# Financial capability and saving: Evidence from the BHPS

*Report prepared for The Consumer Financial Education Body*

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# About the Consumer Financial Education Body

The Consumer Financial Education Body (CFEB) is an independent body, created in April 2010 by the Financial Services Act 2010. We are responsible for helping people understand and manage their money better. We do this by providing impartial information, education and advice through a national financial advice service.

We provide free, impartial advice online and over the phone. We also offer face-to-face appointments in several priority areas across the UK, and from spring 2011, these will be available nationwide. Alongside this, we run strategic programmes that are targeted at helping people through critical stages and events in their lives. To reach people at the right time in the right place, we deliver these programmes in partnership with industry, government, consumer groups, professional bodies, voluntary organisations and the media.

# About this publication

We commissioned this report to look at savings patterns in Britain and investigate what predicts an individual's probability of starting and continuing to save – that is to build up a saving habit. It focuses on savings that are predominantly for the short term, examining the extent to which people put money aside other than to meet regular bills. The report looks at the relationship between this type of saving and financial capability, income and a wide range of individual characteristics such as age, gender, education level and labour market status.

The analysis is based on the British Household Panel Survey (BHPS). The survey offers a rich longitudinal dataset, and provides a unique opportunity to study the behaviour of individuals over time. The survey collects data on various aspects of people's lives and, for the purposes of this study, analyses how savings behaviour is related to different characteristics and life events over time. It allows a robust analysis of year-on-year changes, and the ability to explore how savings patterns, and non-savings patterns, develop over the longer term.

# About the author

Mark Taylor is a reader at the Institute for Social and Economic Research at the University of Essex. His research interests include the causes and consequences of employment status changes and residential mobility, wage structure and determination, and the determinants of financial and psychological wellbeing. He has recently published in the Journal of the Royal Statistical Society, Economica, Labour Economics and Psychological Medicine.

# Foreword

Most of us would agree that the act of saving is both positive and beneficial. Many advisers recommend setting aside money for a 'rainy day' to act as a buffer against unforeseen events putting strain on our finances. Previous research carried out by the Financial Services Authority (FSA) shows that unforeseen financial setbacks are common.[1] Over a three year period more than a quarter of the population had experienced a large unexpected drop in income. Yet the majority of us (70%) had made no provision. This leaves us more vulnerable to financial shocks.

We also know that the ability to stay on top of our finances has a significant impact on our health. The impact of poor financial capability on psychological wellbeing is large and of a similar magnitude to unemployment or divorce.[2] Helping people to manage their money and make ends meet is therefore not only of great benefit to the individual, but also to society more widely.

If protecting against financial shocks is important for the individual, then saving is arguably an important means of doing so. Savings matter; putting money aside, whether in short or long term savings, helps us take control of our lives and build resilience. If CFEB can help people to plan ahead to deal with the expected or unexpected, then not only do we help them to manage their money better, but we also enhance their lives overall.

This report sheds important light on savings habits in Britain and the characteristics and life events that affect an individual's likelihood of saving. The longitudinal nature of this study enables us to identify longer term trends and gain insights into savings behaviour which cannot be captured by cross-sectional analysis that can only offer a snapshot at one point in time. It analyses the different characteristics associated with being a persistent saver or non-saver, and the extent to which people move in and out of savings.

It highlights, in particular, the scale of the challenge we face in helping people to plan ahead and improve resilience to withstand financial shocks. Around 40% of the population show a tendency to be persistent non-savers. We need to find ways to engage non-savers and where appropriate help them to start putting money aside for those expected and unexpected events in life. We also need to support those who are irregular savers – again about 40% of the population – so they can see the benefit of developing a regular pattern of savings. And we need to engage those who are saving regularly to ensure they are putting aside enough for their needs.

Encouragingly, this research shows that being financially capable increases the incidence, the persistency and amount of savings. If we can enhance people's ability to manage their money well and stay on top of their finances, we can make a significant contribution to building a savings culture in the UK.



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[1] *Financial Capability in the UK: Establishing a Baseline*, Financial Services Authority (2006)
[2] Taylor et al (2009), *Financial capability and wellbeing: Evidence from the BHPS*, FSA Occasional Paper Series 34

# Contents

# 1  Summary

## 1.1   Introduction

Previous research has highlighted the complex relationships between an individual's financial capability, their household income and their saving behaviour. In this report we investigate these relationships in detail using data from the British Household Panel Survey. In particular we model individuals' savings processes – the incidence of saving, the level of saving, and the transition rates into and out of saving – as functions of a wide range of individual and household characteristics, together with an individual-level index of financial capability, using appropriate descriptive and multivariate statistical techniques.

## 1.2   The data

This research uses individual-level data from the first sixteen waves of the British Household Panel Survey (BHPS), covering the years 1991–2006. The main focus is the drivers of saving behaviour, in terms of whether or not an individual saves from his/her current income and the level of savings (both in real terms and as a proportion of income) and the factors associated with starting and stopping to save. The relevant questions in the BHPS ask respondents annually "Do you save any amount of your income for example by putting something away now and then in a bank, building society, or Post Office account other than to meet regular bills?" and, if yes, "About how much on average do you manage to save a month?". We investigate how saving behaviour is related to a range of individual and household characteristics that are also collected annually in the BHPS. In addition we develop new indices of financial capability from BHPS data, similar to those developed in previous FSA research (see, for example, Taylor 2009), and analyse relationships between saving behaviour and financial capability.

## 1.3   Saving behaviour in Britain 1991–2006

There was little change in the percentage of individuals saving from their current income between 1991 and 2006. It increased from 38.6% in 1991 to 41.7% in 1998 (when unemployment rates were falling) before falling to 38% in 2006 (when unemployment rates were increasing). There is evidence of a consistent increase over time in the amount saved per month. In 2006 prices, the average amount saved per month increased from £59 in 1991 to £75 in 2006 (about 2% of household income). If we focus only on those saving, the amount saved per month increased from £154 in 1991 to £197 in 2006 (about 6% of household income).

There are relatively high levels of persistence in people's saving behaviour over time. Of those saving in one year 71% were again saving in the subsequent year while 29% were no longer saving. Of those not saving in a particular year 81% were not saving in the next year while 19% had started to save. There is some evidence suggesting that this turnover into and out of saving fell between 1991 and 2006. In total, 49% of adults were not saving at two consecutive years while 28% were saving at both years. On average people increase the amount they save from one year to the next. The average person saved £2 per month more in one year than the previous year (3% more), while the average saver saved £8 more per month (4%).

## 1.4   Relationships between savings and other characteristics

We find that saving behaviour is significantly associated with gender, age, marital status, structure and size of the household, health, employment status of the individual and other household members, housing tenure and income, and also with changes in marital status, the size and structure of the household, health, employment status of the respondent and other household members, housing tenure and income. In particular, we find that people with the highest incidence of saving tend to be aged between 25 and 54, married or single never-married, with non-dependent children, in good health, with higher education, have a mortgage, in full-time work and with relatively high household income. In contrast, people with the lowest incidence of saving are on average older (aged 65 or older), widowed or divorced, lone parents, have no qualifications living in local authority housing, are unemployed or economically inactive, and with relatively low household income. In terms of amount saved per month conditional on saving, we find that it is the middle aged (between 35 and 54 years old), the single non-elderly with high level qualifications in full-time or self-employment who own their home outright and have relatively high income levels that tend to save the highest amounts. In contrast those aged below 25 and above 65 who are widowed or lone parents, in poor health with no qualifications, local authority tenants who are unemployed or economically inactive with low household income save the lowest amounts on average. However, it is the young (aged below 25), couples with non-dependent children with a mortgage, and the unemployed and economically inactive who save the lowest proportion of their household income, while those aged 55 or above, the widowed, with high level qualifications who are self-employed or retired, own their home outright and with relatively low incomes that save the highest proportion of their household income.

As well as associations between states, panel data allow us to investigate associations between events. Doing this reveals that getting married or divorced, an additional child, entering unemployment or retirement or having another household member leaving work, and a reduction in household income reduces the incidence of savings and also the amount saved conditional on saving. Entering work, or another household member entering work, and an increase in household income raise the incidence of savings and also the amount saved conditional on saving. Getting married and an increase in household income are associated with reductions in the proportion of income saved, while the death of a spouse, a reduction in household size, entering retirement and a fall in household income are associated with saving a higher proportion of household income.

## 1.5   Relationships between savings and financial capability

We analyse the degrees of association between various indicators of financial capability available at all BHPS waves. Analysis of average inter-item and item-rest correlations indicate that a reliable and consistent index of financial capability can be constructed from an individual's perceived current financial situation, reporting that their financial situation worsened in the last year, whether they have housing payment problems, whether these problems have required cutbacks or borrowing, and whether they have been at least two months in housing arrears in the last twelve months. We adjust this for monthly household income so that a person's financial capability is independent of their income.

Analysis reveals positive correlations between financial capability and saving behaviour. Higher financial capability is associated with a higher savings incidence and saving a larger amount and proportion of income per month. Furthermore increases in financial capability are associated with a higher probability of saving and with increases in the amount and proportion of income saved.

## 1.6  Modelling transitions into and out of saving

We analyse survival rates into and out of saving by a range of individual and household characteristics. These showed that survivor rates in saving were highest for those who saved relatively large amounts or a relatively large proportion of their income, those of prime working age, married or cohabiting, in smaller households, with high levels of education, who had a mortgage, were in work (particularly full-time work), with an employed spouse and with relatively high household income. In contrast, survival rates in saving were lowest for those who were saving relatively small amounts, aged less than 25 or older than 54, had never been married, had large families, with no qualifications, were not working, were local authority tenants with relatively low incomes. Those most likely to start saving were young, never married with high levels of education, with a mortgage or private tenants, in full-time employment with high incomes.

## 1.7  Estimating the factors associated with saving behaviour

We estimate the impact of financial capability, income and a range of individual and household characteristics on people's saving behaviour using a variety of multivariate models. These include fixed effects panel data models that also take into account time-invariant unobserved characteristics of individuals that may be related to a person's financial capability, income etc and their saving behaviour. We also estimate transition models that allow the elapsed duration in saving (or not saving) to effect the transition rate out of saving (or into saving).

Estimates indicate that the probability of saving is higher for the more financially capable (but at a decreasing rate) – a person with average financial capability is 17% more likely to be saving than an otherwise similar individual with low financial capability. This is broadly equivalent in size to increasing a person's household income by £1000 per month. Moving an individual up the financial capability distribution from relatively low to relatively high financial capability also increases their chances of starting to save by two percentage points. This is comparable to educating a person with no qualifications to GCSE level, increasing their household income by £1000 per month, or giving an unemployed person a full-time job. Furthermore, the transition rate out of savings is inversely related with people's financial capability. A person with relatively low financial capability is two percentage points more likely to stop saving than an otherwise similar person with relatively high financial capability. This is similar in size to the effect of educating a person with no qualifications to GCSE level, or moving a person from unemployment into full-time work.

Someone with relatively low financial capability is estimated to save £106 per month compared with £119 per month for an otherwise similar person with relatively high financial capability. This £13 per month increase in savings is roughly equivalent to that associated with an increase in monthly household income of £1000, but is considerably smaller than that between being in full-time work and unemployment (£50 per month). In terms of the proportion of income saved, someone with low financial capability is estimated to save up to one percentage point less of their income than an otherwise similar person with high financial capability. This effect is approximately similar in size to reducing a person's household income by £500 per month while unemployment is associated with saving one percentage point less income relative to full-time employment.

## 1.8 Summary and conclusions

The results from our analysis lead us to conclude that financial capability has a large impact on people's saving behaviour, over and above that of their household income and independent of their individual and household characteristics. This suggests that improving people's financial management skills would have substantial impacts on their propensity to save, transition rates into and out of saving, and on the amount and proportion of income saved per month. Linking this with previous research which establishes strong associations between financial capability and psychological health, our findings indicate that programmes that promote financial capability among consumers will have lasting beneficial effects for the population.

# 2  Introduction

This report presents the analysis from the project 'Saving behaviour and financial capability in Britain'. It focuses on the complex inter-relationships between people's saving behaviour, both in terms of whether or not they save at a particular point in time (what we call the incidence of saving) and in levels of savings, their ability to manage and take control of their finances (their 'financial capability'), their household income, and a wide range of other individual and household characteristics. The motivation for this research is to investigate the predictors of an individual's probabilities of starting (and stopping) to save from their current income and the amount they save per month, with a particular focus on their financial capability and their household income.

This analysis follows three distinct steps:

1. To establish the incidence and levels of savings among individuals in Britain using data from the British Household Panel Survey (BHPS);

2. To describe the characteristics of individuals who currently save, who start saving and who stop saving, and also establish how the levels of savings are distributed across different groups in the population;

3. To examine the relationships between saving behaviour, household income and financial capability using suitable multivariate analysis.

This report details and summarises the results from each step. We initially focus on identifying the variables in the BHPS data that allow us to establish the incidence and levels of savings among the population. We then use these variables to summarise saving behaviour in Britain and how this is distributed across different groups of the population, and over time. We describe saving behaviour by a range of individual and household characteristics including age, gender, marital status, number of children, health status, employment status, income and housing tenure. We then use other financial variables collected in the BHPS to construct a measure of people's ability to manage their finances – their 'financial capability' – and describe the relationships between savings and financial capability. As well as describing the incidence and the levels of savings (both in terms of amounts saved per month and the proportion of income saved per month), the panel nature of the data allows us to follow individuals over time, and so identify people who either start saving or stop saving over time. Therefore we can establish which groups in the population are more or less likely to either start saving or stop saving using suitable analytical techniques.

We then disentangle the complex relationships between saving behaviour, household income, financial capability and a range of other individual and household characteristics by estimating multivariate models that help to control for potentially confounding and mediating factors. These include models examining the factors associated with (i) being a saver at a particular point in time, (ii) transitions into and out of saving, and (iii) with the levels of saving at a particular point in time (both in terms of the amount saved and the proportion of income saved). Our results suggest that people with higher financial capability are more likely than those with low financial capability to be saving at any particular point in time. Furthermore, they have higher transition rates into saving and lower transition rates out of saving than people with less financial capability. Conditional on saving, higher financial capability is also associated with saving larger amounts per month, and saving a larger proportion of household income. Other factors that are strongly associated with saving behaviour include household income (the effects of which are stronger at lower incomes than higher incomes), health status, education, age and household type.

The report is divided into nine main sections. Section 3 introduces the data set used in the project (the BHPS) and the key variables used in the analysis to identify saving behaviour. Section 4 describes saving behaviour in Britain over time using these data, while Section 5 summarises relationships between saving behaviour and a range of individual and household characteristics, including household income. Section 6 describes the construction of measures of financial capability using BHPS data, and summarises the relationships between saving and financial capability. Section 7 focuses explicitly on the dynamics of saving behaviour and examines how transition rates into and out of saving vary with a range of household and individual characteristics. Section 8 introduces the multivariate analysis and the techniques used to investigate these relationships when controlling for potentially confounding and mediating factors, and describes the results from these estimations in detail. Section 9 summarises and draws some conclusions.

# 3  The data

In this section we introduce the data and the variables we use to identify saving behaviour in Britain. This project uses individual-level data from the first sixteen waves of the British Household Panel Survey (BHPS), covering the years 1991–2006. Every year the BHPS follows and interviews the same adults (aged 16 and above), collecting information about their incomes, labour market status, housing tenure and conditions, household composition, education, health and many other aspects of people's lives. The BHPS is unique among British surveys in having annual snapshots on the details of people's lives over a relatively long time period. Changes in people's lives can be identified over a 15-year period.

As with any panel survey, potential biases arising from non-random attrition are of concern. The BHPS uses a number of methods to minimise such problems. Firstly, it employs comprehensive respondent tracking techniques to maintain contact with respondents throughout the year, and any changes of address are entered on a database to ensure respondents are not lost to the sample. If a respondent no longer lives at an address when approached for an interview, interviewers are required to seek a forwarding address or phone number from other respondents, any new residents, or neighbours. Failing this they are asked to consult local phone directories, shops or the post office where appropriate. Secondly, thorough refusal conversion processes are employed to attempt to minimise attrition due to refusal to participate in the survey or other forms of non-response. Response rates for the BHPS are high compared to other similar surveys around the world. Almost 90% of eligible individuals interviewed at wave 1 were again interviewed at wave 2, and these year-on-year response rates have increased to 95%. Thirdly, the BHPS includes a complex and comprehensive set of weights. A cross-sectional set of weights have been constructed that adjust the respondent sample for non-random non-response on a wave to wave basis, and therefore weights the wave-specific sample to be nationally representative. Longitudinal respondent weights select out cases who gave a full interview at all waves in the BHPS files. At each wave these cases are re-weighted to take account of previous wave respondents lost through refusal at the current wave or through some other form of sample attrition. (More details of these weights are available in Taylor et al 2009.) Appropriate weights are used throughout the analysis conducted for this report.

There is a range of variables within the BHPS that capture an individual's saving behaviour, and for each the source of information is the respondent. These variables, together with their availability in the BHPS, are described in Table 1. This table indicates that a number of variables of potential interest are not available at every BHPS wave, and therefore their use would limit the scope of the research possible. Therefore, we focus on the variables that are available at all BHPS waves. In particular, at each wave individuals are asked 'Do you save any amount of your income for example by putting something away now and then in a bank, building society, or Post Office account other than to meet regular bills?'. If so, they are then asked 'About how much on average do you manage to save a month?'. The responses to these questions are central to our analysis, throughout which the unit of analysis is the individual adult.[1] In the following section we describe responses to these questions over time.

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[1] This definition of saving ignores savings associated with, for example, pension schemes or mortgages. A potential avenue for future research would be to construct a comprehensive measure that incorporates these other forms of saving.

| Table 1: BHPS variables measuring saving behaviour | Waves available in BHPS |
|---|---|
| **PANEL A** | |
| Do you save any amount of your income for example by putting something away now and then in a bank, building society, or Post Office account other than to meet regular bills? | All |
| About how much on average do you manage to save a month? | All |
| **PANEL B** | |
| Do you currently have any money in any of the investments shown on this card? National Savings Certificates, Premium bonds, Unit trusts, Personal Equity Plans, Shares, National Savings/Building Society/Insurance bonds, | 5, 10, 15 |
| Thinking of all your investments, about how much do you have invested in total? | 5, 10, 15 |
| Would you say your savings are mainly long term savings for the future or mainly short term savings for things you need now and for unexpected events? | 10 onwards |
| Do you save on a regular basis or just from time to time when you can? | 10 onwards |
| Thinking first about your savings accounts, TESSA or ISA, about you much do you currently have in total in these accounts? | 10, 15 |

# 4 Saving behaviour in Britain 1991–2006

In this section we use BHPS data to examine trends in saving behaviour over time and how people's saving behaviour changes from one year to the next. This allows us to establish some general patterns which in later sections of the report we relate to a range of individual and household characteristics, including household income and financial capability.

## 4.1 Trends in saving behaviour over time

Initially we examine trends in respondents' saving behaviour over time, using the BHPS data as a series of cross-sections rather than making use of the panel nature of the data (which we do later). Table 2 summarises responses to the two central questions on saving behaviour, indicating whether or not respondents report saving, the amount saved averaged across the sample as a whole (where non-savers are given a value of 0) and the amount conditional on saving (where non-savers are excluded). In this and all subsequent tables, the amount saved has been deflated to January 2006 prices to allow more direct comparisons over time. Furthermore, throughout the analysis we weight the data to take account of potential non-random attrition and non-random response using cross-sectional weights.

| Table 2: Saving behaviour: BHPS 1991–2006 | | | | | |
|---|---|---|---|---|---|
| | | Saves | | Amount saved (per month) | Amount saved conditional on saving (per month) |
| Year | N individuals | Yes | No | | |
| 1991 | 8537 | 0.386 | 0.614 | 59.47 | 154.23 |
| 1992 | 8208 | 0.369 | 0.631 | 57.92 | 157.04 |
| 1993 | 7851 | 0.388 | 0.612 | 61.61 | 158.71 |
| 1994 | 8010 | 0.384 | 0.616 | 63.15 | 164.40 |
| 1995 | 7682 | 0.384 | 0.616 | 64.68 | 168.29 |
| 1996 | 8107 | 0.390 | 0.610 | 65.66 | 168.46 |
| 1997 | 8206 | 0.407 | 0.593 | 67.02 | 164.64 |
| 1998 | 8053 | 0.417 | 0.583 | 71.92 | 187.03 |
| 1999 | 8010 | 0.388 | 0.612 | 67.19 | 173.40 |
| 2000 | 7905 | 0.403 | 0.597 | 68.60 | 170.29 |
| 2001 | 7768 | 0.398 | 0.602 | 73.70 | 185.39 |
| 2002 | 7543 | 0.396 | 0.604 | 72.29 | 182.58 |
| 2003 | 7492 | 0.390 | 0.610 | 74.87 | 192.01 |
| 2004 | 7246 | 0.387 | 0.613 | 76.75 | 198.10 |
| 2005 | 7151 | 0.399 | 0.601 | 75.51 | 189.33 |
| 2006 | 7171 | 0.381 | 0.619 | 75.12 | 197.33 |
| Total | 124940 | 0.392 | 0.608 | 68.58 | 175.14 |

Notes: Weighted using cross-sectional weights. Table reads, for example, that in 1991 38.6% of respondents saved from their income; that on average respondents saved £59.47 per month, while those that were able to save on average saved £154.23 per month. Amounts saved in Jan 2006 prices. Pearson $X^2$=4.4 P=0.0000. 'Total' shows data pooled from waves 1 to 16.

Table 2 indicates little change in the proportion of respondents who report being able to save from their income. There is some evidence of an initial increase in the proportion saving, from 38.6% in 1991 to 41.7% in 1998, but this proportion has since declined (if not continuously) to 38.1% in 2006. In terms of amounts saved, there is evidence of a reasonably consistent increase over time, from £59 in 1991 to £75 in 2006. If we focus only on those that are saving at any particular year, this increase is more pronounced – increasing from £154 in 1991 to £197 in 2006.

Figure 1 plots the incidence of saving in the BHPS together with the annual sample unemployment rate, where we define unemployment as not currently working and looking for a job. This indicates an inverse relationship between the two. The saving rate was low but increasing when the unemployment rate was high but falling (1991–1997), was relatively constant when the unemployment rate was stable (1998–2004), and fell when the unemployment rate was rising (2005 onwards).

**Figure 1: Incidence of saving and unemployment, BHPS: 1991–2006**
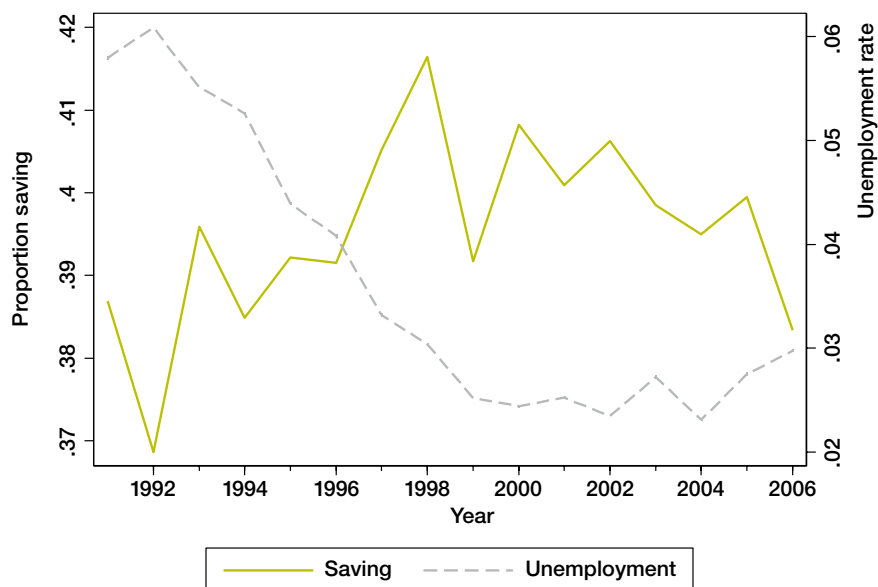


Source: BHPS 1991-2006

Figure 2 plots the average amount saved per month (deflated to January 2006 prices) over time and the sample unemployment rate. This indicates an almost monotonic increase in monthly savings, from £60 per month in 1991 to exceeding £75 per month at the end of the sample period. However there appears to be little relationship between the amount saved per month and the unemployment rate – the amount saved continues to increase over time even when the unemployment rate stops falling.

Figure 3 plots the proportion of gross monthly household income, again deflated, that people save averaged both across the whole sample and conditional on saving. Both lines are very flat, indicating that generally people save a consistent proportion of their household income over time, rather than a consistent amount. On average, respondents save about 2% of their gross monthly household income, while those that save on average save about 6% of their household income.

**Figure 2: Amount saved and unemployment, BHPS:1991–2006**
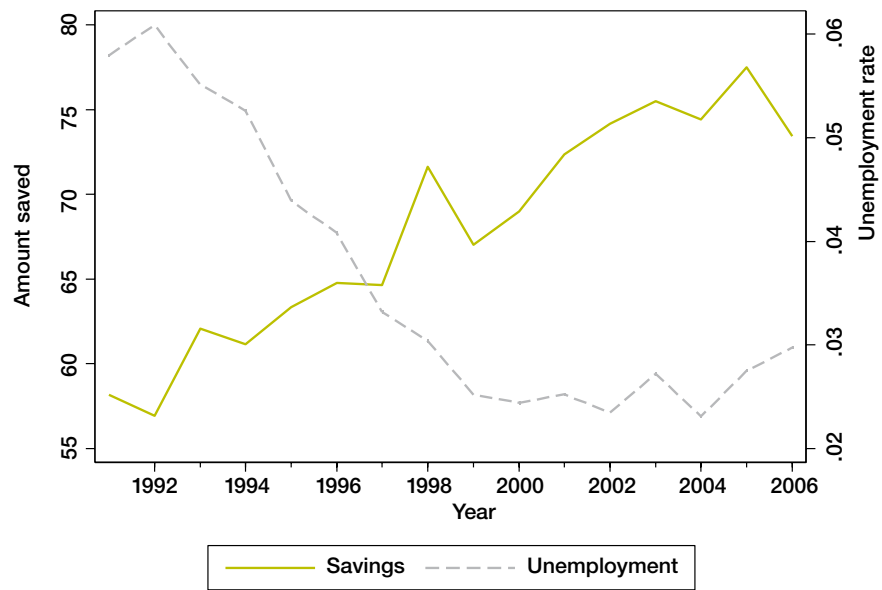


Source: BHPS 1991-2006

**Figure 3: Proportion of income saved, BHPS:1991–2006**
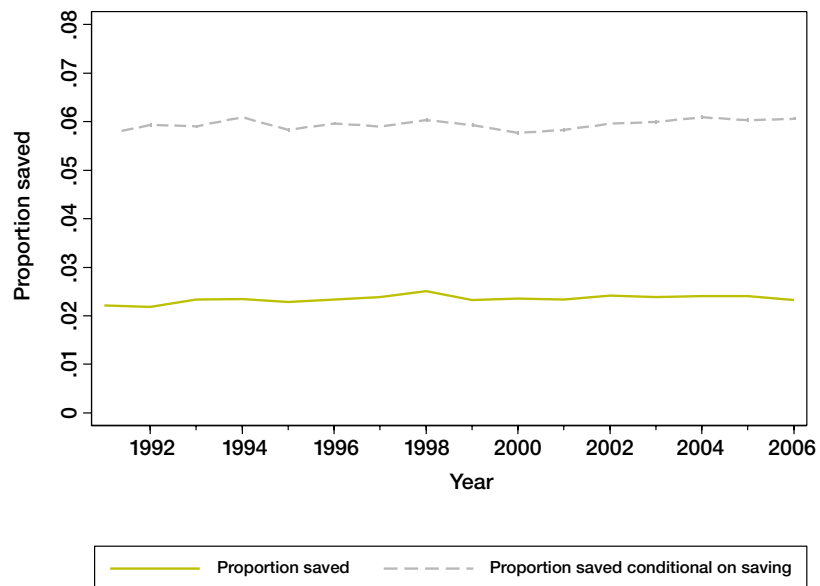


Source: BHPS 1991-2006

## 4.2 Changes in individual saving behaviour from one year to the next

Until now we have analysed the saving behaviour of individuals in the BHPS from a cross-sectional perspective, focusing on the incidence and amount of saving at each year. We have not taken advantage of the panel nature of the data to examine how saving behaviour changes from one year to the next for each individual. Table 3 presents our first look at this. In this table we summarise individuals' incidence of saving over two consecutive years.

The table indicates that on average over the sample period, people's propensity to save remained quite stable between one year ("t–1") and the next ("t"). For example, of those saving in one year, 71% were again saving in the subsequent year while 29% were no longer saving from their current income. Of those who were not saving in one year, 81% were also not saving in the subsequent year while 19% had started to save from their current income. The table also indicates that 49% of the sample was not saving at two consecutive years – and therefore almost one half of people could be called persistent non-savers. Almost 30% were persistent savers, in that they were saving at two consecutive years. An equal proportion of the sample (11%) had either stopped saving or started saving between two consecutive years.

| Table 3: Within-individual year-on-year changes in saving incidence: BHPS 1991–2006 | | | |
|---|---|---|---|
| | Saves from current income at year t | | |
| Saves from current income at year t–1 | Yes | No | N |
| Yes | 0.709 | 0.291 | 40121 |
| | (0.284) | (0.116) | |
| No | 0.190 | 0.81 | 58713 |
| | (0.114) | (0.486) | |
| Total | 0.398 | 0.602 | 98834 |
| Notes: Weighted using cross-sectional weights. Table reads for example that 71% of those saving from their current income in year t–1 also saved at year t, while 29% had stopped saving. Figures in brackets give cell percentages – indicating that, for example, 28% of the sample was saving at both t–1 and t. | | | |

Table 4 summarises the average amount people save per month over two consecutive years, as well as the average change. This indicates that on average over the sample period, people increased the amount saved per month in real terms between one year ("t–1") and the next ("t"). The mean changes in the amount saved were positive. For example, the average person saved £66.75 per month in one year and £68.74 per month in the subsequent year, an increase in the amount saved of £1.99 per month (or 3%). Focusing on individuals who were saving at both years, the table indicates that on average persistent savers were saving £183 per month in one year and £191 per month in the subsequent year, an increase of £8 per month (or 4.4%). These numbers are consistent with Table 2 and Figure 2 which show an upward trend over time in the average amount saved per month. However, the Spearman rank correlation coefficient between the current amount saved per month and the amount saved one year ago is 0.57, which suggests that these averages in fact conceal a considerable amount of fluctuation at the individual level, presumably in response to other (possibly expected and unexpected) events that individuals experience.

| Table 4: Within individual year-on-year changes in amounts saved per month: BHPS 1991–2006 | | | | | |
|---|---|---|---|---|---|
| | Means | | | | |
| | t–1 | t | Change | % change | N |
| **Amounts saved per month** | | | | | |
| All | 66.75 | 68.74 | 1.99 | 3.0 | 98834 |
| Saved at both years | 183.23 | 191.34 | 8.11 | 4.4 | 28527 |
| **Proportion of income saved per month** | | | | | |
| All | 0.024 | 0.024 | 0.000 | 0.0 | 98834 |
| Saved at both years | 0.061 | 0.063 | 0.002 | 3.3 | 28527 |

Notes: weighted using cross-sectional weights. Table reads, for example, that on average individuals saved an average of £66.75 in year t–1 and £68.74 in year t, indicating an average increase in savings of £1.99 or 3.0%. Amounts deflated to January 2006 prices.

The table also summarises the average proportion of gross monthly household income that people save per month. Consistent with Figure 3, this indicates relatively little change from one year to the next in the proportion of income that individuals save. On average, people saved 2.4% of their monthly income per month, and this remained unchanged from one year to the next. Persistent savers were saving 6.1% of their household income in one year, which increased to 6.3% in the subsequent year – an increase of 0.2 percentage points (or 3.3%). Again, however, this apparent stability over time in the averages conceals a considerable amount of fluctuation at the individual level, as reflected in a Spearman rank correlation coefficient between the proportion of income saved per month in the current year and the proportion saved one year ago of 0.54. Subsequent analysis will examine factors associated with this longitudinal flux both in the incidence of saving and in the amount and proportion of household income saved per month.

Figure 4 examines the longitudinal flux in the incidence of saving over time, and plots the proportion of people each year that were not saving in the previous year who were saving in the current year ("Started saving"), and the proportion of people that were saving in the previous year who were not saving in the current year ("Stopped saving"). The figure indicates that the proportion of savers who stopped saving has on average declined over time. In the early 1990s more than one third of savers in one year were no longer saving in the subsequent year. By 2004 this had fallen to 27%, although there is some evidence that this was starting to increase again at the end of the sample period in 2006. The proportion of non-savers in one year who were saving in the subsequent year remained relatively constant between 1992 and 2000, fluctuating around 20%. However this proportion fell between 2000 and 2006, indicating a decline in the entry rate to savings. Therefore Figure 4 suggests that on average turnover into and out of saving has been falling over time.

Figure 5 plots the distribution of within-individual year-on-year changes in the proportion of gross monthly household income saved conditional on saving. This shows that more than 20% saved the same proportion of their monthly income from one year to the next. While this is clearly the modal value, the figure suggests that in almost 80% of cases, individuals changed the proportion of income that they saved. Analysis of the nominal amount saved by individuals (not shown) suggests that about one in four savers report saving the same amount of money each month from year to year. Again, therefore, this highlights considerable within-individual year-on-year variation in saving behaviour.

**Figure 4: Movements into and out of saving, BHPS: 1991–2006**
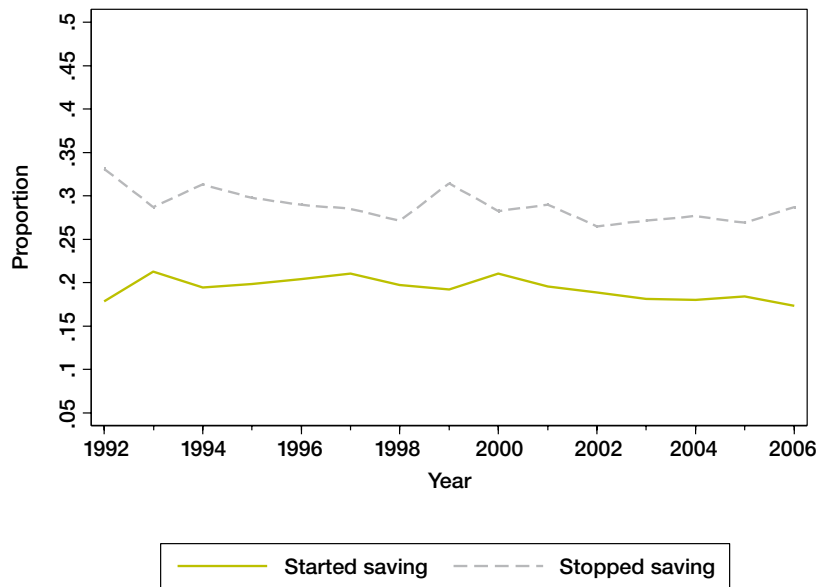


Source: BHPS 1991-2006

**Figure 5: Change in proportion of income saved, conditional on saving: BHPS: 1991–2006**
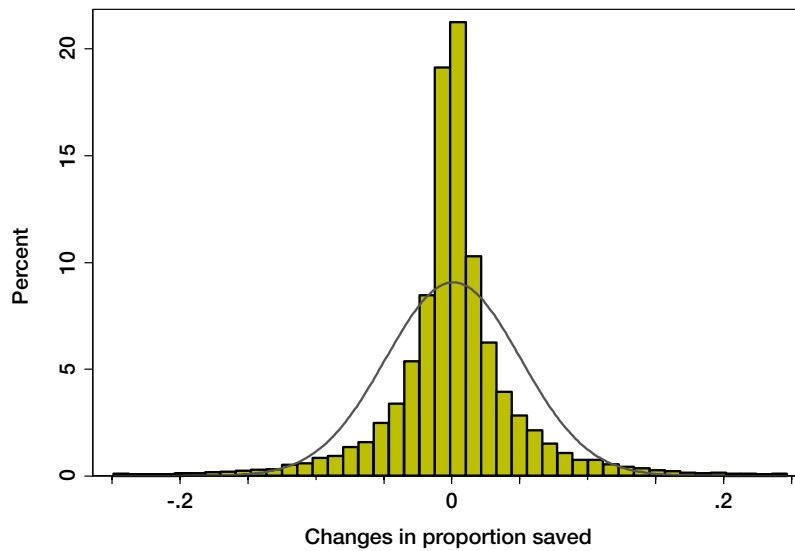


Source: BHPS 1991-2006

Having created these measures and examined changes in saving behaviour over time and within-individual changes from year-to-year, we now turn to describing the relationships between saving and a range of individual and household characteristics.

# 5 Relationships between savings and other characteristics

In this section we introduce the individual and household variables collected in the BHPS with which we describe patterns of saving behaviour. To maximize sample sizes and to simplify the analysis, we again focus on variables collected at all BHPS waves. We provide summaries of both the incidence of saving and amounts saved by a range of individual and household characteristics including age, gender, marital status, number and ages of children, health status, employment status, housing tenure and income. As before, in all tables the data have been weighted to take account of potential non-random attrition and non-random response, and we include all adult (aged 16 and above) respondents, irrespective of age, and focus on adults who provide non-missing responses to the variables of interest. In each table, the 'Average' column shows the relationship using data pooled from all 16 waves of data.

## 5.1 Gender

Table 5 summarises saving behaviour by gender. This shows that a significantly larger proportion of men than women save from their current income. On average 40.7% of men save compared to 37.7% of women, and this difference has persisted over the sample period.

| Table 5: Saving behaviour by gender: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | Year | | | | Average | |
| | 1991 | 1996 | 2001 | 2006 | | |
| **Saves from current income** | | | | | | |
| Male | 0.406 | 0.405 | 0.415 | 0.391 | 0.407 | * |
| Female | 0.367 | 0.377 | 0.379 | 0.371 | 0.377 | |
| N | 8506 | 8010 | 7531 | 6958 | 122102 | |
| **Amount saved conditional on saving** | | | | | | |
| Male | 174.39 | 193.03 | 213.48 | 226.82 | 201.69 | * |
| Female | 128.49 | 135.68 | 151.71 | 162.84 | 142.28 | |
| **Proportion saved conditional on saving** | | | | | | |
| Male | 0.062 | 0.067 | 0.068 | 0.070 | 0.068 | * |
| Female | 0.051 | 0.054 | 0.054 | 0.056 | 0.054 | |
| N | 3292 | 3140 | 3007 | 2671 | 48249 | |

Notes: Weighted using cross-sectional weights. Table reads, for example, that in 1991 40.6% of men in the BHPS sample saved from their current income, compared to 36.7% of women. Amount saved and gross monthly household income deflated to January 2006 prices. 'Average' shows data pooled from waves 1 to 16. * indicates that the averages by gender over the sample period are significantly different at the 5% level.

Furthermore, on average men save more than women, both in terms of amount saved and in terms of the proportion of household income that they save. On average men save £202 per month while women save £142 per month and these amounts have increased over the period. The average amount saved by men has increased from £174 per month in 1991 to £227 per month in 2006 (an increase of 30%), while that by women has increased from £128 per month to £163 (an increase of 27%) over the same period. Men on average save 6.8% of their gross monthly household income compared to 5.4% for women. Again, these proportions have increased over the period studied for both men and women, from 6.2% to 7% for men and

from 5.1% to 5.6% for women. Therefore men are more likely to save than women, and save more both in terms of the amount they save and as a proportion of their household income. Furthermore, the differences in the amount and proportion of income saved have increased since 1991.

## 5.2   Age

Table 6 summarises saving behaviour by age together with the Spearman rank correlation coefficient measuring the associations between age as a continuous variable and the amount saved per month and the proportion of household income saved per month. The table indicates a statistically significant association between age and the three indicators of saving behaviour.

| Table 6: Saving behaviour by age: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | | Year | | | Average | |
| | 1991 | 1996 | 2001 | 2006 | | |
| **Saves from current income** | | | | | | |
| Under 25 | 0.445 | 0.410 | 0.402 | 0.363 | 0.414 | * |
| 25–34 | 0.438 | 0.462 | 0.449 | 0.412 | 0.444 | |
| 35–44 | 0.427 | 0.419 | 0.438 | 0.415 | 0.432 | |
| 45–54 | 0.417 | 0.431 | 0.454 | 0.453 | 0.437 | |
| 55–64 | 0.333 | 0.352 | 0.367 | 0.399 | 0.364 | |
| 65 and above | 0.254 | 0.272 | 0.283 | 0.272 | 0.277 | |
| N | 8506 | 8010 | 7531 | 6958 | 122102 | |
| **Amount saved conditional on saving** | | | | | | |
| Under 25 | 118.54 | 123.85 | 133.06 | 130.37 | 124.26 | * |
| 25–34 | 155.93 | 180.82 | 191.25 | 203.02 | 183.11 | |
| 35–44 | 186.63 | 188.50 | 213.14 | 213.09 | 201.55 | |
| 45–54 | 174.53 | 181.50 | 232.95 | 250.90 | 201.24 | |
| 55–64 | 155.33 | 168.84 | 170.51 | 203.48 | 178.62 | |
| 65 and above | 106.92 | 117.20 | 108.53 | 128.72 | 117.36 | |
| Spearman correlation | −0.012 | −0.011 | −0.047 | 0.023 | −0.003 | |
| **Proportion saved conditional on saving** | | | | | | |
| Under 25 | 0.041 | 0.045 | 0.040 | 0.043 | 0.043 | * |
| 25–34 | 0.056 | 0.060 | 0.057 | 0.054 | 0.059 | |
| 35–44 | 0.056 | 0.057 | 0.060 | 0.056 | 0.057 | |
| 45–54 | 0.052 | 0.054 | 0.062 | 0.068 | 0.057 | |
| 55–64 | 0.068 | 0.070 | 0.066 | 0.073 | 0.071 | |
| 65 and above | 0.077 | 0.082 | 0.076 | 0.081 | 0.082 | |
| Spearman correlation | 0.133 | 0.133 | 0.152 | 0.195 | 0.162 | |
| N | 3292 | 3140 | 3007 | 2671 | 48375 | |

Notes: Weighted using cross-sectional weights. Table reads, for example, that 44.5% of the under 25s saved from their current income in 1991 compared to 25.4% of those aged 65 and above. Amount saved and gross monthly household income deflated to January 2006 prices. 'Average' shows data pooled from waves 1 to 16. * indicates that the averages by age over the sample period are significantly different at the 5% level.

However the indicators exhibit different relationships with age. In particular, we find that on average the propensity to save falls with age, with those aged 65 and older being least likely to

save from their current income – on average 28% of this age group save. The highest savings propensity is for people between 25 and 34 years of age, of whom 44% save from their current income. For many this age will coincide with establishing themselves in the labour market and before any financial commitments involved in raising a family. However these averages mask some interesting changes over time within age groups. For example, the propensity to save among people aged less than 25 fell consistently over the period, from 44.5% in 1991 to 36.3% in 2006. However, it increased among those aged between 45 and 54 (from 42% to 45%) and between 55 and 64 (from 33% to 40%). As a result of these trends, in 1991 people aged under 25 were most likely to save while in 2006 they were among the least likely.

The table also indicates that conditional on saving people of prime working age on average save the largest amounts, while younger and older people tend to save smaller amounts. For example, those aged between 35 and 54 saved on average £201 per month while those aged below 25 or aged 65 and above saved on average less than £125 per month. The amounts saved have increased over the period across all age groups, although the largest average increases were for those aged between 45 and 54 years of age, from £175 per month to £251 per month (a 44% increase) and the lowest average increases were for those aged below 25 years of age (a 10% increase).

Table 6 also highlights significant age differences in the proportion of household income saved per month. In particular, conditional on saving, younger people tend to save the smallest proportion of their income, while older people tend to save larger proportions of their income. (The fact that older people tend to save smaller amounts but a larger proportion of their income reflects their average lower incomes.) Those aged less than 25 on average saved 4.3% of their gross monthly household income, while those aged between 25 and 54 saved on average about 6% of their household income. People aged 55 to 64 were saving an average of 7% of their income, while those aged 65 and above on average saved 8% of their income. These patterns have remained relatively stable over the period. Therefore, people aged 55 and above are less likely to save than those in younger age groups, but those that do save on average save a higher proportion of their income (which equates to lower average amounts because of their lower average incomes).

## 5.3   Marital status

Table 7 summarises saving behaviour by marital status, and reveals statistically significant differences. Focusing initially on the incidence of saving, we find the highest average propensity to save among the single never married (at 43.4%), while the lowest average propensity is among the widowed (27.1%) and the divorced or separated (30.2%). On average, about 40% of the married and cohabiting save from their current income. This pattern remained relatively unchanged between 1991 and 2006, although there is evidence that the incidence of saving has increased among the widowed (from 22% in 1991 to 28.5% in 2006) and fallen among the single never married (from 47% in 1991 to 41% in 2006).

Table 7 also indicates that on average the widowed and the divorced or separated save the smallest amounts per month, conditional on saving. The widowed saved £96 per month over the period, while the divorced or separated saved £134 per month. Therefore these groups of the population are least likely to save from their current income and, if they do save, on average save the smallest amounts. The married and cohabiting saved the largest amounts on average, between £180 and £190 per month, while the single never married saved £166 per month. All marital status groups experienced increases in the amounts saved in real terms between 1991 and 2006. The largest relative increases were among the single never married and the widowed, for whom the average amount saved increased by 53% and 45% respectively. The smallest relative increases were among the married, at 20%.

In contrast, the widowed and the divorced or separated, conditional on saving, save the largest proportion of their income. On average over the period, the widowed saved 8.7% of their monthly gross household income, while the divorced or separated saved 7.2%. These compare to about 6% of income saved by the married, the cohabiting and the single never married. The proportion of income saved by the divorced or separated and by the single never married both increased noticeably over the period (from 6.3% to 7.1%, and from 5% to 6.8% respectively), while it remained relatively stable for the other groups. Therefore this table shows that the widowed and divorced are least likely to save and if they do save they save the lowest in terms of the amount saved, but the highest in terms of the proportion of income saved – reflecting the fact that these groups tend to have relatively low incomes. The married, cohabiting and single never married are more likely to save, save higher amounts but a smaller proportion of their household income.

| Table 7: Saving behaviour by marital status: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | | Year | | | Average | |
| | 1991 | 1996 | 2001 | 2006 | | |
| **Saves from current income** | | | | | | |
| Married | 0.397 | 0.410 | 0.410 | 0.400 | 0.403 | * |
| Cohabiting | 0.359 | 0.416 | 0.376 | 0.353 | 0.402 | |
| Widowed | 0.221 | 0.245 | 0.282 | 0.285 | 0.271 | |
| Divorced/separated | 0.252 | 0.246 | 0.338 | 0.286 | 0.302 | |
| Single never married | 0.468 | 0.430 | 0.432 | 0.412 | 0.434 | |
| N | 8506 | 8010 | 7531 | 6958 | 122102 | |
| **Amount saved conditional on saving** | | | | | | |
| Married | 166.45 | 172.48 | 190.85 | 198.89 | 181.59 | * |
| Cohabiting | 161.48 | 182.74 | 183.05 | 216.51 | 189.87 | |
| Widowed | 77.92 | 106.14 | 87.91 | 112.91 | 96.20 | |
| Divorced/separated | 116.46 | 159.98 | 135.94 | 145.12 | 133.72 | |
| Single never married | 132.76 | 147.81 | 194.85 | 203.21 | 166.42 | |
| **Proportion saved conditional on saving** | | | | | | |
| Married | 0.057 | 0.058 | 0.059 | 0.059 | 0.058 | * |
| Cohabiting | 0.056 | 0.054 | 0.054 | 0.059 | 0.057 | |
| Widowed | 0.079 | 0.092 | 0.074 | 0.083 | 0.087 | |
| Divorced/separated | 0.063 | 0.080 | 0.070 | 0.071 | 0.072 | |
| Single never married | 0.050 | 0.059 | 0.062 | 0.068 | 0.060 | |
| N | 3292 | 3140 | 3007 | 2671 | 48249 | |

Notes: Weighted using cross-sectional weights. Table reads, for example, that 39.7% of the married saved from their current income in 1991 compared to 46.8% of the single never married. Amount saved and gross monthly household income deflated to January 2006 prices. 'Average' shows data pooled from waves 1 to 16. * indicates that the averages by marital status over the sample period are significantly different at the 5% level.

Table 7 focuses on saving behaviour at a particular point in time, rather than changes in individuals' behaviour from one year to the next. The advantage of panel data is that we can examine how an individual changes his or her saving behaviour over time and how these changes are associated with other life events. In Table 8 we examine how changes in saving behaviour between two consecutive years are associated with changes in marital status between one year and the next.

The table shows that getting married is associated with a reduction in the incidence of savings, and in the amount and proportion of income saved conditional on saving. On average the incidence of savings among people who get married falls from 49% in the year before they were married to 44.5% in the year after marriage – a reduction of 4.6 percentage points. This is relative to a reduction from one year to the next of 0.1 percentage points among the sample as a whole. Those who marry and who continue to save on average save £3 less per month post-marriage than before marriage, and save a smaller proportion of their income (5.7% compared to 6.4% before marriage). These changes compare to small average year-on-year increases among the sample as a whole. Similar falls in saving are associated with getting divorced or separated – those who divorce or separate on average reduce their propensity to save from 33% to 30%, their amount saved by £41 (from £175 per month to £134), and the proportion of income saved from 6.8% pre-divorce to 6.6% post-divorce. Therefore marriage and divorce or separation is associated with a reduction in both the incidence and level of saving. In contrast, those that suffer the death of a partner had the same probability of saving before and after the event (29%), while the average amount and proportion of household income saved increased. Therefore this evidence suggests that marriage and divorce or separation is associated with falls in savings relative to the average year-on-year change, while spousal bereavement is associated with above average increases in savings.

| Table 8: Mean changes in saving behaviour by changes in marital status: BHPS 1991–2006 | | | | |
|---|---|---|---|---|
| | t–1 | t | Change | N |
| **Sample average** | | | | |
| Saves from current income | 0.400 | 0.399 | −0.001 | 96907 |
| Conditional amount saved | 183.21 | 191.30 | 8.09 | 27958 |
| Conditional proportion saved | 0.061 | 0.063 | 0.002 | 27958 |
| **Got Married** | | | | |
| Saves from current income | 0.491 | 0.445 | −0.046 | 1901 |
| Conditional amount saved | 197.97 | 194.66 | −3.31 | 658 |
| Conditional proportion saved | 0.064 | 0.057 | −0.008 | 658 |
| **Became Widow** | | | | |
| Saves from current income | 0.289 | 0.289 | 0.000 | 512 |
| Conditional amount saved | 130.27 | 145.77 | 15.50 | 81 |
| Conditional proportion saved | 0.073 | 0.116 | 0.043 | 81 |
| **Became Divorced/separated** | | | | |
| Saves from current income | 0.326 | 0.295 | −0.031 | 899 |
| Conditional amount saved | 175.12 | 134.31 | −40.81 | 159 |
| Conditional proportion saved | 0.068 | 0.066 | −0.002 | 159 |
| Notes: Table reads, for example, the propensity to save of individuals who got married between two consecutive years fell on average from 0.491 before the marriage to 0.445 post-marriage. Amount saved and gross monthly household income deflated to January 2006 prices. | | | | |

## 5.4 Number of children

Table 9 shows that saving behaviour varies significantly with the number of children. In particular we find that those with no children had the highest savings incidence while those with four or more children had the lowest, and this pattern is consistent over the period. For example, 40% of individuals with no children saved from their current income, compared to 38% of those with one or two children, 31% of those with three children and 21% of those with four or more children. These propensities to save fluctuated over the time period, particular for those with three or four or more children, increasing until 2001 and then falling.

The amount individuals save also varies significantly with the number of children. However the relationship that emerges is not monotonic and changed over the sample period. On average, those with four or more children saved less per month than those with fewer children, but this pattern does not emerge in each year. It is likely that these numbers are affected by relatively small sample sizes, particularly for those with three or more children. A similar pattern is evident for the proportion of household income saved – on average it is those with no children or with four or more children who saved the largest proportion of their income (6.4% and 6.2%), while those with between one and three children saved about 5% of their household income. Again however this pattern changes over the sample period.

| Table 9: Saving behaviour by number of children: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | Year | | | | Average | |
| | 1991 | 1996 | 2001 | 2006 | | |
| **Saves from current income** | | | | | | |
| 0 | 0.394 | 0.399 | 0.402 | 0.387 | 0.399 | * |
| 1 | 0.395 | 0.366 | 0.399 | 0.380 | 0.378 | |
| 2 | 0.361 | 0.389 | 0.383 | 0.372 | 0.382 | |
| 3 | 0.319 | 0.306 | 0.339 | 0.274 | 0.310 | |
| 4 or more | 0.159 | 0.262 | 0.239 | 0.126 | 0.207 | |
| N | 8506 | 8010 | 7531 | 6958 | 122102 | |
| **Amount saved conditional on saving** | | | | | | |
| 0 | 151.96 | 163.38 | 177.47 | 195.72 | 172.18 | * |
| 1 | 135.63 | 159.81 | 195.57 | 162.28 | 162.16 | |
| 2 | 173.21 | 173.40 | 195.92 | 197.78 | 176.98 | |
| 3 | 123.30 | 132.19 | 188.61 | 270.05 | 161.07 | |
| 4 or more | 126.23 | 199.60 | 105.04 | 238.85 | 158.98 | |
| **Proportion saved conditional on saving** | | | | | | |
| 0 | 0.059 | 0.063 | 0.062 | 0.068 | 0.064 | * |
| 1 | 0.046 | 0.051 | 0.051 | 0.044 | 0.049 | |
| 2 | 0.056 | 0.053 | 0.063 | 0.047 | 0.053 | |
| 3 | 0.041 | 0.048 | 0.061 | 0.077 | 0.053 | |
| 4 or more | 0.051 | 0.076 | 0.047 | 0.048 | 0.062 | |
| N | 3292 | 3140 | 3007 | 2671 | 48249 | |

Notes: Weighted using cross-sectional weights. Table reads, for example, that 39.4% of those with no children saved from their current income in 1991 compared to 15.9% of those with four or more children. Amount saved and gross monthly household income deflated to January 2006 prices. 'Average' shows data pooled from waves 1 to 16. * indicates that the averages by number of children over the sample period are significantly different at the 5% level.

| Table 10: Change in saving behaviour by changes in number of children: BHPS 1991–2006 | | | | |
|---|---|---|---|---|
| | t–1 | t | Change | N |
| **Sample average** | | | | |
| Saves from current income | 0.400 | 0.399 | –0.001 | 96907 |
| Conditional amount saved | 183.21 | 191.30 | 8.09 | 27958 |
| Conditional proportion saved | 0.061 | 0.063 | 0.002 | 27958 |
| **Has additional child** | | | | |
| Saves from current income | 0.408 | 0.343 | –0.065 | 3440 |
| Conditional amount saved | 219.67 | 207.17 | –12.51 | 849 |
| Conditional proportion saved | 0.061 | 0.057 | –0.004 | 849 |
| Notes: Table reads, for example, that individuals who had an additional child between two consecutive years on average experienced a fall in their propensity to save from their current income from 0.408 before the birth to 0.343 in the year following the birth. Amount saved and gross monthly household income deflated to January 2006 prices. | | | | |

Table 10 focuses on the changes in saving behaviour associated with the birth of an additional child. This suggests three things. Firstly the incidence of savings among those about to have an additional child was similar to that for the sample as a whole (40%). Secondly those about to have an additional child had higher household incomes than average – although they saved the same proportion of their income as the sample average (6.1%), this corresponds to a higher amount saved (£220 compared with £183). Thirdly, it suggests that the birth of a child was associated with a fall in savings. In particular, the incidence of savings among recent parents fell from 40% pre-birth to 34% in the year following the birth, while the amount saved fell from £220 pre-birth to £207 in the year following the birth. This corresponds to a fall in the proportion of household income saved from 6.1% to 5.7%. Therefore savings is inversely related to family formation.

## 5.5   Household type and size

Table 11 looks at the relationship between the types of household in which the individual lives and their saving behaviour in more detail. The results suggest that saving behaviour differs significantly between household types. Focusing initially on the incidence of saving, the table indicates that on average the single elderly were the least likely to save from their current income (27% did so), followed by lone parents (31%). Couples with non-dependent children (45%) and the single non-elderly (42%) were most likely to save. This pattern is evident across the period. The incidence of saving increased over the period among the single (especially the single elderly), lone parents and those in households with unrelated adults, while it fell for those in couples with dependent and non-dependent children.

As well as having the lowest incidence of saving, the single elderly and lone parents also saved the lowest amounts conditional on saving. On average over the period, the single elderly who saved were able to save less than £100 per month, while lone parents saved £131 per month. This compares with average monthly savings of £220 per month among the single non-elderly, £187 per month among couples with no children and £177 per month for couples with non-dependent children. The average amount saved increased for all household types between 1991 and 2006. The largest increases in amounts saved were for single person households, particularly the single non-elderly whose average monthly savings increased from £160 to £280 (or 75%). In contrast, people in couples with no children, lone parents and those in households with other unrelated adults increased their monthly savings by less than 25% between 1991 and 2006.

| Table 11: Saving behaviour by household type: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | Year | | | | Average | |
| | 1991 | 1996 | 2001 | 2006 | | |
| **Saves from current income** | | | | | | |
| Single non-elderly | 0.393 | 0.397 | 0.439 | 0.411 | 0.421 | * |
| Single elderly | 0.228 | 0.242 | 0.274 | 0.268 | 0.270 | |
| Couple no children | 0.399 | 0.427 | 0.402 | 0.405 | 0.409 | |
| Couple dependent children | 0.403 | 0.406 | 0.406 | 0.373 | 0.401 | |
| Couple non-dependent children | 0.465 | 0.451 | 0.460 | 0.440 | 0.452 | |
| Lone parent | 0.280 | 0.283 | 0.322 | 0.310 | 0.307 | |
| 2+ unrelated adults | 0.372 | 0.257 | 0.412 | 0.450 | 0.348 | |
| Other households | 0.387 | 0.352 | 0.379 | 0.354 | 0.373 | |
| N | 8506 | 8010 | 7531 | 6958 | 122102 | |
| **Amount saved conditional on saving** | | | | | | |
| Single non-elderly | 160.49 | 192.87 | 259.83 | 280.61 | 219.99 | * |
| Single elderly | 81.46 | 106.42 | 87.02 | 120.75 | 99.19 | |
| Couple no children | 176.98 | 180.14 | 186.68 | 204.37 | 187.19 | |
| Couple dependent children | 143.48 | 155.29 | 188.35 | 188.16 | 164.24 | |
| Couple non-dependent children | 153.27 | 162.23 | 177.96 | 195.54 | 176.99 | |
| Lone parent | 109.29 | 141.78 | 144.25 | 133.23 | 131.33 | |
| 2+ unrelated adults | 146.31 | 140.97 | 145.06 | 215.56 | 162.75 | |
| Other households | 146.37 | 155.78 | 151.64 | 171.90 | 153.30 | |
| **Proportion saved conditional on saving** | | | | | | |
| Single non-elderly | 0.093 | 0.097 | 0.100 | 0.113 | 0.098 | * |
| Single elderly | 0.097 | 0.109 | 0.089 | 0.101 | 0.105 | |
| Couple no children | 0.068 | 0.065 | 0.064 | 0.070 | 0.067 | |
| Couple dependent children | 0.046 | 0.048 | 0.054 | 0.047 | 0.048 | |
| Couple non-dependent children | 0.040 | 0.043 | 0.041 | 0.040 | 0.044 | |
| Lone parent | 0.048 | 0.062 | 0.051 | 0.053 | 0.054 | |
| 2+ unrelated adults | 0.044 | 0.052 | 0.045 | 0.075 | 0.052 | |
| Other households | 0.038 | 0.054 | 0.059 | 0.052 | 0.048 | |
| N | 3292 | 3140 | 3007 | 2671 | 48249 | |

Notes: Weighted using cross-sectional weights. Table reads, for example, that in 1991 39.3% of adults in single non-elderly households in the BHPS saved from their current income, compared to 22.8% of those in single elderly households. 'Average' shows data pooled from waves 1 to 16. * indicates that the average scores by household type category over the sample period are significantly different at the 5% level.

Table 11 also indicates that the single elderly, although being among the least likely of household types to save and also save the least amount if they do save, on average saved the largest proportion of their household income. Again this reflects the relatively low incomes that such households receive. In particular, on average over the period people in single elderly households saved 10.5% of their household income per month, while those in single non-elderly households saved 10% of their monthly household income. In contrast, those in couple households with dependent or non-dependent children and in other types of household saved less than 5% of their household income, while lone parents and those in households with unrelated adults saved 5.4% and 5.2% of their monthly income respectively. Single non-elderly households increased the proportion of income that they save per month between 1991 and 2006, as did those living with unrelated adults and in other types of households, while

the proportion of income saved by the single elderly and people in couple households has remained relatively stable over the period.

In Table 12 we examine a different dimension of the household, household size (measured by the number of people – both adults and children – living in the household). This reveals that on average the propensity to save initially increased with household size, from 33.4% of people in single person households saving from their current income to 42% of people in four person households. The incidence of savings then fell for people living in households with five (37.4%) or six or more (27.7%) people. This pattern is consistent over the period, although there is evidence suggesting that the incidence of savings increased among people in single person households (from 29% to 33%), while it fell among those living in households with five people (from 40% to 33%).

| Table 12: Saving behaviour by household size: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | Year | | | | Average | |
| | 1991 | 1996 | 2001 | 2006 | | |
| Saves from current income | | | | | | |
| 1 | 0.293 | 0.309 | 0.347 | 0.332 | 0.335 | * |
| 2 | 0.395 | 0.411 | 0.395 | 0.403 | 0.401 | |
| 3 | 0.401 | 0.398 | 0.429 | 0.399 | 0.410 | |
| 4 | 0.424 | 0.423 | 0.427 | 0.396 | 0.420 | |
| 5 | 0.396 | 0.392 | 0.361 | 0.325 | 0.374 | |
| 6+ | 0.263 | 0.263 | 0.312 | 0.281 | 0.277 | |
| N | 8506 | 8010 | 7531 | 6958 | 122102 | |
| Amount saved conditional on saving | | | | | | |
| 1 | 123.13 | 154.38 | 184.52 | 206.39 | 164.55 | * |
| 2 | 168.77 | 176.27 | 184.76 | 195.74 | 181.63 | |
| 3 | 141.70 | 155.89 | 168.58 | 179.29 | 168.31 | |
| 4 | 158.46 | 157.84 | 198.99 | 196.90 | 168.71 | |
| 5 | 121.88 | 153.10 | 169.77 | 181.14 | 155.21 | |
| 6+ | 148.18 | 159.31 | 142.64 | 181.10 | 142.03 | |
| Proportion saved conditional on saving | | | | | | |
| 1 | 0.095 | 0.102 | 0.096 | 0.108 | 0.101 | * |
| 2 | 0.066 | 0.066 | 0.064 | 0.069 | 0.067 | |
| 3 | 0.044 | 0.048 | 0.049 | 0.046 | 0.049 | |
| 4 | 0.047 | 0.046 | 0.050 | 0.044 | 0.045 | |
| 5 | 0.036 | 0.042 | 0.045 | 0.042 | 0.041 | |
| 6+ | 0.038 | 0.053 | 0.049 | 0.048 | 0.043 | |
| N | 3292 | 3140 | 3007 | 2671 | 48249 | |

Notes: Weighted using cross-sectional weights. Table reads, for example, that in 1991 29.3% of adults in single person households in the BHPS saved from their current income, compared to 39.5% of those in two person households. 'Average' shows data pooled from waves 1 to 16. * indicates that the average scores by household size category over the sample period are significantly different at the 5% level.

The amount saved per month also varies significantly with household size. Table 12 suggests that on average people living in two person households saved the most (£182 per month) while those in larger households containing five or six or more people saved the least (£155 and £142 per month). Although this pattern did not persist throughout the period, people living in larger households in general saved less per month than those in smaller households. While the

amount saved increased for individuals in households of all sizes, the largest relative increases were for those in single person households (68% increase), and smallest for those in two person households (16% increase).

Table 12 also reveals an inverse relationship between household size and the proportion of income saved – on average people in smaller households saved a larger proportion of their household income than those in larger households. Those in single person households saved about 10% of their household income, while those in two person households saved about 7%. Those in three or four person households saved about 5% of their income while those in larger households saved about 4% of their income. These patterns changed little over the period.

| Table 13: Mean changes in saving behaviour by changes in household size: BHPS 1991–2006 | | | | |
|---|---|---|---|---|
| | t–1 | t | Change | N |
| **Sample average** | | | | |
| Saves from current income | 0.400 | 0.399 | −0.001 | 96907 |
| Conditional amount saved | 183.21 | 191.30 | 8.09 | 27958 |
| Conditional proportion saved | 0.061 | 0.063 | 0.002 | 27958 |
| **Household size increased** | | | | |
| Saves from current income | 0.383 | 0.363 | −0.020 | 6933 |
| Conditional amount saved | 191.69 | 206.44 | 14.75 | 1733 |
| Conditional proportion saved | 0.062 | 0.052 | −0.010 | 1733 |
| **Household size fell** | | | | |
| Saves from current income | 0.393 | 0.369 | −0.024 | 7829 |
| Conditional amount saved | 191.18 | 186.37 | −4.81 | 1984 |
| Conditional proportion saved | 0.045 | 0.067 | 0.022 | 1984 |

Notes: Table reads, for example, that individuals whose household increases in size between two consecutive years on average experienced a fall in their propensity to save from their current income from 0.383 to 0.363. Amount saved and gross monthly household income deflated to January 2006 prices.

Table 13 looks at how saving behaviour changes when the size of the household in which people live changes and compares these changes with those for the sample as a whole. This indicates that the propensity to save fell by about two percentage points for those whose household changed in size, irrespective of the direction of the change. Therefore those that experience a change in their household size are more likely than the sample average to stop saving. Those who experienced an increase in their household size on average increased the amount saved by almost £15 per month (from £192 to £206 per month), which is considerably above the sample average of an £8 per month increase. However, they experienced a one percentage point fall in the proportion of household income saved (from 6.2% to 5.2%) compared to a small increase in the proportion saved for the sample as a whole. Individuals in households which were smaller in the subsequent year saved almost £5 less per month than before (£186 compared with £191), although this represented an increase in the proportion of income saved, from 4.5% to 6.7%. Therefore individuals in households that increase in size were more likely to stop saving but those that continued saved a larger amount (although a smaller proportion of their income). Those in households that fall in size were also more likely to stop saving, and those that continued saved a smaller amount (although a larger proportion of their income).

## 5.6   Health status

At each wave of the BHPS, individuals were asked to assess their current health status. In particular, they were asked "Please think back over the last 12 months about how your health has been. Compared to people of your own age, would you say that your health has on the whole been Excellent, Good, Fair, Poor or Very poor?" For the purposes of this analysis we collapse this into being in good health (reporting excellent or good) and being in poor health (reporting fair, poor or very poor). Table 14 looks at the relationship between an individual's health status and their saving behaviour. The results indicate that those in good health were significantly more likely to save than those who reported being in fair, poor or very poor health. On average almost 43% of those in good health saved, compared with 31% of those in poor health, and these propensities remained relatively constant across the sample period. Furthermore, conditional on saving, those in good health saved a larger amount – £182 per month compared with £136 per month for those in poor health. This amount increased by 30% between 1991 and 2006 for those in good health, compared to 22% for those in poor health. Part of these differences may be explained by other factors associated with health, such as employment status. Our multivariate analysis described later sheds further light on these complex relationships. There was a much smaller difference between people in good and poor health in the proportion of income saved – each group saved about 6% of their household income.

| Table 14: Saving behaviour by health status: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | | Year | | | Average | |
| | 1991 | 1996 | 2001 | 2006 | | |
| Saves from current income | | | | | | |
| In good health | 0.420 | 0.431 | 0.434 | 0.414 | 0.428 | * |
| In fair, poor, very poor health | 0.290 | 0.297 | 0.311 | 0.300 | 0.305 | |
| N | 8502 | 8009 | 7529 | 6958 | 121778 | |
| Amount saved conditional on saving | | | | | | |
| In good health | 159.60 | 173.66 | 192.81 | 207.72 | 182.28 | * |
| In fair, poor, very poor health | 118.78 | 129.93 | 146.75 | 147.17 | 136.19 | |
| Proportion saved conditional on saving | | | | | | |
| In good health | 0.057 | 0.062 | 0.060 | 0.063 | 0.061 | |
| In fair, poor, very poor health | 0.053 | 0.053 | 0.062 | 0.062 | 0.058 | |
| N | 3290 | 3140 | 3007 | 2671 | 48151 | |

Notes: Weighted using cross-sectional weights. Table reads, for example, that in 1991 42% of adults in good health in the BHPS saved from their current income, compared to 29% of those fair, poor or very poor health. 'Average' shows data pooled from waves 1 to 16. * indicates that the average scores by health status over the sample period are significantly different at the 5% level.

In Table 15 we examine how changes in saving behaviour between two consecutive years were associated with changes in health status over the same period. This table shows that an improvement in health status (moving from fair or poor health to good or excellent health) had little impact on saving behaviour relative to the sample average. Those whose health improved experienced a marginal fall in their propensity to save (the same as the sample average), marginally increased the proportion of the income they saved (the same as the sample average), and saved on average £4 per month more (compared to the sample average of £8 per month). A similar pattern emerges for those who suffered deterioration in their health between two consecutive years. However it is worth noting that on average people who experienced either an improvement or deterioration in their health status were less likely to save, saved a smaller amount, and a smaller proportion of their income than those whose health remained unchanged.

| Table 15: Mean changes in saving behaviour by changes in health status: BHPS 1991–2006 | | | | |
|---|---|---|---|---|
| | t–1 | t | Change | N |
| **Sample average** | | | | |
| Saves from current income | 0.400 | 0.399 | −0.001 | 96907 |
| Conditional amount saved | 183.21 | 191.30 | 8.09 | 27958 |
| Conditional proportion saved | 0.061 | 0.063 | 0.002 | 27958 |
| **Entered good health** | | | | |
| Saves from current income | 0.362 | 0.360 | −0.002 | 8641 |
| Conditional amount saved | 164.35 | 168.39 | 4.03 | 2148 |
| Conditional proportion saved | 0.059 | 0.061 | 0.002 | 2148 |
| **Left good health** | | | | |
| Saves from current income | 0.373 | 0.358 | −0.015 | 9387 |
| Conditional amount saved | 160.97 | 163.54 | 2.56 | 2411 |
| Conditional proportion saved | 0.058 | 0.059 | 0.001 | 2411 |

Notes: Table reads, for example, that individuals who entered good health from poor health between two consecutive years on average experienced a fall in their propensity to save from their current income from 0.362 to 0.360. Amount saved and gross monthly household income deflated to January 2006 prices.

## 5.7   Education levels

Table 16 presents summaries of saving behaviour by education, and shows that saving behaviour differs significantly by education levels. In particular, the propensity to save increased with qualifications attained – a pattern evident throughout the sample period. On average those with a higher or first degree were most likely to save from their current income – more than 50% did so. About 45% of people with other higher qualifications or with A-Levels or the equivalent saved, as did 40% of those with GCSEs or the equivalent. Only one in four of those with no qualifications saved.

 The table also shows that the amount saved increased with the qualification attained such that on average those with no qualifications saved £108 per month, compared to £134 per month for those with GCSEs, £171 per month for those with A-Levels, £271 per month for those with a first degree and £375 per month for those with a higher degree. This pattern emerges consistently throughout the period. While individuals in the majority of education groups increased the amount saved over the period, this is not true for those in the lowest qualification attainment categories. Those with 'other' or no qualifications saved less per month in real terms in 2006 than in 1991.

There is less evidence of a direct relationship between education level and the proportion of income saved. While on average people with a first or higher degree saved the highest proportion of their income (7%), it is those with mid-ranking qualifications (and with GCSE's in particular) who saved the lowest proportion of their income (5%). Furthermore, while those with the highest and lowest educational attainment saved larger proportions of their income in 2006 than in 1991, those with mid-ranking qualifications saved about the same proportion.

| Table 16: Saving behaviour by education level: BHPS 1991–2006 | | | | | |
|---|---|---|---|---|---|
| | Year | | | | Average |
| | 1991 | 1996 | 2001 | 2006 | |
| **Saves from current income** | | | | | |
| Higher degree | 0.666 | 0.519 | 0.472 | 0.566 | 0.521 * |
| First degree | 0.538 | 0.520 | 0.535 | 0.497 | 0.514 |
| Other higher qualification | 0.507 | 0.470 | 0.463 | 0.431 | 0.462 |
| A-Levels or equivalent | 0.474 | 0.429 | 0.441 | 0.426 | 0.443 |
| GCSEs or equivalent | 0.427 | 0.433 | 0.400 | 0.341 | 0.419 |
| Other qualifications | 0.351 | 0.354 | 0.330 | 0.289 | 0.339 |
| No qualifications | 0.252 | 0.252 | 0.254 | 0.234 | 0.251 |
| N | 8506 | 8010 | 7531 | 6958 | 122102 |
| **Amount saved conditional on saving** | | | | | |
| Higher degree | 264.21 | 270.51 | 468.80 | 510.47 | 375.26 * |
| First degree | 244.09 | 230.03 | 299.03 | 259.43 | 270.79 |
| Other higher qualification | 185.61 | 183.58 | 188.52 | 196.02 | 186.12 |
| A-Levels or equivalent | 155.66 | 166.15 | 171.87 | 195.23 | 170.76 |
| GCSEs or equivalent | 128.38 | 133.44 | 127.53 | 134.05 | 133.82 |
| Other qualifications | 123.65 | 157.10 | 150.07 | 121.60 | 136.06 |
| No qualifications | 109.17 | 120.99 | 101.18 | 99.43 | 108.48 |
| **Proportion saved conditional on saving** | | | | | |
| Higher degree | 0.067 | 0.063 | 0.076 | 0.094 | 0.072 * |
| First degree | 0.058 | 0.059 | 0.072 | 0.062 | 0.067 |
| Other higher qualification | 0.065 | 0.063 | 0.064 | 0.063 | 0.064 |
| A-Levels or equivalent | 0.057 | 0.061 | 0.050 | 0.062 | 0.056 |
| GCSEs or equivalent | 0.050 | 0.052 | 0.051 | 0.051 | 0.052 |
| Other qualifications | 0.055 | 0.063 | 0.060 | 0.068 | 0.062 |
| No qualifications | 0.055 | 0.066 | 0.061 | 0.067 | 0.063 |
| N | 3292 | 3140 | 3007 | 2671 | 48249 |

Notes: Weighted using cross-sectional weights. Table reads, for example, that in 1991 66% of adults with a higher degree in the BHPS saved from their current income, compared to 25% of those with no qualifications. 'Average' shows data pooled from waves 1 to 16. * indicates that the average scores by education level over the sample period are significantly different at the 5% level.

## 5.8 Housing

The BHPS collects a range of information on housing and housing characteristics that we relate to saving behaviour. The relationship between saving behaviour and housing tenure is summarised in Table 17. This indicates that home-owners were more likely to save from their current income than tenants, and that those with a mortgage were most likely to save. On average, 46.7% of this group saved from their current income compared with 38% of those who owned their home outright, 34% of private tenants and 23% of local authority tenants. This pattern emerges throughout the period. However, while the propensity to save increased among local authority tenants (from 22% in 1991 to 25% in 2006) it fell among other housing tenure groups.

As well as being most likely to save, home-owners on average saved larger amounts per month than tenants. Over the period, those who owned their home outright saved £197 per month while those with a mortgage saved £177 per month (and this is in addition to mortgage

repayments). Private tenants saved an average of £160 per month while local authority tenants saved £90 per month. All tenure groups saved larger amounts in 2006 than in 1991, although only marginally so in the case of local authority tenants. In terms of the proportion of income saved, those owning their home outright and private tenants saved the largest proportion (8% and 7.5% respectively), and this was true throughout the period. Those with a mortgage saved the smallest proportion of their household income (5%), and this did not change over the time period. Local authority tenants on average saved 5.7% of their income, and this proportion increased since 1991.

| Table 17: Saving behaviour by housing tenure: BHPS 1991–2006 | | | | | |
|---|---|---|---|---|---|
| | Year | | | | Average |
| | 1991 | 1996 | 2001 | 2006 | |
| **Saves from current income** | | | | | |
| Own home outright | 0.384 | 0.390 | 0.382 | 0.366 | 0.380 * |
| Own home mortgage | 0.471 | 0.469 | 0.472 | 0.448 | 0.467 |
| Local authority rent | 0.217 | 0.228 | 0.237 | 0.249 | 0.234 |
| Private rent | 0.337 | 0.321 | 0.326 | 0.309 | 0.342 |
| N | 8506 | 8010 | 7531 | 6958 | 122102 |
| **Amount saved conditional on saving** | | | | | |
| Own home outright | 161.59 | 184.78 | 201.65 | 232.89 | 196.86 * |
| Own home mortgage | 161.61 | 168.17 | 188.05 | 190.07 | 176.84 |
| Local authority rent | 87.61 | 100.20 | 85.79 | 91.41 | 90.00 |
| Private rent | 145.90 | 153.47 | 196.64 | 191.77 | 160.00 |
| **Proportion saved conditional on saving** | | | | | |
| Own home outright | 0.078 | 0.081 | 0.076 | 0.086 | 0.081 * |
| Own home mortgage | 0.048 | 0.050 | 0.052 | 0.048 | 0.050 |
| Local authority rent | 0.049 | 0.058 | 0.055 | 0.061 | 0.057 |
| Private rent | 0.073 | 0.075 | 0.077 | 0.080 | 0.075 |
| N | 3292 | 3140 | 3007 | 2671 | 48249 |

Notes: Weighted using cross-sectional weights. Table reads, for example, that in 1991 38.4% of adults owning their home outright in the BHPS saved from their current income, compared to 33.7% of those who rented their house privately. 'Average' shows data pooled from waves 1 to 16. * indicates that the average scores by housing tenure over the sample period are significantly different at the 5% level.

Table 18 introduces some dynamics by focusing on the change in saving behaviour associated with becoming a home-owner. This indicates that those who became home-owners had a higher than average propensity to save, saved larger amounts, and saved a larger proportion of their income than average both before and after buying a property – presumably this reflects the ability to plan financially the purchase of a home. However, they also experienced a marginally larger than average reduction in their propensity to save (from 45.9% to 45.3%). Home buyers also increased the amount saved by more than average (by £28 per month compared to the sample average of £8), and also the proportion of income saved. As well as housing tenure, at each year the BHPS asks home-owners to estimate the value of the house they currently live in. We use this as an approximation of wealth, as it is the only measure of wealth that is available at all sixteen waves of the BHPS. We summarise the correlations between current house value (deflated to January 2006 prices) and our measures of saving behaviour in Table 19. We present correlations both including non-owners (who are allocated a house value of zero) and excluding them.

| Table 18: Mean changes in saving behaviour by changes in housing tenure: BHPS 1991–2006 | | | | |
|---|---|---|---|---|
| | t−1 | t | Change | N |
| **Sample average** | | | | |
| Saves from current income | 0.400 | 0.399 | −0.001 | 96907 |
| Conditional amount saved | 183.21 | 191.30 | 8.09 | 27958 |
| Conditional proportion saved | 0.061 | 0.063 | 0.002 | 27958 |
| **Became a home-owner** | | | | |
| Saves from current income | 0.459 | 0.453 | −0.006 | 2210 |
| Conditional amount saved | 198.91 | 226.94 | 28.03 | 748 |
| Conditional proportion saved | 0.065 | 0.072 | 0.007 | 748 |

Notes: Table reads, for example, that individuals who became a home owner between two consecutive years on average experienced a fall in their propensity to save from their current income from 0.459 to 0.453. Amount saved and gross monthly household income deflated to January 2006 prices.

The correlations with house value highlight a number of notable patterns. Firstly we find that the correlations are relatively small, suggesting that saving behaviour in general was only weakly correlated with wealth, as measured by current house value. Focussing on the incidence of saving, the correlation with house value is relatively low, and fell over time. Therefore the propensity to save from current income became less associated with the value of the individual's home. The correlations between amount saved per month conditional on saving and house value are higher, and increases over the period (from 0.16 in 1991 to 0.23 in 2006). Hence the amount a person saved per month became more strongly associated with the value of their home. Finally, we find almost no correlation between house value and the proportion of household income saved.

| Table 19: Saving behaviour by house value: BHPS 1991–2006 | | | | | |
|---|---|---|---|---|---|
| | Year | | | | Average |
| | 1991 | 1996 | 2001 | 2006 | |
| **Saves from current income** | | | | | |
| House value all | 0.182 | 0.172 | 0.153 | 0.139 | 0.153 |
| House value home-owners | 0.066 | 0.059 | 0.052 | 0.062 | 0.046 |
| N | 8506 | 8010 | 7531 | 6958 | 116411 |
| **Amount saved conditional on saving** | | | | | |
| House value all | 0.210 | 0.206 | 0.222 | 0.244 | 0.233 |
| House value home-owners | 0.166 | 0.161 | 0.215 | 0.226 | 0.193 |
| **Proportion saved conditional on saving** | | | | | |
| House value all | 0.010 | −0.044 | −0.001 | 0.018 | −0.004 |
| House value home-owners | −0.001 | −0.044 | 0.003 | 0.022 | −0.000 |
| N | 3292 | 3140 | 3007 | 2671 | 45831 |

Notes: Table shows Spearman rank correlation coefficients. House values deflated to 2006 January prices.

## 5.9   Labour market variables

Table 20 summarises our measures of saving behaviour by employment status, and the employment status of the spouse (if married). For the purposes of this report, we distinguish between full- and part-time employees, and also the self-employed. This table indicates that those in work were most likely to save from their current income. On average over the period more than one half of full-time employees saved from their current income, as did 43% of part-time employees and 40% of the self-employed. These savings propensities compare to 27% for the retired, 25% for the inactive and 16% for the unemployed. Therefore a strong relationship between employment and saving emerges in these data. However there is some evidence that the incidence of saving fell among full-time employees over the period – 55% were saving in 1991, compared with 51% in 2006. In contrast, the propensity to save remained stable or marginally increased among individuals in other labour market states. The table also indicates that about 46% of people with an employed spouse save from their current income, and this remained stable over the sample period.

| Table 20: Saving behaviour by employment status: BHPS 1991–2006 | | | | | |
|---|---|---|---|---|---|
| | Year | | | | Average |
| | 1991 | 1996 | 2001 | 2006 | |
| **Saves from current income** | | | | | |
| Full-time employee | 0.551 | 0.526 | 0.520 | 0.509 | 0.530 * |
| Part-time employee | 0.400 | 0.443 | 0.429 | 0.434 | 0.430 |
| Self-employed | 0.379 | 0.460 | 0.415 | 0.387 | 0.400 |
| Unemployed | 0.159 | 0.145 | 0.182 | 0.165 | 0.161 |
| Inactive | 0.239 | 0.250 | 0.259 | 0.234 | 0.254 |
| Retired | 0.251 | 0.271 | 0.280 | 0.268 | 0.274 |
| Spouse employed | 0.459 | 0.472 | 0.465 | 0.453 | 0.462 |
| N | 8430 | 7907 | 7406 | 6864 | 120363 |
| **Amount saved conditional on saving** | | | | | |
| Full-time employee | 176.03 | 193.35 | 212.34 | 225.99 | 198.80 * |
| Part-time employee | 113.57 | 128.22 | 141.80 | 161.55 | 137.45 |
| Self-employed | 241.82 | 239.51 | 324.89 | 313.38 | 282.56 |
| Unemployed | 66.00 | 80.86 | 69.54 | 67.16 | 78.46 |
| Inactive | 78.69 | 88.53 | 99.70 | 110.77 | 93.24 |
| Retired | 98.87 | 115.73 | 105.40 | 122.82 | 114.19 |
| Spouse employed | 169.31 | 180.28 | 196.92 | 206.88 | 188.27 |
| **Proportion saved conditional on saving** | | | | | |
| Full-time employee | 0.055 | 0.058 | 0.055 | 0.056 | 0.056 * |
| Part-time employee | 0.047 | 0.048 | 0.054 | 0.053 | 0.051 |
| Self-employed | 0.082 | 0.077 | 0.092 | 0.106 | 0.094 |
| Unemployed | 0.042 | 0.045 | 0.044 | 0.042 | 0.045 |
| Inactive | 0.039 | 0.048 | 0.045 | 0.056 | 0.046 |
| Retired | 0.077 | 0.080 | 0.077 | 0.080 | 0.081 |
| Spouse employed | 0.051 | 0.052 | 0.051 | 0.053 | 0.052 |
| N | 3261 | 3092 | 2952 | 2635 | 47507 |

Notes: Weighted using cross-sectional weights. Table reads, for example, that in 1991 55.1% of adults in full-time employment in the BHPS saved from their current income, compared to 40% of those in part-time employment. 'Average' shows data pooled from waves 1 to 16. * indicates that the average scores by employment status over the sample period are significantly different at the 5% level.

Those in employment were saving larger amounts than those in other labour market states. On average over the period, people in full-time employment saved £199 per month, while part-time employees saved £137 per month. However the self-employed saved the most on average, at £283 per month. In contrast, those in retirement saved an average of £114 per month, the economically inactive £93 per month and the unemployed £78 per month. While the general pattern remained unchanged over the period, there were differences by employment status in the changes in amount saved over time. For example, the largest relative increases in the average amount saved was among those in part-time work, whose savings increased from an average of £114 per month in 1991 to £162 in 2006 (or by 42%). The average amount saved by the economically inactive also increased by 41% over the period (from £79 per month to £111). In contrast, that saved by the unemployed changed little.

The retired and the self-employed consistently saved the largest proportion of their household income. On average over the period, the self-employed saved 9.4% of their household income, while the retired saved 8.1%. Those in full-time and part-time employment saved about 5.5% of their household income, while the unemployed and economically inactive saved 4.5%. There is some evidence that the proportions of income saved by the self-employed and the economically inactive increased between 1991 and 2006, while they remained relatively constant among other labour market groups. Therefore the unemployed and economically inactive are least likely to save, save the lowest amount per month, and also save the smallest proportion of their household income. There is a strong link between labour market status and saving behaviour.

In Table 21 we look at employment patterns at the household level and their association with saving behaviour. This indicates a clear monotonic relationship between the propensity to save from current income and the number employed in the household. On average over the period, 24% of individuals in households where no-one was employed saved from their current income. This proportion increases with the number employed in the household, such that 48% of individuals in households with two people in employment were saving, and 52% of those in households with four or more people in employment were saving. Again, this highlights a strong association between the prevalence of saving and employment status, this time at the household level. This relationship is rather less evident when looking at the amount people save. While people in households where no-one is employed saved the smallest amount per month over the period (an average of £109), there is no other systematic relationship between the amount saved and number employed in the household. There is some evidence that those in households with one or two people in work saved the largest amounts (about £185 per month), but this was not consistent across the period.

A more consistent pattern emerges between the proportion of household income saved and the number of people employed in the household. In particular, people in households where no-one is employed saved the highest proportion of their household income (8.5% on average), and this increased marginally between 1991 and 2006. Those in households with one person in employment on average saved 7.6% of their household income, and this too increased over the period (from 6.7% to 8.4%).The proportion of income saved falls with the number employed in the household, such that those in households with four or more people in employment saved 3.3% of their income, which remained relatively constant between 1991 and 2006.

| Table 21: Saving behaviour by number employed in household: BHPS 1991–2006 | | | | | |
|---|---|---|---|---|---|
| | Year | | | | Average |
| | 1991 | 1996 | 2001 | 2006 | |
| **Saves from current income** | | | | | |
| 0 | 0.200 | 0.228 | 0.256 | 0.243 | 0.238 * |
| 1 | 0.370 | 0.371 | 0.367 | 0.357 | 0.373 |
| 2 | 0.487 | 0.490 | 0.484 | 0.467 | 0.481 |
| 3 | 0.499 | 0.518 | 0.500 | 0.422 | 0.490 |
| 4+ | 0.578 | 0.491 | 0.491 | 0.555 | 0.518 |
| N | 8504 | 8010 | 7531 | 6958 | 122094 |
| **Amount saved conditional on saving** | | | | | |
| 0 | 95.18 | 108.73 | 106.65 | 118.59 | 108.89 * |
| 1 | 148.23 | 172.68 | 210.19 | 231.99 | 187.03 |
| 2 | 168.15 | 177.02 | 194.53 | 204.21 | 185.62 |
| 3 | 147.23 | 169.74 | 193.78 | 191.92 | 173.03 |
| 4+ | 179.52 | 170.16 | 172.52 | 202.99 | 178.53 |
| **Proportion saved conditional on saving** | | | | | |
| 0 | 0.080 | 0.083 | 0.084 | 0.085 | 0.085 * |
| 1 | 0.067 | 0.074 | 0.073 | 0.084 | 0.076 |
| 2 | 0.051 | 0.052 | 0.053 | 0.054 | 0.053 |
| 3 | 0.040 | 0.044 | 0.042 | 0.041 | 0.041 |
| 4+ | 0.035 | 0.033 | 0.035 | 0.033 | 0.033 |
| N | 3290 | 3140 | 3007 | 2671 | 48245 |

Notes: Weighted using cross-sectional weights. Table reads, for example, that in 1991 20% of adults in households with no-one in employment in the BHPS saved from their current income, compared to 37% of those in households with one person in employment. 'Average' shows data pooled from waves 1 to 16. * indicates that the average scores by number of employed in household over the sample period are significantly different at the 5% level.

Tables 22 and 23 focus on the dynamic associations between employment status change and change in saving behaviour. Table 22 indicates that entering employment is associated with significantly larger than average increases in saving, and this is apparent using all three measures. For example, the incidence of saving for those entering work increased from 29% before they entered work to 39% after entering work. However, such people had a propensity to save before entering work that was significantly below the sample average. Those entering work also increased the amount they saved by more than the sample average, although again from a lower base. Conditional on saving, they saved an average of £151 per month prior to entering work, and an average of £203 per month after entering work. However this represented only a small increase in the proportion of income saved (from 5.4% to 5.9%).

In contrast, people who entered unemployment between two consecutive years reduced both their propensity to save and the amount they saved, and from already relatively low levels. Less than 30% of those who entered unemployment were saving prior to the event, and this proportion almost halved once unemployment was entered to 16%. Furthermore, the average amount saved by those who were saving both before and after unemployment entry fell from £120 per month before unemployment to £105 once unemployment was entered. However, this group actually marginally increased the proportion of their income that they saved, from 4.7% to 5.4%, reflecting the drop in income associated with unemployment entry. Entry into retirement is associated with a less dramatic drop in the incidence of savings, from 31% pre-retirement to 26% post-retirement. This highlights the fact that the propensity to save is lower than the sample average among those

on the verge of retirement. Retirement is also associated with a large fall in the amount saved, from £170 per month pre-retirement to £125 post retirement. However as for the unemployed, this actually represents an increase in the proportion of income saved, from 7.9% to 9.1% – again reflecting the drop in income associated with retirement.

| Table 22: Mean changes in saving behaviour by changes in employment status: BHPS 1991–2006 | | | | |
|---|---|---|---|---|
| | t–1 | t | Change | N |
| **Sample average** | | | | |
| Saves from current income | 0.400 | 0.399 | −0.001 | 96907 |
| Conditional amount saved | 183.21 | 191.30 | 8.09 | 27958 |
| Conditional proportion saved | 0.061 | 0.063 | 0.002 | 27958 |
| **Entered work** | | | | |
| Saves from current income | 0.287 | 0.394 | 0.107 | 4393 |
| Conditional amount saved | 151.17 | 202.64 | 51.47 | 825 |
| Conditional proportion saved | 0.054 | 0.059 | 0.005 | 825 |
| **Entered unemployment** | | | | |
| Saves from current income | 0.292 | 0.156 | −0.136 | 1888 |
| Conditional amount saved | 119.64 | 105.09 | −14.55 | 192 |
| Conditional proportion saved | 0.047 | 0.054 | 0.006 | 192 |
| **Entered retirement** | | | | |
| Saves from current income | 0.309 | 0.256 | −0.053 | 2086 |
| Conditional amount saved | 170.33 | 125.45 | −44.88 | 351 |
| Conditional proportion saved | 0.079 | 0.091 | 0.012 | 351 |

Notes: Table reads, for example, that individuals who entered work between two consecutive years on average experienced an increase in their propensity to save from their current income from 0.287 to 0.394. Amount saved and gross monthly household income deflated to January 2006 prices.

Table 23 indicates that clear relationships also emerge between changes in the number employed in the household and changes in saving behaviour. In particular, a reduction in the number employed in the household (which could be caused by either an employed household member leaving work, or an employed household member leaving the household) results in a reduction in the incidence of savings and in the amount saved. The incidence of savings fell from an above sample average level of 42% to a below sample average 35.2%, while the amount saved also fell from an above sample average level of £192 per month to a below sample average level of £185. However this represents an increase in the proportion of household income saved from 5% to 6.7%, reflecting the loss of household income associated with having fewer household members in employment. An increase in the number employed in the household results in almost the complete opposite – an increase in the incidence of saving and the amount saved, but a small fall in the proportion of household income saved.

Table 23 also indicates the importance of the employment status of the spouse in influencing a person's saving behaviour. People whose spouse entered work increased their propensity to save on average (although it remained below the sample average), but reduced the amount saved per month (from £206 to £191). The proportion of income saved also fell, from an above sample average of 7.2% to 5.5% (below the sample average). Those whose spouse left employment greatly reduced their propensity to save, from 43% (which is above average) to 35% (which is below average), and also the amount they saved per month from £222 to £214 – although this remained above the sample average. This however represents an increase in the proportion of household income saved, from 6.2% to 8.2%.

| Table 23: Mean changes in saving behaviour by changes in employment status: BHPS 1991–2006 | t−1 | t | Change | N |
|---|---|---|---|---|
| **Fewer employed in household** | | | | |
| Saves from current income | 0.422 | 0.352 | −0.070 | 12175 |
| Conditional amount saved | 191.89 | 184.83 | −7.06 | 3035 |
| Conditional proportion saved | 0.050 | 0.067 | 0.017 | 3035 |
| **More employed in household** | | | | |
| Saves from current income | 0.348 | 0.397 | 0.049 | 11689 |
| Conditional amount saved | 163.26 | 184.17 | 20.91 | 2831 |
| Conditional proportion saved | 0.055 | 0.047 | −0.008 | 2831 |
| **Spouse got job** | | | | |
| Saves from current income | 0.369 | 0.379 | 0.010 | 1472 |
| Conditional amount saved | 205.96 | 191.27 | −14.70 | 384 |
| Conditional proportion saved | 0.072 | 0.055 | −0.017 | 384 |
| **Spouse left job** | | | | |
| Saves from current income | 0.426 | 0.351 | −0.075 | 1986 |
| Conditional amount saved | 221.70 | 213.89 | −7.81 | 531 |
| Conditional proportion saved | 0.062 | 0.082 | 0.020 | 531 |

Notes: Table reads, for example, that individuals in households that experienced an increase in the number employed between two consecutive years on average experienced an increase in their propensity to save from their current income from 0.348 to 0.397. Amount saved and gross monthly household income deflated to January 2006 prices.

## 5.10  Income

In Table 24 we summarise the relationships between our measures of saving behaviour and real gross monthly household income. Not surprisingly we find a positive and monotonic relationship between household income and the incidence of saving, which is clearly evident throughout the sample period. For example, only 20% of those in the bottom income quintile saved from their current income, compared to 33% in the second quintile, 41% in the middle quintile and 49% in the fourth quintile. Almost 60% of those in the highest household income quintile saved from their current income. However the table also indicates that this relationship weakened over time, as the propensity to save fell among those in the higher income quintiles. This is also reflected in the Spearman rank correlation coefficients, which fell from 0.311 in 1991 to 0.239 in 2006.

A similar positive correlation emerges between the amount saved per month and household income. On average over the period, those in the bottom household income quintile group saved £70 per month, compared to £139 per month for those in the middle household income quintile group, and £274 per month for those in the highest income quintile group. This pattern is also evident in each year, although again there is some suggestion that it has weakened over time. This is a result of a relatively large increase in the amounts saved by those in the bottom income quintile group (an average increase of 53%) compared to other quintile groups, and is reflected in a falling Spearman rank correlation coefficient (from 0.353 in 1991 to 0.320 in 2006).

| Table 24: Saving behaviour by gross monthly household income: BHPS 1991–2006 | Year | | | | Average |
|---|---|---|---|---|---|
| | 1991 | 1996 | 2001 | 2006 | |
| **Saves from current income** | | | | | |
| Bottom quintile | 0.162 | 0.182 | 0.219 | 0.197 | 0.203 * |
| Second quintile | 0.352 | 0.340 | 0.318 | 0.298 | 0.309 |
| Middle quintile | 0.441 | 0.430 | 0.369 | 0.360 | 0.421 |
| Fourth quintile | 0.508 | 0.517 | 0.496 | 0.447 | 0.494 |
| Highest quintile | 0.594 | 0.564 | 0.562 | 0.531 | 0.561 |
| Spearman correlation | 0.311 | 0.278 | 0.254 | 0.239 | 0.262 |
| N | 8506 | 8010 | 7531 | 6958 | 122102 |
| **Amount saved conditional on saving** | | | | | |
| Bottom quintile | 58.52 | 64.25 | 75.71 | 89.27 | 70.65 * |
| Second quintile | 114.35 | 114.79 | 107.94 | 127.77 | 112.68 |
| Middle quintile | 121.20 | 146.79 | 144.47 | 133.33 | 138.74 |
| Fourth quintile | 163.28 | 169.09 | 173.23 | 181.20 | 171.03 |
| Highest quintile | 244.89 | 256.08 | 284.31 | 285.13 | 274.12 |
| Spearman correlation | 0.353 | 0.326 | 0.365 | 0.320 | 0.347 |
| **Proportion saved conditional on saving** | | | | | |
| Bottom quintile | 0.082 | 0.089 | 0.098 | 0.124 | 0.099 * |
| Second quintile | 0.074 | 0.075 | 0.071 | 0.084 | 0.073 |
| Middle quintile | 0.057 | 0.061 | 0.061 | 0.057 | 0.058 |
| Fourth quintile | 0.049 | 0.051 | 0.052 | 0.054 | 0.051 |
| Highest quintile | 0.043 | 0.048 | 0.048 | 0.047 | 0.047 |
| Spearman correlation | −0.160 | −0.224 | −0.203 | −0.230 | −0.210 |
| N | 3292 | 3140 | 3007 | 2671 | 48249 |

Notes: Weighted using cross-sectional weights. Table reads, for example, that in 1991 16.2% of adults in the bottom gross household income quintile in the BHPS saved from their current income, compared to 59.4% of those in highest income quintile. 'Average' shows data pooled from waves 1 to 16. * indicates that the average scores by gross monthly household income over the sample period are significantly different at the 5% level. Income deflated to January 2006 prices.

However the relationship between household income and the proportion of income saved is very different. Here we find that individuals in the bottom household income quintile group saved the largest proportion of their income (9.9% on average), and this relationship is consistent (and indeed strengthened) over the period. In contrast, those in the highest income quintile group saved the lowest proportion of their household income (4.7%). The Spearman rank correlation coefficient indicates that this inverse relationship became stronger over the period.

Table 25 focuses on the dynamics of the relationship between saving behaviour and income, by focussing on the changes in saving behaviour experienced by individuals who experienced increases and falls of greater than 10% in their real gross monthly household income. (Of course we are not assuming that a 10% change in income will be comparable across the income distribution, but it provides a convenient cut off for comparisons.) The table indicates that substantial increases in household income were associated with increases in the incidence of savings and the amount saved, while substantial falls in household income were associated with falls in incidence and amount saved. Those who experienced a 10% drop in income reduced their savings propensity by an above average four percentage points (from 39% to 35%), while those who experienced a 10% rise in income increased their savings propensity

by three percentage points (from 37% to 40%). However this corresponds to a one percentage point fall in the proportion of income saved, from 7% to 5.6%. A similar relationship is evident with the amount saved – an increase in monthly household income was associated with an above average increase in the amount saved per month (from £179 to £209), while a reduction in monthly household income was associated with a substantial fall in the amount saved per month (from £197 to £179). This corresponds to an increase in the proportion of income saved, from 5.4% to 7.9%.

| Table 25: Mean changes in saving behaviour by changes in income: BHPS 1991–2006 | | | | |
|---|---|---|---|---|
| | t–1 | t | Change | N |
| **Sample average** | | | | |
| Saves from current income | 0.400 | 0.399 | −0.001 | 96907 |
| Conditional amount saved | 183.21 | 191.30 | 8.09 | 27958 |
| Conditional proportion saved | 0.061 | 0.063 | 0.002 | 27958 |
| **Income increase > 10%** | | | | |
| Saves from current income | 0.370 | 0.401 | 0.031 | 33256 |
| Conditional amount saved | 178.60 | 208.70 | 30.10 | 9047 |
| Conditional proportion saved | 0.070 | 0.056 | −0.014 | 9047 |
| **Income fell > 10%** | | | | |
| Saves from current income | 0.390 | 0.347 | −0.043 | 26004 |
| Conditional amount saved | 197.08 | 178.84 | −18.24 | 6523 |
| Conditional proportion saved | 0.054 | 0.079 | 0.024 | 6523 |

Notes: Table reads, for example, that individuals in households that experienced an increase in their gross monthly household income between two consecutive years on average experienced an increase in their propensity to save from their current income from 0.370 to 0.401. Amount saved and gross monthly household income deflated to January 2006 prices.

## 5.11 Summary

In this section we summarised how saving behaviour is related to a range of individual and household characteristics available at all BHPS waves. We find that saving behaviour is significantly associated with gender, age, marital status, structure and size of the household, health, employment status of the individual and other household members, housing tenure and income, and also with changes in marital status, the size and structure of the household, health, employment status of the respondent and other household members, housing tenure and income. In particular, we find that people with the highest incidence of saving tend to be aged between 25 and 54, married or single never-married, with non-dependent children, in good health, with higher education, have a mortgage, in full-time work and with relatively high household income. In contrast, people with the lowest incidence of saving are on average older (aged 65 or older), widowed or divorced, lone parents, have no qualifications living in local authority housing, are unemployed or economically inactive, and with relatively low household income. In terms of amount saved per month conditional on saving, we find that it is the middle aged (between 35 and 54 years old), the single non-elderly with high level qualifications in full-time or self-employment who own their home outright and have relatively high income levels that tend to save the highest amounts. In contrast those aged below 25 and above 65 who are widowed or lone parents, in poor health with no qualifications, local authority tenants who are unemployed or economically inactive with low household income save the lowest amounts on average. However, it is the young (aged below 25), couples with non-dependent children with a mortgage, and the unemployed and economically inactive who save the lowest proportion of their household income, while those aged 55 or above, the widowed, with high level

qualifications who are self-employed or retired, own their home outright and with relatively low incomes that save the highest proportion of their household income.

As well as associations between states, panel data allow us to investigate associations between events. Doing this reveals that getting married or divorced, an additional child, entering unemployment or retirement or having another household member leaving work, and a reduction in household income reduces the incidence of savings and also the amount saved conditional on saving. Entering work, or another household member entering work, and an increase in household income raise the incidence of savings and also the amount saved conditional on saving. Getting married and an increase in household income are associated with reductions in the proportion of income saved, while the death of a spouse, a reduction in household size, entering retirement and a fall in household income are associated with saving a higher proportion of household income.

These bivariate relationships, while interesting, do not begin to address the question of what determines saving behaviour. Subsequent sections of this report focus on investigating these relationships in more detail and in a multivariate framework which allow more robust and interpretable conclusions to be drawn. Before this, however, we examine the relationships between saving behaviour and financial capability, and initially we describe the construction of the financial capability measure.

# 6 Relationships between savings and financial capability

By financial capability, we mean the ability of individuals to take control of and manage their finances. We use responses to a number of survey questions in the BHPS to construct a measure of financial capability. The approach we adopt is similar to that reported in Taylor et al (2009) and Taylor (2009), and a more detailed description both of the construction of the measures and their properties can be found in these reports. Here we provide an abbreviated discussion of the process, as the main focus of this report is to highlight the relationships between financial capability and saving behaviour.

The underlying hypothesis to our approach is that there is some underlying factor (financial capability) which is better captured by reviewing a range of indicators of a person's current financial situation than by any of the specific items of information.

## 6.1 Variables relevant to financial capability in the BHPS

We first briefly describe the variables in the BHPS that might be related to the concept of financial capability. There is a range of variables within the BHPS that capture different dimensions of financial capability, and for each the source of information is the respondent. These variables, together with their availability in the BHPS, are described in Table 26. Some of these measures relate specifically to individual adults (e.g. How well would you say you yourself are managing financially these days? Would you say you are living comfortably, doing alright, just about getting by, finding it quite difficult, or finding it very difficult?), while others refer to the household context (e.g. Many people these days are finding it difficult to keep up with their housing payments. In the last twelve months would you say you have had any difficulties paying for your accommodation?). In the following, the unit of analysis is the individual adult, though sometimes the personal measure refers to the household context – we have allocated the household level variable to each individual adult living within that household.

Also, a number of variables of interest are not available at every BHPS wave. This raises potential problems for constructing a consistent measure of financial capability that is available each year. Therefore we focus on variables that are available at all BHPS waves (the first eight variables, in Panel A of Table 26). Taylor et al (2009) and Taylor (2009) summarise these variables in detail, and highlight relatively high correlations between measures of financial capability constructed from variables available at all BHPS waves and those available intermittently (the remaining ten variables in Panel B of Table 26).

| Table 26: Financial capability: Relevant BHPS variables | |
|---|---|
| **PANEL A** | **Waves available in BHPS** |
| Many people these days are finding it difficult to keep up with their housing payments. In the last twelve months would you say you have had any difficulties paying for your accommodation? | All |
| Did you have to borrow in order to meet housing payments? | All |
| Did you have to make cutbacks in order to meet housing payments? | All |
| In the last twelve months have you ever found yourself more than two months behind with your rent/mortgage? | All |
| How well would you say you yourself are managing financially these days? Would you say you are living comfortably, doing alright, just about getting by, finding it quite difficult, or finding it very difficult | All |
| Would you say that you yourself are better off, worse off or about the same financially than you were a year ago? | All |
| Looking ahead, how do you think you yourself will be financially a year from now, will you be better than now, worse than now, or about the same? | All |
| Access to consumer durables (colour TV, VCR, washing machine, dishwasher, microwave, home computer, compact disc player) | All |
| **PANEL B** | |
| Do you or anyone in your household have to make repayments on hire purchases or loans? Please do not include mortgage loans but do include DSS social fund loans. | 5 onwards |
| To what extent is the repayment of such debts and the interest a financial burden on your household? Would you say it is ..Heavy burden, somewhat of a burden, not a problem? | 5 onwards |
| Townsend/Breadline Britain-type indicators (keep home adequately warm; pay for annual holiday; replace furniture; buy new clothes; eat meat on alternate days; feed visitors once a month; would like to keep home warm; would like to pay for annual holiday; would like to replace furniture; would like to buy new clothes; would like meat on alternate days; can't afford visitors once a month) | 6 onwards |
| I would like to ask you now about any other financial commitments you may have apart from mortgages and housing related loans. Do you currently owe any money on the things listed on this card: Hire purchase agreements, personal loans, credit cards, mail order purchase, DSS social fund loan, loans from an individual, | 5, 10, 15 |
| About how much in total do you owe? | 5, 10, 15 |
| Do you currently have any money in any of the investments shown on this card? National Savings Certificates, Premium bonds, Unit trusts, Personal Equity Plans, Shares, National Savings/Building Society/Insurance bonds, | 5, 10, 15 |
| Thinking of all your investments, about how much do you have invested in total? | 5, 10, 15 |
| Would you say your savings are mainly long term savings for the future or mainly short term savings for things you need now and for unexpected events? | 10 onwards |
| Do you save on a regular basis or just from time to time when you can? | 10 onwards |
| Thinking first about your savings accounts, TESSA or ISA, about you much do you currently have in total in these accounts? | 10, 15 |

# 6.2  Constructing indices of financial capability

Our goal is to construct an index of financial capability. This involves experimenting with a number of different ways of combining information collected in responses to the BHPS survey questions on financial wellbeing. A simple way of constructing an index would be to simply sum variables with a high degree of correlation to provide a straightforward measure of financial capability (e.g. Taylor et al 2004). This is a commonly used procedure in the deprivation and hardship literature, and often appears to work at least as well as much more complicated methodologies (Skrondal and Rabe-Hesketh 2004). Another popular way of constructing an index is to employ factor analysis (or principal component analysis) which uses correlations between variables to determine the underlying factor (in this case financial capability) represented by the variables (e.g. Taylor et al 2004; Capellari and Jenkins 2007). This method allows us to construct a factor score for each individual that measures the particular combination and weighting of variables used.[2]

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[1] In the following we adopt the latter approach, although we have also constructed an alternative summary indicator of people's financial situation that adds together the number of financial problems they face. Results from analysis using this variable are consistent with those presented here. The exact size of the impact will depend on their original income. Remember that this definition of amount saved per month does not include mortgage repayments, which could be viewed as a form of saving.

## Identifying the common characteristic

Our aim is to construct an index of financial capability that can be traced over time. The individual variables can be interpreted as reflecting a common, underlying characteristic ('financial capability') if there is a consistent tendency for an individual who scores highly on one also to score highly on each of the other variables. We test the internal consistency of such summary measures using Cronbach's alpha which is calculated on the basis of the number of contributing variables and the correlations between them. Alpha takes a value between 0 and 1, with one indicating perfect internal consistency. The literature suggests that a good summary indicator should have a value of alpha of at least 0.7 (Nunnally and Bernstein 1994). Before constructing an index, we examine the inter-item correlations, which we present in Table 27. Because some of the variables have different scales (e.g. perceived current financial situation, number of consumer durables), we have standardised all the variables to have mean zero and variance one. We have also standardised the correlations with the consumer durables variable so that the positive correlations here indicate that, for example, individuals in a difficult financial situation have access to fewer consumer durables.

| Table 27: Standardised inter-item correlations: BHPS 1991–2006 | | | |
| --- | --- | --- | --- |
| Variable | Item-rest correlation | Average inter-item correlation if item removed | Alpha if item removed |
| Financial situation | 0.3919 | 0.1873 | 0.6174 |
| Situation worsened | 0.2676 | 0.2087 | 0.6487 |
| Expect situation to worsen | 0.1093 | 0.2378 | 0.6860 |
| Housing payment problems | 0.6400 | 0.1484 | 0.5496 |
| Required borrowing | 0.3682 | 0.1913 | 0.6235 |
| Required cutbacks | 0.6038 | 0.1538 | 0.5599 |
| Arrears | 0.3563 | 0.1933 | 0.6265 |
| Number of durables (–) | 0.1240 | 0.2350 | 0.6826 |
| Total | | 0.1945 | 0.6589 |

The item-rest correlation shows the correlation between each variable and the index that is formed by all the other items, while the average inter-item correlation shows the inter-item correlations excluding the relevant variable, and therefore indicates whether or not excluding the relevant variable would increase the average inter-item correlation. The last column of the table presents Cronbach's alpha for the index formed by excluding the relevant variable, and therefore indicates whether the internal consistency of the index would be improved by excluding the relevant variable. The results presented in Table 27 indicate that expecting your financial situation to worsen and the number of durables appear to be least well correlated with the other variables. They have the lowest item-rest correlation (indicating they are least well correlated with an index formed by all other items), and the average inter-item correlation and alpha would both increase if they were removed. This may be explained by the fact that individuals' expectations about changes in their financial situation can be independent of their current financial situation, while the number of durables may reflect income as much as financial capability. We therefore exclude these two variables from the analysis.

This leaves us with the following variables from which to construct an index:

■ Perceived current financial situation;

■ Reporting that the financial situation has worsened since last year;

- Has housing payment problems[3];

- Problems required borrowing;

- Problems required cutbacks; and

- Been at least 2 months in housing arrears in last 12 months.

The internal consistency of such a summary measure yields a Cronbach's alpha of 0.72 and an average inter-item correlation of 0.3, which suggests it is a good summary indicator and that the individual variables all contribute to the underlying financial capability component in the same way. Wave-specific estimates show Cronbach's alphas that vary between 0.69 and 0.75, and average inter-item correlations that vary between 0.27 and 0.33, suggesting that the index has internal consistency across time.

This factor measures people's inability to manage their finances – their financial incapability – because of the way the underlying variables are coded. Therefore we multiply it by –1 so that higher values of the factor reflect higher financial capability and vice versa. The distribution of the underlying factor score is summarised in Table 28. Table 28 indicates that the index has a mean of zero (by construction) and a standard deviation of 0.648 and varies between –4.648 (indicating low financial capability) and 0.421 (indicating high financial capability).

| Table 28: Index of financial capability: BHPS 1991–2006 | | | | |
|---|---|---|---|---|
| | Mean | Std Dev | Min | Max |
| Financial capability | 0.000 | 0.648 | −4.648 | 0.421 |

Notes: Index constructed using factor analysis from: Current financial situation; Financial situation worsened since last year; Has housing payment problems; Problems required borrowing; Problems required cutbacks; and Been at least 2 months in arrears in last 12 months.

# Adjusting for income

Of course, financial capability is strongly related to income and it can be argued that any measure of financial capability should be adjusted for income. Financial capability should capture how capable people are at managing their finances independent of their income levels. Here we investigate the relationship between our index of financial incapability and income, defined as gross monthly household income (in the month prior to interview), deflated to January 2006 prices. Our index of financial capability yields a Spearman rank correlation coefficient with income of 0.28, suggesting that financial capability improves as income increases.

To create an income adjusted measure of financial incapability, we follow the procedure adopted in Melhuish and Malin (2008) and regress the index of financial capability on real monthly household income (in January 2006 prices) and use the residuals as our income-adjusted index of financial capability. The results from this Ordinary Least Squares (OLS) regression are shown in Table 29. The residuals from this regression can be interpreted as the part of financial capability that is not explained by income. The relatively small (if statistically significant) coefficients on the quadratic and cubic terms suggest that the non-linearities in the relationship between income and financial capability are small.

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[3] We have experimented with a number of different combinations of the housing payment problems variables, including creating a single variable measuring the scale of the problems and including the separate variables independently of the others. The current specification appears to provide the most consistent index.

| Table 29: OLS Regression of household income on index of financial capability: BHPS 1991–2006 | | |
|---|---|---|
| Variable | Coefficient | t-statistic |
| Real monthly household income (£1000s) | 0.0899 | 33.63 |
| Real monthly household income$^2$ (£1000s) | −0.0041 | 18.70 |
| Real monthly household income$^3$ (£1000s) | 0.0001 | 15.65 |
| Constant | −0.2018 | 26.76 |
| $R^2$ | 0.0301 | |
| N individuals | 16595 | |
| N observations | 124806 | |

Notes: Estimates from ordinary least squares regression where dependent variable is index of financial capability. Standard errors adjusted for clustering on individuals.

**Figure 6: Relationships between financial capability and household income: BHPS 1991–2006**
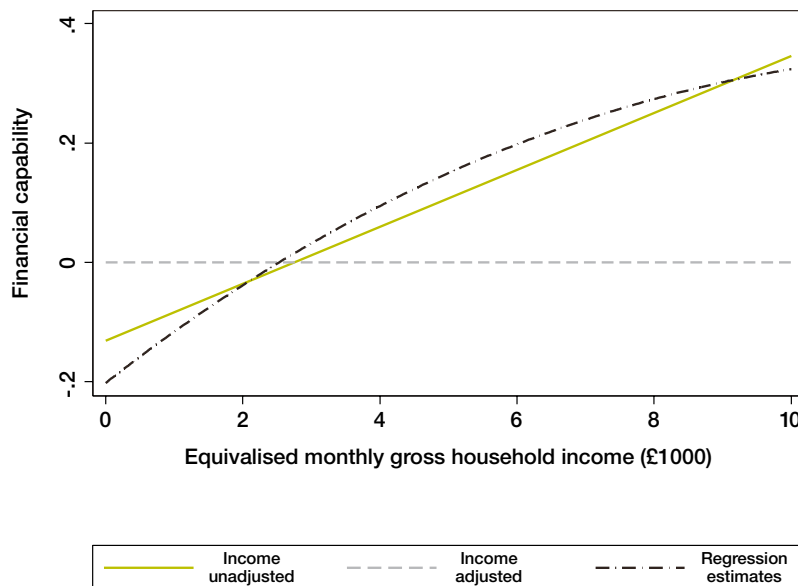


Source: BHPS 1991-2006

This is highlighted in Figure 6 which plots the index of financial capability, the income-adjusted index, and the estimated regression line. The closeness of the estimated line to the income-unadjusted index indicates that the income-adjusted and income-unadjusted indices will only differ at low household income levels (below £1000 per month). Given that over 80% of income observations lie above this level, we expect the income-adjusted and the income-unadjusted indices to provide similar results. This figure also confirms that the income-adjusted index is unrelated to income.

It's important to note that, according to Figure 6, financial capability rises much faster at the lower end of the income scale. For example, an additional £1000 per month in household income increases financial capability by more for an individual with a household income of less than £3000 per month than for one with an income of more than £6000 per month. Therefore increasing incomes of those at the bottom of the income distribution will have relatively larger effects on financial capability than increasing incomes of those at the top of the distribution.

Table 30 describes the distribution of the income-adjusted index of financial capability. It shows that the income-adjusted index has a mean of zero and a standard deviation of 0.638 and varies between –4.958 (indicating low financial capability) and 1.460 (indicating high financial capability). Our income-adjusted index of financial capability has a Spearman rank correlation coefficient of 0.89 with the unadjusted index.

| Table 30: Income-adjusted index of financial capability: BHPS 1991–2006 | | | | |
|---|---|---|---|---|
| | Mean | Std Dev | Min | Max |
| Income-adjusted financial capability | 0.000 | 0.638 | −4.958 | 1.460 |

Notes: Index constructed using factor analysis from: Current financial situation; Financial situation worsened since last year; Whether saves; Has housing payment problems; Problems required borrowing; Problems required cutbacks; and Been at least 2 months in arrears in last 12 months.

Further analyses of such a measure of financial capability are described in Taylor et al (2009) and Taylor (2009), and show an increase in average financial capability from the early 1990s until 2004, after which there is some evidence of an increase (see also Figure 7). Analysis also shows that financial capability is not a relatively stable characteristic but instead fluctuates considerably at the individual level, presumably in response to other (possibly expected and unexpected) events that individuals experience (see Taylor et al 2009 and Taylor 2009 for further details).

**Figure 7: Plot of Index of financial capability: BHPS 1991–2006**
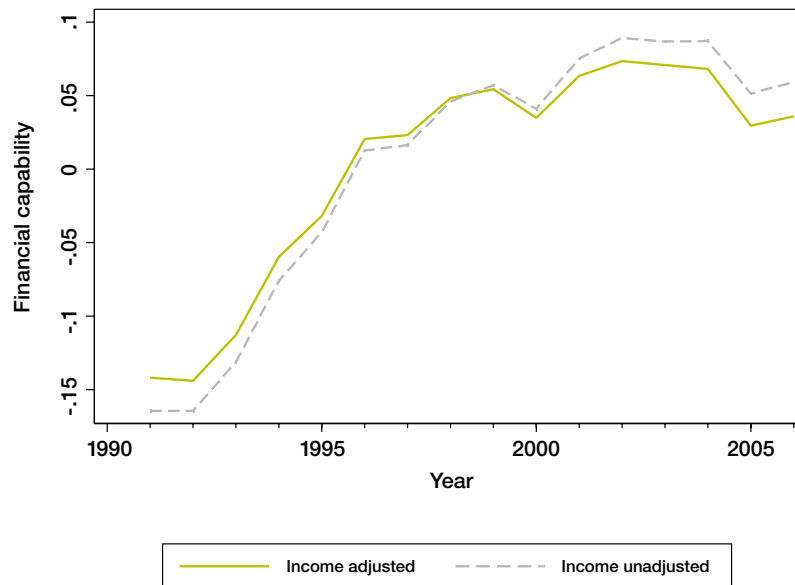


Source: BHPS 1991-2006

## 6.3   Who is financially capable?

Before describing the relationships between financial capability and saving behavior, we first briefly describe the characteristics of people classified as financially capable and those classified as financially incapable. To do this, we look at the characteristics of people in different quintile groups of the financial capability distribution, focusing on basic demographic characteristics (gender, age, household type), labour market status, and housing tenure. In the following we focus on income-adjusted financial capability, as we wish to abstract from any relationship between people's characteristics and their incomes.

### Age and gender

In Table 31 we summarise people's gender, age and household income by their financial capability quintile group. This indicates that a larger proportion of people in the lowest capability quintile group than in the highest quintile group are men. Almost one-half (48%) of those in the lowest financial capability quintile group were men, in contrast to 43% of those in the highest quintile group. Those with the highest financial capability also tend to be older than those with less financial capability. For example, the average age of those in the highest financial capability quintile group was 57 compared with 42 among those in the lowest financial capability quintile group. Hence the most financially capable are more likely than those with the least financial capability to be women, and to be older.

| Table 31: Financial capability and age and gender: BHPS 1991–2006 | | |
|---|---|---|
| Financial capability | Proportion male | Mean age |
| Least financially capable | 0.484 | 41.5 |
| Second quintile group | 0.487 | 44.6 |
| Third quintile group | 0.477 | 44.8 |
| Fourth quintile | 0.465 | 44.3 |
| Most financially capable | 0.429 | 57.1 |

Notes: Weighted using cross-sectional weights. Table reads, for example, that the average age of people in the lowest financial capability quintile group was 41.5 years, compared with 57.1 years among those in the highest financial capability quintile group.

### Household type

In Table 32 we summarise people's household type by their financial capability, distinguishing between single people (elderly and non-elderly), couples with and without dependent and non-dependent children, single parents and other household types. A number of important patterns emerge from this table. Firstly we see that only 3.5% of people with the lowest financial capability are single elderly, compared with 22% of those in the highest financial capability quintile group. Also, 40% of those in the highest capability quintile group are in couples with no children, compared with 21% of those in the lowest quintile group. In contrast, households with children are more concentrated in the lower financial capability quintile groups. For example, 35% of people in the lowest quintile group are in couples with dependent children, 17% are in couples with non-dependent children and 12% are in single parent households. Therefore almost two thirds of people in the lowest capability quintile group contain children. About 14% of people in the highest financial capability quintile group are in couples with dependent children, 6% in couples with non-dependent children, and 7% in single parent households. Therefore fewer than 30% of people with the most financial capability are in households with children. This pattern is likely to reflect the fact that, for any given household income, children represent an additional financial burden.

| Table 32: Financial capability and household type: BHPS 1991–2006 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Financial capability | Single | Single elderly | Couple no kids | Couple dep. kids | Couple non-dep. kids | Single parent | Two+ unrelated adults | Other household type |
| Least financially capable | 0.072 | 0.035 | 0.212 | 0.348 | 0.166 | 0.123 | 0.024 | 0.019 |
| Second quintile group | 0.053 | 0.068 | 0.269 | 0.298 | 0.192 | 0.083 | 0.019 | 0.018 |
| Third quintile group | 0.044 | 0.043 | 0.307 | 0.317 | 0.170 | 0.085 | 0.012 | 0.013 |
| Fourth quintile | 0.079 | 0.064 | 0.313 | 0.300 | 0.134 | 0.085 | 0.011 | 0.013 |
| Most financially capable | 0.085 | 0.221 | 0.404 | 0.143 | 0.062 | 0.065 | 0.008 | 0.013 |

Notes: Row percentages. Weighted using cross-sectional weights. Table reads, for example, that on average 7% of those with the lowest financial capability were in single non-elderly households, compared with 8.5% of those in highest financial capability quintile group.

## Labour market status

We next describe the relationship between financial capability and labour market status, with the status of those in each financial capability quintile group summarised in Table 33. Again, a number of interesting patterns emerge. A larger proportion of these with low financial capability than high financial capability are unemployed or economically inactive. For example, over 8% of those in the lowest financial capability quintile group are unemployed, compared to 1.4% of those in the highest financial capability quintile group. 22% of people in the lowest quintile group are economically inactive, compared with 15% of those in the highest quintile group. Given that financial capability is income-adjusted, this suggests that either the unemployed or economically inactive suffer in terms of their financial capability, or possibly that those with low capability are also more likely to enter unemployment or economic inactivity. In contrast, a large proportion – 45% – of those with high financial capability are retired. This may be because the retired have more time, and more experience, allowing them to make appropriate financial decisions, or it may reflect the fact that people with high financial capability make good financial decisions throughout their life and are therefore more able to retire at a younger age.

In general employment rates, and in particular the proportion that are in full-time employment, increases with financial capability. For example, 56% of people in the lowest financial capability quintile group are in employment (and 38% are in full-time work). This compares with 65% of those who are in the fourth financial capability quintile group (of whom 46% are in full-time employment). However, only 37% of those in the highest financial capability quintile are in employment (23% in full-time work), while 45% of this group are retired. Therefore generally employment is associated with higher financial capability (and this is independent of the income it provides), although those with the most financial capability tend to be retired.

| Table 33: Financial capability and labour market status: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| Financial capability | Employed full time | Employed part-time | Self-employed | Unemployed | Economically inactive | Retired |
| Least financially capable | 0.378 | 0.110 | 0.073 | 0.082 | 0.221 | 0.122 |
| Second quintile group | 0.411 | 0.098 | 0.069 | 0.040 | 0.179 | 0.189 |
| Third quintile group | 0.447 | 0.117 | 0.065 | 0.023 | 0.165 | 0.170 |
| Fourth quintile | 0.456 | 0.122 | 0.070 | 0.018 | 0.157 | 0.162 |
| Most financially capable | 0.227 | 0.080 | 0.063 | 0.014 | 0.152 | 0.453 |

Notes: Row percentages. Weighted using cross-sectional weights. Table reads, for example, that on average 38% of those with the lowest financial capability were in full-time employment, compared with 23% of those in highest financial capability quintile group.

## Housing tenure

Finally we examine the relationship between financial capability and housing tenure – shown in Table 34. This suggests that generally home-owners (and those that own their home outright in particular) have higher levels of financial capability than tenants. For example about 66% of those in the lowest financial capability quintile group are home owners (and 14% own their home outright), compared with 73% of those in the highest financial capability quintile group (of whom 44% own their home outright). This relationship may reflect the fact that the financially capable are more able to organise their finances, to save sufficient money to afford a deposit on a home, and therefore be able to obtain a mortgage. One in four of those with low financial capability are social tenants, while 10% are private tenants, and these proportions are smaller among those with higher levels of financial capability.

From these descriptive statistics we conclude that the most financially capable tend to be older, in households without children, retired, and own their home outright. In contrast, those with least financial capability tend to be younger, in households with children, are more likely to be unemployed or economically inactive and live in social housing. We next turn to examining the relationships between financial capability and saving behavior.

| Table 34: Financial capability and housing tenure: BHPS 1991–2006 | | | | |
|---|---|---|---|---|
| Financial capability | Own outright | Own with mortgage | Social tenant | Private tenant |
| Least financially capable | 0.136 | 0.523 | 0.243 | 0.098 |
| Second quintile group | 0.260 | 0.515 | 0.151 | 0.074 |
| Third quintile group | 0.225 | 0.528 | 0.181 | 0.066 |
| Fourth quintile | 0.251 | 0.523 | 0.157 | 0.069 |
| Most financially capable | 0.444 | 0.283 | 0.199 | 0.074 |

Notes: Row percentages. Weighted using cross-sectional weights. Table reads, for example, that on average 14% of those with the lowest financial capability owned their home outright, compared with 44% of those in highest financial capability quintile group.

## 6.4   Saving behaviour and financial capability

We now turn to a descriptive analysis of the relationship between saving behaviour and financial capability, the first analytical step towards developing and understanding the links between financial capability and the incidence and levels of savings. Analysis exploring the effects of confounding and mediating factors such as education, age, and employment status will be investigated in subsequent sections.

As a first step in establishing the relationships between saving behaviour and financial capability, Table 35 presents Spearman rank correlation coefficients. This shows positive correlations between the measures of financial capability and the act of saving, the amount saved per month and the proportion of household income saved. Therefore people with relatively high levels of financial capability tend to have relatively high savings activity (both in terms of the incidence and the amount or proportion saved).

| Table 35: Correlations between saving behaviour and financial capability: BHPS 1991–2006 | Saves from current income | Amount saved | | Proportion saved | |
|---|---|---|---|---|---|
| | | All | Conditional on saving | All | Conditional on saving |
| Income-unadjusted capability | 0.266 | 0.298 | 0.268 | 0.285 | 0.187 |
| Income-adjusted capability | 0.161 | 0.167 | 0.063 | 0.198 | 0.271 |
| Notes: Spearman rank correlation coefficients. | | | | | |

Generally the strongest correlations are between savings activity and the income-unadjusted index, which reflects the influence of income in both of these activities. The exception is when looking at the proportion of income saved. Here we see that the correlation is higher with income-adjusted capability than with the income-unadjusted measure. Therefore once adjusting for income we find a stronger relationship between the proportion of household income saved and financial capability – conditional on saving the more financially capable save a larger proportion of their income.

As we wish to abstract from people's household income in analysing the relationships between saving and financial capability, we use the income-adjusted measure for the remainder of this report. Tables which use income-unadjusted financial capability are included in the Annex for reference.

Table 36 looks at the relationship between the incidence of saving and income-adjusted financial capability in more detail. It gives the means of financial capability by whether or not an individual is saving from current income. This shows that those that currently save had significantly higher levels of financial capability than those who do not save. Savers had an average income-adjusted financial capability of 0.138 (which is above the sample average of zero), while those not saving had an average of –0.065 (which is below the sample average). Therefore this table illustrates a clear relationship between financial capability and the act of saving – savers are on average more financially capable.

| Table 36: Summary of financial capability by whether saves | |
|---|---|
| Whether saves from current income | Average financial capability |
| Yes | 0.138 |
| No | −0.065 |
| Notes: See text for how financial capability defined. Differences by whether saves statistically significant at the 5% level. | |

In Table 37 we summarise the relationships between saving behaviour financial capability in more detail. Not surprisingly given the previous evidence, we find most savings activity among the most financially capable. For example, on average over the period 44% of those in highest financial capability quintile group saved from their current income compared to 49% of those in the second quintile group and only 24% of those who are least financially capable. This pattern is evident in each year. However, the table also indicates that the proportion of people saving fell over time for those with high financial capability, while it remained relatively constant for those with less financial capability. The proportion of those in the highest financial capability quintile group who saved fell from 49% in 1991 to 40% in 2006. In contrast, the incidence of savings for those in the bottom two financial capability quintile groups remained stable at about 36% and 23%.

People in the middle 60% of the financial capability distribution saved the largest amounts, exceeding £180 per month on average over the period. In contrast, those with the most financial capability saved on average £158 per month. This apparent anomaly may be caused by the income adjustment, which removes the association between financial capability and income. Therefore those with less financial capability may actually have relatively high incomes and therefore actually be able to save relatively large amounts. Despite this, those with the least income-adjusted financial capability saved the lowest amounts per month (an average of £122).

Table 37 indicates that the most financially capable saved the largest proportion of their household income, and this increased over the period. For example, in 1991 people in this quintile group saved 8.5% of their household income, while in 2006 this increased to 10.3%. The proportion of income saved is lower for those with less financial capability, such that those in the lowest financial capability quintile group saved 3.9% of their household income. Therefore those with most financial capability are more likely to save than those with less financial capability and to save a larger proportion of their household income, although this translates to a lower amount per month than those with less financial capability.

| Table 37: Saving behaviour by the income-adjusted index of financial capability: BHPS 1991–2006 | | | | | |
|---|---|---|---|---|---|
| | Year | | | | Average |
| | 1991 | 1996 | 2001 | 2006 | |
| **Saves from current income** | | | | | |
| Most financially capable | 0.489 | 0.444 | 0.429 | 0.396 | 0.436 * |
| Second quintile | 0.509 | 0.488 | 0.486 | 0.467 | 0.487 |
| Middle quintile | 0.454 | 0.420 | 0.399 | 0.416 | 0.422 |
| Fourth quintile | 0.348 | 0.356 | 0.375 | 0.370 | 0.368 |
| Least financially capable | 0.214 | 0.224 | 0.236 | 0.230 | 0.235 |
| N | 8506 | 8010 | 7531 | 6958 | 122102 |
| **Amount saved conditional on saving** | | | | | |
| Most financially capable | 152.80 | 157.90 | 148.89 | 167.41 | 158.14 * |
| Second quintile | 169.58 | 185.57 | 203.13 | 181.57 | 183.84 |
| Middle quintile | 176.21 | 171.46 | 206.69 | 241.21 | 190.80 |
| Fourth quintile | 141.06 | 160.62 | 184.29 | 209.30 | 180.06 |
| Least financially capable | 99.01 | 112.59 | 141.47 | 140.22 | 121.81 |
| **Proportion saved conditional on saving** | | | | | |
| Most financially capable | 0.085 | 0.089 | 0.086 | 0.103 | 0.091 * |
| Second quintile | 0.056 | 0.062 | 0.060 | 0.058 | 0.061 |
| Middle quintile | 0.048 | 0.048 | 0.052 | 0.053 | 0.050 |
| Fourth quintile | 0.044 | 0.047 | 0.046 | 0.049 | 0.048 |
| Least financially capable | 0.036 | 0.037 | 0.040 | 0.039 | 0.039 |
| N | 3292 | 3140 | 3007 | 2671 | 48249 |

Notes: Weighted using cross-sectional weights. Table reads, for example, that in 1991 48.9% of adults in the most financially capable quintile group saved from their current income, compared to 21.4% of those in least the financially capable quintile group. 'Average' shows data pooled from waves 1 to 16. * indicates that the average scores by the income-adjusted index of financial capability over the sample period are significantly different at the 5% level. Income deflated to January 2006 prices.

Table 38 looks at the relationship between changes in financial capability and changes in saving behaviour. This indicates that changes in the propensity to save are strongly related to changes in financial capability. In particular, people whose financial capability increased between two consecutive waves were more likely than average to increase their propensity to save. Before

the increase in financial capability 37% were saving, while after the increase 40% were saving. Conversely, those whose financial capability fell also experienced a fall in their propensity to save, by 3.5 percentage points (from 43% to 39%).

A similar picture emerges when looking at the amount saved per month. Those whose financial capability increased between two consecutive waves also increased the amount they saved per month by more than the sample average, from £176 to £189. Those whose financial capability fell also increased the amount they saved per month, but only by £3. Furthermore, those whose financial capability increased subsequently saved a larger proportion of their income – from 5.7% to 6.8%. In contrast, those whose financial capability fell reduced the proportion of income they saved per month, from 6.5% to 6%.

| Table 38: Mean changes in saving behaviour by changes in financial capability: BHPS 1991–2006 | | | | |
|---|---|---|---|---|
| | t–1 | t | Change | N |
| Sample average | | | | |
| Saves from current income | 0.400 | 0.398 | −0.002 | 96907 |
| Conditional amount saved | 183.21 | 191.30 | 8.09 | 27958 |
| Conditional proportion saved | 0.061 | 0.063 | 0.002 | 27958 |
| Financial capability increased | | | | |
| Saves from current income | 0.371 | 0.403 | 0.032 | 47048 |
| Conditional amount saved | 175.64 | 189.33 | 13.69 | 13033 |
| Conditional proportion saved | 0.057 | 0.068 | 0.010 | 13033 |
| Financial capability fell | | | | |
| Saves from current income | 0.428 | 0.393 | −0.035 | 49272 |
| Conditional amount saved | 190.87 | 193.74 | 2.87 | 14758 |
| Conditional proportion saved | 0.065 | 0.060 | −0.005 | 14758 |

Notes: Table reads, for example, that individuals in households that experienced an increase in their financial capability between two consecutive years on average experienced an increase in their propensity to save from their current income from 0.372 to 0.402. Amount saved and gross monthly household income deflated to January 2006 prices.

## 6.5   Summary

In this section we have documented the degrees of association between various indicators of financial capability available at all BHPS waves. Analysis of average inter-item and item-rest correlations indicate that a reliable and consistent index of financial capability can be constructed from an individual's perceived current financial situation, reporting that their financial situation worsened in the last year, whether they have housing payment problems, whether these problems have required cutbacks or borrowing, and whether they have been at least two months in housing arrears in the last twelve months. We construct a version of this measure of financial capability that is adjusted for income which we then take forward into subsequent analysis. This reveals that the most financially capable tend to be older, in households without children, retired, and own their home outright. In contrast, those with least financial capability tend to be younger, in households with children, are more likely to be unemployed or economically inactive and live in social housing. Analysis also reveals positive correlations between financial capability and saving behaviour. Higher financial capability is associated with a higher savings incidence and saving a larger amount per month and proportion of income per month. Furthermore increases in financial capability are associated with a higher probability of saving and with increases in the amount and proportion of income saved.

# 7 Modelling transitions into and out of saving

Thus far our analysis has focused on people's saving behaviour either at one point in time or changes between two consecutive dates of interview. Such analysis, although informative, is not able to identify the number of consecutive years in which people save, or the numbers of consecutive years before people start to save. Survival analysis allows us to do this by studying the time taken until an event occurs – in our case the event is either stopping to save or starting to save. In this section we describe the methodology behind this approach and examine transitions into and out of saving by a range of individual and household characteristics.

## 7.1    Estimating the time to an event

To study transitions into and out of saving, we use what is known in the literature as 'survivor functions'. These essentially give the proportion of individuals that save who are observed to save for a given amount of time (a more complete description of the following is available in Jenkins 2004). The proportion of individuals who currently save and who remain saving to the first observed survival time $t_1$ (e.g. were saving in wave one of the BHPS and who were still saving at wave two), denoted $\hat{S}(t_1)$, is simply one minus the proportion who stopped saving by that time. This can be estimated by the number of exits ($d_1$) divided by the number who were at risk of exiting $(d_1 + m_1)$: $d_1/(d_1 + m_1) = d_1/n_1$ . Similarly, the proportion surviving to the second observed survival time $t_2$ is $\hat{S}(t_1)$ multiplied by one minus the proportion who stopped saving between $t_1$ and $t_2$. Generalising this, at any survival time $t_j$,

$$\hat{S}\big(t_j\big)= \prod_{j|t_j<t}\left(1-\frac{d_j}{n_j}\right)$$

Therefore the estimated survival rate is given by the product of one minus the number of exits divided by the number of persons at risk of exit. We use this to estimate survival rates both out of saving and into saving (which looks that the survival time when not saving). We describe these by a range of individual and household characteristics in the remainder of the section.

## 7.2    Survival rates into and out of saving

In this section we describe the survival rates in saving – i.e. the number of consecutive BHPS waves at which people save before stopping – and the survival rates in not saving (the number of consecutive BHPS waves at which people do not save before starting to save). For ease of exposition, we call the latter persistence in non-saving. It is important to note here that we have no information on people's saving behaviour prior to the first wave of the BHPS in wave one (in survival analysis jargon our data are left-censored – we do not know the exact start date of the spell in which individuals are first observed in 1991). Therefore it is possible that some people will have been saving for many consecutive years prior to when we first observe them in 1991, while for others 1991 will have been the first year in which they have saved. Furthermore, as some people will have started and stopped saving more than once between 1991 and 2006, the unit of analysis in the following is not the individual but the spell of saving/not saving. It is likely that some individuals will contribute multiple spells to the following analysis depending on the number of spells they have experienced. Finally, some people may be saving at two

consecutive BHPS waves but had stopped saving in the intervening period. Such between-wave interruptions in saving will not be picked up in these analyses.

Figure 8 plots the survival rate in saving in the BHPS. In this and subsequent figures, the x-axis shows the number of consecutive BHPS waves at which people are observed to save/not save (which will by definition take a value between two and sixteen), while the y-axis shows the proportion surviving in that state until that time. Therefore Figure 8 shows that of those who are saving at any particular BHPS wave, about 86% were still saving in the subsequent wave, while 80% were saving in the third wave. Hence about 14% of savers stopped saving after one year, while 20% stopped after two years and 25% stopped after three years. The slope of the curve becomes flatter after the first four years, indicating that the exit rate from saving fell with time spent saving – a smaller proportion of people stopped saving as the time spent saving got longer. After about five years saving, some 2% stopped saving each year. This is illustrated by the fact that more than 50% of people who save were still saving fifteen years later.

**Figure 8: Saving survivor rates: BHPS 1991–2006**
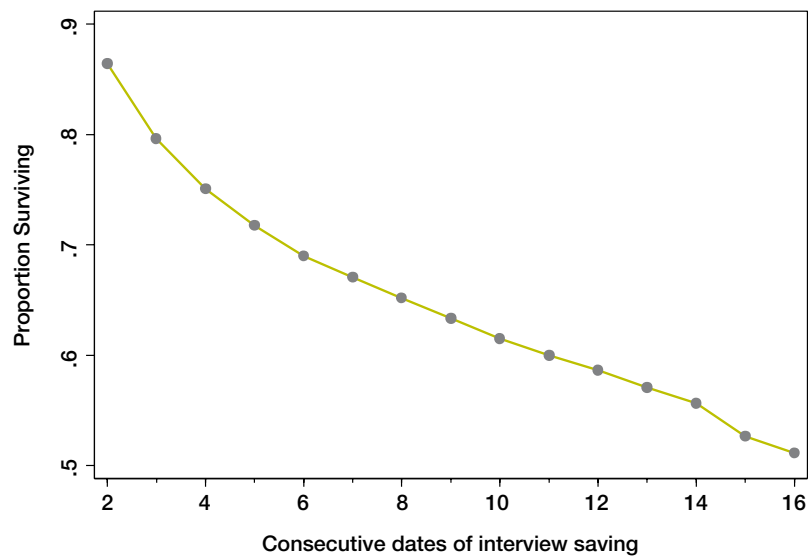


Source: BHPS 1991-2006

**Figure 9: Persistence in non-saving: BHPS 1991–2006**
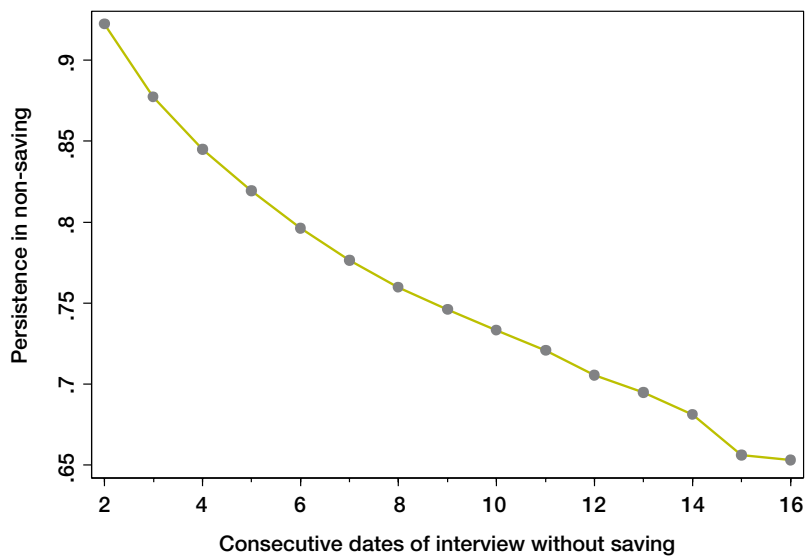
Source: BHPS 1991-2006

Figure 9 instead plots the persistence in non-saving – i.e. the time people who are not saving take to start saving. The first thing worth noting is that, comparing this to Figure 8, persistence in non-saving are higher than those in saving. Therefore on average people are more likely to stop saving than they are to start saving. Figure 9 shows that only 7% of those observed to be not saving started saving by the subsequent wave (93% survive), while 13% have started saving by the third wave (87% survive). Again, the graph slowly gets flatter over time, indicating that the survival rate increased as more consecutive waves were spent not saving (and so the probability of starting to save fell). For example, 75% of those not saving were still not saving eight years later while only 30% had started to save after twelve years. These figures suggest that people are most likely to stop or start saving relatively quickly, although there is a small but continuous flow of people who stop saving no matter for how long they have saved, and of people who start saving no matter for how long they have not been saving.

In Figure 10 we plot saving survival rates by the amount of money people were saving per month. We might expect those that were saving larger amounts to be less likely than those saving smaller amounts to stop saving, and Figure 10 suggests that this is the case. This shows clearly that those in the bottom quintile group of amount saved per month had the lowest survival rates, while those in the highest quintile group had the highest survival rates. (Note that the amounts saved are evaluated in the wave when individuals were first observed to be saving, and this figure will not pick up any changes in relative amounts saved over time.) For example, 80% of those in the bottom savings quintile group were still saving one year later, compared to 90% of those in the top savings quintile group. This differential in survival rates persists, and indeed gets larger, with time spent saving such that after six years fewer than 60% of those in the bottom quintile group were still saving compared to almost 80% of those in the top quintile group. Nevertheless, the figure shows that the median survival time in saving for those in the bottom savings quintile group is eleven years – 50% of those in the bottom quintile group have stopped saving after this time.

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**Figure 10: Saving survivor rates by amount saved: BHPS 1991–2006**
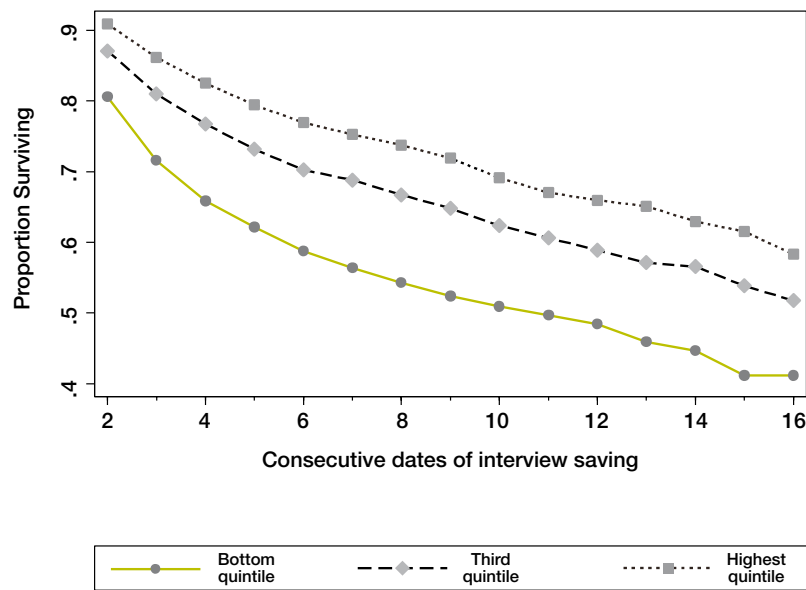


Source: BHPS 1991-2006

Figure 11 instead plots survival rates in saving by the proportion of household income saved – again evaluated when people were first observed to be saving. As with the amount saved, those who saved the smallest proportion of their household income were more likely to stop saving (they had a lower survival rate in saving) than those who save relatively large proportions of their income. For example, about 18% of those in the bottom quintile group of proportion of income saved stopped saving by the subsequent year, compared to 11% of those in the highest quintile group. This difference persists over time, such that after ten years about 55% of those in the bottom quintile group were still saving compared with 65% of those in the highest quintile group. However the differences in survival rates between those in the lowest proportion saved quintile group and those in the middle quintile group were much larger than between the middle quintile group and the highest quintile group.

These figures illustrate that the likelihood of stopping to save is strongly associated with both the amount of money saved per month and the proportion of household income saved per month – people who save relatively large amounts and relatively large proportions of their income are least likely to stop saving. We next describe how these survival rates, and those into saving, vary by a range of individual and household characteristics.

**Figure 11: Saving survivor rates by proportion saved: BHPS 1991–2006**



Source: BHPS 1991-2006
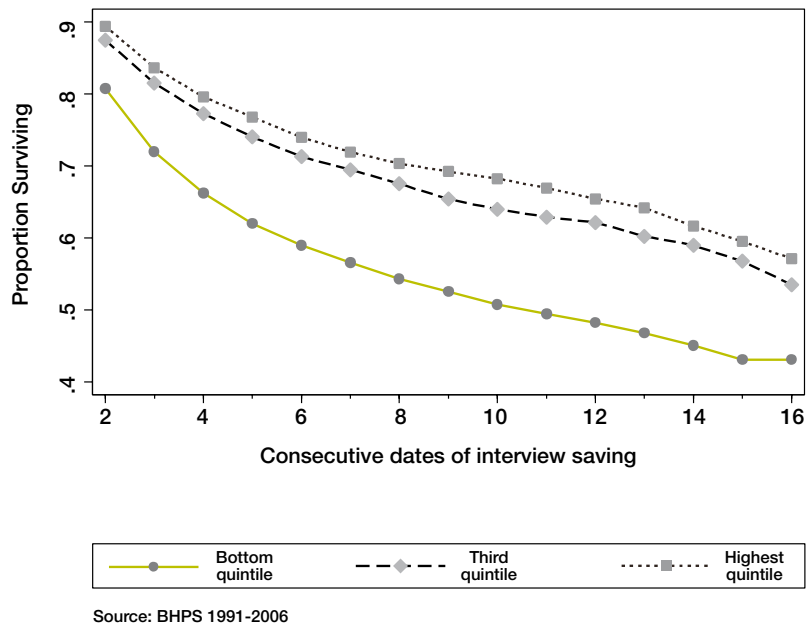
## 7.3 Relationships between survival rates and other characteristics

In the following we describe how the survival rates in saving (the number of consecutive BHPS waves at which people are observed to be saving) and the survival rates into saving (the number of consecutive BHPS waves at which people are observed not saving) vary with a range of individual and household characteristics. These are all evaluated when people are first observed in a particular state (saving or not saving), and therefore these analyses do not take into account any subsequent changes in characteristics over the spell (e.g. changes in employment status, household composition etc.).

### Gender
Figure 12 plots the saving survival rates separately for men and women. This suggests that, although the survival rates were higher for men than women, the differences are small. About 86% of men and women who started saving were still saving at the subsequent BHPS wave, while about 80% were still saving at the third wave. Small differences by gender emerge after three years of saving, and the gender-specific survival rates slowly diverge. For example, about 59% of women were still saving after ten years compared to 62% of men.

Figure 13 instead looks at persistence in non-saving – the number of consecutive BHPS waves at which people are not saving. This too reveals very small gender differences, of at most two percentage points. The figures suggest that men were marginally more likely to start saving than women, but the differences are small.

## Figure 12: Saving survivor rates by gender: BHPS 1991–2006
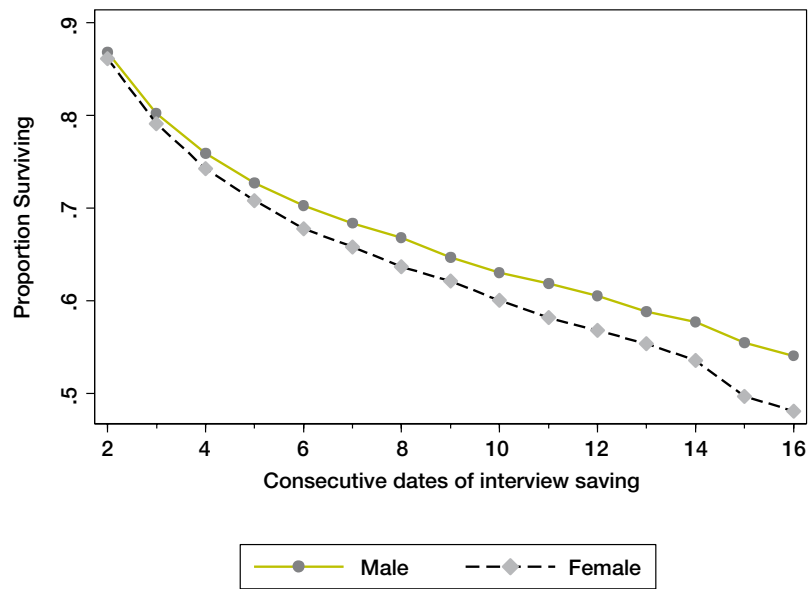


Source: BHPS 1991-2006

## Figure 13: Persistence in non-saving by gender: BHPS 1991–2006
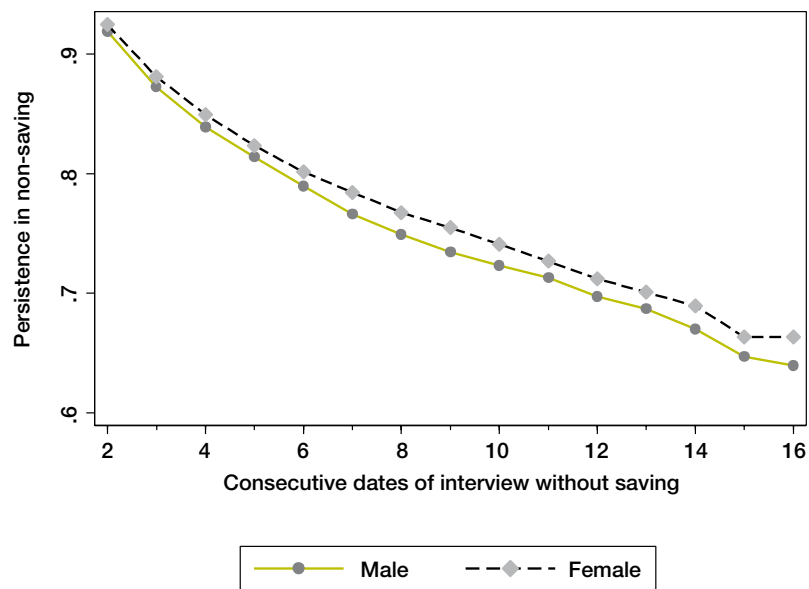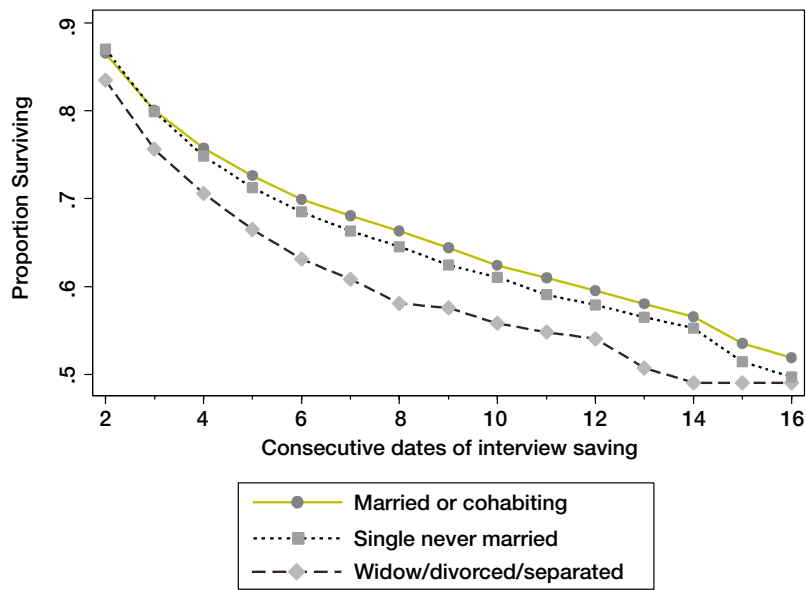


Source: BHPS 1991-2006

# Age

Figures 14 and 15 plot the survival rates by age, evaluated when first observed in a particular state. Figure 14, showing the saving survival rates, shows an interesting pattern. The lowest survival rates in saving were for people who were aged less than 25 and people aged 55 and older when they started to save. In contrast, those of prime working age when first observed saving (aged between 25 and 54) have relatively high survival rates in saving. Almost 20% of those aged 65 and older when first observed saving stopped saving again within one year, compared to about 10% of those aged 45 to 54. The differences by age get larger with the time spent saving such that after five years 63% of those aged 65 and above and about 65% of those aged between 55 and 64 and those below the age of 25 are still saving. This compares to between 75% and 80% of those aged between 25 and 54. Therefore people of prime working age when starting to save had the lowest transition rates out of saving, while people that were either young or old when starting to save were most likely to stop saving.

Figure 15 plots persistence rates in non-saving by age and again illustrates a clear relationship. In particular, a clear monotonic relationship emerges, with persistence in non-saving increasing with the age at which people were first observed to be not saving. For example after five years, 22% of those aged less than 25 years started to save (78% were still not saving). This compares to about 14% of those aged 55 and above (of whom 86% were still not saving after five years). These age differences become more pronounced over time, to such an extent that after ten years almost 40% of those aged less than 25 when first observed not saving started to save (63% were still not saving), compared with 20% of those aged 55 and above (of whom 80% were still not saving). Therefore people aged 55 and above had the lowest saving survivor rates and were also least likely to start saving, while those aged below 25 also had low saving survival rates but were most likely to start saving.

**Figure 14: Saving survivor rates by age: BHPS 1991–2006**
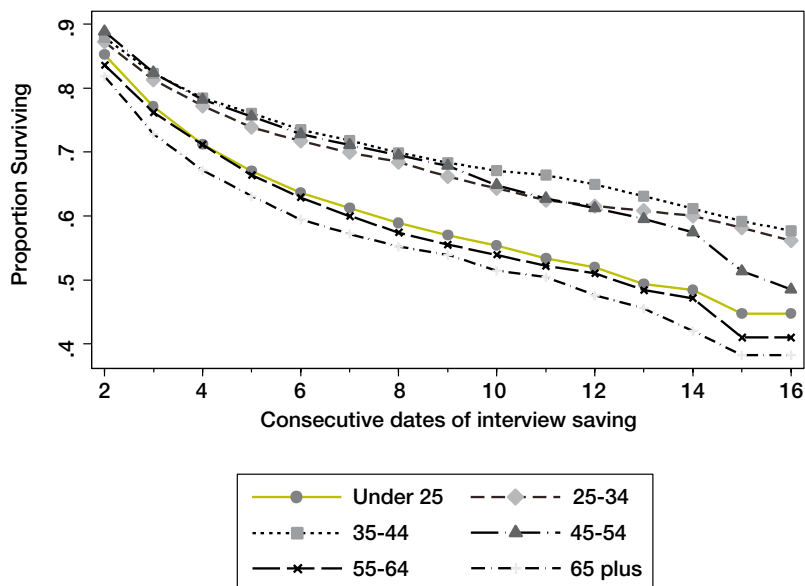


Source: BHPS 1991-2006

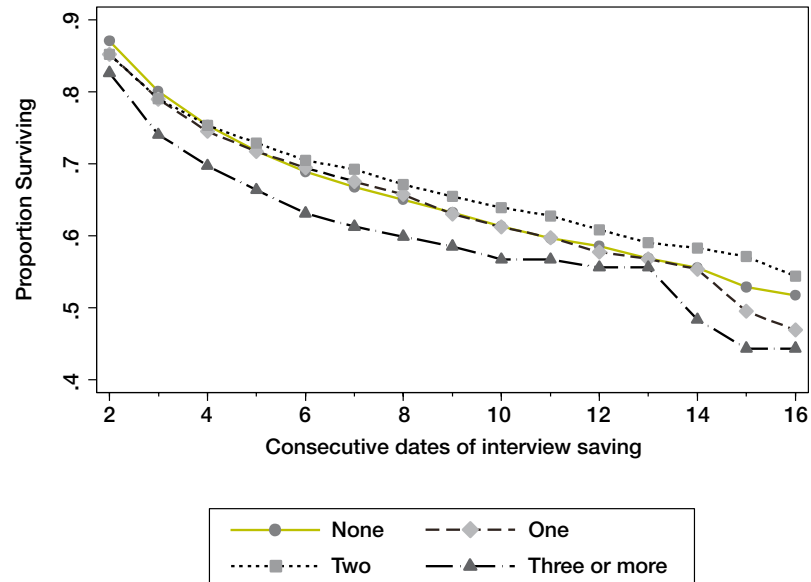**Figure 15: Persistence in non-saving by age: BHPS 1991–2006**
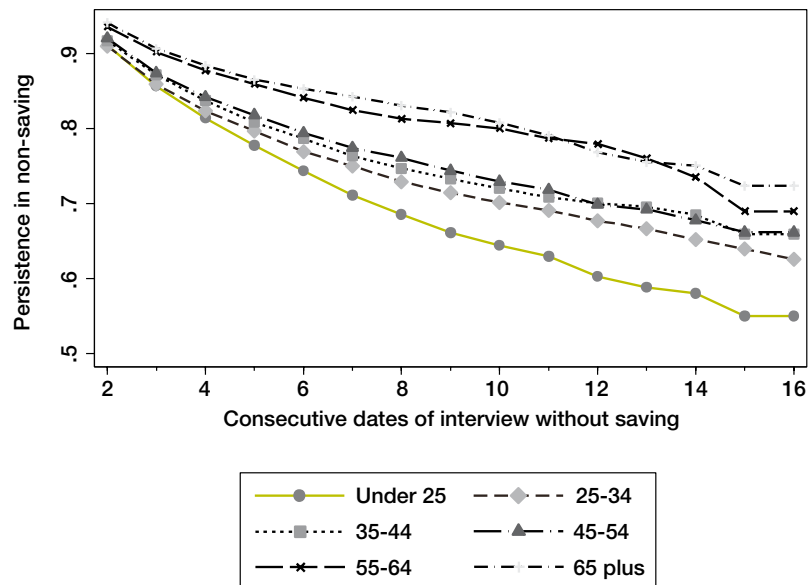


Source: BHPS 1991-2006

## Marital status

Figures 16 and 17 plot the survival rates by marital status, distinguishing between people who were married (or cohabiting), widowed, divorced or separated, and single never married. Figure 16 indicates that saving survival rates were similar for people that were married and cohabiting and the single never married. About 87% of these groups still saved after two BHPS waves, 80% after three and 75% after four. More than 60% were still saving after ten years. Survival rates in saving were considerably lower for the previously married (those that were divorced, separated or widowed when starting to save). For example 75% of this group remained savers after three BHPS waves and 70% were still saving after four. After ten years, 55% remained saving.

Figure 17 plots the persistence rates in non-saving by marital status. This indicates that the widowed, divorced or separated were least likely to start saving – they showed the highest persistence in non-saving. In contrast (and consistent with the patterns for age shown in Figure 15) the single never married had the lowest persistence rates and were most likely to start saving. The married and cohabiting had persistence rates that lie between these two groups. After five years, 86% of the widowed, divorced or separated were still not saving indicating that 14% had started to save. This compares with 82% of the married and 78% of the single never married (of whom 22% had started to save). After ten years, only 22% of the widowed, divorced or separated had started to save (78% remained non-savers), compared to 27% of the married or cohabiting, and 34% of the single never married. Therefore the widowed, divorced or separated had the lowest survival rates in saving and were also the least likely to start saving compared to the married and single never married.

**Figure 16: Saving survivor rates by marital status: BHPS 1991–2006**



Source: BHPS 1991-2006

**Figure 17: Persistence in non-saving by marital status: BHPS 1991–2006**
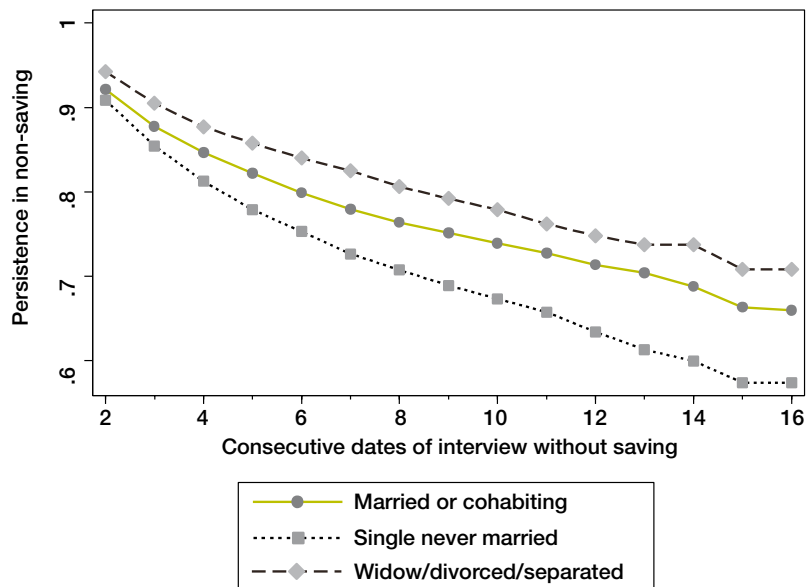


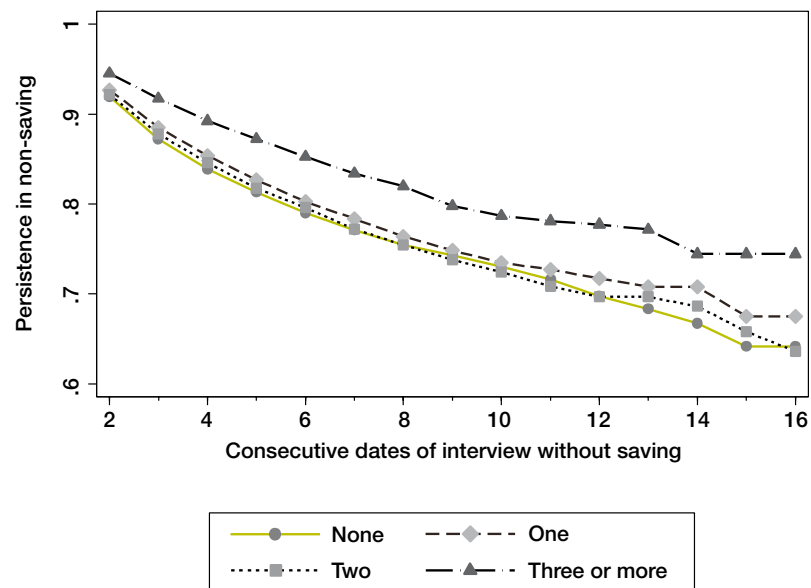Source: BHPS 1991-2006

## Household composition

Figures 18, 19, 20 and 21 focus on survival rates by different dimensions of household composition. The first two look at how survival rates differ by the number of children.

**Figure 18: Saving survivor rates by number of children: BHPS 1991–2006**



Source: BHPS 1991-2006

**Figure 19: Persistence in non-saving by number of children: BHPS 1991–2006**



Source: BHPS 1991-2006

Figure 18 indicates that generally there is little difference in the saving survival rates by the number of children. This is certainly true for those with two or fewer children – the survival rates in saving were very similar for those with none, one or two children. The figure indicates that about 75% of these groups were still saving after four years, while 65% were still saving after ten years. However people with three or more children had lower survival rates in saving – after four years about 30% stopped saving, and over 40% stopped saving by ten years. Therefore those with three or more children had higher transition rates than those with fewer children out of saving. Figure 19 reveals a similar pattern when looking at persistence in non-saving. In particular, those with three or more children had higher non-saving persistence rates than those with two or fewer children – they were least likely to start to save. The differences are such that, after ten years, 20% of those with three or more children had started to save, compared to 27% of those with two or fewer children.

Figure 20 plots the saving survival rates by household size, and shows a small but noticeable relationship. In particular it suggests that those in larger households (with five or more people) had the lowest survival rates in saving, while those in smaller households had higher survival rates. However these differences are not substantial – for example after five years 35% of those in households containing six or more people had stopped saving (65% survive) compared to 27% of those in households with fewer than five people. This differential remained relatively constant over time such that after ten years 42% of those in households with five or more people had stopped saving compared with 37% of those in households with fewer than five people. Figure 21 reveals little systematic relationship between household size and persistence in non-saving. There is some evidence that those in the largest households had the highest persistence rates, but this disappears after seven years. In general the persistence rates follow a similar pattern for each household size and there was little difference between household size categories.

| Figure 20: Saving survivor rates by household size: BHPS 1991–2006 |
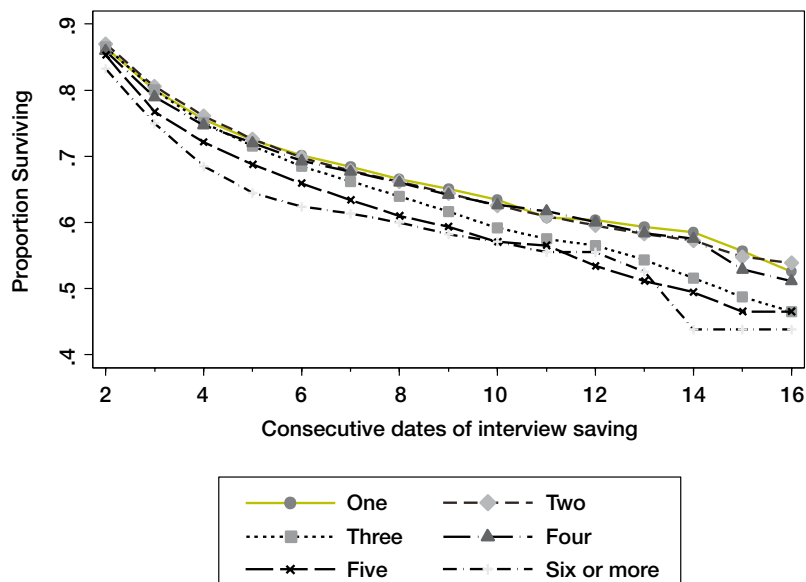


Source: BHPS 1991-2006

Figure 21: Persistence in non-saving by household size: BHPS 1991–2006
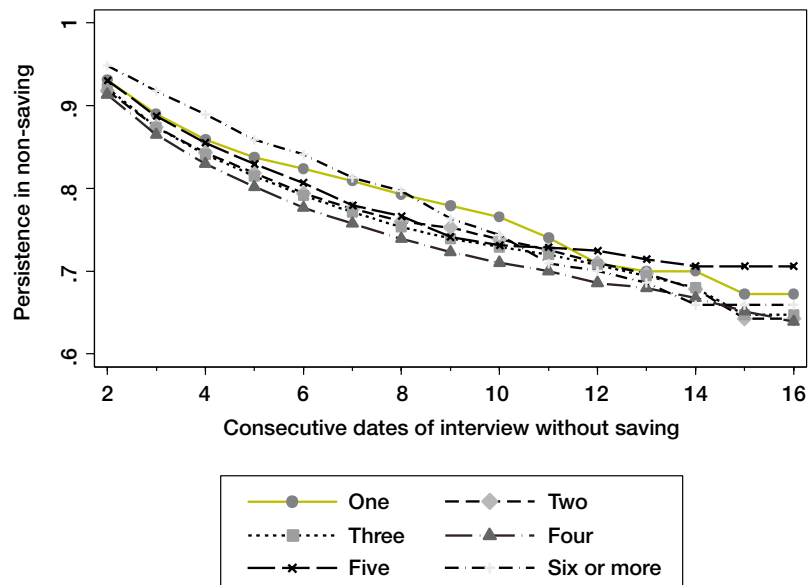


Source: BHPS 1991-2006

## Education

Figures 22 and 23 plot survival rates by highest educational level, differentiating between those with a first degree, those with other post-compulsory qualifications, with GCSEs or the equivalent or below, and those with no qualifications.

Figure 22: Saving survivor rates by education: BHPS 1991–2006
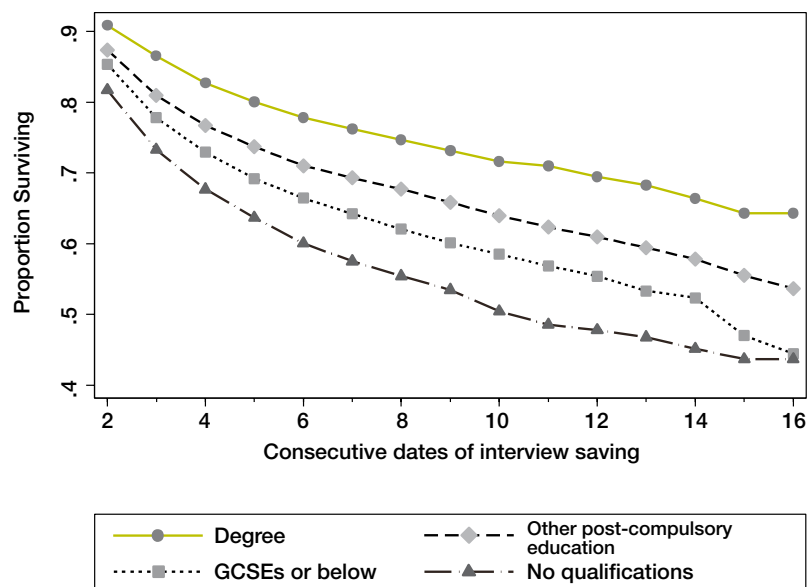


Source: BHPS 1991-2006

Figure 22 shows a clear relationship between continuing to save and the highest educational qualification achieved. People with a degree were most likely to continue to save while those with no qualifications were the least likely, and the differences in the survival rates are large. For example, over 90% of people with a degree were still saving in the subsequent year compared to 82% of those with no qualifications. After five years, fewer than 20% of those with a degree stopped saving, compared with more than 35% of those with no qualifications. After ten years, 37% of those with a degree stopped saving, compared with 50% of those with no qualifications. The survival rates for those with GCSEs and post-compulsory educational qualifications lie between these two extremes.

Figure 23 plots persistence rates in non-saving by highest educational qualification and reveals similarly large differences between those with higher qualifications and those with no qualifications. Those with no qualifications were least likely to start saving, while those with a degree or other post-compulsory qualification were most likely. For example, 10% of those with no qualifications started saving after four years, compared to 20% of those with a degree. This differential expands over time, such that after ten years only 15% of those with no qualifications started to save compared to 35% of those with a degree or other post-compulsory qualification. Therefore a strong relationship between transitions into and out of saving and qualification level emerges. Those with higher level qualifications were considerably more likely than those with no qualifications to start saving, and were much less likely to stop saving.

**Figure 23: Persistence in non-saving by education: BHPS 1991–2006**
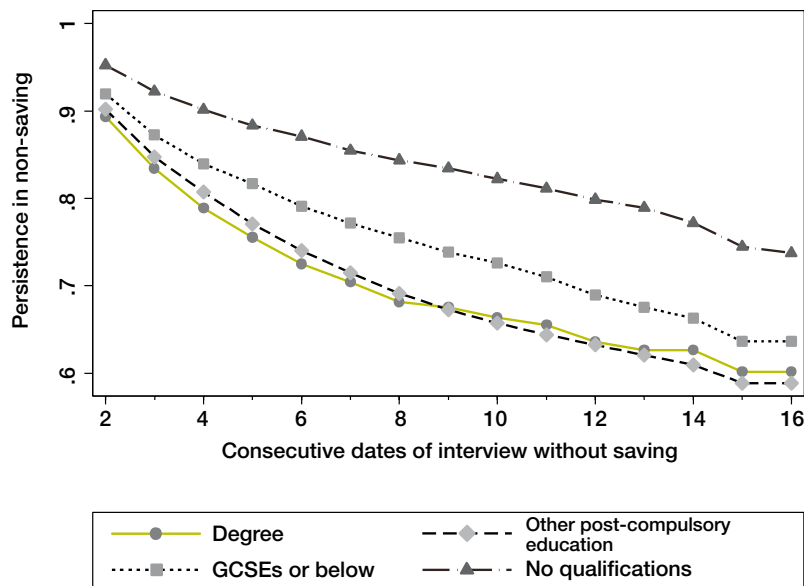


Source: BHPS 1991-2006

## Housing tenure

Figures 24 and 25 plot the survival rates by housing tenure. Figure 24 first looks at survival rates in saving, and reveals that these were highest for those with a mortgage and lowest for those renting from the local authority while private tenants and outright home owners exhibit similar survival rates.

**Figure 24: Saving survivor rates by housing tenure: BHPS 1991–2006**
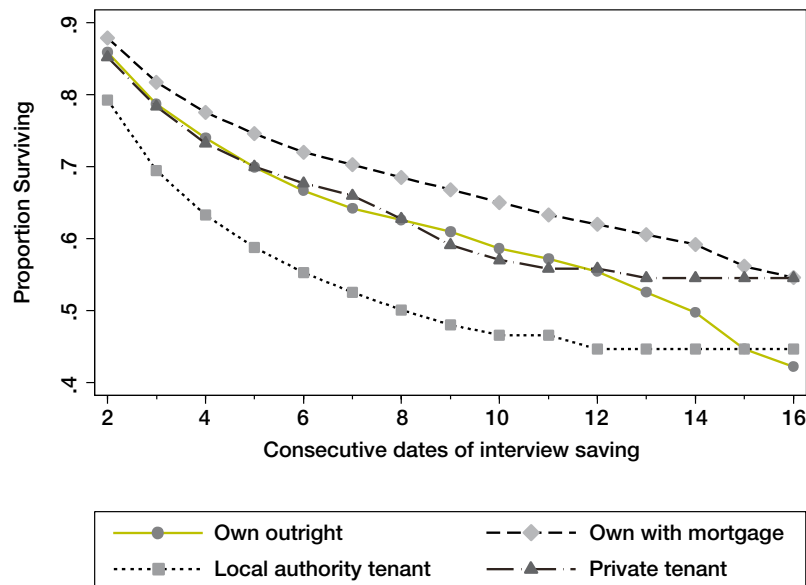
Source: BHPS 1991-2006

Exit rates from saving were particularly high for local authority tenants, 20% of whom stopped saving before the second year and 30% before the third year. The exit rates remain high such that 40% stopped saving by the fifth year and 50% by the eighth year. In contrast, survival in savings was considerably higher among home owners with a mortgage – almost 90% were still saving in the second year as were 83% in the third year. After ten years, 65% of home owners with a mortgage remained saving. Survival rates of private tenants and outright home owners lay between these.

Figure 25 focuses on persistence in non-saving by housing tenure, and suggests almost a reversal of that for saving survival rates. In particular, local authority tenants had the highest persistence rates in non-saving – they were least likely to start saving – while home owners had the lowest persistence rates and were most likely to start saving. About 5% of local authority tenants who were not saving have started to save by the second year, while 10% started by the fourth year. However persistence rates remain high such that even after ten years, less than 20% started to save. In contrast, of mortgage holders who were not saving, 10% started to save by the next BHPS wave, while 20% started to save by the fourth wave. Over 30% of mortgage holders started to save within ten years. Interestingly persistence in non-saving for outright homeowners were closer to those of local authority tenants (i.e. relatively high) while those of private tenants were similar to those for mortgage holders (i.e. relatively low). Hence survival rates in saving were highest for those with a mortgage and lowest for those renting from the local authority, while persistence rates in non-saving were highest for local authority tenants and lowest for those with a mortgage.

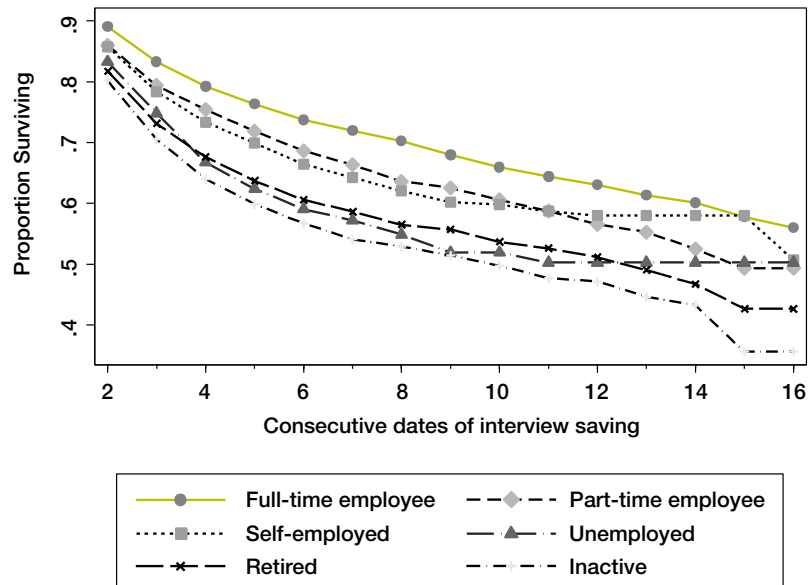**Figure 25: Persistence in non-saving by housing tenure: BHPS 1991–2006**
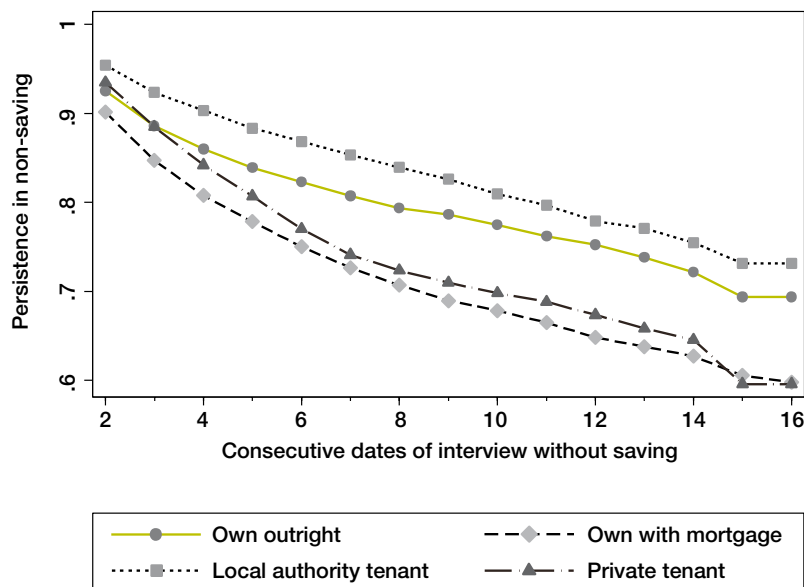


Source: BHPS 1991-2006

## Labour market variables

Figures 26 and 27 look at survival rates by employment status when first observed to be either saving or not saving respectively. Focussing initially on Figure 26 which plots saving survival rates, this shows that full-time employees were most likely to survive in saving and so were least likely to stop saving. Survival rates in saving were noticeably lower, but similar, for those that were unemployed, retired or otherwise economically inactive. About 10% of savers in full-time employment stopped saving by the subsequent BHPS wave, compared with 15%–20% of those that were not in work. These differentials get bigger with the length of the savings spell, such that after five years, about 40% of those out of work had stopped saving compared with 22% of those that were in full-time employment. Survival rates in saving for those that were in part-time or self-employment followed similar paths, which lie about halfway between those for full-time employees and those for the non-employed.

Figure 27 plots persistence rates in non-saving by a person's employment status when first observed to be not saving. Again, there is a clear divergence between those that were in full-time employment and those that were unemployed, retired or otherwise economically inactive. People that were full-time employees had the lowest persistence rates in non-saving (and were therefore most likely to start saving), while those that were not in any form of employment had the highest persistence rates in non-saving (and were least likely to start saving). Part-time employees and people that were self-employed had very similar persistence rates. The figure indicates that about 10% of those that were full-time employees started to save by the subsequent year, while 25% started saving by the fifth year and more than 65% started saving by the tenth year. In contrast, fewer than 20% of those that were not in work started to save by the tenth year. Therefore those in full-time employment were both most likely to start saving and least likely to stop saving, while those not working were most likely to stop saving and least likely to start saving.

**Figure 26: Saving survivor rates by employment status: BHPS 1991–2006**
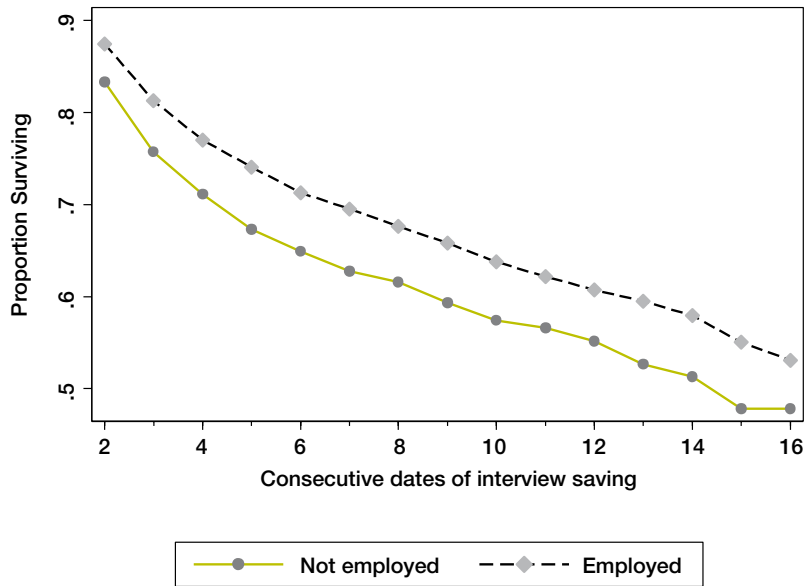


Source: BHPS 1991-2006

**Figure 27: Persistence in non-saving by employment status: BHPS 1991–2006**
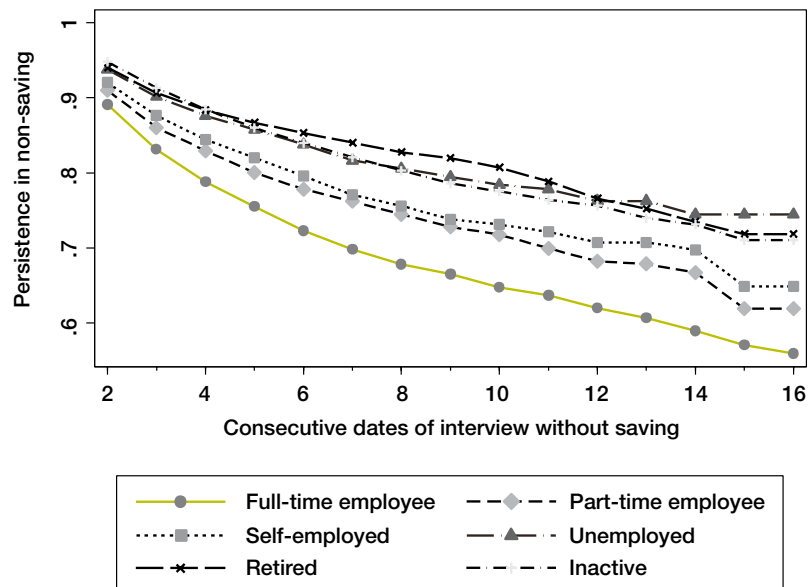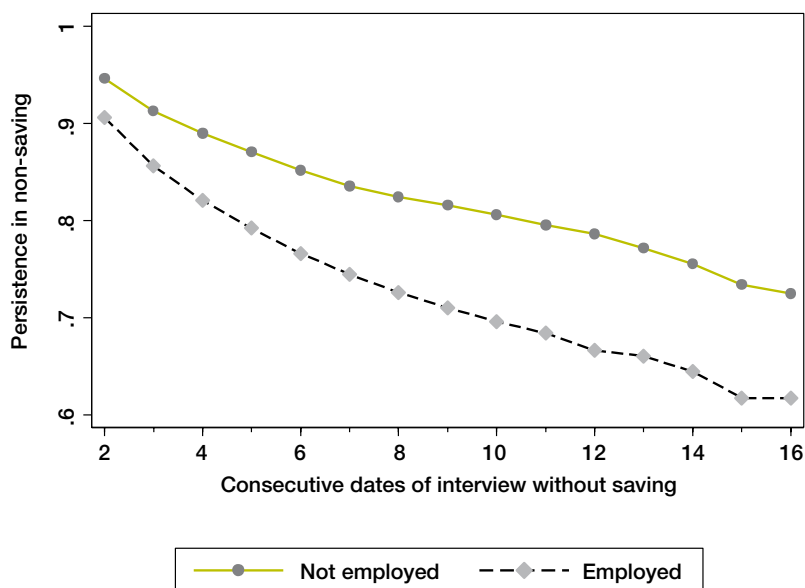


Source: BHPS 1991-2006

Figures 28 and 29 focus on the employment status of a person's spouse for those that were married or cohabiting. These show that people with an employed spouse had higher survival rates in saving, and lower persistence rates in non-saving. Therefore those with an employed spouse were less likely than those with a non-working spouse to stop saving, and were more likely to start saving.

**Figure 28: Saving survivor rates by spouse's employment status: BHPS 1991–2006**



Source: BHPS 1991-2006

**Figure 29: Persistence rates in non-saving by spouse's employment status: BHPS 1991–2006**



Source: BHPS 1991-2006

## Income

Figures 30 and 31 plot survival rates in saving and persistence rates in non-saving by income quintiles, where income is defined as gross monthly household income, deflated to January 2006 prices. Figure 30 shows a very clear relationship between survival rates in saving and household income. People in households with relatively high incomes (in the highest income quintile group when first observed as saving) had the highest survival rates in saving and were therefore least likely to stop saving. The figure shows that after five years since first observed saving, almost 80% of those in the top income quintile group were still saving, while 70% were still saving after ten years. In contrast, survival in saving was considerably lower for those in the bottom household income quintile group when first observed as saving. Of this group, 20% stopped saving within one year of being first observed as saving, while a further 10% stopped saving within the subsequent year. After five years only 62% were still saving while more than one half have stopped saving within ten years.

**Figure 30: Saving survivor rates by income: BHPS 1991–2006**
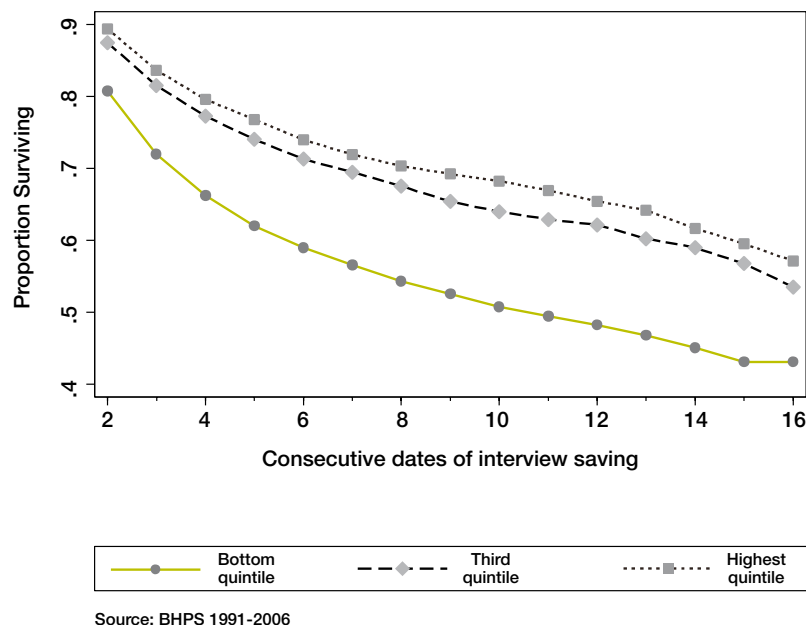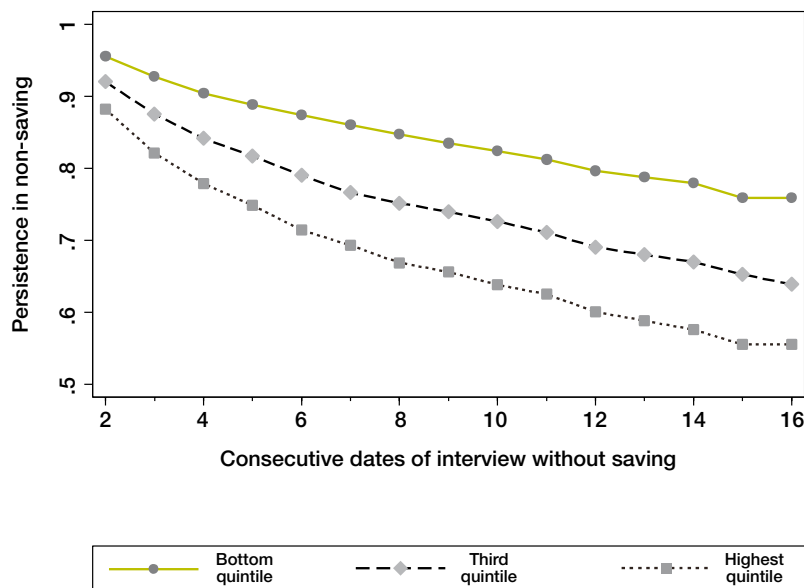


Source: BHPS 1991-2006

Figure 31 reveals a similarly clear relationship between persistence in non-saving and household income. People in the highest income quintile group when first observed as not saving had the lowest persistence rates in non-saving (and were therefore more likely than those in other quintile groups to start saving). More than 10% of this group started to save within one year of first observed as not saving, while 20% started to save by the third year. This trend continues such that 25% started saving by the fifth year, and 38% by the tenth year. In contrast persistence in non-saving is almost flat for people in the bottom income quintile group when first observed as not saving. More than 95% remained not saving in the second year, while only 10% started to save after five years. Even after fourteen years after first observed as not saving, fewer than 20% of those in the bottom income quintile group had started to save. Therefore household income is an important factor in explaining people's saving behaviour.

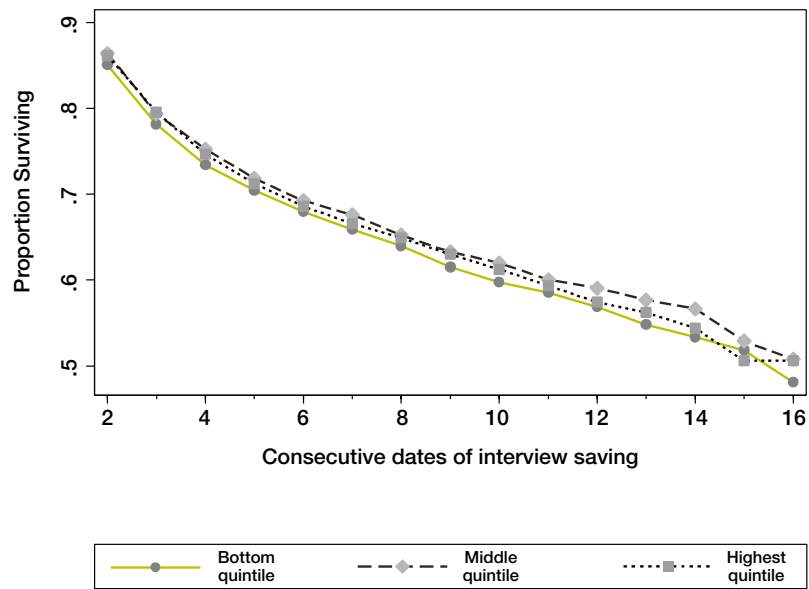**Figure 31: Persistence in non-saving by income: BHPS 1991–2006**



Source: BHPS 1991-2006

## Financial capability

Figures 32 and 33 plot the survival rates out of and saving and persistence in non-saving by financial capability. Here we focus on the relationships between saving and income-adjusted rather than income-unadjusted financial capability. This is for two reasons. Firstly the relationship with income-unadjusted capability mirrors very closely that with income – those with higher levels of financial capability are most likely to start saving and least likely to stop. Second, the compressed nature of the income-unadjusted measure means that it is not possible to create appropriate quintile groups.

Figure 32 plots saving survivor rates by financial capability quintile group when first observed to be saving. The figure suggests little systematic relationship between financial capability and surviving in saving – the survival rates remain very similar between those in the bottom, middle and top financial capability quintile groups. People in the middle capability quintile group appear to have the highest survivor rates although generally differences in saving survival rates by financial capability were small. For example, five years after starting to save, 70% of those in the bottom financial capability quintile group were still saving compared with 73% of those in the middle quintile group (who had the highest survival rates). This difference remains small as time passes.

**Figure 32: Saving survivor rates by financial capability: BHPS 1991–2006**



Source: BHPS 1991-2006

**Figure 33: Persistence in non-saving by financial capability: BHPS 1991–2006**
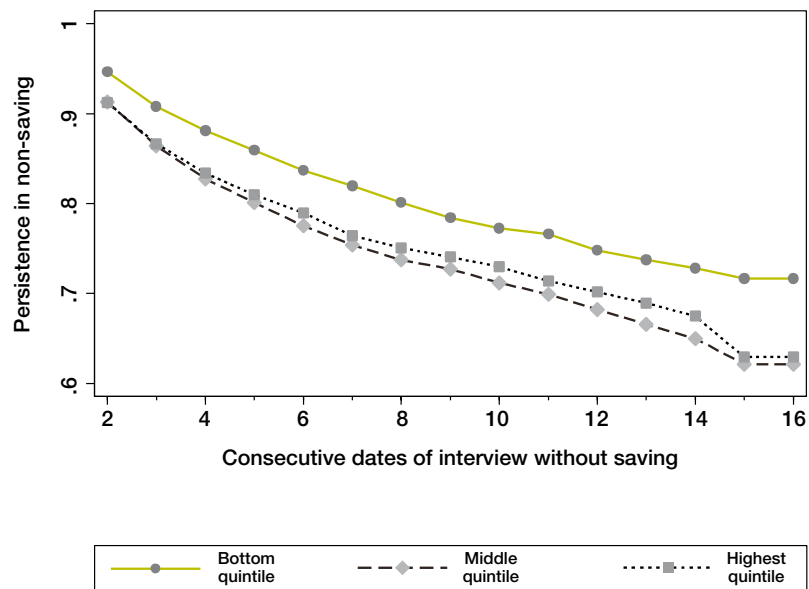


Source: BHPS 1991-2006

Figure 33 similarly suggests that those who are least financially capable when first observed as not saving were least likely to start saving as time passes – they had the highest persistence rates in non-saving. It is those in the middle financial capability quintile group that had the lowest persistence rates in non-saving, and who were most likely to start saving. However, differences in persistence rates between those in the highest capability quintile group and middle quintile group were relatively small. Five years after first observed as not saving, 20% of those in the middle financial capability quintile group started to save, compared to 18% of those in the highest financial capability quintile group and 13% of those in the lowest quintile group. After ten years 71% of those in the middle quintile were still not saving, compared with 78% of those in the lowest quintile group.

## 7.4   Summary

In this section we analysed survival rates in saving and persistence in non-saving by a range of individual and household characteristics. These showed that survivor rates in saving were highest for those who saved relatively large amounts or a relatively large proportion of their income, those of prime working age, married or cohabiting, in smaller households, with high levels of education, who had a mortgage, were in work (particularly full-time work), with an employed spouse with relatively high household income. In contrast, survival rates in saving were lowest for those who were saving relatively small amounts, aged less than 25 or older than 54, had never been married, had large families, with no qualifications, were not working, were local authority tenants with relatively low incomes.

Those most likely to start saving were young, never married with high levels of education, with a mortgage or private tenants, in full-time employment with high incomes. Those with low financial capability were least likely to start saving. In the next section we examine how robust these findings are when controlling for a range of potentially confounding and mediating factors within a multivariate framework.

# 8 Estimating the factors associated with saving behaviour

## 8.1 Estimation procedures

The final stage of the analysis investigates in more detail the relationships between a range of individual and household characteristics, including income and financial capability, and saving behaviour. There are several issues which need to be addressed in doing this. One is that there are likely to be mediating and confounding factors that are associated both with an individual's financial capability, income and his/her saving behaviour. Descriptive statistics in previous sections suggest that this is indeed the case. Another is that there are also likely to be both unobservable factors (such as ability, personality, ambition or motivation) and unobserved factors (such as an individual's attitude towards risk) that are similarly associated with both financial capability, income and saving behaviour. A third issue is the fact that we have several measures of savings to analyse, including the incidence of saving, the level of saving (both in terms of amount saved and the proportion of income saved), and transitions into and out of saving. Our estimation procedures attempt to deal with these issues in a number of ways which we describe in detail below. We use multivariate models which allow us to control for other (observable) characteristics of individuals and the households that they live in that might be correlated with saving behaviour (such as age, gender, marital status, employment status, income, housing tenure, family type etc). The BHPS is a particularly rich source of a wide range of such characteristics, allowing more reliable coefficients on the variables of interest to be estimated.

### The amount or proportion of income saved

We can write the model to be estimated as the following, where $y$ is the amount (or proportion of income) saved per month and x our vector of explanatory variables:

$$y_{it} = x_{it}\beta + \varepsilon_{it} \quad [1]$$

$$\varepsilon_{it} = \eta_i + h_{it} \quad [2]$$

$\varepsilon$ is the error term. Estimating [1] using simple Ordinary Least Squares (OLS) regression ignores any individual-specific characteristics that are included in $\varepsilon$. These can be separated, as in [2] where $\eta$ is a time invariant individual-specific effect capturing unobservable (or unmeasured) characteristics. If this is correlated with the observable $x$ then estimating [1] using OLS will yield biased estimates. This is likely to be important in our context if, for example, more inherently risk averse individuals are more likely to save larger amounts from (or a larger proportion of) their current income and also less likely to, let's say, change job.

Panel data models allow us to control for the effects of unobserved variables that are fixed over time, and that might also be correlated with other explanatory variables. Furthermore, fixed effects models allow such traits to be arbitrarily correlated with the observable characteristics. This may be important if, for example, more optimistic or more motivated people are also more likely to be married, in employment or have higher qualification levels. Such models are estimated by taking deviations from individual-specific means over time in both the dependent variable and explanatory variables, and therefore removing the effect of time invariant characteristics. We estimate:

$$y_{it} - \overline{y}_i = \beta(x_{it} - \overline{x}_i) + h_{it} \qquad [3]$$

Therefore, a positive value for $\beta$ would imply that higher values of $x$ are associated with higher values of $y$, while a negative $\beta$ indicates that a higher $x$ is associated with a lower $y$. We estimate whether the amount saved per month, and proportion of income saved, varies systematically with a wide range of personal, household, family, and housing-related characteristics.

There are two issues concerning fixed effects models. The first is that they do not allow for the impact of time-invariant observable characteristics (e.g. ethnicity, gender etc.) to be estimated. We estimate models with both men and women combined as well as separate models for each sex to examine whether the factors associated with saving behaviour differ for men and women.

The second issue is that, although fixed effects models allow for time-invariant unobserved characteristics, and allow these characteristics to be correlated with observed characteristics, they do not account for unobserved shocks that affect both the dependent variable and the explanatory variables of interest. So, for example, if individuals with particular characteristics experienced an unobserved event that affected both their observable characteristics and their saving behaviour, the estimated coefficients would be biased. However, this problem is shared by all other existing estimation methods.

## The incidence of saving

The models described above are appropriate when the dependent variable, such as the amount saved per month or the proportion of income saved per month, is continuous. However, such models are less appropriate when the dependent variable is categorical, as is the case with the binary variable indicating whether or not the individual saves from their current income. Binary dependent variable models are more appropriate in these circumstances, and therefore we estimate fixed-effects (or so-called conditional) logit models. The model specification can be written:

$$\Pr(y_{it} = 1 | x_{it}) = F(\eta_i + \beta x_{it}) \qquad [4]$$

where $F(\bullet)$ is the cumulative logistic distribution. A feature of this approach is that when $y = 0$ or $y = 1$ for all observations for an individual, this individual's contribution to the log-likelihood is zero and their data does not contribute to the estimation. Therefore estimation of these models is identified solely by individuals whose incidence of savings changes over time.

## Transition models

In these models we estimate transitions into and out of saving. The model to be estimated is the probability that an individual stops saving (starts saving) in year $T$ conditional on surviving in saving (not saving) up to year $T$ (the so called hazard rate), where $T=1$ in the first year a person is observed as saving (not saving), $T=2$ in the second year they are observed as saving (not saving) etc. We can write the hazard rate out of saving (into saving) in the following way:

$$h(t, x) = \Pr\left(T = t_i | T \geq t_i, x\right) \qquad [5]$$

where $(F \bullet)$ is the cumulative logistic distribution. We can define the probability of stopping (starting) to save as $Pr(Y_{it}=1)=\lambda_i$, while the probability that they continue to save (continue not saving) as $Pr(Y_{it}=0)=1-\lambda_i$ and the model to be estimated becomes:

$$\Pr\left(Y_{it} = 1 \middle| x_{it}, j_i\right) = F\left(\beta x_{it} + \gamma \log\left(j_i\right)\right) \qquad \text{[6]}$$

Here we allow the probability of stopping (starting) to save to depend on the elapsed duration in not saving $(j_i)$ as well as a vector of individual and household characteristics $x$. We estimate this using a logistic regression, and in this specification a positive coefficient for $y$ implies that the transition rate out of (into) saving increases with the time spent saving (not saving) while a negative coefficient implies that the transition rate falls with time spent saving (not saving).

There are two reasons for estimating these survival models in addition to the fixed effects logit models of savings incidence. Firstly, they directly estimate the impact of the elapsed duration in saving (and not saving) on the transition rates out of (into) saving – that is they take into account differences in the time each person is at risk of experiencing stopping (or starting) to save. Secondly such models also take into account the fact that some people who save are not observed to stop saving, and others who do not save are not observed to start saving (or what is known as right censoring). We therefore estimate both fixed effects logit models (that take into account time-invariant unobserved characteristics) and the transition models (that take into account both time at risk of experiencing an event and censoring).

## 8.2   Estimation results

In the following we present results from the fixed effects logit models with whether or not a person is saving as the dependent variable, fixed effects models with the amount saved per month and the proportion of income saved per month as dependent variables, and models with the transition rate into and out of saving as the dependent variables. In each case we include as explanatory variables a wide range of individual and household characteristics including household income and financial capability. We estimate separate models using the income-adjusted index of financial capability but not the income-unadjusted index. This is because we include income as an explanatory variable and so estimates from using the income-adjusted and income-unadjusted measure as the dependent variable will yield the same estimates (with the exception of that on income – which may be underestimated using the income-unadjusted index). Furthermore, the estimated effects of other explanatory variables are very similar whether we include the income-adjusted index or the number of financial problems in the models. Because of this, although we present and discuss the impacts of both the income-adjusted index and the number of problems on saving behaviour, we only present and discuss estimates for other explanatory variables from the model including the income-adjusted index. We present the results from our models by examining the impact of groups of related variables separately. Therefore although estimates are obtained from models in which all variables are included, we present them in separate tables in which related variables are grouped together.

## 8.2.1 Incidence of saving

The first set of results we discuss are from the fixed effects logit models where the dependent variable takes the value one if a person is saving from current income at a point in time, and zero if he/she is not saving. In these models, a positive coefficient indicates that the variable increases the likelihood of a person to be saving at a point in time while a negative coefficient indicates that the variable reduces the likelihood to be saving. The numbers presented are the estimated coefficients. These can be exponentiated to give the odds ratio – which is the proportionate change in the odds of saving associated with a one unit increase in the explanatory variable holding other variables constant.

## Financial variables and financial capability

Table 39 reports the estimated impacts of financial variables on the incidence of saving. We present the results for men and women together ('All'), as well as from regressions estimated for men and women separately. The other financial variables that enter the models include real equivalent household income as a cubic term and the Bank of England base interest rate in the month and year of interview. The latter is included to gauge the extent to which people's saving behaviour is sensitive to the rate of return on any savings. We have interacted this with whether or not the person has a mortgage – changes in interest rates may have a different effect on those repaying a loan on their dwelling than those who have no such financial responsibilities.

The results show that the incidence of saving is positively related to people's financial capability – the estimated coefficients are positive and statistically significant in all three specifications. The size of the coefficient (0.715) indicates that a one unit increase in financial capability doubles their propensity to save. The estimated coefficient is larger for men (0.746) than women (0.688), suggesting that financial capability has a relatively larger impact on the propensity to save among men than women, but for both it is statistically significant. To illustrate the sizes of these effects, in Figure 34 we plot the probability of a person saving by sex and their position in the financial capability distribution, estimated at the sample means. This shows, for example, that a person with relatively low financial capability (at the 20th percentile of the capability distribution) has a predicted probability of saving of 32%. Moving this person to the 50th percentile of the distribution ('average' financial capability) increases this probability to 37%, while moving them to the 80th percentile ('high' financial capability) increases it further to 39%. Therefore moving a person from low to average financial capability increases their probability of saving by five percentage points (or 17%). Moving them from average to high financial capability increases their probability of saving by two percentage points (or 7%). Hence, holding all else equal, improving a person's financial capability has a relatively large impact on their propensity to save.

A similar pattern emerges for both men and women. Moving a man from low to average financial capability increases his predicted probability of saving by six percentage points from 46% to 52% at the sample means. Moving him from average to high financial capability increases it by three percentage points from 52% to 55%. Moving a woman from low to average financial capability increases her probability of saving by four percentage points from 25% to 29% at the sample means. Moving her from average to high financial capability increases it by two percentage points from 29% to 31%. These differences in savings propensities by financial capability are smaller than those in the raw data (see Table 37 for example). Therefore some of the relationship between financial capability and the propensity to save is explained by other factors correlated with savings behavior and financial capability such as income, education, age etc.

| Table 39: Impacts of financial variables on the probability of saving: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Financial capability | 0.715 | (31.99) | 0.746 | (21.65) | 0.688 | (23.42) |
| Real equiv. hh income (£1000) | 0.289 | (18.94) | 0.338 | (14.25) | 0.250 | (12.38) |
| Income squared (£10000) | −0.116 | (11.53) | −0.150 | (9.20) | −0.091 | (6.88) |
| Income cubed (£100000) | 0.010 | (9.19) | 0.013 | (7.66) | 0.008 | (5.21) |
| Interest rate | 0.037 | (0.82) | 0.094 | (1.39) | −0.005 | (0.08) |
| Interest rate and has mortgage | −0.011 | (0.94) | −0.007 | (0.43) | −0.016 | (1.00) |
| Log-likelihood | | −32613 | | −14721 | | −17827 |
| N observations | | 83145 | | 37896 | | 45249 |
| N individuals | | 8207 | | 3824 | | 4383 |

Notes: Estimates from fixed effects (conditional) logit regressions with whether saves from current income as the dependent variable. All models also include age, health, marital status, household composition, education, housing, labour market status of individual and other household members, region and time dummies to capture macro-economic effects. Absolute ratio of coefficient to standard error in brackets.

### Figure 34: Predicted probability of saving by financial capability: BHPS 1991–2006
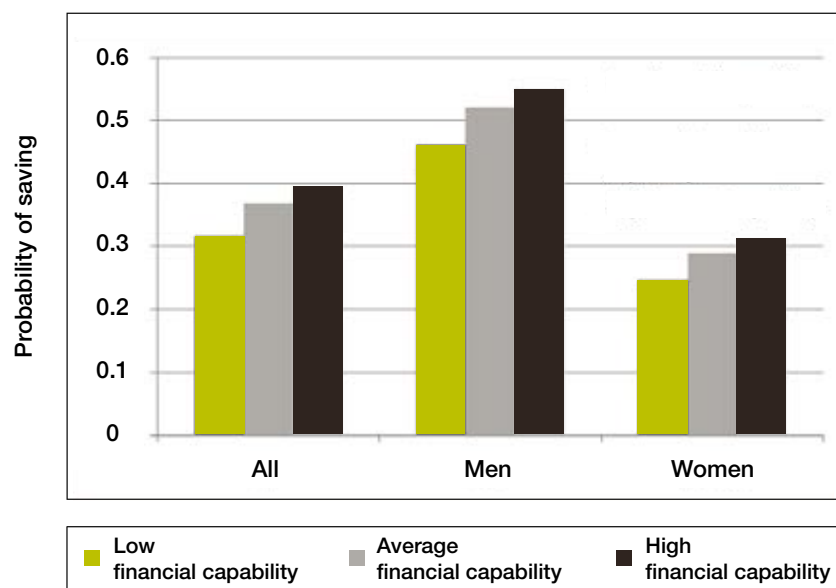


The results in Table 39 also show that the prevailing interest rate has no statistically significant effect on the probability of saving all else equal, irrespective of whether or not people have a mortgage. However, the propensity to save is significantly associated with household income. The coefficients on the income terms are all statistically significant, and suggest a non-linear relationship between income and the propensity to save. To illustrate the sizes of the income effects, in Figure 35 we plot the probability of saving from current income against household income for both men and women together and separately by gender. This shows that the probability of saving increases monotonically with income for both men and women. At the sample means, a man with a household income of £500 per month has a 36% probability of saving. This increases to 42% for a man with a household income of £1500 per month and to 48% for a man with an income of £2500. A man with a household income of £4500 per month has a 60% probability of saving. A woman with a household income of £500 has a probability

of saving of 20% at the sample means. This increases to 23% for a woman with a household income of £1500 per month and to 27% for a woman with a household income of £2500. These income effects are smaller than those observed in the raw data (see Table 24) which indicates that a substantial proportion of the relationship between saving and income is explained by other characteristics of the individual and the household in which they live.



**Figure 35: Estimated effects of monthly household income on the probability of saving: BHPS 1991–2006**
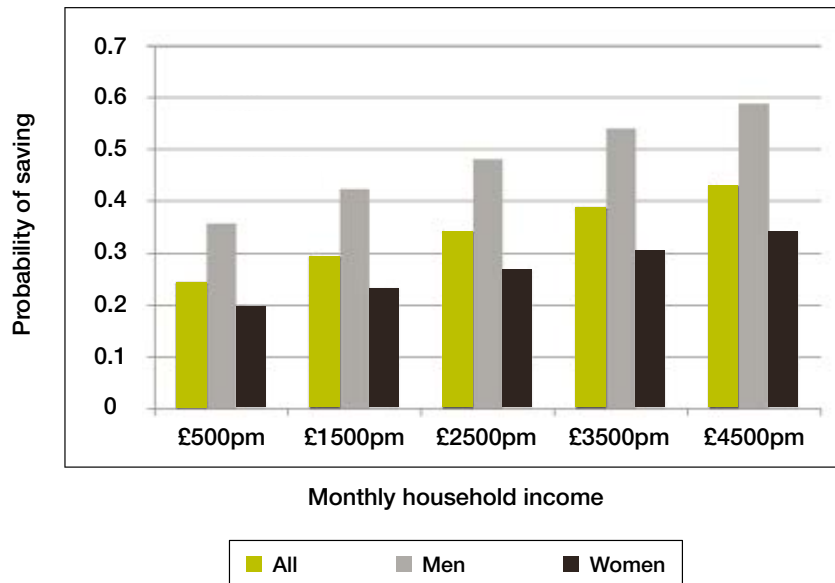
 A comparison of the relative effects on the probability of saving of financial capability and income suggests that improving a person's financial capability from relatively low in the distribution (the 20th percentile) to average financial capability (the 50th percentile) increases their probability to save by a similar amount than increasing their income by £1000 per month, or broadly twice the amount that would be expected from increasing their income by £500 per month[4].

## Age and health
Table 40 presents the estimated effects on the incidence of saving of age and health. Both have statistically significant impacts on the probability of saving – and age has a non-linear effect. The probability of saving initially falls with age, and then increases and this pattern is evident for both men and women. We illustrate the sizes of these effects in Figure 36 which shows the probability of saving by age. This suggests that among men, the probability of saving is lowest when aged in the mid-30s, while among women it is lowest when aged in the early 40s. This is generally the age at which financial responsibilities in terms of raising a family and housing costs are at their largest, reducing a family's disposable income.

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[4] The exact size of the impact will depend on their original income..

| Table 40: Impacts of age and health on the probability of saving: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Age | −0.048 | (2.23) | −0.047 | (1.47) | −0.046 | (1.61) |
| Age2/100 | 0.055 | (6.91) | 0.064 | (5.22) | 0.053 | (4.90) |
| In good health | 0.058 | (2.35) | 0.021 | (0.56) | 0.087 | (2.67) |
| Log-likelihood | −32613 | | −14721 | | −17827 | |
| N observations | 83145 | | 37896 | | 45249 | |
| N individuals | 8207 | | 3824 | | 4383 | |

Notes: Estimates from fixed effects (conditional) logit regressions with whether saves from current income as the dependent variable. All models also include financial capability, income, interest rate, marital status, household composition, education, housing, labour market status of individual and other household members, region and time dummies to capture macro-economic effects. Absolute ratio of coefficient to standard error in brackets.

Figure 36: Estimated effect of age on the probability of saving: BHPS 1991–2006
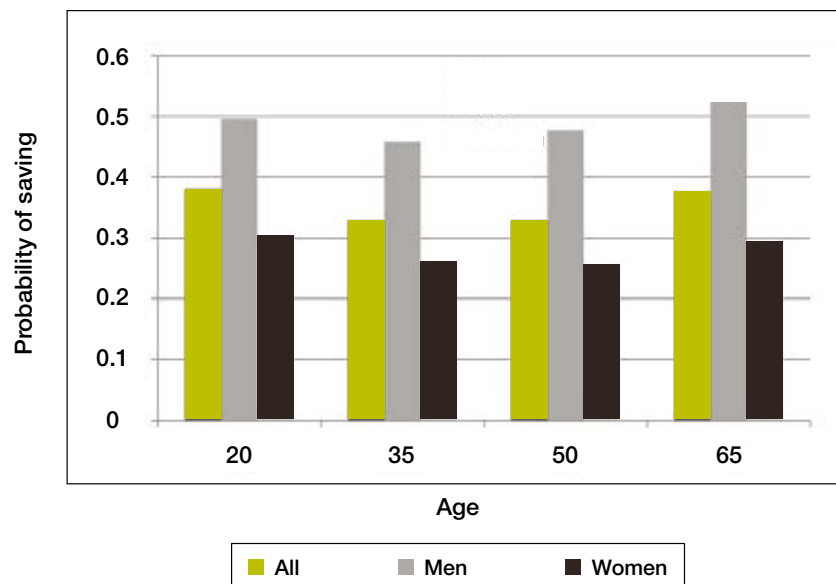


The coefficients on the health variable indicate that being in good health is a statistically significant predictor of saving, especially for women. For men the coefficient is positive but not statistically significant. For women however the coefficient is positive (0.087) and relatively large and statistically significant. It suggests that women in good health are about 9% more likely to save from their current income than those that are not in good health. This effect persists into the pooled sample, although its size is reduced. In general, people in good health are 6% more likely to save than those who are not in good health, all else held equal.

## Marital status and household composition

Table 41 presents the estimated impacts of marital status and household composition on the probability of saving from current income, controlling for other observed and unobserved individual characteristics. These coefficients indicate that the married or cohabiting are less likely to save than the single never married, and that this holds for both men and women (although the sizes of effects are larger for women). Women who are widowed or divorced or

separated are also less likely to save than single never married women (this is not true among men). However, this table also indicates that the sizes of these effects also depend on the number of children and household type. For men, the probability of saving falls with the number of children, while for both men and women it varies significantly by household type.

| Table 41: Impacts of marital status and household composition on the probability of saving: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| **Marital status** | | | | | | |
| Married | −0.443 | (5.42) | −0.309 | (2.68) | −0.509 | (4.57) |
| Cohabiting | −0.494 | (6.34) | −0.333 | (3.08) | −0.584 | (5.51) |
| Widowed | −0.237 | (2.03) | 0.098 | (0.49) | −0.411 | (2.80) |
| Divorced/separated | −0.203 | (2.39) | −0.133 | (1.03) | −0.293 | (2.60) |
| **Number of children** | | | | | | |
| One child | −0.170 | (3.09) | −0.323 | (3.64) | −0.059 | (0.82) |
| Two children | −0.252 | (3.95) | −0.434 | (4.38) | −0.144 | (1.70) |
| Three children | −0.089 | (1.00) | −0.316 | (2.32) | 0.031 | (0.26) |
| Four or more children | −0.158 | (0.99) | −0.472 | (1.95) | 0.008 | (0.04) |
| **Household type** | | | | | | |
| Single elderly | 0.164 | (1.66) | 0.077 | (0.46) | 0.129 | (1.06) |
| Couple no children | 0.472 | (5.78) | 0.259 | (2.74) | 0.458 | (5.00) |
| Couple dep child | 0.486 | (4.97) | 0.434 | (4.00) | 0.274 | (2.66) |
| Couple non-dep child | 0.276 | (3.08) | 0.058 | (0.61) | 0.223 | (2.31) |
| Lone parent | 0.288 | (3.76) | 0.143 | (1.31) | 0.252 | (2.72) |
| 2+ unrelated adults | −0.050 | (0.49) | −0.202 | (1.48) | −0.039 | (0.28) |
| Household size | −0.100 | (4.12) | −0.066 | (2.00) | −0.085 | (2.82) |
| Log-likelihood | −32613 | | −14721 | | −17827 | |
| N observations | 83145 | | 37896 | | 45249 | |
| N individuals | 8207 | | 3824 | | 4383 | |

Notes: Estimates from fixed effects (conditional) logit regressions with whether saves from current income as the dependent variable. All models also include financial capability, income, interest rate, age, health, education, housing, labour market status of individual and other household members, region and time dummies to capture macro-economic effects. Absolute ratio of coefficient to standard error in brackets.

To better understand and disentangle the relative sizes of some of these effects, Figure 37 presents the estimated probability of saving from current income by a range of household types by gender, estimated at the sample means. This shows that the probability of saving varies substantially both by household structure, but also by gender within household structures. Women are less likely than men to save in all household structures, although the size of the differential varies. Married men with no children, divorced men with no children and single elderly men have the highest predicted probability of saving at over 0.5. Married men with children have a lower probability of saving, of about 0.45. Married women with children also have relatively low predicted probabilities of saving (of about 0.25), while married women with no children and single parents have relatively high predicted probabilities (exceeding 0.3).

Figure 37: Estimated effect of marital status and household composition on the probability of saving: BHPS 1991–2006
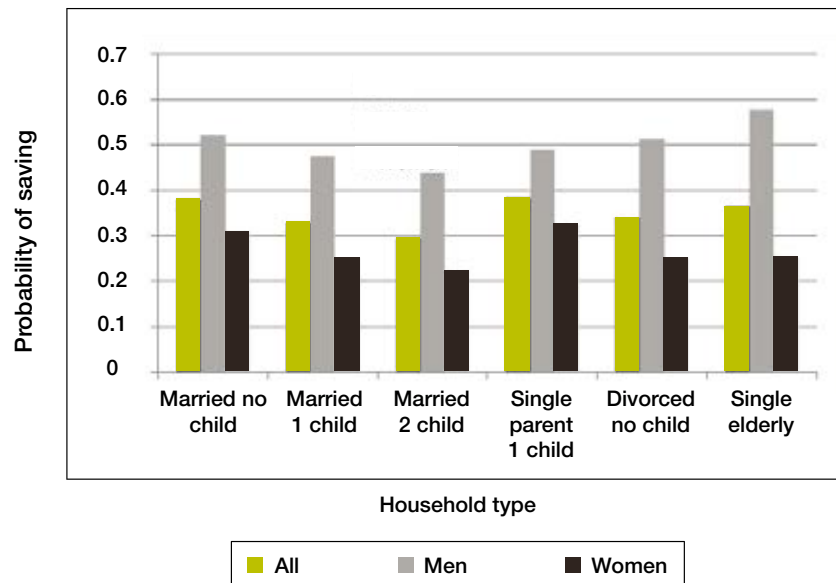
## Education

Table 42 summarises the impact of education level on the probability of saving from current income. When controlling for other observed and unobserved characteristics, we find that having a higher degree or GCSE level qualifications increase the relative chances of saving for men, as does having GCSEs or the equivalent for women. In particular, men with a higher degree or GCSEs or the equivalent are about twice more likely to save relative to those with no qualifications all else equal. Women with GCSEs or the equivalent are 70% more likely to save than those with no qualifications, holding other characteristics constant.

| Table 42: Impacts of education on the probability of saving: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Higher degree | 0.320 | (1.65) | 0.722 | (2.51) | −0.005 | (0.02) |
| First degree | −0.050 | (0.39) | 0.187 | (0.96) | −0.189 | (1.13) |
| Other higher qual. | 0.201 | (2.02) | 0.240 | (1.60) | 0.172 | (1.29) |
| A-Levels or equiv | 0.137 | (1.29) | 0.168 | (1.06) | 0.127 | (0.89) |
| GCSE or equivalent | 0.588 | (5.68) | 0.670 | (4.24) | 0.541 | (3.93) |
| Other qualification | 0.153 | (1.13) | 0.102 | (0.49) | 0.189 | (1.07) |
| Log-likelihood | −32613 | | −14721 | | −17827 | |
| N observations | 83145 | | 37896 | | 45249 | |
| N individuals | 8207 | | 3824 | | 4383 | |

Notes: Estimates from fixed effects (conditional) logit regressions with whether saves from current income as the dependent variable. All models also include financial capability, income, interest rate, age, health, marital status, household composition, housing, labour market status of individual and other household members, region and time dummies to capture macro-economic effects. Absolute ratio of coefficient to standard error in brackets.

## Housing

Table 43 presents the estimated effects of housing tenure and value on the probability that a person saves from their current income. In general, these effects are small and not statistically significant. There is some evidence that women who are local authority or private tenants are less likely to save than otherwise similar women who have a mortgage – the estimated coefficients are negative but on the margins of statistical significance. The sizes of the coefficients indicate that women who are tenants are 20% less likely than those with a mortgage to save. The probability of saving also falls with house value for women – each £100,000 added to the value of their home reduces their likelihood of saving by 4%. For men, none of the estimated coefficients are statistically significant.

| Table 43: Impacts of housing variables on the probability of saving: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Own outright | −0.018 | (0.23) | 0.063 | (0.54) | −0.072 | (0.68) |
| Local authority tenant | −0.071 | (0.78) | 0.120 | (0.89) | −0.212 | (1.74) |
| Private tenant | −0.170 | (1.97) | −0.162 | (1.28) | −0.212 | (1.81) |
| House value/£100000 | −0.025 | (2.05) | −0.008 | (0.49) | −0.042 | (2.27) |
| Log-likelihood | −32613 | | −14721 | | −17827 | |
| N observations | 83145 | | 37896 | | 45249 | |
| N individuals | 8207 | | 3824 | | 4383 | |

Notes: Estimates from fixed effects (conditional) logit regressions with whether saves from current income as the dependent variable. All models also include financial capability, income, interest rate, age, health, marital status, household composition, education, labour market status of individual and other household members, region and time dummies to capture macro-economic effects. Absolute ratio of coefficient to standard error in brackets.

## Labour market variables

The results presented in Table 44 indicate that labour market status both of the individual and other household members have a large impact on the probability of saving for both men and women. In particular, men and women in full-time employment and with an employed spouse have the highest probability of saving, while those who are unemployed, retired or economically inactive have the lowest probabilities, holding other characteristics constant.

| Table 44: Impacts of labour market variables on the probability of saving: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Part-time employee | −0.288 | (7.38) | −0.367 | (3.82) | −0.285 | (6.29) |
| Self-employed | −0.212 | (3.98) | −0.104 | (1.53) | −0.379 | (4.35) |
| Unemployed | −1.321 | (19.51) | −1.449 | (14.23) | −1.216 | (13.27) |
| Retired | −1.108 | (19.05) | −1.210 | (13.24) | −1.014 | (13.26) |
| Inactive | −0.945 | (22.48) | −0.976 | (13.10) | −0.906 | (17.06) |
| Seasonal/casual job | −0.093 | (1.82) | −0.107 | (1.32) | −0.071 | (1.07) |
| Fixed term contract | −0.027 | (0.44) | −0.138 | (1.58) | 0.066 | (0.76) |
| Spouse employed | 0.145 | (3.34) | 0.061 | (1.05) | 0.286 | (4.31) |
| Number employed in household | 0.009 | (0.40) | −0.049 | (1.47) | 0.066 | (2.17) |
| Log-likelihood | −32613 | | −14721 | | −17827 | |
| N observations | 83145 | | 37896 | | 45249 | |
| N individuals | 8207 | | 3824 | | 4383 | |

Notes: Estimates from fixed effects (conditional) logit regressions with whether saves from current income as the dependent variable. All models also include financial capability, income, interest rate, age, health, marital status, household composition, education, housing tenure and value, region and time dummies to capture macro-economic effects. Absolute ratio of coefficient to standard error in brackets.

Men who are in part-time employment are 31% less likely than those in full-time employment to be saving. However, men who are in unemployment, retirement or economic inactivity are 77%, 70% and 62% less likely than those in full-time work to be saving respectively. Women in part-time employment are 25% less likely than full-time employees to be saving, while those in self-employment are 32% less likely. As for men, it is unemployment, retirement and inactivity that have the largest relative impacts. Women who are unemployed, retired and economically inactive are 70%, 64% and 60% less likely than those in full-time employment to be saving. However, women with an employed spouse are 33% more likely than those without an employed spouse to be saving.

To illustrate the relationship between saving and labour market status, Figure 38 plots the predicted probabilities by gender estimated at the sample means. This indicates that a man in full-time employment has a predicted probability of saving of 58%, which falls to 28% if unemployed. The inactive and retired have predicted probabilities of saving of around 35%. Differences by labour market status are smaller among women, for whom full-time employment is associated with a predicted probability of saving of 36% compared to 16% if unemployed and 20% if retired or economically inactive.

| Figure 38: Estimated effect of labour market status on the probability of saving: BHPS 1991–2006 |
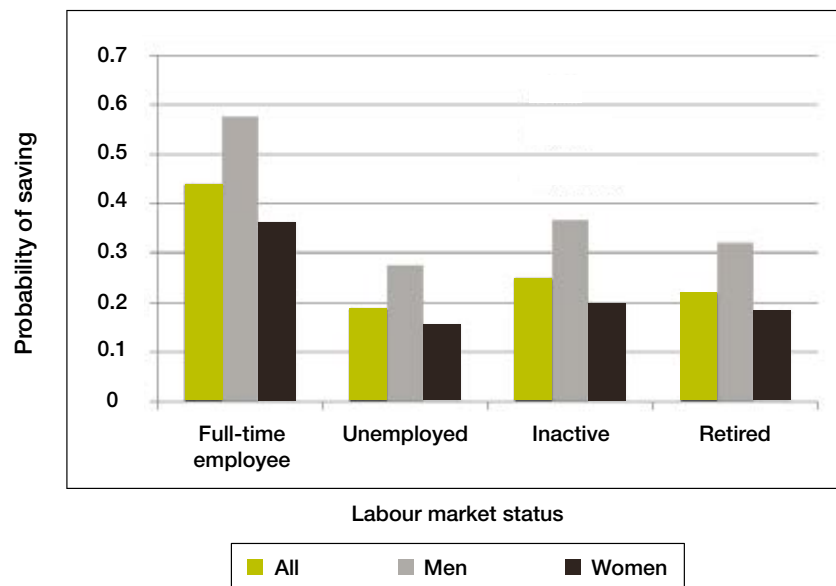


## Summary

The estimates from the fixed effects logit models indicate that the probability of saving is higher for the more financially capable (but at a decreasing rate), those in good health, and with higher levels of education. A person with average financial capability is 16% more likely to be saving than an otherwise similar individual with low financial capability. This is broadly equivalent in size to increasing a person's household income by £1000 per month. In comparison being unemployed reduces the probability of saving by 73% compared to being in full-time employment. Age, household type and labour market status also significantly affect the probability of saving, with those aged around 40, married with dependent children and out of work having the lowest probability of saving, holding other characteristics constant. In contrast, the relatively young and old, those with no children with high financial capability and high income and in employment have the highest probability to be saving.

# 8.2.2 Transitions into saving

The next set of results we discuss are from the model where the dependent variable is the transition rate into saving between two consecutive BHPS waves, conditional on not saving. In these models, a positive coefficient indicates that the variable increases the probability of starting to save while a negative coefficient indicates that the variable reduces the likelihood of starting to save. As in the previous models, these coefficients can be exponentiated to give the odds ratio – which is the proportionate change in the odds of starting to save, associated with a one unit increase in the explanatory variable holding other variables constant. Note that the sample sizes are quite different in these models than the fixed effects logit models estimated previously. That is because in these models, the unit of observation is the person-year spent not saving.

Before considering the impact of the explanatory variables, we first discuss the impact of the elapsed duration not saving. One of the advantages of these survival models over the incidence of saving models estimated previously is that they directly estimate the impact of the elapsed duration on the likelihood of starting to save – that is they take into account differences in the time each person has spent saving. For both men and women, the estimated coefficient on elapsed duration in not saving is large, negative and statistically significant, indicating that the probability of starting to save falls as people spend more time not saving. This pattern of time-dependency is known as negative duration dependence and is consistent with the descriptive findings, shown in Figure 9, and highlights the importance of allowing for this duration dependence in the multivariate analysis.

## Financial variables and financial capability

In Table 45 we present the impact of the financial variables on the probability of starting to save. The results show that the probability of starting is positively associated with financial capability – the estimated coefficients are positive and statistically significant in all three specifications. The size of the coefficient (0.248) indicates that a one unit increase in financial capability increases a person's transition rate into saving by 28%. The gender-specific models suggest that the size of this effect is similar for both men and women.

Figure 39 illustrates the sizes of the estimated effects on the probability of starting to save (estimated at the sample means) for a person with low (at the 20th percentile), average (at the 50th percentile) and with high financial capability (at the 80th percentile). This clearly highlights the fact that people with higher financial capability have a higher probability of starting to save, all else equal. A person with low financial capability has a predicted probability of starting to save of 13.7% which increases to 15% if they have average financial capability and 15.5% with high capability. A similar two percentage point differential in the probability of starting to save between those with low and high financial capability is apparent for both men and women – moving someone from the 20th to the 80th percentile of the financial capability distribution increases their predicted probability of starting to save by two percentage points all else equal.

| Table 45: Impacts of financial variables on the probability of starting to save: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Financial capability | 0.248 | (11.67) | 0.264 | (8.12) | 0.240 | (8.48) |
| Real monthly household income (£1000) | 0.133 | (5.79) | 0.206 | (5.47) | 0.079 | (2.72) |
| Income squared (£10000) | −0.085 | (3.72) | −0.143 | (3.68) | −0.041 | (1.46) |
| Income cubed (£100000) | 0.008 | (3.28) | 0.014 | (3.42) | 0.003 | (1.12) |
| Interest rate | 0.039 | (3.60) | 0.046 | (2.78) | 0.035 | (2.38) |
| Interest rate and has mortgage | −0.002 | (0.15) | −0.000 | (0.02) | −0.003 | (0.17) |
| Log-likelihood | −26940 | | −12190 | | −14701 | |
| N observations | 69522 | | 31069 | | 38453 | |
| N individuals | 13810 | | 6525 | | 7285 | |

Notes: Estimates from logit regressions with whether or not starts saving in the current year as the dependent variable. All models also include age, health, marital status, household composition, education, housing, labour market status of individual and other household members, region, year dummies and elapsed duration in not saving. Absolute ratio of coefficient to standard error in brackets.

### Figure 39: Estimated effect of financial capability on the probability of starting to save: BHPS 1991–2006
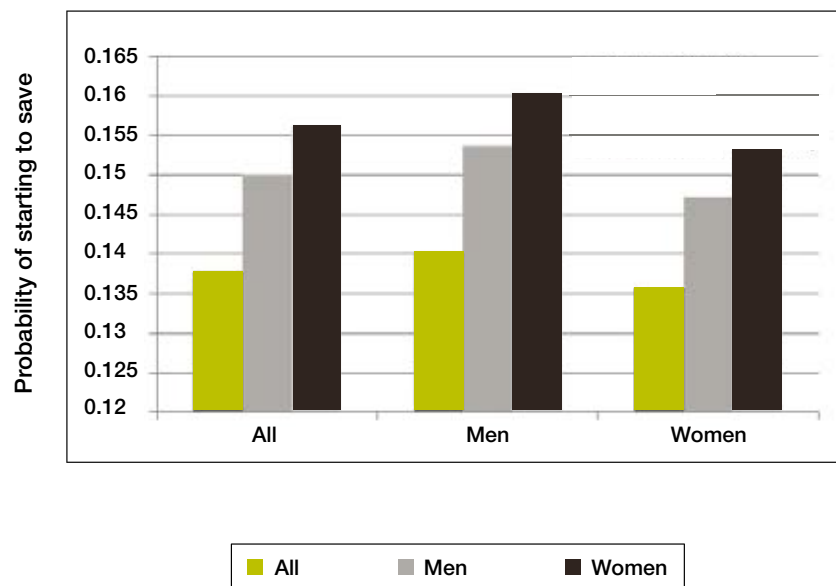


The results in Table 45 also show that the transition rate into saving is positively associated with the prevailing interest rate – the coefficients are positive and statistically significant. The sizes of the coefficients suggest that a one percentage point increase in the base interest rate is associated with a 3.5% higher transition rate into saving for women, and a 4.6% higher transition rate among men. This effect does not vary with housing tenure.

The transition rate into saving is also significantly associated with household income. The coefficients on the income terms are all statistically significant, especially for men, and suggest a non-linear relationship. To illustrate the sizes of the income effect, in Figure 40 we plot the transition rate into saving against monthly household income for both men and women together and separately by gender. This shows that the impact of income is much larger for men than

women – at low incomes (£500 per month) women have a higher predicted probability of starting to save than men (13% compared with 11%). At high incomes (e.g. £4500 per month), men have a higher predicted probability of starting to save than women (18% compared with 16%). Income has a much larger effect at lower incomes than higher incomes – for example a £1000 per month increase in household income increases the probability of starting to save by 1.3 percentage points for a person with an income of £500 per month, but by 0.7 percentage points for a person with an income of £3500 per month.

**Figure 40: Estimated effect of monthly household income on the probability of starting to save: BHPS 1991–2006**
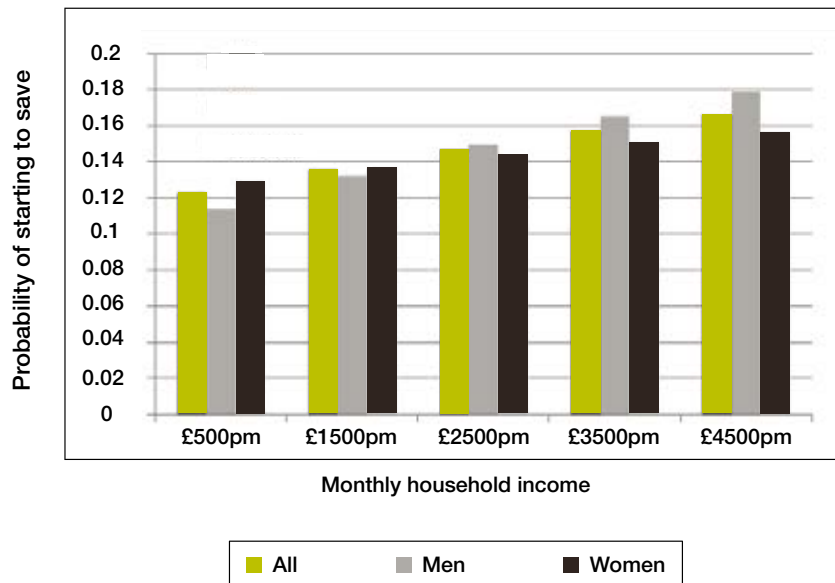


## Demographic characteristics

Table 46 presents the estimated effects of gender, age and health status on the transition rate into saving. This shows that a man is less likely to start saving than an otherwise similar woman – the estimated coefficient is negative and statistically significant and suggests that being a man reduces the transition rate into saving by 7%. Age has no statistically significant impact on the likelihood of starting to save for women, while among men the transition rate into saving falls with age but at a decreasing rate.

| Table 46: Impacts of demographics on the probability of starting to save: BHPS 1991–2006 | All | | Men | | Women | |
|---|---|---|---|---|---|---|
| Male | −0.070 | (2.59) | | | | |
| Age | −0.007 | (1.57) | −0.015 | (2.05) | −0.002 | (0.33) |
| Age$^2$/100 | 0.002 | (0.32) | 0.014 | (1.81) | −0.008 | (1.23) |
| In good health | 0.157 | (5.86) | 0.225 | (5.51) | 0.104 | (2.91) |
| Log-likelihood | −26940 | | −12190 | | −14701 | |
| N observations | 69522 | | 31069 | | 38453 | |
| N individuals | 13810 | | 6525 | | 7285 | |

Notes: Estimates from logit regressions with whether or not starts saving in the current year as the dependent variable. All models also include income, financial capability, interest rates, marital status, household composition, education, housing, labour market status of individual and other household members, region, year dummies and elapsed duration in not saving. Absolute ratio of coefficient to standard error in brackets.

**Figure 41: Estimated effect of age on the probability of starting to save: BHPS 1991–2006**
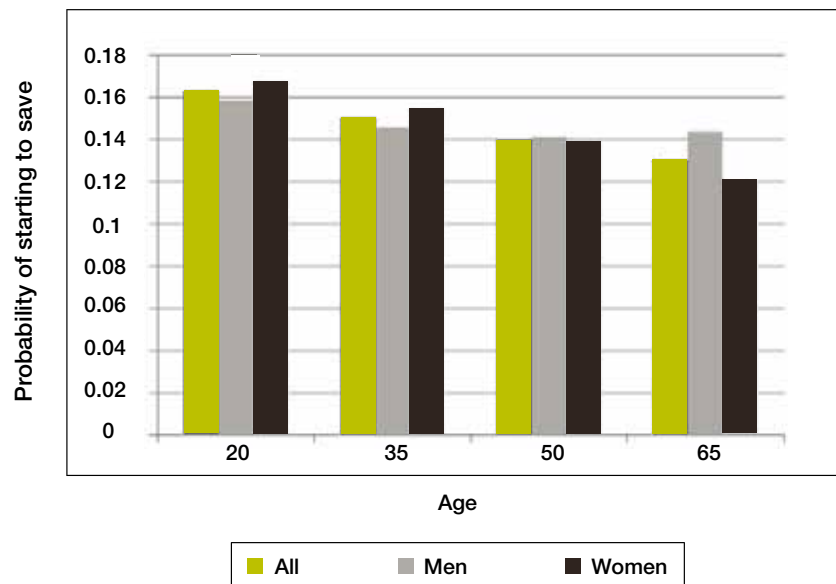


Figure 41 plots these relationships and shows that for women the probability of starting to save falls monotonically with age. For men the transition rate into saving initially falls with age, but starts to increase after the age of 50. At the sample means, a man aged 20 has a 16% probability of starting to save, compared with 17% for a woman of the same age. At the age of 50, both men and women have a predicted probability of starting to save of 14%.

Being in good health increases the transition rate into saving. In particular, a man in good health is 25% more likely than a man not in good health to start saving while for women the size of the effect is smaller (11%).

## Marital status and household composition
Table 47 presents the estimated impacts of marital status and household composition on the probability of saving from current income, controlling for other observed and unobserved individual characteristics. These coefficients indicate that the married and cohabiting are less likely to start saving than the single never married, and that this holds especially for men. However, this table also indicates that the sizes of these effects also depend on household type. People in couple households generally have higher transition rates into saving than those in single non-elderly households, while living in a larger household reduces the transition rate.

To better understand and disentangle the relative sizes of some of these effects, Figure 42 presents the estimated transition rate into saving by a range of household types by gender. This shows that differences between men and women are small among those in couple households. Generally about 15% of men and women in couple households are predicted to start saving, when estimated at the sample means. However men in single adult households have a higher transition rate into saving than women in single adult households. For example, men in single elderly households have a transition rate into saving of 21%, compared with 19% for women.

| Table 47: Impacts of marital status and household composition on the probability of starting to save: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| **Marital status** | | | | | | |
| Married | −0.158 | (2.25) | −0.228 | (2.25) | −0.061 | (0.63) |
| Cohabiting | −0.334 | (4.60) | −0.353 | (3.43) | −0.264 | (2.62) |
| Widowed | 0.003 | (0.04) | 0.056 | (0.40) | 0.072 | (0.74) |
| Divorced/separated | −0.069 | (1.07) | −0.156 | (1.54) | −0.029 | (0.33) |
| **Number of children** | | | | | | |
| One child | −0.083 | (1.43) | −0.087 | (0.91) | −0.049 | (0.65) |
| Two children | 0.055 | (0.87) | 0.078 | (0.77) | 0.061 | (0.73) |
| Three children | 0.135 | (1.55) | 0.167 | (1.24) | 0.124 | (1.06) |
| Four or more children | −0.080 | (0.50) | −0.480 | (1.77) | 0.166 | (0.84) |
| **Household type** | | | | | | |
| Single elderly | 0.136 | (1.53) | 0.117 | (0.79) | 0.149 | (1.32) |
| Couple no children | 0.286 | (3.56) | 0.145 | (1.44) | 0.286 | (2.96) |
| Couple dep child | 0.395 | (3.90) | 0.261 | (2.14) | 0.338 | (2.91) |
| Couple non-dep child | 0.285 | (3.18) | 0.090 | (0.85) | 0.309 | (2.89) |
| Lone parent | 0.161 | (2.11) | 0.131 | (1.26) | 0.081 | (0.87) |
| 2+ unrelated adults | −0.599 | (5.60) | −0.843 | (6.04) | −0.494 | (3.50) |
| Household size | −0.165 | (7.07) | −0.142 | (4.36) | −0.163 | (5.47) |
| Log-likelihood | −26940 | | −12190 | | −14701 | |
| N observations | 69522 | | 31069 | | 38453 | |
| N individuals | 13810 | | 6525 | | 7285 | |

Notes: Estimates from logit regressions with whether or not starts saving in the current year as the dependent variable. All models also include income, financial capability, interest rates, gender, age, health, education, housing, labour market status of individual and other household members, region, year dummies and elapsed duration in not saving. Absolute ratio of coefficient to standard error in brackets.

Figure 42: Estimated effect of marital status and household composition on the probability of starting to save: BHPS 1991–2006



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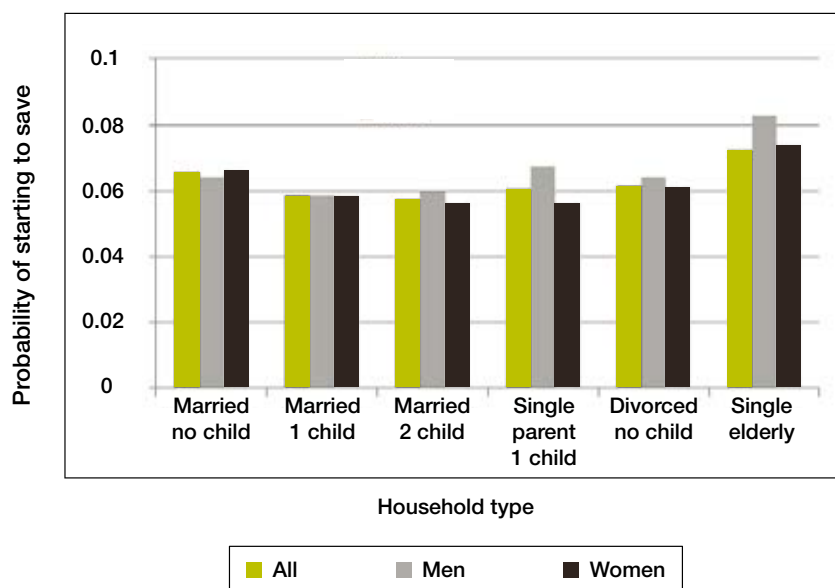
# Education

Table 48 presents the impact of education on the transition rate into saving. This indicates that education level has statistically significant effects for both men and women. Men with any sort of qualification are more likely than those with no qualifications to start saving between two consecutive years, and the sizes of the effects are larger for higher levels of education.

| Table 48: Impacts of education on the probability of starting to save: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Higher degree | 0.092 | (0.87) | 0.289 | (2.08) | −0.159 | (1.01) |
| First degree | 0.388 | (7.17) | 0.431 | (5.51) | 0.338 | (4.47) |
| Other higher qual. | 0.312 | (7.63) | 0.334 | (5.49) | 0.284 | (5.08) |
| A-Levels or equiv | 0.248 | (5.15) | 0.292 | (4.17) | 0.190 | (2.85) |
| GCSE or equivalent | 0.257 | (6.17) | 0.271 | (4.26) | 0.229 | (4.15) |
| Other qualification | 0.163 | (3.25) | 0.231 | (3.01) | 0.091 | (1.38) |
| Log-likelihood | −26940 | | −12190 | | −14701 | |
| N observations | 69522 | | 31069 | | 38453 | |
| N individuals | 13810 | | 6525 | | 7285 | |

Notes: Estimates from logit regressions with whether or not starts saving in the current year as the dependent variable. All models also include income, financial capability, interest rates, gender, age, health, marital status and household composition, housing, labour market status of individual and other household members, region, year dummies and elapsed duration in not saving. Absolute ratio of coefficient to standard error in brackets.

This is illustrated in Figure 43 which indicates that at the sample means, a man with a university degree would have a transition rate into saving of 17%. This compares to one of 12% for an otherwise similar man with no qualifications. Therefore a man educated to degree level is five percentage points more likely to start saving than an otherwise similar man with no qualifications. A similar (if marginally smaller) effect emerges for women.

**Figure 43: Estimated effect of education level on the probability of starting to save: BHPS 1991–2006**
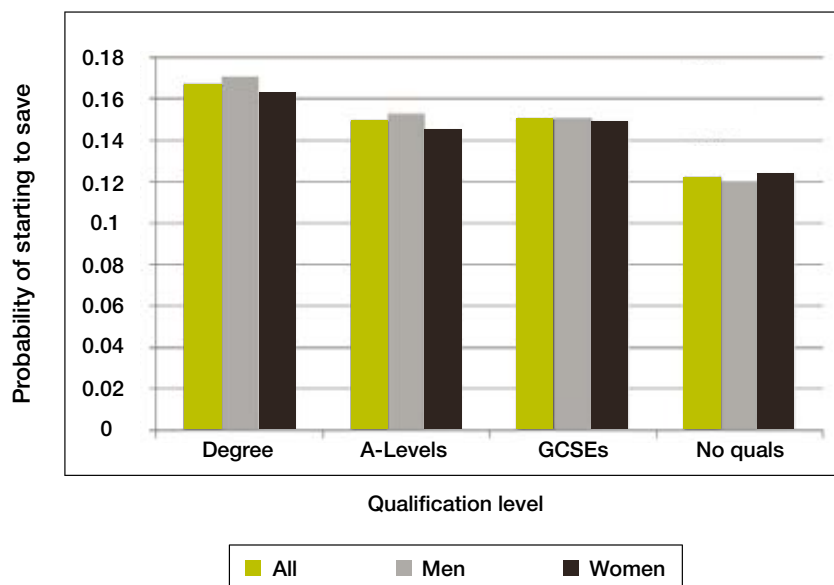
## Housing

Table 49 indicates that housing tenure and house value both have statistically significant impacts on the transition rate into saving. For men, house value significantly reduces the transition rate – the estimated coefficient is negative (–0.106) and statistically significant. This indicates that each £100,000 increase in the value of a man's home reduces his transition rate into saving by 10%. Housing tenure has no statistically significant effect for men. For women, we find that tenants – both private and local authority – are less likely to start saving between one year and the next than those with a mortgage. The estimated coefficients on these variables are negative and statistically significant, and suggest that a woman living in local authority rented accommodation is 29% less likely to start saving than an otherwise similar woman with a mortgage, while a woman living in privately rented accommodation is 26% less likely. The value of the house lived in also has a negative and statistically significant impact on the transition rate into saving for women, with each £100,000 in value associated with a 9% reduction in the probability of starting to save.

| Table 49: Impacts of housing variables on the probability of starting to save: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| Model [1]: income-adjusted index | All | | Men | | Women | |
| Own outright | −0.023 | (0.28) | 0.024 | (0.20) | −0.061 | (0.55) |
| Local authority tenant | −0.280 | (3.08) | −0.220 | (1.64) | −0.338 | (2.72) |
| Private tenant | −0.240 | (2.60) | −0.191 | (1.43) | −0.296 | (2.30) |
| House value/£100000 | −0.096 | (3.91) | −0.106 | (3.36) | −0.092 | (2.52) |
| Log-likelihood | −26940 | | −12190 | | −14701 | |
| N observations | 69522 | | 31069 | | 38453 | |
| N individuals | 13810 | | 6525 | | 7285 | |

Notes: Estimates from logit regressions with whether or not starts saving in the current year as the dependent variable. All models also include income, financial capability, interest rates, gender, age, health, marital status and household composition, education, labour market status of individual and other household members, region, year dummies and elapsed duration in not saving. Absolute ratio of coefficient to standard error in brackets.

Figure 44: Estimated effect of housing tenure on the probability of starting to save: BHPS 1991–2006
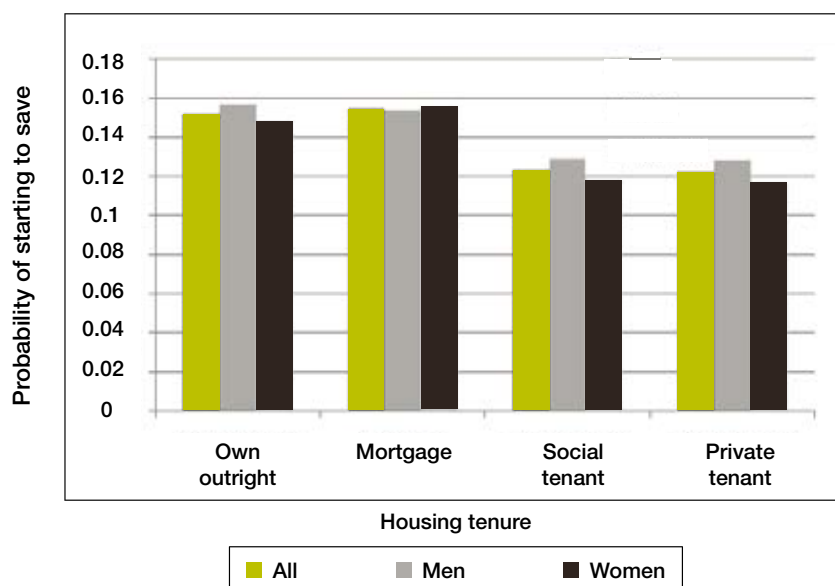
Figure 44 shows that home-owners have the highest predicted probability of starting to save, of about 15%. For tenants this falls to about 12%. Differences between men and women, however, are small.

## Labour market variables

The results presented in Table 50 indicate that labour market status both of the individual and other household members have a large impact on the transition rate into saving for men and women. In particular, being in full-time employment and with an employed spouse are associated with higher transition rates for men, while being in employment is associated with a higher transition rate for women. For men, unemployment, retirement and economic inactivity are associated with a lower transition rate into saving, as is economic inactivity for women, holding other characteristics constant.

| Table 50: Impacts of labour market variables on the probability of starting to save: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| Model [1]: income-adjusted index | All | | Men | | Women | |
| Part-time employee | 0.008 | (0.19) | −0.019 | (0.17) | −0.000 | (0.00) |
| Self-employed | −0.170 | (3.37) | −0.190 | (3.07) | −0.101 | (1.14) |
| Unemployed | −0.175 | (2.77) | −0.233 | (2.55) | −0.084 | (0.94) |
| Retired | −0.180 | (2.98) | −0.251 | (2.67) | −0.159 | (1.93) |
| Inactive | −0.407 | (9.60) | −0.384 | (5.46) | −0.418 | (7.48) |
| Seasonal/casual job | −0.106 | (1.71) | −0.157 | (1.66) | −0.075 | (0.92) |
| Fixed term contract | −0.101 | (1.32) | −0.025 | (0.25) | −0.187 | (1.62) |
| Spouse employed | 0.098 | (2.23) | 0.146 | (2.42) | 0.028 | (0.42) |
| Number employed in hh | 0.053 | (2.14) | 0.032 | (0.89) | 0.073 | (2.12) |
| Log-likelihood | −26940 | | −12190 | | −14701 | |
| N observations | 69522 | | 31069 | | 38453 | |
| N individuals | 13810 | | 6525 | | 7285 | |
| Notes: Estimates from logit regressions with whether or not starts saving in the current year as the dependent variable. All models also include income, financial capability, interest rates, gender, age, health, marital status and household composition, education, housing tenure and house value, region, year dummies and elapsed duration in not saving. Absolute ratio of coefficient to standard error in brackets. | | | | | | |

Men who are in self-employment are 17% less likely than those in full-time employment to start saving. However, men who are in unemployment, retirement or economic inactivity are 21%, 22% and 30% less likely than those in full-time work to start saving. Women who are economically inactive are 34% less likely than those in full-time employment to start saving. Men with an employed spouse are 16% more likely than those without an employed spouse to start saving, while for women the transition rate into saving is higher for those in households where more individuals are in work.

Figure 45 illustrates the relative sizes of these effects. Full-time employment results in transition rates into saving of 16% for both men and women. Unemployment reduces this substantially for men, to 13.5%, but less so for women (to 15%). Retirement has a similarly sized effect. Economic inactivity is associated with a further fall in the transition rate into saving, to below 12% for both men and women.

Figure 45: Estimated effect of labour market status on the probability of starting to save: BHPS 1991–2006
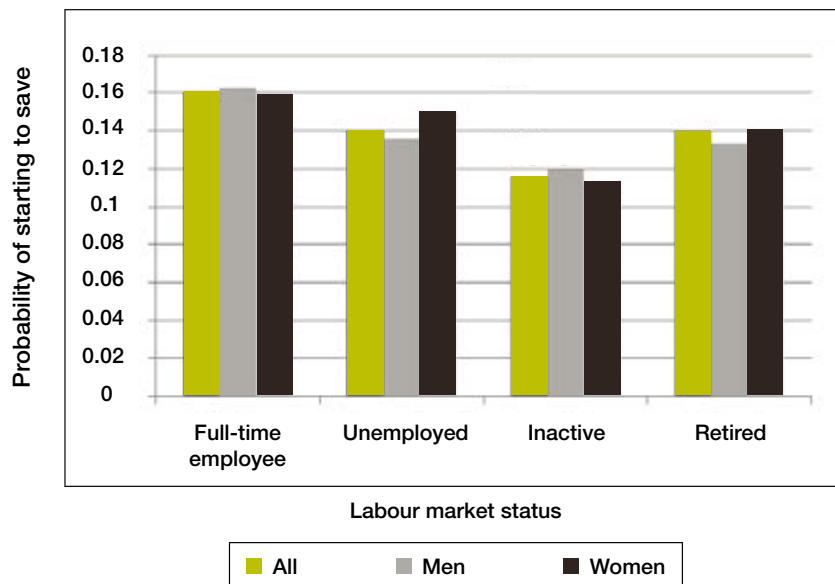
## Summary

Multivariate models of the transition rate into saving indicate that this transition rate falls as people spend more time not saving – evidence of negative duration dependence. Furthermore, financial capability is associated with higher transition rates into saving. For example someone with high financial capability has a transition rate into saving of 15.5% compared with 13.5% for someone with low financial capability. Therefore moving an individual up the financial capability distribution from relatively low to relatively high financial capability increases their chances of starting to save by two percentage points. This is comparable to educating a person with no qualifications to GCSE level, increasing their household income by £1000 per month, or giving an unemployed person a full-time job.

# 8.2.3 Transitions out of saving

We next describe results from the model where the dependent variable is the transition rate out of saving between two consecutive BHPS waves, t–1 and t, conditional on saving at t–1. In these models, a positive coefficient indicates that the variable increases the transition rate out of saving while a negative coefficient indicates that the variable reduces the transition rate. As in the previous models, these coefficients can be exponentiated to give the odds ratio – which is the proportionate change in the odds of stopping to save, associated with a one unit increase in the explanatory variable holding other variables constant.

Before considering the impact of the explanatory variables, we first discuss the impact of the elapsed duration in saving. For both men and women, the estimated coefficient is large, negative and statistically significant, indicating that the transition rate out of saving falls as people spend more time saving – evidence of negative duration dependence in saving. The transition rate out of saving is lower for people that have been saving for a longer period. This is consistent with the descriptive findings, shown in Figure 8, and again emphasises the importance of allowing for this duration dependence in the multivariate analysis.

## Financial variables and financial capability

In Table 51 we present the impact of the financial variables on the transition rate out of saving. The results show that the transition rate out of saving falls with financial capability – the estimated coefficients are negative and statistically significant. The size of the coefficient (–0.142) indicates that a one unit increase in financial capability reduces a person's transition rate out of saving by 13%. The gender-specific models suggest that the size of this effect is slightly larger for women than men.

| Table 51: Impacts of financial variables on the probability of stopping to save: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Financial capability | −0.142 | (5.62) | −0.134 | (3.43) | −0.145 | (4.37) |
| Real monthly household income (£1000) | −0.197 | (7.68) | −0.319 | (5.71) | −0.171 | (5.86) |
| Income squared (£10000) | 0.130 | (4.62) | 0.296 | (3.33) | 0.112 | (4.17) |
| Income cubed (£100000) | −0.021 | (2.93) | −0.081 | (2.03) | −0.016 | (2.88) |
| Interest rate | 0.070 | (5.72) | 0.046 | (2.50) | 0.088 | (5.37) |
| Interest rate and has mortgage | 0.005 | (0.39) | 0.021 | (1.05) | −0.005 | (0.27) |
| Proportion of income saved | −1.783 | (8.43) | −1.882 | (6.79) | −1.765 | (5.38) |
| Log-likelihood | −22808 | | −10617 | | −12142 | |
| N observations | 45087 | | 21409 | | 23678 | |
| N individuals | 10322 | | 4922 | | 5400 | |

Notes: Estimates from logit regressions with whether or not stops to save in the current year as the dependent variable. All models also include age, health, marital status, household composition, education, housing, labour market status of individual and other household members, region, year dummies, and elapsed duration in not saving. Absolute ratio of coefficient to standard error in brackets.

Figure 46 plots the impact of having relatively low (being at the 20th percentile of the distribution), average (at the 50th percentile) and relatively high (at the 80th percentile) financial capability on the probability of stopping to save. It shows that moving a person from low to high financial capability reduces their transition rate out of saving by one percentage point (from 22.5% to 21.5% for men and from 24% to 23% for women).

**Figure 46: Estimated effect of financial capability on the probability of stopping to save: BHPS 1991–2006**



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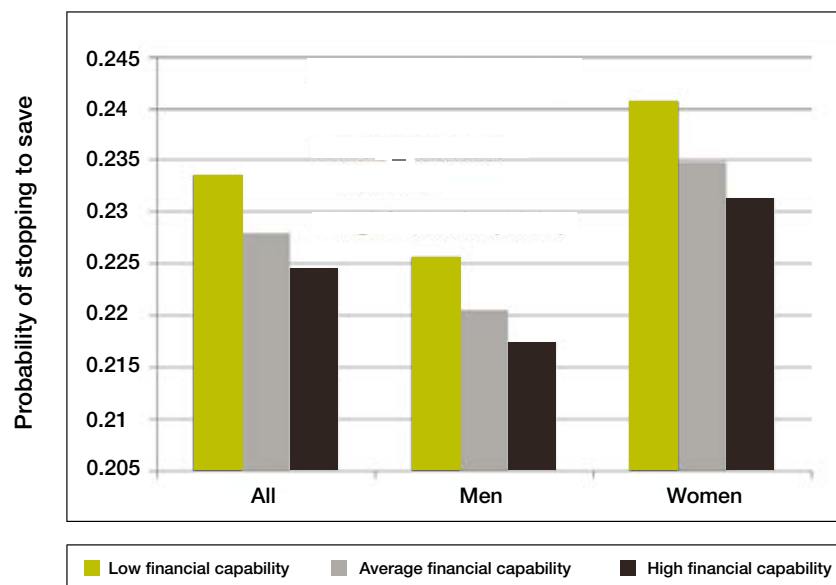
The results in Table 51 also show that the transition rate out of saving increases with the prevailing interest rate, all else equal. The coefficients are positive and statistically significant in all the models. The sizes of the coefficients suggest that a one percentage point increase in the base interest rate is associated with a 9% higher transition rate out of saving for women, and a 5% higher transition rate among men. However this effect does not vary with housing tenure.

The transition rate out of saving is also significantly associated with household income in both models. The coefficients on the income terms are all statistically significant and suggest a non-linear relationship between income and the transition rate out of saving. To illustrate the sizes of the income effect, in Figure 47 we plot the transition rate against monthly household income for men and women. This shows that the impact of income is larger for men than women. At the sample means, a man with a household income of £500 per month is estimated to have a 32% change of stopping to save, while a woman is estimated to have a 29% chance of stopping to save. Therefore at low incomes men are more likely to stop saving than women. However at high incomes the opposite is true – women are more likely to stop saving than men. For example the predicted probability of a man with a household income of £4500 per month to stop saving is 19%, compared with 21% for a woman. The figure also suggests that income has a larger effect at lower incomes than higher incomes – the relative impact of an additional £1000 per month on the probability of stopping to save is larger at low incomes than at higher incomes for both men and women.

**Figure 47: Estimated effect of monthly household income on the probability of stopping to save: BHPS 1991–2006**
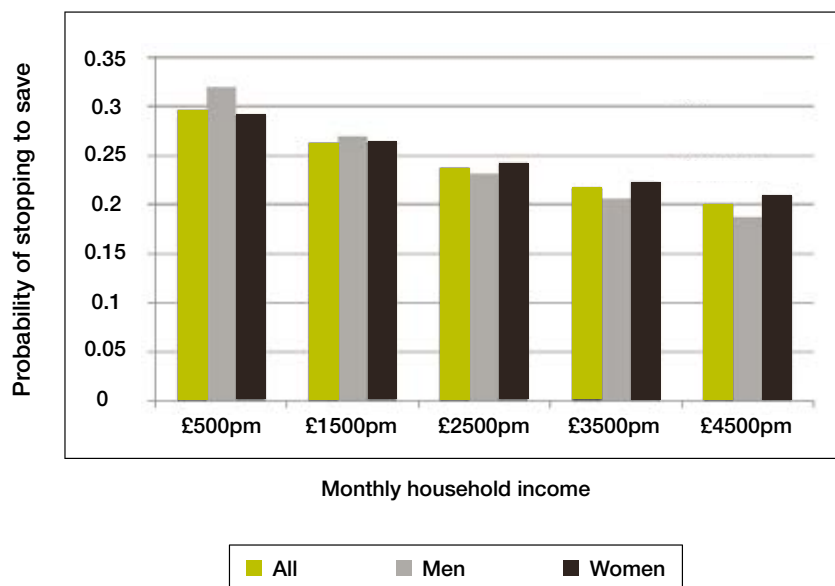


 We include in this specification the proportion of household income people were saving. The estimated coefficients on this variable are negative and statistically significant and indicate that for both men and women saving an additional one percentage point of household income reduces the exit rate from saving by 2%. People who save a larger proportion of their household income are less likely to stop saving.

## Demographic characteristics

Table 52 presents the estimated effects of gender, age and health status on the transition rates out of saving. This shows that gender has no statistically significant impact on transition rates out of saving all else equal. Age has little statistically significant impact on transition rates out of

saving for men, but does for women. To illustrate the impact of age on transitions out of saving, Figure 48 plots predicted transition rate out of saving by age. This shows the larger impact age has on the transition rate of women than of men. For men, there is a one percentage point difference in the predicted transition rate out of saving between those with the highest transition rate (those aged 20 and 65) and those with the lowest (aged 50). Therefore young and older men are most likely to stop saving, while middle aged men are least likely. For women, the difference is much larger and the transition rate out of saving falls almost continuously with age. Women aged 20 are eight percentage points more likely to stop saving than an otherwise similar woman aged 65.

| Table 52: Impacts of demographics on the probability of stopping to save: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Male | 0.039 | (1.45) | | | | |
| Age | −0.018 | (3.56) | −0.009 | (1.19) | −0.026 | (3.77) |
| Age2/100 | 0.014 | (2.64) | 0.010 | (1.17) | 0.018 | (2.52) |
| In good health | −0.085 | (2.97) | −0.086 | (1.98) | −0.084 | (2.19) |
| Log-likelihood | −22808 | | −10617 | | −12142 | |
| N observations | 45087 | | 21409 | | 23678 | |
| N individuals | 10322 | | 4922 | | 5400 | |

Notes: Estimates from logit regressions with whether or not stops to save in the current year as the dependent variable. All models also include income, financial capability, interest rates, marital status, household composition, education, housing, labour market status of individual and other household members, region, year dummies and elapsed duration in not saving. Absolute ratio of coefficient to standard error in brackets.

**Figure 48: Estimated effect of age on the probability of stopping to save: BHPS 1991–2006**
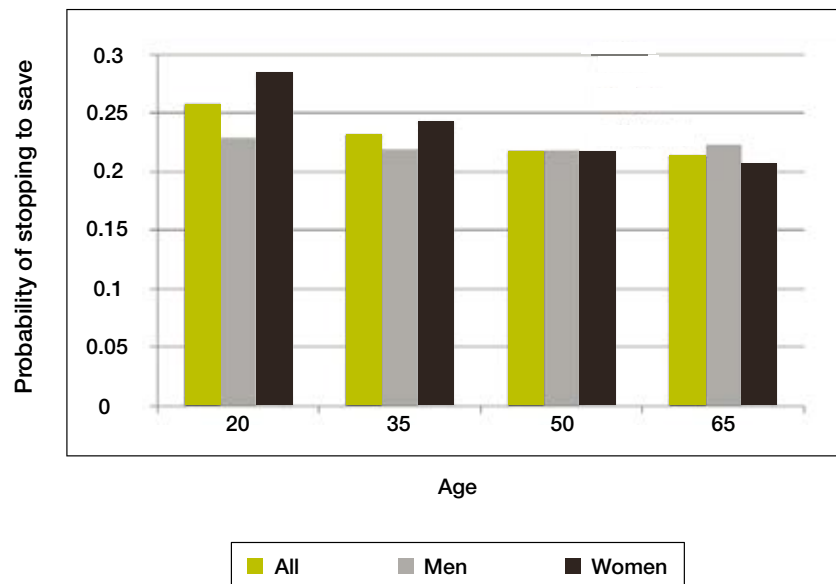


The estimates in Table 52 also indicate that being in good health reduces the transition rate out of saving for both men and women, and the sizes of the impacts are similar. In particular, men and women in good health are about 8% less likely to stop saving than an otherwise similar person not in good health.

## Marital status and household composition

Table 53 presents the estimated impacts of marital status and household composition on the transition rate out of saving controlling for other observed individual and household characteristics. These coefficients indicate that, for men, few household composition variables have a statistically significant impact on this transition rate.

| Table 53: Impacts of marital status and household composition on the probability of stopping to save: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| **Marital status** | | | | | | |
| Married | 0.200 | (2.67) | −0.020 | (0.19) | 0.389 | (3.61) |
| Cohabiting | 0.133 | (1.71) | −0.009 | (0.09) | 0.254 | (2.30) |
| Widowed | −0.037 | (0.44) | −0.193 | (1.15) | 0.101 | (0.96) |
| Divorced/separated | 0.048 | (0.69) | −0.014 | (0.13) | 0.143 | (1.48) |
| **Number of children** | | | | | | |
| One child | 0.170 | (2.73) | 0.235 | (2.29) | 0.108 | (1.34) |
| Two children | 0.162 | (2.34) | 0.161 | (1.47) | 0.153 | (1.66) |
| Three children | 0.245 | (2.58) | 0.386 | (2.74) | 0.128 | (0.98) |
| Four or more children | 0.359 | (2.15) | 0.414 | (1.64) | 0.356 | (1.59) |
| **Household type** | | | | | | |
| Single elderly | 0.040 | (0.41) | 0.015 | (0.09) | 0.135 | (1.11) |
| Couple no children | −0.004 | (0.04) | 0.132 | (1.32) | 0.043 | (0.44) |
| Couple dep child | −0.019 | (0.18) | 0.142 | (1.19) | 0.040 | (0.36) |
| Couple non-dep child | 0.013 | (0.13) | 0.195 | (1.93) | 0.022 | (0.21) |
| Lone parent | 0.153 | (1.88) | 0.271 | (2.57) | 0.218 | (2.18) |
| 2+ unrelated adults | −0.475 | (4.07) | −0.556 | (3.58) | −0.255 | (1.70) |
| Household size | −0.011 | (0.42) | −0.030 | (0.89) | −0.010 | (0.33) |
| Log-likelihood | −22808 | | −10617 | | −12142 | |
| N observations | 45087 | | 21409 | | 23678 | |
| N individuals | 10322 | | 4922 | | 5400 | |

Notes: Estimates from logit regressions with whether or not stops to save in the current year as the dependent variable. All models also include income, financial capability, interest rates, gender, age, health, education, housing, labour market status of individual and other household members, region, year dummies and elapsed duration in not saving. Absolute ratio of coefficient to standard error in brackets.

There is evidence that the transition rate out of saving is higher for men with than without children – the coefficients are positive and either are, or are on the margins of being, statistically significant. They indicate that a man with one child is 26% more likely than an otherwise similar man with no children to stop saving. The sizes of the impacts generally increase with the number of children, such that a man with three children is 47% more likely than a man with no children to stop saving. Men living in a household with at least one other unrelated adult are less likely than those in single non-elderly households to stop saving, by 43%, while being a single parent increases the rate out of saving by 31%.

Married and cohabiting women are more likely than the single never married to stop saving. The probability that married or cohabiting women stop saving are 48% and 29% higher than those for women who are single never married. The numbers of children have a small impact for women, which are not statistically significant. As for men, being a single parent increases the transition rate out of saving, by 24%.

Figure 49 illustrates the sizes of these effects. It shows for example that among men being a single parent is associated with the highest probability of stopping to save (at 29%), while being single elderly or divorced with no children is associated with the lowest (at 20% or less). Among women, being married is associated with the highest transition rates out of saving (exceeding 25%) while, as for men, being divorced with no children or single elderly is associated with the lowest.

**Figure 49: Estimated effect of marital status and household composition on the probability of stopping to save: BHPS 1991–2006**
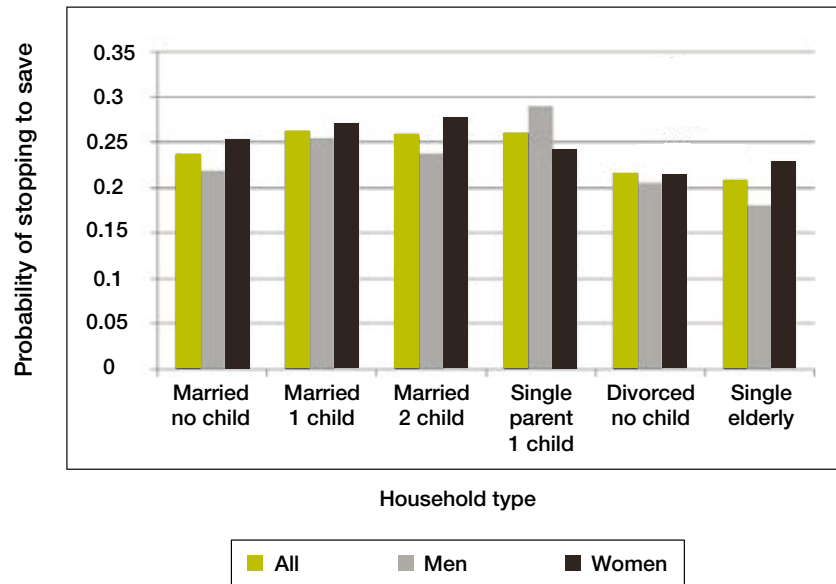


## Education

Table 54 presents the impact of education on transition rates out of saving. This indicates that education level has relatively large and statistically significant effects for both men and women. Men with A-Levels or the equivalent, a first degree or a higher degree are less likely than those with no qualifications to stop saving, and the sizes of the effects are larger at higher qualification levels. For example, men with a higher degree have a transition rate out of saving that is almost half that of men with no qualifications, while that for men with a first degree is 17% lower and that for men with A-Levels or equivalent is 16% lower. A similar pattern emerges for women. The transition rate out of saving is 40% lower for a woman with a higher degree than for a woman with no qualifications. The odds are similarly reduced by 25%, 17% and 11% for women with a first degree, with other higher qualifications and with GCSEs or the equivalent compared to those with no qualifications.

These effects are illustrated in Figure 50 which plots estimated transition rates out of saving by qualification level, at the sample means. Men and women with a university degree have an estimated transition rate out of saving of 20% compared with 25% for those with no qualifications, holding other characteristics constant.

| Table 54: Impacts of education on the probability of stopping to save: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Higher degree | −0.548 | (5.85) | −0.576 | (4.45) | −0.451 | (3.27) |
| First degree | −0.253 | (4.59) | −0.189 | (2.40) | −0.288 | (3.68) |
| Other higher qual. | −0.139 | (3.31) | −0.066 | (1.06) | −0.189 | (3.29) |
| A-Levels or equiv | −0.147 | (2.93) | −0.172 | (2.38) | −0.105 | (1.48) |
| GCSE or equivalent | −0.112 | (2.56) | −0.085 | (1.26) | −0.116 | (1.99) |
| Other qualification | −0.002 | (0.04) | −0.037 | (0.47) | 0.038 | (0.53) |
| Log-likelihood | −22808 | | −10617 | | −12142 | |
| N observations | 45087 | | 21409 | | 23678 | |
| N individuals | 10322 | | 4922 | | 5400 | |

Notes: Estimates from logit regressions with whether or not stops to save in the current year as the dependent variable. All models also include income, financial capability, interest rates, gender, age, health, marital status and household composition, housing, labour market status of individual and other household members, region, year dummies and elapsed duration in not saving. Absolute ratio of coefficient to standard error in brackets.

**Figure 50: Estimated effect of education on the probability of stopping to save: BHPS 1991–2006**



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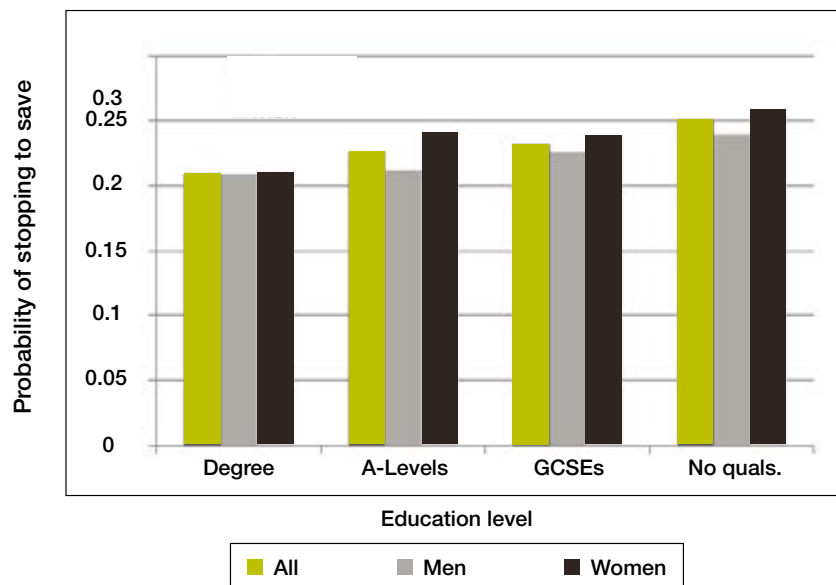
## Housing

Table 55 indicates that neither housing tenure nor house value have statistically significant impacts on the probability of stopping to save.

| Table 55: Impacts of housing variables on the probability of stopping to save: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Own outright | −0.016 | (0.19) | 0.083 | (0.66) | −0.103 | (0.87) |
| Local authority tenant | 0.071 | (0.75) | 0.163 | (1.16) | 0.005 | (0.04) |
| Private tenant | 0.039 | (0.40) | 0.174 | (1.22) | −0.063 | (0.47) |
| House value/£100000 | −0.022 | (1.14) | −0.014 | (0.57) | −0.029 | (1.01) |
| Log-likelihood | −22808 | | −10617 | | −12142 | |
| N observations | 45087 | | 21409 | | 23678 | |
| N individuals | 10322 | | 4922 | | 5400 | |

Notes: Estimates from logit regressions with whether or not stops to save in the current year as the dependent variable. All models also include income, financial capability, interest rates, gender, age, health, marital status and household composition, education, labour market status of individual and other household members, region, year dummies and elapsed duration in not saving. Absolute ratio of coefficient to standard error in brackets.

## Labour market variables

The results presented in Table 56 indicate that the labour market status of the individual has a large impact on the transition rate out of saving for both men and women. Men in retirement and other economic inactivity have significantly higher odds of stopping to save than those in full-time employment – the estimated coefficients are positive and statistically significant. Holding other characteristics constant, they are 22% more likely than an otherwise similar man in full-time employment to stop saving. Furthermore, the results indicate that men employed in seasonal or casual work or on a fixed term contract have transition rates out of saving that are about 30% higher than that for a man in full-time permanent employment.

| Table 56: Impacts of labour market variables on the probability of stopping to save: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Part-time employee | 0.062 | (1.46) | −0.118 | (1.02) | 0.105 | (2.09) |
| Self-employed | 0.146 | (2.89) | 0.113 | (1.83) | 0.154 | (1.71) |
| Unemployed | 0.139 | (1.42) | 0.118 | (0.82) | 0.101 | (0.75) |
| Retired | 0.281 | (4.16) | 0.201 | (1.86) | 0.309 | (3.50) |
| Inactive | 0.341 | (7.40) | 0.199 | (2.51) | 0.374 | (6.25) |
| Seasonal/casual job | 0.093 | (1.42) | 0.262 | (2.56) | −0.007 | (0.08) |
| Fixed term contract | 0.154 | (2.13) | 0.234 | (2.28) | 0.109 | (1.07) |
| Spouse employed | −0.013 | (0.28) | −0.009 | (0.13) | −0.077 | (1.03) |
| Number employed in hh | 0.026 | (1.00) | 0.086 | (2.27) | −0.022 | (0.58) |
| Log-likelihood | −22808 | | −10617 | | −12142 | |
| N observations | 45087 | | 21409 | | 23678 | |
| N individuals | 10322 | | 4922 | | 5400 | |

Notes: Estimates from logit regressions with whether or not stops to save in the current year as the dependent variable. All models also include income, financial capability, interest rates, gender, age, health, marital status and household composition, education, housing tenure and house value, region, year dummies and elapsed duration in not saving. Absolute ratio of coefficient to standard error in brackets.

Women who are retired or economically inactive are also more likely than those in full-time employment to stop saving, as are those in part-time employment. The coefficients indicate that retirement and economic inactivity increase the likelihood of a woman stopping to save by

36% and 45% respectively. Being in part-time work increases the relative likelihood by 13%. Therefore labour market status, and in particular being in retirement and economic inactivity, significantly affects the odds of a person stopping to save.

**Figure 51: Estimated effect of labour market status on the probability of stopping to save: BHPS 1991–2006**
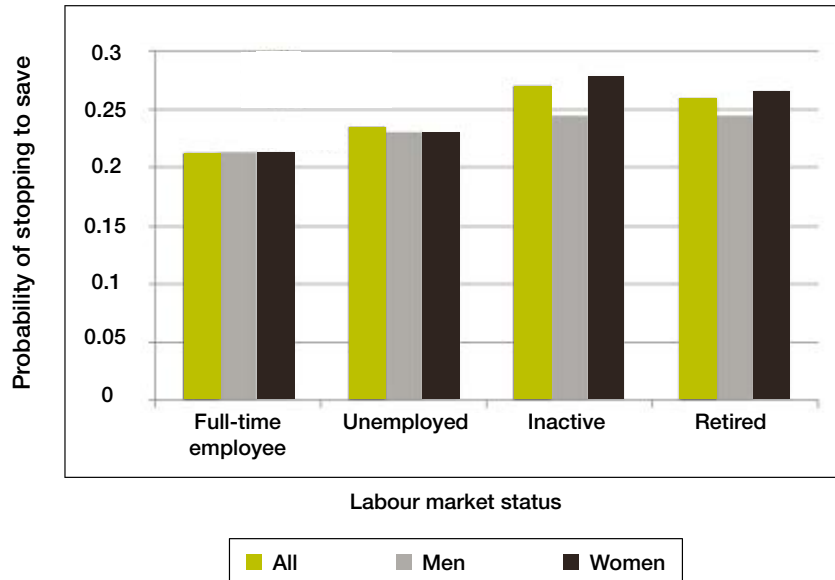


This is illustrated in Figure 51. Men and women in full-time employment are estimated to have a transition rate out of saving of 21% at the sample means. This increases to 23% if unemployed, holding other characteristics constant. The largest increases are associated with economic inactivity and retirement, which increase the estimated transition rate out of saving to 24% for men and to 27% for women, all else equal.

## Summary

Multivariate models of the transition rate out of saving indicate that this transition rate falls as people spend more time saving – evidence of negative duration dependence. Furthermore, the transition rate out of savings is inversely related with people's financial capability. A person with relatively low financial capability is two percentage points more likely to stop saving than an otherwise similar person with relatively high financial capability. This is similar in size to the effect of educating a person with no qualifications to GCSE level, or moving a person from unemployment into full-time work. The transition rate out of saving is also higher when interest rates are higher, and for people with lower household incomes, who are young, not in good health, who have no qualifications, and who are in retirement or economic inactivity.

## 8.2.4 The amount saved per month

We next describe results from the models where the dependent variable is the amount of money people save per month, deflated to January 2006 prices. We have taken the logs of the amount saved to compress the distribution, which is standard in the literature on, for example, estimating models of wages. These models are conditional on saving – and therefore people who are not saving at a particular BHPS wave are excluded from the analysis. In these within-group fixed effects models, a positive coefficient indicates that the variable is associated with saving larger amounts per month, while a negative coefficient indicates that the variable is associated with saving a smaller amount per month.

### Financial variables and financial capability

In Table 57 we present the impact of the financial variables on the amount saved. This shows that the amount saved is strongly associated with financial capability.

| Table 57: Impacts of financial variables on the amount saved per month: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Financial capability | 0.209 | (18.55) | 0.212 | (12.55) | 0.205 | (13.59) |
| Real monthly household income (£1000) | 0.162 | (23.43) | 0.183 | (14.01) | 0.144 | (15.38) |
| Income squared (£10000) | −0.068 | (15.09) | −0.081 | (6.89) | −0.060 | (10.50) |
| Income cubed (£100000) | 0.007 | (11.30) | 0.009 | (3.88) | 0.006 | (8.38) |
| Interest rate | −0.031 | (1.40) | −0.028 | (0.88) | −0.032 | (1.06) |
| Interest rate and has mortgage | 0.003 | (0.58) | −0.004 | (0.48) | 0.009 | (1.18) |
| R-squared | 0.1059 | | 0.1243 | | 0.1012 | |
| N observations | 45662 | | 21688 | | 23974 | |
| N individuals | 10412 | | 4974 | | 5438 | |

Notes: Estimates from within-group fixed effects regressions with the log of amount saved per month conditional on saving as the dependent variable. All models also include age, health, marital status, household composition, education, housing, labour market status of individual and other household members, region, and year dummies. Absolute ratio of coefficient to standard error in brackets.

The estimated coefficients are positive and statistically significant indicating that the amount saved per month is higher for people with higher levels of financial capability, all else equal. The sizes of the effects are similar for men and women – a one unit increase in financial capability is associated with a 23% increase in the amount saved per month. Figure 52 plots the size of the estimated effects of financial capability on the predicted amount saved per month. This indicates that a person with relatively low financial capability (at the 20th percentile of the distribution) is predicted to save £106 per month at the sample means. This compares with £115 per month for an otherwise similar person with average financial capability and £119 per month for someone with relatively high financial capability (at the 80th percentile of the distribution). Differences in the predicted amounts saved by position in the financial capability distribution are slightly larger for men than women.

As expected, the amount saved per month is also strongly related to household income. In particular, the amount saved per month increases with monthly household income, although the significant coefficients on the squared and cubic terms indicate that this relationship is non-linear. To illustrate the sizes of the income effects, in Figure 53 we plot the estimated amount saved per month against monthly household income for men and women, at the sample means. This shows that household income has a larger impact on the amount saved for men than women – at any given level of income men save a larger amount, and the amount saved increases with income by more for men than women. For example, at the sample means men who receive a household income of £500 per month are predicted to save £76 per month.

Women with the same household income are predicted to save £61 per month. The amounts saved increase with income, such that a man with a household income of £3500 per month is predicted to save £120 per month compared with £87 per month for women. An additional £1000 per month increases the amount saved per month by about £15 for men, and by about £10 for women, holding other characteristics constant.

Figure 52: Estimated effect of financial capability on the amount saved per month: BHPS 1991–2006
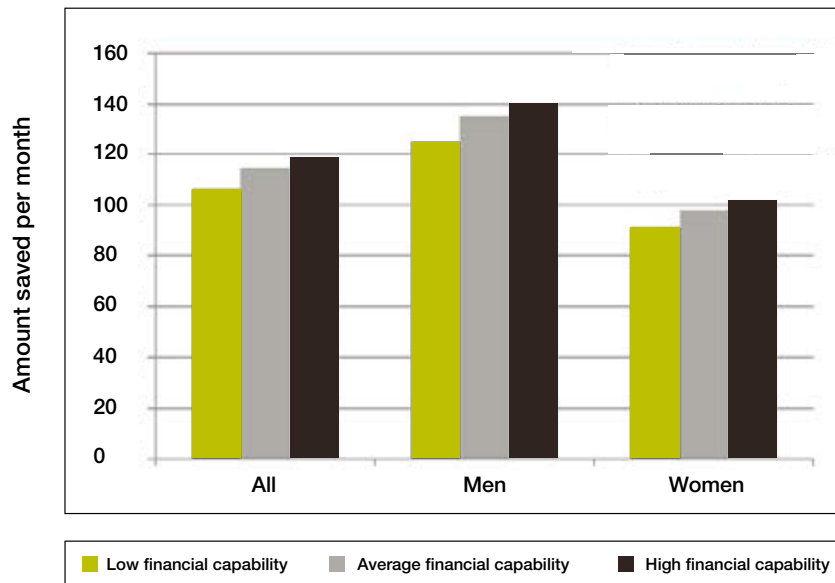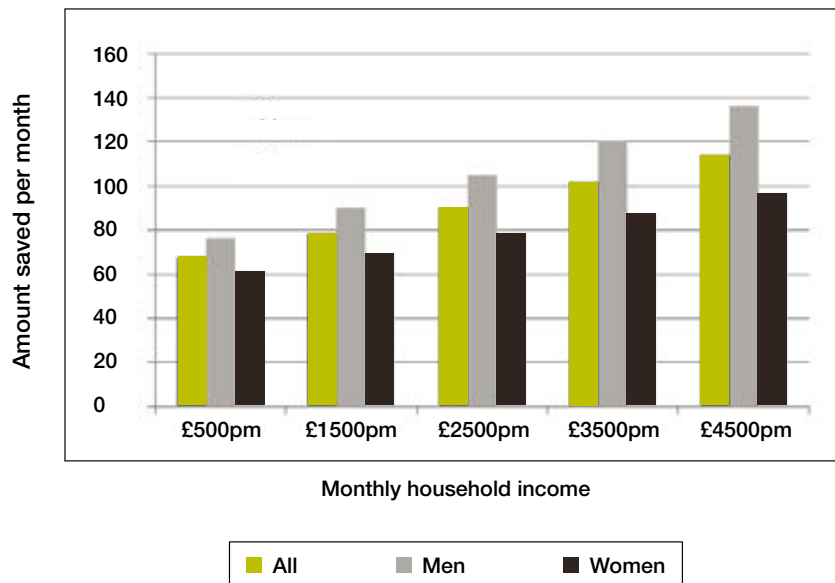
Figure 53: Estimated effect of gross monthly household income on the amount saved per month: BHPS 1991–2006

## Demographic characteristics

Table 58 presents the estimated effects of age and health status on the amount saved per month. (These are within-group fixed effects regressions, and so we are unable to directly estimate the impact of gender on amount saved.) The results suggest that the amount saved per month is not associated with health. Age also has little statistically significant impact on the amount saved per month for either men or women, although its square is statistically significant for men. To illustrate the impact of age on the amount saved per month, Figure 54 plots the estimated amount saved per month by age. This shows quite different relationships by gender. For women the relationship is almost linear, with the amount saved per month falling monotonically with age. For men, however, the relationship is non-linear – the estimated amount saved per month initially increases with age until the age of 28. After this age, the amount saved per month falls monotonically with age. For both men and women, it is evident that, all else equal, the youngest save the largest amounts per month.

| Table 58: Impacts of age and health on the amount saved per month: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Age | 0.001 | (0.14) | 0.018 | (1.20) | −0.010 | (0.72) |
| Age2/100 | −0.021 | (5.14) | −0.032 | (5.48) | −0.010 | (1.79) |
| In good health | 0.016 | (1.38) | 0.020 | (1.14) | 0.014 | (0.90) |
| R-squared | 0.1059 | | 0.1243 | | 0.1012 | |
| N observations | 45662 | | 21688 | | 23974 | |
| N individuals | 10412 | | 4974 | | 5438 | |

Notes: Estimates from within-group fixed effects regressions with the log of amount saved per month conditional on saving as the dependent variable. All models also include income, financial capability, base interest rate, marital status, household composition, education, housing, labour market status of individual and other household members, region, and year dummies. Absolute ratio of coefficient to standard error in brackets.

**Figure 54: Estimated effect of age on the amount saved per month: BHPS 1991–2006**
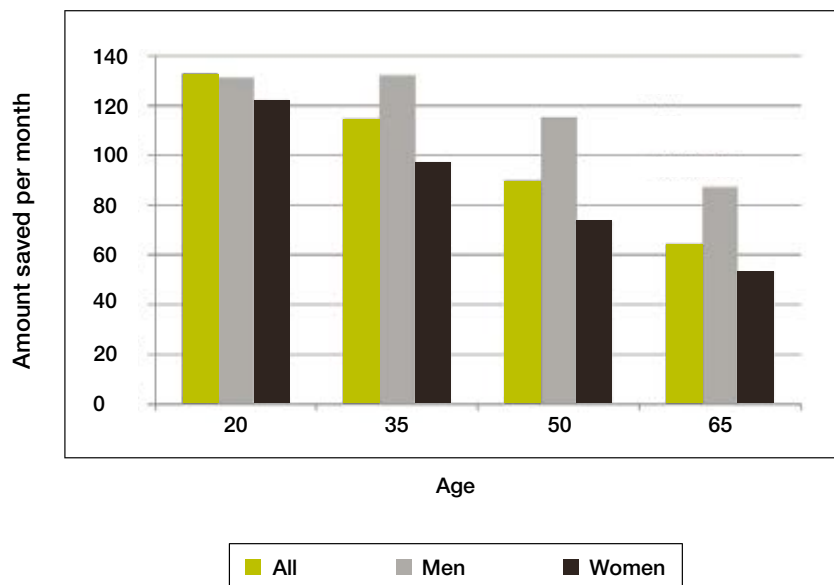
## Marital status and household composition

Table 59 presents the estimated impacts of marital status and household composition on the amount saved per month controlling for other observed individual and household characteristics. These coefficients indicate that, for men, any marital status is associated with saving less per month relative to being single never-married (although the coefficient on being widowed is not statistically significant). In contrast, among women being a widow is associated with saving more per month relative to being single never-married, while marriage, cohabitation or divorce/separation has no statistically significant impact. The amount saved per month varies little by the number of children for either men or women, although household type does have an effect. For men, those in single elderly households or single parent households save larger amounts than those in single non-elderly households while living in a couple with dependent children or with unrelated adults is associated with saving lower amounts. Household structure has smaller effects for women.

These effects are difficult to interpret, and so to illustrate them more clearly, Figure 55 plots the estimated amounts saved per month for a range of household types by gender. This figure shows that the amount saved per month varies considerably between household types. Focusing initially on men, of the household types illustrated those in single parent households with one dependent child are predicted to save the largest amounts per month all else equal (about £195 per month) while the married with two dependent children are predicted to save the smallest amounts (£109 per month). Single elderly women are predicted to save the largest amounts per month (£132) holding all other characteristics constant, while the divorced with no children save the smallest amounts (£85 per month). Married women (with or without dependent children) are predicted to save between these amounts.

| Table 59: Impacts of marital status and household composition on the amount saved per month: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| **Marital status** | | | | | | |
| Married | −0.100 | (2.75) | −0.197 | (3.79) | −0.033 | (0.63) |
| Cohabiting | −0.063 | (1.81) | −0.147 | (2.96) | −0.011 | (0.21) |
| Widowed | 0.038 | (0.65) | −0.155 | (1.54) | 0.180 | (2.40) |
| Divorced/separated | −0.132 | (3.24) | −0.268 | (4.41) | −0.009 | (0.17) |
| **Number of children** | | | | | | |
| One child | −0.016 | (0.62) | 0.020 | (0.52) | −0.018 | (0.52) |
| Two children | −0.002 | (0.05) | 0.004 | (0.10) | 0.022 | (0.55) |
| Three children | 0.049 | (1.13) | 0.046 | (0.72) | 0.083 | (1.38) |
| Four or more children | 0.085 | (0.99) | −0.079 | (0.65) | 0.273 | (2.23) |
| **Household type** | | | | | | |
| Single elderly | 0.119 | (2.28) | 0.214 | (2.45) | 0.071 | (1.08) |
| Couple no children | 0.054 | (1.76) | 0.052 | (1.18) | 0.078 | (1.82) |
| Couple dependent child | −0.055 | (1.56) | −0.129 | (2.53) | 0.001 | (0.02) |
| Couple non-dependent child | 0.022 | (0.70) | −0.042 | (0.95) | 0.087 | (1.93) |
| Lone parent | −0.028 | (0.81) | 0.124 | (2.26) | −0.080 | (1.75) |
| 2+ unrelated adults | −0.159 | (3.41) | −0.205 | (3.23) | −0.097 | (1.42) |
| Household size | −0.048 | (4.34) | −0.047 | (2.91) | −0.045 | (2.93) |
| R-squared | 0.1059 | | 0.1243 | | 0.1012 | |
| N observations | 45662 | | 21688 | | 23974 | |
| N individuals | 10412 | | 4974 | | 5438 | |

Notes: Estimates from within-group fixed effects regressions with the log of amount saved per month conditional on saving as the dependent variable. All models also include income, financial capability, base interest rate, age, health, education, housing, labour market status of individual and other household members, region, and year dummies. Absolute ratio of coefficient to standard error in brackets.

Figure 55: Estimated effect of household composition on the amount saved per month: BHPS 1991–2006
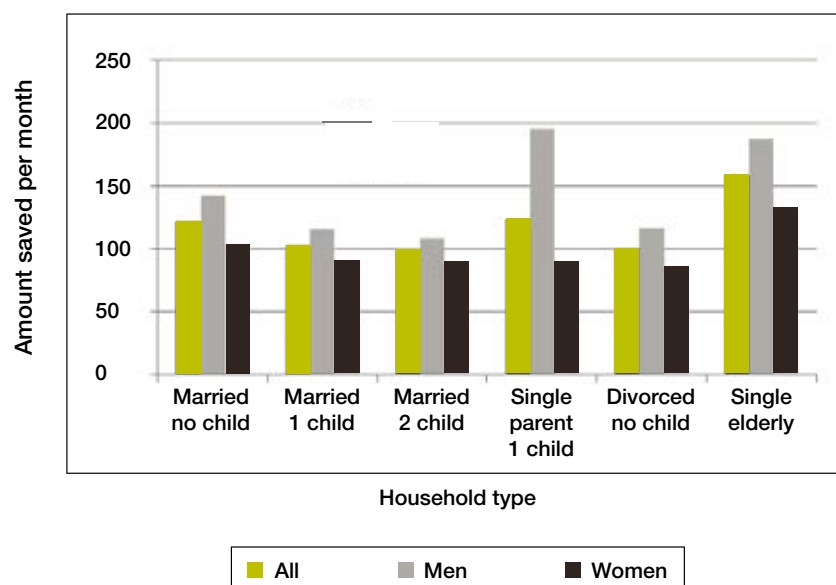
## Education

Table 60 presents the impact of education on the amount saved per month. This indicates that education level has relatively large and statistically significant effects for both men and women. For example men holding qualifications equal to or higher than A-Levels save larger amounts per month than those with no qualifications, all else equal. The sizes of these effects are considerable – such that a man with a higher degree or first degree is estimated to save 65% more than an otherwise similar man with no qualifications. The relative impacts of having other higher level qualifications or A-Levels or the equivalent are smaller. For women, having a first or higher degree is also associated with saving larger amounts – holding one of these qualifications is associated with saving between 50% and 60% more per month than an otherwise similar woman with no qualifications. Therefore the more highly educated on average save larger amounts per month than those with no qualifications, and the amounts saved on average increase with the level of qualification achieved.

| Table 60: Impacts of education on the amount saved per month: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Higher degree | 0.494 | (5.95) | 0.482 | (4.19) | 0.471 | (3.89) |
| First degree | 0.468 | (7.51) | 0.511 | (5.52) | 0.408 | (4.81) |
| Other higher qual. | 0.123 | (2.45) | 0.184 | (2.51) | 0.060 | (0.87) |
| A-Levels or equiv | 0.191 | (3.60) | 0.254 | (3.32) | 0.112 | (1.52) |
| GCSE or equivalent | −0.054 | (1.03) | 0.014 | (0.19) | −0.127 | (1.77) |
| Other qualification | 0.095 | (1.44) | 0.167 | (1.68) | 0.020 | (0.22) |
| R-squared | 0.1059 | | 0.1243 | | 0.1012 | |
| N observations | 45662 | | 21688 | | 23974 | |
| N individuals | 10412 | | 4974 | | 5438 | |

Notes: Estimates from within-group fixed effects regressions with the log of amount saved per month conditional on saving as the dependent variable. All models also include income, financial capability, base interest rate, marital status, household composition, age, health, housing, labour market status of individual and other household members, region, and year dummies. Absolute ratio of coefficient to standard error in brackets.

This is clearly illustrated in Figure 56. At the sample means, men educated to degree level are predicted to save £176 per month, all else equal, compared with £106 per month for those with no qualifications. This difference is smaller among women (£132 per month if educated to degree level, compared with £88 per month if has no qualifications).

**Figure 56: Estimated effect of education level on the amount saved per month: BHPS 1991–2006**
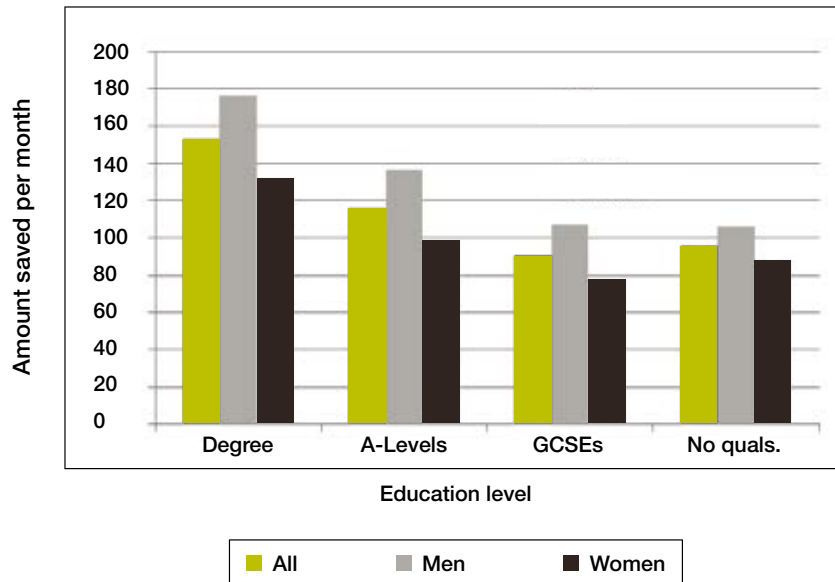


## Housing

Table 61 indicates that both housing tenure and house value have statistically significant impacts on the amount saved per month. For men, owning a home outright and being a local authority tenant is associated with saving more per month than holding a mortgage – the estimated coefficients are positive and statistically significant. However the relative sizes of these impacts are quite small. Men owning their home outright are estimated to save 15% more than those with a mortgage, while those in local authority tenancy save 20% more. Women who have a mortgage are estimated to save the smallest amounts per month, all else equal. Those owning their home outright or who rent their accommodation from their local authority are estimated to save about 13% more than otherwise similar women with a mortgage, while those in private rented accommodation save about 19% more. However, for women who are owner-occupiers the amount saved per month is also associated with the value of the home – each £100,000 on the value of their home is associated with saving about 3% more per month. House value has no impact on the amount saved for men.

Figure 57 shows that, at the sample means, a man owning his home outright is predicted to save £146 per month compared with £127 per month if he had a mortgage, £153 per month if a social tenant, and £137 per month if a private tenant.[5] In contrast a woman homeowner is predicted to save £105 per month compared with £93 per month for an otherwise similar woman with a mortgage, £106 per month if a social tenant and £110 per month if a private tenant.

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[5] Remember that this definition of amount saved per month does not include mortgage repayments, which could be viewed as a form of saving.

| Table 61: Impacts of housing tenure and value on the amount saved per month: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Own outright | 0.132 | (3.75) | 0.136 | (2.69) | 0.121 | (2.48) |
| Local authority tenant | 0.147 | (3.30) | 0.181 | (2.79) | 0.130 | (2.13) |
| Private tenant | 0.126 | (3.11) | 0.074 | (1.27) | 0.172 | (3.07) |
| House value/£100000 | 0.013 | (2.21) | 0.002 | (0.33) | 0.027 | (3.09) |
| R-squared | 0.1059 | | 0.1243 | | 0.1012 | |
| N observations | 45662 | | 21688 | | 23974 | |
| N individuals | 10412 | | 4974 | | 5438 | |

Notes: Estimates from within-group fixed effects regressions with the log of amount saved per month conditional on saving as the dependent variable. All models also include income, financial capability, base interest rate, marital status, household composition, education, age, health, labour market status of individual and other household members, region, and year dummies. Absolute ratio of coefficient to standard error in brackets.

**Figure 57: Estimated effect of housing tenure on the amount saved per month: BHPS 1991–2006**
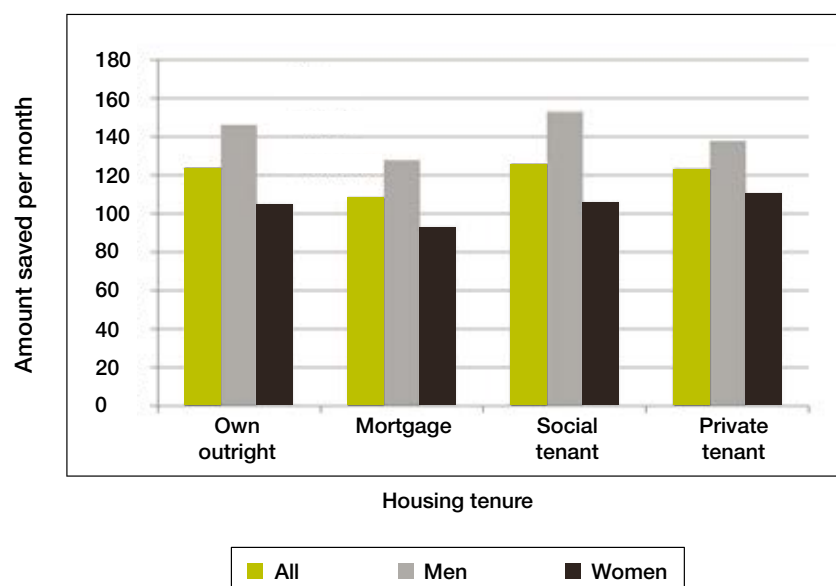


## Labour market variables

The results presented in Table 62 indicate that the labour market status of both the individual and other household members has a large impact on the amount saved per month, and this is true for men and women. The estimates suggest that for men, those in employment tend to save the highest amounts, while those in unemployment, retirement and economic inactivity save smaller amounts, all else equal. The sizes of the coefficients indicate that men in part-time employment save significantly smaller amounts than those in full-time work, by about 16%. However, the self-employed save approximately 8% more than otherwise similar full-time employees, which may reflect a more cautious approach to saving in light of the more uncertain income streams of the self-employed. However the largest relative effects are found for non-employed men. Unemployment is associated with saving approximately one half the amount of an otherwise similar full-time employee, while retirement and economic inactivity are associated with saving between 35% and 40% less per month. Furthermore, the estimates for men suggest that non-permanent employment is associated with saving larger amounts per month. As for the self-employed, this might reflect economic planning among men who know that their employment position is more precarious.

A similar pattern emerges for women. Women in full-time employment are estimated to save the most per month while those out of work, and the unemployed in particular, are estimated to save the least. The results show that a woman in part-time work is predicted to save about 18% less per month than an otherwise similar woman in full-time work while one in self-employment saves about 15% less. As for men the largest effects are for women out of work – unemployment is associated with saving about 38% less relative to full-time employment, while retirement and economic inactivity are associated with saving about 31% less. In contrast to men, working in a seasonal or casual job is associated with saving less per month.

| Table 62: Impacts of labour market status on the amount saved per month: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Part-time employee | −0.183 | (10.08) | −0.173 | (3.82) | −0.200 | (9.50) |
| Self-employed | −0.015 | (0.58) | 0.076 | (2.33) | −0.161 | (3.87) |
| Unemployed | −0.576 | (14.80) | −0.725 | (12.67) | −0.480 | (8.98) |
| Retired | −0.414 | (14.34) | −0.446 | (10.17) | −0.403 | (10.36) |
| Inactive | −0.391 | (18.57) | −0.507 | (13.44) | −0.363 | (13.76) |
| Seasonal/casual job | −0.036 | (1.40) | 0.144 | (3.52) | −0.148 | (4.51) |
| Fixed term contract | 0.039 | (1.41) | 0.096 | (2.46) | −0.015 | (0.38) |
| Spouse employed | −0.020 | (1.00) | −0.016 | (1.73) | 0.006 | (0.19) |
| Number employed in hh | 0.004 | (0.39) | −0.019 | (1.20) | 0.025 | (1.71) |
| R-squared | 0.1059 | | 0.1243 | | 0.1012 | |
| N observations | 45662 | | 21688 | | 23974 | |
| N individuals | 10412 | | 4974 | | 5438 | |

Notes: Estimates from within-group fixed effects regressions with the log of amount saved per month conditional on saving as the dependent variable. All models also include income, financial capability, base interest rate, marital status, household composition, education, housing, age, health, region, and year dummies. Absolute ratio of coefficient to standard error in brackets.

**Figure 58: Estimated effect of employment status on the amount saved per month: BHPS 1991–2006**
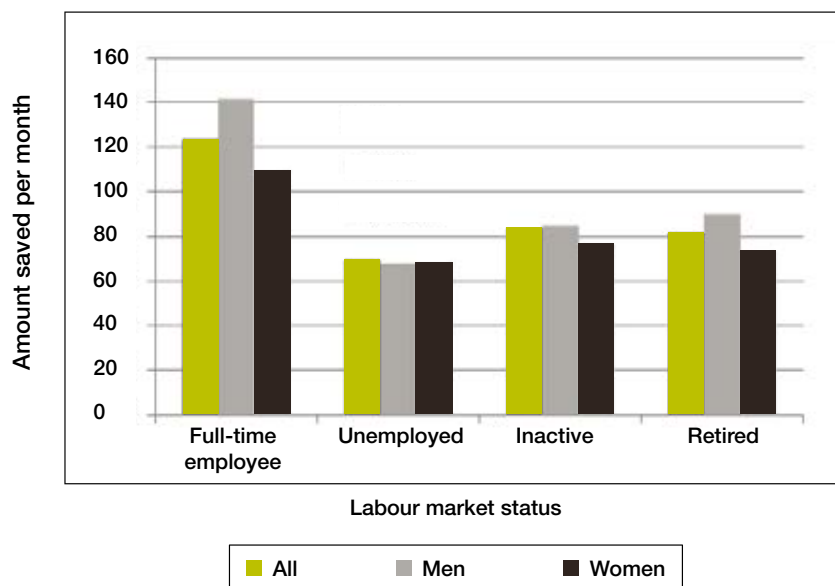
These effects are clearly illustrated in Figure 58. Men in full-time work are predicted to save £140 per month at the sample means, compared with less than £80 per month for an otherwise similar man who is economically inactive or retired, and less than £70 per month for a man who is unemployed. The pattern for women is similar, although the differences between predicted amounts saved if in full-time work and not working are smaller.

## Summary

Multivariate models of the amount saved per month indicate that people with higher financial capability save more per month than those with lower financial capability. Someone with relatively low financial capability is estimated to save £106 per month compared with £119 per month for an otherwise similar person with relatively high financial capability. This £13 per month increase in savings is roughly equivalent to that associated with an increase in monthly household income of £1000, but is considerably smaller than that between being in full-time work and unemployment (£50 per month). The amount saved also increases with household income and falls with age. Being more highly educated, not having a mortgage and in full-time employment are associated with saving more per month, holding other characteristics constant. In contrast factors associated with saving smaller amounts per month include having no qualifications, having a mortgage and being unemployed, economically inactive or retired.

# 8.2.5 The proportion of household income saved per month

The final set of models use the proportion of gross household income saved per month as the dependent variable. As with those for the amount saved per month described previously, these models are conditional on saving – and therefore people who are not saving at a particular BHPS wave are excluded from the analysis. In these within-group fixed effects models, the dependent variable takes a value between zero and one and a positive coefficient indicates that the variable is associated with saving a larger proportion of income per month, while a negative coefficient indicates that the variable is associated with saving a smaller proportion per month. As before, we discuss the impacts of variables by group, although models are estimated with all variables included.

## Financial variables and financial capability

In Table 63 we present the impact of the financial variables on the proportion of household income saved per month. The results indicate that financial capability has a statistically significant and positive impact on the proportion of income saved. Therefore people with higher financial capability save a larger proportion of their household income, all else equal, and this effect is found in all three specifications. The sizes of the coefficients indicate that a one unit increase in financial capability increases the proportion of household income saved per month by 1.2 percentage points, and that this effect is larger for men (1.4 percentage points) than women (1.0 percentage points).

To illustrate the sizes of these effects Figure 59 plots the predicted proportions of household income saved per month estimated at the sample means when people have relatively low (at the 20th percentile of the distribution), average (at the 50th percentile) and relatively high financial capability (at the 80th percentile). This highlights the fact that people with high financial capability save the largest proportions of their incomes, all else equal. For example, a man with relatively high financial capability is predicted to save 7% of his monthly household income, compared with 6% for an otherwise similar man with relatively low financial capability. Among women this difference is smaller, with a woman with relatively high financial capability predicted to save 5.5% of their household income compared with 5% for an otherwise similar woman with relatively low financial capability. These differences in the proportion of income saved between people with high and low financial capability are considerably smaller than those in the raw

data (see Table 37) which indicates that much of the relationship between financial capability and the proportion of income saved is explained by other factors that jointly determine financial capability and savings behaviour.

| Table 63: Impacts of financial variables on the proportion of income saved per month: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Financial capability | 0.012 | (13.02) | 0.014 | (9.76) | 0.010 | (9.07) |
| Real monthly household income (£1000) | −0.018 | (33.17) | −0.018 | (25.71) | −0.016 | (23.51) |
| Income squared (£10000) | 0.008 | (21.94) | 0.019 | (18.30) | 0.007 | (15.95) |
| Income cubed (£100000) | −0.001 | (17.19) | −0.003 | (15.13) | −0.001 | (12.86) |
| Interest rate | −0.006 | (3.30) | −0.009 | (3.30) | −0.002 | (1.11) |
| Interest rate and has mortgage | −0.001 | (1.45) | −0.001 | (1.39) | −0.000 | (0.64) |
| R-squared | 0.0865 | | 0.1069 | | 0.0847 | |
| N observations | 45662 | | 21688 | | 23974 | |
| N individuals | 10412 | | 4974 | | 5438 | |

Notes: Estimates from within-group fixed effects regressions with the proportion of household income saved per month conditional on saving as the dependent variable. All models also include age, health, marital status, household composition, education, housing, labour market status of individual and other household members, region, and year dummies. Absolute ratio of coefficient to standard error in brackets.

**Figure 59: Estimated effect of financial capability on the proportion of household income saved per month: BHPS 1991–2006**
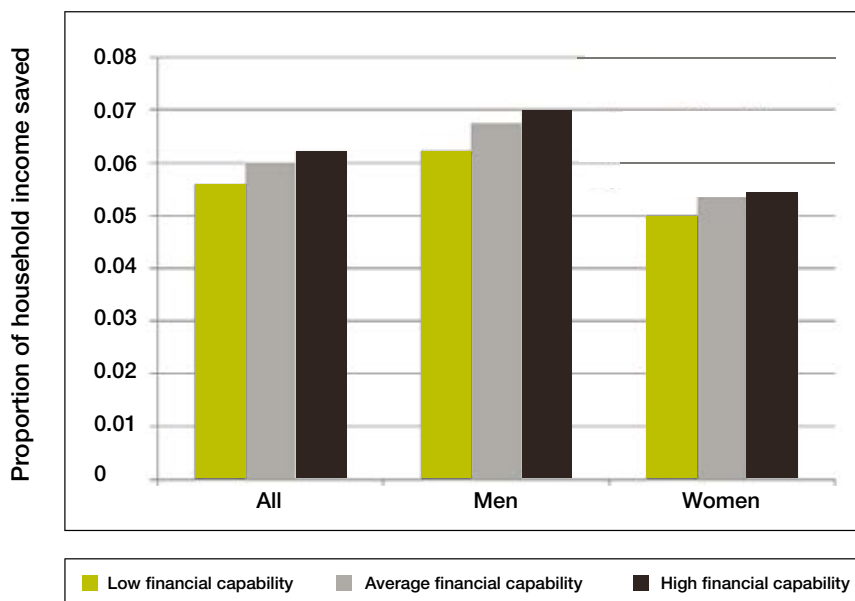


The results in Table 63 also show that the proportion of income saved is inversely related to the prevailing interest rate, although this is only evident for men. The estimated coefficient is negative and statistically significant, indicating that a one percentage point increase in the base interest rate is associated with a one percentage point reduction in the proportion of household income saved. This may reflect the additional financial burden to those who are net borrowers that an increase in interest rates incurs, although this effect is not more pronounced among people with a mortgage.

The proportion of household income saved is also significantly associated with household income in both models. The coefficients on the income terms are negative and statistically significant and suggest that people with higher household incomes save a lower proportion of their income. However, the coefficients on the squared and cubic terms are also statistically significant, indicating a non-linear relationship between income and proportion of income saved. To illustrate the sizes of the income effects more clearly, in Figure 60 we plot the proportion of income saved against monthly household income, estimated at the sample means. This shows that the effect of income is quite similar for men and women – both men and women save larger proportions of their income at lower income levels. However differences between men and women are most pronounced at low income levels, where men save a substantially larger proportion of their income than women. For example, when in receipt of a household income of £500 per month, men are estimated to save more than 12% of their income while women save 9%. This differential falls with income, such that when receiving an income on £4500 per month, men save 4.3% while women save 3.5%.

**Figure 60: Estimated effect of monthly household income on the proportion of household income saved per month: BHPS 1991–2006**
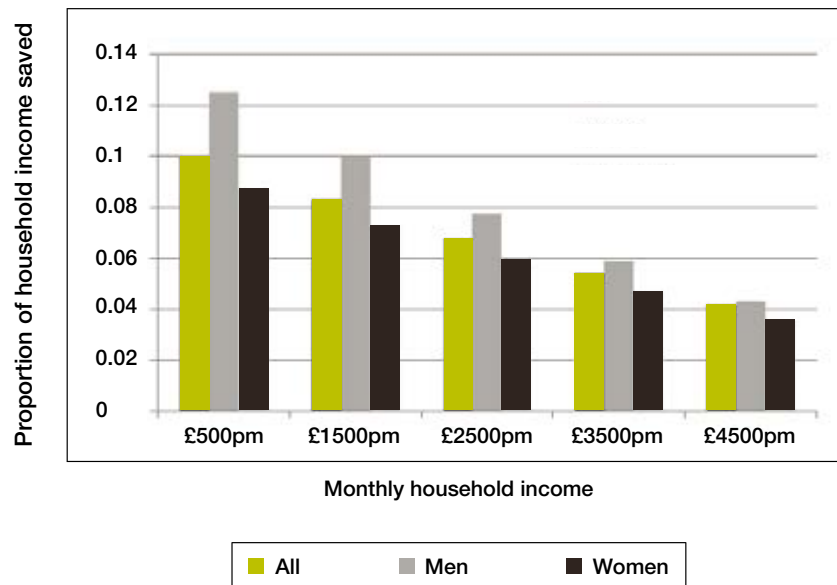


## Demographic characteristics

Table 64 presents the estimated effects of age and health status on the proportion of income saved per month. These effects suggest that health status has little effect on the proportion of income saved. The coefficients on the age variable are also statistically insignificant, although those on its square are significant. They suggest that older men and women save a smaller proportion of their income. This is illustrated more clearly in Figure 61, which plots the estimated effects of age on the proportion of household income saved. This suggests that age has a similar impact for men and women. It also suggests that a man of 65 saves about five percentage points less of his income than an otherwise similar man aged 20 (8.5% compared with 3.5%). A similar differential emerges for women but at a lower level (7.5% at age 20 compared with 2.5% at age 65). The proportion of household income saved falls with age for both men and women, but falls faster at older ages.

| Table 64: Impacts of age and health on the proportion of income saved per month: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Age | 0.000 | (0.44) | 0.001 | (0.87) | −0.000 | (0.00) |
| Age²/100 | −0.002 | (6.24) | −0.003 | (5.32) | −0.001 | (3.37) |
| In good health | 0.001 | (0.98) | 0.003 | (1.80) | −0.000 | (0.27) |
| R-squared | 0.0865 | | 0.1069 | | 0.0847 | |
| N observations | 45662 | | 21688 | | 23974 | |
| N individuals | 10412 | | 4974 | | 5438 | |

Notes: Estimates from within-group fixed effects regressions with the proportion of income saved per month conditional on saving as the dependent variable. All models also include income, financial capability, base interest rate, marital status, household composition, education, housing, labour market status of individual and other household members, region, and year dummies. Absolute ratio of coefficient to standard error in brackets.

Figure 61: Estimated effect of age on the proportion of household income saved per month: BHPS 1991–2006
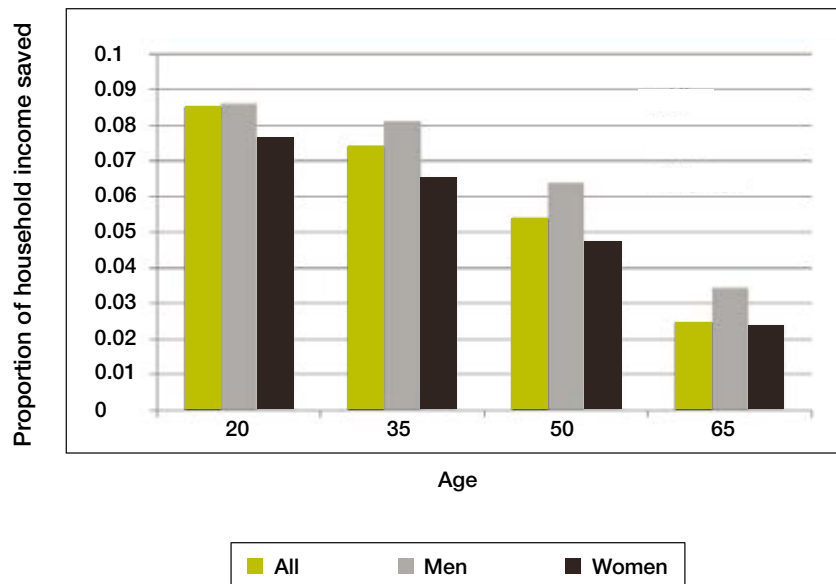


## Marital status and household composition

Table 65 presents the estimated impacts of marital status and household type on the proportion of income saved controlling for other observed characteristics. For men we find marriage or cohabitation to be associated with saving one percentage point less of income, while divorce or separation is associated with saving 1.8 percentage points less of household income. Being divorced or separated reduces the proportion of household income saved by one percentage point among women. The number of children has no impact on the proportion of income saved for men or women. Some of the household type variables are also statistically significant. Men and women in single elderly households save a significantly larger proportion of their income (by 1.5 and 3.3 percentage points respectively), while for women being in couples with dependent children and lone parents is associated with saving about one percentage point less of income.

| Table 65: Impacts of marital status and household composition on the proportion of income saved per month: BHPS 1991–2006 | All | | Men | | Women | |
|---|---|---|---|---|---|---|
| **Marital status** | | | | | | |
| Married | −0.006 | (2.12) | −0.011 | (2.40) | −0.004 | (1.12) |
| Cohabiting | −0.005 | (1.62) | −0.010 | (2.27) | −0.002 | (0.47) |
| Widowed | 0.007 | (1.50) | 0.010 | (1.14) | 0.009 | (1.55) |
| Divorced/separated | −0.014 | (4.34) | −0.018 | (3.46) | −0.009 | (2.17) |
| **Number of children** | | | | | | |
| One child | −0.002 | (0.96) | −0.004 | (1.15) | 0.000 | (0.17) |
| Two children | −0.002 | (1.03) | −0.004 | (1.13) | 0.000 | (0.02) |
| Three children | −0.002 | (0.45) | −0.007 | (1.28) | 0.004 | (0.95) |
| Four or more children | 0.002 | (0.24) | −0.008 | (0.72) | 0.009 | (0.97) |
| **Household type** | | | | | | |
| Single elderly | 0.026 | (6.26) | 0.015 | (1.97) | 0.033 | (6.87) |
| Couple no children | −0.003 | (1.25) | −0.002 | (0.39) | −0.001 | (0.19) |
| Couple dep child | −0.008 | (2.87) | −0.006 | (1.31) | −0.007 | (2.04) |
| Couple non-dep child | −0.005 | (2.15) | −0.006 | (1.51) | −0.002 | (0.58) |
| Lone parent | −0.010 | (3.70) | −0.003 | (0.67) | −0.010 | (3.07) |
| 2+ unrelated adults | −0.022 | (5.97) | −0.025 | (4.60) | −0.015 | (2.89) |
| Household size | −0.002 | (2.45) | −0.002 | (1.12) | −0.002 | (1.96) |
| R-squared | 0.0865 | | 0.1069 | | 0.0847 | |
| N observations | 45662 | | 21688 | | 23974 | |
| N individuals | 10412 | | 4974 | | 5438 | |

Notes: Estimates from within-group fixed effects regressions with the proportion of household income saved per month conditional on saving as the dependent variable. All models also include income, financial capability, base interest rate, age, health, education, housing, labour market status of individual and other household members, region, and year dummies. Absolute ratio of coefficient to standard error in brackets.

**Figure 62: Estimated effect of household type on the proportion of household income saved per month: BHPS 1991–2006**
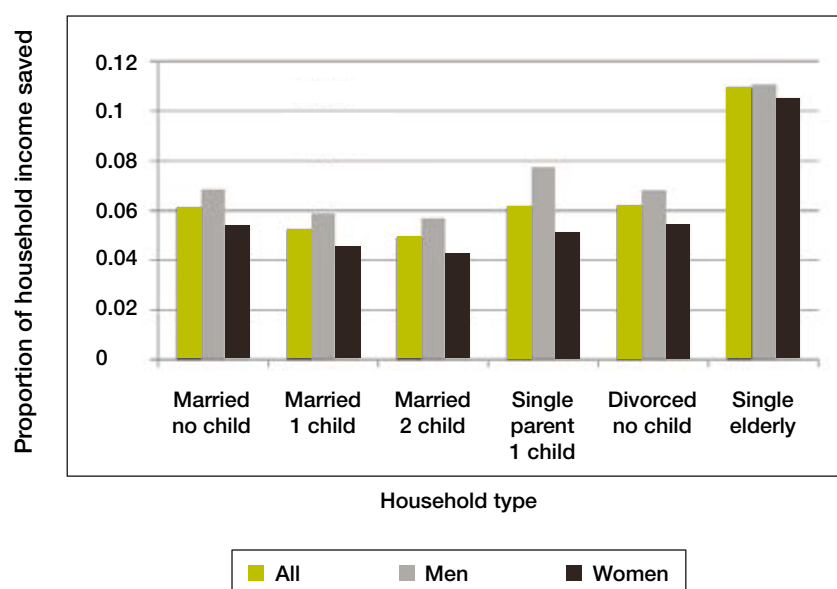
To get a clearer idea of the association between household type and the proportion of income saved, Figure 62 illustrates the predicted proportion of income saved for some household types calculated at the sample means. Among both men and women it is the single elderly that are predicted to save the largest proportion of their incomes (about 10%). In contrast it is those in couple households with dependent children that are predicted to save the smallest proportions of their income (between 4% and 6%).
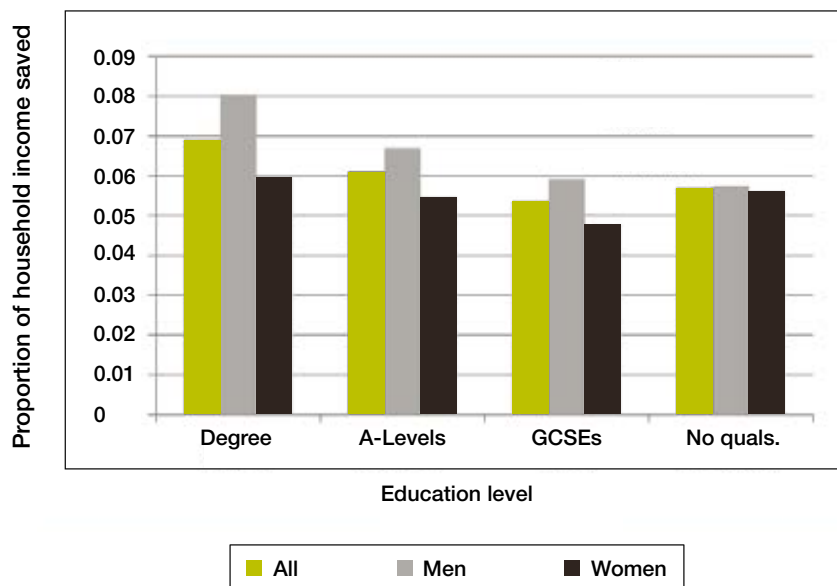
## Education

Table 66 presents the impact of education on the proportion of household income saved. This indicates that education level has relatively little effect on the proportion of income saved (in contrast to the amount saved described earlier). As with the amount saved, men with higher qualifications save a larger proportion of their income than those with no qualifications – having a degree is associated with saving a proportion of income some two percentage points higher than an otherwise similar man with no qualifications.

| Table 66: Impacts of education on the proportion of saved per month: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Higher degree | 0.015 | (2.23) | 0.016 | (1.57) | 0.014 | (1.58) |
| First degree | 0.012 | (2.39) | 0.023 | (2.85) | 0.004 | (0.57) |
| Other higher qual. | 0.004 | (1.08) | 0.011 | (1.78) | −0.002 | (0.31) |
| A-Levels or equiv | 0.004 | (0.97) | 0.009 | (1.43) | −0.001 | (0.25) |
| GCSE or equivalent | −0.004 | (0.84) | 0.002 | (0.25) | −0.008 | (1.56) |
| Other qualification | −0.005 | (0.87) | 0.008 | (0.87) | −0.016 | (2.41) |
| R-squared | 0.0865 | | 0.1069 | | 0.0847 | |
| N observations | 45662 | | 21688 | | 23974 | |
| N individuals | 10412 | | 4974 | | 5438 | |

Notes: Estimates from within-group fixed effects regressions with the proportion of income saved per month conditional on saving as the dependent variable. All models also include income, financial capability, base interest rate, marital status, household composition, age, health, housing, labour market status of individual and other household members, region, and year dummies. Absolute ratio of coefficient to standard error in brackets.

**Figure 63: Estimated effect of household type on the proportion of household income saved per month: BHPS 1991–2006**



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For women, however, being highly qualified is not associated with saving a higher proportion of household income. In fact education has almost no effect for women – with the exception that women with qualifications below GCSE level save a proportion of their income that is 1.6 percentage points lower than those with no qualifications, holding other characteristics constant. Figure 63 illustrates this clearly. At sample means, a man with a university degree is predicted to save 8% of his household income, compared with 6% for a similarly educated woman. This proportion declines such that an otherwise similar man or woman with no qualifications is predicted to save less than 6% of their household income.

## Housing

Table 67 indicates that housing tenure and house value are associated with the proportion of income saved. In particular, for men local authority tenants save 1.4 percentage points more of their household income than home-owners with a mortgage, although house value has no impact. Among women, it is private tenants that save the largest proportion of their household income, all else equal – saving a proportion that is 1.7 percentage points higher than home-owners with a mortgage. This is illustrated graphically in Figure 64 which shows that at the sample means, men who are social tenants are predicted to save almost 8% of their household income while those with a mortgage are predicted to save the lowest proportion (6.3%). Among women, private tenants are predicted to save the largest proportion of their income (6.7%) while mortgage holders save the least (5%).

| Table 67: Impacts of housing tenure and value on the proportion of income saved per month: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| Model [1]: income-adjusted index | All | | Men | | Women | |
| Own outright | 0.006 | (2.04) | 0.007 | (1.55) | 0.005 | (1.30) |
| Local authority tenant | 0.007 | (2.05) | 0.014 | (2.46) | 0.002 | (0.50) |
| Private tenant | 0.012 | (3.61) | 0.005 | (1.04) | 0.017 | (4.03) |
| House value/£100000 | 0.003 | (6.94) | 0.001 | (1.01) | 0.006 | (9.06) |
| R-squared | 0.0865 | | 0.1069 | | 0.0847 | |
| N observations | 45662 | | 21688 | | 23974 | |
| N individuals | 10412 | | 4974 | | 5438 | |

Notes: Estimates from within-group fixed effects regressions with the proportion of income saved per month conditional on saving as the dependent variable. All models also include income, financial capability, base interest rate, marital status, household composition, education, age, health, labour market status of individual and other household members, region, and year dummies. Absolute ratio of coefficient to standard error in brackets.

Table 67 indicates that the value of the house also has a statistically significant impact on the proportion of income saved for women who are home-owners. Each £100,000 on the value of the home increases the proportion of income saved by 0.6 percentage points. (This would suggest that a woman owning a home worth £300,000 would save a proportion of income similar to that for an otherwise similar woman who was a private tenant.)

Figure 64: Estimated effect of housing tenure on the proportion of household income saved per month: BHPS 1991–2006
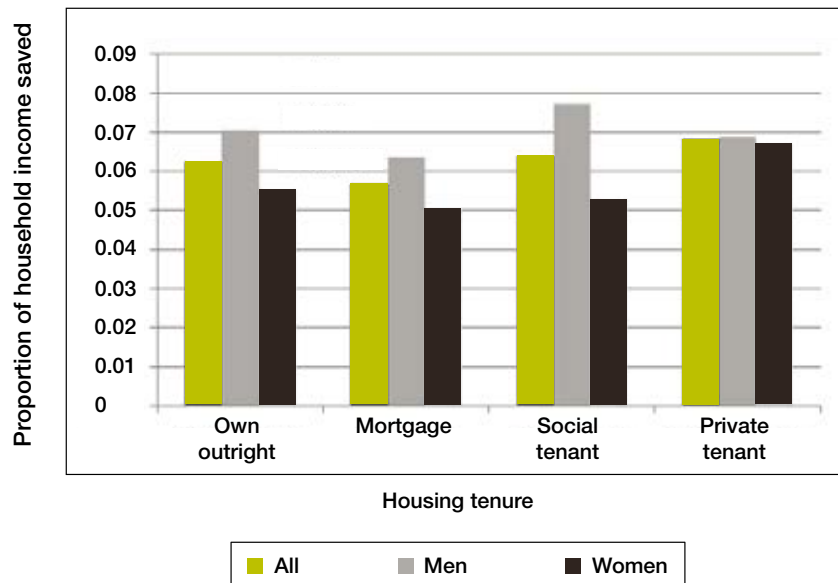
## Labour market variables

The results presented in Table 68 indicate that the labour market status of the individual and other household members have statistically significant associations with the proportion of household income saved. The estimated coefficients indicate that, holding other characteristics constant, a self-employed man saves a proportion of income that is 1.8 percentage points higher than that of an otherwise similar man in full-time employment.

| Table 68: Impacts of labour market status on the proportion of income saved per month: BHPS 1991–2006 | | | | | | |
|---|---|---|---|---|---|---|
| | All | | Men | | Women | |
| Part-time employee | −0.004 | (3.02) | −0.006 | (1.62) | −0.005 | (3.29) |
| Self-employed | 0.013 | (6.55) | 0.018 | (6.51) | 0.000 | (0.02) |
| Unemployed | −0.009 | (2.88) | −0.015 | (3.10) | −0.008 | (1.99) |
| Retired | −0.010 | (4.13) | −0.017 | (4.62) | −0.007 | (2.52) |
| Inactive | −0.006 | (3.38) | −0.012 | (3.60) | −0.005 | (2.73) |
| Seasonal/casual job | 0.001 | (0.27) | 0.011 | (3.03) | −0.006 | (2.39) |
| Fixed term contract | 0.003 | (1.54) | 0.006 | (1.80) | 0.002 | (0.57) |
| Spouse employed | −0.006 | (3.88) | −0.007 | (3.23) | −0.004 | (1.79) |
| Number employed in hh | 0.001 | (1.41) | 0.002 | (1.27) | 0.001 | (1.22) |
| R-squared | 0.0865 | | 0.1069 | | 0.0847 | |
| N observations | 45662 | | 21688 | | 23974 | |
| N individuals | 10412 | | 4974 | | 5438 | |

Notes: Estimates from within-group fixed effects regressions with the proportion of income saved per month conditional on saving as the dependent variable. All models also include income, financial capability, base interest rate, marital status, household composition, education, housing, age, health, region, and year dummies. Absolute ratio of coefficient to standard error in brackets.

Men in non-permanent employment also save a larger proportion of their income than those in permanent jobs, by 1.1 percentage points. Men in unemployment, retirement and inactivity save

a lower proportion of their household income, by between 1.2 and 1.7 percentage points, while men with an employed wife also save a lower proportion of their income. The impacts of labour market status are generally smaller for women than men. Women in part-time employment save a proportion of their income that is 0.5 percentage points smaller than that saved by women in full-time work, while unemployed and retired women save a proportion that is 0.8 percentage points smaller. Working in a seasonal or casual job and being economically inactive reduce the proportion of income saved by an amount similar to being in part-time employment.

Figure 65 illustrates the relative sizes of these effects, estimated at the sample means. It shows that men in full-time employment are predicted to save 6.8% of their household income, compared with about 5% if in unemployment or retirement. These differences are less pronounced among women, who at sample means are predicted to save 5.6% of their income if in full-time employment compared with about 5% if not employed.

**Figure 65: Estimated effect of labour market status on the proportion of household income saved per month: BHPS 1991–2006**
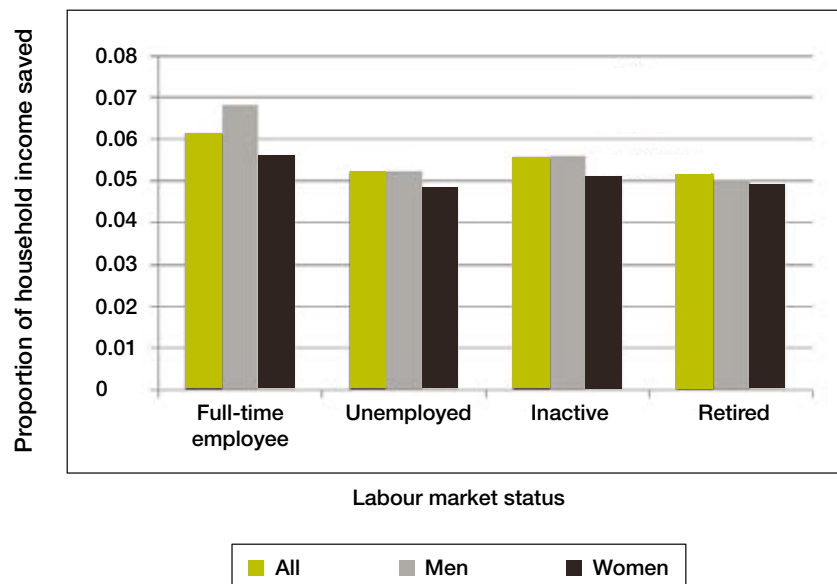


## Summary

Multivariate models of the proportion of household income saved per month indicate that people with higher financial capability save a larger proportion of their income than those with lower financial capability. Someone with low financial capability is estimated to save up to one percentage point less of their income than an otherwise similar person with high financial capability. This effect is approximately similar in size to reducing a person's household income by £500 per month while unemployment is associated with saving one percentage point less income relative to full-time employment. The proportion of income saved per month also falls with age, is lower for the married with children than the single, for those in unemployment, retirement or economic inactivity than the full-time employed, and for those with no qualifications relative to those with a university degree.

# 9 Summary and conclusions

The aim of this project is to investigate the complex relationships between saving behaviour, household income and financial capability in Britain, and to establish which characteristics of individuals and the households in which they live are most associated with saving patterns. We model individuals' savings processes – the incidence of saving, the level of saving, and the transition rates into and out of saving – as functions of a wide range of individual and household characteristics, together with an individual-level index of financial capability, using appropriate descriptive and multivariate statistical techniques.

Using individual-level data from the first sixteen waves of the British Household Panel Survey (BHPS), covering years 1991–2006, we find that people with the highest incidence of saving tend to be aged between 25 and 54, married or single never-married, with non-dependent children, in good health, with higher education, have a mortgage, in full-time work and with relatively high household income. In contrast, people with the lowest incidence of saving are on average older (aged 65 or older), widowed or divorced, lone parents, have no qualifications living in local authority housing, are unemployed or economically inactive, and with relatively low household income. In terms of amount saved per month conditional on saving, we find that it is the middle aged (between 35 and 54 years old), the single non-elderly with high level qualifications in full-time or self-employment who own their home outright and have relatively high income levels that tend to save the highest amounts. In contrast those aged below 25 and above 65 who are widowed or lone parents, in poor health with no qualifications, local authority tenants who are unemployed or economically inactive with low household income save the lowest amounts on average. However, it is the young (aged below 25), couples with non-dependent children with a mortgage, and the unemployed and economically inactive who save the lowest proportion of their household income, while those aged 55 or above, the widowed, with high level qualifications who are self-employed or retired, own their home outright and with relatively low incomes that save the highest proportion of their household income.

Analysis also reveals positive correlations between financial capability and saving behaviour. Higher financial capability is associated with a higher savings incidence and saving a larger amount per month and proportion of income per month. Furthermore increases in financial capability are associated with a higher probability of saving and with increases in the amount and proportion of income saved. This descriptive evidence is supported by estimates from multivariate models.

Estimates indicate that the probability of saving is higher for the more financially capable (but at a decreasing rate), those in good health, and with higher levels of education. A person with average financially capability is 17% more likely to be saving than an otherwise similar individual with low financial capability. This is broadly equivalent in size to increasing a person's household income by £1000 per month. In comparison being unemployed reduces the probability of saving by 73% compared to being in full-time employment. Someone with high financial capability also has a higher transition rate into saving – 15.5% compared with 13.5% for someone with low financial capability. Therefore moving an individual up the financial capability distribution from relatively low to relatively high financial capability increases their chances of starting to save by two percentage points. This is comparable to educating a person with no qualifications to GCSE level, increasing their household income by £1000 per month, or giving an unemployed person a full-time job. Furthermore, the transition rate out of savings is inversely related with people's financial capability. A person with relatively low financial capability is two percentage points more likely to stop saving than an otherwise similar person with relatively high financial capability. This is similar in size to the effect of educating a person with no qualifications to GCSE level, or moving a person from unemployment into full-time work.

Someone with relatively low financial capability is estimated to save £106 per month compared with £119 per month for an otherwise similar person with relatively high financial capability. This £13 per month increase in savings is roughly equivalent to that associated with an increase in monthly household income of £1000, but is considerably smaller than that between being in full-time work and unemployment (£50 per month). In terms of the proportion of income saved, someone with low financial capability is estimated to save up to one percentage point less of their income than an otherwise similar person with high financial capability. This effect is approximately similar in size to reducing a person's household income by £500 per month while unemployment is associated with saving one percentage point less income relative to full-time employment.

The results from our analysis lead us to conclude that financial capability has a large impact on people's saving behaviour, over and above that of their household income and independent of their individual and household characteristics. This suggests that improving people's financial management skills would have substantial impacts on their propensity to save, transition rates into and out of saving, and on the amount and proportion of income saved per month. Linking this with previous research which establishes strong associations between financial capability and psychological health, our findings indicate that programmes that promote financial capability among consumers will have lasting beneficial effects for the population.

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# 11 Annexes

**Table A1: Summary of financial capability by whether saves**

| Whether saves from current income | Income-unadjusted financial capability |
|---|---|
| Yes | 0.169 |
| No | −0.095 |

Notes: See text for how indices of financial capability defined. All differences by whether saves statistically significant at the 5% level.

**Table A2: Saving behaviour by income-unadjusted financial capability: BHPS 1991–2006**

| | Year | | | | Average |
|---|---|---|---|---|---|
| | 1991 | 1996 | 2001 | 2006 | |
| **Saves from current income** | | | | | |
| Most financially capable | 0.611 | 0.555 | 0.560 | 0.537 | 0.551 * |
| Second quintile | 0.488 | 0.475 | 0.422 | 0.409 | 0.457 |
| Middle quintile | 0.288 | 0.249 | 0.220 | 0.202 | 0.250 |
| Fourth quintile | 0.396 | 0.407 | 0.363 | 0.399 | 0.395 |
| Least financially capable | 0.184 | 0.168 | 0.187 | 0.172 | 0.188 |
| N | 8506 | 8010 | 7531 | 6958 | 122102 |
| **Amount saved conditional on saving** | | | | | |
| Most financially capable | 215.89 | 233.33 | 243.28 | 273.60 | 244.25 * |
| Second quintile | 138.14 | 141.03 | 142.37 | 147.32 | 140.21 |
| Middle quintile | 72.89 | 89.06 | 112.47 | 87.19 | 86.03 |
| Fourth quintile | 147.87 | 136.48 | 175.10 | 171.25 | 162.19 |
| Least financially capable | 81.72 | 84.40 | 91.74 | 102.69 | 91.96 |
| **Proportion saved conditional on saving** | | | | | |
| Most financially capable | 0.072 | 0.076 | 0.071 | 0.080 | 0.076 * |
| Second quintile | 0.055 | 0.056 | 0.054 | 0.052 | 0.054 |
| Middle quintile | 0.035 | 0.044 | 0.052 | 0.037 | 0.042 |
| Fourth quintile | 0.061 | 0.055 | 0.061 | 0.061 | 0.061 |
| Least financially capable | 0.036 | 0.039 | 0.041 | 0.045 | 0.042 |
| N | 3292 | 3140 | 3007 | 2671 | 48249 |

Notes: Weighted using cross-sectional weights. Table reads, for example, that in 1991 61.1% of adults in the most financially capable quintile of the income-unadjusted index of financial incapability saved from their current income, compared to 18.4% of those in least financially capable quintile. 'Average' shows data pooled from waves 1 to 16. * indicates that the average scores by household type category over the sample period are significantly different at the 5% level. Income deflated to January 2006 prices.

| Table A3: Mean changes in saving behaviour by changes in income-unadjusted financial capability: BHPS 1991–2006 | | | | |
|---|---|---|---|---|
| | t−1 | t | Change | N |
| **Sample average** | | | | |
| Saves from current income | 0.400 | 0.399 | −0.001 | 96907 |
| Conditional amount saved | 183.21 | 191.30 | 8.09 | 27958 |
| Conditional proportion saved | 0.061 | 0.063 | 0.002 | 27958 |
| **Financial capability increased** | | | | |
| Saves from current income | 0.321 | 0.391 | 0.070 | 30240 |
| Conditional amount saved | 138.47 | 165.22 | 26.75 | 7267 |
| Conditional proportion saved | 0.053 | 0.059 | 0.006 | 7267 |
| **Financial capability fell** | | | | |
| Saves from current income | 0.401 | 0.328 | −0.073 | 27585 |
| Conditional amount saved | 171.35 | 149.46 | −21.89 | 6837 |
| Conditional proportion saved | 0.060 | 0.057 | −0.004 | 6837 |

Notes: Table reads, for example, that individuals in households that experienced an increase in their financial capability between two consecutive years on average experienced an increase in their propensity to save from their current income from 0.321 to 0.391. Amount saved and gross monthly household income deflated to January 2006 prices.

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