



The Wellbeing, Health, Retirement and the Lifecourse project (WHERL)

This research project investigates ageing, work and health across the lifecourse. This 3 year interdisciplinary consortium is funded by the cross-research council Lifelong Health and Wellbeing (LLHW) programme under the Extending Working Lives initiative. It examines a crucial question for ageing societies: how inequalities across the lifecourse relate to paid work in later life in the UK.

This issue is of growing importance since the UK, in common with many other governments across the world, is implementing policies to encourage longer working lives, including the postponement of State Pension age (SPa). These policy reforms affect millions of people, yet their implications for health and wellbeing are unknown. Do these policies harm, benefit or have little effect on the population? To answer this, we need to understand the lifelong drivers affecting the complex relationship between paid work in later life, health and wellbeing.

The project builds on an existing UK-Canadian collaboration examining lifecourse influences on later life work trajectories across several European countries and the US. In addition to those at the [Institute of Gerontology at King's College London](#), the consortium brings together a unique interdisciplinary team involving universities and partner organisations including the [Dalla Lana School of Public Health, University of Toronto](#); [Research Department of Epidemiology and Public Health, University College London](#); [Institute of Psychiatry, Psychology & Neuroscience also at King's College London](#); [Manchester University](#); [Pensions Policy Institute](#); [Age UK](#); and the [Department for Work and Pensions](#).



Using a wide variety of complex large-scale datasets, our interdisciplinary team is tackling projects that cover three major areas:

1. a comprehensive assessment of lifecourse determinants and consequences for health and wellbeing of working up to and beyond SPa;
2. an evaluation of whether (and how) these relationships have changed for different cohorts and over time; and
3. modelling of the financial consequences of working up to and beyond SPa for those with different lifecourse trajectories.

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Introduction

This Briefing Note follows on from PPI Briefing Note 84. It provides an overview of the different work and family lifecourses for men and women and aims to understand how gender variations in the lifecourse affect income in retirement.

Key messages from the examples analysed

- There is far greater variation of projected pension outcomes for women as a result of more varied lifecourses.
- Men can expect a higher pension than women who follow a similar lifecourse, of working full-time throughout, as a result of the gender pay gap.
- A high earning woman (70th percentile) can expect a similar outcome to a median earning man due to similar lifetime income from working full-time throughout.
- The transitional arrangements for the new State Pension means that men have greater income in retirement than women as a result of larger protected amounts.
- Older individuals, aged 65, have lower private pensions than younger cohorts as a result of the economic landscape during their working life.
- Women, particularly with lower earnings, who take a break from work are more dependent upon the State Pension. There is relatively little impact as a result of the length of their break due to their low lifetime income resulting in a low private pension.

Table 1: Lifecourses

The work-based lifecourses for men and women used in the modelling for this note

Male Lifecourses	Proportion (%)
Mostly full-time throughout	45
Mostly non-employed throughout	4
Full-time, very early exit (at about age 49)	12
Full-time, early exit (at about age 60)	30
Late start (at about age 23), early exit (at about age 60)	9
Female Lifecourses	Proportion (%)
Mostly full-time throughout	27
Mostly non-employed throughout	17
Weak attachment, early exit (at about age 49)	7
Family carer to part-time (long break: 16 years)	12
Family carer to part time (short break: 4 years)	13
Family carer to full-time (10 year break)	18
Mostly part-time (from about age 23)	6

Lifecourses

The analysis in this note is based on runs from the PPI's Individual Model, lifecourse information from the Institute of Gerontology at King's College London and cross tabulated data from wave 3 of the English Longitudinal Study of Ageing (ELSA).

The lifecourses are representative of people who had reached State Pension age (SPa) in England and were derived by the Institute of Gerontology at King's College London, from ELSA data.¹

This lifecourse data is historical using data based on the lifecourses of men aged 65 to 74, and women aged 60 to 69, at the time of the survey. It is possible that younger cohorts yet to reach SPa will have different working patterns.

Retirement income assumptions

Unless otherwise stated it is assumed that individuals in employment are making pension contribu-

tions from age 21 until they retire, which is assumed to be at their SPa. This note assumes they have been contributing 9% of their earnings into a Defined Contribution (DC) pension scheme, and that they purchase an annuity at retirement.

Males are more likely to work full-time throughout than females

The male lifecourses (Table 1) derived by the Institute of Gerontology include:

- **Mostly full-time throughout**, describes the experience of 45% of men. Individuals are characterised by ongoing paid employment and pension contributions from about ages 16-64.
- **Mostly non-employed throughout (4%)**, where individuals are largely not in paid work up to age 64, therefore not making any pension contributions to a private workplace scheme.
- **Full-time, very early exit (12%)**,

Chart 1: The most common female lifecourses show that women are more likely to have lower weekly income in retirement

Weekly post retirement income at age 66 for individuals currently aged 55 earning at gender specific median earning level, under the three most common gender specific lifecourses (£ a week in 2016 earnings terms)



As illustrated in Chart 1, none of the three most common lifecourses for men include part-time work or family care. However, the three most common lifecourses for women include both part-time employment and family care roles with 43% of women having a lifecourse which includes a career break (Table 1). These more varied lifecourses result in greater variation of pension outcomes for women than men.

Men working full-time throughout their life have higher weekly retirement incomes compared to women who also worked full-time throughout, e.g. £285 and £255 respectively. This is a result of the higher earnings levels of men during their working life.

The difference in State Pension levels is likely to reduce over time as larger numbers of people receive the flat-rate new State Pension.

Until April 2016, the State Pension included an earnings related element known as the additional State Pension. Therefore, people with higher earnings accrued higher amounts of State Pension. The new State Pension, implemented in April 2016, was introduced to treat people equally by giving them the same level of State Pension regardless of earnings. Therefore, provided that individuals qualify for the full new State Pension, men and women will receive the same amount in the future.

Explanation of Income Charts

Income charts show the amount of State Pension, private pension and other benefits (such as Winter Fuel Payment and Christmas bonus) as stacked bars of weekly income before tax.

In order to show figures after tax, the bars are offset at the bottom by the amount of tax paid. The top of the stacked bar charts then reaches the net income level, which is also labelled on top of each bar.

these individuals are characterised by being in full-time employment but leaving the labour market at about age 49.

- **Full-time, early exit (30%)**, where individuals are working full-time until about age 60.
- **Late start, early exit (9%)**, characterised by individuals who join the labour market late, at about age 23, and leave early at about age 60.

The lifecourse typologies for women are described in detail in PPI Briefing Note 84.

Gendered division of labour means that men are more likely to have higher incomes in retirement

Men's lifecourses are captured with fewer groups relative to those of women, because of the gendered division of labour related to parenthood and caring for family members. Women have historically had lower employment rates than men and more responsibility for family care and thus have more varied lifecourses than men.

We may see some variation in lifecourse typologies as younger cohorts age due to a narrowing of the gendered division of labour.

Chart 2: Differences in earnings of men and women may result in women having lower retirement income

Weekly post retirement income at age 66 for individuals currently aged 55 earning at the 30th, 50th, and 70th percentile levels (£ a week in 2016 earnings terms)



However, there is a transitional period during which individuals take forward some pension rights accrued under the old system (where this is higher than the amount that they would have received under the new State Pension), known as a protected payment. Men who typically have higher earnings will continue to receive higher amounts of State Pension for some time. It is estimated that this disparity will largely disappear by 2040. However continuing gender differences in earnings levels may mean that private pension incomes remain lower for women than men where they follow a similar lifecourse.

Higher earners receive higher private and State Pensions

The results presented so far have been for median earners. However the impact for men and women differs at different earnings levels. Chart 2 compares the retirement

income of men and women earning at the 30th, 50th and 70th percentile levels of gender related earnings.

Higher earners are able to build up higher levels of post retirement income, as a result of making higher contributions, in cash terms, or, in the case of salary related pensions like the additional State Pension or a private Defined Benefit pension, because the reference pay, on which their pension is based, is higher.

Men tend to have higher earnings than women regardless of labour market history. A man earning at the 50th percentile level of gender specific earnings achieves a retirement income of around £285 a week. This is comparable with the retirement income of £288 a week achieved by the female full-time throughout worker who earns at the 70th percentile level for women during her working life.

Similarly a man who mostly worked full-time throughout and who earned at the 30th percentile level for men would receive a retirement income of around £255 a week, similar to the retirement income of a woman who mostly worked full-time throughout, earning at the median earnings level (50th percentile) for women.

Older higher earners currently have greater State Pension than lower earners. This is a result of the protected amount arising from the additional State Pension. In time this will reduce as people retire having built up lower levels of additional State Pension.

Age-related differences

Age based differences in outcomes for men and women stem from the gender differences in State Pension age in the past. Women had a SPa of 60 prior to 2010, since then the women's SPa has been increasing, to reach equality with the men's SPa of 65 by 2018. The modelling in this note assumes that, except for those whose lifecourse specifies early exit, people stop working at their SPa.

Chart 3 shows, in 2016 earnings terms, the weekly post retirement income at age 66 for women and men currently aged 55, 60, and 65.

There is an impact from the economic landscape the different cohorts have worked through with the oldest individuals having a lower private pension. This can be observed in the lower private pension income for men aged 65 when compared to the younger cohorts where other factors are equivalent.

The increase in SPa applicable to younger women can result in a higher pension outcome. The 65 year old median woman has a significantly lower retirement income (£234.90) in comparison with, for example the woman aged 55 (£255.41). Having retired at her SPa of 62, compared with the higher SPa of 66 for the 55 year old, meant that the 65 year old had less time to accrue a private pension. The 65 year old might also therefore have purchased an annuity at a younger age, which would result in a lower income to allow for the fact that it is paid for a longer period. The annuity is also assumed to be fixed in cash terms, so in earnings terms the value has been decreasing since it came into payment.

Impact of parenthood on pension outcomes

Parenthood can have an impact on retirement income. The difference in impact between men and women stems from two sources: differing labour market histories due to parenthood, and the extent that income changes as a result of having children.

Chart 4 sets out the weekly income at age 66 for individuals currently age 55 under various parenthood scenarios. For example, a man working full-time throughout has a net retirement income of around £286 a week, compared to a woman with no children working full-time throughout receiving £256 a week. In contrast, the weekly retirement income for a median earning 55 year old who had 1 child with a short break of about 4 years then

Chart 3: Gender differences in retirement ages under the previous pension system could mean lower retirement incomes for older women

Weekly post retirement income at age 66 for median earning individuals currently aged 55, 60 and 65 (£ a week in 2016 earnings terms)



returning part-time is £202. A long break from the labour market of around 16 years further reduces the retirement income to around £186 a week.

A woman who took a 10 year caring break and returned to work full-time has a total retirement income of £227

Returning to work on a full-time basis rather than part-time can significantly improve private pen-

There is little evidence in the ELSA data to suggest that men, currently aged 55, adjusted their

Chart 4: Women taking breaks to look after children may lead to lower private pension income in retirement

Weekly post retirement income at age 66 for median earning individuals currently aged 55 under various scenarios of caring for children (£ a week in 2016 earnings terms)



Women: motherhood penalty applied

Chart 5: Lower earning women taking breaks to look after children may be dependent on the State Pension

Weekly post retirement income at age 66 for individuals currently aged 55, who earn at the 30th percentile level under various scenarios of caring for children (£ a week in 2016 earnings terms)



work patterns in order to care for family. There is therefore no defined male life course consistent with taking time off to look after children and no impact of fatherhood on the male median earner. In contrast, women's labour market histories do include career breaks.

In addition to time out of work, women are also subject to the motherhood penalty.² The motherhood penalty refers to the observation that mothers tend to have lower incomes relative to the general population. Causes include reduced investment in training and development in mothers by employers.

Reduced earnings, or periods of time out of work reduce the abil-

ity to save for retirement. Women with more children may spend more time out of the workforce and suffer a larger motherhood penalty, leading to a larger impact on their private pension savings in comparison to men's. The private pension is significantly impacted by taking years out of work to care for children (Chart 5).

However their State Pension is likely to be affected less than their private pension. Under the new State Pension system the level of State Pension is less dependent on earnings throughout working life, so long as contribution years or credits are built up. The effect of this means there is relative little impact in taking a longer break as income will be

largely dependent upon State Pension which is unaffected by the tie out of work.

The lower private pension may make mothers more dependent on the State Pension. For example a woman earning at the 30th percentile of gender and age-specific earnings, who has three children and takes 16 years out of employment to care for them, returning to work on a part-time basis may receive a total retirement income of around £181 a week, of which the State Pension comprises 90% (£162). In comparison the woman earning at the 30th percentile who has no children and works full-time throughout receives a total retirement income of £232 a week, of which the State Pension is 70%, again £162.

¹ Corna L.M., Platts L.G., et al (2015) *A sequence analysis approach to modelling the work and family histories of older adults in the UK*

² PPI Briefing Note Number 84 (2016) How do female lifecourses affect retirement?

ELSA data: Marmot, M., Oldfield, Z., Clemens, S., Blake, M., Phelps, A., Nazroo, J., Steptoe, A., Rogers, N., Banks, J., Oskala, A. (2016). *English Longitudinal Study of Ageing: Waves 0-7, 1998-2015*. [data collection]. 26th Edition. UK Data Service. SN: 5050, <http://dx.doi.org/10.5255/UKDA-SN-5050-13>

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