

4. Financial resources & well-being

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In this chapter, we use ELSA to examine changes in living standards among those aged 50 and over between 2002–03 and 2006–07, using four different (but related) measures of living standards – family income (in particular, income poverty), wealth, self-reported well-being and self-reported quality of life.

The analysis in this chapter shows the following:

- Single individuals are more likely to be in income poverty than those in couples, with women who are divorced, separated or widowed having the highest risk of income poverty. Those estimated to have accumulated relatively low levels of state and private pension rights and (conditional on other observed characteristics) those who are aged below the State Pension Age are found to have a much greater risk of being in income poverty. It appears to be factors associated with old age (such as not being in the labour force and widowhood) which are significantly associated with an increased risk of income poverty – not age in itself.
- Women who are divorced, separated or widowed, and women who become so, are both found to be more likely to move into income poverty between 2002–03 and 2006–07. This is also true of those who move out of the labour force, those whose partner moves out of the labour force and those who have accumulated relatively low levels of state and private pension rights. Conversely, reaching the State Pension Age is, conditional on other observed characteristics, associated with a lower chance of moving into income poverty.
- Large increases in total wealth occurred between 2002–03 and 2006–07, with these increases being seen right across the distribution of wealth in 2002–03. The median nominal increase in total wealth over this four-year period was 39%. This has been caused by large increases in house prices boosting housing wealth: the median nominal increase in non-housing wealth was just 6%. The distribution of growth in non-housing wealth over this period is very similar among those with and those without housing wealth, suggesting little evidence of those experiencing large increases in their housing wealth choosing to save less in other forms as a result.
- One-in-nine respondents aged 50 or over in 2006–07 had estates worth more than the Inheritance Tax threshold. Over the period from 2002–03 to 2006–07, more estates appear to have moved above the Inheritance Tax threshold. However, given that the driver of the increase in wealth over this period was growth in house prices, whether or not this pattern will

continue going forwards might depend heavily on the future path of house prices.

- Those individuals who are divorced, separated or widowed are found, on average, to report lower levels of well-being (measured using the GHQ-12 scale) than other individuals. This is also true of those reporting difficulties with physical functioning (an indicator of poor health). Women are found to report higher levels of quality of life (measured using the CASP-19 scale) than men (for a given marital status). Both improved self-reported well-being and increased self-reported quality of life are found to be associated with increased income.

4.1 Introduction

The standard of living enjoyed by retired people remains a key concern for policymakers. The government is committed to ‘tackling poverty and promoting greater independence and wellbeing in later life’¹ as one of its public service agreements (published alongside the 2007 Comprehensive Spending Review).

The richness of the ELSA data-set allows us to analyse the characteristics associated with having different levels of income, wealth and well-being / quality of life, while the panel nature of the survey allows us to explore the characteristics correlated with *changes* in these measures of living standards.

We begin in Section 4.2 by examining the distribution of income among those aged 50 and over, and analysing the characteristics associated with being in income poverty (using an income poverty threshold of 60% median equivalised household income, the most commonly used measure of low income). Section 4.3 then examines the dynamics of income poverty, focusing in particular on the characteristics associated with entering (and leaving) income poverty.

In Section 4.4, we consider how the distribution of wealth in ELSA has changed over time, and the factors correlated with growth in wealth. This section also considers the possible growth in the number of individuals liable for Inheritance Tax, which has been the subject of much recent policy debate.

Section 4.5 examines the factors correlated with self-reported well-being and quality of life among those aged 50 and over, exploring how changes in income, health and marital status affect individuals’ answers to questions on these topics. Section 4.6 concludes.

4.2 Income poverty

Gordon Brown has pledged to ‘end pensioner poverty in our country’² and the percentage of pensioners living on low incomes is one of five ‘key indicators’

¹ HM Treasury, 2007.

² Labour Party conference speeches of both 2000 and 2002.

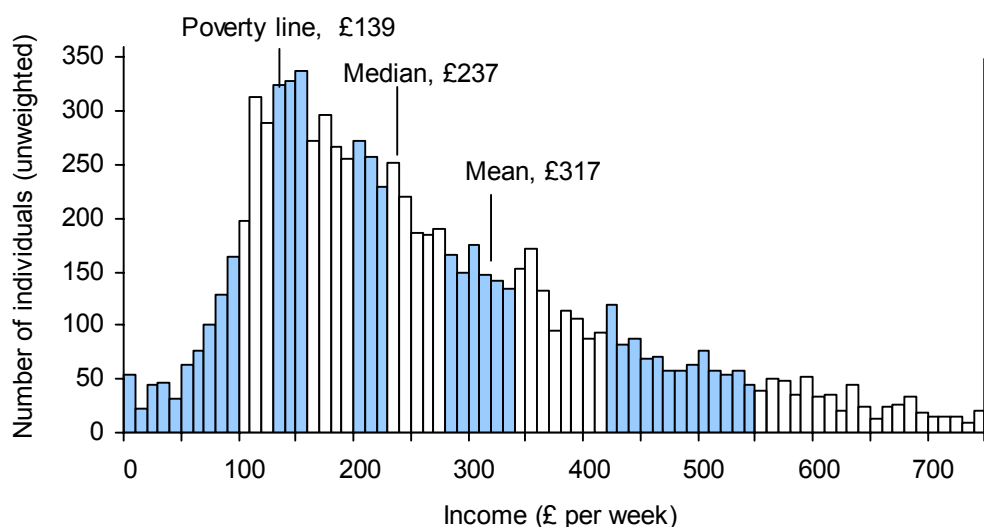
of progress towards the government’s public service agreement on well-being in later life. In this section, we examine the income distribution of individuals aged 50 and over in England, before turning to consider the factors associated with being in income poverty.

Figure 4.1 shows the income distribution for individuals aged 50 and over in ELSA in 2006–07. We use a measure of weekly family income from all sources (earnings, pensions, state benefits, investments, etc.). Incomes have been adjusted (‘equivalised’) to take into account family size,³ so that they represent the equivalent amount that a benchmark family type (in this case, a single person) would require in order to enjoy the same standard of living.

The graph shows the number of people living in families with different income levels, grouped into £10 income bands. The height of the bars represents the number of people in each income band. The figure reveals that the current distribution is highly skewed, with more than two-thirds of individuals having household incomes below the average (mean) for this age group.

Figure 4.1 also divides the population into 10 equally sized groups, called decile groups. The first decile group contains the lowest-income 10% of the population; the second decile group contains the next-lowest-income 10%; and so on. In the graph, the alternately shaded sections represent these different decile groups, and, as can be seen, the distribution is particularly concentrated within a fairly narrow range of incomes in decile groups 2 to 5. However, as we move further up the income distribution, a widening of the decile group bands can be seen. Note that the tenth decile group band is much wider than is shown in Figure 4.1 because those with incomes greater than £750 are shown together rather than in £10 bands.

Figure 4.1. The income distribution (ELSA, individuals aged 50 and over)



Notes: Unweighted. The right-most bar represents incomes of over £750.

³ Income was equivalised using the modified OECD equivalence scale.

Comparing the income distribution in ELSA with that derived from the Family Resources Survey (FRS, a representative survey of income for the UK, used in the government's official analysis of the income distribution, the Households Below Average Income [HBAI] series), we find that average incomes in ELSA are slightly higher than those in the FRS. When we look at individuals aged 50 and over (in England only) using the FRS, we get a median weekly equivalised income of £227, compared with £237 in ELSA, and mean income of £289, compared with £317 in ELSA.

There are many reasons why average incomes will differ across the two surveys. The surveys use different questions to measure income sources, and different methodologies to construct a measure of 'total' net income. Moreover, both surveys are random samples, and so sampling error means that even were the questions identical, we are unlikely to get identical estimates of average income.

While we may prefer the FRS for a 'snapshot' of the income distribution at any one time, there are important advantages to studying living standards using ELSA. Unlike the FRS, ELSA is a panel survey, which allows us to analyse the dynamics (and persistence) of incomes and income poverty. ELSA also contains a large amount of information about respondents' health and living circumstances, which we can use to analyse the factors associated with, for example, transitions into and out of income poverty.

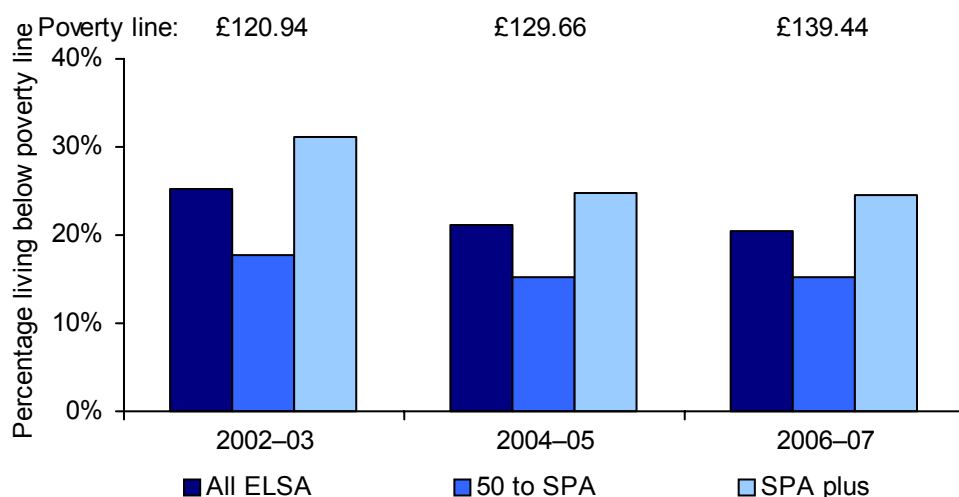
Figure 4.1 shows a relative poverty line, again derived using the FRS. This poverty line has been designed to be as similar as possible to the relative income poverty measure used in the government's official (HBAI) low-income statistics – measuring the number of individuals living on incomes below 60% of median income (before housing costs) for the UK as a whole. However, whereas the HBAI statistics measure income at the household level, using ELSA we can only measure incomes at the family (benefit-unit) level. We have therefore used the FRS to derive a family-level poverty line – £139 for 2006–07. We have shown in previous work that this poverty measure closely tracks HBAI (household) income poverty rates over the last decade, with the difference between the two never exceeding 2 percentage points.⁴

Calculating similar poverty lines for 2002–03 and 2004–05 (again using the FRS), we can derive low-income-based poverty rates in each year of the ELSA survey. Figure 4.2 shows the fraction of individuals living on incomes of less than 60% of median family income in each ELSA wave. Income poverty rates are shown for the entire ELSA sample, as well as for the subgroup aged between 50 and the State Pension Age and for the subgroup above the State Pension Age (SPA).

It is clear that in ELSA 2002–03, income poverty rates were substantially higher for individuals aged above the SPA than for those aged between 50 and the SPA (with the poverty rate for the whole ELSA sample being a weighted average of the two). Almost a third of individuals aged above the SPA were below the poverty line in 2002–03, compared with 17.6% of individuals aged between 50 and the SPA.

⁴ See Brewer et al. (2007).

Figure 4.2. Income poverty in ELSA waves 1 to 3



Notes: Unweighted. SPA = State Pension Age.

Income poverty among individuals aged above the State Pension Age fell substantially between 2002–03 and 2004–05, from 31.2% to 24.8%. Changes to the tax and benefit system that benefited older individuals, such as the introduction of the Pension Credit Savings Credit in October 2003 and lump-sum Age-Related Payments in 2004, are likely to have contributed to this fall in income poverty among those aged above the SPA. Among individuals aged between 50 and the SPA, income poverty declined more modestly, from 17.6% to 15.2%.

These declines were not repeated between 2004–05 and 2006–07, with income poverty among individuals aged both below and above the SPA remaining at around the same levels. The abolition of Age-Related Payments in 2006–07 may partly explain why income poverty among those aged above the SPA stopped falling.

Characteristics associated with income poverty

Using ELSA, we can analyse the characteristics that are associated with being in income poverty in a given year. Table 4.1 presents multivariate analysis of characteristics correlated with having family income below the relative poverty line in 2002–03 and in 2006–07.

The coefficients in the table are estimated marginal effects from a probit regression. These coefficients give the approximate change in the probability of being in income poverty, for a one-unit change in each independent variable. Because we need to evaluate these marginal effects for a specific ‘type’ of person, the numbers reported in the table give the marginal effects for a man in a couple, with A levels but no higher education, aged 65 (and so above the State Pension Age) – with all other independent variables set to zero. So, for example, the coefficient on being in the labour force in 2002–03 in the second column of Table 4.1 (with an estimated value of –0.147) tells us

that such a 65-year-old man is estimated to be 14.7 percentage points less likely to be in poverty if he is also in the labour force.

Table 4.1. Multivariate analysis of factors associated with being in income poverty in 2002–03 and 2006–07

All aged 50 and over in 2002–03

	2002–03		2006–07	
	Without health controls	Controlling for health	Without health controls	Controlling for health
Female in couple	0.011 (0.011)	0.014 (0.011)	–0.003 (0.012)	–0.003 (0.012)
Never-married man	0.091*** (0.029)	0.095*** (0.030)	0.085*** (0.032)	0.090*** (0.032)
Never-married woman	0.116*** (0.030)	0.127*** (0.031)	0.055* (0.030)	0.059* (0.031)
Divorced/Separated/ Widowed man	0.072*** (0.018)	0.076*** (0.018)	0.055*** (0.019)	0.059*** (0.019)
Divorced/Separated/ Widowed woman	0.183*** (0.014)	0.198*** (0.015)	0.151*** (0.016)	0.161*** (0.017)
Age (years)	0.004*** (0.001)	0.005*** (0.001)	0.002** (0.001)	0.002** (0.001)
Aged over State Pension Age	–0.124*** (0.018)	–0.142*** (0.019)	–0.150*** (0.021)	–0.162*** (0.022)
In labour market	–0.147*** (0.010)	–0.162*** (0.010)	–0.131*** (0.012)	–0.140*** (0.013)
Partner in labour market	–0.123*** (0.010)	–0.128*** (0.011)	–0.106*** (0.012)	–0.110*** (0.012)
Education: A levels	–0.093*** (0.010)	–0.102*** (0.010)	–0.052*** (0.011)	–0.058*** (0.011)
Education: degree	–0.104*** (0.010)	–0.113*** (0.011)	–0.092*** (0.011)	–0.098*** (0.012)
Risk of low retirement income	0.179*** (0.028)	0.194*** (0.028)	0.118*** (0.031)	0.134*** (0.032)
Difficulties with any ADL		–0.027** (0.012)		–0.037*** (0.012)
Difficulties with any IADL		–0.036*** (0.011)		–0.020 (0.012)
Two or more mobility difficulties		–0.012 (0.010)		0.002 (0.011)

Notes: Marginal effects and standard errors (in parentheses) are reported. Marginal effects are evaluated for men in couples, with A levels but no higher education, aged 65 (and so above the State Pension Age) – all other variables set to zero. Statistical significance at the 1%, 5% and 10% levels is denoted by ***, ** and * respectively. Sample size = 11,416 in 2002–03 and 8,871 in 2006–07. Reference group is men in couples aged below the State Pension Age, not in the labour force, partner not in the labour force, no reported health problems, education below A level and not at risk of retiring on an income below the Pension Credit Guarantee. Constant and controls for missing education, missing risk, imputed components of income, and whether aged 90 or over are also included.

Two alternative specifications are shown for each year – one controlling for marital status, age, education, labour market status and the risk of low retirement income (see below for details on the last), and another controlling for all of these plus measures of reported physical functioning (which is an indicator of health). The measures of physical functioning are:

- whether an individual reports difficulties with two or more aspects of their mobility, motor skills and strength – henceforth referred to as ‘mobility’, for brevity’s sake – out of a possible ten (difficulty walking 100 yards, difficulty sitting for about two hours, difficulty getting up from a chair after sitting for long periods, difficulty climbing several flights of stairs without resting, difficulty climbing one flight of stairs without resting, difficulty stooping, kneeling or crouching, difficulty reaching or extending arms above shoulder level, difficulty pulling or pushing large objects, difficulty lifting or carrying weights over 10 pounds, difficulty picking up a 5p coin from a table);
- whether an individual reports difficulties in doing *any* ‘activities of daily living’ (ADLs) out of a possible six (dressing, walking across a room, bathing or showering, eating, getting in or out of bed, using the toilet);
- whether an individual reports difficulties in doing *any* ‘instrumental activities of daily living’ (IADLs) out of a possible seven (using a map, preparing a hot meal, shopping for groceries, making telephone calls, taking medications, doing work around the house or garden, managing money [such as paying bills]).

The table makes clear that single women are substantially more likely to be in income poverty than men or women in couples, with women who are divorced, separated or widowed facing the highest risk of income poverty. The risk of income poverty among women who have never been married declines between 2002–03 and 2006–07, but it remains high among women who are divorced, separated or widowed.

Having seen in Figure 4.2 that poverty rates are higher among individuals above the SPA, it is perhaps surprising that being above the SPA is associated with a *lower* risk of income poverty in the multivariate analysis. This result is robust to the inclusion of controls for health, and is found in both 2002–03 and 2006–07. This suggests that it is other observed characteristics of individuals above the SPA (such as their being more likely to not be in the labour force and more likely to be widowed) which are associated with a higher risk of poverty, rather than their age in itself. Receipt of the state pension, and other age-related benefits such as the Pension Credit, would be plausible mechanisms by which poverty risk is reduced among individuals above the State Pension Age.

Unsurprisingly, individuals who are not in the labour force and/or whose partners are not in the labour force are substantially more likely to be in income poverty, and this effect shows no sign of declining over time. Higher levels of education are negatively associated with income poverty, with individuals who have attended higher education facing the lowest risk of poverty.

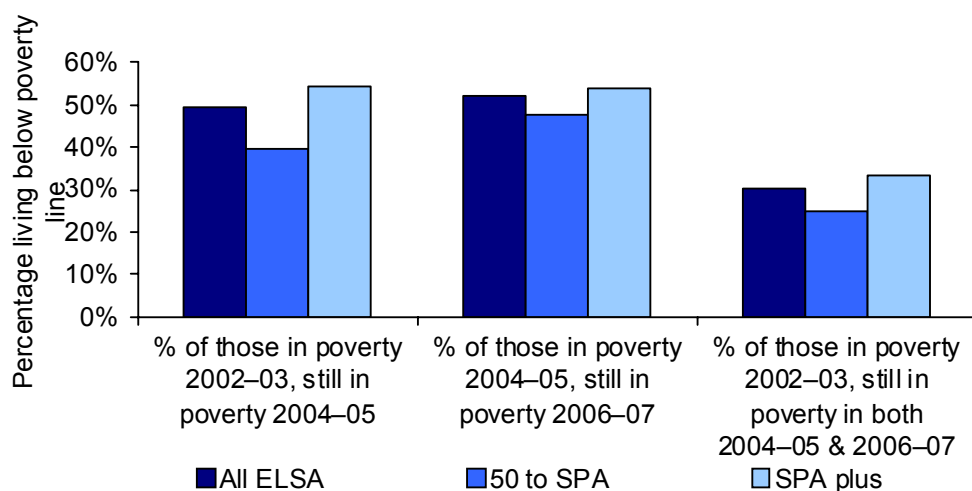
Previous research using ELSA estimated the extent to which individuals aged between 50 and the State Pension Age might be expected to fall below different benchmarks for retirement income adequacy were they to leave (or remain out of) paid work (Banks, Emmerson, Oldfield and Tetlow, 2005). In the current analysis, we include a control for whether or not the family’s accumulated wealth (including both estimated state and private pension entitlements in addition to more liquid forms of non-housing wealth) was considered likely to leave them with a retirement level of income below that provided by the Pension Credit Guarantee (which is not far from the income-poverty line being considered here). This indicator of the risk of low retirement income is highly correlated with income poverty, which shows that those individuals who have been unable or unwilling to accumulate wealth are more likely to end up in income poverty in retirement.

The inclusion of the mobility and ADL controls in the analysis in Table 4.1 does little to alter the magnitude or significance of our other results. However, there is some evidence that having difficulties with ADLs is negatively associated with income poverty – perhaps because these difficulties are likely to be correlated with the receipt of disability benefits.

4.3 Income poverty persistence

Because ELSA is a panel survey, unlike the FRS (which uses a different cross-section each year), we can examine how *persistent* income poverty is among various groups – i.e. the extent to which individuals move into and out of income poverty as opposed to the same individuals being in income poverty in each year. A natural question to ask is: of the people in income poverty in a given ELSA wave, what proportion are still in income poverty in the next wave?

Figure 4.3. Persistence of income poverty in ELSA waves 1 to 3



Notes: Unweighted. SPA = State Pension Age.

Figure 4.3 answers this question for the same three age groups charted in Figure 4.2 (all individuals, those aged 50 to the SPA and those above the SPA). The first set of bars show the percentage of those who were in income poverty in 2002–03 who were still in income poverty two years later, in 2004–05. The second set of bars show the percentage of those in income poverty in 2004–05 who remained in income poverty in 2006–07. The final set of bars show the percentage of those in income poverty in 2002–03 who remained in income poverty in both 2004–05 and 2006–07.

Income poverty persistence is highest among individuals aged above the SPA. Of those individuals who were above the SPA and living in income poverty in 2002–03, more than half (54.3%) were still in income poverty in 2004–05. Persistence was somewhat lower among individuals aged between 50 and the SPA in 2002–03 – only four-in-ten (39.6%) of this group who were in poverty in 2002–03 remained in poverty in 2004–05.

The persistence of income poverty (unlike income poverty itself) shows little sign of declining over time for individuals aged above the SPA, with more than half (53.7%) of individuals aged above the SPA in 2004–05 and in income poverty remaining in income poverty in 2006–07. Persistence appears to have risen slightly among individuals aged between 50 and the SPA, with almost half (47.4%) of poor individuals in this age group in 2004–05 remaining in income poverty in 2006–07.

Figure 4.3 also shows the fraction of individuals in income poverty in 2002–03 who remained in income poverty in 2004–05 *and* 2006–07. This extreme persistence is also higher among individuals aged above the SPA. One-in-three (33.2%) of individuals in this age group who were living below the poverty line in 2002–03 remained in poverty for the two following ELSA waves, while for individuals aged between 50 and the SPA the figure is one-in-four (25.0%).

Characteristics associated with moving into and out of income poverty

Table 4.2 presents multivariate analysis of the characteristics associated with entering and leaving income poverty between 2002–03 and 2006–07 (ELSA waves 1 and 3). As with Table 4.1, the coefficients are marginal effects from probit regressions, with two alternative specifications shown – one controlling for baseline marital status, labour market status, education and age (as well as changes in these characteristics between 2002–03 and 2006–07), and another including all these controls plus indicators of physical functioning (as measured by difficulties with mobility, ADL and IADL) and changes in these indicators between 2002–03 and 2006–07.

Women who are divorced, separated or widowed face the greatest risk of entering income poverty, and the lowest chances of leaving income poverty – a result consistent with the findings in Table 4.1. Men who have never been married, though not significantly more likely to enter income poverty than men in couples, are substantially less likely to *leave* income poverty once they have entered it.

Table 4.2. Multivariate analysis of factors associated with entering and leaving income poverty between 2002–03 and 2006–07

All aged 50 and over in 2002–03

	Entered poverty		Left poverty	
	Without health controls	Controlling for health	Without health controls	Controlling for health
Female in couple	0.009 (0.011)	0.009 (0.012)	-0.019 (0.037)	-0.013 (0.038)
Never-married man	0.048 (0.038)	0.048 (0.038)	-0.175** (0.072)	-0.169** (0.072)
Never-married woman	0.020 (0.033)	0.021 (0.034)	-0.131* (0.074)	-0.127* (0.075)
Divorced/Separated/ Widowed man	0.051** (0.022)	0.054** (0.023)	-0.125** (0.049)	-0.123** (0.050)
Divorced/Separated/ Widowed woman	0.090*** (0.017)	0.094*** (0.019)	-0.186*** (0.035)	-0.193*** (0.036)
Age (years)	0.001 (0.001)	0.001 (0.001)	-0.002 (0.002)	-0.003 (0.002)
Aged over State Pension Age	-0.057** (0.023)	-0.061** (0.024)	0.078 (0.061)	0.107* (0.062)
In labour market	-0.064*** (0.011)	-0.067*** (0.011)	0.208*** (0.041)	0.240*** (0.041)
Partner in labour market	-0.067*** (0.011)	-0.066*** (0.012)	0.185*** (0.055)	0.199*** (0.055)
Education: A levels	-0.028*** (0.010)	-0.032*** (0.011)	0.039 (0.029)	0.043 (0.029)
Education: degree	-0.062*** (0.010)	-0.063*** (0.010)	0.106** (0.045)	0.118*** (0.046)
Reached State Pension Age	-0.066*** (0.010)	-0.067*** (0.010)	0.152*** (0.041)	0.166*** (0.041)
Obtained partner	-0.085*** (0.026)	-0.086*** (0.026)	(dropped)	(dropped)
Lost partner	0.115*** (0.028)	0.120*** (0.029)	-0.064 (0.067)	-0.063 (0.067)
Moved into labour market	-0.085*** (0.021)	-0.087*** (0.021)	0.178** (0.074)	0.178** (0.078)
Moved out of labour market	0.213*** (0.029)	0.214*** (0.030)	-0.331*** (0.058)	-0.347*** (0.056)
Partner moved into labour market	0.011 (0.036)	0.010 (0.036)	0.070 (0.108)	0.074 (0.110)
Partner moved out of labour market	0.158*** (0.030)	0.155*** (0.030)	-0.240*** (0.087)	-0.264*** (0.084)
Risk of low retirement income	0.129*** (0.041)	0.142*** (0.043)	-0.078 (0.058)	-0.106* (0.059)
Difficulties with any ADL		-0.016 (0.017)		0.110*** (0.043)
Difficulties with any IADL		-0.019 (0.017)		0.059 (0.045)
Two or more mobility difficulties		-0.011 (0.013)		-0.023 (0.039)
ADL worsened		-0.017 (0.015)		0.080** (0.040)

Table 4.2 continued

	Entered poverty		Left poverty	
	Without health controls	Controlling for health	Without health controls	Controlling for health
IADL worsened		0.003 (0.016)		-0.040 (0.041)
Mobility worsened		0.030* (0.016)		-0.039 (0.041)
ADL improved		0.014 (0.024)		-0.048 (0.057)
IADL improved		0.072** (0.030)		0.035 (0.057)
Mobility improved		0.016 (0.021)		-0.119** (0.056)

Notes: Marginal effects and standard errors (in parentheses) are reported. Marginal effects are evaluated for men in couples, with A levels but no higher education, aged 65 (and so above the SPA) in 2002–03 – all other variables set to zero. Statistical significance at the 1%, 5% and 10% levels is denoted by ***, ** and * respectively. Sample size = 5,679 for whether or not entered poverty and 1,671 for whether or not left poverty. ‘Obtained partner’ was dropped from the analysis of leaving poverty because only 13 individuals who were in income poverty in 2002–03 obtained a partner (all of whom moved out of income poverty by 2006–07). Reference group is men in couples aged below the SPA, not in the labour force, partner not in the labour force, no reported health problems, education below A level, no reported health changes of individual between 2002–03 and 2006–07, and not at risk of retiring on an income below the Pension Credit Guarantee. Constant and controls for missing education, missing risk, imputed components of income, and whether aged 90 or over are also included.

Individuals who are in couples in 2002–03 but who ‘lose’ their partner (whether through separation, divorce or death) face a substantially greater risk of entering income poverty.

As with income poverty in the previous section, we find that being above the SPA is *negatively* associated with entering income poverty once we control for other characteristics of individuals above the SPA. Reaching the SPA between 2002–03 and 2006–07 is also negatively associated with entering poverty and it is positively associated with leaving it. Again this is likely to be explained by individuals receiving the state pension (and possibly other state benefits and even private pensions) once they reach the SPA.

Individuals who leave the labour force and/or whose partner leaves the labour force are substantially more likely to enter income poverty (and substantially less likely to leave income poverty). Higher levels of education are negatively associated with entering income poverty and positively associated with leaving it.

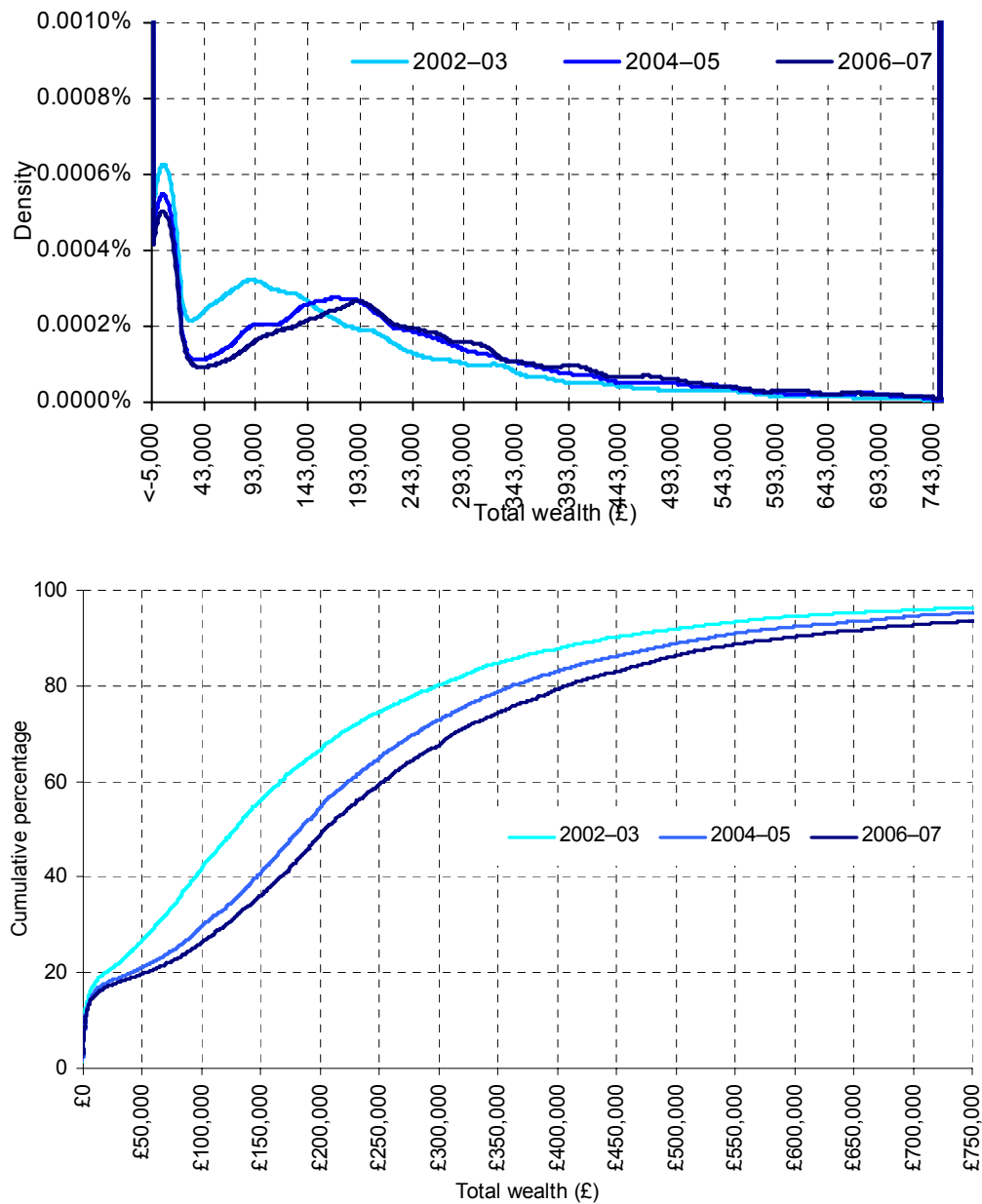
Those considered to be at risk of having retirement resources insufficient to deliver a retirement income in excess of the Pension Credit Guarantee are found to be substantially more likely to move into income poverty.

As in the previous section, the inclusion of controls for physical functioning difficulties does not substantially alter our conclusions. There is some evidence, however, that having difficulties with activities of daily living is positively associated with leaving income poverty. Again it seems likely that receipt of income from disability benefits may partly explain this result.

4.4 Wealth

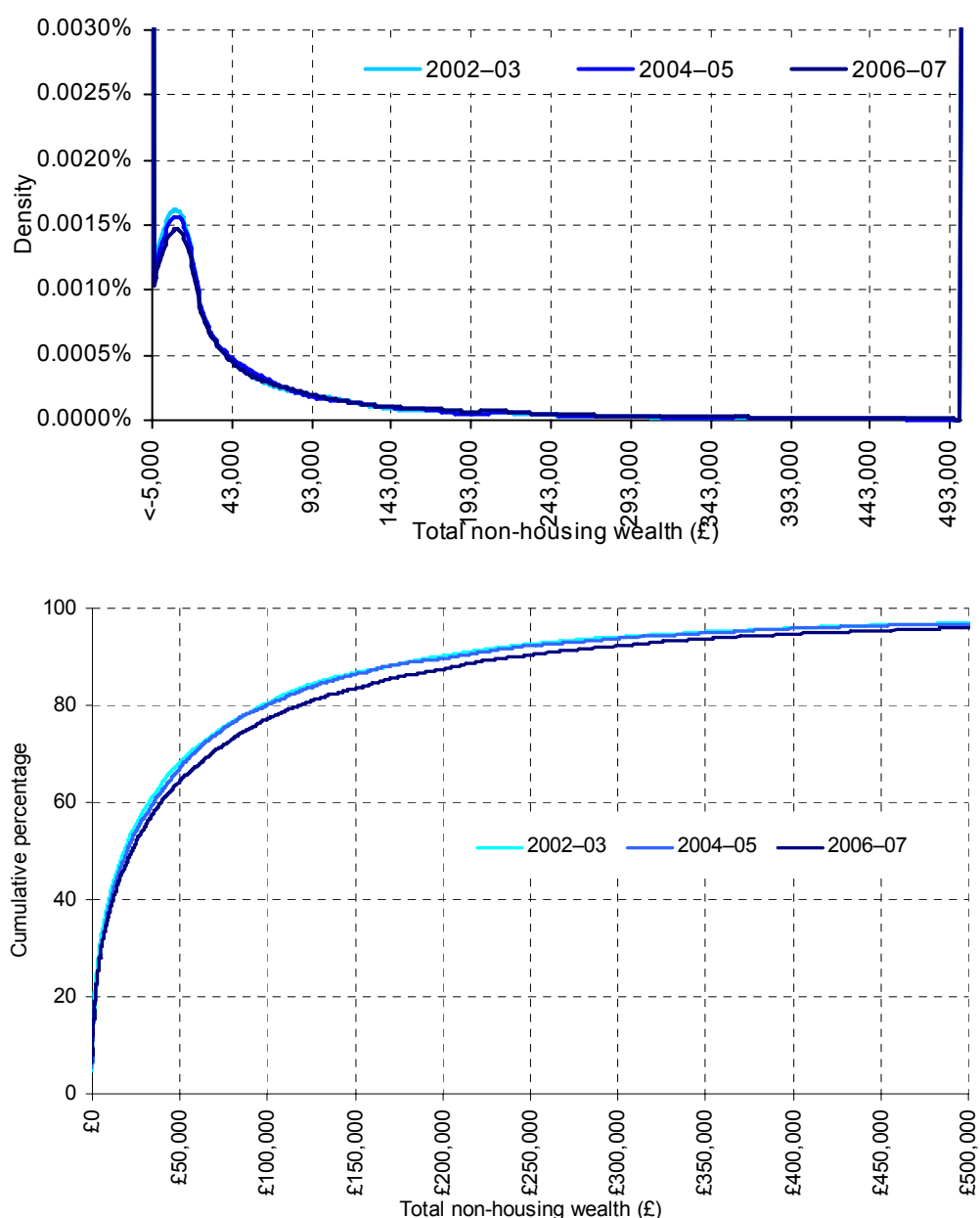
We now turn to examine another dimension of individuals' living standards – namely, the amount of wealth held by them and, where relevant, their partner. The measure of wealth used here includes financial, physical (such as business wealth, land or jewellery) and housing wealth (net of any mortgage debt) but excludes wealth held in state and private pensions. Evidence from the 2002–03 wave of ELSA showed that wealth was far from evenly distributed (see Banks, Karlsen and Oldfield [2004] and Banks, Emmerson, Oldfield and Tetlow [2005]). Figure 4.4 shows that this is also the case in 2004–05 and in 2006–07.

Figure 4.4. Distribution of total wealth



Notes: Unweighted. Probability distribution functions estimated using an Epanechnikov kernel with a half-width of £10,000. Individuals aged 50 and over in 2002–03, 52 and over in 2004–05 and 50 and over in 2006–07. Sample size = 11,416 in 2002–03, 8,878 in 2004–05 and 9,093 in 2006–07.

Figure 4.5. Distribution of non-housing wealth



Notes: Unweighted. Probability distribution functions estimated using an Epanechnikov kernel with a half-width of £10,000. Individuals aged 50 and over in 2002–03, 52 and over in 2004–05 and 50 and over in 2006–07. Sample size = 11,416 in 2002–03, 8,878 in 2004–05 and 9,093 in 2006–07.

Figure 4.4 also shows that there has been considerable growth in the wealth of ELSA respondents over time, and in particular between 2002–03 and 2004–05.⁵ For example, at the median, wealth (in nominal terms) grew from just over £128,090 in 2002–03 to £183,000 in 2004–05 to £204,456 in 2006–07

⁵ For more detail of the growth in net financial and physical wealth, and housing wealth, among ELSA respondents between 2002–03 and 2004–05, see Banks, Emmerson and Tetlow (2007).

(shown later in Table 4.3). This growth in wealth can be seen across the whole distribution of wealth.

Much of the growth in wealth, and the fact that there was more growth between 2002–03 and 2004–05 than between 2004–05 and 2006–07, is due to growth in house prices increasing the value of housing wealth. For example, according to the Nationwide House Price Index, across the whole of the UK house prices increased by 38% between the third quarter of 2002 and the third quarter of 2004 but by 10% between the third quarter of 2004 and the third quarter of 2006. This is confirmed in Figure 4.5, which shows the distribution of non-housing wealth. This hardly changed between 2002–03 and 2004–05 (when house prices were growing more quickly) and increased slightly between 2004–05 and 2006–07 (when house prices were growing more slowly).

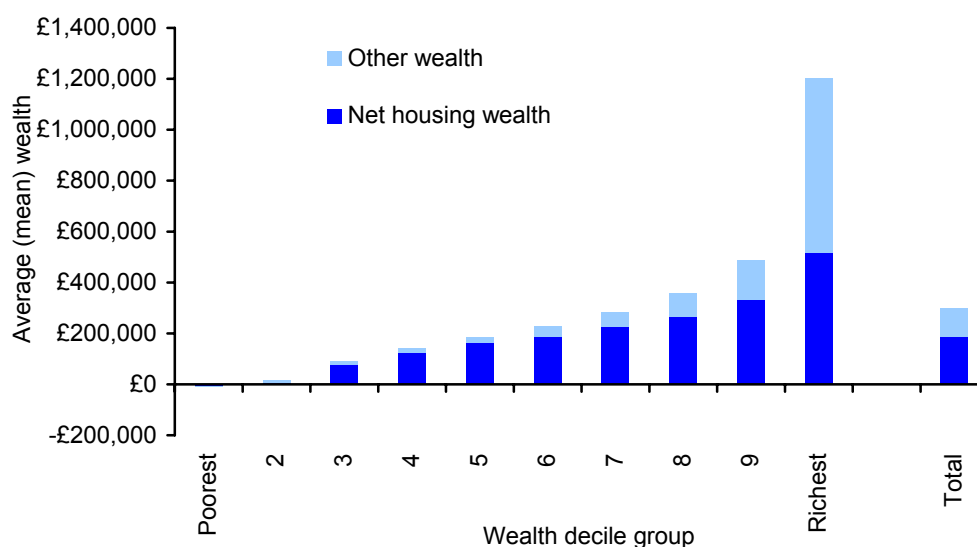
In principle, differences between the distribution of wealth in each wave of ELSA could also be due to differences in the individuals being sampled in each year – for example, the fact that the 2002–03 (1st) and 2006–07 (3rd) waves of ELSA were designed to be representative of those aged 50 and over, whereas the 2004–05 (2nd) wave did not contain core sample members aged 50 or 51. To see the extent to which this matters, summary statistics of the distribution of both total wealth and non-housing wealth are presented in Table 4.3; these are shown separately for all core ELSA respondents and for just those aged 52 or over in each wave. This shows essentially the same pattern as Figures 4.4 and 4.5 – large increases in housing wealth between 2002–03 and 2004–05 with smaller increases over the following two years and much smaller increases in non-housing wealth.

Table 4.3. Distribution of total wealth and non-housing wealth: summary statistics

	Mean	25 th percentile	Median (50 th)	75 th percentile	N
Net total wealth					
2002–03, age≥50	206,453	43,000	128,090	254,000	11,416
2004–05, age≥52	267,225	77,600	183,000	317,000	8,878
2006–07, age≥50	298,417	92,500	204,456	356,360	9,093
2002–03, age≥52	205,800	42,005	126,902	254,000	10,725
2004–05, age≥52	267,225	77,600	183,000	317,000	8,878
2006–07, age≥52	296,779	93,000	205,000	359,040	8,491
Non-housing wealth					
2002–03, age≥50	84,124	2,500	18,100	73,052	11,416
2004–05, age≥52	92,468	3,069	19,965	74,515	8,878
2006–07, age≥50	109,605	3,156	22,500	89,400	9,093
2002–03, age≥52	84,062	2,500	18,000	72,763	10,725
2004–05, age≥52	92,468	3,069	19,965	74,515	8,878
2006–07, age≥52	107,618	3,500	23,000	90,000	8,491

Note: Unweighted.

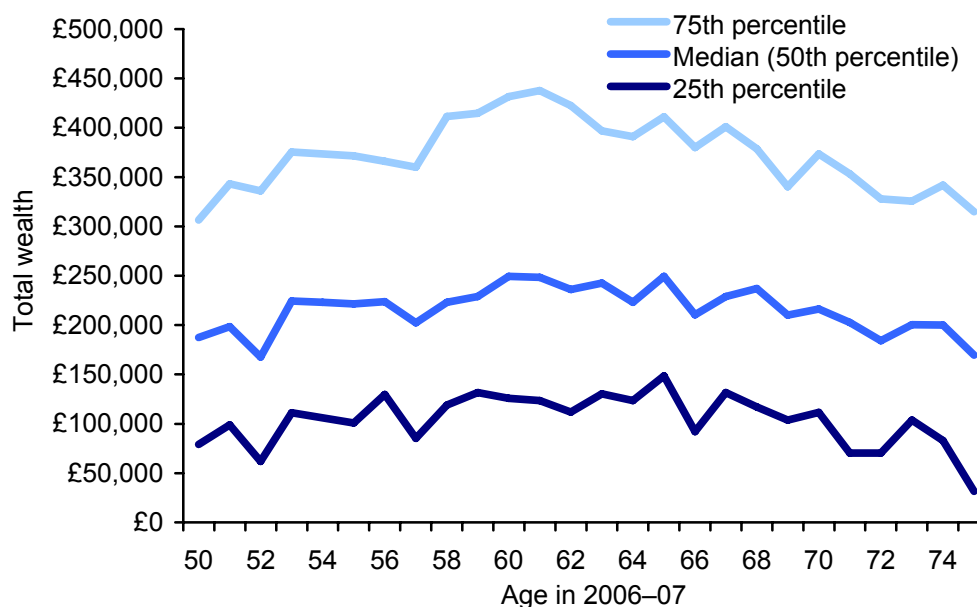
Figure 4.6. Composition of wealth, by decile of total wealth, 2006–07



Notes: Unweighted. Sample size = 9,093.

The components of total wealth are also distributed differently across the distribution of total wealth. As shown in Figure 4.6, housing wealth is more evenly distributed than non-housing wealth. For example, the mean level of housing wealth among the richest tenth of the population is just over three times that held on average among those in the 5th decile, whereas the mean level of non-housing wealth is almost 30 times greater. In total, the wealthiest tenth of the ELSA sample hold 27% of net housing wealth but 63% of non-housing wealth (and 40% of total wealth).

Figure 4.7. Variation in wealth by age, 2006–07



Notes: Unweighted. Total sample size = 7,771, with at least 191 observations at each single age. Value for age 54 interpolated from 53- and 55-year-olds due to the 2006–07 ELSA not containing a representative sample of 54-year-olds.

Holdings of wealth are also found to vary by observed background characteristics. Figure 4.7 shows evidence of an inverse U-shaped pattern of wealth holding by age at the 25th, 50th (median) and 75th percentiles of the distribution. Younger working individuals are likely to still be accumulating wealth, which could explain why they tend to hold less wealth than those around retirement. There is evidence that older individuals typically hold less wealth, for at least two reasons. First, it could be due to wealth being spent by individuals as they approach the end of their lives (an age effect). Second, it could be due to older individuals having had lower earnings when they were in paid work (a cohort effect). Further analysis of subsequent waves of ELSA data will be able to unpick the extent to which explanations such as these explain the pattern seen in Figure 4.7.

Table 4.4. Multivariate analysis (quantile regression) of associations between total wealth and other observed characteristics

All aged 50 and over in 2002–03

	25 th percentile	Median (50 th percentile)	75 th percentile
Age (years)	-132 (275)	144 (423)	1,236** (548)
Aged over SPA	27,405*** (5,291)	19,488** (8,291)	15,254 (11,060)
Female in couple	-4,563 (3,679)	865 (5,705)	7,923 (7,387)
Never-married man	-101,763*** (9,564)	-115,320*** (14,943)	-107,186*** (19,544)
Never-married woman	-97,402*** (9,462)	-115,508*** (14,649)	-119,807*** (19,020)
Divorced/Separated/Widowed man	-101,907*** (6,022)	-107,946*** (9,311)	-110,199*** (12,066)
Divorced/Separated/Widowed woman	-89,096*** (4,450)	-96,993*** (6,826)	-91,879*** (8,889)
Income (£ p.w.)	31*** (2)	143*** (2)	395*** (2)
In the labour market	11,479*** (4,114)	-15,541** (6,399)	-35,450*** (8,734)
Education: A levels	58,511*** (3,536)	83,630*** (5,456)	109,831*** (7,116)
Education: degree	122,233*** (4,664)	171,717*** (7,167)	215,674*** (9,328)
Two or more mobility difficulties	-31,239*** (3,829)	-37,430*** (5,867)	-46,268*** (7,536)
Difficulties with any ADL	-11,936** (4,681)	-16,578** (7,317)	-16,363* (9,581)
Difficulties with any IADL	-14,553*** (4,739)	-46,271*** (7,285)	-42,844*** (9,487)

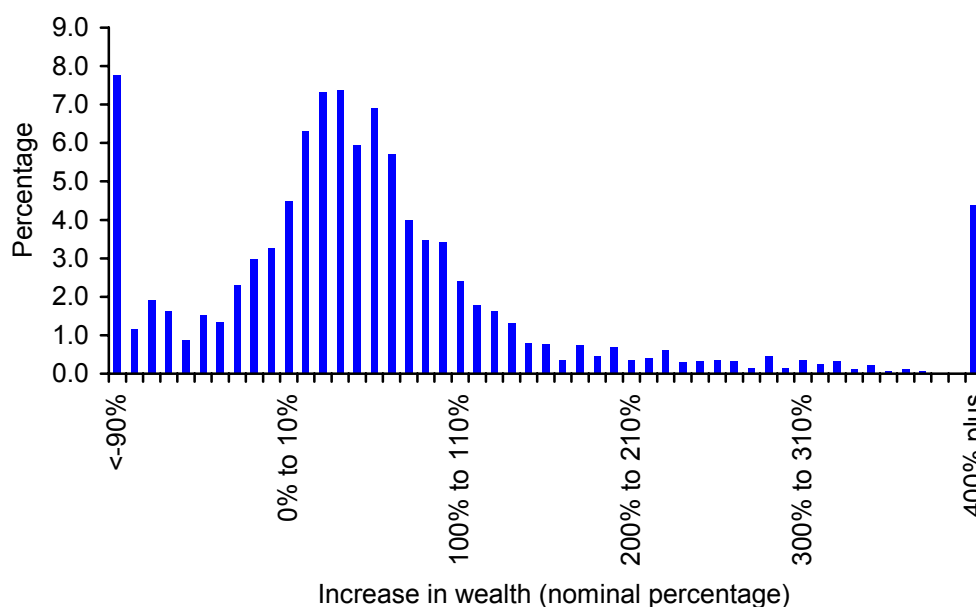
Notes: Sample size = 9,090. Statistical significance at the 1%, 5% and 10% levels is denoted by ***, ** and * respectively. Reference group is men in couples aged below the State Pension Age, not in the labour force, no reported health problems and education below A level. Constant and controls for missing education and whether aged 90 or over are also included. Coefficients and standard errors (in parentheses) for each quantile are estimated separately due to difficulties in getting a joint model to converge.

The findings from a simple multivariate analysis of wealth holdings in 2006–07 are presented in Table 4.4. Results are shown for the 25th, 50th (median) and 75th percentiles of the distribution (this is a quantile regression rather than a standard mean [OLS] regression).⁶ Factors associated with higher levels of wealth at all points in the distribution are: having higher current income, having greater levels of education, having a partner, not having any difficulties with ADLs or IADLs and not having two or more difficulties with mobility. Being in the labour market is associated with greater wealth at the 25th percentile but less wealth at the 50th (median) and 75th percentiles. This perhaps suggests that among the wealthy, those who have retired are typically wealthier than those who have not.

Changes in wealth

The fact that ELSA follows the same individuals over time also allows us to examine the changes in wealth at the individual level, both to see how they are distributed and to see how they correlate with other observed characteristics. This subsection examines the percentage change in nominal wealth seen between 2002–03 and 2006–07. The distribution of changes in total wealth is shown in Figure 4.8. The most common increases in wealth were between 20% and 40% over the four years. However, significant numbers experienced very large changes of less than –90% or more than 400%.

Figure 4.8. Distribution of increases in total wealth, 2002–03 to 2006–07 (nominal percentage)



Notes: Unweighted. Total sample size = 2,755. Only individuals who report a precise value for each component of total wealth in both 2002–03 and 2006–07 are used.

⁶ Quantile regression (rather than mean regression) is used to ensure that the results are not skewed by the relatively small number of families that hold relatively large amounts of wealth (and therefore would have the most weight in an OLS regression).

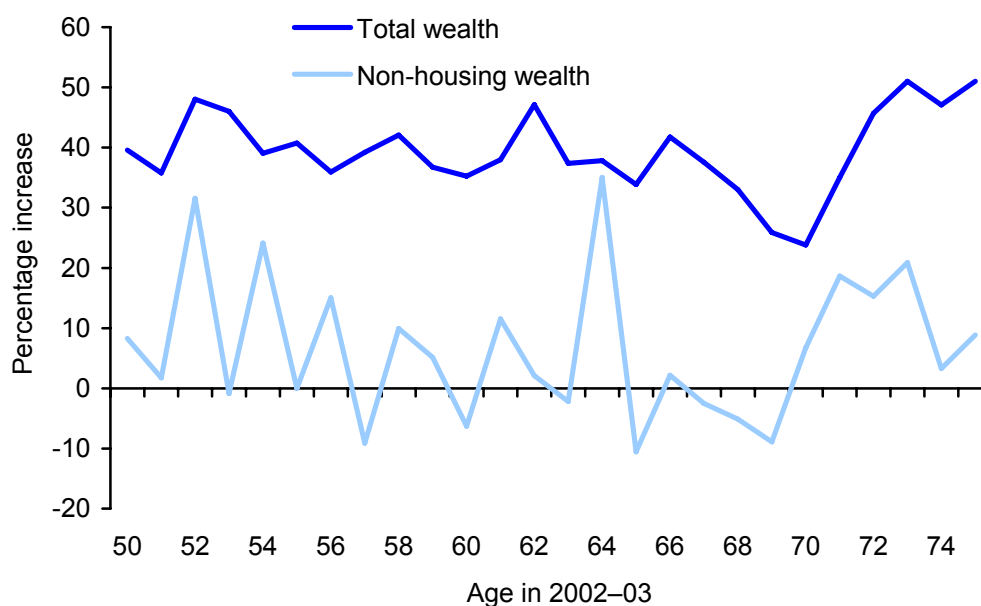
Summary statistics for both the change in total wealth and the change in non-housing wealth are shown in Table 4.5. The median increase in total wealth is found to be 39%. In contrast, the median increase in non-housing wealth is found to be just 6%. There is also little evidence that those with housing wealth, who would typically have benefited from strong growth in house prices, chose to run down their other forms of wealth. The median increase in non-housing wealth among those with housing wealth was 7% whereas the median increase among those without any housing wealth was 0%.

Table 4.5. Distribution of nominal percentage changes in wealth between 2002–03 and 2006–07: summary statistics

	Mean	25 th percentile	Median (50 th)	75 th percentile	N
Total wealth					
All	+120%	+0%	+39%	+86%	2,669
Those with housing wealth	+67%	+15%	+44%	+80%	1,969
Those w/o housing wealth	+269%	-81%	+0%	+139%	700
Total non-housing wealth					
All	+344%	-60%	+6%	+109%	3,295
Those with housing wealth	+311%	-55%	+7%	+106%	2,586
Those w/o housing wealth	+466%	-82%	+0%	+123%	709

Notes: Unweighted. Whether an individual has or has not got any housing wealth is based on gross housing wealth in 2002–03 – since a small number of individuals sold or acquired housing wealth, the increase in total wealth among those with no housing wealth in 2002–03 is not the same as the increase in non-housing wealth among the same group. For each measure of wealth (total wealth and total non-housing wealth), only individuals who report a precise value for each component of that measure of wealth in both 2002–03 and 2006–07 are used.

Figure 4.9. Median nominal percentage increases in wealth between 2002–03 and 2006–07, by age



Notes: Unweighted. Total sample size = 2,262 for total wealth and 2,846 for non-housing wealth. For each measure of wealth (total wealth and total non-housing wealth), only individuals who report a precise value for each component of that measure of wealth in both 2002–03 and 2006–07 are used.

A breakdown of this median increase in wealth, both total and non-housing, by age is presented in Figure 4.9. This shows that there is no obvious pattern with age in the median increases in either form of wealth. Slightly greater increases in total wealth are observed for those who were in their early 50s in 2002–03. This is likely to be because home-owners in this group would be less likely to own their homes outright. This would be expected to lead to larger increases in total wealth, for two reasons. First, mortgage repayments will in part represent an increase in wealth. Second, the large increase in house prices that occurred over this period will have led to a bigger percentage increase in total wealth for those whose gross housing wealth is large relative to their total net wealth.

Table 4.6. Multivariate analysis (median quantile regression) of associations between percentage changes in total wealth and other observed characteristics

	Nominal percentage increase in:			
	Total wealth		Non-housing wealth	
	Coefficient	Std error	Coefficient	Std error
Age (years)	-0.4*	(0.3)	0.6	(0.4)
Aged over SPA	6.6	(5.7)	-3.8	(9.1)
Reached SPA	-0.7	(4.6)	2.2	(7.5)
Female in couple	-2.4	(3.3)	0.5	(5.3)
Never-married man	-20.5**	(8.2)	-10.0	(13.2)
Never-married woman	-5.8	(8.5)	5.6	(14.0)
Div./Sep./Widowed man	-7.3	(5.2)	-7.8	(8.4)
Div./Sep./Widowed woman	-8.3**	(3.9)	-3.4	(6.3)
Gained partner	142.6***	(15.9)	77.0***	(26.4)
Lost partner	-20.0***	(6.7)	-21.6**	(10.9)
Income (£ p.w.)	-0.0***	(0.0)	0.0***	(0.0)
In labour market	7.6*	(4.2)	5.5	(6.7)
Moved into labour market	-0.8	(8.2)	-23.7**	(13.1)
Moved out of labour market	-0.1	(4.7)	0.9	(7.6)
Education: A levels	-4.7	(2.8)	0.7	(4.6)
Education: degree	-7.3*	(3.8)	12.2**	(6.2)
Two or more mob. diffs	-2.1	(6.0)	-9.8	(9.7)
Difficulties with any ADL	-5.9	(6.7)	-12.6	(10.8)
Difficulties with any IADL	2.9	(6.5)	6.1	(10.5)
ADL worsened	-1.3	(6.5)	-5.2	(10.6)
IADL worsened	-3.1	(4.9)	-12.2	(7.9)
Mobility worsened	8.3	(6.5)	3.2	(10.5)
ADL improved	3.4	(4.8)	5.4	(7.7)
IADL improved	1.7	(5.6)	7.4	(9.1)
Mobility improved	-4.7	(4.2)	-1.9	(6.8)

Notes: Sample size = 7,584 for total wealth and 7,534 for non-housing wealth. Statistical significance at the 1%, 5% and 10% levels is denoted by ***, ** and * respectively. For each measure of wealth (total wealth and total non-housing wealth), only individuals who report either a precise value, or a closed band, for each component of that measure of wealth in both 2002–03 and 2006–07 are used. Reference group is men in couples aged below the State Pension Age, not in the labour force, partner not in the labour force, no reported health problems, education below A level and not at risk of retiring on an income below the Pension Credit Guarantee. Constant and controls for missing education, whether aged 90 or over, and whether only reporting a closed band (rather than a precise value) for any component of the relevant measure of wealth are also included.

Multivariate analyses of both the percentage change in nominal total wealth and the percentage change in nominal non-housing wealth are shown in Table 4.6. Characteristics associated with greater nominal growth in total wealth over the period from 2002–03 to 2006–07 include having lower income, being in the labour market, having lower education, not being a never-married man or a previously married woman, not obtaining a partner, and losing a partner. None of the measures of health in 2002–03, or changes in health between 2002–03 and 2006–07, was found to be statistically significantly associated with the change in total wealth.

Greater growth in nominal total non-housing wealth is associated with higher income, higher levels of education and not moving into the labour force. The causality on the last finding could well be that it is those with lower levels of non-housing wealth who are more likely to decide to move into the labour force than those who are also out of the labour force but who have higher levels of non-housing wealth. As before, and unsurprisingly given that wealth is measured at the family level, acquiring a partner is associated with an increase in non-housing wealth and losing a partner is associated with a fall in non-housing wealth. Also as before, no statistically significant associations were found between the measures of health and health changes included in the model and the growth in total non-housing wealth.

Potential future Inheritance Tax payers

Sections 4.2 and 4.3 provided a focus on those with relatively low levels of income. In contrast, this subsection provides an examination of the proportions with relatively high levels of wealth – sufficiently high that, were they to have died at the time of their ELSA interview, they would have had wealth in excess of the Inheritance Tax threshold. This has been the subject of much policy debate in recent months: reforms proposed by the opposition Conservative Party in September 2007, and those implemented by the Treasury in October 2007, were both aimed at reducing the number of people potentially facing future Inheritance Tax liabilities.

Previous analysis of ELSA from 2002–03 (Banks, Karlsen and Oldfield, 2004; Banks, Emmerson and Oldfield, 2005) and from 2006–07 (Ross, Lloyd and Weinhardt, 2008) has found that, on average, younger and wealthier individuals report a higher expected chance of leaving a bequest or receiving an inheritance. Here we instead focus on the proportions who currently have wealth in excess of the Inheritance Tax threshold. Research by the Halifax (2007) has estimated that 12% of owner-occupied properties are worth more than the Inheritance Tax threshold. Not all individuals are owner-occupiers, of course, but there are at least three other reasons why the proportion of individuals who will pay Inheritance Tax could differ from this 12% figure. First, for Inheritance Tax purposes, it is the total value of their estate (net of any debt) that matters, not their gross housing wealth. Second, individuals who leave assets to their married (or civil) partner will not be liable for Inheritance Tax. Third, individuals may reduce their wealth between now and death, either for ‘standard’ life-cycle reasons or even because they wish to avoid paying Inheritance Tax – for example, by making *inter vivos* (lifetime) gifts more than seven years before they die.

For this analysis, we are able to deal with these three issues. First, we look at total wealth rather than just gross housing wealth. Second, we assume that all married couples managed their affairs so that they could take advantage of both their individual Inheritance Tax allowances (£250,000 in 2002–03, £263,000 in 2004–05 and £285,000 in 2006–07). Third, we exploit the panel element of the ELSA data to look at whether older individuals tend to move above or below the Inheritance Tax threshold as they age.

The second assumption might seem particularly strong, as it means that only the youngest individual (who is assumed to die last) could pay Inheritance Tax, and then only if their current total wealth exceeded twice the threshold. To the extent to which this was not the case, greater numbers would theoretically have had wealth in excess of the threshold. Note, however, that since the October 2007 Pre-Budget Report, this assumption will be far less strong as married/civil-partnered individuals can inherit the unused proportion of their deceased spouse's allowance.⁷ For cohabiting couples, we allocate half their wealth to each individual and assume that Inheritance Tax would be paid if this wealth exceeds the threshold. While this might understate the numbers in cohabiting couples who pay Inheritance Tax (since their wealth might not be equally split, or the first to die might leave their wealth to the other individual),⁸ the bias created by this assumption will be relatively small since less than 5% of individuals aged 50 and over in each wave of ELSA are cohabiting (and some of these could marry before they die).

Official administrative data show that the percentage of estates paying Inheritance Tax has increased sharply in recent years, but that despite this increase, the vast majority of estates do not pay it (the percentage paying increased from 2.3% in 1996–97 to 5.9% in 2005–06). However, the 2006–07 ELSA data reveal that a far higher percentage of individuals aged 50 and over – 11.8% – had total wealth that was in excess of the threshold that applied in that year. That is to say that had all ELSA respondents died immediately after their interview, almost one-in-nine would have been liable for Inheritance Tax, which is larger than the fraction of those who died who did pay Inheritance Tax in that year. But not all ELSA respondents will be equally likely to die – older respondents will be substantially more likely to die than younger ones. Hence future numbers of Inheritance Tax payers will depend on how the wealth of those who do not die evolves in the future.

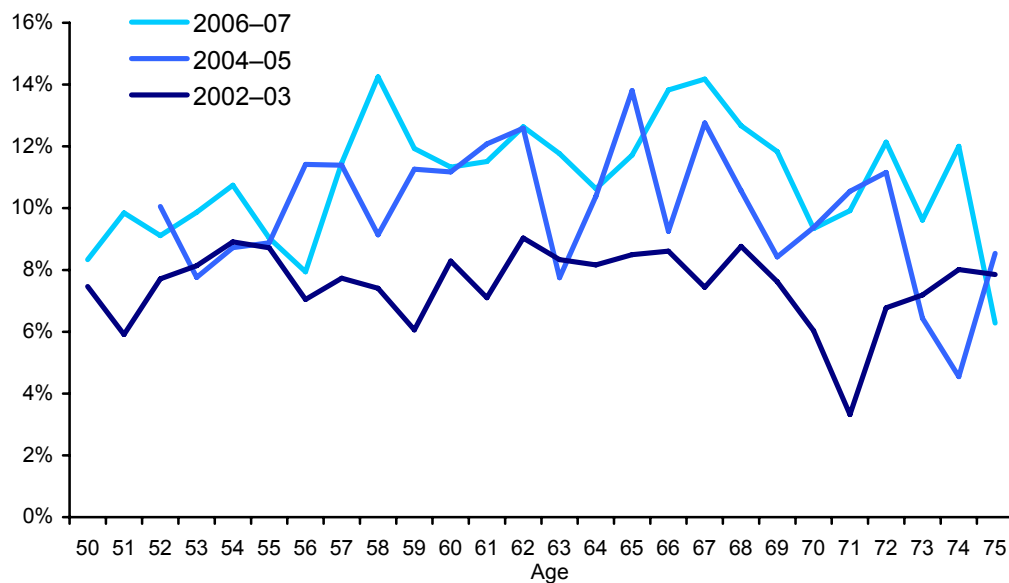
Specifically, the disparity between the number of current Inheritance Tax payers and the number with wealth currently above the threshold will depend on two factors. First, it could be that those who do not die are, on average, from younger cohorts who have amassed greater amounts of wealth over their lifetime; therefore, in future, there could be a genuine increase – potentially sharp – in the percentage with wealth above the threshold. Second, it could be that individuals with wealth in excess of the threshold run down their wealth

⁷ Note, however, that we assume that ELSA respondents (whether single, cohabiting or married) have not inherited any unused Inheritance Tax allowance from previous marriages.

⁸ It could also overstate the numbers – for example, if the first member of a cohabiting couple to die owns none of the family's wealth then only the second to die could be liable for Inheritance Tax.

as they approach the end of their lives – either for the usual life-cycle reasons or even because of the presence of Inheritance Tax itself. There could also be a combination of the two factors. Some evidence on this is presented in Figure 4.10, which shows the percentage estimated to have wealth in excess of the Inheritance Tax threshold in 2002–03, 2004–05 and 2006–07 split by age. This shows that in cross-section, the percentage estimated to be potentially liable in 2006–07 appears to peak for individuals in their 60s and then falls back. Furthermore, it shows that at most ages, a lower proportion of individuals had wealth in excess of the Inheritance Tax threshold in 2002–03 than in either 2004–05 or 2006–07.

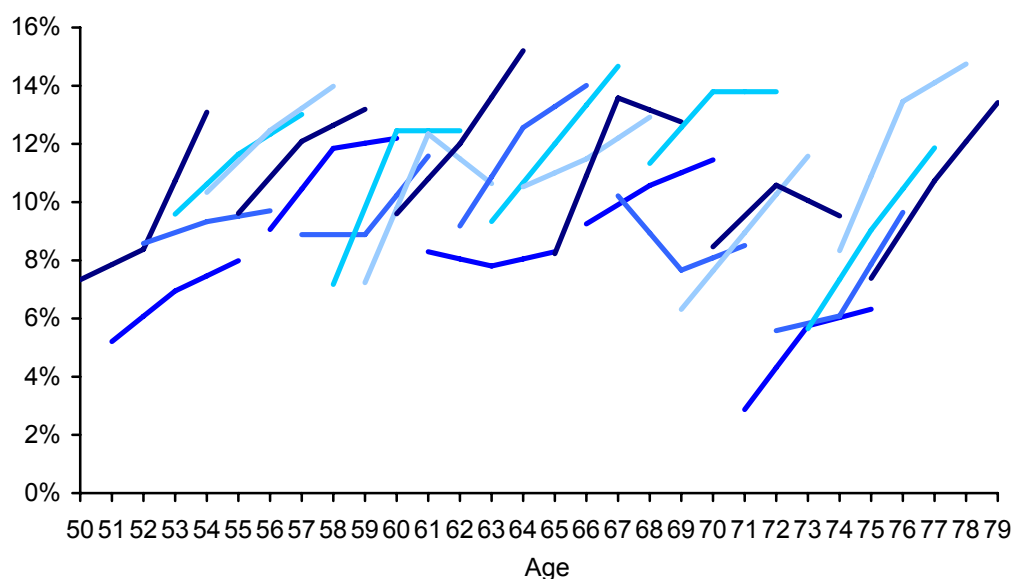
Figure 4.10. Percentage with total wealth in excess of the Inheritance Tax threshold, 2002–03, 2004–05 and 2006–07, by age



Notes: Unweighted. Total sample size = 9,308 in 2002–03, 7,039 in 2004–05 and 7,300 in 2006–07. Assumes that all wealth would be subject to Inheritance Tax (i.e. the estate would not qualify for Business Relief or Agricultural Relief) and that no gifts have been made in the last seven years. Those currently married or in a civil partnership are assumed to benefit from a double allowance and those not currently married or in a civil partnership are assumed to have a single allowance.

However, the data suggest that if we follow the same individuals over time (i.e. individuals interviewed in 2002–03 will age four years by 2006–07), the percentage with wealth in excess of the Inheritance Tax threshold is, if anything, climbing rather than falling with age. This is shown in Figure 4.11 and is evidence that there has been an increase in the percentage of individuals potentially liable for Inheritance Tax. However, we have shown that the driver of the increase in wealth over this period was growth in house prices, which suggests that whether or not this pattern will continue in future might depend heavily on the future path of house prices.

Figure 4.11. Percentage with total wealth in excess of the Inheritance Tax threshold, 2002–03, 2004–05 and 2006–07, by age in 2002–03 and age



Notes: Unweighted. Total sample size = 6,015. Assumes that all wealth would be subject to Inheritance Tax (i.e. the estate would not qualify for Business Relief or Agricultural Relief) and that no gifts have been made in the last seven years. Those currently married or in a civil partnership are assumed to benefit from a double allowance and those not currently married or in a civil partnership are assumed to have a single allowance.

4.5 Well-being and quality of life

Having looked at income and wealth as measures of living standards, we now turn to a potentially more ‘direct’, but also more difficult-to-interpret, measure of living standards: direct questions asked of ELSA respondents about their well-being and quality of life. We analyse the extent to which changes in income, or other life events that may affect living standards (such as loss of a spouse or leaving the labour force), have an effect on the answers that people give when asked questions about their subjective well-being.

There is an emerging, albeit contentious, economic literature using survey data on subjective well-being to estimate so-called ‘happiness equations’, with the aim of revealing the correlates (or even the causes) of ‘happiness’. Despite the numerous problems (philosophical as well as statistical) with interpreting such equations, which we do not explore in detail here,⁹ these analyses have received substantial media and policy attention.

Just as we explored the correlates of income and wealth in previous sections, here we explore the factors correlated with two subjective, self-reported measures of living standards:

⁹ A critique of the usefulness of such analysis can be found in Wilkinson (2007), while a defence of the statistical analysis of subjective *well-being* numbers can be found in Clark and Oswald (2002a).

- a self-reported measure of ‘well-being’ – the 12 questions of the General Health Questionnaire (known as the GHQ-12);
- a self-reported measure of ‘quality of life’ – the 19 questions of the Control, Autonomy, Self-realisation and Pleasure questionnaire (known as the CASP-19).

The GHQ-12 questionnaire consists of 12 questions used to create a mental well-being measure, often used as a measure of well-being in the economic literature on ‘happiness’ (see, for example, Clark and Oswald [2002a, 2002b]). The questions ask about how an individual has been feeling over the last few weeks, with respondents choosing among four possible answers for each question. For example, the first question is

Have you recently been able to concentrate on whatever you’re doing?

- (1) Better than usual
- (2) Same as usual
- (3) Less than usual
- (4) Much less than usual

For each question, an individual receives a score of zero for the most positive answer (‘Better than usual’), one for the next most positive (‘Same as usual’), two for the second most negative answer (‘Less than usual’) and three for the most negative answer (‘Much less than usual’). Answers to all questions are summed to give a score (known as a Likert score), with a minimum of zero (if an individual gives the most positive answer to all questions) and a maximum of 36 (if they give all the most negative answers). For ease of interpretation, however, we have reversed this scale (in line with the practice in Clark and Oswald [2002a]), so that higher scores indicate *better* reported mental well-being. Hence, a score of 36 indicates the maximum possible reported well-being, while a score of zero indicates the minimum reported well-being.

The CASP-19 questionnaire is a more recently developed instrument, designed to measure quality of life among older people (see Hyde et al. [2003]). The measure is based on a theory of needs satisfaction, with four sections (each consisting of four or five questions) aiming to gauge the extent to which individuals are fulfilling four sorts of human need:

- the need to be able to act freely in one’s environment (control);
- the need to be free from undue interference from others (autonomy);
- the need for self-realisation (self-realisation);
- the need to enjoy oneself (pleasure).

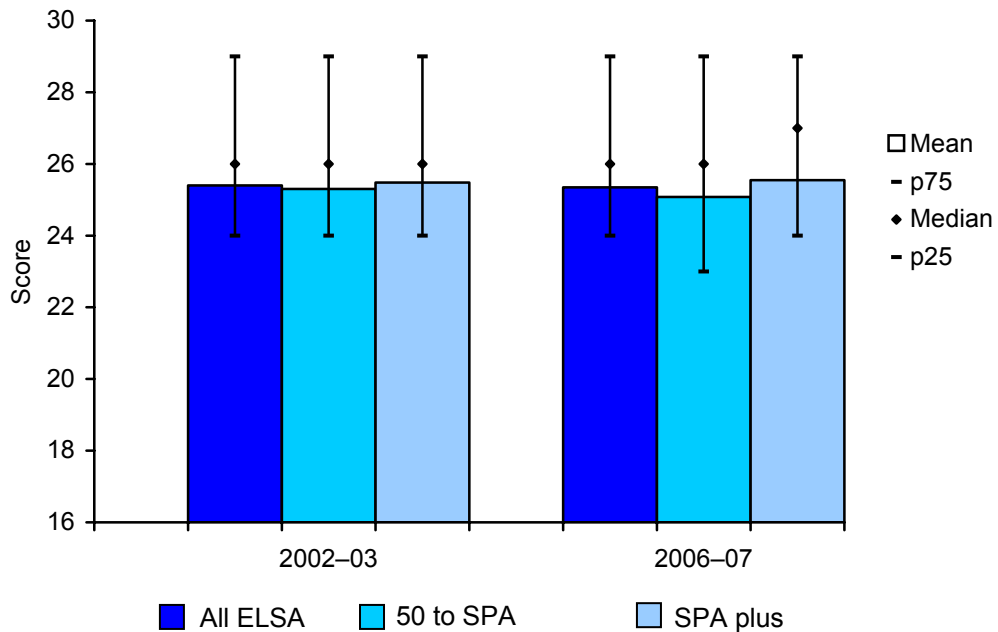
As with the GHQ-12, questions are answered on a four-point scale. The first question, for example, is

My age prevents me from doing the things I would like to do –

- (1) Often
- (2) Sometimes
- (3) Not often
- (4) Never

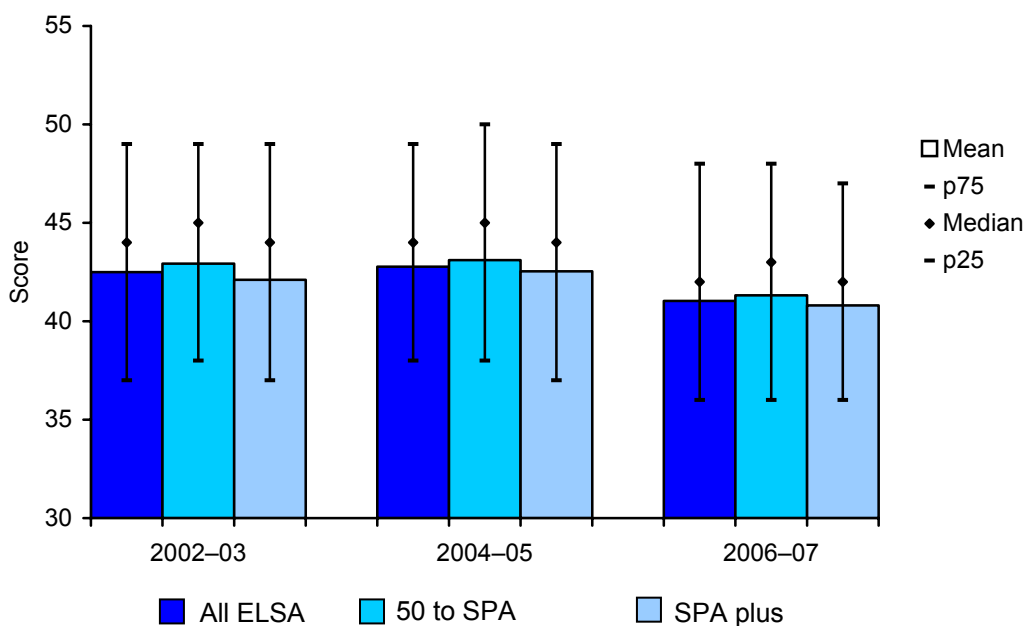
The most negative answer ('Often') receives a score of zero, the next-worst ('Sometimes') a score of one, and so on up to the most positive answer ('Never'), which receives a score of three. Scores for all answers are summed to give a scale with a minimum of zero (lowest reported quality of life) and maximum of 57 (highest reported quality of life).

Figure 4.12a. Mean GHQ scores (greater score = higher reported well-being, maximum score = 36)



Notes: Unweighted. SPA = State Pension Age.

Figure 4.12b. Mean CASP scores (greater score = higher reported quality of life, maximum score = 57)



Notes: Unweighted. SPA = State Pension Age.

Figure 4.12a shows mean and median GHQ scores, as well as the interquartile range, in 2002–03 and 2006–07 (the GHQ questionnaire was not administered in 2004–05), while Figure 4.12b shows the same for CASP in all three ELSA waves.

For both GHQ and CASP, median and mean scores and the interquartile range are strikingly consistent both between age groups and across years. GHQ scores consistently have a mean of around 25, while mean CASP scores remain between 41 and 43. Individuals above the State Pension Age report slightly higher well-being (GHQ): the difference in mean scores is small (no more than half a point) but statistically significant in 2006–07.¹⁰ By contrast, individuals above the State Pension Age report slightly lower quality of life (CASP): again the difference in mean scores is small (less than one point) but it is statistically significant in all years.¹¹

Table 4.7 presents multivariate analysis of the factors associated with higher well-being scores (GHQ) and quality-of-life scores (CASP) in the 2002–03 ELSA wave. For ease of interpretation, and following Clark and Oswald (2002b), we use a standard linear regression (OLS) for this analysis.

It is clear that income (incorporated here as the log of household equivalised income) is positively and significantly associated with higher reported well-being and quality of life. Also, being at risk of low income in retirement is strongly associated with lower reported well-being and quality of life.

Reported physical functioning (an indicator of health) appears to be an important correlate of answers to these questions. Having difficulties with any of our three physical functioning measures (ADL, IADL and mobility) is strongly associated with lower scores for well-being and for quality of life. Individuals over the SPA are found to be more likely to report higher well-being and quality of life, holding other factors (such as the measures of physical functioning mentioned above) constant.

There are interesting contrasts, however, in the coefficients on sex and marital status across the two measures. Men in couples (the reference group in the tables) appear to have the highest level of self-reported well-being, while their wives/partners report significantly lower levels of well-being. By contrast, it is women in couples who report the highest quality of life, while their husbands/partners report significantly lower quality of life.

Single individuals who were previously in couples (divorced, separated or widowed) report the lowest well-being, while single individuals who have never been married do not appear to have significantly lower well-being than men in couples. (Statistical evidence perhaps that, contrary to Alfred Lord Tennyson, it may *not* be ‘better to have loved and lost than never to have loved at all’.)

¹⁰ A two-sample t-test rejects the hypothesis that the means are the same in 2006–07, with a p-value of 0.0000. In 2002–03, the comparable p-value is 0.064, so the hypothesis of equal means cannot be rejected at the 5% level.

¹¹ A two-sample t-test rejects the hypothesis that the means are the same in all three years, with a p-value of 0.0130 in 2002–03, 0.0070 in 2004–05 and 0.0000 in 2006–07.

Table 4.7. Factors associated with well-being and quality of life in 2002–03 (higher scores indicate higher well-being / quality of life)

All aged 50 and over in 2002–03

	Well-being (GHQ) (0 to 36)	Quality of life (CASP) (0 to 57)
Female in couple	−0.437*** (0.132)	1.212*** (0.227)
Never-married man	−0.401 (0.337)	−2.437*** (0.580)
Never-married woman	−0.304 (0.350)	0.886 (0.620)
Divorced/Separated/Widowed man	−0.964*** (0.218)	−1.326*** (0.380)
Divorced/Separated/Widowed woman	−0.809*** (0.165)	0.173 (0.289)
Age (years)	0.020** (0.010)	0.019 (0.018)
Aged over State Pension Age	0.811*** (0.198)	1.096*** (0.343)
In the labour market	0.181 (0.154)	0.779*** (0.264)
Partner in the labour market	0.117 (0.152)	0.296 (0.260)
Education: A levels	0.123 (0.120)	0.820*** (0.207)
Education: degree	−0.055 (0.168)	0.407 (0.290)
Risk of low retirement income	−0.988*** (0.282)	−3.390*** (0.487)
Difficulties with any ADL	−1.104*** (0.165)	−2.878*** (0.291)
Difficulties with any IADL	−1.991*** (0.164)	−4.100*** (0.289)
Two or more mobility difficulties	−1.553*** (0.135)	−3.976*** (0.235)
Log equivalised household income (£ p.w.)	0.286*** (0.084)	1.311*** (0.145)

Notes: Individuals whose income was imputed (unless imputed within a closed band) were dropped from the sample. OLS coefficients and robust standard errors (in parentheses) are reported. Statistical significance at the 1%, 5% and 10% levels is denoted by ***, ** and * respectively. GHQ sample size = 7,515; CASP sample size = 6,869. Reference group is men in couples aged below the State Pension Age, not in the labour force, partner not in the labour force, no reported health problems, education below A level and not at risk of retiring on an income below the Pension Credit Guarantee. Constant and controls for missing education, missing risk, missing happiness, imputed components of income in closed band and whether aged 90 or over are also included.

However, we see a different pattern when we turn to the quality-of-life measure. Here it is single men who have never married who report the lowest quality of life, with divorced/separated/widowed men close behind. Single women, by contrast, do not report significantly lower quality of life than men

in couples. Marital status, then, appears to be a significant correlate of well-being, but sex is the more important correlate of quality of life.

One natural concern in interpreting the results in Table 4.7 is that individuals' answers may be biased by their personality (or natural disposition) in a way that is correlated with other observed variables, such as marital status or education. It may be, for example, that naturally 'gloomy' individuals are less likely to marry (or less likely to remain married). This would bias our coefficients on marital status, because such individuals will also be more likely to give negative answers to GHQ or CASP questions. This is referred to as the 'omitted dispositions' problem.

However, we can use the panel nature of the ELSA data to try to overcome this problem. We do this by focusing on the *change* in individuals' answers to these questions (rather than their level), taking first-differences of the model in Table 4.7. By subtracting an individual's score in 2002–03 from their score in 2006–07, we create a variable that potentially varies between –36 and +36 (for GHQ) or –57 and +57 (for CASP). We then regress this variable on an individual's baseline characteristics, plus changes in those characteristics between 2002–03 and 2006–07.

We report the results from such a first-differences model in Table 4.8. As in Table 4.7, the reported coefficients are from a standard linear regression (OLS). For each self-reported measure, two specifications are reported: one in which we treat gains in log income as affecting an individual's answers to the same extent as an equivalent fall in log income, and a second in which we allow gains in log income to affect answers differently from losses in log income.

We find that changes in income are correlated with changes in GHQ and CASP scores, with increases in income associated with an improvement in both reported well-being and quality of life. In the case of CASP, we find no evidence that income gains affect an individual's reported quality of life in an asymmetric way. In contrast, with GHQ, we find evidence that gains in income increase reported well-being much more significantly than income losses reduce it.¹²

Moving out of the labour force is associated with significant improvements in both reported well-being and reported quality of life. Having a partner who moves into or out of the labour force, by contrast, has no significant effect on either measure.

Any worsening of physical functioning is strongly and significantly associated with reduced scores on both the GHQ and CASP measures, and there is (more limited) evidence that improvements in physical functioning improve scores.

¹² For the GHQ regression, an F-test rejects the null hypothesis that the coefficients on positive and negative income changes are equal at the 5% level. For the CASP regression, the null hypothesis that the coefficients are equal cannot be rejected at the 5% level.

Table 4.8. Factors associated with change in well-being and change in quality of life (higher scores indicate improved well-being / quality of life)

All aged 50 and over in 2002–03

	Change in GHQ score, 2002–03 to 2006–07 (–36 to +36)		Change in CASP score, 2002–03 to 2006–07 (–57 to +57)	
	Income gains and losses symmetric	Income gains and losses asymmetric	Income gains and losses symmetric	Income gains and losses asymmetric
Female in couple	–0.293 (0.191)	–0.283 (0.191)	0.280 (0.282)	0.279 (0.282)
Never-married man	–0.457 (0.446)	–0.417 (0.445)	0.552 (0.739)	0.548 (0.739)
Never-married woman	–0.319 (0.665)	–0.313 (0.667)	–0.881 (0.985)	–0.881 (0.985)
Divorced/Separated/ Widowed man	0.829** (0.361)	0.832** (0.361)	0.630 (0.546)	0.629 (0.546)
Divorced/Separated/ Widowed woman	0.453* (0.257)	0.491* (0.258)	1.172*** (0.374)	1.168*** (0.374)
Age (years)	–0.061*** (0.020)	–0.058*** (0.020)	–0.114*** (0.027)	–0.115*** (0.027)
Aged over State Pension Age	0.505 (0.368)	0.522 (0.367)	0.218 (0.536)	0.215 (0.537)
In the labour market	–0.166 (0.248)	–0.183 (0.247)	–0.636* (0.367)	–0.635* (0.367)
Partner in the labour market	–0.008 (0.232)	–0.020 (0.231)	–0.026 (0.359)	–0.025 (0.359)
Education: A levels	–0.303* (0.171)	–0.337* (0.172)	–0.376 (0.252)	–0.372 (0.253)
Education: degree	–0.554** (0.241)	–0.612** (0.242)	–0.089 (0.363)	–0.082 (0.366)
Reached State Pension Age	0.375 (0.275)	0.360 (0.275)	0.639 (0.409)	0.640 (0.409)
Gained partner	–0.295 (1.225)	–0.383 (1.234)	0.571 (2.005)	0.580 (2.008)
Lost partner	–0.721 (0.603)	–0.745 (0.604)	0.234 (0.689)	0.237 (0.690)
Moved into labour market	0.199 (0.594)	0.150 (0.594)	0.059 (0.784)	0.063 (0.785)
Moved out of labour market	0.797*** (0.288)	0.767*** (0.287)	1.166*** (0.435)	1.169*** (0.435)
Partner moved into labour market	0.624 (0.427)	0.566 (0.420)	0.816 (0.770)	0.822 (0.772)
Partner moved out of labour market	0.479 (0.317)	0.457 (0.315)	0.596 (0.445)	0.599 (0.445)
Risk of low retirement income	–1.083** (0.537)	–1.013* (0.538)	–0.574 (0.713)	–0.582 (0.718)
Difficulties with any ADL	–0.360 (0.367)	–0.365 (0.367)	0.068 (0.504)	0.069 (0.504)
Difficulties with any IADL	0.602 (0.409)	0.604 (0.409)	1.141** (0.555)	1.141** (0.555)

Continues

Table 4.8 continued

	Change in GHQ score, 2002–03 to 2006–07 (–36 to +36)		Change in CASP score, 2002–03 to 2006–07 (–57 to +57)	
	Income gains and losses symmetric	Income gains and losses asymmetric	Income gains and losses symmetric	Income gains and losses asymmetric
Two or more mobility difficulties	0.068 (0.255)	0.090 (0.256)	–0.578 (0.371)	–0.581 (0.371)
ADL worsened	–0.824*** (0.307)	–0.835*** (0.307)	–1.479*** (0.435)	–1.478*** (0.436)
IADL worsened	–0.896*** (0.326)	–0.877*** (0.327)	–1.163*** (0.439)	–1.165*** (0.440)
Mobility worsened	–0.528** (0.259)	–0.500* (0.259)	–1.537*** (0.379)	–1.540*** (0.379)
ADL improved	1.108** (0.483)	1.098** (0.482)	1.119* (0.669)	1.121* (0.668)
IADL improved	–0.028 (0.483)	–0.005 (0.483)	–0.155 (0.706)	–0.158 (0.707)
Mobility improved	0.268 (0.351)	0.267 (0.351)	1.080** (0.520)	1.081** (0.520)
Change in log income (£ p.w.)	0.414*** (0.129)		0.513*** (0.189)	
Log income gain (£ p.w.)		0.829*** (0.254)		0.469 (0.339)
Log income loss (£ p.w.)		0.108 (0.153)		0.547** (0.258)

Notes: Individuals whose income was imputed in either year (unless imputed within a closed band) were dropped from the sample. OLS coefficients and robust standard errors (in parentheses) are reported. Statistical significance at the 1%, 5% and 10% levels is denoted by ***, ** and * respectively. GHQ sample size = 3,721; CASP sample size = 3,341. Reference group is men in couples aged below the State Pension Age, not in the labour force, partner not in the labour force, no health problems, education below A level, no health changes of individual between 2002–03 and 2006–07, and not at risk of retiring on an income below the Pension Credit Guarantee. Constant and controls for missing education, missing risk, income imputed within closed band and whether aged 90 or over are also included.

Somewhat surprisingly, neither the loss of a partner (whether through death or divorce/separation) nor gaining a partner appears to have a significant effect on changes in scores on either measure. When the analysis is repeated using only the ‘happiness’ question from the GHQ questionnaire (available from the authors on request), loss of a partner is found to be a highly significant determinant of individuals’ answers.

4.6 Conclusions

This chapter has explored the associations between income poverty, wealth, self-reported well-being and self-reported quality of life, using the ELSA panel to show how changes in characteristics (such as leaving work or losing a partner) are associated with a significant change in individuals’ resources and their reported well-being.

The chapter has highlighted the extent to which marital status is correlated with financial resources (and changes in those resources), with women who are divorced, separated or widowed shown to be at particular risk of income poverty and significantly greater risk of moving into income poverty. Losing a partner is also associated with significant loss of wealth (presumably especially among those who divorce or separate).

Individuals with low levels of state and private pension rights are, unsurprisingly, found to be significantly more likely to be in income poverty. Individuals who are not in the labour force are also far more likely to be in income poverty. Less intuitively, being above the State Pension Age is found to be *negatively* associated with income poverty, once other characteristics (such as whether or not they are in the labour force) have been controlled for – presumably because of the benefits (and private pension income) that individuals receive later in life.

The chapter has shown that large increases in total wealth occurred between 2002–03 and 2006–07 (though much of the growth took place between 2002–03 and 2004–05), with the median nominal increase in total wealth over this four-year period being 39%. Large increases in house prices appear to explain virtually all of this increase in total wealth, while non-housing wealth has barely grown at all (even in nominal terms). Perhaps surprisingly, we find no evidence that individuals who experience growth in their housing wealth have taken the opportunity to reduce other forms of savings – growth in non-housing wealth over this period is very similar among those with and those without housing wealth. There has also been an increase in the proportion of individuals whose estates will potentially be liable for Inheritance Tax. However, given that the increase in wealth over the period from 2002–03 to 2006–07 happened while house prices were growing very strongly, whether or not this pattern continues in future could well depend in large part on the future path of house prices.

We find that income and reported physical functioning (a measure of health) are significantly positively correlated with both self-reported well-being and quality of life. This chapter has also highlighted the possibility that marital status is a significant correlate of reported well-being (with individuals in couples reporting the highest levels of well-being, and divorced, separated or widowed individuals reporting the lowest), while sex appears to be a more important correlate of reported quality of life (with women reporting higher quality of life than men for any given marital status). However, somewhat surprisingly, gaining or losing a spouse does not appear to be significantly correlated with changes in these measures.

This chapter has shown that worsening physical functioning is, as we would expect, associated with significant deterioration in reported well-being and quality of life. Increased income is found to be significantly associated with an increase in both reported well-being and reported quality of life.

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References

- Banks, J., Emmerson, C. and Oldfield, Z. (2005), *Preparing for Retirement: The Pension Arrangements and Retirement Expectations of those Approaching State Pension Age in England*, London: Institute for Fiscal Studies (http://www.ifs.org.uk/publications.php?publication_id=3396).
- Banks, J., Emmerson, C., Oldfield, Z. and Tetlow, G. (2005), *Prepared for Retirement? The Adequacy and Distribution of Retirement Resources in England*, London: Institute for Fiscal Studies (http://www.ifs.org.uk/publications.php?publication_id=3443).
- Banks, J., Emmerson, C. and Tetlow, G. (2007), 'Better prepared for retirement? Using panel data to improve wealth estimates of ELSA respondents', Institute for Fiscal Studies, Working Paper no. 12/07 (<http://www.ifs.org.uk/wps/wp1207.pdf>).
- Banks, J., Karlsen, S. and Oldfield, Z. (2004), 'Socio-economic position', in J. Banks, E. Breeze, C. Lessof and J. Nazroo (eds), *Retirement, Health and Relationships of the Older Population in England: The 2004 English Longitudinal Study of Ageing (Wave 2)*, London: Institute for Fiscal Studies (http://www.ifs.org.uk/elsa/report_wave2.php).
- Brewer, M., Browne, J., Emmerson, C., Goodman, A., Muriel, A. and Tetlow, G. (2007), *Pensioner Poverty over the Next Decade: What Role for Tax and Benefit Reform?*, Commentary no. 103, London: Institute for Fiscal Studies (http://www.ifs.org.uk/publications.php?publication_id=3991).
- Clark, A. and Oswald, A. (2002a), 'A simple statistical method for measuring how life events affect happiness', *International Journal of Epidemiology*, vol. 31, pp. 1139–1144.
- Clark, A. and Oswald, A. (2002b), 'Well-being in panels', Working Paper (<http://www2.warwick.ac.uk/fac/soc/economics/staff/faculty/oswald/revwellbeinginpanelsclarkosdec2002.pdf>).
- Halifax (2007), 'Inheritance tax and stamp duty – the key facts', Press Release, 20 March, available at http://www.hbosplc.com/economy/inheritance_tax.asp.
- HM Treasury (2007), *PSA Delivery Agreement 17: Tackle Poverty and Promote Greater Independence and Wellbeing in Later Life* (http://www.hm-treasury.gov.uk/media/0/0/pbr_csr07_psa17.pdf).
- Hyde, M., Wiggins, R.D., Higgs, P. and Blane, D.B. (2003), 'A measure of quality of life in early old age: the theory, development and properties of a needs satisfaction model (CASP-19)', *Ageing and Mental Health*, vol. 7, pp. 186–194.
- Ross, A., Lloyd, J. and Weinhardt, M. (2008), *The Age of Inheritance*, London: ILC-UK (http://www.ilcuk.org.uk/files/pdf_pdf_54.pdf).
- Wilkinson, W. (2007), *In Pursuit of Happiness Research: Is It Reliable? What Does It Imply for Policy?*, Policy Analysis no. 590, Washington, DC: Cato Institute (<http://www.cato.org/pubs/pas/pa590.pdf>).