



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

Work undertaken by the Institute of Gerontology at King's College London (KCL) has classified lifecourses for men and women based upon the English Longitudinal Study of Aging (ELSA).^{1,2} 43% of women are classified as following a lifecourse that includes a break typically to undertake the role of family carer, and 51% of men exit the labour market early (Table 1).

The Government's Fuller Working Lives strategy³ encourages higher employment rates amongst older people. Working for longer can result in an increase to an individual's retirement income. This Briefing Note focuses on the impact of extending the working lives on income in retirement on two groups:

- Women who take a career break; considering sensitivity to the timing and length of the period of their return to work following a career break.
- Men and women who exit the labour market early; considering sensitivity to the timing of their exit from the labour market before State Pension age (SPa).

Key findings

- There is greater impact on potential retirement income for women by delaying retirement than shortening career breaks.
- Where lifetime earnings may be low after a long career break coupled with part-time work, private pension saving only forms a small part of retirement income. This makes it difficult to make much impact upon re-

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

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.

tirement income through shortening career breaks or working longer.

- The new State Pension can be claimed at full rate by those who take a long career break for family caring.
- Increasing periods of work at low pay does not have a significant impact upon income after retirement. Shortening a career break by one year to return to work part-time may result in less than £1 per week of additional income after retirement.
- For those who return to work part-time after a long career break the greatest impact on retirement income can be achieved by working more hours a week, thereby boosting earnings. Working an additional day a week after a career break may increase income after retirement by around £10 per week.
- For those who exit the labour market before SPa, an additional year of work has the greatest im-

impact for those who would have exited the youngest.

Lifecourses

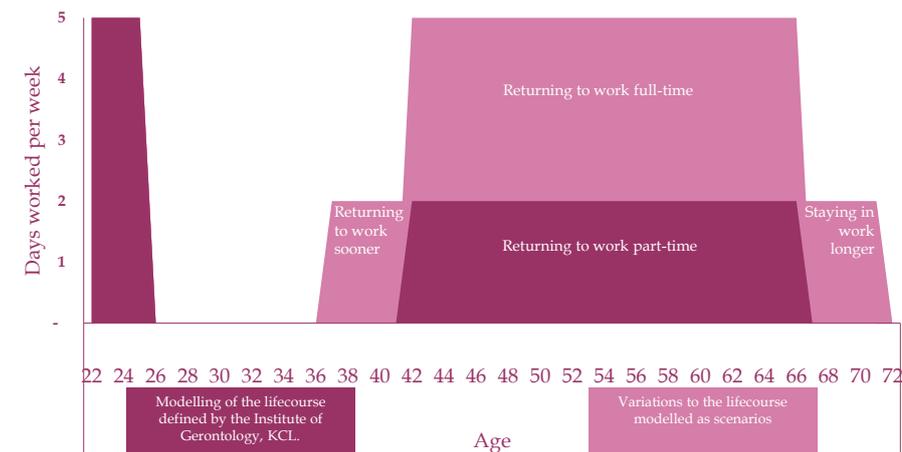
Scenarios of changes to three particularly representative lifecourses of women and two of men have been modelled. This lifecourse data is historical using data based on the lifecourses of men aged 65 to 74, and women aged 60 to 69, at the time of the survey. It is possible that younger cohorts yet to reach SPa will have different working patterns. These represent 30% of women and 42% of men in the classification. The following lifecourses have been considered:

Female: family carer to part-time (long break: 16 years)

- After taking a 16 year career break undertaking the role of family carer to two children, the woman returns to work part-time (modelled as two days a week) for 25 years until retirement at SPa.

Chart 1: There are many adjustments to work patterns that can be applied to a return to work

Variations to the lifecourse of a family carer to part-time (long break: 16 years)



- This profile represents 12% of women aged 60 to 69 from the English Longitudinal Study of Ageing (ELSA) dataset.

Female: family carer to full-time (10 year break)

- After taking a 10 year career break undertaking the role of family carer to two children, the woman returns to work full-time for 32 years until retirement at SPa.
- This profile represents 18% of women aged 60 or over from the ELSA dataset.

Female: full-time throughout, exit from age 60

- SPa for women analysed in the classification is 60. Many women who will be subject to a higher SPa (66 for a woman currently aged 60) may not remain in employment from 60 to SPa.
- The modelled women are assumed to work full-time until they exit the labour market at

age 60 before drawing pension from SPa.

Male: full-time, very early exit (at about age 49)

- After working full-time until age 49, the man exits the labour market before drawing pension at SPa.
- This profile represents 12% of men aged 65 or over from the ELSA dataset.

Male: full-time, early exit (at about age 60)

- After working full-time until age 60, the man exits the labour market before drawing pension at SPa.
- This profile represents 30% of men aged 65 or over from the ELSA dataset.

All individuals have been modelled with median gender specific earnings profiles by age. Pension contributions are assumed to be 9% of earnings which is consistent with historical levels of DC contributions.

It has been assumed that individuals claim benefits they are entitled to. Yet many people may not claim their entitlements as a result of a lack of knowledge of the system or cultural conditioning. People earning at a lower level or making lower private pension contributions will have higher dependency upon State Pension provision in retirement.

How could changes to these work patterns be influenced through policy?

There are many policy levers available to the government which can influence women's return to work and the propensity for all workers to remain in employment (Box 1).

The number of women (approximately 25%)⁴ who do not work throughout their fifties (but are not retired) corresponds to the number of women classified as mostly non-employed throughout or with a weak attachment to and early exit from the labour market. These women are unlikely to respond to policies around the labour market.

The net effect of these levers can be to determine the affordability of being out of the workforce, and to facilitate being within the workforce.

However many people may not have a choice: poor health and caring responsibilities may mean that an attachment to the labour market is not practicable for some; while there may be limited opportunity of appropriate employment for others.

Box 1: Many policy areas will influence working patterns

For those returning to work after a break as a family carer

- Strengthening existing discrimination protections; reducing discrimination against those who take maternity or paternity leave.
- Making childcare more affordable, e.g. through voucher schemes; improves the affordability of childcare making working more financially attractive.
- Childcare availability; reduces the caring commitments improving the opportunity to re-enter the labour market.

For older workers extending their working life

- Age discrimination legislation; protects the rights and allows equal opportunities for older workers.
- Training opportunities for older workers; allowing them to maintain or find new employment as skills requirements change.
- Deferring State Pension; deferring claiming the State Pension can be made financially advantageous.
- State Pension age reform; defines when working age or pension age benefits are payable.
- Adjustments to the workplace; to help those in poor health stay in work.

Other forms of labour market intervention

- Flexible working legislation; may allow workers to stay in employment while managing caring responsibilities or managing poor health.
- Good quality, affordable social and respite care for adults and older people; allowing workers to stay in employment rather than undertake caring responsibilities.

Other areas of policy

- National Insurance credits being available to either parents or grandparents; allows transfer of caring responsibility more easily between generations.
- Setting of working age benefit levels; defines how affordable voluntarily not working may be.
- Health initiatives throughout the lifecourse; helping people remain fit for work.

Box 2: How changing work patterns influence post-retirement income

Differences to lifecourses alter post-retirement outcomes as pension saving is impacted through:

Contributions over a longer period

- Saving for extra years will increase the total amount of contributions paid to the private pension scheme, leading to a larger pension fund, and higher income in retirement.

Larger contributions as a result of returning to work on a full-time rather than part-time basis

- Returning to work part-time reduces the amount of saving that can be achieved due to lower earnings. If instead a woman returns to work full-time they may be able to afford higher pension contributions (including employer pension contributions), resulting in a greater amount of pension savings.

Increased period for investment returns

- Delaying accessing the pension fund allows for a longer period for the pension fund to achieve investment growth.

Pension saving needs to fund a shorter period

- Delaying retirement means that the accrued pension savings are needed to fund fewer years. This means that the income taken each year can be larger. In terms of an annuity, annuity rates improve as people get older, reflecting a shorter expected period of payment.

There may be a small change to State Pension entitlement over a transitional period where the foundation amount may be larger due to increased National Insurance contributions. In the future, the new State Pension will result in there being no change to State Pension entitlement.

Chart 2: Returning to work sooner after a career break may only have a small impact upon retirement income

Weekly post retirement income at age 66 for women aged 60 in 2016, earning at the female median earning level reducing the length of their career break (£ a week in 2016 earnings terms)



The changes these could have upon the work patterns of work for a woman taking a long break to return to work part-time are illustrated in Chart 1 and include:

- Returning to work sooner.
- Returning full-time rather than part-time.
- Staying in work longer and beyond SPa.
- Choosing when to work after a career break; returning to work later and retiring from work later.

There is evidence to suggest that experiencing distinct periods that focus on work and family may be advantageous for women in terms of lessening their risk of future frailty after age 60. Women who had a short break for family care, then undertook part-time work until age 59 had a lower Frailty Index (FI) after age 60 than those who undertook full-time work until age 59. Women who were largely family carers or non-employed throughout adulthood,

had higher levels of frailty at age 60 but experienced a slower decline with age.⁵

It is important to consider finances at an individual level as many people will not be able to rely upon a partner for support. While many will remain single throughout their lives, others will find themselves without a partner in their retirement due to separation or bereavement.

The financial sensitivity to working additional years within a lifecourse

State Pension income is largely unaffected by working more years. This is due to the National Insurance (NI) credits which ensures that people still accrue entitlement to State Pension when they are not in the labour market, providing they claim benefits for activities such as family caring through child benefit.

Private pension income will be impacted by varying the

lifecourse to spend a greater amount of time in work, potentially delaying retirement. This is the cumulative impact of a number of factors (Box 2).

Returning to work sooner

Returning to work sooner increases the time in employment before retirement at the expense of the length of the career break. Access to the pension is not delayed, and there is the opportunity for additional pension contributions over the additional period worked.

The impact of returning to work sooner upon post-retirement income (Chart 2):

- For a woman who returns to work part-time after a long break, returning to work one year earlier results in an increase in retirement income of less than £1 per week. If she was to return five years earlier, her income would increase by £4.88 per week. *The small size of the difference in retirement income is due to the low level of earnings as a result of working part-time. If an individual is earning at below the median level the difference is even smaller.*
- For a woman who goes back to work full-time, returning to work one year earlier results in an increase in retirement income of £2.85 per week. If she was to return five years earlier, her income would increase by £13.13 per week.

Continuing to work after SPa

Alternatively if additional years are worked after SPa, at age 66, then year for year, there is a greater impact upon post-retirement income for women who return to work after a career break (Chart 3).

- For a woman who continues to work part-time after taking a long career break, staying in work one year beyond SPa results in an increase in retirement income of £1.90 per week in the year after their retirement. If she was to stay in work for five more years, her income would increase by £10.70 per week in the year after their retirement.
- For a woman who continues to work full-time after taking a career break, staying in work one year beyond SPa results in an increase in retirement income of £3.58 per week in the first year after their retirement. If she was to stay in work for five more years, her income would increase by £20.54 per week in the first year after their retirement.

The comparisons above are made at different ages and therefore include different periods of discounting.

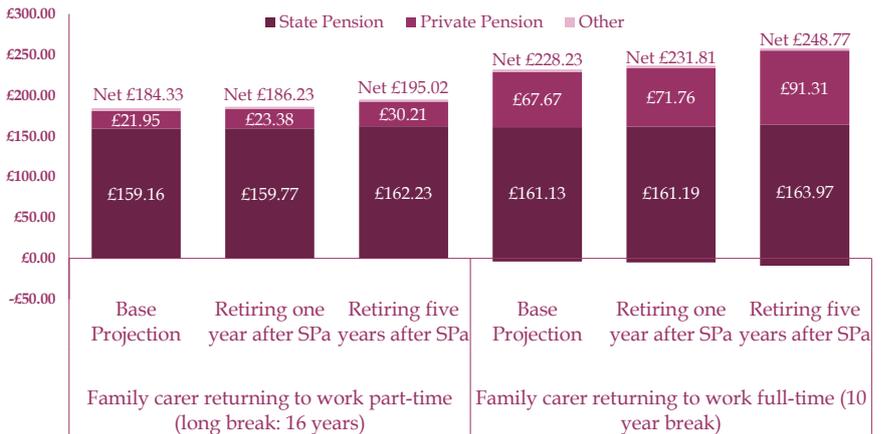
There is a greater increase in retirement income as a result of working additional years at the end of life rather than shortening a career break. This is despite the total number of years worked being the same and the total contributions made to a private pension being similar. This is due to delaying access to the pension fund which allows for increased investment returns and spending the pension fund over a shorter retirement, allowing a higher income to be drawn or better annuity rates to be obtained.

Moving the return to work period

There is the potential to delay the return to work, while retaining

Chart 3: Working additional years after SPa increases retirement income

Weekly post retirement income in the first year after retirement for women currently aged 60 earning at the female median earning level (£ a week in 2016 earnings terms)



the duration worked by retiring later. This will yield an increase in retirement income for the same number of years worked as a result of more investment returns over a longer period and a shorter retirement. It could be viewed as the woman taking a year of retirement in advance. However such an approach could be disrupted by changing priorities and unforeseen health changes over the working period.

Should a woman delay their remaining working life, they stand to have a higher income in retirement:

- A woman returning to work part-time after a long career break could be £0.97 per week better off in the year after retirement by deferring their working life by one year, or £5.05 per week for five years.
- A woman returning to work full-time after a long career break could be £0.58 per week

better off in the year after retirement by deferring their working life by one year, or £6.47 per week for five years.

This is no increase in years worked over the lifecycle.

Increasing working hours

For the woman returning to work part-time, if they returned full-time there would be a significant increase in the amount of working hours in their lifetime (an additional three days per week for a period of 25 years). This has a big impact upon their career earnings and as a result private pension saving as contributions will also increase with pay over this period (Table 2).

Returning full-time could have the effect of increasing private pension saving by 130%, more than doubling the potential private pension income. This would result in an increase of £28.25 per week in retirement.

Table 2: Working additional days per week after a long career break can more substantially increase retirement income

Weekly post retirement income in the first year after retirement for women currently aged 60 earning at the female median earning level (£ a week in 2016 earnings terms)

Income per week (2016 earnings terms)	Days per week worked after returning from career break				
	1	2	3	4	5
State Pension	£159.16	£159.16	£159.16	£159.16	£159.16
Private Pension	£12.53	£21.95	£31.36	£40.78	£50.20
Other	£3.22	£3.22	£3.22	£3.22	£3.22
Total	£174.91	£184.33	£193.74	£203.16	£212.58
Percentage of income from private pension	7%	12%	16%	20%	24%

The proportionally large change in private pension income is not matched in other components of their retirement income. Their State Pension income is unaffected. This is due to family caring as a means of obtaining qualifying years towards the full flat rate. Under the base lifecourse (returning to work two days per week), private pension income only comprises 12% of the total post-retirement income. The relative impact of additional private pension saving is diluted when considered as part of total income in retirement.

There are other considerations including care arrangements and the impact upon the wellbeing of the individual which may need to be overcome for this to be a practicable consideration.

Men and women who delay their exit from work

Women working full-time throughout in the career profiles

are based upon women who have had an SPa of 60. It is reasonable to assume that in the future a proportion of those working until 60 may not work until their higher SPa, but may exit the labour market earlier. IFS research has shown recent (since SPa has been increasing) employment levels of women aged over 60 and under SPa to be lower than those aged under 60.⁶

Over 50% of men who have reached SPa have been classified as taking an early exit from the labour market (Table 1). This includes two very different groups: those who are no longer fit to work and those who are rich enough to be able to afford to comfortably retire early.

Such people have the potential to increase the length of their working life by delaying their exit, however their motivation and capability to work may be impaired. Many of these people

may not be influenced easily by the policy levers available.

Men who have exited the labour market early may be in poor health and may not be able to continue working.⁵ Staying in work may be facilitated for these people through workplace adjustments and changing their work activities.

For those who exit the labour market before SPa, an additional year of work has the greatest impact for those who would have exited the youngest. Staying in work for one more year at age 49 has a greater impact than staying in work for one more year at age 60.

For a man who would have made a very early exit from the labour market at 49, working an additional year would increase income in retirement by £4.15 a week. For a man who would have worked until age 60 an additional year only increases income in retirement by £1.51 a week, and for a woman that same year increases their income in retirement by £1.24 a week (Table 3).

The greater difference for the man making the very early exit is largely a result of increased private pension income:

- Median earnings are higher around age 50 than at age 60 resulting in a higher pension contribution.
- This larger contribution has longer to accumulate investment return prior to accessing it at SPa.

There is also an increase in State Pension income for the earlier exit as a result of increasing the foundation amount. (The foundation amount is the State Pension entitlement earned prior to April 2016. This forms a floor to their State Pension entitlement after the introduction of the new State Pension.) This is not available to the man exiting from age 60 as they have already worked up until the calculation of their foundation amount in April 2016. Any income earned after April 2016 does not contribute to the calculation of their foundation amount.

The difference a year makes

An additional year of work comes with many considerations beyond the potential impact upon retirement. Exiting the labour market may be as a result of a more immediate need, such as caring, which could take greater precedence in the individual's mind.

Working on a part-time basis for an additional year is unlikely to make a significant change to income in retirement. This is due to the low level of earnings upon which saving is based and State Pension being unaffected due to NI credits.

Many people will have a broken work history, including years out of work and part-time working. This will result in low lifetime earnings and subsequent low pension contributions during their

Table 3: People who retire before SPa can boost their retirement income by working additional years

Weekly post retirement income at age 66 for men and women currently aged 60 earning at the gender specific median earning level (£ a week in 2016 earnings terms)

Income per week (2016 earnings terms)	Men						Women		
	Very early exit (49) Additional years worked		Early exit (60) Additional years worked		Early exit (60) Age at retirement		Age at retirement		
	+1	+5	+1	+5	+1	+5	+1	+5	
State Pension	£170.53	£172.54	£180.50	£191.40	£191.40	£191.40	£174.42	£174.42	£174.42
Private Pension	£82.83	£86.01	£97.89	£111.61	£113.49	£120.42	£83.93	£85.47	91.62
Other	£3.22	£3.22	£3.22	£3.22	£3.22	£3.22	£3.22	£3.22	£3.22
Tax	-£8.71	-£9.74	-£13.71	-£18.64	-£19.01	-£20.40	-£10.01	-£10.01	-11.17
Total	£247.87	£252.02	£267.90	£287.60	£289.10	£294.65	£251.86	£253.10	£257.73
Percentage of income from private pension	33%	34%	37%	39%	39%	41%	33%	34%	35%

working life. The introduction of the single tier new State Pension has resulted in there being little impact in taking time out of the labour market for those who will be dependent upon the State Pension in their retirement. NI credits can ensure a full entitlement to the new State Pension; 84% of people reaching SPa in 2040 are projected to get at least the full new State Pension rate directly from the state.⁷

An additional year of work is only likely to impact private pension income which forms a minority of income in retirement. This dilutes the relative impact of additional pension saving over a working life.

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 ELSA data: Marmot, M., Oldfield, Z., Clemens, S., Blake, M., Phelps, A., Nazroo, J., Step-toe, 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>

³ Department for Work and Pensions (2017) *Fuller Working Lives: A Partnership Approach*

⁴ IFS Working Paper W13/03 (2013) *Incentives, shocks or signals: labour supply effects of increasing the female state pension age in the UK*

⁵ Lu et al. (2016) *Relationship between employment histories and frailty trajectories in later life: evidence from the English Longitudinal Study of Ageing*

⁶ Cribb, Emerson, Tetlow (2014) *Labour supply effects of increasing the female state pension age in the UK from age 60 to 62*

⁷ Department for Work and Pensions (2016) *Impact of New State Pension (nSP) on an Individual's Pension Entitlement – Longer Term Effects of nSP*

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