## Employment of older people in England: 2012-13

## IFS Briefing Note BN153

Daniel Chandler<br>Gemma Tetlow

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# Daniel Chandler and Gemma Tetlow ${ }^{1}$ 

Institute for Fiscal Studies

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## Executive summary

- This briefing note sets out the latest data on the employment of people aged between 50 and 74 in England.
- $87 \%$ of men aged 50 are in some form of paid work. This figure drops to $34 \%$ for men aged 65 and $9 \%$ for men aged 74 . Among women these figures are $77 \%, 22 \%$ and $4 \%$, respectively.
- Part-time working (defined as working less than 30 hours a week) is more prevalent among women than men and among older individuals than younger individuals. At age 50, fewer than one-in-ten working men are working part-time. Among 74-year-old men, two thirds of those in employment are working part-time. Among working women, nearly four-in-ten are working part-time at aged 50; at age 74 this rises to nearly nine-in-ten.
- Self-employment is also more prevalent among those in work at older ages than among workers at younger ages. One-in-five men who are working at age 50-54 are self-employed, compared to more than half of those who are working aged 70-74. Self-employment is also much more common among men than women. Only around one-in-ten working women aged 50-54 are self-employed.
- Employment rates tend to be higher among those with more education. There is an inverted-U relationship between wealth and employment for those below the state pension age.
- Health does constrain the ability of some older people to work, and those in the poorest health are much less likely to be in work at all ages than those in better health. But, even among those aged 70-74, $61 \%$ of men and $68 \%$ of women report that their health does not in any way limit the kind or amount of work they could do if they wished to.
- Most 'inactive' (non-working) men and women who are below the state pension age do not define themselves as 'retired': men tend to define themselves as sick/disabled or unemployed, while women are more likely to be looking after their home or family. For both men and women there is a significant increase in the proportion of inactive who describe themselves as being retired around the state pension age.


## 1. Introduction

There are many reasons to be interested in the employment of older people. At a micro level, income from employment could help individuals to top up other sources of 'retirement' income. There is also some evidence that continuing to engage in intellectually engaging tasks (for example, through work) into older age can help to preserve cognitive functioning. ${ }^{2}$ At a macro level, older people make up a large and increasing share of the population and thus their labour supply fundamentally affects England's productive capacity.

In this briefing note we use data from the Labour Force Survey (LFS) and the English Longitudinal Study of Ageing (ELSA) to describe patterns of employment and self-employment among people aged between 50 and 74 in England in 2012-13.3 We focus on England because, unfortunately, comparable data on the circumstances of older people in the rest of the UK are not currently available. While the LFS covers the whole of the UK, ELSA - which provides detailed information on the wealth, health and other characteristics of older people - covers only England.

We begin in Section 2 by describing how overall levels of participation in paid employment or self-employment (which, henceforth, we will refer to collectively as 'employment') vary across different groups. Section 3 then describes hours worked and earnings among employees. Section 4 presents evidence on the characteristics of self-employed older people, their hours of work, income from self-employment and their wealth. Section 5 describes activities among those who are not in employment.

## 2. Employment

Figures 1 and 2 show employment rates by age for men and women in 2013, divided into those working full time (defined here as working 30 hours or more per week) and part-time (less than 30 hours). More than $80 \%$ of men in their early fifties are working. Male employment starts to decline from age 55, with employment rates being significantly lower from

[^1]age 60 and dropping again at age 65 (the latter being the earliest age at which men can claim a state pension). At age 64, the majority of men are not working.

Figure 1. Employment rates by age, men


Note: Employment rates shown include self-employment. Full time is defined as working at least 30 hours a week.
Source: Labour Force Survey, 2013.
The proportion of working men who work part-time increases with age. Less than one-in-ten men who are working in their early fifties are working part-time. However, among those men who are in work in their late sixties, more than half work part-time.

The broad patterns are similar for older women. However, employment among older women starts from a slightly lower level at age 50 (77\%) and also falls more rapidly across age groups. The largest drop in female employment is seen between those just below and just above the female state pension age (which was between the age of 61 years and 6 months and 62 years in 2013).

The largest difference between men and women is the prevalence of parttime working among women. Of those women who are working in their early fifties, more than one-in-three are working part-time. This compares with less than one-in-ten men.

Figure 2. Employment rates by age, women


Note: As Figure 1.
Source: As Figure 1.

## Employment by region

Figures 3 and 4 show that there is some variation in employment rates across the country, and that this variation is different for different age groups. For example, London has one of the lowest employment rates of 50 - to 54 -year-old men (at $81 \%$ ) but the highest employment rate of 60 - to 64-year-old men (at 62\%). A similar pattern is seen for women in London. In fact, London and the South East are the only two regions in which more than half of all 60- to 64-year-old men and women are in work; this compares with just under $40 \%$ of people in this age group working in the North and North West (see Figure A. 1 in the appendix).

Figure 3. Regional employment rates by age, men


Note: Employment rates shown include self-employment. Region is defined based on area of residence, rather than location of work. Regions are ordered from left to right from the highest employment rate at ages 50-54 (South East) to the lowest employment rate at ages 50-54 (London).
Source: As Figure 1.

Figure 4. Regional employment rates by age, women


Note: As Figure 3. Regions are ordered from left to right from the highest employment rate at ages 50-54 (East Anglia) to the lowest employment rate at ages 50-54 (North West).
Source: As Figure 1.

## Employment by education

Table 1 looks at the levels of education among the population aged 50-74 in 2012-13, where education is defined in terms of individuals' highest qualification. Individuals are grouped into three categories: 'low' education includes those who have no qualifications or attained a CSEequivalent qualification (NVQ level 1); 'mid’ education refers to those who have attained O-level- or A-level-equivalent qualifications (NVQ level 2 or 3); while 'high' education includes those who have attained a degree or equivalent qualification, or have a higher education qualification below degree level (NVQ Level 4 or 5). ${ }^{4}$

Table 1. Education levels by cohort

|  | Low <br> education | Mid <br> education | High <br> education | Unweighted <br> sample |
| :--- | :---: | :---: | :---: | :---: |
| Men | 28.3 | 30.3 | 41.4 | 3,605 |
| $50-54$ | 15.3 | 37.5 | 47.2 | 349 |
| $55-59$ | 25.4 | 33.3 | 41.2 | 792 |
| $60-64$ | 29.8 | 27.7 | 42.5 | 919 |
| $65-69$ | 34.6 | 27.0 | 38.4 | 914 |
| $70-74$ | 44.1 | 21.9 | 34.0 | 631 |
|  |  |  |  |  |
| Women | 33.3 | 38.2 | 28.6 | 4,290 |
| $50-54$ | 22.4 | 43.4 | 34.2 | 570 |
| $55-59$ | 28.2 | 39.1 | 32.7 | 997 |
| $60-64$ | 32.6 | 39.9 | 27.5 | 1,060 |
| $65-69$ | 41.6 | 35.7 | 22.7 | 954 |
| $70-74$ | 47.5 | 29.6 | 22.8 | 709 |

Note: Education is defined according to highest qualification, as set out in the text above. Weighted using cross-sectional weights.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.
Younger cohorts have significantly higher levels of education than older ones. While around 34\% of men aged 70-74 in 2012-13 were educated to degree level or equivalent, this is true of $41 \%$ of those aged $50-54$. The proportion of men aged 50-54 with low or no qualifications is just $28 \%$,

[^2]while the figure for those aged $70-74$ is $44 \%$. A similar picture is true for women, though on average they still tend to have lower levels of education than men among this age group.

Figures 5 and 6 show that employment rates for men and women tend to be higher at each age among those who are better educated.

Part-time work is more common among high educated men approaching the state pension age (aged 60-64) and just above the state pension age (aged 65-69) than those with lower levels of education. For men with high education aged 60-64, part-time work accounts for $31 \%$ of employment, compared with $16 \%$ among men with low education.

Figure 5. Employment by age and education, men


Note: Excludes individuals who did not report their hours of work. Weighted, using crosssectional weights.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.
In contrast, for women below the female state pension age, high education is not associated with a higher prevalence of working part-time. If anything, high educated women who are working are less likely to work part-time than low educated working women: whereas $51 \%$ of low educated women aged 55-59 who are working are working part-time, this is true of just $32 \%$ of high educated working women. For women above the state pension age there is no particular relationship between education levels and the prevalence of part-time work.

Figure 6. Employment by age and education, women


Note: As Figure 5.
Source: As Figure 5.

## Health and employment

As people age, their physical and mental health often declines, and this can affect their ability to work.

There are a number of ways of defining and measuring health. One approach in this context is to ask people whether they feel that their health limits the kind or amount of work that they can do. The first column of Table 2 shows the proportion of people reporting such a work-limiting disability; this shows that the prevalence of work-limiting disabilities increases with age. However, it is worth noting that, even among those aged 70-74, six-in-ten men and seven-in-ten women report that their health does not limit the kind or amount of work they could do suggesting that, while health may be a very important factor for some people, it is not a limiting factor for labour force participation for most people, even in their early seventies. The table also shows that those with a work-limiting health condition are much less likely to work. For example, among men aged $50-54,37 \%$ of those who report having some form of work-limiting disability are doing some form of paid work, compared with $95 \%$ of those without any work-limiting disability being in paid work. ${ }^{5}$

[^3]Table 2. Prevalence of work-limiting disabilities and correlation with employment rates

|  | \% with work <br> disability | Employment rate <br> With work <br> disability | No work <br> disability | Unweighted <br> sample |
| :--- | :---: | :---: | :---: | :---: |
| Men | 24.7 | 22.1 | 66.5 | 2,493 |
| $50-54$ | 17.8 | 37.0 | 95.4 | 270 |
| $55-59$ | 21.8 | 32.8 | 85.6 | 612 |
| $60-64$ | 24.5 | 28.6 | 66.7 | 731 |
| $65-69$ | 26.7 | 10.6 | 33.7 | 767 |
| $70-74$ | 38.6 | 5.4 | 14.3 | 563 |
| Women | 25.1 | 18.5 |  |  |
| $50-54$ | 19.5 | 37.6 | 54.3 | 3,624 |
| $55-59$ | 22.9 | 29.5 | 86.8 | 349 |
| $60-64$ | 24.4 | 16.0 | 83.2 | 760 |
| $65-69$ | 29.9 | 9.4 | 45.9 | 940 |
| $70-74$ | 31.9 | 2.7 | 19.0 | 904 |

Note: Weighted using cross-sectional weights. Excludes those who 'refuse’ or 'don’t know’, or for whom the survey has been completed by proxy.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.
Having a self-perceived work disability is just one measure of 'health'.
There are numerous other ways of measuring health, some of which are more 'objective' and less subject to justification bias ${ }^{6}$ - for example, whether someone has been diagnosed with a specific medical condition.

Figure 7 shows the relationship between working and a more comprehensive measure of health than that used in Table 2. In Figure 7, all individuals are grouped according to their 'health rank' within their age group. We rank individuals by defining a single 'index' of health, based on 23 separate measures of health. The 23 health measures included cover both objective measures (such as having been diagnosed with, for example, arthritis) and subjective measures (such as self-defining your health as excellent or poor). The index applies a different 'weight' to each of these health measures to construct a single measure of health that we

[^4]can use to rank all individuals. ${ }^{7}$ We then divide individuals into five equally sized groups (quintiles) - ranked from the least healthy to the most healthy - within each five-year age band. ${ }^{8}$ This approach has the advantage of allowing us to compare people with different levels of health (rather than the binary comparison between those who report a worklimiting disability or not, as in Table 2).

Figure 7. Employment by age and health, men and women


Note: Health quintiles are age-group specific. Excludes individuals who did not report their hours of work. Weighted, using cross-sectional weights.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

[^5]Figure 7 shows how health is correlated with employment among men and women aged between 50 and 74 (see Figures A. 3 and A. 4 for men and women separately). Employment rates are found to be significantly lower among the least healthy fifth of each age group. The gap in employment rates between the least healthy and the others is particularly stark below the age of 70 . For example, among those aged $50-54$, just $41 \%$ of those in the worst health are working full time, with a further $9 \%$ working parttime, compared with $76 \%$ and $17 \%$ among those in the healthiest quintile.

However, the relationship between health and employment is not monotonic, particularly for those in their sixties. Figure 7 shows that the employment rate of the healthiest group is actually lower than the employment rate of the fourth quintile among those aged 60-64 and 65-69. This could be indicative of a correlation between health and other factors that also affect employment and retirement decisions, such as wealth.

## Wealth and employment

Individuals' wealth can have an important impact on their retirement decisions. Other things being equal, we would expect those with higher levels of wealth to stop working sooner, because wealthier individuals typically choose to consume more leisure.

Table 3 shows the distribution of non-pension wealth by age for men and women. The measure of wealth used here is net non-pension wealth at the 'benefit unit' level. A benefit unit is defined as an adult plus any partner and dependent children they are living with. This includes all wealth held by an individual (and, where applicable, their partner) in financial assets, property, other physical assets and the assets of any business they own, but excludes private pension wealth and wealth implicit in state pension entitlements because these data are not yet available for 2012-13. Total wealth is measured net of any outstanding secured or unsecured debts, including mortgages. ${ }^{9}$

[^6]The distribution of wealth is skewed: median benefit unit level wealth among men aged $50-74$ is $£ 230,000$, while mean wealth is $£ 378,200$. A similar picture is true for women.

Table 3. Wealth distribution by age and sex

| Wealth, <br> $\mathbf{£}$ (thousands) | Mean | $\mathbf{2 5}^{\text {th }}$ <br> percentile | Median | $\mathbf{7 5}^{\text {th }}$ <br> percentile | Unweighted <br> sample |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Men | 378.2 | 98.0 | 230.0 | 416.4 | 3,069 |
| 50-54 | 369.4 | 59.3 | 177.5 | 361.0 | 279 |
| 55-59 | 325.8 | 59.9 | 210.2 | 396.9 | 645 |
| $60-64$ | 399.3 | 123.4 | 259.3 | 452.2 | 755 |
| 65-69 | 435.2 | 133.0 | 267.5 | 451.2 | 804 |
| 70-74 | 367.0 | 138.5 | 240.3 | 407.4 | 586 |
|  |  |  |  |  |  |
| Women | 352.6 | 95.1 | 216.0 | 402.0 | 3,718 |
| 50-54 | 299.0 | 33.4 | 169.5 | 366.0 | 356 |
| 55-59 | 342.0 | 76.3 | 199.8 | 368.0 | 782 |
| $60-64$ | 398.6 | 115.0 | 254.1 | 455.5 | 970 |
| $65-69$ | 380.4 | 143.0 | 248.7 | 445.0 | 922 |
| 70-74 | 343.9 | 128.5 | 212.2 | 383.3 | 688 |

Note: wealth is total net non-pension wealth. Weighted using cross-sectional weights. Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

There is also significant variation in employment levels by wealth. In Figure 8 we look at employment by wealth quintiles. These are calculated by dividing the relevant respondents to ELSA into five groups, from the lowest wealth to the highest wealth (we do not equivalise wealth for the number of individuals in the benefit unit when defining the quintiles).

Among men below the state pension age (that is, below age 65), there is an inverted-U relationship between wealth and employment. In other words, employment rates are highest among those in the middle of the wealth distribution and lower for those at the bottom and top. ${ }^{10}$ For example, $86 \%$ of men aged 55-59 in the second wealth quintile are in work, compared with $47 \%$ of those in the lowest wealth group and $77 \%$ of

[^7]those in the highest wealth group. A similar, although less pronounced, picture is seen for women aged under 60.

Among those over the state pension age, a different pattern emerges: the wealthiest individuals are more likely to be in work. For example, $46 \%$ of women aged 60-64 in the highest wealth quintile are working, compared with just $28 \%$ of those in the poorest quintile.

Figure 8. Employment by age and wealth, men


Note: Wealth quintiles are age-group specific net non-pension wealth. Excludes individuals who did not report their hours of work. Weighted, using cross-sectional weights.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.
Figure 9. Employment by age and wealth, women


Note: As Figure 8.
Source: As Figure 8.

## Private pension membership and employment

The previous section looked at the relationship between levels of wealth and employment at older ages. There is also a voluminous literature demonstrating that people's incentives to accrue additional wealth through pensions have a significant impact on employment too. Other things being equal, individuals who can accrue more wealth by continuing in work are likely to retire later. ${ }^{11}$

In this section we focus on the relationship between employment and private pension membership. We do not explore the relationship between employment and state pension entitlements because, for most people aged 50 and over, their entitlement to the state pension is independent of when they decide to retire: state pensions cannot be drawn before the state pension age, and individuals can continue to work while drawing their state pension.

An individual is defined as being a member of a private pension if they have one or more private pensions to which they can still contribute, in which they have retained rights (i.e. a pension in which an individual has accumulated rights, but can no longer make contributions, and from which the individual has not yet started drawing an income) or from which they are drawing an income.

We distinguish between the two main types of private pension arrangement - defined benefit (DB) and defined contribution (DC) because they typically give rise to quite different incentives to retire. A DB pension is one in which the pension received is a function of salary and years of scheme membership. These pensions are typically structured in such a way as to provide sharp incentives to retire at specific 'normal retirement' ages. In contrast, pension income under DC schemes depends on the amount contributed and investment returns earned on those contributions. These schemes tend not to create any sharp financial incentives as individuals approach retirement.

Table 4 shows the prevalence of DB and DC pension arrangements for men and women of different ages. Among men, younger groups are less likely to have a DB pension, and more likely to have no private pension at all. While

[^8]$36 \%$ of men aged 70-74 have one or more DB pensions, this is true of just $23 \%$ of men aged 50-54; while just 15\% of men aged 70-74 have no private pension, this is the case for almost $25 \%$ of those aged 50-54.

Women are significantly less likely to have a private pension than men. In addition, the proportion of women with different pension types is broadly the same across different age groups, suggesting there has been less change in pension arrangements over time compared to men.

Table 4. Private pension membership, by type (\%)

|  | No <br> private <br> pension | DC only | DB only | DB and <br> DC | Unknown <br> only | Unweighted <br> sample |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| Men | 20.1 | 33.9 | 27.5 | 17.3 | 1.3 | 3,069 |
| $50-54$ | 27.5 | 32.8 | 23.0 | 13.5 | 3.2 | 279 |
| $55-59$ | 21.5 | 33.8 | 24.6 | 19.2 | 0.9 | 645 |
| $60-64$ | 15.9 | 36.1 | 27.1 | 19.8 | 1.1 | 755 |
| $65-69$ | 17.6 | 33.5 | 31.0 | 17.7 | 0.2 | 804 |
| $70-74$ | 15.5 | 32.6 | 35.6 | 15.7 | 0.6 | 586 |
| Women | 38.3 | 20.7 | 26.1 | 11.9 | 2.9 | 3,718 |
| $50-54$ | 39.7 | 19.4 | 25.2 | 9.7 | 6.0 | 356 |
| $55-59$ | 32.3 | 23.5 | 28.6 | 13.3 | 2.3 | 782 |
| $60-64$ | 39.0 | 19.7 | 26.0 | 13.8 | 1.5 | 970 |
| $65-69$ | 40.7 | 20.0 | 25.7 | 11.5 | 2.1 | 922 |
| $70-74$ | 41.1 | 20.7 | 24.5 | 11.1 | 2.5 | 688 |

Note: excludes pensions whose status is disputed in the data, those who 'don't know' or 'refused' to answer the question, and those who have transferred their rights to another scheme or stopped receiving a pension from a given scheme. 'DB and DC' includes people with at least two types of pension (out of DB, DC or 'unknown'). Weighted using cross-sectional weights. Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

While DB and DC pensions provide different incentives to draw pensions at different ages, it is also worth noting that the people who are members of these different types of pensions are also likely to be different in other ways. Therefore, we should be cautious in interpreting any differences observed in behaviour between DB and DC scheme members as causally related to the pension scheme incentives. With that caveat in mind, Figure 10 describes pension receipt among members of different types of pension scheme and Figures 11 and 12 describe employment rates among pension scheme members and non-members.

DC scheme members are less likely to be receiving pension income at younger ages than DB scheme members. For men and women aged 55-59,
around a third of those with DB pensions are drawing their pension, compared with $17 \%$ of those with a DC pension only.

Figure 10. Pension receipt by pension type and age, men and women


Note: As Table 4.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

Figure 11. Employment by private pension membership, men


## Note: As Table 4.

Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

Figure 12. Employment by private pension membership, women


Note: As Table 4.
Source: As Figure 11.
Figures 11 and 12 respectively describe employment rates of men and women depending on their private pension membership. People with no private pension rights at all are much less likely to work at all ages. This fact (which might seem surprising, given that having a private pension is typically associated with higher levels of wealth and earlier retirement) suggests that the types of people who do not have any private pension coverage are different in other dimensions from those who do.

For men and women aged 55 and over, employment rates among those who only have DB pensions are lower than those who only have a DC pension or who have more than one type of pension.

## 3. Hours worked and earnings

## Hours of work

Figure 13 looks at the distribution of hours worked for men and women of different age groups, for employees and self-employed combined (see Figure A. 8 for employees only and Section 4 for a comparison of hours worked by employees and the self-employed). For both men and women, the average number of hours worked among those who are in work is
significantly lower for those above the state pension age than for those below it. For example, the median weekly number of hours worked among men aged 50-54 who are in work is 40 hours; this compares with 38 hours among working men aged 60-64, 30 hours among working men aged 65-69 and 20 hours among those aged 70-74.

Women work fewer hours on average than men: the median number of hours worked per week by working women in their early fifties is 35 hours, compared with 40 hours for men. This falls to 24 hours for working women aged 60-64 and to 16 hours among working women aged 65-69.

Figure 13. Distribution of hours worked per week by age, men and women


Note: Hours worked are usual weekly hours of work, excluding overtime.
Source: Labour Force Survey, 2013.

## Earnings of employees

Table 5 shows the distribution of weekly earnings among older male and female employees (excluding the self-employed). ${ }^{12}$ Variation in weekly earnings across groups reflects both differences in hourly earnings and differences in hours worked. On average, men aged between 50 and 74 who are employed earn $£ 615$ a week (Table 5), while working 38 hours a week (Figure 13). This compares with $£ 366$ for 28.5 hours' work for employed women in the same age range.

[^9]Much of the decline in weekly earnings with age, shown in Table 5, reflects the reduction in hours worked. However, there is also a decline in the average amount earned per hour worked. Hourly earnings in an individual's main job are reported in Table 6. This shows that, across most of the distribution, for both men and women, hourly pay is lower for older employees than for younger employees. For example, employed men aged $50-54$ have a median hourly wage of $£ 14.40$, compared with $£ 11.60$ for those aged $60-64$ and $£ 8.60$ for those aged $70-74$. A similar pattern is seen for women, although women's hourly earnings are lower on average than those of men at the same age: women aged 50-54 have a median hourly wage of $£ 10.30$, compared with $£ 9.20$ for women aged $60-64$ and $£ 7.00$ for those aged 70-74.

Table 5. Distribution of weekly earnings among employees by age, men and women, 50-74

|  | Mean | $\mathbf{2 5} \mathbf{t}^{\text {th }}$ <br> percentile | Median | $\mathbf{7 5}^{\text {th }}$ <br> percent <br> ile | Unweighted <br> sample |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Men | 614.7 | 342.0 | 504.0 | 769.0 | 17,060 |
| $50-54$ | 674.1 | 393.0 | 577.0 | 830.0 | 6,330 |
| $55-59$ | 655.0 | 360.0 | 531.0 | 825.0 | 5,187 |
| $60-64$ | 543.2 | 300.0 | 458.0 | 673.0 | 3,673 |
| $65-69$ | 421.6 | 160.0 | 314.5 | 529.0 | 1,426 |
| $70-74$ | 310.4 | 92.0 | 185.0 | 373.0 | 444 |
|  |  |  |  |  |  |
| Women | 366.1 | 170.0 | 297.0 | 481.0 | 17,894 |
| $50-54$ | 405.1 | 208.0 | 337.0 | 525.0 | 7,260 |
| $55-59$ | 383.2 | 194.0 | 312.0 | 485.0 | 5,856 |
| $60-64$ | 315.7 | 135.0 | 233.0 | 400.0 | 3,146 |
| $65-69$ | 211.2 | 77.0 | 152.0 | 265.0 | 1,316 |
| $70-74$ | 141.4 | 55.0 | 90.0 | 165.0 | 316 |
|  |  |  |  |  |  |
| All employees | 486.3 | 231.0 | 392.0 | 635.0 | 34,954 |
| $50-54$ | 530.1 | 277.0 | 442.0 | 692.0 | 13,590 |
| $55-59$ | 509.0 | 254.0 | 404.0 | 654.0 | 11,043 |
| $60-64$ | 439.1 | 196.0 | 350.0 | 558.0 | 6,819 |
| $65-69$ | 315.0 | 100.0 | 213.0 | 404.0 | 2,742 |
| $70-74$ | 242.1 | 70.0 | 132.0 | 277.0 | 760 |

Note: Earnings figures are in 2013 prices.
Source: Labour Force Survey, 2013.

Table 6. Distribution of hourly pay in main job among employees by age, men and women, 50-74

|  | Mean | $\mathbf{2 5}^{\text {th }}$ <br> percentile | Median | $\mathbf{7 5}^{\text {th }}$ <br> percentile | Unweighted <br> sample |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Men | 16.8 | 9.0 | 13.1 | 20.2 | 5,500 |
| $50-54$ | 16.9 | 9.9 | 14.4 | 20.8 | 2,122 |
| $55-59$ | 17.6 | 9.2 | 13.5 | 20.8 | 1,670 |
| $60-64$ | 15.3 | 8.2 | 11.6 | 18.0 | 1,217 |
| $65-69$ | 17.4 | 7.1 | 10.2 | 16.1 | 379 |
| $70-74$ | 15.4 | 6.3 | 8.6 | 17.5 | 112 |
| Women | 12.6 | 7.3 | 9.9 | 14.9 | 5,878 |
| $50-54$ | 12.8 | 7.5 | 10.3 | 15.4 | 2,470 |
| $55-59$ | 12.6 | 7.5 | 10.1 | 15.2 | 1,918 |
| $60-64$ | 12.6 | 6.9 | 9.2 | 14.2 | 1,011 |
| $65-69$ | 11.9 | 6.6 | 8.7 | 13.1 | 404 |
| $70-74$ | 10.9 | 5.7 | 7.0 | 11.5 | 75 |
|  |  |  |  |  |  |
| All | 14.7 | 7.9 | 11.3 | 17.5 | 11,378 |
| employees | 14.8 | 8.4 | 12.0 | 18.2 | 4,592 |
| $50-54$ | 15.0 | 8.1 | 11.5 | 17.9 | 3,588 |
| $55-59$ | 14.1 | 7.5 | 10.4 | 16.2 | 2,228 |
| $60-64$ | 14.6 | 6.8 | 9.5 | 14.5 | 783 |
| $65-69$ | 13.5 | 6.1 | 7.7 | 13.6 | 187 |
| $70-74$ |  |  |  |  |  |

Note: Hourly earnings are calculated by dividing reported gross weekly wages in the main job by usual hours of work in the main job. Earnings figures are in 2013 prices.
Source: Labour Force Survey, 2013.

## 4. Self-employment

Self-employment is more common among older workers than younger workers. This might be expected to the extent that older workers have a preference for more flexible forms of employment. Moreover, the prevalence of self-employment among older workers has been increasing over time. Indeed, the rise in employment across all age groups since 2008 has been largely among the self-employed, with the number of over-65s in self-employment more than doubling in five years. ${ }^{13}$ In this section we set out the prevalence of self-employment among older workers in 2012-13,

[^10]and describe the characteristics of the self-employed and how they compare with those of employees.

Figure 14 shows that a significant proportion of people aged 50-74 are self-employed: almost 20\% of men aged 60-64 are self-employed, as are $8 \%$ of women aged 55-59. It also demonstrates that self-employment accounts for an increasing proportion of employment among older groups. For example, while 20\% of working men aged 50-54 are self-employed, this figure rises to more than $50 \%$ for those working into their early seventies. While the proportion of workers who are self-employed also increases with age for women, it starts from a much lower baseline than for men (around $10 \%$ of working women aged $50-54$ are self-employed), and peaks at less than one in three of those aged 70-74.

Figure 14. Self-employment by age and sex


Note: Weighted using cross-sectional weights.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

## Characteristics of the self-employed

In this section we compare the self-employed with employees in terms of the characteristics discussed in Sections 2 and 3.

Table 7 shows that self-employed men are slightly more likely to be high educated, and less likely to be mid educated than male employees (the higher proportion of the low educated among the self-employed is not statistically significant). For women, the self-employed are substantially
and significantly more likely to have a high level of education: 41\% of selfemployed women aged 50-74 have a high level of education, compared with $34 \%$ of female employees of the same age. Self-employed women are also less likely to have a low level of education than employees.

Turning to health, Table 7 looks at the proportion of self-employed and employees in each age-specific health quintile, for both men and women. If the self-employed and employees were as healthy as the overall population, we would expect to see $20 \%$ in each quintile for each group. We find that self-employed men and women are healthier than employees on average but this difference is only statistically significant for men in the healthiest quintile.

Table 7. Characteristics of the self-employed, aged 50-74

|  | Men |  | Women |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Selfemployed | Employed | Selfemployed | Employed |
| Education (\%) |  |  |  |  |
| Low | 23.0 | 20.8 | 19.7 * | 23.8 |
| Mid | 27.3 * | 34.4 | 39.3 | 42.6 |
| High | 49.8* | 44.8 | 41.0 *** | 33.6 |
| Health (\%) |  |  |  |  |
| Least healthy | 6.0 | 8.3 | 11.9 | 13.6 |
| $2^{\text {nd }}$ quintile | 16.8 | 18.9 | 21.0 | 22.3 |
| $3^{\text {rd }}$ quintile | 22.7 | 22.9 | 17.9 | 22.4 |
| $4^{\text {th }}$ quintile | 29.3 | 26.5 | 24.7 | 19.1 |
| Healthiest | 25.2 * | 23.3 | 24.5 | 22.6 |
| Unweighted sample | 413 | 1,015 | 211 | 1,164 |

Note: Health quintiles are defined within five-year age groups. Wealth is total net non-pension wealth. Weighted using cross-sectional weights. * indicates this difference is significant at the $5 \%$ level; ** significant at the $1 \%$ level; *** significant at the $0.1 \%$ level.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

## Hours, earnings and wealth among the self-employed

It seems likely that for some people self-employment provides a more flexible form of employment which can be seen as part of a transition from full-time work into employment. In an accompanying report, we show that a significant minority of people who are initially full-time employees will
have a spell of self-employment before they stop working. ${ }^{14}$ That report also shows that, on average, those who move into self-employment experience a $23 \%$ ( 8.5 hour) reduction in their initial working hours.

Figure 15 shows that self-employed men work on average the same number of hours per week as male employees, while among women the self-employed work slightly fewer hours than employees. However, there is much more dispersion in the hours worked among the self-employed. For example, among working men aged 50-74, a quarter of employed individuals work less than 36 hours a week, while a quarter work 42 hours a week or more. Among the self-employed, a quarter work fewer than 25 hours per week, while a quarter work more than 48 hours per week. The dispersion in hours worked is also wider for self-employed women then for female employees.

Figure 15. Distribution of hours worked per week, men and women aged 50-74


Note: Hours worked are usual weekly hours of work, excluding overtime.
Source: Labour Force Survey, 2013.

Table 7 shows weekly earnings, net of tax, for employees and the selfemployed. Earnings for employees are based on individuals' most recent take-home pay from their main job, as well as income from other occasional work, after any deductions for tax, National Insurance,

[^11]pensions, union dues, etc. Earnings for the self-employed are based on the salaries people draw (after accounting for costs of material, equipment, etc., over the past 12 months) and their share of the company's most recent statement of profits or losses.

As Table 7 shows, the self-employed tend to have lower earnings than employees, though the difference in mean earnings is only statistically significant for men. Median earnings for male employees are $£ 373-60 \%$ higher than the $£ 233$ median earnings among self-employed men. For women, median weekly earnings among employees are $£ 222-40 \%$ higher than the $£ 158$ earned by the self-employed.

Table 8. Income from employment and self-employment, age 50-74

|  | Men |  | Women |  |
| :--- | :---: | :---: | :---: | :---: |
| Self- |  |  |  |  |
| employed |  |  |  |  |$\quad$ Employee | Self- |
| :---: |
| employed |$\quad$ Employee

Note: Total self-employment income includes both 'profits' and 'drawings'. Wealth is total net non-pension wealth. Weighted using cross-sectional weights. * indicates that the difference between the self-employed and employees is significant at the $5 \%$ level; ** significant at the $1 \%$ level; *** significant at the $0.1 \%$ level.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

While the self-employed earn less, they have considerably more (nonpension) wealth, on average, than employees. ${ }^{15}$ Mean non-pension wealth among self-employed men is a bit more than half a million pounds almost 40\% more than mean wealth among male employees. Even more striking are the high levels of wealth of self-employed women, who have (on average) $£ 643,000$ in non-pension wealth - 91\% more than female employees. Moreover, although employed men have more wealth on average than employed women, self-employed women tend to have about 25\% more non-pension wealth than self-employed men.

Although the self-employed have higher levels of wealth on average, they are significantly less likely to have a private pension: $28 \%$ of selfemployed men and $38 \%$ of self-employed women have no private pension, compared with just $13 \%$ and $25 \%$ of male and female employees, respectively. ${ }^{16}$ If they do have a private pension, they are more likely to have a DC pension than to have either a DB pension or a combination of a DB and DC pension.

Given lower rates of private pension membership among the selfemployed, we might expect employees to make up some of this wealth gap with higher pension wealth. Although we cannot examine this directly in the latest data, data for 2010-11 (see Table A.5) show that employees have, on average, significantly more private pension wealth than the selfemployed: mean private pension wealth for male employees aged 50-74 in 2010-11 was $£ 309,000$, compared with $£ 201,000$ for self-employed men. As a result, if we look at total wealth including state and private pensions, there was little difference in mean total wealth between male selfemployed and employees ( $£ 936,000$ and $£ 889,000$ respectively). However, self-employed women still have considerably more wealth on average than female employees ( $£ 939,000$ and $£ 790,000$ respectively), and about the same as self-employed men.

[^12]
## 5. Inactivity

Most men who are not working in their early fifties define themselves as being either sick/disabled or unemployed. As Figure 1 showed, 13\% of men aged 50 are not in employment or self-employment. Of those who are not working, $46 \%$ report being sick or disabled, while $34 \%$ report being unemployed; only $4 \%$ report being retired, with the remainder describing their status in some other way. This picture changes significantly for older men. At the age of $60,42 \%$ of all men who are not working describe themselves as being retired, while $33 \%$ report being sick or disabled and $14 \%$ report being unemployed.

There appears to be a particularly large change at age 65 in the way that non-working men describe their status. As Figure 1 showed, there is a 9 percentage point difference in the employment rates of 64- and 65-yearold men ( $43 \%$ compared with $34 \%$ ). However, there is a 21 percentage point difference in the proportion who report themselves to be retired $55 \%$ of men aged 65 report themselves to be retired, compared with $35 \%$ of men aged 64.17 Much of this additional difference is accounted for by a fall (of 8 percentage points) in the proportion of men reporting themselves to be sick or disabled between ages 64 and 65 . This suggests that nonworkers change the way they label themselves when they reach the state pension age.

Figure 16. Types of inactivity by age, men


Source: Labour Force Survey, 2013.

[^13]Non-working women are less likely than non-working men to describe their status as retired, unemployed or sick/disabled. Instead they are much more likely to give some other description - in particular, that they are looking after their home and/or family. For example, among the $22 \%$ of women aged 50-54 who are not working, $37 \%$ report that they are sick or disabled, $15 \%$ report that they are unemployed, $10 \%$ describe themselves as retired and 29\% say that they are looking after their family. However, the proportion of women who report looking after their family declines with age, with a particularly large drop around the female state pension age.

Figure 17. Types of inactivity by age, women


Source: As Figure 16.

## 6. Conclusion

This briefing note has set out a range of information about employment among older workers.

Nearly nine-in-ten men aged 50 are in work. This falls to one-third of men aged 65 and less than one-in-ten men aged 74. At all ages, employment rates are somewhat lower among women than men. Part-time working (defined as working less than 30 hours a week) is more prevalent among women than men and among older individuals than younger individuals. At age 50, less than one-in-ten working men is working part-time. Among 74 year old men, two-thirds of those in employment are working parttime. Of working women aged 50, four-in-ten work part-time; at age 74 this figure rises to nearly nine-in-ten.

Self-employment is also more prevalent among those in work at older ages than among workers at younger ages. One-in-five men who are working at age 50-54 are self-employed, compared with more than half of those who are working at age 70-74. Self-employment is also much more common among men than women. Only around one-in-ten working women aged 50-54 are self-employed. The self-employed tend to have a higher level of education than employees, while differences in health are, for the most part, not statistically significant. Self-employed men and women have lower earnings than employees, and are less likely to have a private pension. Overall wealth is broadly similar among employed and selfemployed men, while self-employed women are considerably wealthier, on average, than female employees. The self-employed tend to have more physical, financial and housing wealth, while employees tend to have more private pension wealth.

Employment rates tend to be higher among those with more education but there is an inverted-U relationship between wealth and employment for those below the state pension age.

Health does constrain the ability of some older people to work and those in the poorest health are much less likely to be in work at all ages than those in better health. But, even among those aged 70-74, 61\% of men and $68 \%$ of women report that their health does not in any way limit the kind or amount of work they could do if they wished to.

Most inactive (non-working) men and women who are below the state pension age do not define themselves as 'retired'. Men tend to define themselves as sick/disabled or unemployed, while women are more likely to be looking after their home or family. For both men and women there is a significant increase in the proportion of the inactive who describe themselves as being retired around the state pension age.

## A. Additional Tables and Figures

Figure A.1. Regional employment rates by age, men and women


Note: Region is defined based on area of residence, rather than location of work. Regions are ordered from left to right from the highest employment rate at ages 50-54 (East Anglia) to the lowest employment rate at ages 50-54 (North West).
Source: As Figure 1.
Figure A.2. Employment by education, men and women aged 50-74


Note: Weighted, using cross-sectional weights.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

Table A.1. Correlation between health quintiles and work disability - percentage reporting a work-limiting disability, by health quintile

|  | Worst <br> health | Quintile <br> $\mathbf{2}$ | Quintile <br> $\mathbf{3}$ | Quintile <br> $\mathbf{4}$ | Best <br> health | All | Unweighted <br> sample |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men | 78.6 | 34.4 | 16.0 | 5.9 | 3.3 | 24.7 | 3,057 |
| $50-54$ | 72.2 | 21.7 | 7.1 | 2.6 | 0.0 | 17.8 | 279 |
| $55-59$ | 75.4 | 25.6 | 9.8 | 4.2 | 5.8 | 21.8 | 643 |
| $60-64$ | 80.6 | 33.6 | 17.2 | 4.7 | 2.3 | 24.5 | 753 |
| $65-69$ | 78.1 | 43.3 | 21.6 | 6.3 | 2.7 | 26.7 | 797 |
| $70-74$ | 90.9 | 64.2 | 32.2 | 16.1 | 7.2 | 38.6 | 585 |
|  |  |  |  |  |  |  |  |
| Women | 69.6 | 25.0 | 10.1 | 4.8 | 2.2 | 25.1 | 3,704 |
| $50-54$ | 58.8 | 15.7 | 2.9 | 5.0 | 1.0 | 19.5 | 356 |
| $55-59$ | 68.3 | 18.8 | 6.4 | 6.4 | 3.0 | 22.9 | 781 |
| $60-64$ | 71.5 | 21.0 | 10.6 | 2.0 | 1.3 | 24.4 | 965 |
| $65-69$ | 77.3 | 33.7 | 14.0 | 4.1 | 3.5 | 29.9 | 916 |
| $70-74$ | 76.2 | 40.9 | 20.6 | 7.4 | 2.3 | 31.9 | 686 |

Note: Health quintiles are defined within five-year age groups. Weighted using cross-sectional weights.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.
Figure A.3. Employment by age and health, men


Note: Health quintiles are age-group specific. Excludes individuals who did not report their hours of work. Weighted, using cross-sectional weights.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

Figure A.4. Employment by age and health, women


Note: Health quintiles are age-group specific. Excludes individuals who did not report their hours of work. Weighted, using cross-sectional weights.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.
Figure A.5. Employment by health, men and women age 50-74


Note: Health quintiles are age-group specific. Excludes individuals who did not report their hours of work. Weighted, using cross-sectional weights.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

Table A.2. Correlation between wealth quintiles with and without pension wealth $\%$ of those in same quintile for total wealth measured with and without pensions

|  |  | Quintile of total wealth |  |  |  |  |  | Unweighted <br> sample |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Poorest | Quintile <br> 2 | Quintile <br> 3 | Quintile <br> 4 | Richest |  |  |  |
| Quintile <br> of total <br> non- <br> pension <br> wealth | Quorest <br> 2 | 72.7 | 21.5 | 3.8 | 1.8 | 0.2 | 1,547 |  |
|  | 23.1 | 38.7 | 25.3 | 10.8 | 2.0 | 1,776 |  |  |
|  | Quintile |  |  |  |  |  |  |  |
|  | 4.0 | 32.3 | 36.7 | 21.0 | 6.0 | 1,791 |  |  |
|  | Quintile | 0.0 | 7.5 | 30.6 | 41.8 | 20.1 | 1,838 |  |
|  | Richest | 0.0 | 0.0 | 3.6 | 24.6 | 71.9 | 1,875 |  |

Source: Authors' calculations using Wave 5 of ELSA, 2010-11.
Figure A.3. Components of total wealth, men aged 50-74, 2010-11

| $\mathbf{f , 0 0 0 s}$ | Mean | $\mathbf{2 5}^{\text {th }}$ <br> percentile | median | $\mathbf{7 5}^{\text {th }}$ <br> percentile | Unweighted <br> sample |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Physical | 65.0 | 0.0 | 0.0 | 3.0 | 3,136 |
| Financial | 80.4 | 2.5 | 25.0 | 88.3 | 3,136 |
| Housing | 214.9 | 90.0 | 180.0 | 290.0 | 3,136 |
| State pension <br> Private <br> pension <br> 202.9 | 142.3 | 201.9 | 260.8 | 3,136 |  |

Note: Weighted using cross-sectional weights.
Source: Authors' calculations using Wave 5 of ELSA, 2010-11.
Figure A.6. Employment by wealth, men and women age 50-74


Note: Wealth is total net non-pension wealth. Excludes individuals who did not report their hours of work. Weighted, using cross-sectional weights.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

Figure A.7. Employment by pension type, men and women age 50-74


Note: As Table 4.
Source: Authors' calculations using Wave 6 of ELSA, 2012-13.

Figure A.8. Distribution of hours worked per week by employees, men and women


Note: Hours worked are usual weekly hours of work, excluding overtime.
Source: Labour Force Survey, 2013.

Table A.4. Components of total wealth by employment status, men and women aged 50-74 (2010-11)

| Mean <br> wealth, <br> $\mathbf{f ( O 0 0 s )}$ | Employees | Men <br> Self- | Incloyed | Inactive | Employees | Women <br> Self- <br> employed |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Physical <br> Financial | 63.1 | 163.0 | 38.7 | 44.7 | 148.5 | 36.7 |
| Housing <br> Private | 210.3 | 274.5 | 200.7 | 197.1 | 323.8 | 201.7 |
| pension | 309.1 | 200.7 | 176.3 | 264.9 | 185.5 | 150.4 |
| State <br> pension | 237.3 | 190.5 | 180.8 | 211.8 | 184.1 | 151.8 |
| Total non- <br> pension <br> wealth | 339.9 | 542.5 | 321.0 | 308.5 | 576.5 | 315.2 |
| Total wealth | 889.1 | 936.2 | 678.0 | 790.3 | 948.5 | 620.6 |
| Unweighted <br> sample | 1,036 | 419 | 1,677 | 1,121 | 198 | 2,407 |

Note: Weighted using cross-sectional weights. Sample is unweighted.
Source: Authors' calculations using Wave 5 of ELSA, 2010-11.


[^0]:    ${ }^{1}$ We gratefully acknowledge funding from the Joseph Rowntree Foundation (project reference 1112004A) and co-funding from the Economic and Social Research Council (ESRC) through the Centre for the Microeconomic Analysis of Public Policy at IFS (grant reference ES/H021221/1). We are also grateful to Aleks Collingwood, Richard Disney and Paul Johnson for helpful comments on an earlier draft of this briefing note. Any errors are our own.

[^1]:    ${ }^{2}$ D. F. Hultsch, C. Hertzog, B. J. Small and R. A. Dixon, ‘Use it or lose it: engaged lifestyle as a buffer of cognitive decline in aging', Psychology and Aging, 1999, 14(2), 245-263.
    ${ }^{3}$ Specifically, we use data from the LFS covering the period from January 2013 to December 2013, and from the sixth wave of ELSA, which covers the period from May 2012 to June 2013.

[^2]:    ${ }^{4}$ For about $10 \%$ of the ELSA sample, the highest qualification is 'foreign/other'. For this group, we use individuals' reported age of leaving full-time education: those who left at or before the compulsory school-leaving (CSL) age that applied in the UK to their cohort are referred to in this report as 'low' education; those leaving school after CSL age but before age 19 are 'mid' education; and those leaving at or after age 19 are referred to as 'high' education. Those who did not know or refused to report their qualifications are classified as low education, while those who were not asked are excluded from the analysis where education is used.

[^3]:    ${ }^{5}$ Some readers may find it surprising that so many 'work disabled' individuals are working at all. However, it is important to note that the question relates to limitations to any kind or amount of work: that is, individuals may be limited in their ability to do one type of job but not necessarily all types of jobs.

[^4]:    ${ }^{6}$ Whether or not someone reports their health condition as 'work-limiting' might depend in part on whether or not they are claiming disability benefits. For a brief discussion see page 1 of J. Banks, R. Blundell, A. Bozio and C. Emmerson, ‘Disability, health and retirement in the United Kingdom', Institute for Fiscal Studies (IFS) Working Paper W11/12, 2011.

[^5]:    ${ }^{7}$ The weights are estimated using a statistical technique known as a principal components analysis. This method is based on an approach originally used in J.M. Poterba, S.F. Venti and D.A. Wise, 'Family status transitions, latent health, and the postretirement evolution of assets' in D.A. Wise (ed.), Explorations in the Economics of Aging, University of Chicago Press, 2011. The health index can be regarded as an 'underlying' measure of true health, which is partially revealed by various specific questions about aspects of an individual's health. To construct the index we use responses to 23 questions about health from ELSA and obtain the first principal component of these indicators of health. The first principal component is the weighted average of the health indicators, where the weights are chosen to maximise the proportion of the variance of the health indicators that can be explained by the first principal component. Further information on the construction of this index and the factor loadings can be found in J. Banks, C. Emmerson and G. Tetlow, 'Effect of pensions and disability benefits on retirement in the UK', NBER Working Paper 19907, 2014 (http://www.nber.org/papers/w19907.pdf).
    ${ }^{8}$ Table A. 1 in the appendix shows that this measure of health is highly correlated with the self-reported measure of work disability discussed above. Even among those aged $50-54,72 \%$ of men and $59 \%$ of women in the worst quintile of health report that their health limits the kind or amount of work they can do. This is substantially higher than the prevalence of work disability in the second quintile ( $22 \%$ for men and $16 \%$ for women).

[^6]:    ${ }^{9}$ Tables A. 2 looks at the composition of total wealth, including state and private pension wealth, for men and women aged $50-74$ in the previous wave of ELSA in 2010-11. On average, pension wealth accounts for around half of total wealth, divided fairly evenly between state and private pension wealth. However, previous analysis (see J. Banks, C. Emmerson, Z. Oldfield, 'Preparing For Retirement: The Pension Arrangements And Retirement Expectations Of Those Approaching State Pension Age In England', Institute for Fiscal Studies Working Paper 05/13, 2005) suggests that there

[^7]:    is a strong positive correlation between pension wealth and other forms of wealth, which suggests that the ranking of individuals may not be very sensitive to the exclusion of private pension wealth.
    ${ }^{10}$ This pattern was also documented by J. Banks and M. Casanova, 'Work and retirement' in M. Marmot, J. Banks, R. Blundell, C. Lessof and J. Nazroo (eds) Health, Wealth and Lifestyles of the Older Population in England: The 2002 English Longitudinal Study of Ageing, IFS, 2004, using data from the first wave of ELSA, which were collected in 2002-03.

[^8]:    ${ }^{11}$ See J. Banks and S. Smith, 'Retirement in the UK’, Oxford Review of Economic Policy, 2006, 22.1, for a discussion of these issues.

[^9]:    ${ }^{12}$ The LFS does not report earnings of the self-employed.

[^10]:    ${ }^{13}$ For a discussion of recent trends, see Office for National Statistics, Self-employed workers in the UK, Office for National Statistics, 2014 (http://www.ons.gov.uk/ons/dcp171776_374941.pdf).

[^11]:    ${ }^{14}$ Specifically, we show that, of those initially aged 50-59 who transition from being full-time employees to being inactive over a ten year period, about one in eight will have a period of self-employment. See D. Chandler and G. Tetlow, Retirement in the $21^{\text {st }}$ Century, IFS Report, Institute for Fiscal Studies, London, 2014, http://www.ifs.org.uk/publications/7384.

[^12]:    ${ }^{15}$ This table presents the same measure of wealth as described in Section 2.
    ${ }^{16}$ As in Section 2, our definition of pension membership includes a pension to which the individual has retained rights and those from which he/she is already receiving an income.

[^13]:    ${ }^{17}$ Figures do not sum due to rounding.

