportion of the UK population is experiencing problems with debt, those who are affected are often in very severe difficulty.
3. People are generally not very good at choosing the right financial product. Consequently, they may be taking on unnecessary financial risks or choosing products that do not meet their particular needs.
4. The under-40s, who often face the greatest demands, are generally much less financially capable than their elders.

The FSA research indicates how a large section of the population could be tipped into financial difficulties by a small dip in their circumstances – and shows that the greatest demands are placed on those least well-equipped to deal with them.

Such previous work on people's financial difficulties and capability indicates that those most vulnerable to financial difficulties may well suffer with regard to their psychological state. One particularly vulnerable group are families with young children in disadvantaged areas. Most disadvantaged areas in the UK currently receive Sure Start local programmes, now usually called Sure Start Children's Centres. As families living in such areas are highly likely to have low income and other disadvantages, they are likely to show higher incidence of financial difficulties than those residing elsewhere in the country. The extent to which low income leads to financial difficulties is likely to be mediated by financial capability. Given previous research (e.g. O'Neill et al., 2005) linking financial difficulties with psychological well-being, there are likely to be associations between income, financial difficulties, financial capability and psychological well-being. This report considers such associations between financial variables and maternal psychological well-being in families with a young child living in disadvantaged areas.

### **3 Methods**

#### **Sample**

As part of the National Evaluation of Sure Start (NESS), a study of “Children, Families and Services in Communities” in England has been following over 9,000 three-year-olds and their families in 150 Sure Start Local Programme (SSLP) areas who were initially studied when the children were 9 months of age. SSLPs were set up between 1999 and 2003 in attempt to enhance the life prospects of children under four growing up in disadvantaged communities and thereby break the intergenerational cycle of poverty and dependency. SSLPs were experimental in the sense of trying out different ways of working with disadvantaged children, families and communities in small geographic areas where provision had been poor for years. They represent an intervention unlike almost any other undertaken to enhance the life prospects of young children growing up in disadvantaged families and communities. A key difference is that programmes are *area-based*, with *all* children under four and their families living in a prescribed area serving as the “targets” of intervention. Hence the children and families being studied are largely disadvantaged and live in disadvantaged communities.

Potential study participants living in 150 SSLP areas were identified with the assistance of the Child Benefit Office of (initially) the Department for Work and Pensions and (subsequently) HM Revenue and Customs. They were randomly selected from the Child Benefit Register and a total of 12,575 9-month olds and their families were enrolled in the study, representing a response rate of 84.4%. The aim was to have at least 8,000 children/families in the current, second-phase sample when the children were 3 years of age. Of those seen at 9 months of age, 11,118 children/families from the 150 SSLP areas were randomly selected to be approached by a NESS fieldworker in order to collect data when the child was 3 years old. Of these families 9,192 (82.7%) participated in the 3-year-old data collection. Of those not participating 388 refused (3.5%), 1,484 (13.3%) were not contactable, often because they had moved and were untraceable and 54 (0.5%) were not seen for diverse other reasons. Hence for the analysis to be undertaken of the mothers of 3-year-old children in 150 SSLP areas there was a total of 9,192 mothers potentially available. Some variables have missing data but over 7500 mothers are included in each analysis reported.

#### **Data collection**

The families provided extensive information on child and family functioning during the course of a single home visit conducted by a specially trained fieldworker, typically lasting around 90 minutes when children were 9 months of age and then again at 3 years of age.

During home visits, several sets of data were gathered in order to be able to assess the effects of SSLPs on child development and family functioning. In addition to these outcome measures, demographic and background information were collected from each family, as well as area characteristics on each community. The child, family and community data collected are described below.

- *Child Characteristics:* age (in months), gender and ethnicity.
- *Demographic, Socio-economic and Parental Characteristics:* English as only household language (yes/no), maternal age at child's birth, lone parent (yes/no), maternal self-reported cognitive difficulties (some vs. none), household income, highest individual occupational status in household, highest educational level of household and household work status (workless household vs. adult employed).

For further details, see NESS (2008).

In addition to household income, which was equivalised according to the standard DWP formula, there were a range of questions addressing financial issues. These included the following questions about financial hardship:

- how well respondent doing financially;
- how difficult respondent finds paying rent/ mortgage;
- number of household objects owned;
- benefits received;
- how many unpaid bills; and
- how many items cannot afford.

Also, several measures of maternal psychological well-being were included in the maternal interview. These included:

- life satisfaction;
- depression;
- malaise;
- self-esteem; and
- locus of control.

## 4 Results

All variables to be used in analyses are either continuous or ordinal categorical variables. All the ordinal categorical variables have a minimum of five categories. In these circumstances the use of correlation and regression techniques is justified. Although it must be accepted that where ordinal variables are used the assumptions underlying correlation and regression are not being strictly followed and this may affect the accuracy of estimates, the errors introduced are likely to be small enough that they do not jeopardise the general pattern of results.

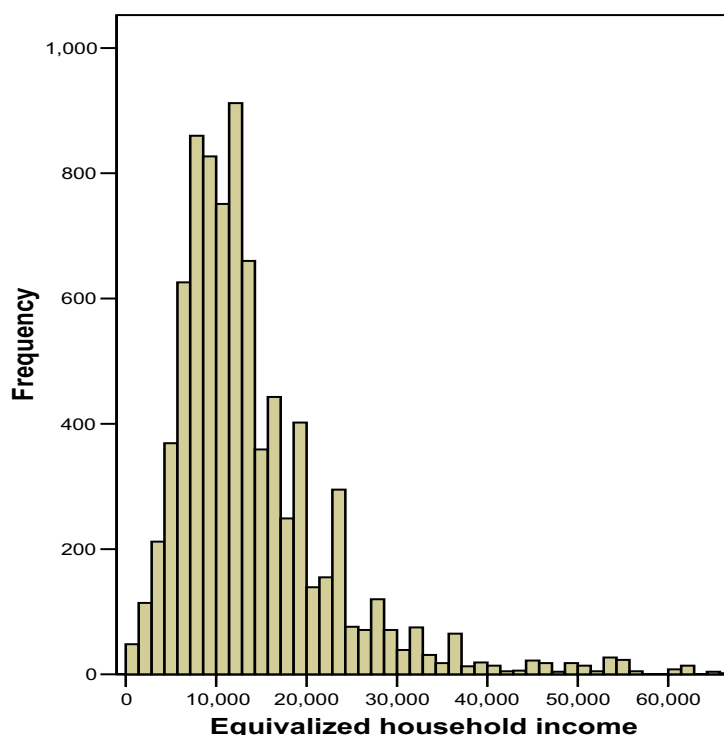
Further work could investigate the consequences of such issues.

### Description of the Sample

#### *Financial status*

The sample is clearly deprived with 53.5% of families falling below the official poverty line (60% of median income for the country), and almost all are receiving some state benefit in addition to child benefit. The distribution of family income for the sample can be seen in Fig.1, and the mean is £13,991pa with a standard deviation of £9,030.

**Fig. 1: Distribution of household income**



#### *Financial hardship*

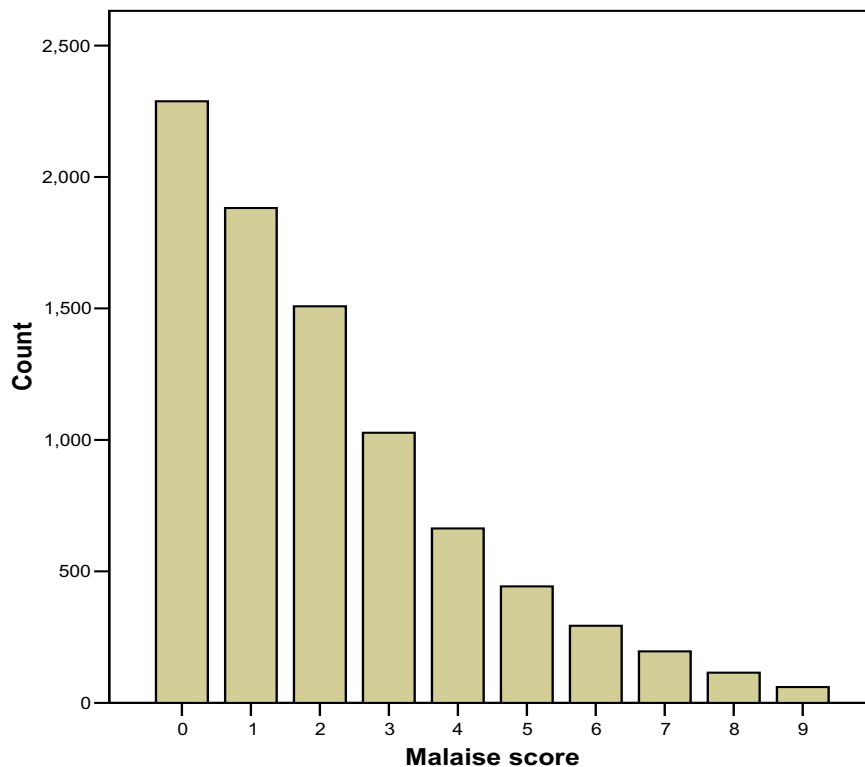
As illustrative of the level of financial hardship, 29% are behind with bill payments, over 50% indicate financial problems, and 63.5% indicated that there was at least one item

normally available for families with children that they could not afford. Further details on financial hardship variables can be seen in appendix 1.

#### *Maternal psychological state*

All five variables reflecting maternal psychological state show skewed distributions such that the majority are at the favourable end of the spectrum, but there are substantial numbers indicating some degree of negative psychological state. As an example, the distribution of malaise amongst mothers is shown in Fig. 2.

**Fig.2: Distribution of malaise**



Further details on the maternal psychological state variables can be seen in appendix 2.

#### **Relationships between maternal psychological state and income**

There are clear but low-level associations between the various measures of maternal psychological state and household income, with correlations ranging between .11 for life satisfaction to .16 for locus of control.

**Table 1: Correlations between household income and psychological well-being:**

	Correlations with household income				
	Life satisfaction	Depression	Malaise	Self-esteem	Locus of control
Pearson Correlation	.11	-.15	-.13	.16	.16

In addition there are relationships between maternal psychological state and measures of financial hardship, with greater financial hardship consistently being related to poorer maternal psychological state. These relationships are shown in detail in appendix 3.

### **Creating a composite measure of financial difficulties**

A composite variable of respondents' financial difficulties was created on the basis of a factor analysis of the following four variables tapping financial difficulties:

- (1) how well managing financially;
- (2) how well manage mortgage or rent payments;
- (3) number of unpaid bills; and
- (4) number of items which respondent cannot afford.

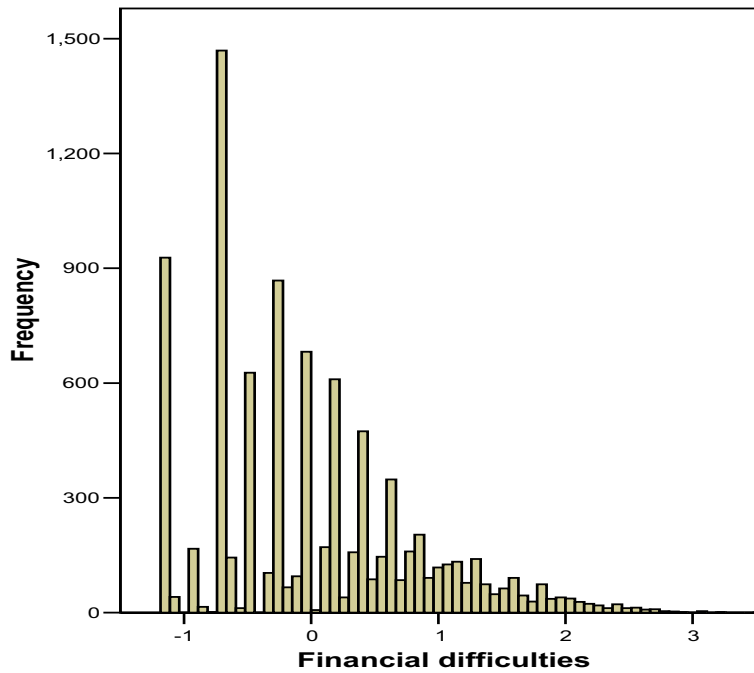
Results showed that the variable "How well manage mortgage or rent payments" did not load heavily on the single factor emerging, probably because most families with financial difficulties will get help with rent or mortgage through the benefits system. In further analysis using Cronbach's alpha, it was established that the best factor solution consisted of the three variables: "How well managing financially", "Number of unpaid bills", and "Number of items which respondent cannot afford." The factor consisting of these variables explained 43 % of the total variance, based on sums of squared loadings. The factor score deriving from these three variables was used in subsequent analyses to create a measure of financial capability. The inter-item consistency (Cronbach's Alpha) of the financial difficulties score is 0.67. The mean of this variable is 0 with a standard deviation of 0.85, and the distribution is positively skewed.

There are clear, moderately strong, associations between financial difficulties and maternal psychological state that are substantially greater than those for income. The correlations range from -.26 for life satisfaction to .34 for depression.

**Table 2: Correlations for financial difficulties and psychological well-being:**

	Correlations with financial difficulties				
	Life satisfaction	Depression	Malaise	Self-esteem	Locus of control
Pearson Correlation	-.26	.34	.32	-.32	-.31

**Fig.3: Distribution of financial difficulties**



To determine whether the above linear relationships might have a non-linear component, a series of regression analyses were undertaken, predicting each measure of psychological well-being and evaluating linear and quadratic effects.

## 1. Life satisfaction and financial difficulties

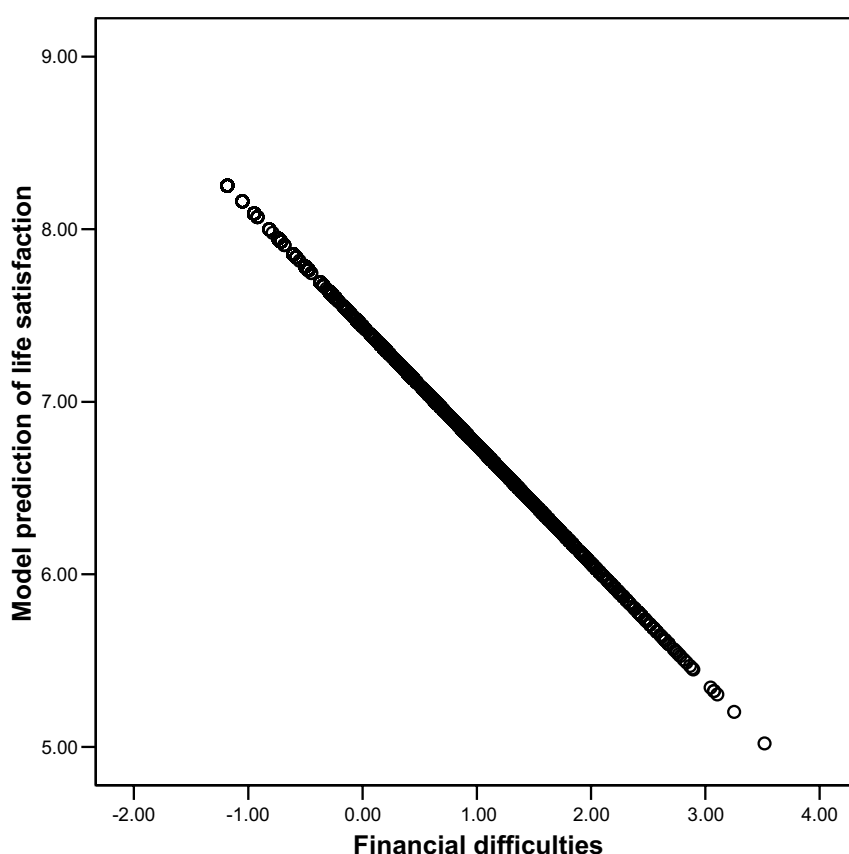
Financial difficulties show a clear linear relationship (only) with life satisfaction. Life satisfaction decreases when the respondent's financial difficulties increase. Financial difficulties explain about 7% of the variance of life satisfaction.

**Table 4: Results of regression, financial difficulties predicting life satisfaction:**

Outcome variable: Life satisfaction

Factor	Effect	Estimate	Std. Error	p
Constant		7.438	0.024	<0.001
Financial difficulties	Linear	-0.687	0.029	<0.001
R Square		0.067		

**Fig. 5: Graph of relationship: financial difficulties predicting life satisfaction**





## 2. Depression and financial difficulties

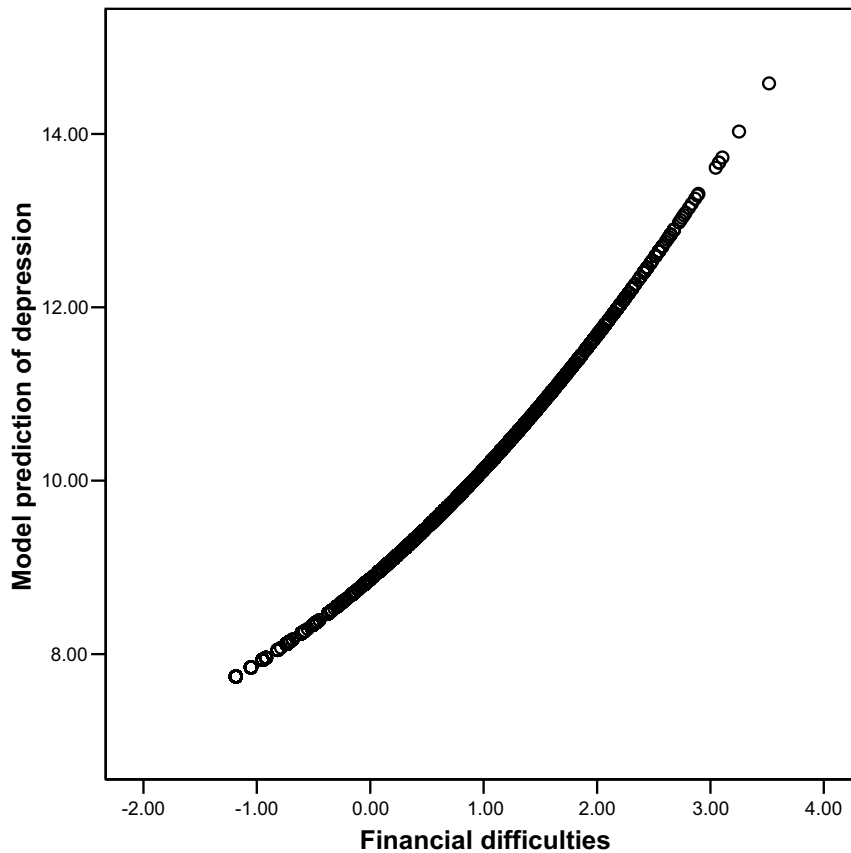
Financial difficulties have both a linear and quadratic effect on depression, and the relationship is slightly curvilinear. Increase in financial difficulties is associated with higher depression, such that as financial difficulties become more pronounced, so does the effect of financial difficulties on depression. Financial difficulties explain about 11% of the variance of depression.

**Table 6: Results of regression, financial difficulties predicting depression:**

Outcome variable: Depression

Factor	Effect	Estimate	Std. Error	p
Constant		8.864	0.040	<0.001
Financial difficulties	Linear	1.119	0.042	<0.001
	Quadratic	0.144	0.035	<0.001
R Square		0.114		

**Fig. 7: Graph of relationship: financial difficulties predicting depression**



### 3. Malaise and financial difficulties

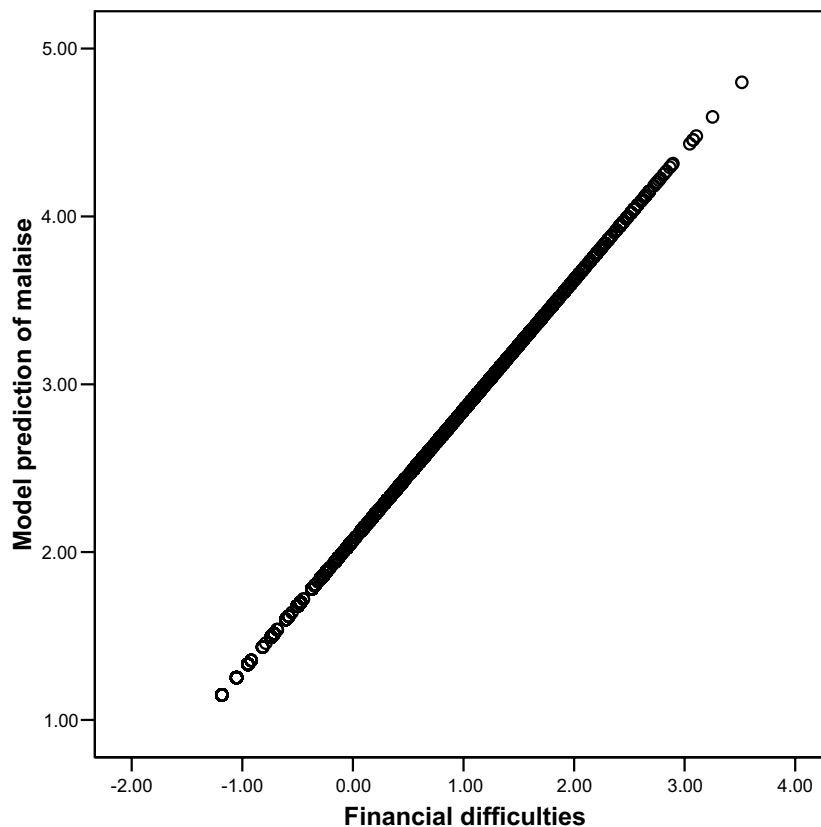
Financial difficulties have a linear relationship with malaise. Malaise increases when financial difficulties increase. Financial difficulties explain about 10% of the variance of malaise.

**Table 7: Results of regression, financial difficulties predicting malaise:**

Outcome variable: Malaise

Factor	Effect	Estimate	Std. Error	p
Constant		2.068	0.021	<0.001
Financial difficulties	Linear	0.776	0.025	<0.001
R Square		0.104		

**Fig. 8: Graph of relationship: financial difficulties predicting malaise**



#### 4. Self-esteem and financial difficulties

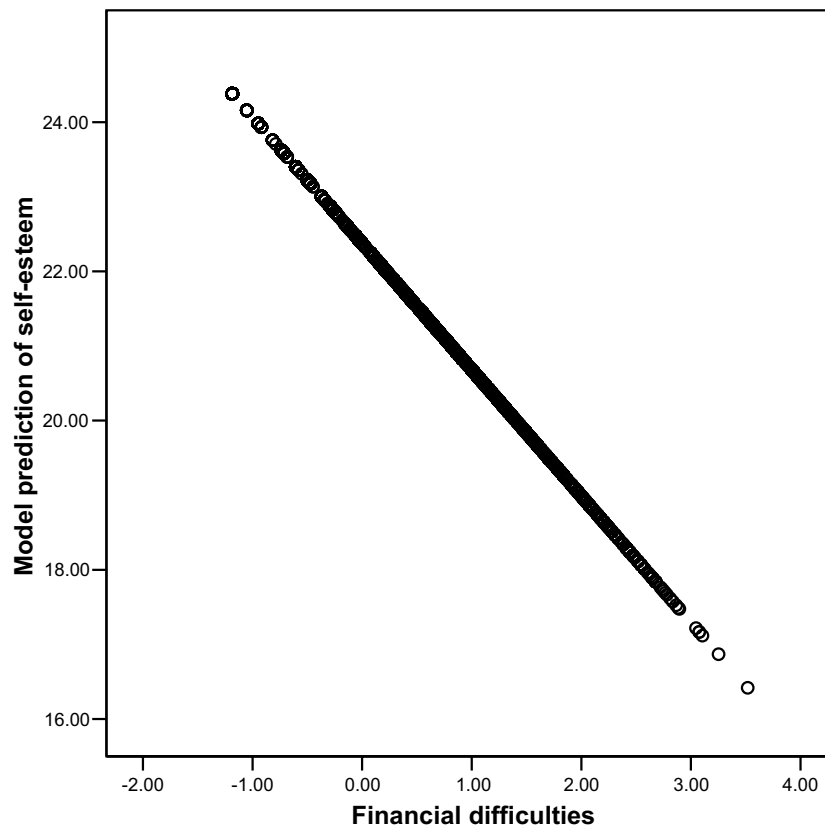
Financial difficulties have a linear relationship with self-esteem. Self-esteem decreases when financial difficulties increase. Financial difficulties explain 10% of the variance of self-esteem.

**Table 8: Results of regression, financial difficulties predicting self-esteem:**

Outcome variable: Self-esteem

Factor	Effect	Estimate	Std. Error	p
Constant		22.376	0.047	<0.001
Financial difficulties	Linear	-1.693	0.056	<0.001
R Square		0.100		

**Fig. 9: Graph of relationship: financial difficulties predicting self-esteem**



## 5. Locus of control and financial difficulties

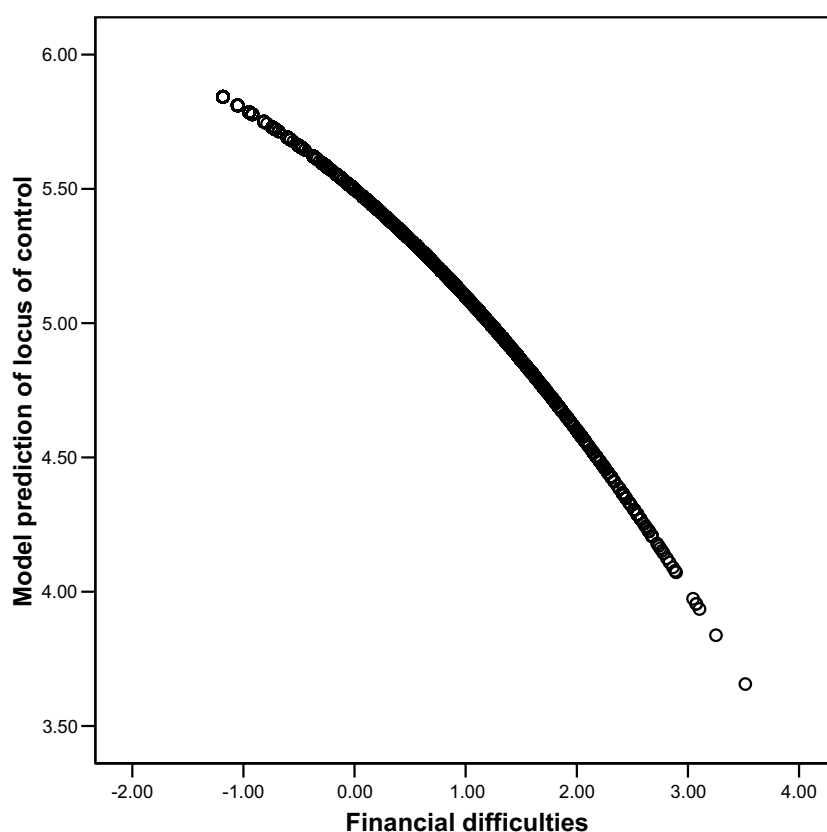
Financial difficulties have both a linear and quadratic effect on locus of control, and the relationship is slightly curvilinear. An increase in financial difficulties is associated with lower locus of control and this effect becomes more pronounced the greater the financial difficulties. Financial difficulties explain about 10% of the variance of locus of control.

**Table 9: Results of regression, financial capability predicting locus of control:**

Outcome variable: Locus of control

Factor	Effect	Estimate	Std. Error	p
Constant		5.498	0.014	<0.001
Financial difficulties	Linear	-0.350	0.015	<0.001
	Quadratic	-0.049	0.012	<0.001
R Square		0.096		

**Fig. 10: Graph of relationship: financial difficulties predicting locus of control**



**Creating a variable of financial capability**

Financial difficulties are linked to income, and one way to conceptualise and thus operationalise financial capability using the data available from this study, which did not directly measure this construct, is to adjust the composite measure of financial difficulty for income. Thus, financial capability becomes a residual term, the part of the financial difficulties that income does not explain. In order to make the financial capability term more easily interpretable, the residual term is reversed to make a positive score reflect better financial capability and a negative score worse financial capability. The mean of the financial capability variable is 0 with a standard deviation of 0.77, and it has a close to normal distribution. The graph below shows that the sample is slightly skewed, though, toward individuals who are more rather than less financially capable.

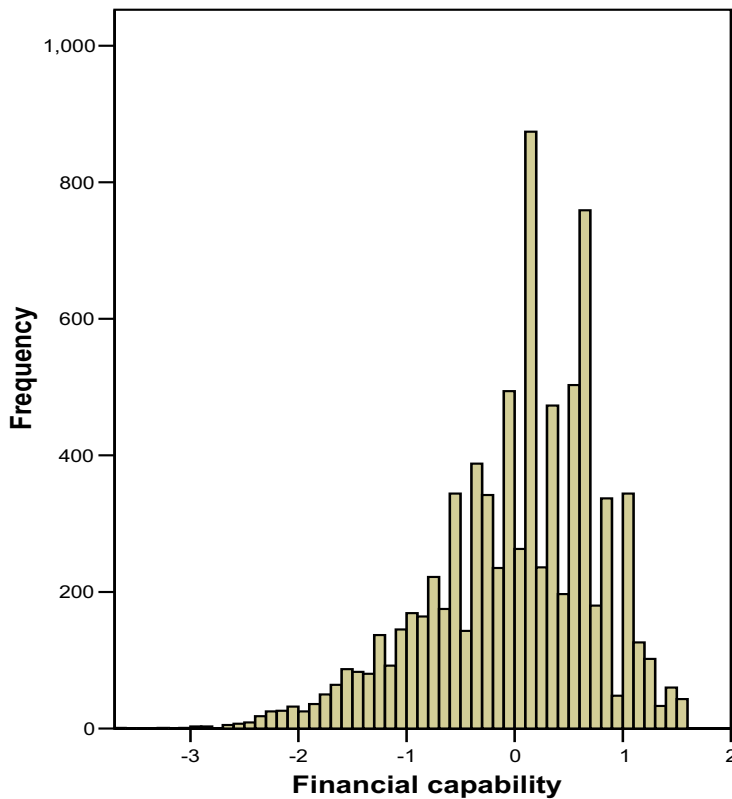
**Table 10: Results of the regression analysis:****Outcome variable: Financial difficulties**

Factor	Effect	Estimate	Std. Error	p
Constant		0.530	0.052	<0.001
Equivalized household adjusted annual income	Linear	-0.179	0.065	0.006
	Quadratic	0.044	0.025	0.082
	Cubic	-0.011	0.003	<0.001
R Square		0.165		

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Financial capability	8184	-3.65	1.57	0.00	0.77

**Fig. 11: The distribution of the financial capability score:**



**What is the relationship between financial capability and maternal psychological well-being?**

Firstly the correlations between the financial capability measure and the five measures of maternal psychological state are considered. There is a clear and consistent pattern of association with correlations in the 0.23 to 0.29 range, indicating that people with more financial capability manifest greater psychological well-being.

**Table 11: Correlations between financial capability and psychological well-being:**

	Life satisfaction	Depression	Malaise	Self-esteem	Locus of control
Pearson Correlation	0.23	-0.29	-0.29	0.28	0.27

Next, each of the five measures of maternal psychological state is considered as a function of the financial capability measure in a regression. Linear and quadratic effects are tested to investigate if the relationship is linear or non-linear, and a graphical presentation of the relationship is given.

## 1. Life satisfaction and financial capability

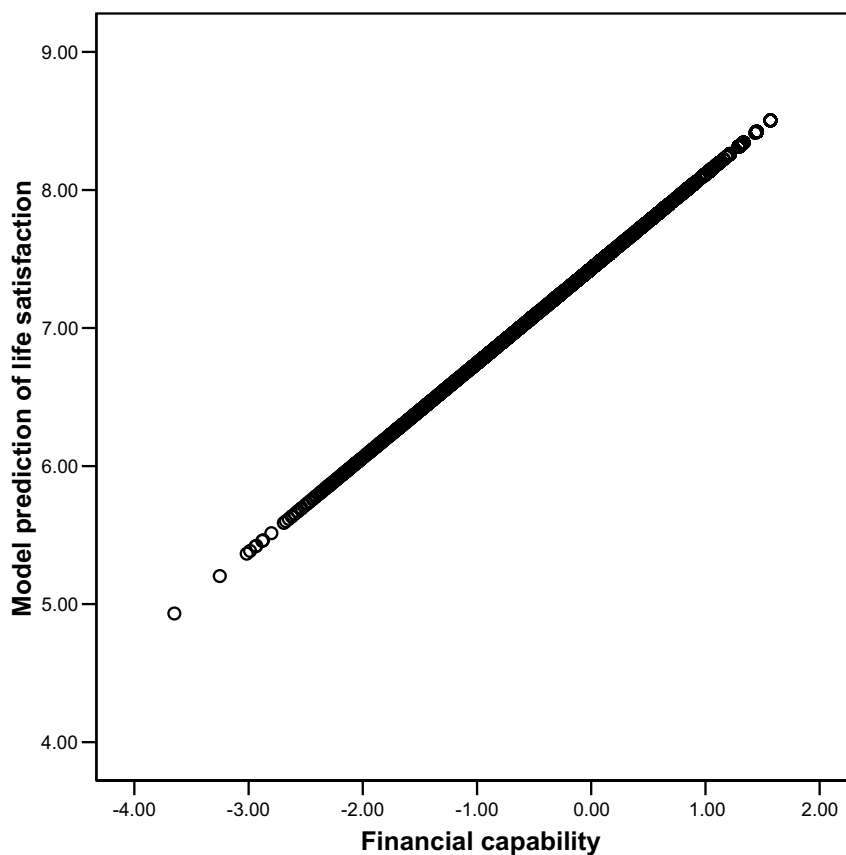
Financial capability conceptualised as the degree of financial difficulty having adjusted for income shows a clear linear relationship with life satisfaction. The financial capability explains almost 6% of the variance of life satisfaction. There appears to be a straightforward linear and positive relationship reflecting the fact that as capability increases, so does life satisfaction.

**Table 12: Results of regression, financial capability predicting life satisfaction:**

Outcome variable: Life satisfaction

Factor	Effect	Estimate	Std. Error	p
Constant		7.430	0.025	<0.001
Financial capability	Linear	0.684	0.033	<0.001
R Square		0.055		

**Fig. 12: Graph of relationship: financial capability predicting life satisfaction**



## 2. Depression and financial capability

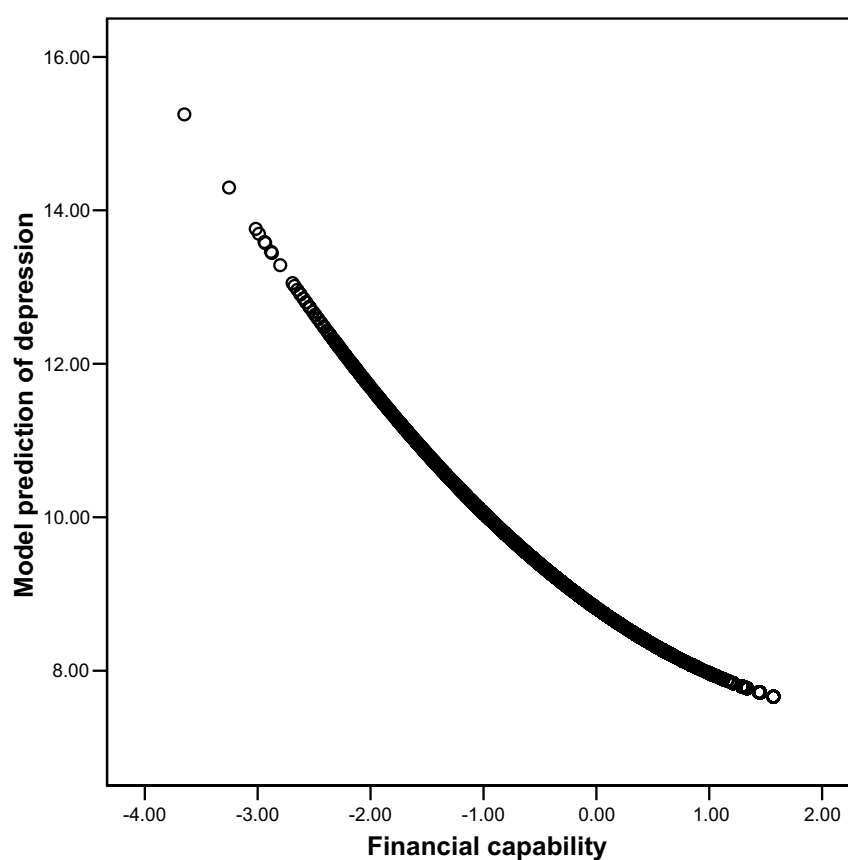
Financial capability has both a linear and quadratic effect on depression. Increase in financial capability is associated with lower depression, though this association becomes less pronounced as capability increases. The financial capability explains about 9% of the variance of depression. The relationship is curvilinear.

**Table 13: Results of regression, financial capability predicting depression:**

Outcome variable: Depression

Factor	Effect	Estimate	Std. Error	p
Constant		8.815	0.041	<0.001
Financial capability	Linear	-1.045	0.048	<0.001
	Quadratic	0.197	0.040	<0.001
R Square		0.089		

**Fig. 13: Graph of relationship: financial capability predicting depression**





### 3. Malaise and financial capability

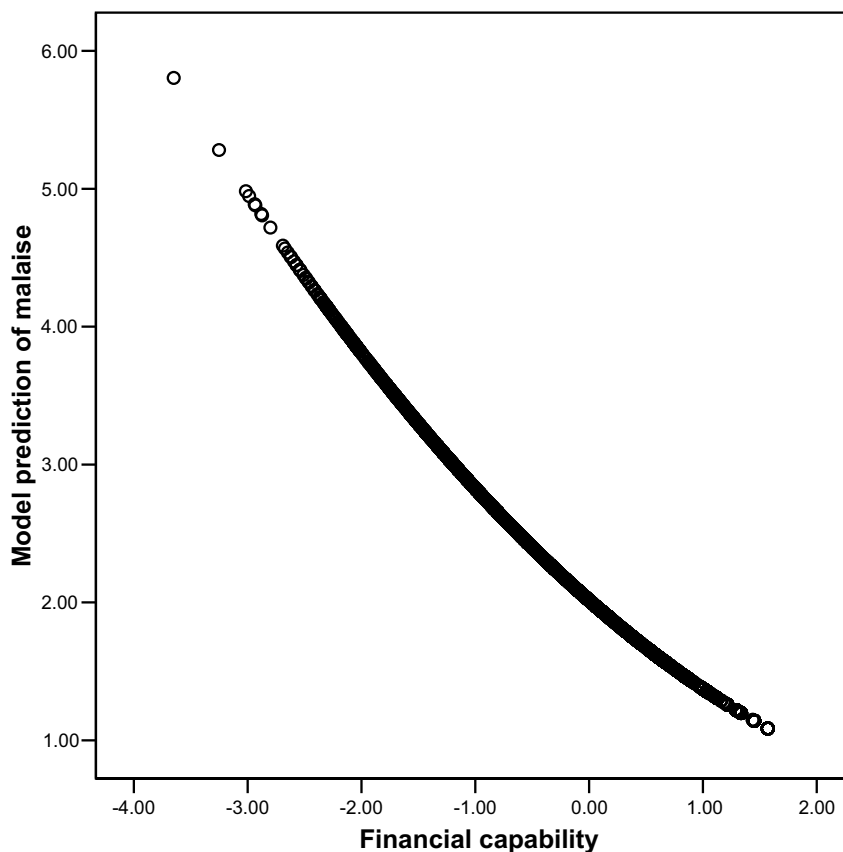
Financial capability has both a linear and quadratic effect on malaise. Malaise decreases when financial capability increases; just as in the case of depression, the association is strongest the greater the financial capability. Financial capability explains about 9% of the variance of malaise.

**Table 14: Results of regression, financial capability predicting malaise:**

Outcome variable: Malaise

Factor	Effect	Estimate	Std. Error	p
Constant		2.014	0.027	<0.001
Financial capability	Linear	-0.726	0.032	<0.001
	Quadratic	0.086	0.027	0.002
R Square		0.086		

**Fig. 14: Graph of relationship: financial capability predicting malaise**



#### 4. Self-esteem and financial capability

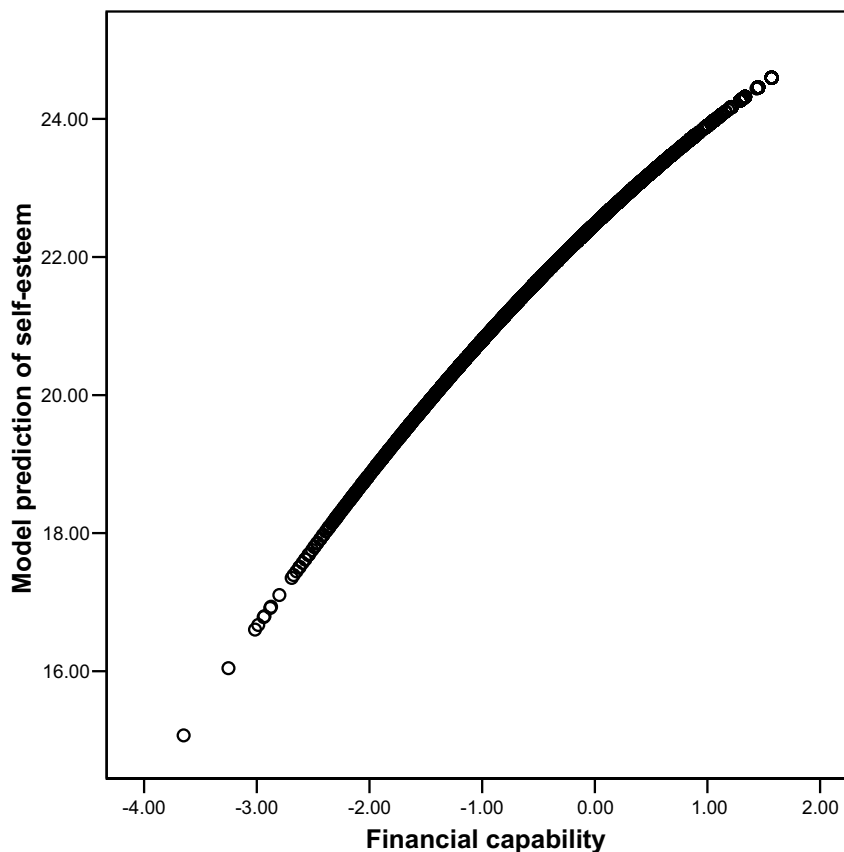
Financial capability has both a linear and quadratic effect on self-esteem. Self-esteem increases when the financial capability increases and this is more the case when capability is low than when high. Financial capability explains about 8% of the variance of self-esteem.

**Table 15: Results of regression, financial capability predicting self-esteem:**

Outcome variable: Self-esteem

Factor	Effect	Estimate	Std. Error	p
Constant		22.477	0.062	<0.001
Financial capability	Linear	1.555	0.073	<0.001
	Quadratic	-0.130	0.061	0.034
R Square		0.077		

**Fig. 15: Graph of relationship: financial capability predicting self-esteem**



## 5 Locus of control and financial capability

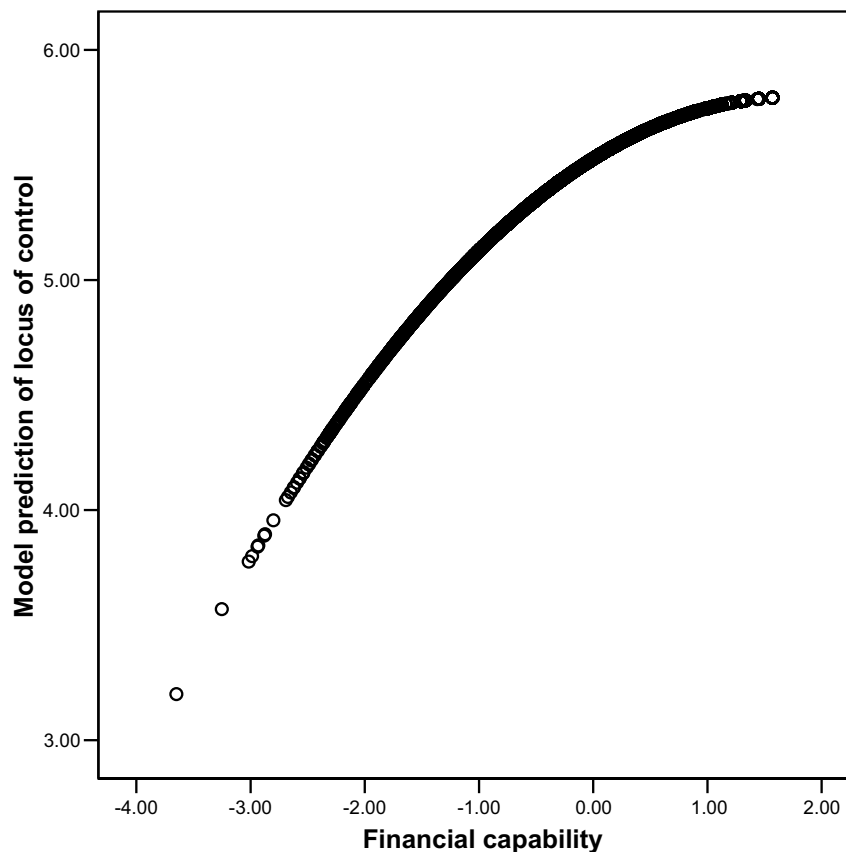
Financial capability has both a linear and quadratic effect on locus of control. An increase in financial capability is associated with higher locus of control and this is more so the case when capability is low. Financial capability explains about 8% of the variance of locus of control.

**Table 16: Results of regression, financial capability predicting locus of control:**

Outcome variable: Locus of control

Factor	Effect	Estimate	Std. Error	p
Constant		5.527	0.014	<0.001
Financial capability	Linear	0.310	0.017	<0.001
	Quadratic	-0.090	0.014	<0.001
R Square		0.076		

**Fig. 16: Graph of relationship: financial capability predicting locus of control**



### *Financial Capability and Psychological Well-being*

There is striking consistency in the pattern of relationships between maternal psychological state (or well-being) across all five measures with both financial difficulties and financial capability.

## **5 Summary**

The study is based upon interviews with around 8000 mothers of 3-year-olds living in deprived areas served by Sure Start programmes in England. The sample is clearly deprived, but it is unknown how representative this sample is of all deprived families in England. This study considered the relationships between maternal psychological state and measures related to financial status and capability. The measures of psychological state were life satisfaction, depression, malaise, self-esteem, and locus of control.

Poorer maternal psychological state was associated with lower income, and there are relationships between maternal psychological state and various measures of financial hardship, with greater financial hardship consistently being related to poorer maternal psychological state. We combined some measures of financial hardship into an overall financial difficulties score. The measure of financial difficulties showed the strongest relationships with maternal psychological state of all financial variables.

To what extent is this a consequence of financial difficulties deriving from low income? One way to approach this question is to adjust the measures of financial difficulties for income, which we did to create a financial capability measure. In this sample of mostly disadvantaged mothers of young children living in disadvantaged communities, there were clear relationships between our index of financial capability and all five psychological state measures. Higher financial capability was associated with higher life satisfaction, lower depression, less malaise, higher self-esteem and higher locus of control. These findings clearly indicate that financial capability was linked with greater well-being, and fit with the pattern of findings from previous research discussed earlier (Drentea & Lavrakas, 2000; Kim, Garman, et al., 2003; O'Neill et al., 2005c; Pleasance, Buck, Balmer & Williams, 2007).

It is difficult to say on the basis of the evidence considered in this report if the associations found between financial measures and psychological well-being are causal, e.g. increased financial capability leads to increased psychological well-being. The possibility of a causal link between financial capability improving psychological well-being is strengthened by the self-reports of those in financial distress that they have increased anxiety and depression since their financial problems started (O'Neill et al., 2005).

While the findings here suggest that increasing financial capability amongst mothers of young children in deprived areas would also increase their psychological well-being, it is also possible that some third unmeasured variable, e.g. a personality characteristic, is affecting both financial capability and psychological well-being. Alternatively mothers with better psychological well-being may be better placed to attain better financial capability. These possibilities do not exhaust the possible reasons for the associations found, and would require further study to elucidate these relationships between financial factors and psychological state. This might be accomplished using the present sample by (a) adopting a propensity score approach to data analysis and/or (b) taking advantage of the longitudinal design of the study.

## References

- Drentea, P., & Lavrakas, P. J. (2000). Over the limit: The association among health status, race and debt. *Social Science & Medicine*, **50**, 517-529.
- FSA, (2006). *Financial capability in the UK: Establishing a baseline*. London: FSA.
- Kim, J., Garman, E.T., & Sorhaindo, B. (2003). Relationships among credit counselling clients' financial well-being, financial behaviours, financial stressor events, and health. *Financial Counselling and Planning*, **14(2)**, 75-87.
- NESS (2008). *The impact of Sure Start Local Programmes on three year olds and their families*. London: DCSF. Available at:  
<http://www.ness.bbk.ac.uk/documents/activities/impact/41.pdf>
- O' Neill, B., Sorhaindo, B., Xiao, J.J., & Garman, E.T. (2005). Negative health effects of financial stress. *Consumer Interests Annual*, **51**, 260-262.
- Pleasance, P., Buck, A., Balmer, N.J. & Williams, K. (2007). *A helping hand: The impact of debt advice on people's lives*. London: Legal Services Research Centre.
- Prawitz, A.D., Garman, E.T., Sorhaindo, B., O' Neill, B., Kim, J., & Drentea P. (2006a). Assessment of validity and reliability in the measurement of financial distress/financial well-being. *Proceedings of the Association for Financial Counselling and Planning Education*, 77-89.
- Prawitz, A.D., Garman, E.T., Sorhaindo, B., O' Neill, B., Kim, J., & Drentea P. (2006b). The InCharge financial distress/financial well-being scale: Development, administration, and score interpretation. *Financial Counselling and Planning*, **17(1)**, 34-50.

## Appendix 1: Financial Hardship Variables

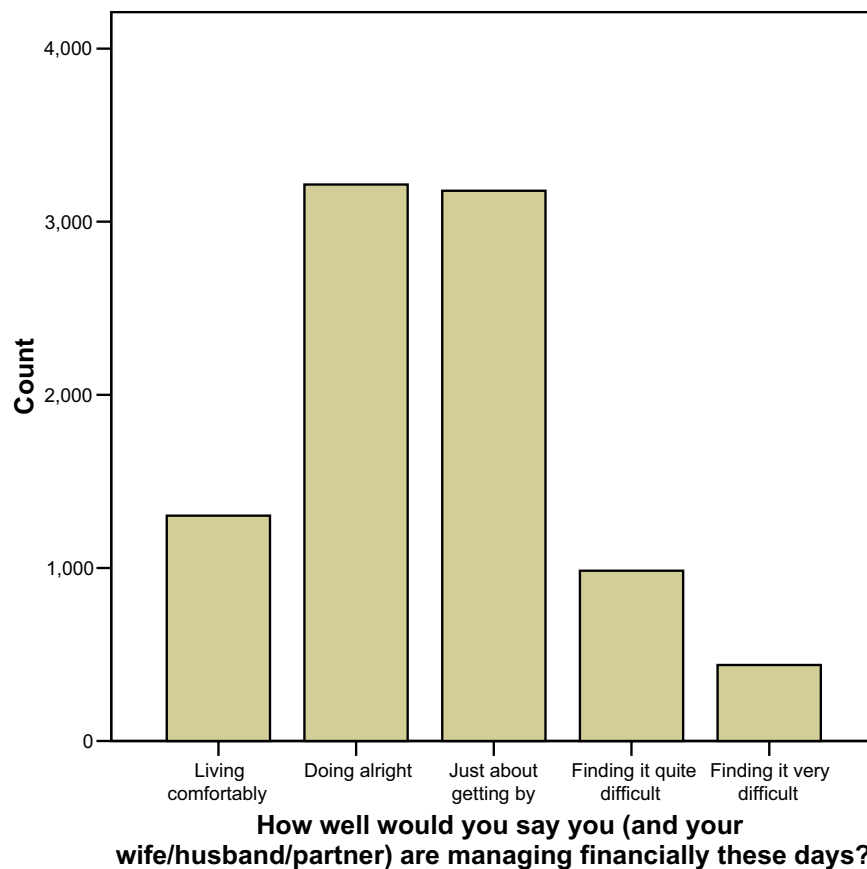
### 1. How well managing financially

Description: How well would you say you (and your wife/husband/partner) are managing financially these days?

Range: 1 – 5 (1 = Living comfortably, 5 = Finding it very difficult)

How well would you say you (and your wife/husband/partner) are managing financially these days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Living comfortably	1302	14.2	14.3	14.3
	2 Doing alright	3215	35.0	35.3	49.5
	3 Just about getting by	3179	34.6	34.9	84.4
	4 Finding it quite difficult	984	10.7	10.8	95.2
	5 Finding it very difficult	439	4.8	4.8	100.0
	Total	9119	99.2	100.0	
Missing	9 Missing	73	.8		
Total		9192	100.0		



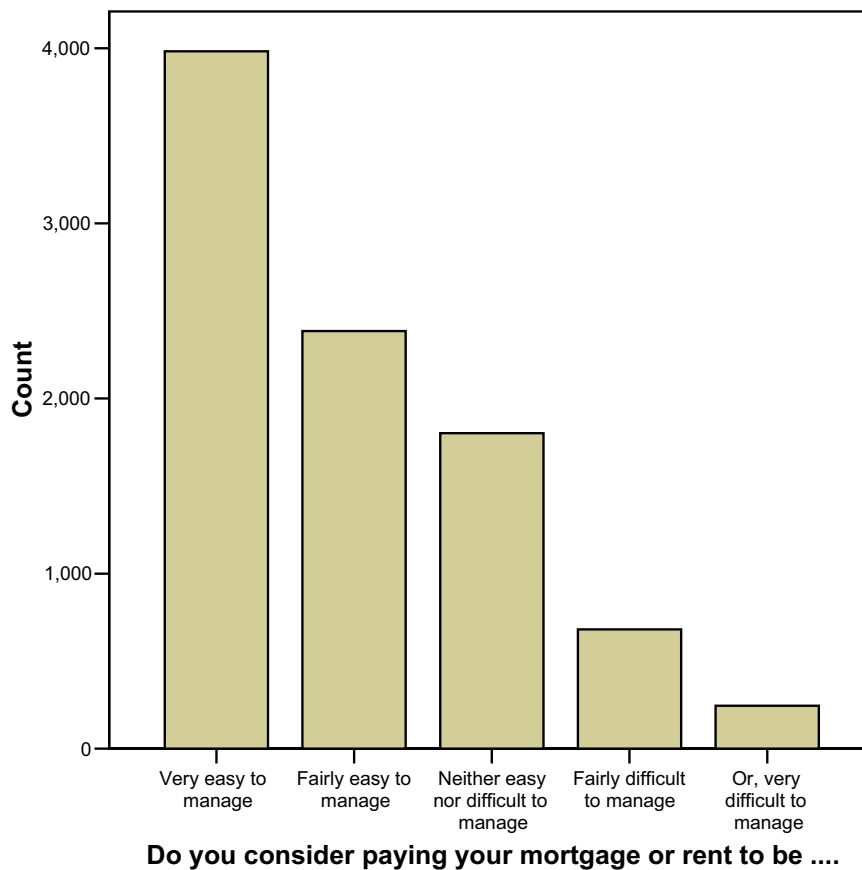
## 2. How well manage mortgage or rent payments

Description: Do you consider paying your mortgage or rent to be ....

Range: 1 – 5 (1 = Very easy to manage, 5 = Very difficult to manage)

**Do you consider paying your mortgage or rent to be ....**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Very easy to manage	3983	43.3	43.8	43.8
	2 Fairly easy to manage	2385	25.9	26.2	70.0
	3 Neither easy nor difficult to manage	1802	19.6	19.8	89.8
	4 Fairly difficult to manage	682	7.4	7.5	97.3
	5 Very difficult to manage	245	2.7	2.7	100.0
	Total	9097	99.0	100.0	
Missing	9 Missing	95	1.0		
Total		9192	100.0		





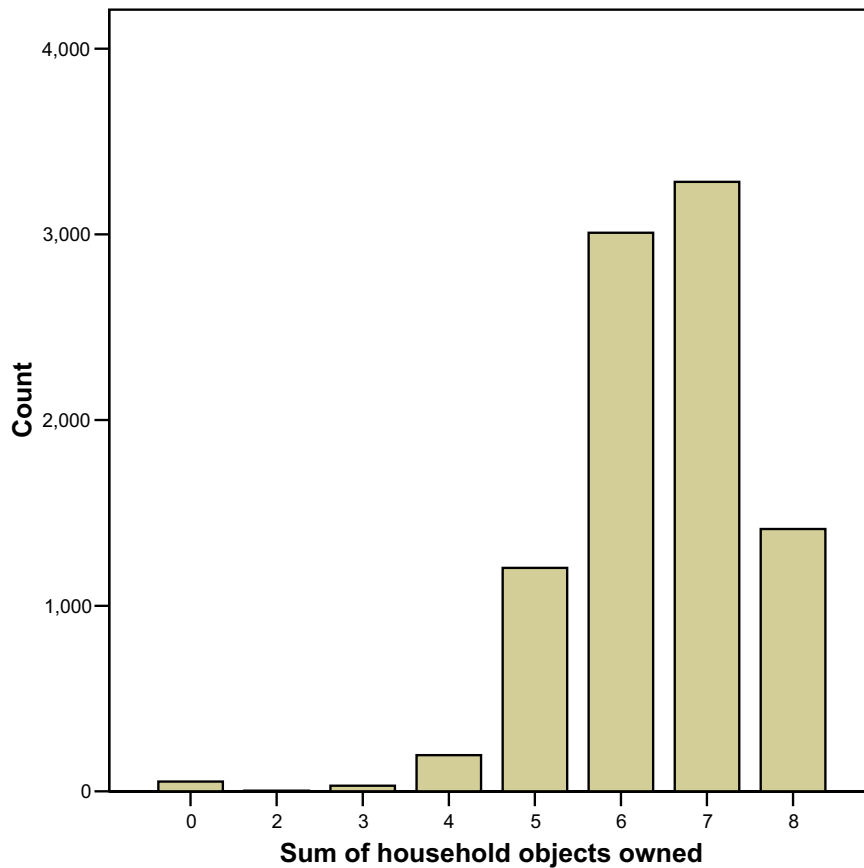
### 3. Household objects owned

Description: Sum of the following eight household objects which the respondent has in working order: fridge, freezer, washing machine, microwave, dishwasher, home computer, video recorder/DVD, tumble dryer.

Range: 0 – 8

Sum of household objects owned

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	53	.6	.6	.6
	2	4	.0	.0	.6
	3	31	.3	.3	1.0
	4	195	2.1	2.1	3.1
	5	1204	13.1	13.1	16.2
	6	3009	32.7	32.7	48.9
	7	3283	35.7	35.7	84.6
	8	1413	15.4	15.4	100.0
	Total	9192	100.0	100.0	



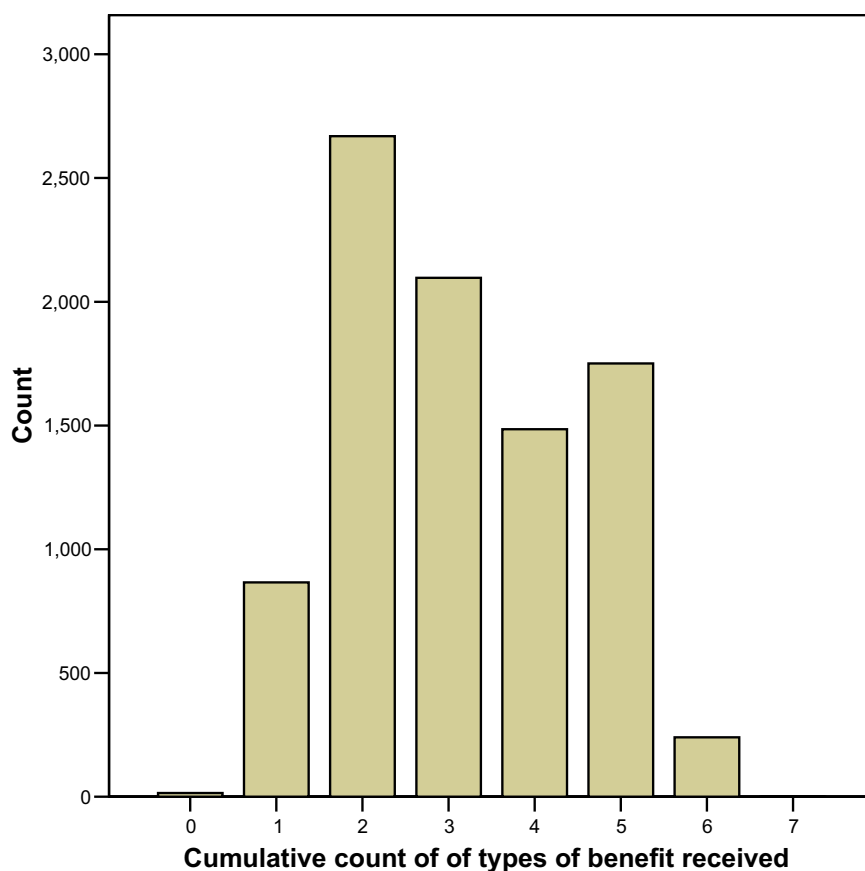
#### 4. Benefits received

Description: Count of the following benefits received: Child Benefit, Child Tax Credit, Working Tax Credit, Income Support, Jobseekers Allowance, Housing Benefit, and Council Tax Benefit.

Range: 0 – 7

**Cumulative count of types of benefit received**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	15	.2	.2	.2
	1	866	9.4	9.5	9.7
	2	2669	29.0	29.3	38.9
	3	2097	22.8	23.0	61.9
	4	1485	16.2	16.3	78.2
	5	1751	19.0	19.2	97.4
	6	240	2.6	2.6	100.0
	7	1	.0	.0	100.0
	Total	9124	99.3	100.0	
Missing	System	68	.7		
Total		9192	100.0		



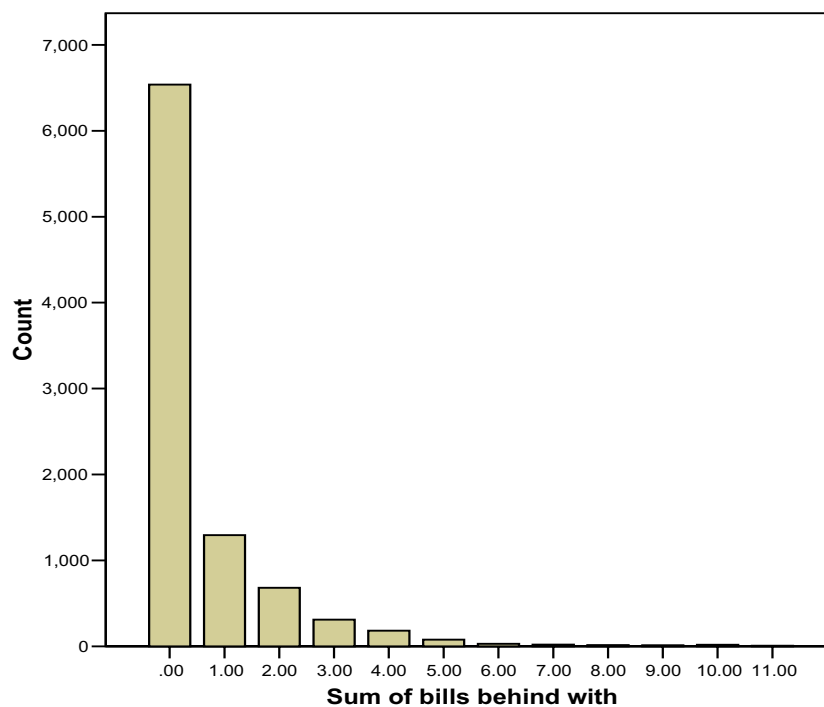
## 5. Unpaid bills

Description: Sum of the following eleven bills which were not paid on time: electricity bill, gas bill, fuel bill, Council Tax bill, insurance policies, telephone bill, television/video rental payment or hire purchase payment, other hire purchase payment, credit card payment, bank or other loan repayment.

Range: 0 – 11

Sum of bills behind with

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	6538	71.1	71.2	71.2
	1	1295	14.1	14.1	85.3
	2	681	7.4	7.4	92.7
	3	310	3.4	3.4	96.1
	4	182	2.0	2.0	98.1
	5	77	.8	.8	98.9
	6	28	.3	.3	99.2
	7	20	.2	.2	99.5
	8	14	.2	.2	99.6
	9	12	.1	.1	99.7
	10	17	.2	.2	99.9
	11	6	.1	.1	100.0
	Total	9180	99.9	100.0	
Missing	-1	11	.1		
	System	1	.0		
	Total	12	.1		
Total		9192	100.0		



## 6. Items that cannot afford

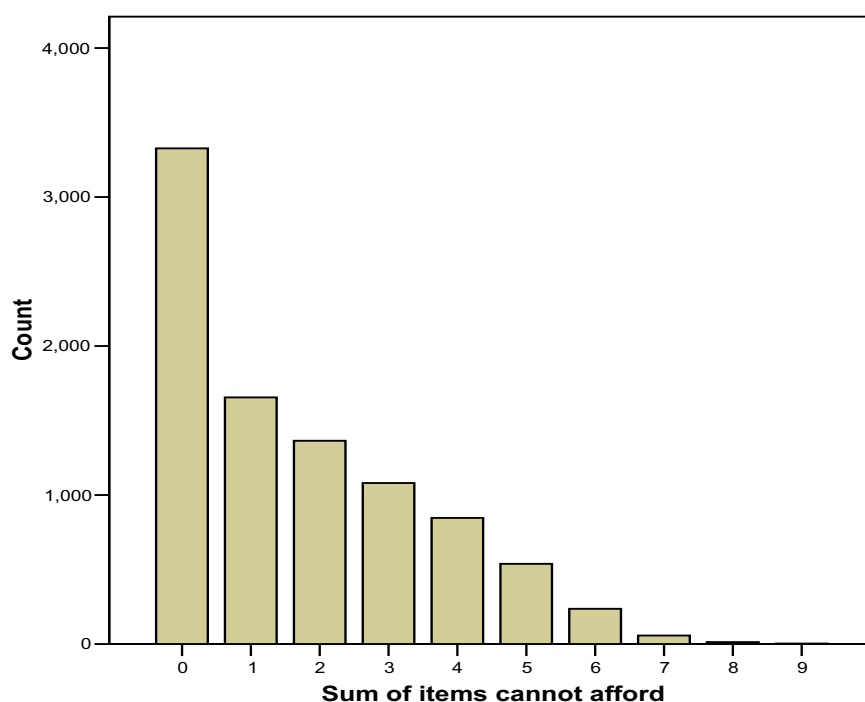
Description: Number of the following nine items which the respondent cannot afford: a warm waterproof coat for child, new properly fitted shoes for child, fresh fruit and vegetables at least once a day for child, insurance for contents of your home, a hobby or leisure activity, the ability to replace worn out furniture, a small amount of money to spend on yourself weekly, holiday away from home once a year not staying with relatives, two pairs of weather-proof shoes for yourself, enough money to buy food for the family.

Range: 0 – 9

Recoding for later use: 7,8,9 = 7

Sum of items cannot afford

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3327	36.2	36.5	36.5
	1	1656	18.0	18.2	54.6
	2	1365	14.8	15.0	69.6
	3	1081	11.8	11.8	81.4
	4	847	9.2	9.3	90.7
	5	538	5.9	5.9	96.6
	6	236	2.6	2.6	99.2
	7	57	.6	.6	99.8
	8	13	.1	.1	100.0
	9	3	.0	.0	100.0
	Total	9123	99.2	100.0	
Missing	-1	68	.7		
	System	1	.0		
	Total	69	.8		
Total		9192	100.0		



## Appendix 2: Maternal Psychological well-being variables

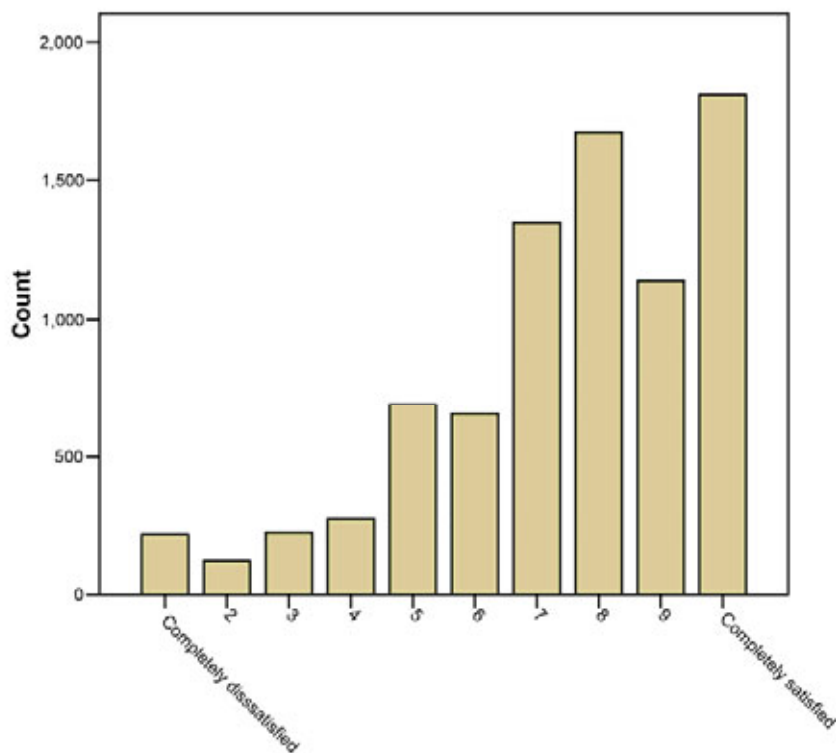
### 1. Life satisfaction

Description: How satisfied or dissatisfied the respondent is about the way the life has turned out so far, on a scale from 1-10 where '1' means that the respondent is completely dissatisfied and '10' means that the respondent is completely satisfied.

Range: 1-10 (1 = completely dissatisfied, 10 = completely satisfied)

How satisfied or dissatisfied you are about your life

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Completely dissatisfied	217	2.4	2.7	2.7
	2	122	1.3	1.5	4.2
	3	224	2.4	2.7	6.9
	4	274	3.0	3.4	10.3
	5	690	7.5	8.5	18.7
	6	656	7.1	8.0	26.8
	7	1351	14.7	16.6	43.3
	8	1673	18.2	20.5	63.8
	9	1140	12.4	14.0	77.8
	10 Completely satisfied	1810	19.7	22.2	100.0
	Total	8157	88.7	100.0	
Missing	System	1035	11.3		
Total		9192	100.0		



How satisfied or dissatisfied you are about your life

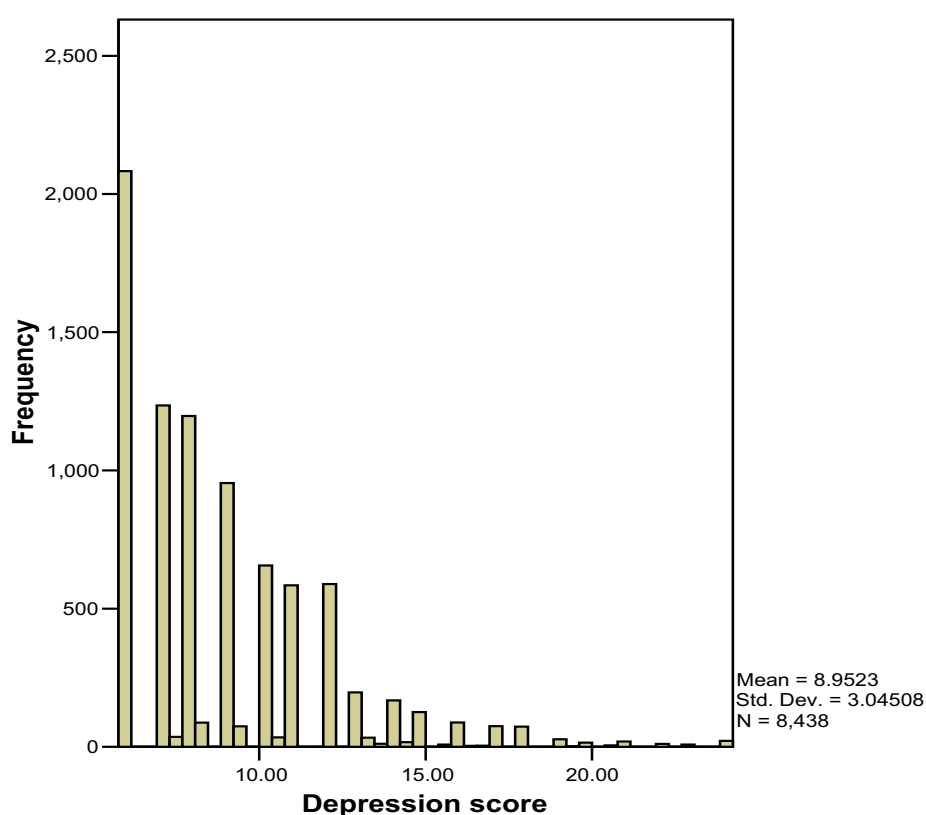
## 2. Depression

Description: Derived from six items: during the last 30 days, about how often did the respondent feel so miserable or unhappy that nothing could cheer you up, hopeless like nothing you did would help your life, restless or like you couldn't sit still, that everything was an effort or really hard work, everything was a waste of your time, nervous?

Range: 6-24 (6 =not depressed, 24=highly depressed)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Depression score	8438	6.00	24.00	8.95	3.05



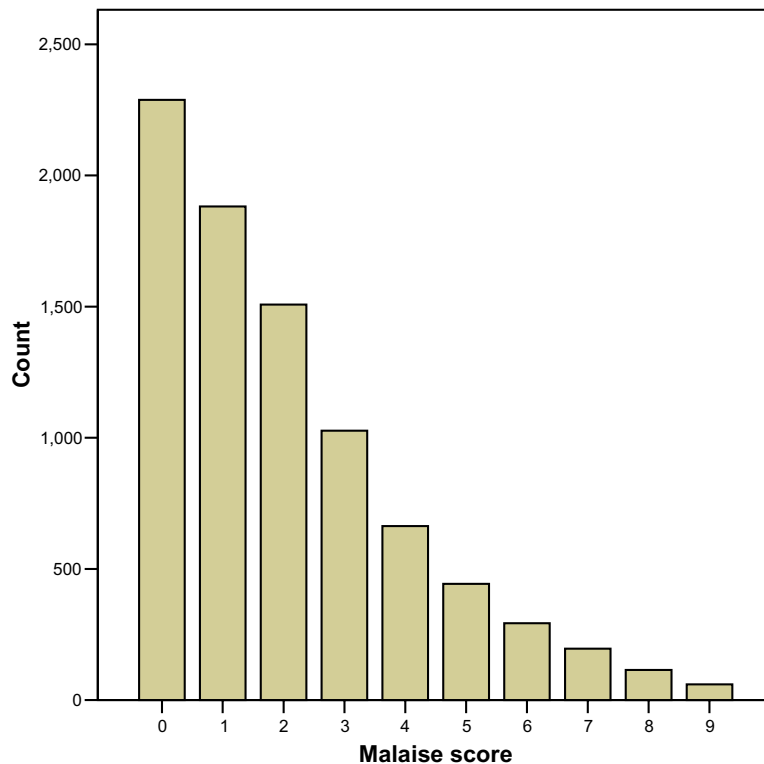
### 3. Malaise

Description: Sum of nine items about how the respondent is feeling generally: tired, miserable, worried, violent rage, scared for no good reason, upset or irritated, jittery, things get on nerves, and heart often races like mad.

Range: 0 – 9 (0 = no malaise, 9 = high malaise)

Malaise score

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2288	24.9	27.0	27.0
	1	1882	20.5	22.2	49.2
	2	1508	16.4	17.8	67.0
	3	1027	11.2	12.1	79.1
	4	663	7.2	7.8	86.9
	5	443	4.8	5.2	92.2
	6	293	3.2	3.5	95.6
	7	196	2.1	2.3	97.9
	8	115	1.3	1.4	99.3
	9	60	.7	.7	100.0
	Total	8475	92.2	100.0	
Missing	88 invalid, insufficient items completed	4	.0		
	99 Missing	713	7.8		
	Total	717	7.8		
Total		9192	100.0		



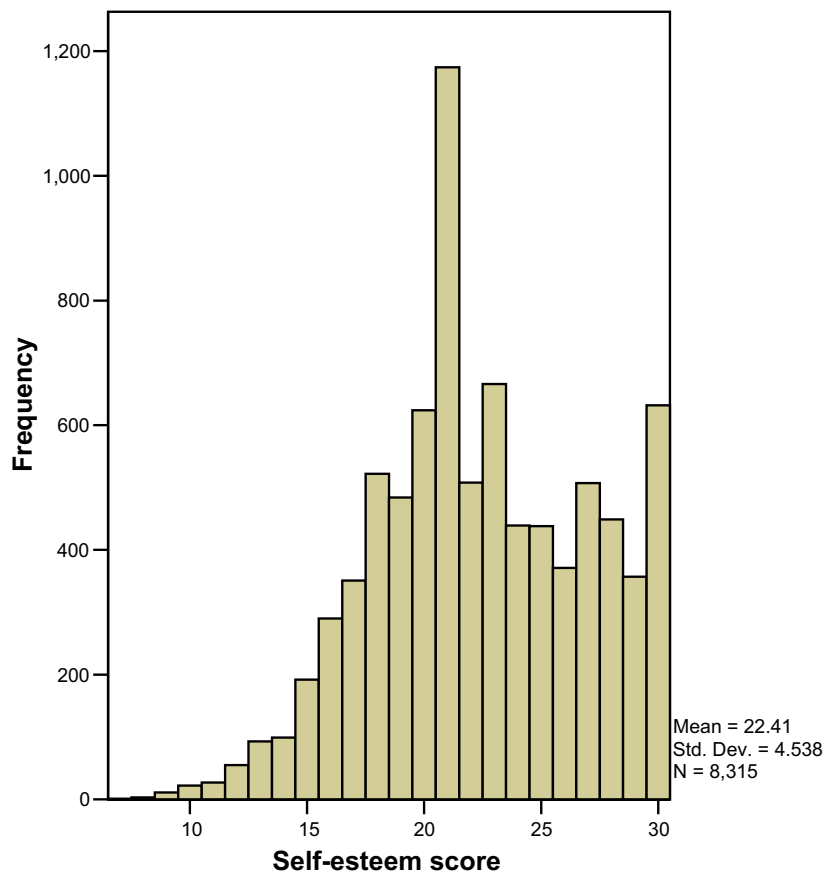
#### 4. Self-esteem

Description: Positive feelings about self, consisting of six items: satisfied with myself, I am no good at all, able to do things as well as most other people, feel useless at times, I am inclined to feel that I am a failure, positive attitude toward myself.

Range: 7 – 30 (7 = low self-esteem, 30 = high self-esteem)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Self-esteem score	8315	7	30	22.41	4.538





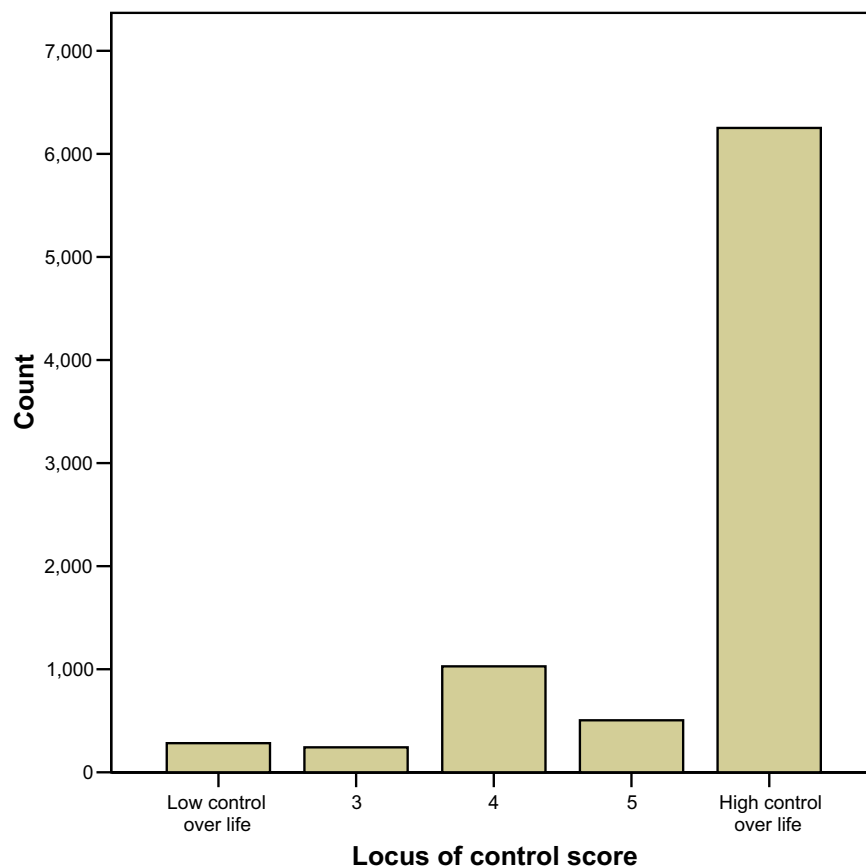
## 5. Locus of control

Description: Sum of two items: I usually have a free choice and control over my life, usually I can run my life more or less as I want to.

Range 2 – 6 (2 = low control over life, 6 = high control over life)

Locus of control score

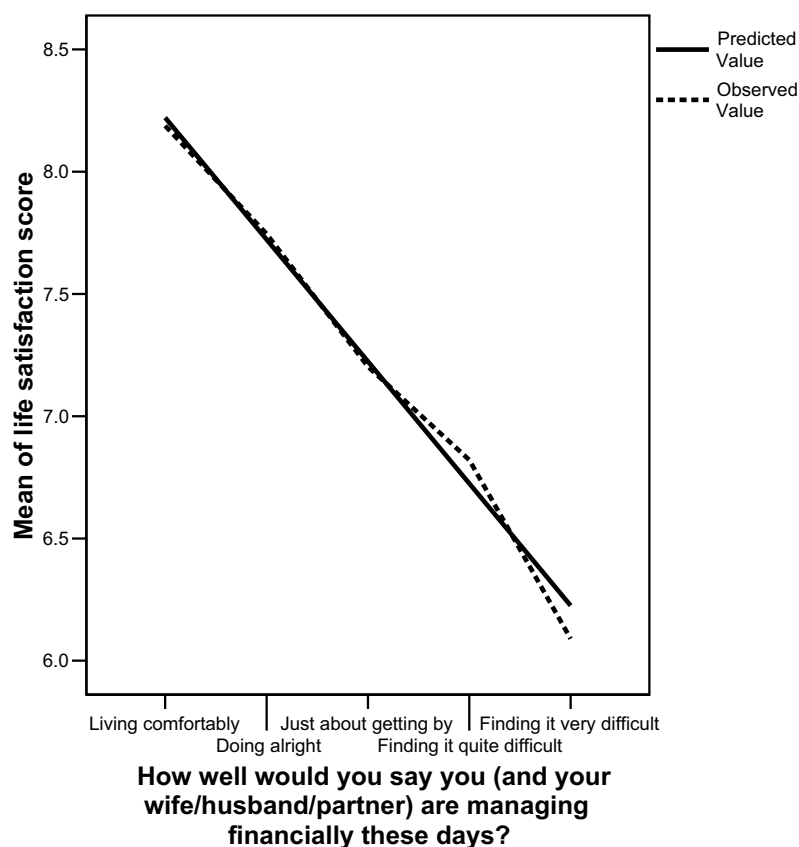
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2 Low control over life	282	3.1	3.4	3.4
	3	243	2.6	2.9	6.3
	4	1028	11.2	12.4	18.7
	5	504	5.5	6.1	24.8
	6 High control over life	6252	68.0	75.2	100.0
	Total	8309	90.4	100.0	
Missing	System	883	9.6		
Total		9192	100.0		



## Appendix 3: Associations between financial hardship and psychological well-being

Each of the five measures of maternal psychological state is considered as a function of each of the six financial hardship measures in a regression. Linear and quadratic effects are tested to investigate if the relationship is linear or non-linear and a graphical presentation of the relationship is given.

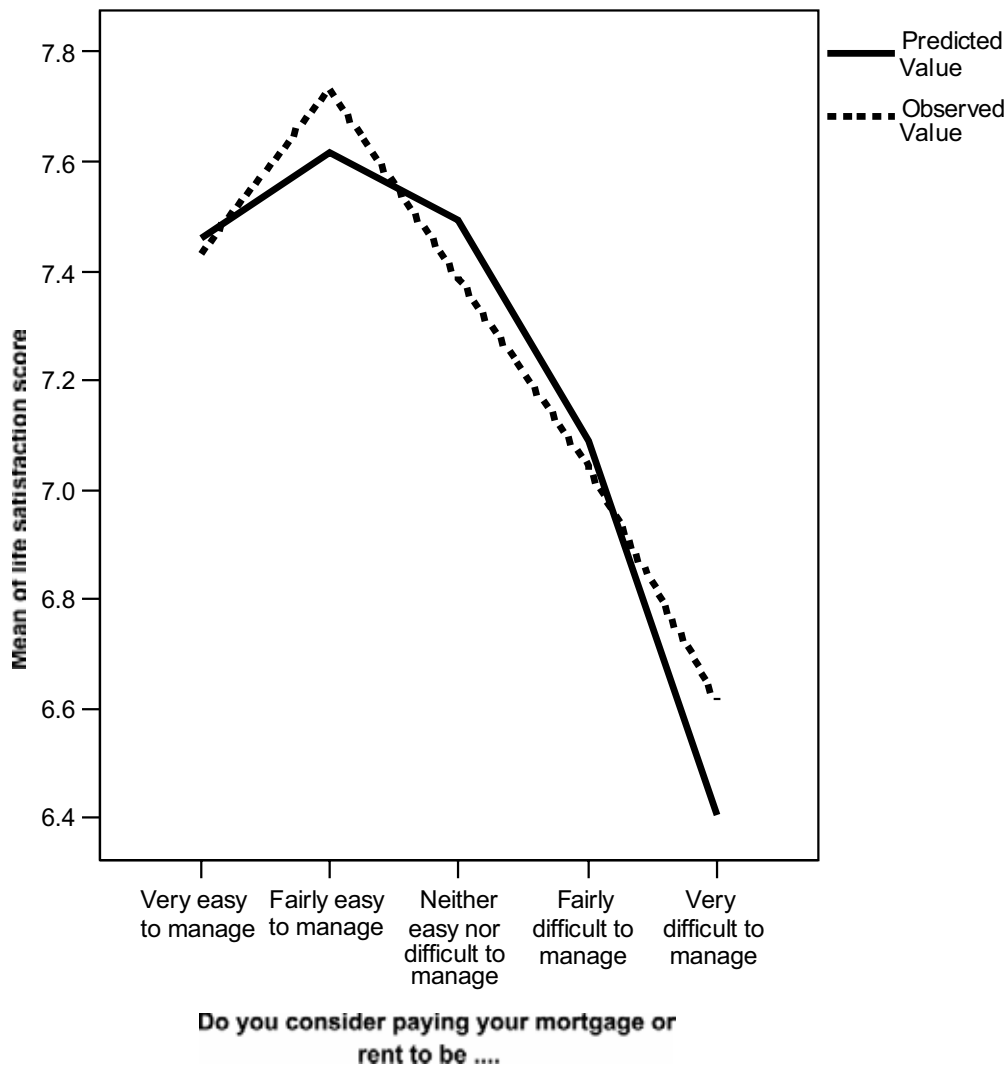
**Fig. 3.1.1 Life satisfaction and managing financially**



Life satisfaction decreases linearly when the difficulties experienced in managing financially increase. Prediction model includes linear effect.

Observed means of life satisfaction score:

How well would you say you (and your wife/husband/partner) are managing financially these days?	Mean	N	Std. Deviation
1 Living comfortably	8.19	1208	2.226
2 Doing alright	7.75	2922	2.157
3 Just about getting by	7.20	2820	2.168
4 Finding it quite difficult	6.82	839	2.187
5 Finding it very difficult	6.09	355	2.465
Total	7.46	8144	2.245

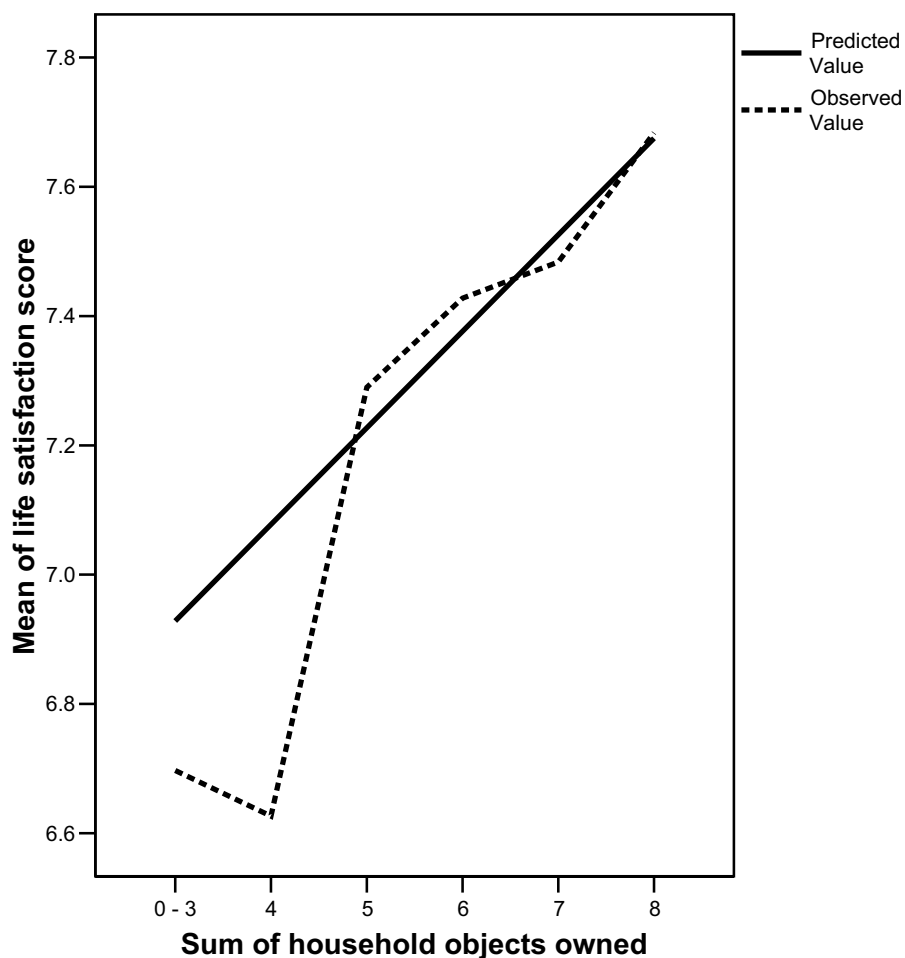
**Fig. 3.1.2 Life satisfaction and paying mortgage or rent**

Life satisfaction is highest among those who do not experience difficulties in paying their mortgage or rent, but decreases when the difficulties increase. Prediction model includes linear and quadratic effects.

Observed means of life satisfaction score:

Do you consider paying your mortgage or rent to be ....	Mean	N	Std. Deviation
1 Very easy to manage	7.43	3507	2.342
2 Fairly easy to manage	7.73	2210	2.117
3 Neither easy nor difficult to manage	7.39	1633	2.155
4 Fairly difficult to manage	7.04	577	2.192
5 Very difficult to manage	6.61	199	2.319
Total	7.46	8126	2.245

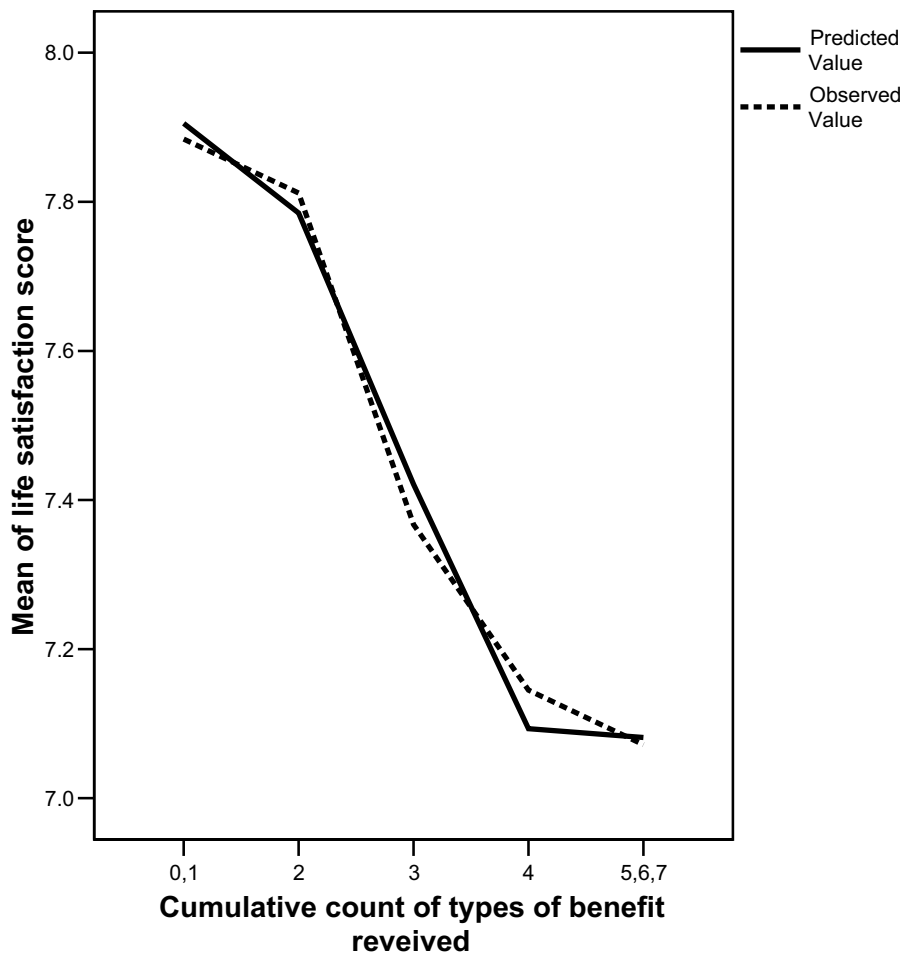
**Fig. 3.1.3 Life satisfaction and household objects owned**



Life satisfaction is lowest among those who report owning only a few household objects, and it increases if more household objects are owned. Prediction model includes linear effect.

Observed means of life satisfaction score:

Recoded Sum of household objects owned	Mean	N	Std. Deviation
3 0 - 3	6.70	33	2.592
4	6.63	158	2.597
5	7.29	952	2.360
6	7.43	2637	2.254
7	7.48	3050	2.197
8	7.68	1327	2.171
Total	7.46	8157	2.246

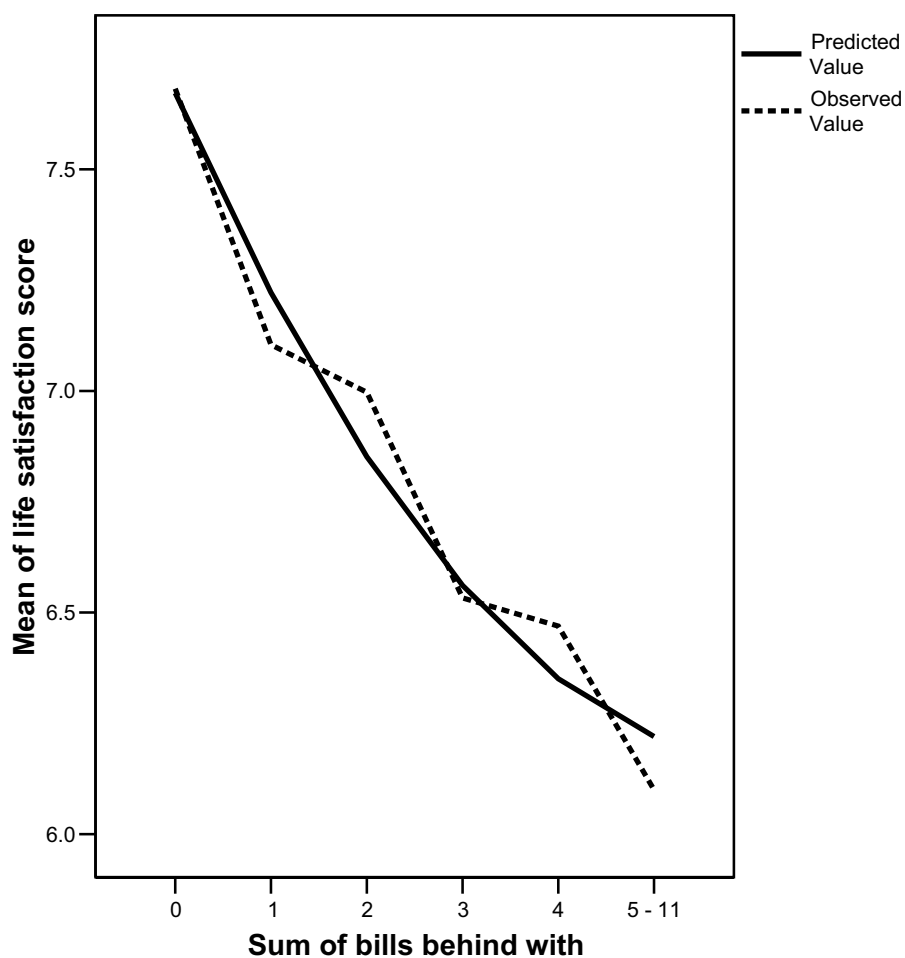
**Fig. 3.1.4 Life satisfaction and benefits received**

Life satisfaction is highest among those who do not receive any benefits or receive only one. Life satisfaction decreases when the number of received benefits increases. More than four benefits do not decrease the life satisfaction any further. Prediction model includes linear, quadratic and cubic effects.

Observed means of life satisfaction score:

Recoded Cumulative count of types of benefit received	Mean	N	Std. Deviation
1 0,1	7.88	785	2.047
2	7.81	2486	2.115
3	7.37	1858	2.273
4	7.15	1289	2.299
5 5,6,7	7.07	1728	2.338
Total	7.45	8146	2.246

### 3.1.5 Life satisfaction and unpaid bills



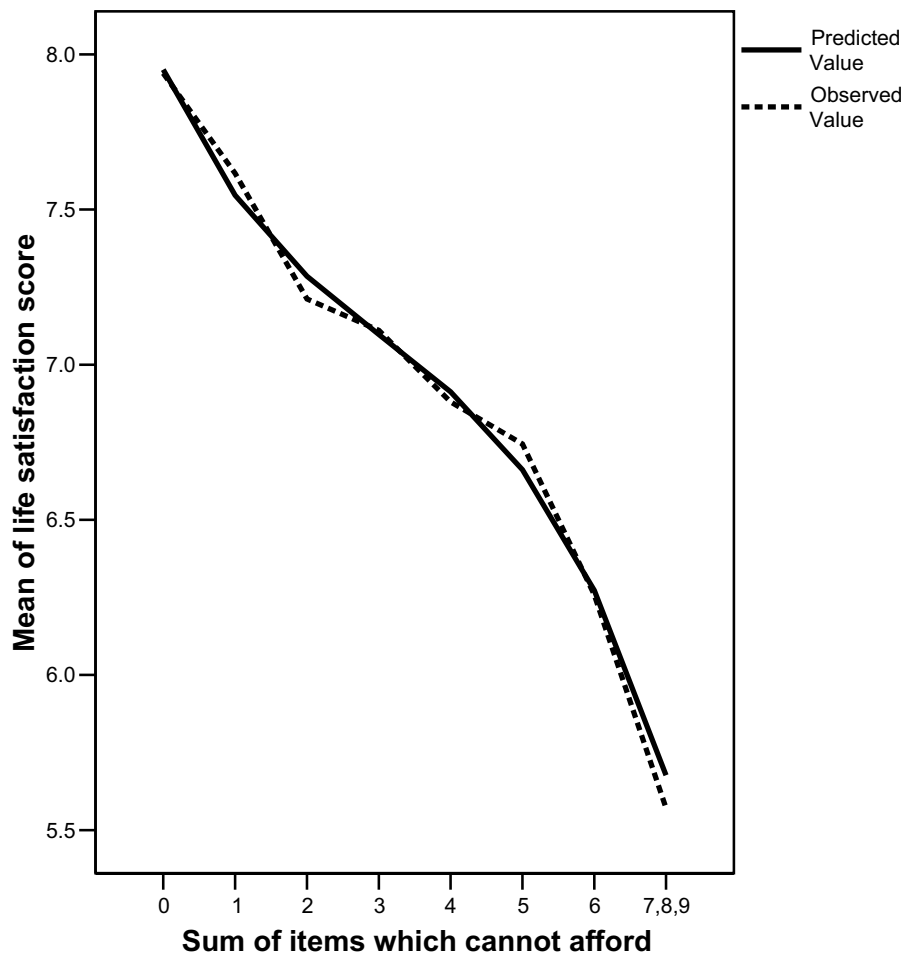
Life satisfaction is highest among those who have no unpaid bills. When the amount of unpaid bills increases, life satisfaction decreases sharply.

Prediction model includes linear and quadratic effects.

Observed means of life satisfaction score:

Recoded Sum of bills behind with	Mean	N	Std. Deviation
0	7.68	5781	2.217
1	7.10	1184	2.210
2	7.00	605	2.056
3	6.53	274	2.330
4	6.47	162	2.196
5 5 - 11	6.10	150	2.473
Total	7.46	8156	2.246

### 3.1.6 Life satisfaction and items which cannot afford

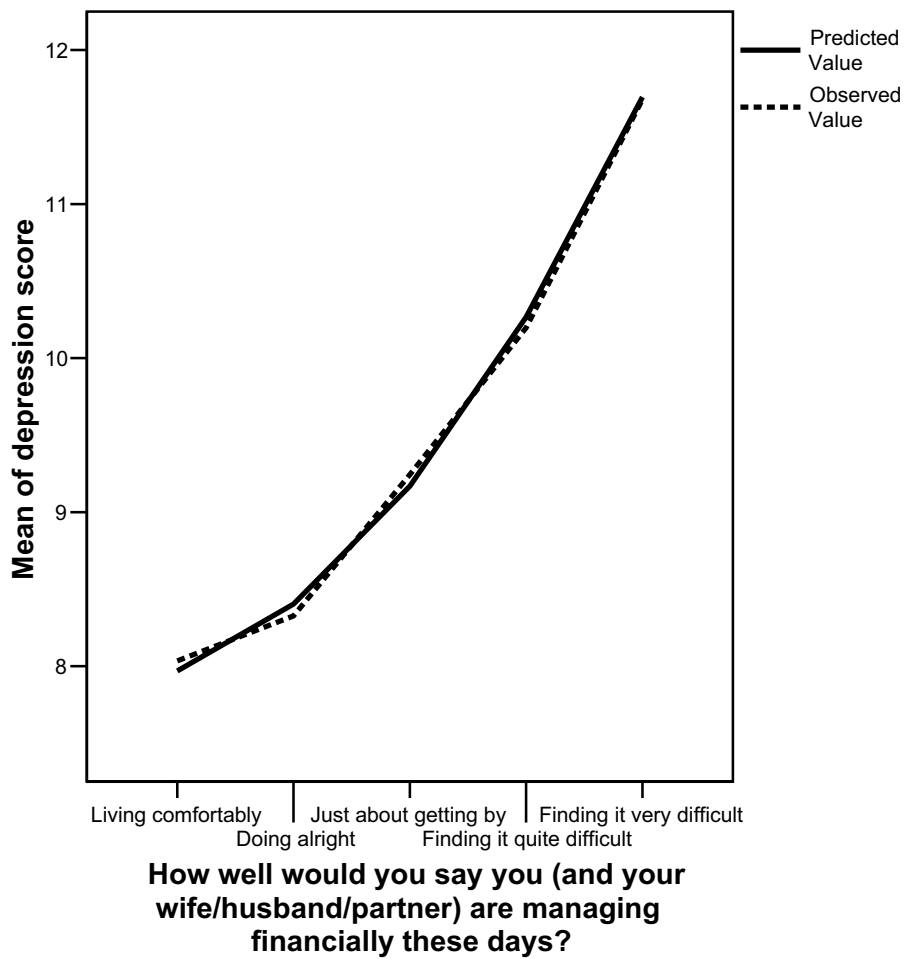


Life satisfaction is highest among those who have no items which they cannot afford. When the amount of items increases, life satisfaction decreases sharply. Prediction model includes linear, quadratic and cubic effects.

Observed means of life satisfaction score:

Recoded Sum of items cannot afford	Mean	N	Std. Deviation
0	7.94	3071	2.161
1	7.62	1495	2.086
2	7.21	1178	2.256
3	7.11	938	2.231
4	6.88	736	2.245
5	6.74	454	2.287
6	6.26	209	2.372
7 7,8,9	5.57	63	2.487
Total	7.46	8144	2.245

**Fig. 3.2.1 Depression and managing financially**

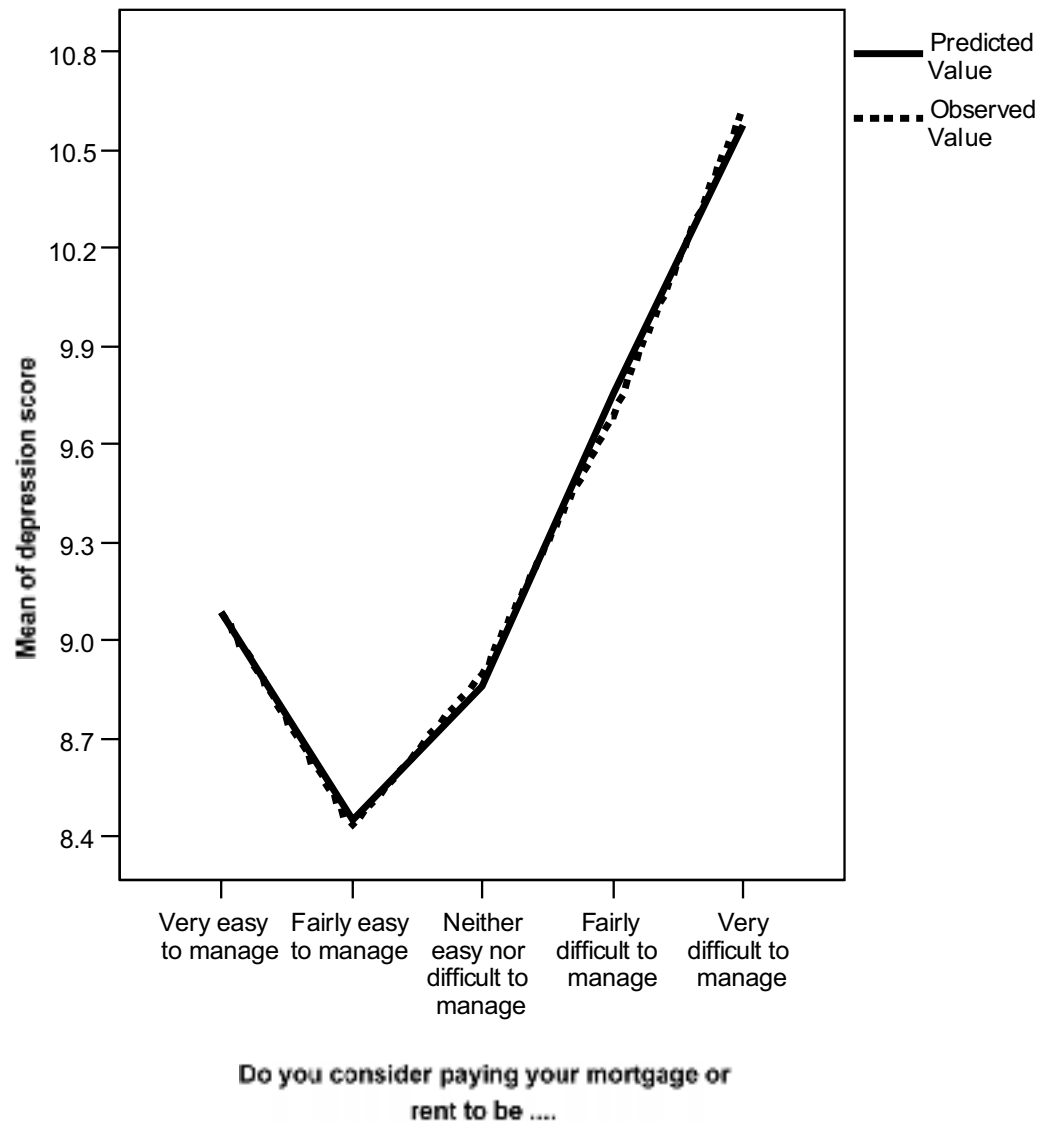


Depression increases when the difficulties experienced in financial management increase. Prediction model includes linear and quadratic effects.

Observed means of depression score:

How well would you say you (and your wife/husband/partner) are managing financially these days?	Mean	N	Std. Deviation
1 Living comfortably	8.03	1228	2.46
2 Doing alright	8.33	2988	2.60
3 Just about getting by	9.24	2939	3.06
4 Finding it quite difficult	10.20	884	3.40
5 Finding it very difficult	11.68	383	4.00
Total	8.95	8422	3.05



**Fig. 3.2.2 Depression and paying mortgage or rent**

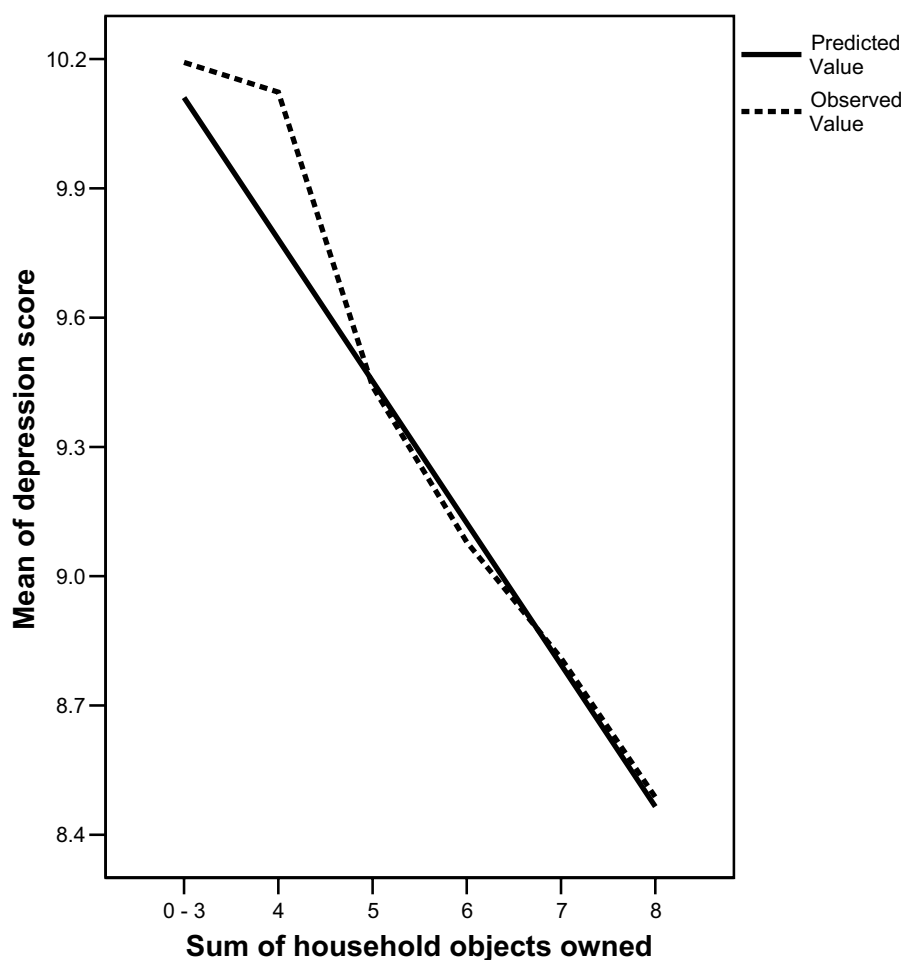
Depression is highest among those who find it very difficult to pay their mortgage or rent, and lowest among those who think it is fairly easy to manage them (even lower than among those who think it is very easy).

Prediction model includes linear, quadratic and cubic effects.

Observed means of depression score:

Do you consider paying your mortgage or rent to be ....	Mean	N	Std. Deviation
1 Very easy to manage	9.09	3626	3.27
2 Fairly easy to manage	8.43	2262	2.59
3 Neither easy nor difficult to manage	8.89	1700	2.90
4 Fairly difficult to manage	9.69	602	3.03
5 Very difficult to manage	10.63	212	3.67
Total	8.95	8402	3.05

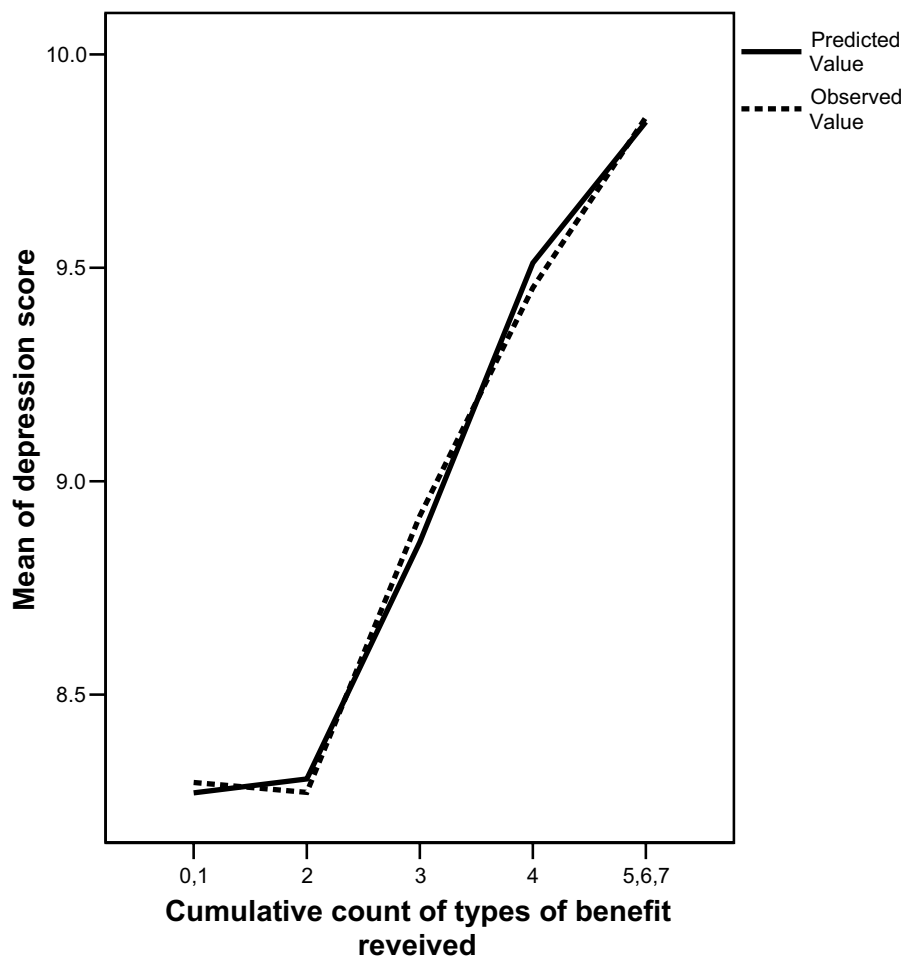
**Fig. 3.2.3 Depression and household objects owned**



Depression is highest among those who report to own only 0-3 household objects and it decreases linearly when the amount of household objects owned increases. Prediction model includes linear effects.

Observed means of depression score:

Recoded Sum of household objects owned	Mean	N	Std. Deviation
3 0 - 3	10.19	38	4.29
4	10.12	160	3.72
5	9.44	1011	3.47
6	9.08	2747	3.09
7	8.81	3124	2.91
8	8.49	1358	2.66
Total	8.95	8438	3.05

**Fig. 3.2.4 Depression and benefits received**

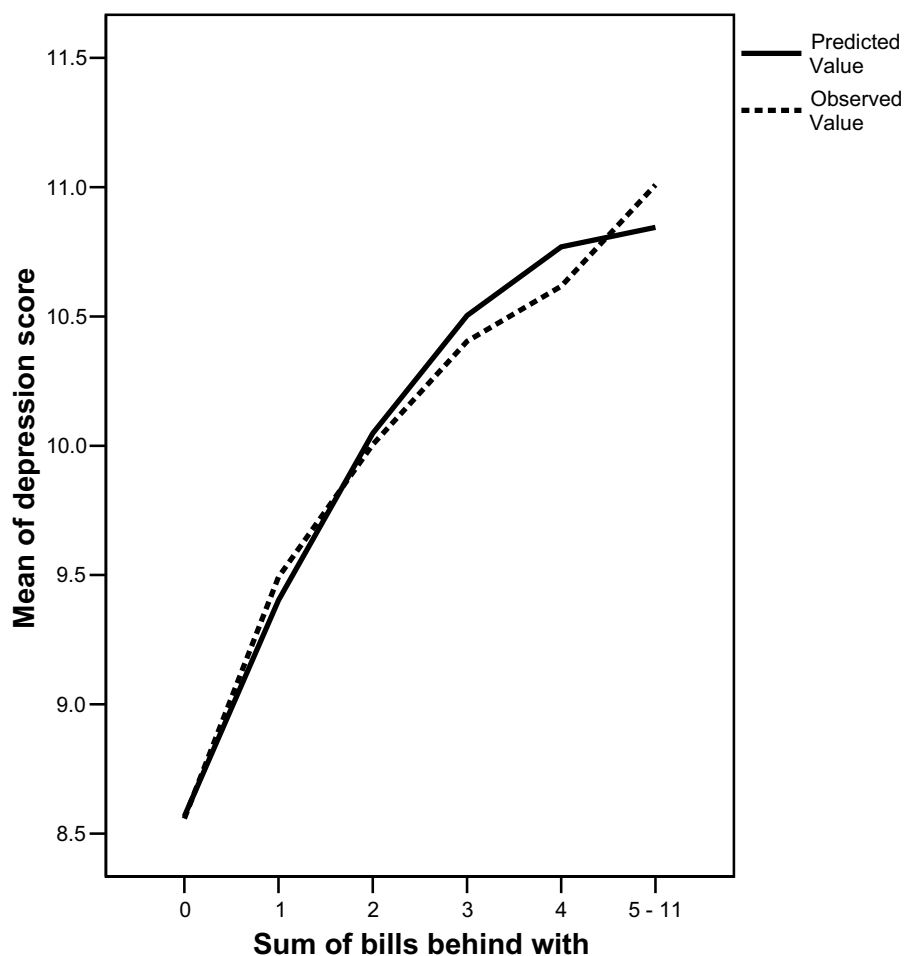
Depression is lowest among those who receive only 0-2 benefits and increases when the amount of received benefits increases.

Prediction model includes linear, quadratic and cubic effects.

Observed means of depression score:

Recoded Cumulative count of types of benefit received	Mean	N	Std. Deviation
1 0,1	8.29	817	2.51
2	8.27	2515	2.48
3	8.92	1922	2.88
4	9.45	1359	3.34
5 5,6,7	9.85	1812	3.58
Total	8.95	8425	3.05

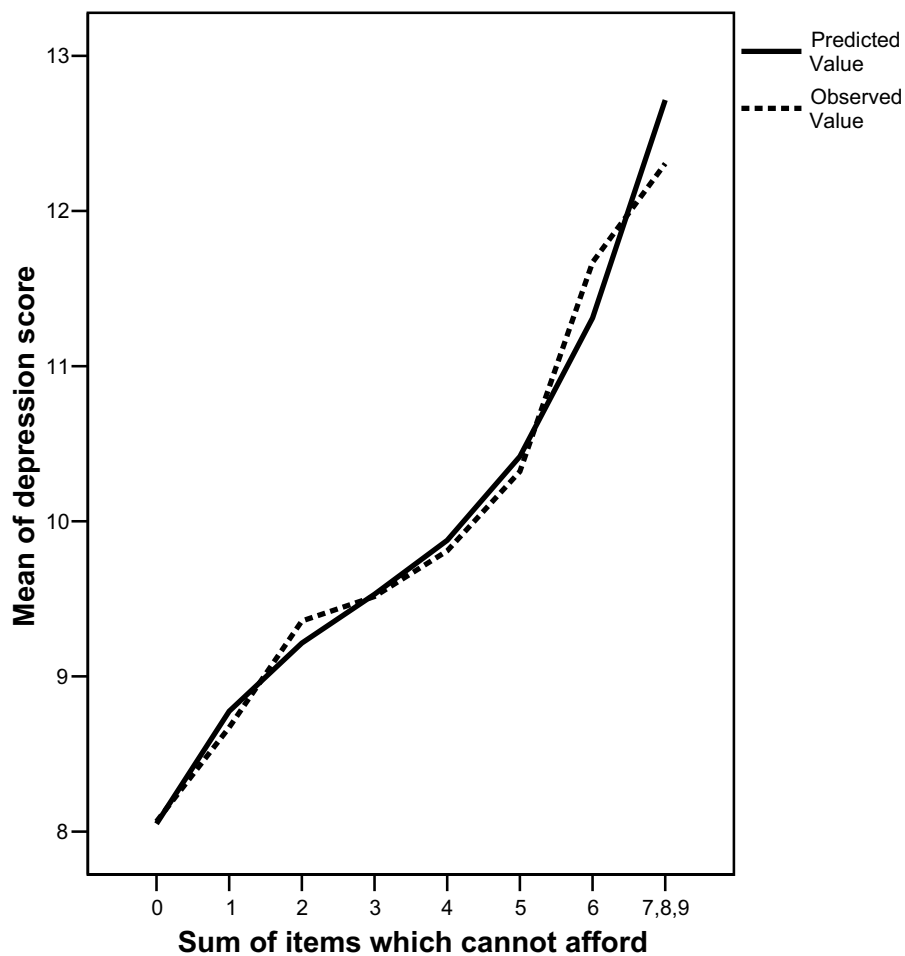
**Fig. 3.2.5 Depression and unpaid bills**



Depression is lowest among those who have no unpaid bills. When the amount of unpaid bills increases, depression increases sharply.  
Prediction model includes linear and quadratic effects.

Observed means of depression score:

Recoded Sum of bills behind with	Mean	N	Std. Deviation
0	8.56	5968	2.81
1	9.49	1223	3.22
2	10.00	626	3.28
3	10.40	291	3.36
4	10.62	167	3.58
5 5 - 11	11.01	162	4.00
Total	8.95	8437	3.05

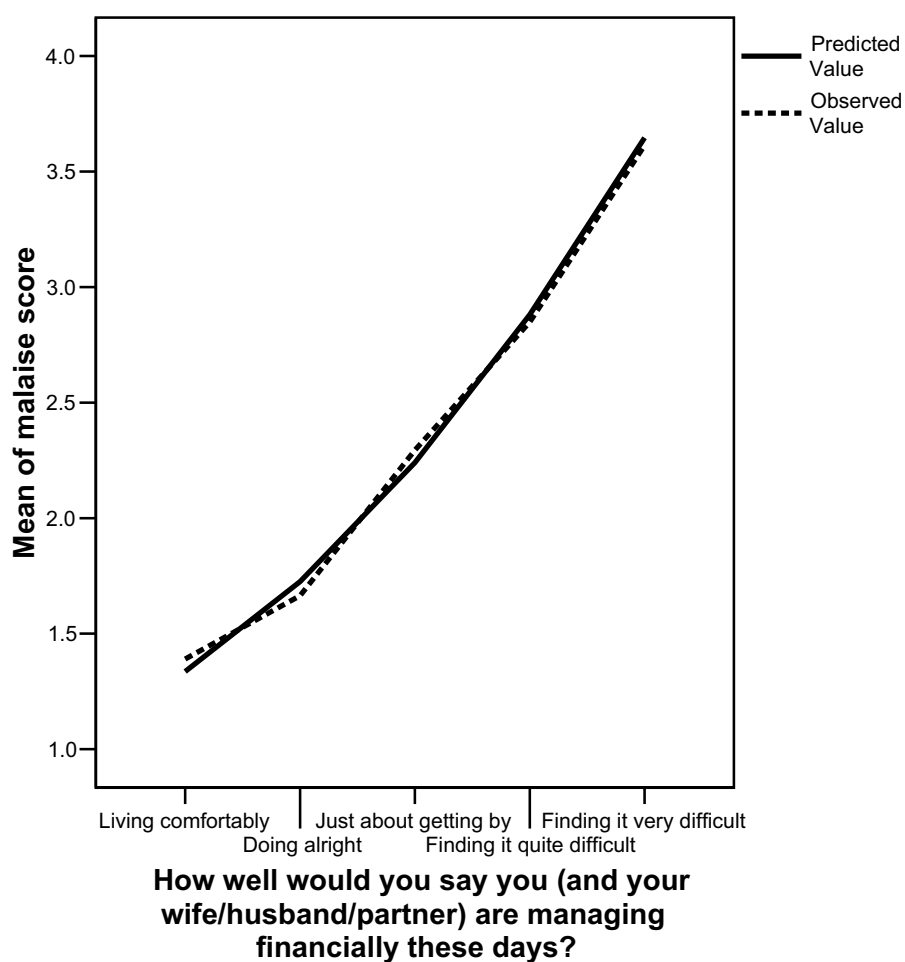
**Fig. 3.2.6 Depression and items which cannot afford**

Depression is lowest among those who have no items which they cannot afford. When the amount of items increases, depression increases sharply. Prediction model includes linear, quadratic and cubic effects.

Observed means of depression score:

Recoded Sum of items cannot afford	Mean	N	Std. Deviation
0	8.06	3131	2.43
1	8.67	1527	2.76
2	9.36	1241	3.09
3	9.52	967	3.17
4	9.81	779	3.32
5	10.32	495	3.48
6	11.67	222	4.01
7 7,8,9	12.31	62	4.77
Total	8.95	8424	3.05

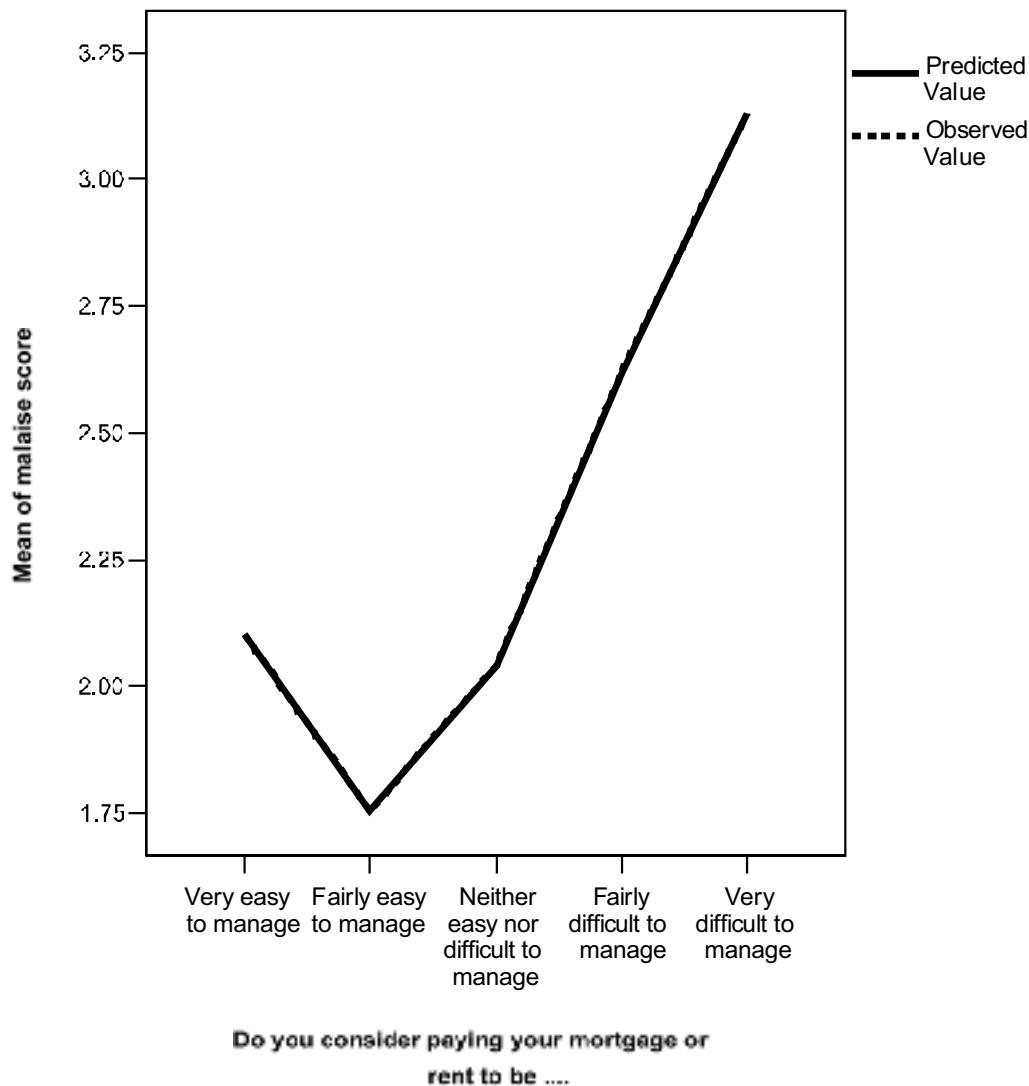
**Fig. 3.3.1 Malaise and managing financially**



Malaise increases when the difficulties experienced in financial management increase. Prediction model includes linear and quadratic effects.

Observed means of malaise score:

How well would you say you (and your wife/husband/partner) are managing financially these days?	Mean	N	Std. Deviation
1 Living comfortably	1.39	1226	1.724
2 Doing alright	1.66	3008	1.802
3 Just about getting by	2.29	2959	2.071
4 Finding it quite difficult	2.85	881	2.204
5 Finding it very difficult	3.61	386	2.417
Total	2.06	8460	2.042

**Fig. 3.3.2 Malaise and paying mortgage or rent**

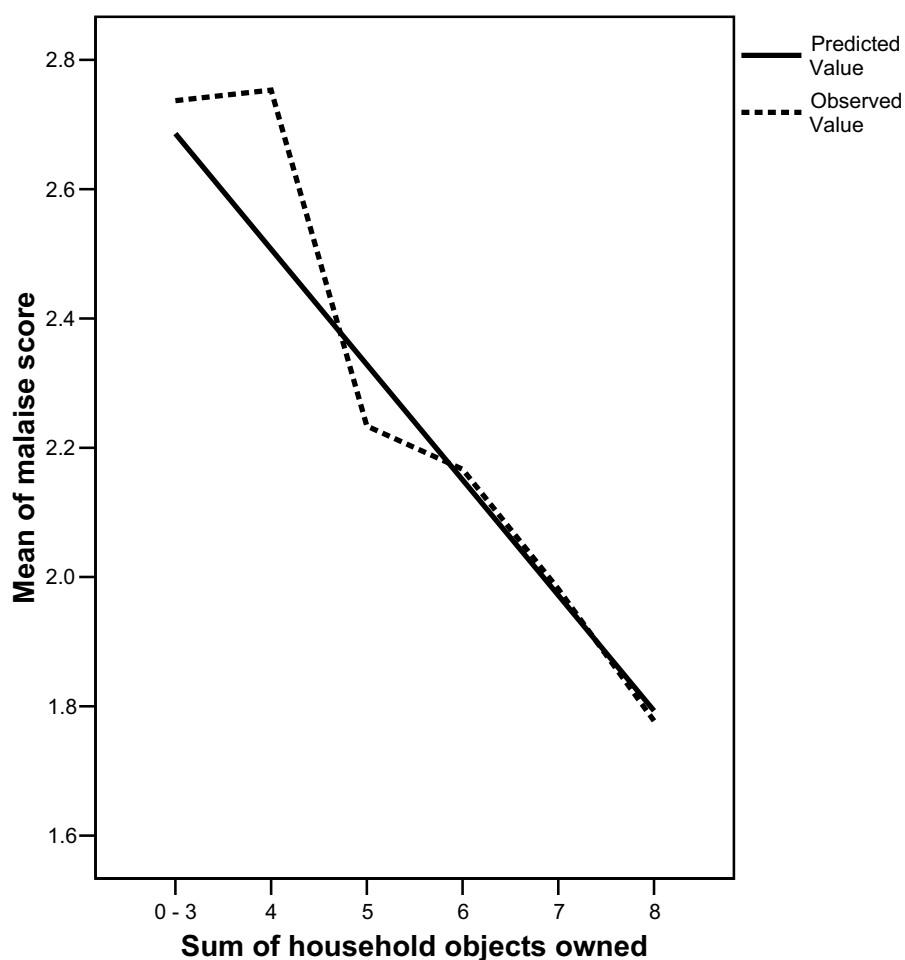
Malaise is highest among those who find it very difficult to pay their mortgage or rent, and lowest among those who think it is fairly easy to manage them (even lower than among those who think it is very easy).

Prediction model includes linear, quadratic and cubic effects.

Observed means of malaise score:

Do you consider paying your mortgage or rent to be ....	Mean	N	Std. Deviation
1 Very easy to manage	2.10	3656	2.122
2 Fairly easy to manage	1.75	2265	1.842
3 Neither easy nor difficult to manage	2.04	1705	1.996
4 Fairly difficult to manage	2.62	604	2.086
5 Very difficult to manage	3.13	210	2.226
Total	2.06	8440	2.044

**Fig. 3.3.3 Malaise and household objects owned**

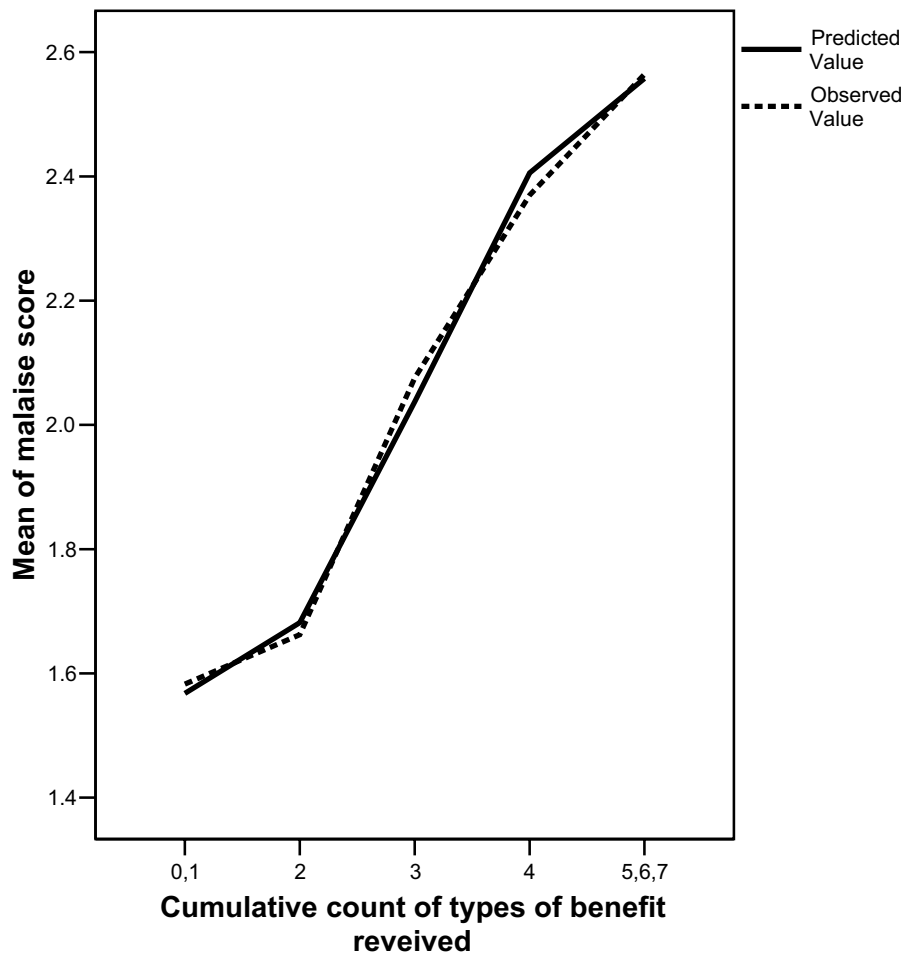


Malaise is highest among those who report to own only 0-3 household objects and it decreases linearly when the amount of household objects owned increases. Prediction model includes linear effect.

Observed means of malaise score:

Recoded Sum of household objects owned	Mean	N	Std. Deviation
3 0 - 3	2.74	38	2.274
4	2.75	162	2.179
5	2.23	1019	2.190
6	2.17	2753	2.088
7	1.98	3141	2.002
8	1.78	1362	1.844
Total	2.06	8475	2.042



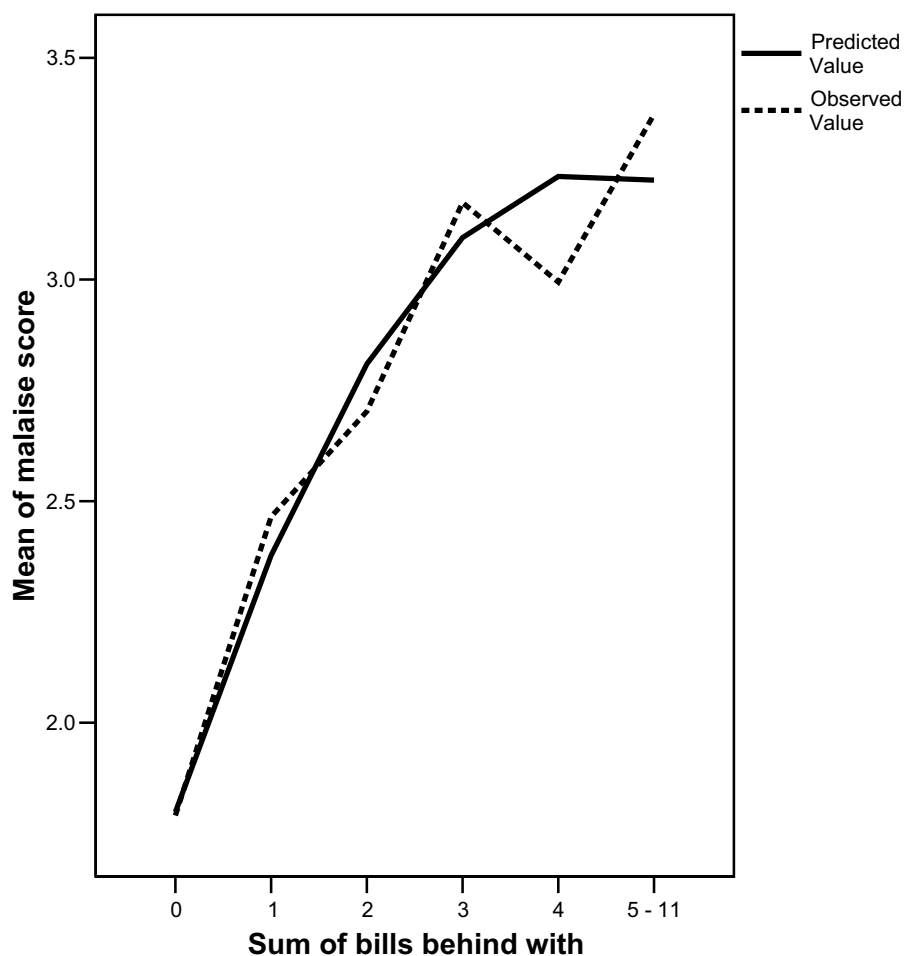
**Fig. 3.3.4 Malaise and benefits received**

Malaise is lowest among those who do not receive any benefits or receive only one, and increases when the amount of received benefits increases. Prediction model includes linear, quadratic and cubic effects.

Observed means of malaise score:

Recoded Cumulative count of types of benefit received	Mean	N	Std. Deviation
1 0,1	1.58	822	1.731
2	1.66	2528	1.787
3	2.08	1920	1.976
4	2.37	1371	2.236
5 5,6,7	2.56	1822	2.253
Total	2.06	8463	2.042

**Fig. 3.3.5 Malaise and unpaid bills**

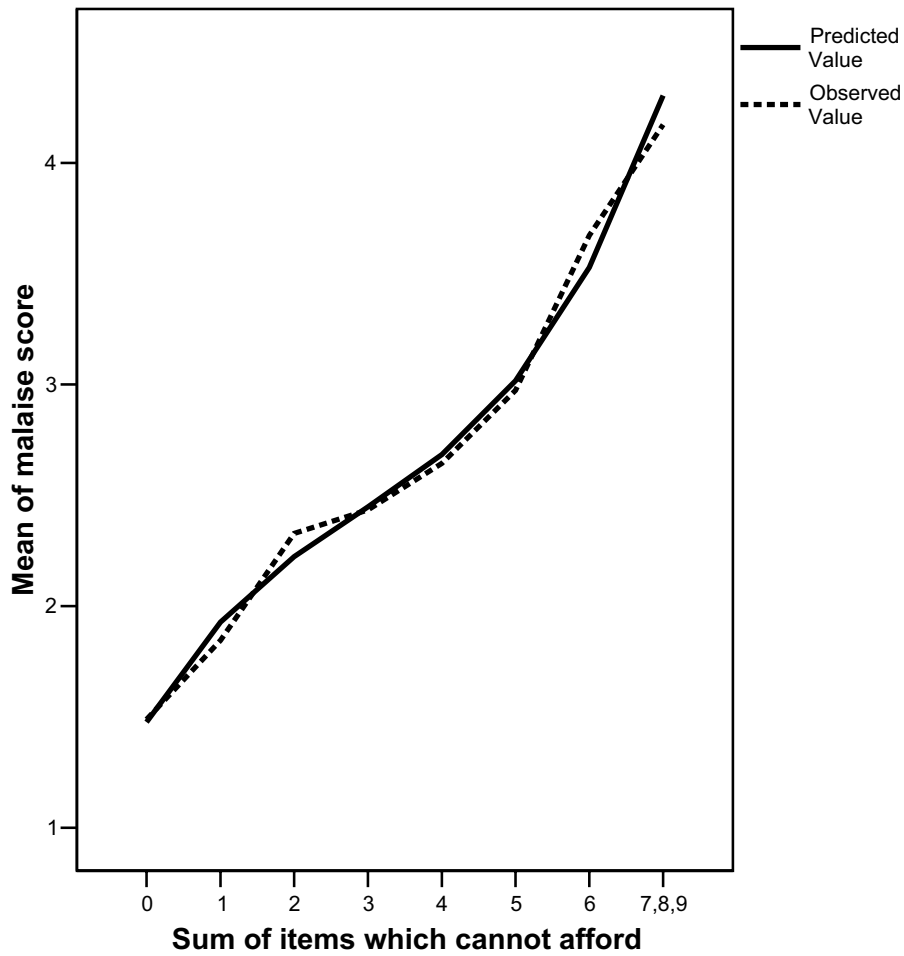


Malaise is lowest among those who have no unpaid bills. When the amount of unpaid bills increases, malaise increases sharply.

Prediction model includes linear and quadratic effects.

Observed means of malaise score:

Recoded Sum of bills behind with	Mean	N	Std. Deviation
0	1.79	5996	1.894
1	2.46	1229	2.113
2	2.70	632	2.236
3	3.17	288	2.323
4	2.99	168	2.289
5 5 - 11	3.37	161	2.622
Total	2.06	8474	2.042

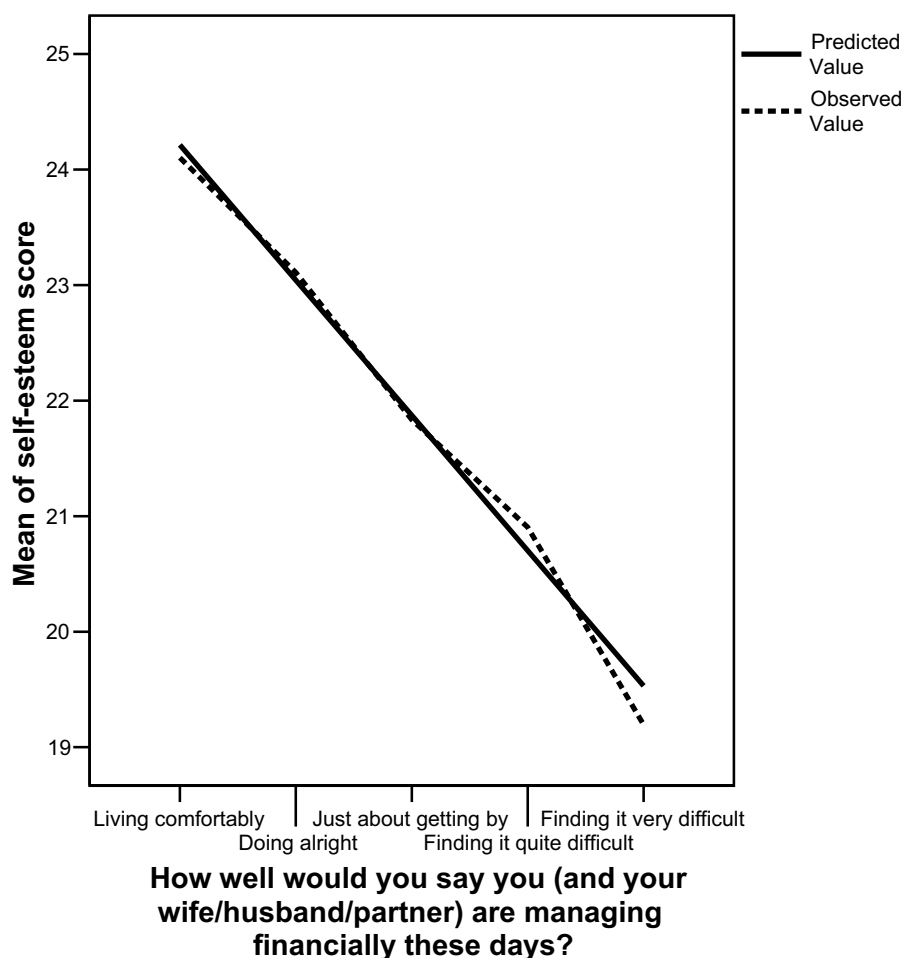
**Fig. 3.3.6 Malaise and items which cannot afford**

Malaise is lowest among those who have no items which they cannot afford. When the amount of items increases, malaise increases sharply. Prediction model includes linear, quadratic and cubic effects.

Observed means of malaise score:

Recoded Sum of items cannot afford	Mean	N	Std. Deviation
0	1.49	3137	1.715
1	1.85	1538	1.861
2	2.33	1245	2.106
3	2.43	982	2.091
4	2.64	776	2.210
5	2.97	496	2.256
6	3.67	223	2.458
7 7,8,9	4.17	64	2.567
Total	2.06	8461	2.042

**Fig. 3.4.1 Self-esteem and managing financially**

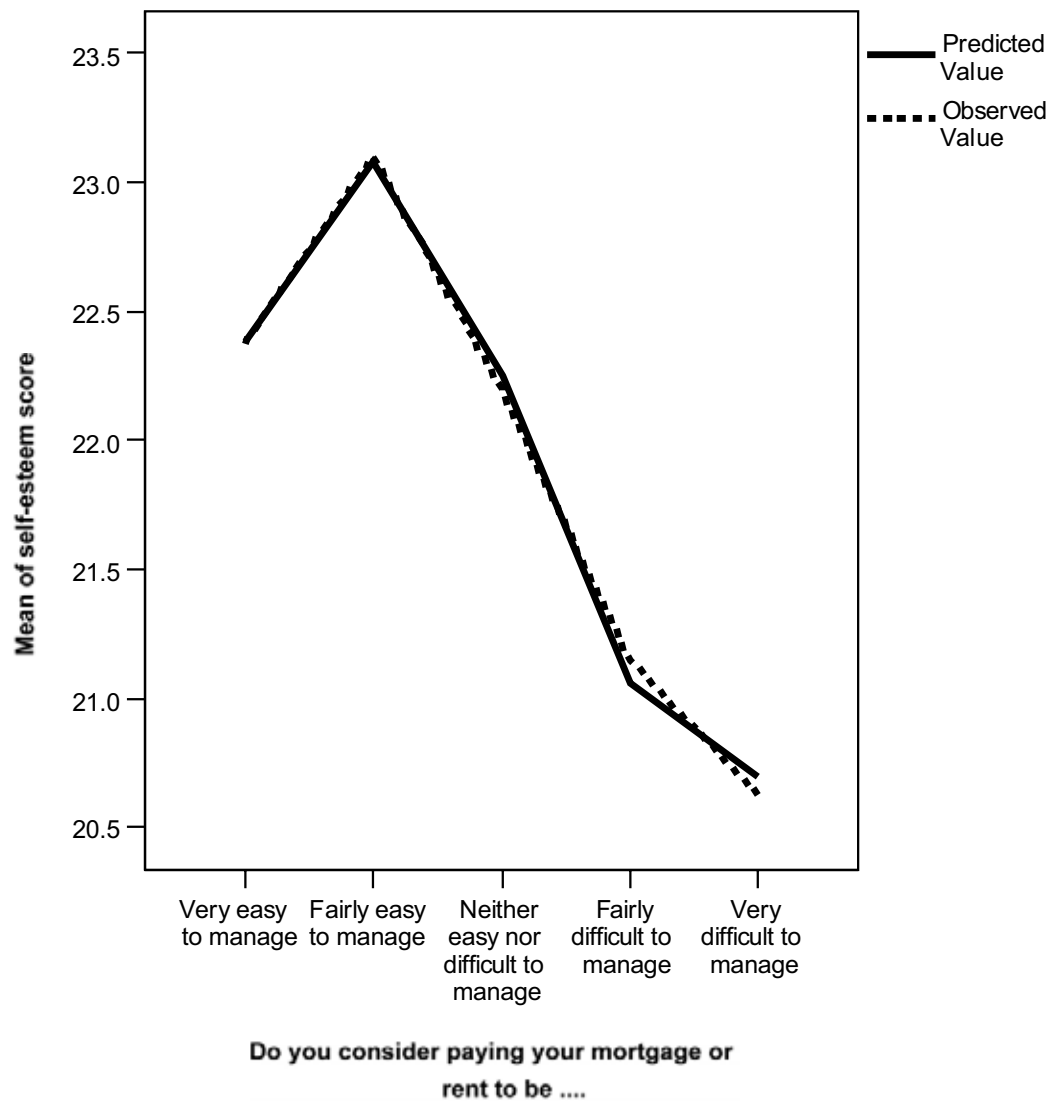


Self-esteem decreases linearly when the difficulties experienced in financial management increase.

Prediction model includes linear effect.

Observed means of self-esteem score:

How well would you say you (and your wife/husband/partner) are managing financially these days?	Mean	N	Std. Deviation
1 Living comfortably	24.10	1219	4.167
2 Doing alright	23.11	2964	4.326
3 Just about getting by	21.84	2886	4.388
4 Finding it quite difficult	20.90	861	4.670
5 Finding it very difficult	19.19	372	4.626
Total	22.41	8302	4.532

**Fig. 3.4.2 Self-esteem and paying mortgage or rent**

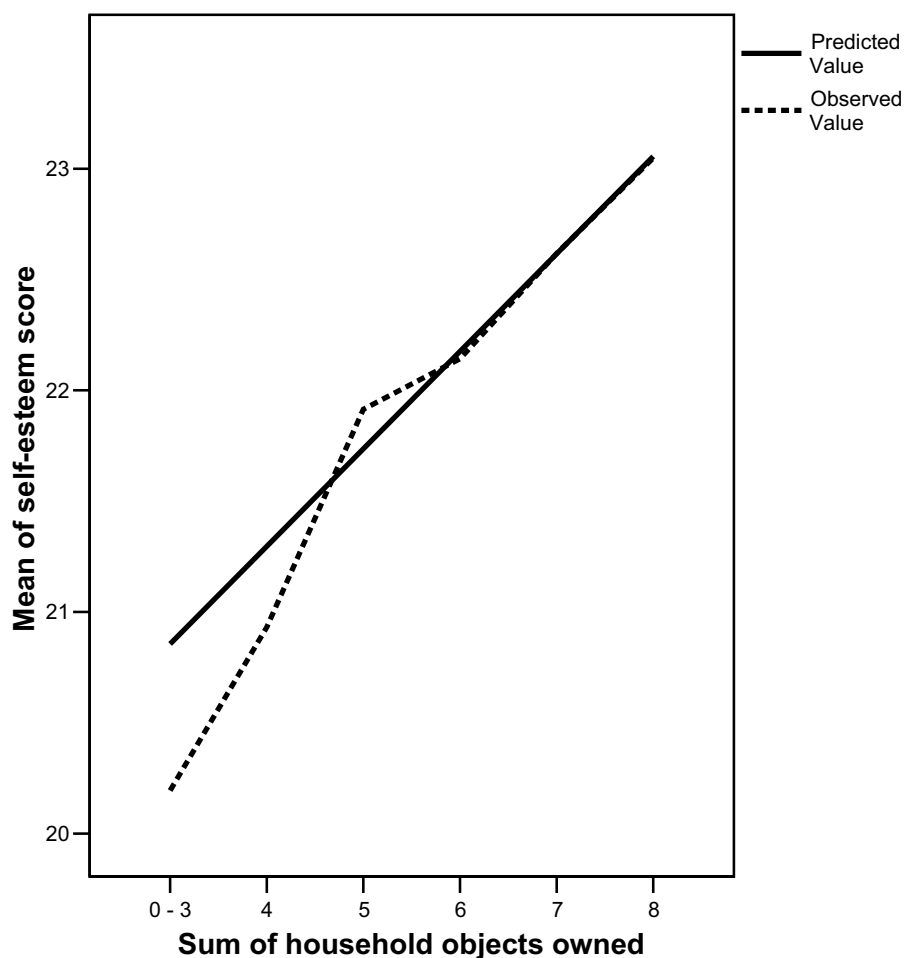
Self-esteem is lowest among those who find it very difficult to pay their mortgage or rent, and highest among those who think it is fairly easy to manage them (even higher than among those who think it is very easy).

Prediction model includes linear, quadratic and cubic effects.

Observed means of self-esteem score:

Do you consider paying your mortgage or rent to be ....	Mean	N	Std. Deviation
1 Very easy to manage	22.38	3593	4.669
2 Fairly easy to manage	23.10	2239	4.229
3 Neither easy nor difficult to manage	22.20	1653	4.515
4 Fairly difficult to manage	21.15	594	4.400
5 Very difficult to manage	20.63	204	4.458
Total	22.41	8283	4.534

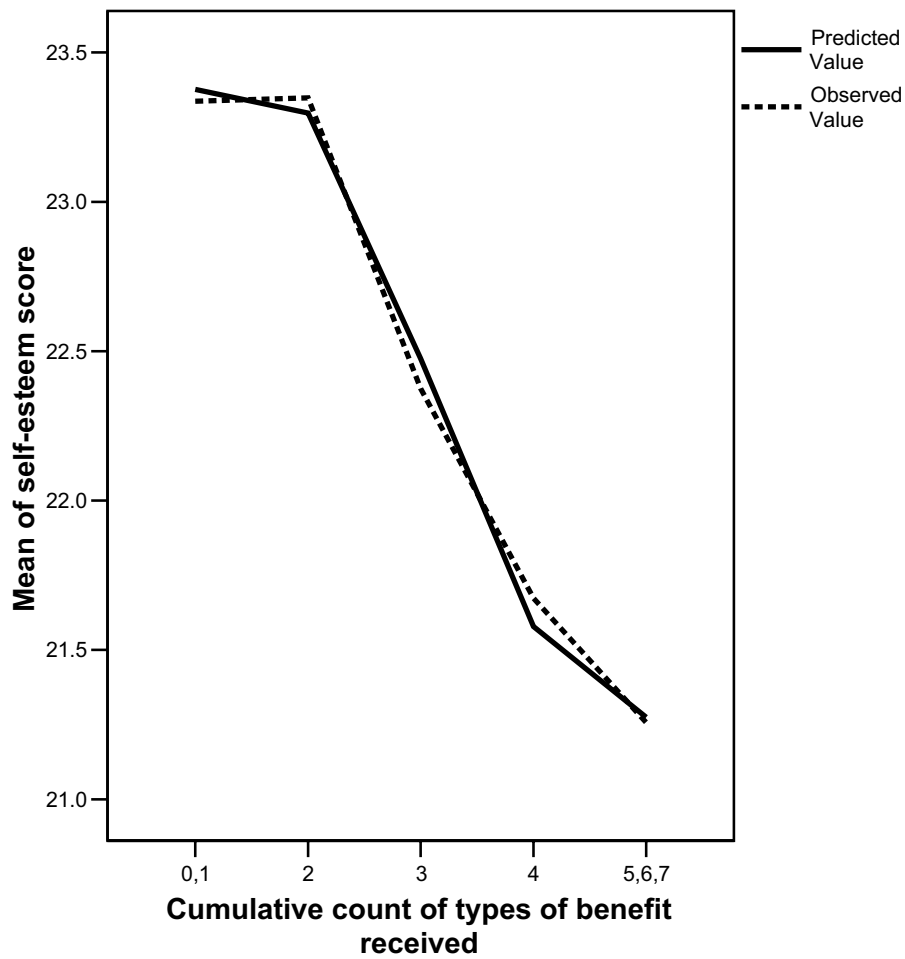
**Fig. 3.4.3 Self-esteem and household objects owned**



Self-esteem is lowest among those who report to own only 0-3 household objects, and it increases linearly when the amount of household objects owned increase. Prediction model includes linear effect.

Observed means of self-esteem score:

Recoded Sum of household objects owned	Mean	N	Std. Deviation
3 0 - 3	20.19	36	5.070
4	20.93	161	4.767
5	21.91	983	4.427
6	22.14	2696	4.496
7	22.62	3093	4.548
8	23.05	1346	4.506
Total	22.41	8315	4.538

**Fig. 3.4.4 Self-esteem and benefits received**

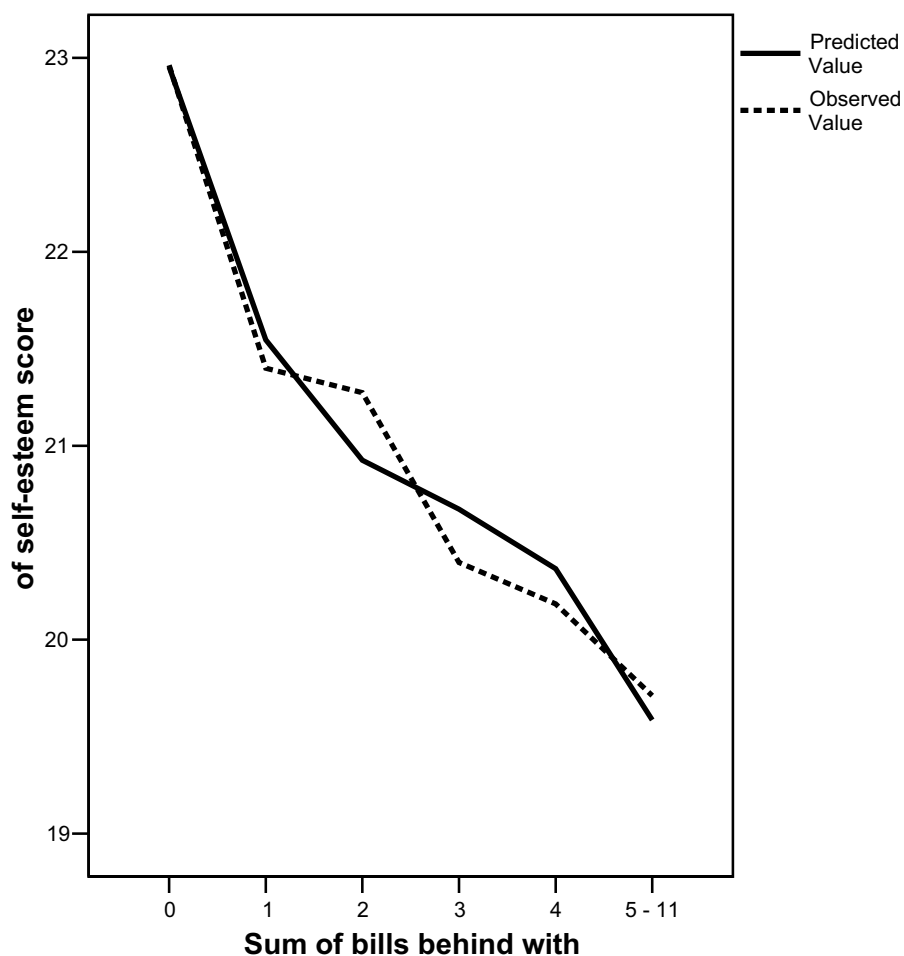
Self-esteem is highest among those who receive only 0–2 benefits, and it decreases when the amount of received benefits increases.

Prediction model includes linear, quadratic and cubic effects.

Observed means of self-esteem score:

Recoded Cumulative count of types of benefit received	Mean	N	Std. Deviation
1 0,1	23.34	796	4.331
2	23.35	2506	4.377
3	22.38	1893	4.460
4	21.67	1333	4.632
5 5,6,7	21.26	1776	4.477
Total	22.41	8304	4.534

**Fig. 3.4.5 Self-esteem and unpaid bills**



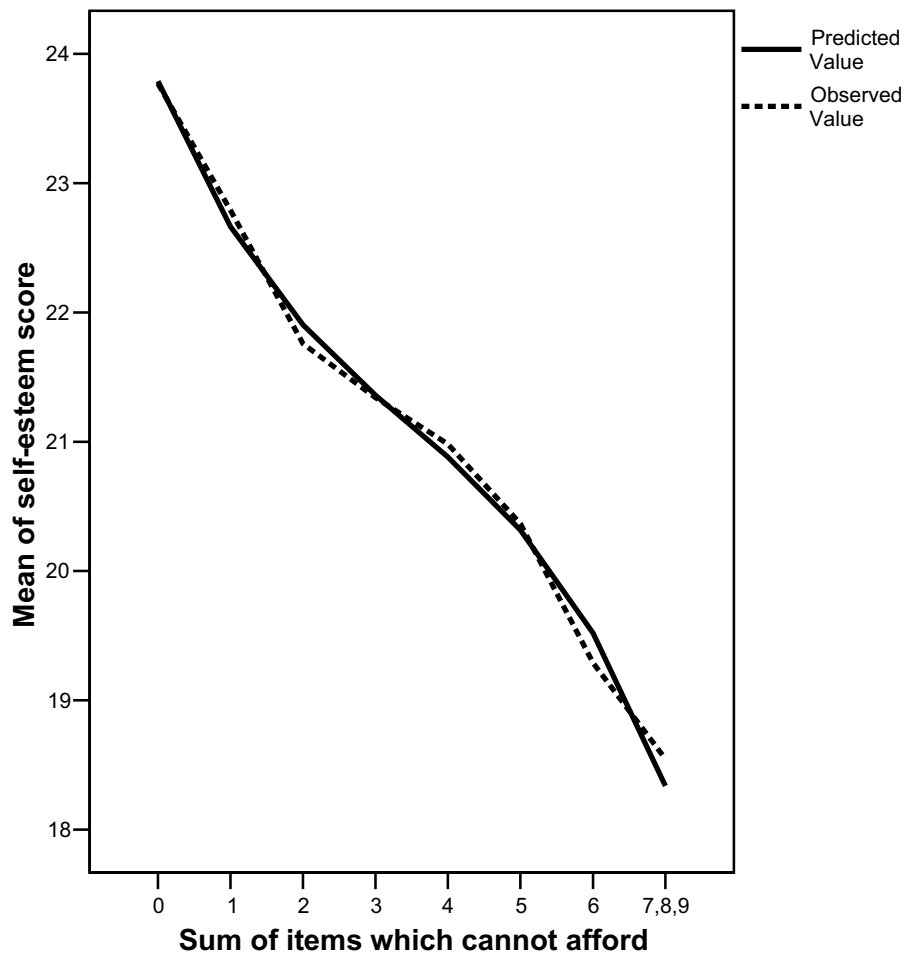
Self-esteem is highest among those who have no unpaid bills. When the amount of unpaid bills increases, self-esteem decreases.

Prediction model includes linear, quadratic and cubic effects.

Observed means of self-esteem score:

Recoded Sum of bills behind with	Mean	N	Std. Deviation
0	22.96	5888	4.428
1	21.40	1207	4.459
2	21.27	617	4.461
3	20.40	284	4.416
4	20.18	163	4.772
5 5 - 11	19.71	156	4.661
Total	22.41	8315	4.538



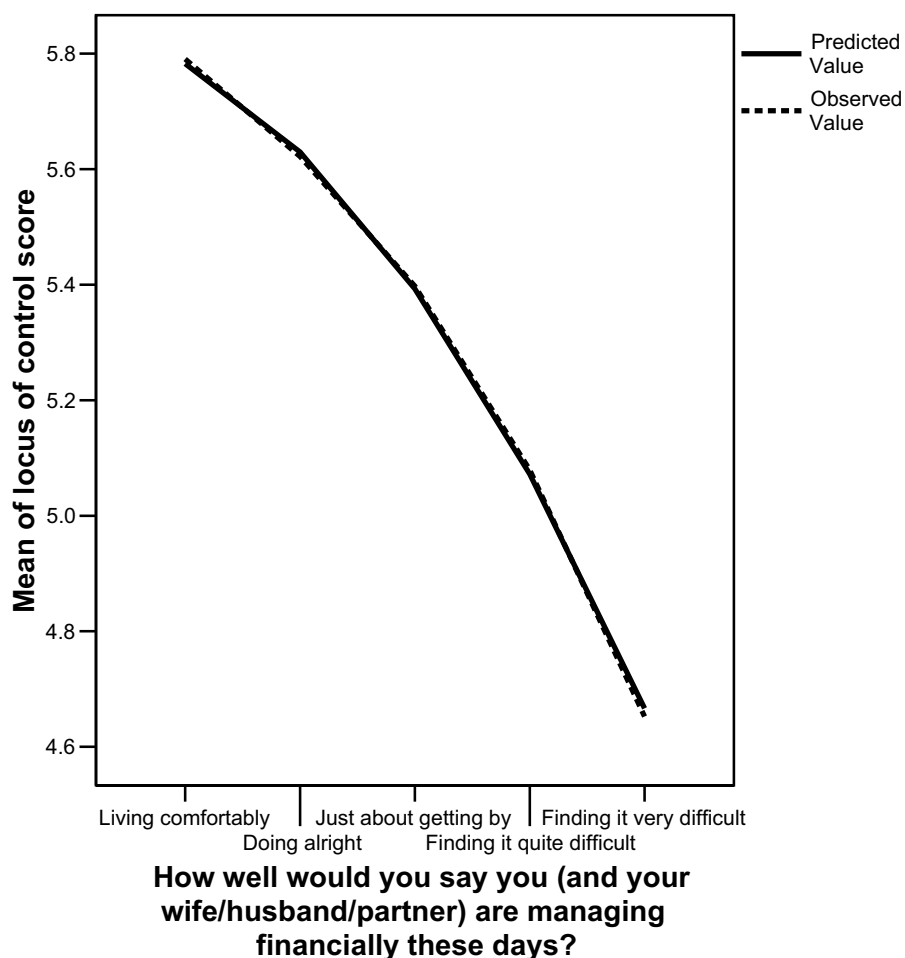
**Fig. 3.4.6 Self-esteem and items which cannot afford**

Self-esteem is highest among those who have no items which they cannot afford. When the amount of items increases, self-esteem decreases sharply. Prediction model includes linear, quadratic and cubic effects.

Observed means of self-esteem score:

Recoded Sum of items cannot afford	Mean	N	Std. Deviation
0	23.77	3101	4.238
1	22.79	1513	4.334
2	21.76	1209	4.365
3	21.34	964	4.406
4	20.98	755	4.649
5	20.37	480	4.306
6	19.29	217	4.542
7 7,8,9	18.55	64	3.996
Total	22.41	8303	4.533

**Fig. 3.5.1 Locus of control and managing financially**

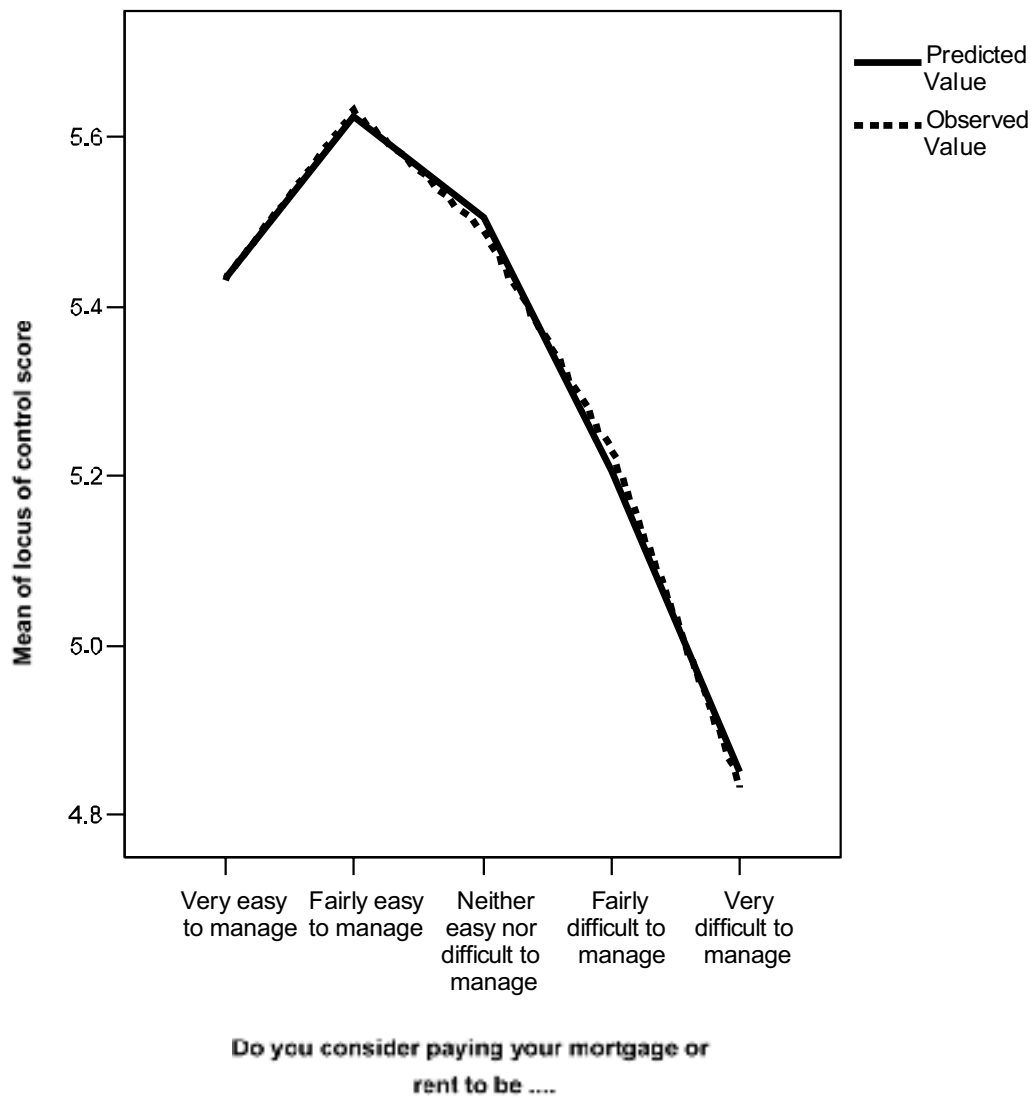


Locus of control decreases when the difficulties experienced in financial management increase.

Prediction model includes linear and quadratic effects.

Observed means of locus of control score:

How well would you say you (and your wife/husband/partner) are managing financially these days?	Mean	N	Std. Deviation
1 Living comfortably	5.79	1218	.663
2 Doing alright	5.62	2964	.895
3 Just about getting by	5.40	2883	1.073
4 Finding it quite difficult	5.08	860	1.266
5 Finding it very difficult	4.65	371	1.426
Total	5.47	8296	1.038

**Fig. 3.5.2 Locus of control and paying mortgage or rent**

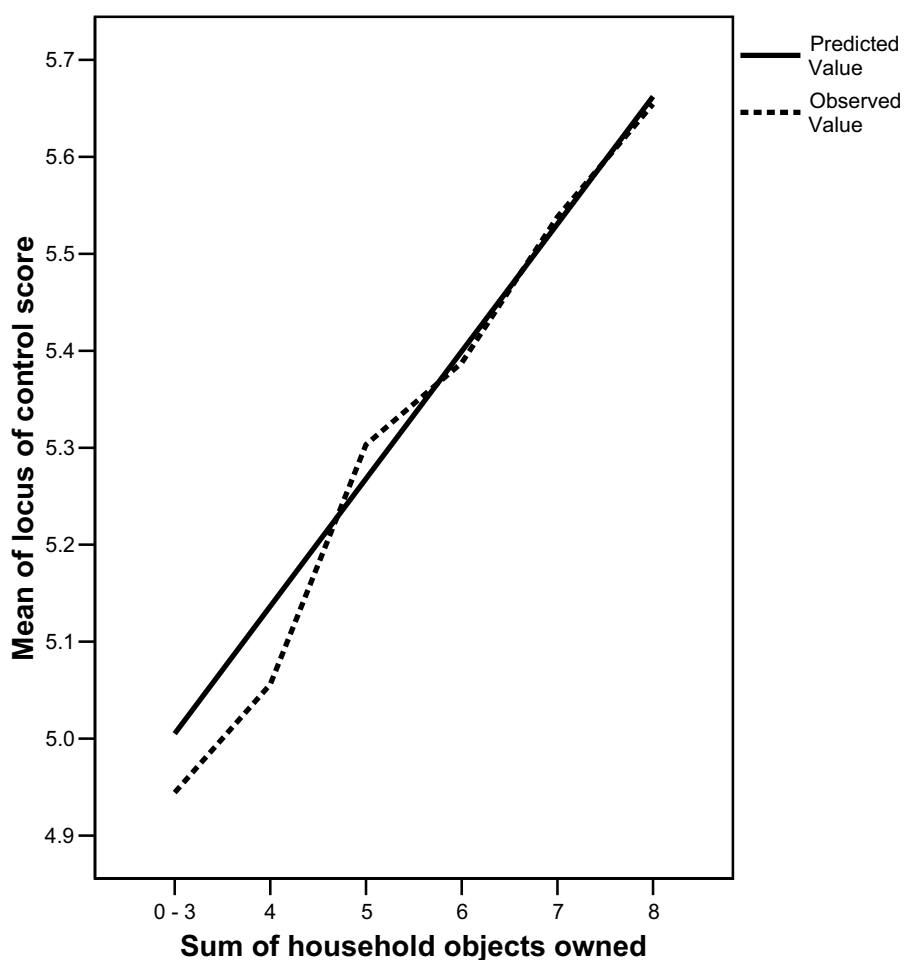
Locus of control is lowest among those who find it very difficult to pay their mortgage or rent, and highest among those who think it is fairly easy to manage them (even higher than among those who think it is very easy).

Prediction model includes linear, quadratic and cubic effects.

Observed means of locus of control score:

Do you consider paying your mortgage or rent to be ....	Mean	N	Std. Deviation
1 Very easy to manage	5.43	3591	1.073
2 Fairly easy to manage	5.63	2239	.883
3 Neither easy nor difficult to manage	5.49	1651	1.011
4 Fairly difficult to manage	5.23	593	1.182
5 Very difficult to manage	4.83	203	1.347
Total	5.47	8277	1.039

**Fig. 3.5.3 Locus of control and household objects owned**

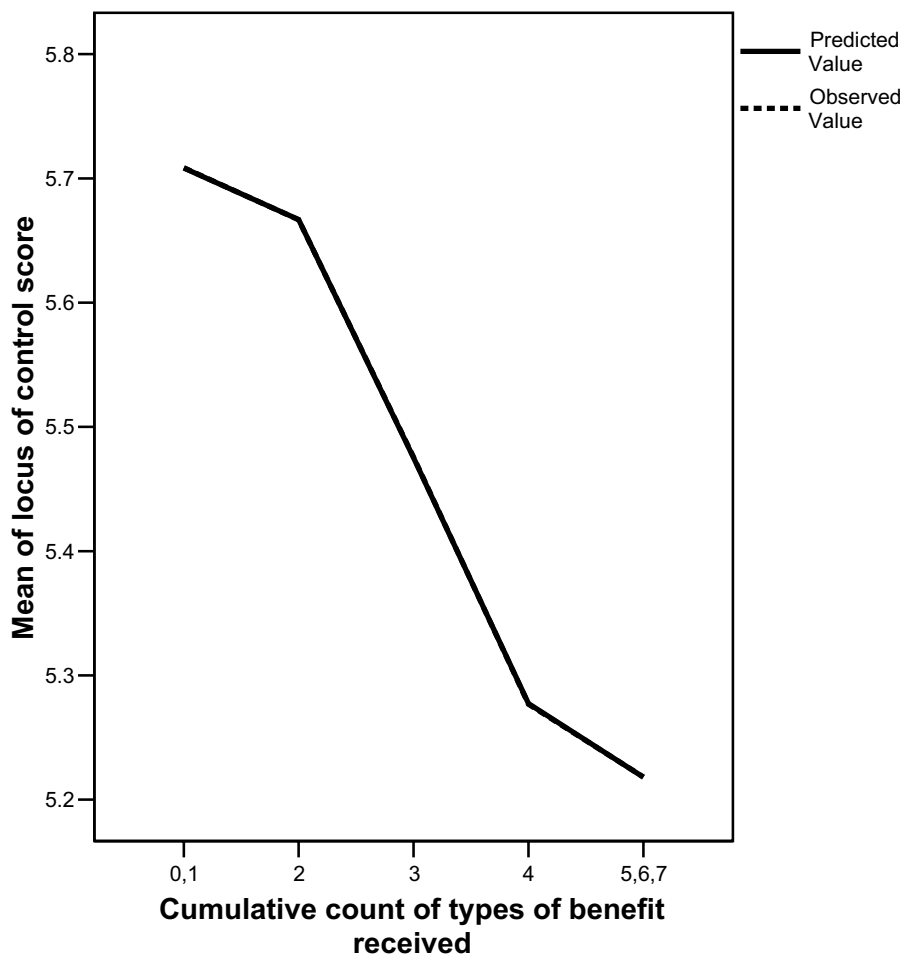


Locus of control is lowest among those who report to own only 0-3 household objects, and it increases linearly when the amount of household objects owned increases.

Prediction model includes linear effects.

Observed means of locus of control score:

Recoded Sum of household objects owned	Mean	N	Std. Deviation
3 0 - 3	4.94	36	1.393
4	5.06	161	1.276
5	5.30	983	1.129
6	5.39	2694	1.102
7	5.54	3092	.989
8	5.65	1343	.842
Total	5.47	8309	1.039

**Fig. 3.5.4 Locus of control and benefits received**

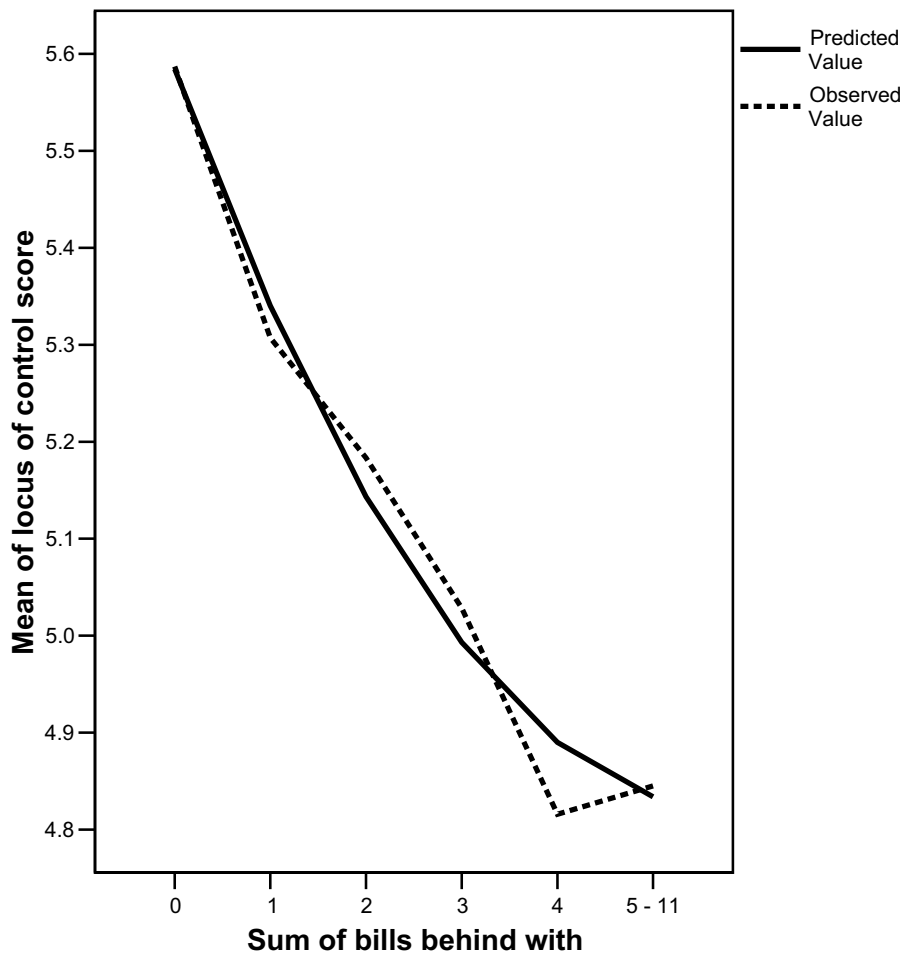
Locus of control is highest among those who do not receive any benefits or receive only one and it decreases when the amount of received benefits increases.

Prediction model includes linear, quadratic and cubic effects.

Observed means of locus of control score:

Recoded Cumulative count of types of benefit received	Mean	N	Std. Deviation
1 0,1	5.71	796	.772
2	5.67	2505	.840
3	5.48	1890	1.038
4	5.28	1333	1.153
5 5,6,7	5.22	1774	1.210
Total	5.47	8298	1.039

**Fig. 3.5.5 Locus of control and unpaid bills**

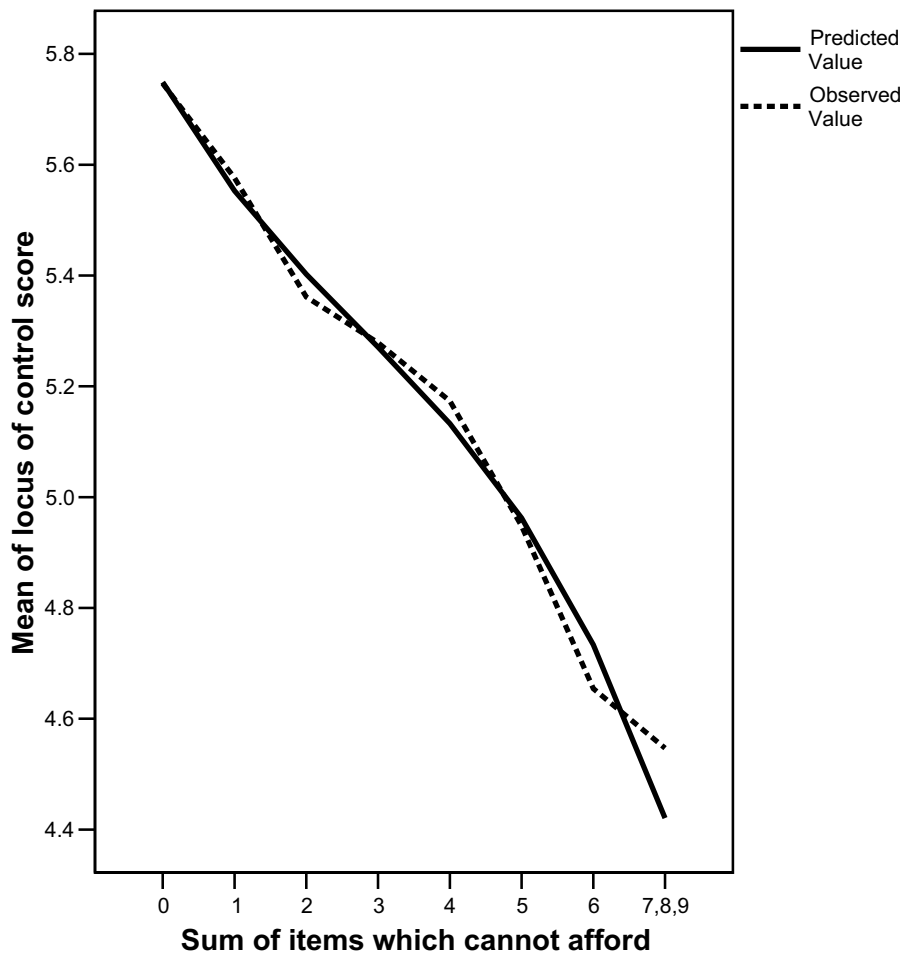


Locus of control is highest among those who have no unpaid bills. When the amount of unpaid bills increases, locus of control decreases.

Prediction model includes linear and quadratic effects.

Observed means of locus of control score:

Recoded Sum of bills behind with	Mean	N	Std. Deviation
0	5.59	5885	.924
1	5.31	1208	1.155
2	5.18	616	1.200
3	5.03	282	1.282
4	4.82	163	1.428
5 5 - 11	4.85	155	1.419
Total	5.47	8309	1.039

**Fig. 3.5.6 Locus of control and items which cannot afford**

Locus of control is highest among those who have no items which they cannot afford. When the amount of items increases, locus of control decreases.

Prediction model includes linear, quadratic and cubic effects.

Observed means of locus of control score:

Recoded Sum of items cannot afford	Mean	N	Std. Deviation
0	5.75	3101	.730
1	5.58	1511	.925
2	5.36	1207	1.127
3	5.28	962	1.143
4	5.17	755	1.219
5	4.95	480	1.302
6	4.65	217	1.432
7 7,8,9	4.55	64	1.511
Total	5.47	8297	1.038

The Financial Services Authority  
25 The North Colonnade Canary Wharf London E14 5HS  
Telephone: +44 (0)20 7066 1000 Fax: +44 (0)20 7066 1099  
Website: <http://www.fsa.gov.uk>

Registered as a Limited Company in England and Wales No. 1920623.  
Registered Office as above.