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LIVE LONG AND PROSPER?

Demographic trends and their implications for living standards

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Contents

Executive Summary

People are living longer. A century ago new-borns were expected to live to 63 on average, whereas for the generation born in the last 15 years life expectancy at birth is 93, with over a third of the generation after expected to reach age 100. This is good news of course. A longer life is in and of itself a boost to living standards for individuals and reflects a more prosperous society. But it raises challenges too. For the individual, living longer creates a need for greater lifetime income to sustain a given standard of living. For the state, a growing older population raises questions on the allocation of resources across generations.

The debate on living standards tends to concentrate on a snapshot of household resources today or over the near term. However, this narrow focus ignores the impact of demographic change, which plays out over decades with seemingly little immediate impact – migration perhaps being the exception. Yet these very long-term shifts in the make-up of the population are arguably as important to living standards debates as the slow, almost decade-long recovery in incomes to pre-2008 levels.

This year marks the start of an important demographic transition. For decades the ratio of workers to non-workers ('dependants') has been improving due to the relative size of the baby boomer generation (born between 1946 and 1965) and increased labour market participation of both women and older people. But as the baby boomers enter retirement this is reversing, with the ratio of workers to dependants starting to fall.

At face value this appears problematic: fewer people 'contributing' and more people – often with greater health and care needs – reliant on the resources of others in their families, and on the state. However, an often assumed worsening in living standards due to this shift in the population is not inevitable. Promoting ways to live healthier for longer, further increasing workforce participation for older workers, preventing pay penalties when taking time out of the labour market to care for children or people in ill-health and taking account of the greater private resources of the baby boomer generation itself all represent ways to offset the greater costs of an ageing society in the short and longer term.

This report for the Intergenerational Commission explores how the UK population changed over the last century and is set to change in this one. It provides an initial take on the implications for living standards across the lifetime, for individuals in different generations and for the state. These are themes that will be returned to in more detail by the Commission.

Life expectancy gains have been driven by falling infant mortality and improved health in adult life

Longevity – generally recognised as an indicator of rising living standards – continues to improve for younger generations. This progress has been driven by different health and morbidity improvements for different generations:

» Cohorts born in the early part of the last century saw the biggest falls in infant mortality. Only 80 percent of the forgotten generation (born 1896-1910) survived to age three, improving to 93 per cent for the silent generation (born 1926-1945) and over 99 per cent for the latest generation (born 2001-2015).

» Huge strides made in tackling infectious diseases by the 1960s led to a significant reduction in deaths during adult life. The proportion of the silent generation reaching age 60 was 81 per cent, up from just 61 per cent among the forgotten generation.

» More recent advances derive from reductions in morbidity due to circulatory diseases, leading to ever more people reaching older ages. Only 16 per cent of the forgotten generation reached age 80, compared to an expected 47 per cent of the silent generation. Over a third of the generation born over the next fifteen years are expected to reach 100.

As people live for longer, the timing of traditional life stages is shifting

It's not just the length of life that has changed over this period, so too has its shape. People are adapting how they live, reflecting both demographic shifts and social and economic changes:

» Younger generations are leaving education and starting work later. Only one third of children aged 15 were still at school in the early-1950s, yet by 2015, 77 per cent of 17 year olds were in full-time education. Today

two-fifths of the population aged 24 to 64 are graduates, compared to only one-fifth two decades ago.

» Family formation is being delayed and households are becoming smaller. The average age by which women have their first child has increased from 24 in the early-1960s (the tail-end of the silent generation) to over 28 today (the vanguard of the millennials, the generation born 1981-2000). Similarly, the average total number of children born to each woman fell from 2.4 for women born in 1940 to 1.9 for those born in 1969.

» More women are in employment, and both men and women are staying in work later into life. Female participation has risen in the early stages of careers, with a strong link to patterns of delayed family formation. Over 70 per cent of female millennials in work in their late-20s compared to only 55 per cent of baby boomers. And at age 60, half of baby boomer women are still working compared to only one third of women in the silent generation.

Some changes support individuals to boost incomes over the life course, maintaining standards of living, though not all trends help

While the drivers are complex, these changes in the shape and timing of the life course also reflect potential strategies through which individuals and families can adjust to the challenge of maintaining living standards with increased longevity. Higher levels of education boost earnings potential. Delaying the birth of a first child can leave more time for initial career progression, important given the additional costs of having a child for a couple are equivalent to them both working for four and a half years in their 60s (at typical rates of pay). And working later into life means both having earnings in a greater number of years and maximising the returns to a lengthier education.

However, not all adjustments support incomes. A greater rate of separations and divorce will increase the cost of living by creating more single households. The rate of divorce among 50 year old baby boomer women was almost double (at nearly one third) the rate within the silent generation at the same age. Rates are lower for Generation x but this is at least in part due to a higher rate of cohabitation without marriage. To reach the same standard of living as a couple, a singleton needs to earn 50 per cent more. This is particularly

noteworthy when the greatest growth in single person households over the last 20 years has been among those aged 45 plus, likely to have already hit their earnings peak.

Alongside this increase in single person (and single parent) households as a result of separation, the ageing of the population means we can expect more 65+ households (usually containing only one or two people). Taken together, these trends generate increased demand for housing for a given population. The cost of housing is already placing pressure on living standards: without further action current housing cost pressures risk further increases.

Our current demographic challenge reflects both longevity and the implications of unevenly-sized birth cohorts

Having a greater share of older people in a country, while something to be celebrated, poses challenges for society as a whole. This is even more pronounced when we account for uneven cohort sizes, which has a bearing on living standards that goes beyond the simple fact that people are living to older ages. With the large baby boomer generation starting to retire, the UK is at something of a demographic tipping point.

The UK state can be seen as largely functioning on a pay-as-you-go basis – born out of a historic contract between generations, with younger generations supporting those they follow in return for support from those who follow them. The working age population earns and pays taxes to fund benefits and state pensions as well as wider government spending on provision such as schools and healthcare, which are largely consumed by the old and young. Additionally holders of assets also in effect draw on the earnings of the working population through, for example, any supranormal returns on stocks and shares. With an ageing society and a large cohort now retiring, the strain on resources available to support the UK population increases, and boosting GDP per capita becomes harder.

'Dependency' is therefore set to rise, but we should think about this in nuanced ways that capture how lives are changing

One simplistic way to represent this balance is through a 'dependency ratio', comparing the size of the dependent population (the young (under 20) and those at older ages (65+)) with the working age population (age 20 to 64).

On that measure there are 7 dependants for every 10 people of working age, similar to the ratio in 1961. By the late 2020s however, there are projected to be around 8 dependants to every 10 people of working age, rising to a ratio of 9 to 10 by 2050.

This dramatic change in ratio appears concerning at first look. But it is important to remember that it is a simple tool to consider broad changes in the population. No account is taken of the beneficial long-run effects from people remaining in education for longer and boosting their lifetime earnings potential. Nor does the threshold for old age used in the dependency ratio reflect rising longevity and changing patterns of work: age 65 may have made sense in the past but is unlikely to do so in the future.

Linking the threshold instead to the current policy intent behind planned increases in the State Pension age (which is to maintain the average proportion of life spent above the SPA at up to one third) would suggest that old age would equate to age 68 by 2041 and age 69 by 2056. In this scenario the increase in the dependency ratio would halve and only reach 8 dependants to every 10 working age people by 2040 and remain around that level to the mid-2060s.

Assuming that government spend and earnings per head of the working age and older population remains constant, if the ratio of dependants to working age population rose today to the level suggested by a threshold of age 69 (in line with State Pension age policy) in 2060, the tax burden on those of working age would increase by £15 billion – equivalent to a 4p rise in the basic rate of income tax.

As a thought experiment we can calculate how much more quickly than the State Pension age that the 'old age' threshold would need to rise in order to hold today's dependency ratio constant. This exercise points to an old age threshold of age 68 by the end of the next decade rising to 70 by the late-2030s, and then more slowly to age 72 by the early-2060s. It's important to note here that the fast increases in the coming decade – and therefore some current concerns about State Pension cost pressures – relate more to the sheer size of the baby boomer generation entering retirement than ongoing longevity improvements.

An acceleration in State Pension age increases such as that implied by this thought experiment could prove difficult to cope with for some who

had expected to receive this support earlier. And it raises equity concerns given the clear inequalities in life expectancy that exist according to social background. Yet, in the nearer term it is very close to one path the government is considering as part of the ongoing State Pension age review. An increase in State Pension age to 68 by 2030 is on the horizon, which would mean a rise of three years within a decade compared to the original timetable set out in 2007 of one year every decade to reach age 68 by 2046.

Such policy choices are very challenging, wrestling as they have to with a balance of fiscal concerns, distributional considerations, and life expectancy calculations that have historically underestimated the rate of improvement. But alongside getting these judgements right within the ongoing review, it's important to recognise that State Pension age is not the only available policy lever that can be pulled. There are many other ways in which policy choices can respond to rising longevity and some of the potential strains brought with it.

Changes in the labour market and public health must be reflected when thinking about demographic challenges, and how they can be addressed

While State Pension age-adjusted dependency ratios can provide us with a 'big picture' view of demographic trends, perhaps even more useful is the ratio of workers to non-workers, which we term the 'effective' dependency ratio. On this measure, the dependency ratio has improved from around 13 dependants for every 10 workers in the late-1970s to 11 dependants to every 10 workers today. Past improvements in labour market participation have in a large part stemmed from the transformation of opportunities for women to work, implying that further gains may be harder to achieve.

However, over the coming decades the effective dependency ratio is set to rise to over 12 dependants to every 10 workers as the population ages, despite accounting for further employment gains for older workers as the State Pension Age rises and health in old age continues to improve.

The requirement for government to report on the aim of reaching full employment set out in the Welfare Reform and Work Act 2016 presents an opportunity for the effective dependency ratio outlook to be further improved. Achieving the full employment ambition – the equivalent of boosting the

employment rate by 3.9 percentage points in 2020 according to previous Resolution Foundation research – would mean the effective dependency ratio could be maintained at around its current level into the long term. However, such an achievement would be by no means easy, given it would require bringing those with often substantial barriers to working into employment, and current OBR forecasts imply it is very unlikely to be achieved by 2020.

Beyond employment totals, earnings levels and hours worked are also key considerations. Employment increases in recent years have come from mothers and older workers, both groups who are more likely to work in lower-paid, part-time roles. Therefore the improvement in the effective dependency ratio may be overstated given that the issue we are focused on is the UK's ability to maintain a given standard of living in the face of demographic change. Policies to support longer working could help on this front, but must be balanced against the ability of some to work into later life given health and caring responsibilities.

And beyond the labour market, it's important to recognise that even the 'effective' dependency ratio plus considerations of hours and earnings levels may not be nuanced enough. For example, this doesn't capture the fact that even relatively healthy people working into their late 60s and 70s are still likely to need more healthcare and support than working 35 year olds. The nature of future health improvements at different stages of lives and how we organise social care are therefore key considerations. It's clear that we should look beyond the simple dependency ratio when considering the impact of an ageing society on the state.

Beyond what the state can do, there are reasons for supposing that the ageing challenge may not be as large as sometimes claimed. While pensioners have long, and rightly, been the focus of significant support we might expect the next generation of pensioners to, on average, have greater personal means. Although not all baby boomers are well off, as a group their significant assets mean they may need to rely on state support less than the current older population. As a result, transfers within the older population may in future be more tenable than has previously been the case, and indeed more likely given rising life expectancy and increasing numbers of older people with parents who are still alive.

The demographic challenge is not insurmountable, but it will be a key element in the living standards debate for years to come

Society is changing; indeed we are now at what might be considered a turning point. Two key trends stand out. First, longevity improvements continue, and second, the large cohort now entering retirement age means the demographic dividend we've enjoyed in recent decades is starting to reverse. These developments have big implications for how the resources of individuals, the state and families are consumed and shared. As a result, ongoing demographic shifts are a key driver of living standards for younger, as well as older, generations.

But we must remember that living longer is an indicator of a nation's rising prosperity and living standards, so something to be celebrated. And potential coping mechanisms exist, some of which are apparent at the individual level through changes to key life stages and at the aggregate level through shifting government policy in a broad range of areas beyond just the State Pension age. Such responses remind us that the demographic challenge is not insurmountable. The Intergenerational Commission will continue to explore these issues in detail.

Section 1

Introduction

Assessment of living standards challenges and opportunities tend to focus too narrowly on short-term indicators of growth, earnings and redistribution. Demographic shifts are often ignored, but play a key role in establishing the backdrop for debate. On the plus side people are living for longer: that automatically boosts living standards by giving them more years to enjoy. But increased longevity raises challenges too.

For individuals, in simple terms, living longer will require an overall higher level of lifetime income to maintain a certain standard of living. This ambition is complicated by the size of cohorts and the composition of the total population. With the large baby boomer cohort entering retirement, the concern is that younger generations face a need to balance achieving a higher lifetime income with the requirement to direct additional resources to support an ageing population.

This report considers how the population has changed over the last century and is likely to continue to change in future, and the implications for individuals and the state's role in maximising living standards.

Demographic trends are central to today's living standards challenges

The new Prime Minister has brought a change in emphasis, with a focus on finding ways to support 'just managing' families and tackle the struggles faced by the young in order to meet the living standards challenges of the 21st Century. These are also the concerns underpinning the Resolution Foundation's Intergenerational Commission. But getting to grips with these challenges (and opportunities) means also understanding demographic trends that set the living standards landscape.

People are living longer. That provides a clear boost to living standards (assuming life on the whole is a net good thing). And with longer lives, so expectations of childhood, work and retirement have changed. In part these shifts reflect changing tastes and new opportunities, but they also reflect ways in which people and families can adapt to boost lifetime income. It is these demographic and behavioural changes occurring alongside wider societal and economic shifts that we focus on in this paper.

The longevity challenge for the individual becomes tougher when also taking into account the collective impact of an ageing population. A relatively larger older population places an additional demand on those in work, who are most likely to fund the growing cost pressures an ageing society brings.

This decade marks the turning point in a transition to an ageing population in which the population of people aged 65+ is set to grow faster than that of working age. While the UK population has steadily risen over the last 50 years, it is the *balance* within society between the young (aged under 20), old (aged 65 and over) and those of working age (age 20 to 64) – on whom the remainder are largely dependent – which is now shifting dramatically.

The dominant generation in driving this change is the baby boomers: a generation larger than both its predecessors and successors (the definitions we use for each generation are provided in Box 1). On the face of it being part of this large cohort – the product of a surge in birth rates after the second World War – might have been considered a disadvantage. After all, theory has

implied that a large cohort will be competing for jobs and houses. But things have turned out differently with baby boomers shaping institutions and influencing culture as they have aged through their adult life. And of course their relative size and inclination to vote gives them greater democratic weight and ability to continue to shape institutions now and in future.[1]

i Box 1: Defining the generations

Set out in the launch report of the Intergenerational Commission, generations are defined as:

- The forgotten generation, born 1896-1910
- The greatest generation, born 1911-1925
- The silent generation, born 1926-1945
- The baby boomers, born 1946-1965
- Generation X, born 1966-1980
- The millennials, born 1981-2000
- The latest generation, born 2001-2015
- The next generation, born 2016-2035
- The future generation, born 2036-2055

As they begin to reach retirement, with increased life expectancy compared to their predecessors, society is adapting again. People are working for longer and successive governments have started to put in train policies to help ease this transition in the composition of the population. But how far will this adaptation go, what more can be done and what are the implications for other generations?

Navigating this report

This paper – a submission to the Intergenerational Commission – explores how the UK population has changed, and is set to change in future. Crucially, it considers the implications such change has for individuals in different generations, the state and the economy. The remainder of this paper is structured as follows:

- **Section 2** approaches the issue from the perspective of the individual, considering the changes made to the nature and timing of key life events and the ways in which these adjustments support living standards over a longer life course;
- **Section 3** focuses on the collective response to longevity, highlighting both the challenges posed by an ageing society and the ways in which government and others have responded; and
- **Section 4** concludes, highlighting the key policy challenges for the state in future and avenues for further exploration by the Intergenerational Commission.

1 L Gardiner,) *Votey McVoteface: Understanding the growing turnout gap between the generations,* Resolution Foundation, September 2016

Section 2

Living for longer

Successive generations are finding their life expectancy increase, a trend that is expected to continue and which in and of itself reflects improving standards of living. At the same time life stages are shifting. People are staying in education for longer and working later in life, while women are having children later in life (and fewer of them). Couples are also more likely to separate, which combined with the above trends mean there are (and will be) more, smaller households.

An indicator of increasing prosperity, a longer life also raises a challenge for the individual to maintain living standards: greater lifetime income is required. Changing lifestyles, which reflect wider social and economic trends, can also represent potential strategies for the individual to cope with an extended life. This chapter sets out changes in the timing and duration of key life stages between generations, and how they may support living standards.

Life expectancy has increased by one fifth in just four generations

Perhaps the most visible element of demographic change, yet one that it is difficult to fully appreciate the extent of, is increasing longevity. Greater numbers of people in successive cohorts – and generations – are expected to live longer. This is a reflection of rising prosperity over the last century and more, which has brought significant medical advances, improved living conditions and healthier lifestyles.

People born in today's generation can expect to live, on average, to over the age of 90. Baby boomers currently entering retirement can expect to live for an additional 23 years at age 65. Increasing life expectancy is a trend that seems set to continue for future generations with a third of the generation born in the next 20 years expected to live to at least age 100.

Unless referenced otherwise throughout this report we refer to life expectancy on a 'cohort' basis. Cohort projections reflect the fact that successive cohorts experience improving life expectancy, the alternative approach being period estimates, which account only for outcomes in a given year. For example a period estimate of life expectancy at 65 would consider the mortality rates of people aged 65 and above today. A cohort estimate would account for expected improvements in the mortality rates of today's 65 year old at older ages. The cohort approach is preferable as we can reasonably expect someone reaching the age of 80 in 15 years' time to have, on average, a greater chance of survival to age 81 than an 80 year old today.

Figure 1 shows the average length of life at birth alongside the average at age 65, for the mid-point birth year of each generation. Looking at the progress made in each generation relative to the last, it shows that the biggest step forward in life expectancy at birth was felt by the silent generation – born between 1926 and the end of the Second World War. Gains at age 65 have been steadier but significant, with a two to three year increase in average life expectancy between successive generations for those in them that make it to age 65. Overall, longevity has continued, and is expected, to rise across successive generations:

» **Life expectancy for men at birth** increased from 52 years for those born in the forgotten generation at the turn of the 20th century to 89 years for men born in the current generation (born over the last 15 years).

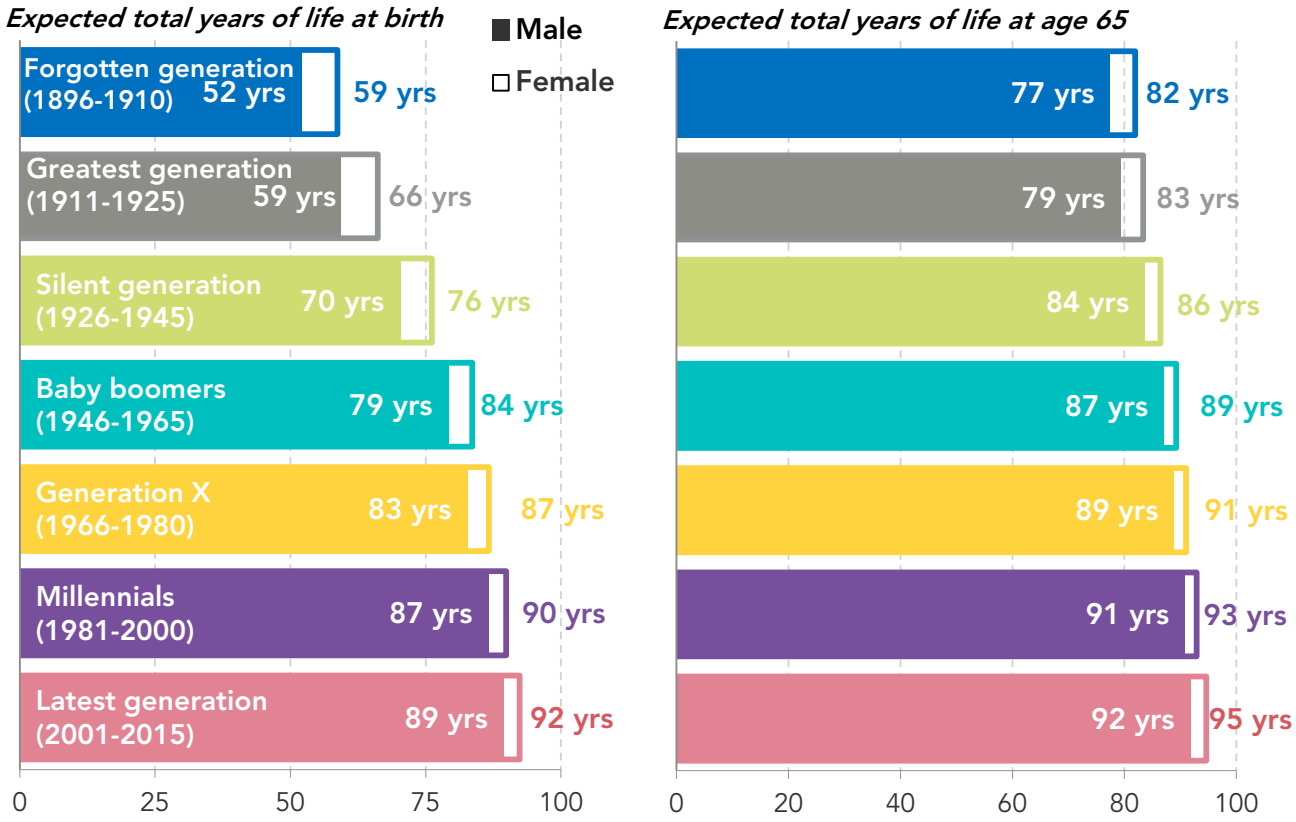
» **Life expectancy for women at birth** has increased from 57 years for those born in the forgotten generation to 93 years for women born in the latest generation.

» **Life expectancy for men at age 65** has increased from 12 years for those born in the forgotten generation to 27 years for men born in the latest generation.

» **Life expectancy for women at age 65** has increased from 17 years for those born in the forgotten generation to 30 years for women born in the latest generation.

The gap between life expectancy at birth for women and men has more than halved, falling from 6.6 years in the silent generation to an expected 2.7 years for the next generation. This reduction in the gender gap in life expectancy has in part been driven by men being far less likely to work in health-damaging occupations, a relative fall in the proportion of men who smoke and women being more likely work.[2]

Figure 1: Mean cohort life expectancy at birth and at age 65 by generation: England and Wales/UK, 1896-2055



Notes: Cohorts born prior to 1956 cover England and Wales only, cohorts born after cover the UK.

Source: ONS, *UK lifetables 2014-based*, and ONS, *England and Wales lifetables 2014-based*

And of course, presenting averages masks the extent to which people from the same cohort live for a different length of time. For average life expectancies, the mean tends to be lower than the median – meaning it is skewed downward by a small proportion of each cohort dying young. Yet over time, the gap between the mean and median has narrowed, with reductions in mortality during childhood and early adulthood driving a greater proportion of each cohort living for longer.

2 ONS, *Mortality, 2014-based national population projections reference volume*, March 2016 and ONS, Sex differences in mortality, a comparison of the United Kingdom and other developed countries, Arjan Gjonça, et al, 2005

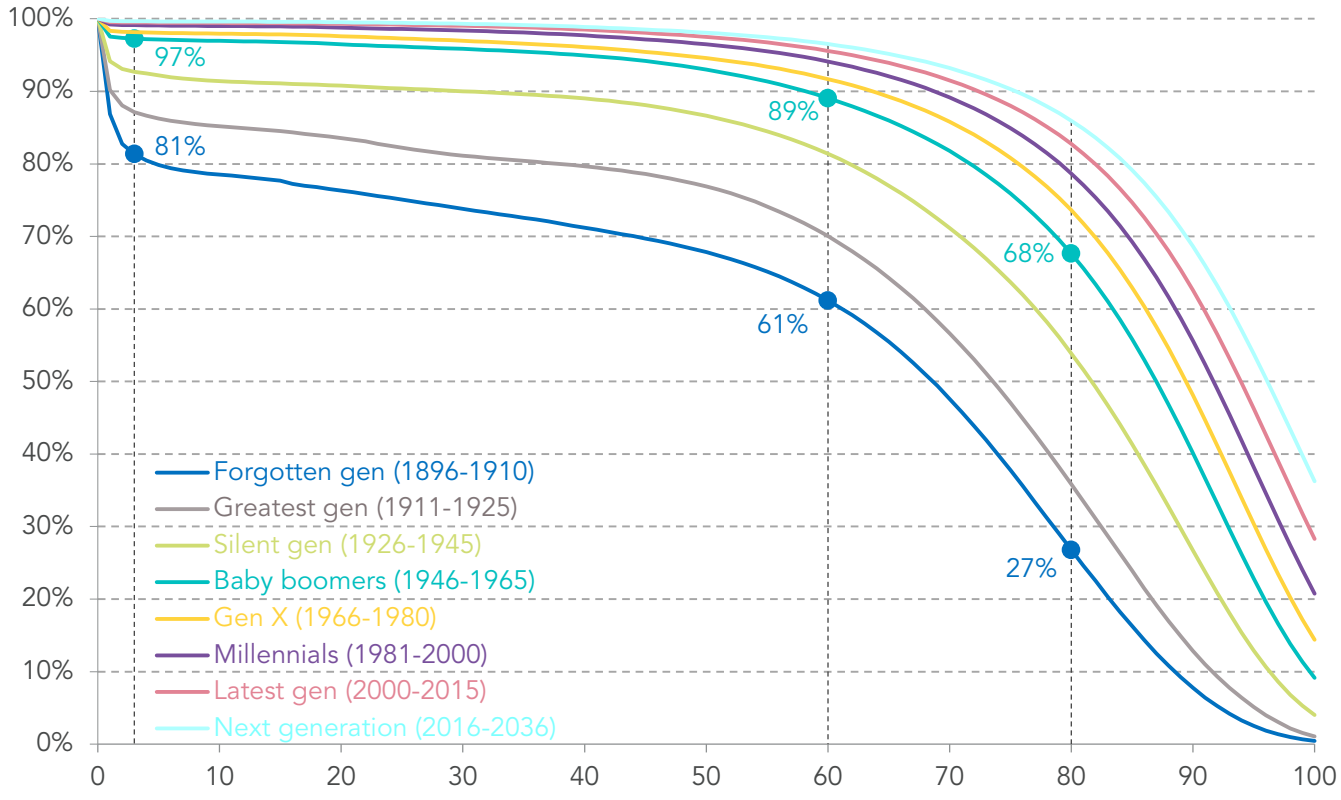
Figure 2 shows actual and projected survival rates for different generations. Each line depicts the proportion of each generation surviving to individual years of age up to 100. For example 87 per cent of baby boomers are expected to reach age 60 and 63 per cent to reach age 80. Improvements are shown by the curve moving up (meaning that a greater proportion of the generation is still alive) and to the right (meaning that variation in the ages at which people die is falling).

There have been large improvements in life expectancy over the last century, with advances occurring in three broad stages:

- In the first half of the 20th century large falls in infant mortality played a key role in boosting average life expectancy, with greater numbers surviving at very young ages. Only 81 per cent of the forgotten generation lived to the age of three compared to 87 per cent of the greatest generation and 93 per cent of the silent generation.
- Continuous improvements in the control of infectious diseases led to deaths from these causes being all but eradicated by the 1960s. This meant falls in deaths during adult life delivering improvements up to the middle of the last century. The proportion of the silent generation reaching age 60 (between 1986 and 2005) rose to 81 per cent compared to only 61 per cent of the forgotten generation (between 1955 and 1970).
- Towards the end of the last century and since the start of this one the largest improvements in mortality stem from tackling circulatory health problems such as heart disease, which has helped boost life expectancy at older ages. Only 27 per cent of the forgotten generation reached age 80, but that is projected to rise to 68 per cent for baby boomers and almost 83 per cent for the latest generation.

Figure 2: **Improving mortality by generation: England and Wales/UK, birth cohorts 1896 to 2036**

Proporton of cohort at generation mid-point surviving at given age



Notes: For projections, cohort life expectancy estimates are used. Cohorts born prior to 1956 cover England and Wales only, cohorts born after cover the UK.

Source: ONS, *UK lifetables (2014-based)* and ONS, *England and Wales lifetables (2014-based)*

In part, variation in life expectancy within cohorts will be driven by genetic reasons. But inequality of lifestyle – the occupation and environment that a person works and lives in – can also reduce or increase the chances of surviving to older ages. This matters not only for the individual's lived experience, but also for the size and shape of support that they may need from the state (see Box 2 for further detail).

i Box 2: Longevity inequality

Projections provide a sense of the range of life expectancy within and across cohorts, but not what is driving this inequality in longevity. But we can consider estimates of life expectancy by social class, local area and years of good health as a means of exploring inequality more generally. These estimates are available on a 'period' basis, so they cannot be directly compared to the 'cohort' projections used elsewhere in this section. As a reminder, cohort projections reflect the fact that successive cohorts experience improving life expectancy: period estimates account only for outcomes in a given year. However, we could broadly expect similar relative variation between measures on a period basis to apply to those on a cohort basis.

On a period basis, life expectancy for men by the NS-SEC measure of **socio-economic position** has improved across the board. On average, life expectancy for men in England and Wales increased from 72.1 years to 79.1 years between the period 1982-86 and 2007-11. For those in the top socio-economic position (Higher Managerial and Professional), life expectancy stood at 82.5 years for the 2007-11 period – an improvement of 6.8 years since 1982-86. For those in the lowest position (Routine), life expectancy increased by 5.8 years over the same period, standing at 76.6 years in 2007-11. However, while the gap between the highest and lowest socio-economic positions has widened over the longer timeframe, it has narrowed in the period since 1992-01.

For women there is a broadly similar pattern, with an average life expectancy at birth of 82.4 in England and Wales. Since 1982-86 life expectancy has improved by 4.2 years (to reach 85.2 years) for the top socio-economic position but by only 3.6 for the lowest (reaching 80.8 years). Across the period as a whole relative inequality has risen and, unlike for men, the gap has continued to widen since 1997-01.[1]

There is also significant **regional** variation in life expectancy, with a difference of 10.3 years between girls born in Glasgow in 2010-12 (78.5 years) and those born in Purbeck in the South West of England (86.6 years).[2] While life expectancy has improved at the national level, it remains lower today in some areas than it was in others 20 years ago. For example, life expectancy for girls born in Middlesbrough in 2012-14 is 2.7 years lower than for those born in East Dorset over two decades ago.[3] Importantly, some areas have consistently low (or high) levels of life expectancy that tend to be associated with higher levels of unemployment, housing deprivation and higher levels of smoking.[4]

Further evidence of longevity inequality is found in the variation in years spent in **good health** (a subjective measure based on survey responses). For increased longevity to signify a gain in living standards, it is important that it comes alongside good health. Again statistics are only available on a period basis but show that since 2000-02 improvements in Healthy Life Expectancy (HLE) at birth have increased faster than for overall life expectancy (an extra 3.5 years of HLE compared to 2.7 years of life expectancy for men, between 2000-02 and 2009-2011). But at age 65 this is not the case. At older ages, the expectation of extra years of life has increased faster than the number of those years expected to be in good health (an extra 1.2 years of good health compared to 2.1 years of life for men). There is a similar trend for women. This suggests that HLE gains are being experienced during working age rather than at older ages, aligning with the trend discussed elsewhere in this report of a greater proportion of successive generations are surviving to older ages. HLE also varies less between men and women than overall life expectancy, implying that the additional years of life for women are more likely to be spent in ill health.[5]

1 Office for National Statistics, *ONS Longitudinal Study (LS) based estimates of Life Expectancy (LE) by the National Statistics Socioeconomic Classification (NS-SEC): England and Wales*, October 2015

2 Office for National Statistics, *Life Expectancy at Birth and at Age 65 by Local Areas in the United Kingdom: 2006-08 to 2010-12*, April 2014

3 Office for National Statistics, *Life Expectancy at Birth and at Age 65 by Local Areas in England and Wales: 2012 to 2014*, November 2015

4 David Buck and David Maguire, *Inequalities in life expectancy: Changes over time and implications for policy*, August 2015

5 C Jagger, *Trends in life expectancy and healthy life expectancy*, Newcastle University Institute for Ageing and Institute of Health & Society, Government Office for Science, March 2015

In particular, the extent to which the length of life spent in good health increases in line with average life expectancy is still unclear, and an area in which the available evidence could still be improved.[3] If life expectancy gains mostly bring more years spent in ill-health, or lead to more severe health conditions at the end of life, people will require either greater private resources or more support from the state. Clearly this also matters for an individual's quality of life – improving health at older ages is key.

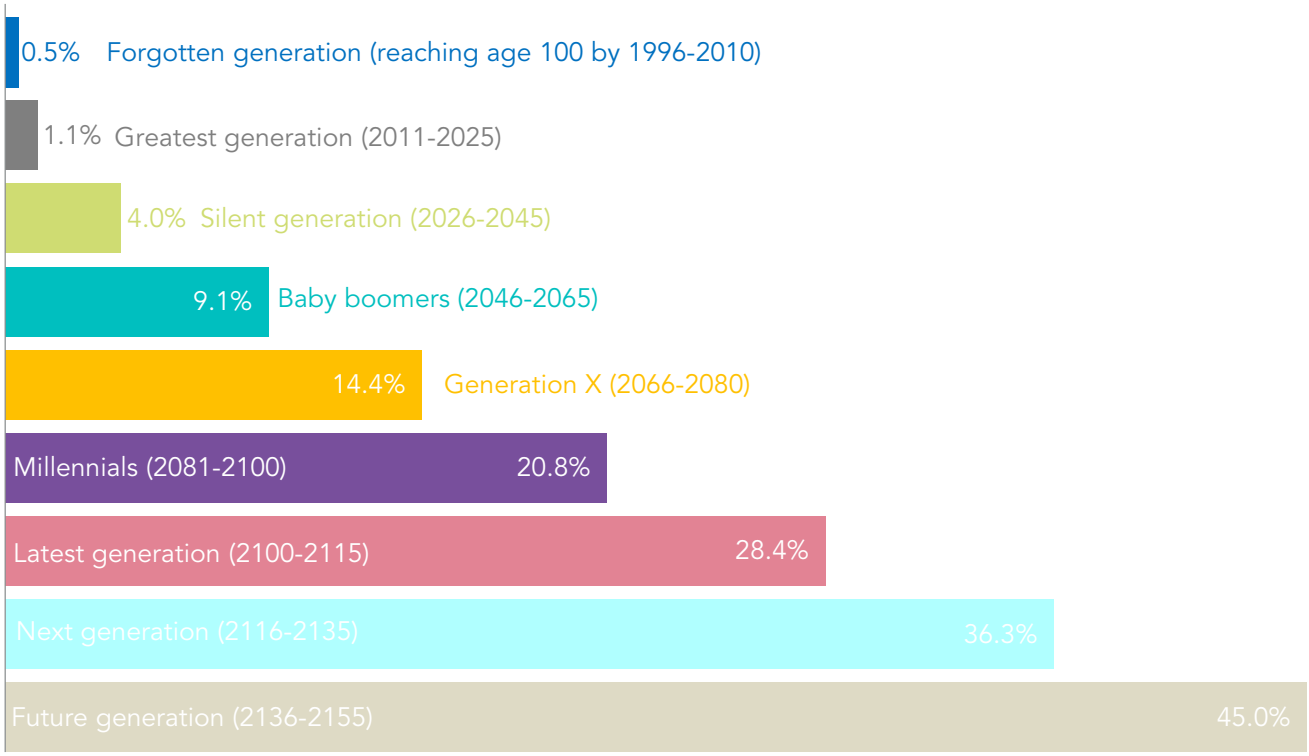
Although the distributional factors and considerations of healthy life expectancy discussed in Box 2 are important to bear in mind (particularly the extent to which they might widen or narrow over time), for the sake of simplicity we focus here on how the average life, and key milestones across the lifetime, have changed for different generations. Future work for the Intergenerational Commission will delve into such inequality across the life course in further detail.

The biggest improvements in mortality in the last century were for infants, but in future the biggest improvements are likely to be in later life. The latest projections of cohort life expectancy suggest there will be a significant rise in the proportion of people reaching 100.

Figure 3 shows that only 0.5 per cent of the forgotten generation reached age 100 but this is set to rise: 9.1 per cent of baby boomers are expected to reach age 100, rising to almost 30 per cent of the latest generation and forty five per cent of the generation born over the next 20 years.

3 Measures of Healthy life expectancy (HLE) in the UK tend to rely on self-reporting via surveys, although techniques do exist to calculate HLE based on a combination of self-reporting as well as measured and functional test data. The key debate relates to the extent to which there is a compression or expansion of morbidity – that is whether year spent healthy will grow faster than total years of life (compression), or if those extra years of life are largely spent in ill health (expansion). Evidence is mixed as to which is the case, and better data collection could improve the debate and is likely to become more important as longevity continues to rise. See J A Salomon et al, *Healthy life expectancy for 187 countries, 1990-2010: a systematic analysis for the Global Burden Disease Study 2010*, The Lancet December 2012 and B Rechel et al, *Ageing in the European Union*, The Lancet March 2013

Figure 3: **Proportion of each generation living to 100: England and Wales/UK, birth cohorts 1896-2055**



Notes: Cohorts born prior to 1956 cover England and Wales only, cohorts born after cover the UK.

Source: ONS, *UK lifetables (2014-based)* and *ONS England and Wales (2014-based)*

These proportions would be greater still if we took a more optimistic projection of life expectancy produced by the ONS – the 'high variant'. ONS produce a range of life expectancy projections highlighting the inherent uncertainty of trying to predict how long people may live.

There is much debate about the extent to which life expectancy will or can continue to improve. Some consider that there is little room left for improvement in total years of life, but much to do to improve how many of those years are spent in good health and how many people reach those ages. Others believe life expectancy will continue to improve at a rate that is faster than currently assumed by the ONS.[4]

Historically, the principal projection has tended to under-predict, with the 'high variant' of life expectancy closer to the later and revised principal projection.[5] If this pattern of downside errors were to continue, the actual share of generations reaching age 100 will be greater than shown in the chart above.

Clearly, it will be some time before today's younger generations reach this milestone, but we are already expecting to see a significant rise in the numbers of centenarians in the next decade. Such a profound shift in the length of our lifetimes is difficult to comprehend. Indeed there is a risk that in not grasping such improvement early enough (partly because of the difficulty statisticians have in predicting it) people will be less prepared than they ought.

We should increasingly expect to not only live for longer but live in good health for longer. Doing so and maintaining standards of living over these longer lifetimes will require us to adapt how we live. Living longer provides an answer in itself, by offering the opportunity to work, save and build assets over a longer period. In addition, key milestones – leaving full-time education, family formation and retirement – could shift. Indeed, they are already altering.

4 See discussion in ONS, *National Population Projections:2014-based reference volume, series PP2*, March 2016

5 The most recent 2014-based projections actually saw a slight increase in outturn mortality rates compared to the 2012-based projections, but it is too early to know whether this is a blip. History would suggest life expectancy estimates will once more be revised upwards in future.

As well as getting longer the shape of our lives is changing

As people live longer we are seeing changes in key life milestones. These can be driven by positive and negative motivations (think gap year opportunities versus the cost of a deposit on a home for instance), reflecting both social trends and changes in the cost of living. But the shifts also relate to how people can and are adapting to an extended life. In some instances these changes have been gradual, building slowly over time, but in others the change is rapid. The extent to which such trends will continue is therefore unclear. Here we explore some of the key changes and the impact they can have on living standards.

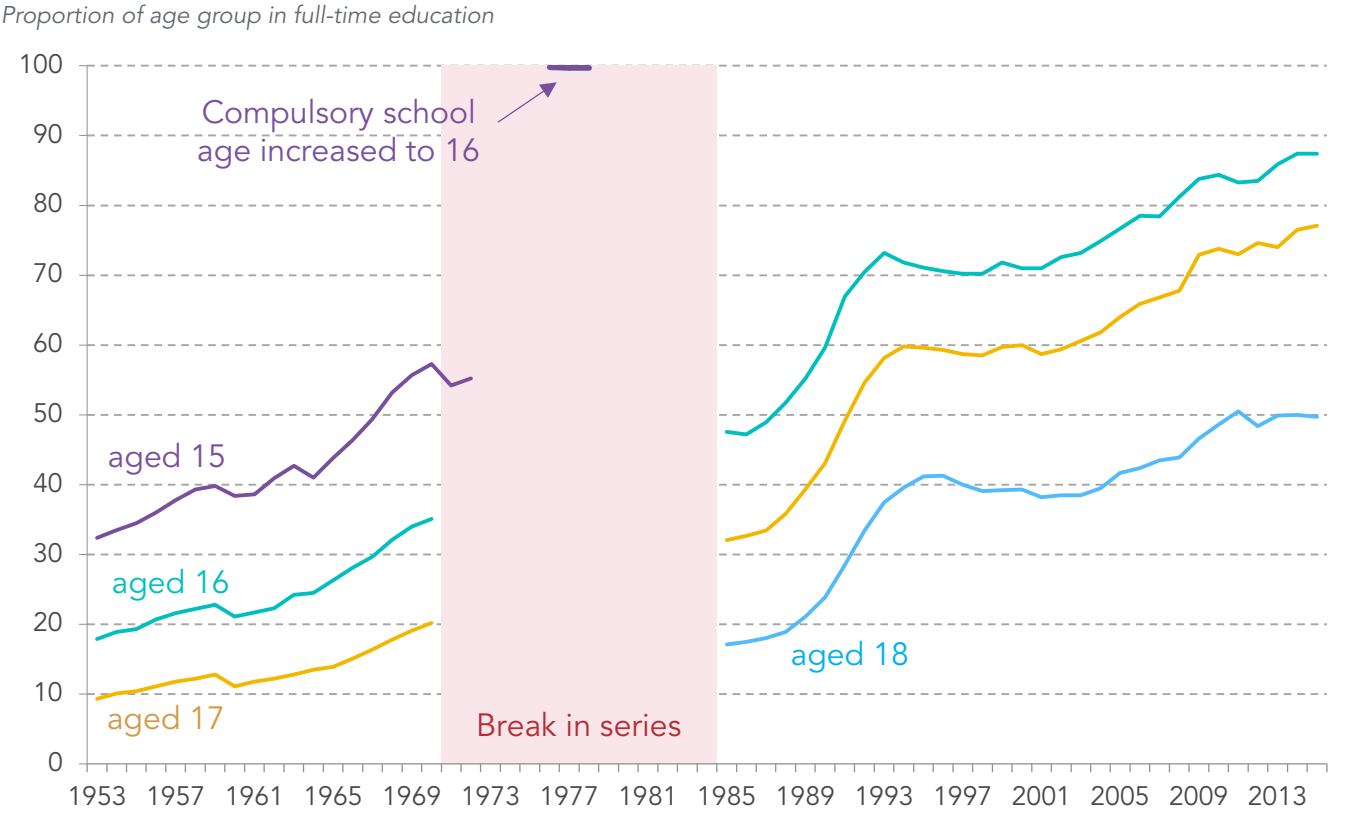
Leaving full-time education

Leaving education represents the time at which people start to fully enter the labour market to pursue a career. The age at which people leave school or full-time education has shifted later and later for more recent generations.

When first introduced in the UK in 1880, compulsory education applied between the ages of 5 and 10. The upper age limit was gradually increased, reaching 16 by 1973 and recently extended to age 18. At the same time, successive governments have encouraged growing numbers of young people to attend university, further pushing out the point at which people leave education.

Figure 4 shows the proportion of children at different ages still in full-time education, over the period between 1953 and 2010. In the 1950s only one third of children were still in school by the age of 15, reflecting the compulsory education age. Today the clear majority of 17 year olds (70 per cent) are still in full-time education, and around half are in full-time education when aged 18.

Figure 4: **Time spent in full-time education: UK, 1953-2015**



Notes: The age shown is that at which a child starts a given year of school, therefore those aged 17 will turn 18 during the school year.

Source: House of Commons Library, *Education Statistics 2014 (pre-1985)*; DfE. *Participation in education and training of 16 to 18 year olds (from 1985)*; DfE, *Participation in Education, Training and Employment by 16-18 year olds (2013 to 2016)*

The point at which people are entering the labour market has become correspondingly later. Analysis of the Labour Force Survey shows that half of baby boomers were in work by the age of 17 and 70 per cent by age 20. For millennials the same proportions are achieved at ages 18 and 23 respectively.

Naturally, by spending longer in education, younger generations are gaining higher levels of qualifications. Two-fifths (41 per cent) of the population aged 24 to 64 held at least a degree level qualification in 2015, compared with one-fifth (21 per cent) in 1996.[6] Higher qualification levels should lead to higher earnings over the lifetime. And that return will be amplified if people also work for longer. Such gains can more than offset the delay in entering the labour market and provide an initial strategy to boost lifetime income.[7]

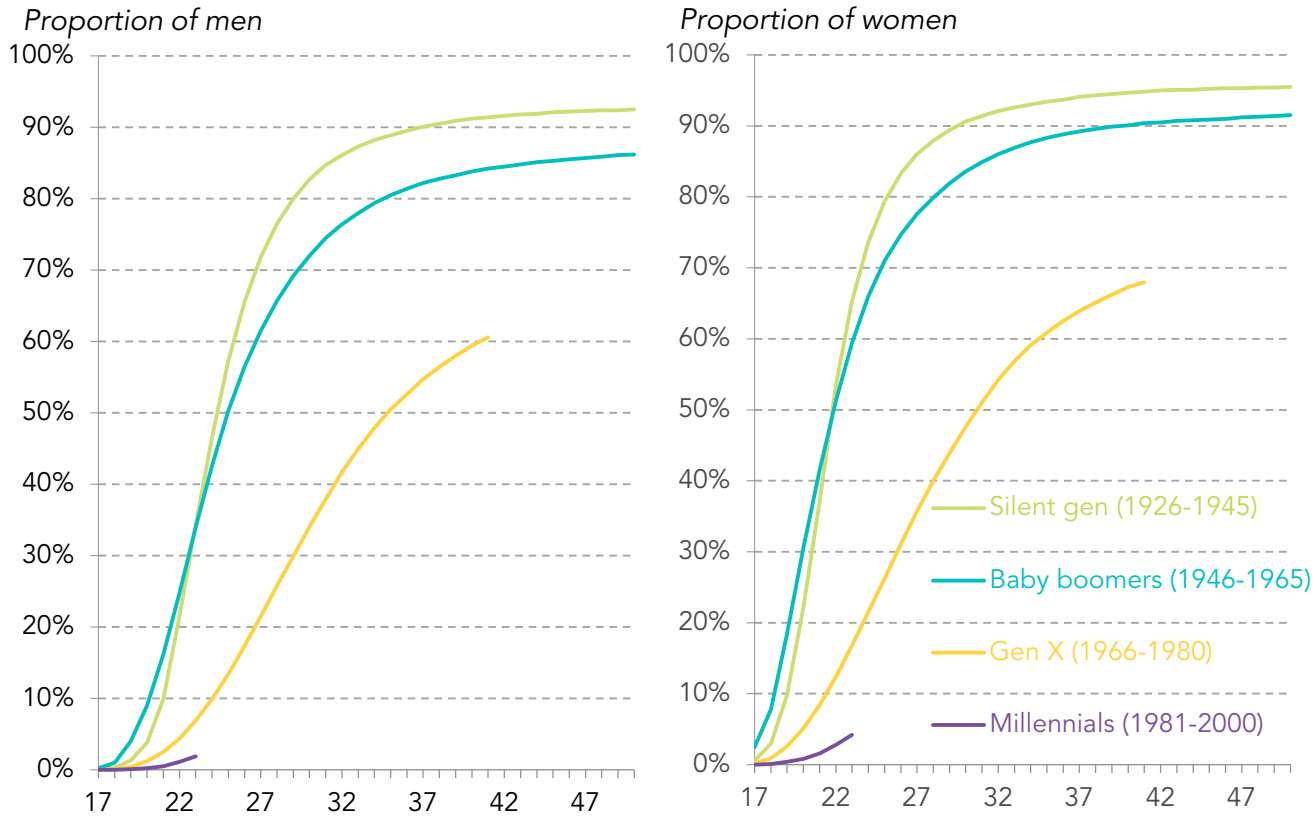
Family formation

The next key milestone in life tends to be that of forming a family. Traditionally marriage has provided a signal of the beginning of this life stage. Figure 5 shows the cumulative proportion of men and women by generation who had married by a certain age. Over 90 per cent of women from the silent generation were first married by the age of 30, and half by the age of 22. The equivalent age is slightly older for men representing what has been an average two-year age gap between husbands and wives. These rates have significantly fallen for generation X and millennials (shown by the curves shifting downwards), with only 2 per cent of women in this most recent generation married by age 23.

6 C D'Arcy & D Finch, *Finding your routes: Non-graduate pathways in the UK's labour market*, Resolution Foundation, May 2016

7 Longer working lives may also be more diverse and require re-training in adult life. Resolution Foundation research has highlighted the importance of improving routes to adult education, particularly for non-graduates who may find themselves stuck in low paid roles with untapped skills and potential. See C D'Arcy & D Finch, *Finding your routes: Non-graduate pathways in the UK's labour market*, Resolution Foundation, May 2016

Figure 5: **Age at which first married for different generations: England and Wales, birth cohorts 1926-2000**



Source: ONS, *Marriages England and Wales, 2013*

However, low marriage rates do not mean that people are not forming families. Nor has it meant a large rise in the proportion of single parent families – which have increased from 8.0 per cent of working age households to 8.9 per cent between 1996 and 2015.[8] Instead there has been a societal shift, with rates of cohabitation without marriage increasing significantly in recent decades. In 2015, 20 per cent of couples reported that they were cohabiting but not currently married compared to 15 per cent in 2001. A measure of cohabitation is not available on a consistent historical basis before this point, so instead we consider the age at which a first child is born to inform when different generations start to form families.

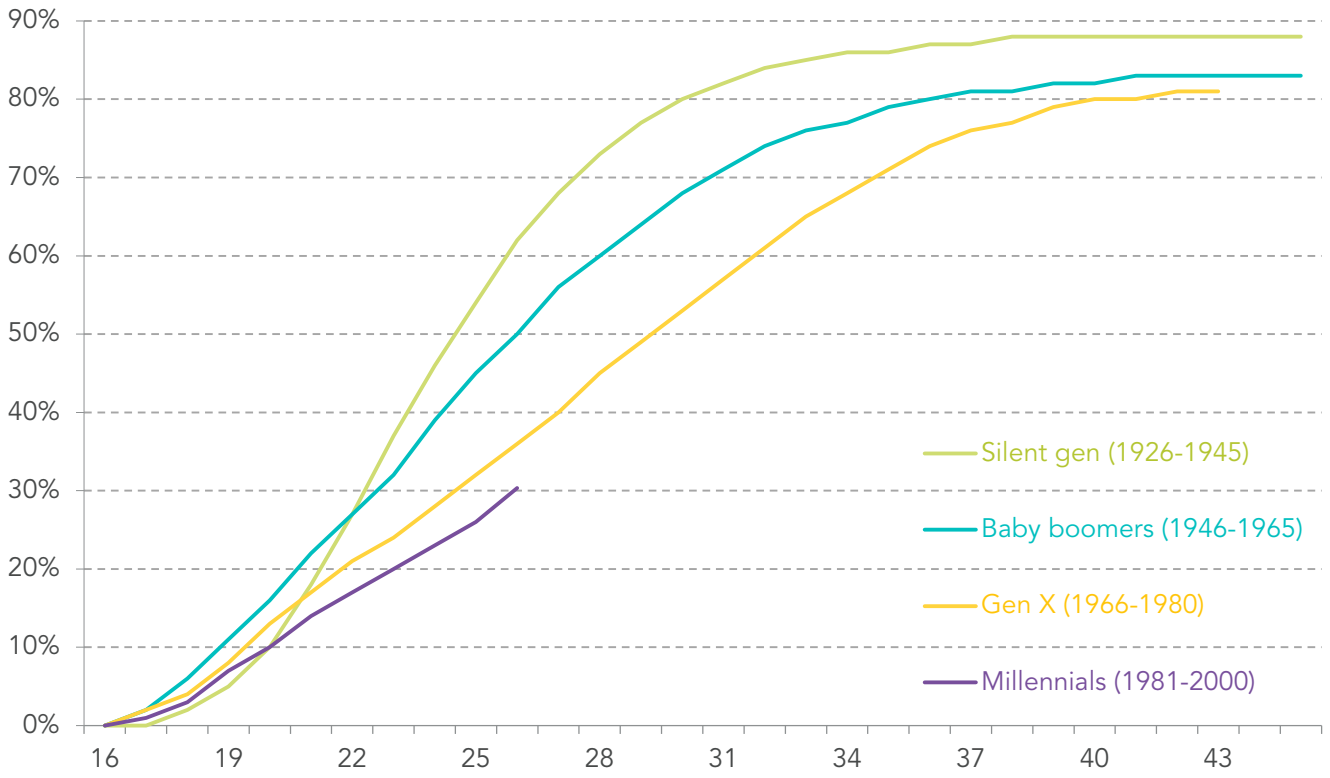
Data on the number of births published by ONS confirms this shift in couples' status, with 47.7 per cent of births occurring outside of marriage in 2015, compared to only 11.8 per cent in 1980. Birth data can also tell us when families are formed, with Figure 6 confirming a later starting point for each successive generation. This highlights three things. First, women are having their first child later (shown by curves moving to the right). Second it details the spread of childbirth across the life course (indicated by a steady flattening of the curves). Third, it shows the proportion of women never having children has increased (displayed by the downward shift in the end-point of the curves).

By age 30 over 80 per cent of women from the silent generation had given birth to at least one child, falling to 68 per cent of baby boomers and only 53 per cent of generation X. By their mid-40s there is a clear fall in the proportion of women ever giving birth between the silent generation (88 per cent) and baby boomers (83 per cent). However, by this age the gap between baby boomers and generation X has

8 P Gregg & D Finch, *Employing New Tactics: The changing distribution of work across British households*, Resolution Foundation, January 2016

closed, meaning that it is the timing of births rather than the decision to have children at all that has altered most recently. There is a further downward shift in the proportion of births at young ages for millennials, but it is too early to tell how the pattern of births will pan out in future years. But one thing is clear: the point at which successive generations form families is being delayed.

Figure 6: **Distribution of first births by age of mother: England and Wales, birth cohort mothers 1926-2000**



Source: ONS, *Childbearing for women born in different years, England and Wales: 2015*, November 2016

There is some sign of a recent pick up in fertility though. This appears to partly be a mechanical product of a wave of children born to mothers who had delayed pregnancy to later ages (shown in Figure 6 by the catch up of generation X to baby boomers in their 40s). A further factor at play is the increase in the number of foreign-born women having children. Fertility rates of foreign born women are on average higher, so the net inward migration the UK has experienced in recent years increases the overall rate. Foreign-born women now represent around a quarter of all mothers.[9]

These birth patterns suggest that more recent generations are spending longer as singles, or as couples before having children. These changes have a number of implications for living standards and are potentially intertwined with wider social and cost of living trends.

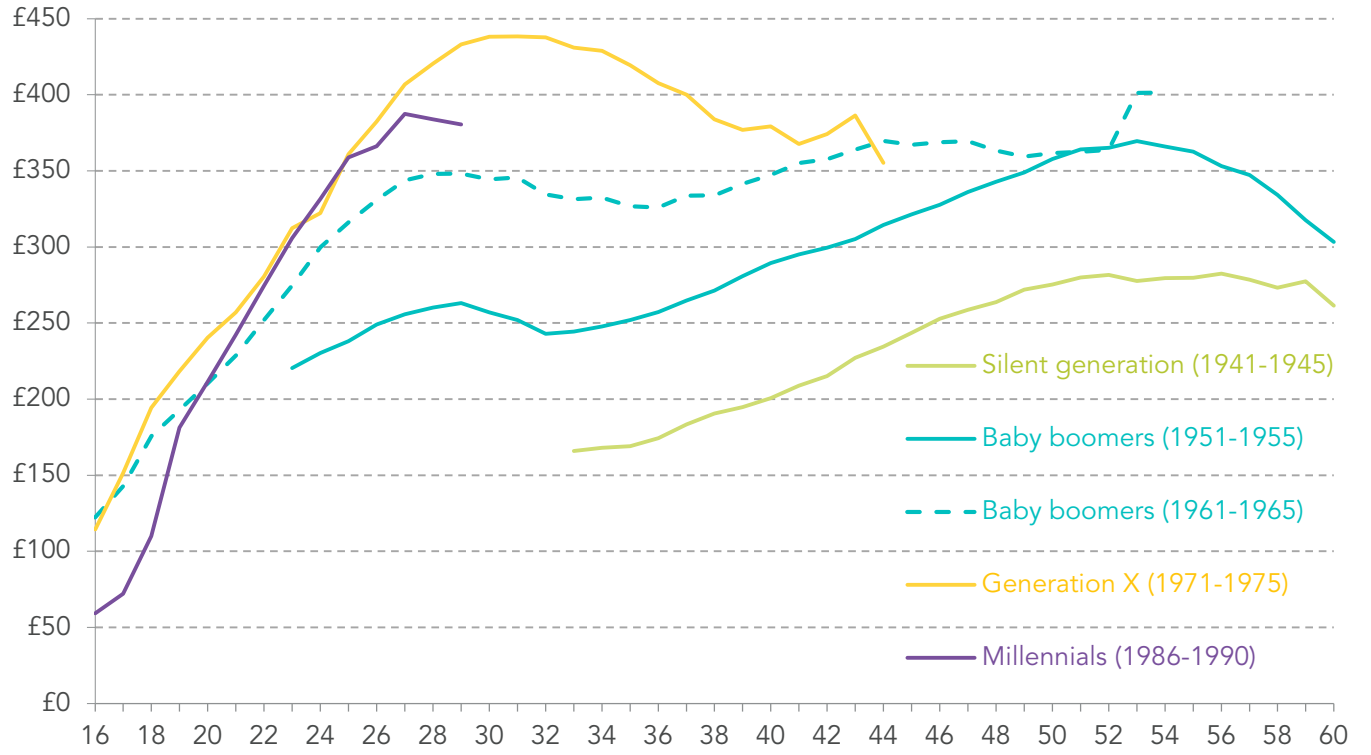
First, later childbirth means more time for women to establish a career – thereby boosting both their potential earnings and workplace conditions – before having a child. Figure 7 depicts typical (median) weekly earnings by age for women in different generations. For younger generations earnings have increased for a longer period (shown by the curve rising for longer initially) at the start of their career. Historically women's earnings have then dipped, or no longer grown (shown by the curve

9 N Tromans, et al., 'Have women born outside the UK driven the rise in UK births since 2001?; in Office for National Statistics, *Population Trends 136, Summer 2009* , April 2009

flattening), at an age typically associated with childbirth. When we compare these trajectories to men's earnings, it's clear that a large earnings penalty for mothers remains.[10] But by shifting the onset of motherhood to later ages the lifetime penalty is potentially reduced.

Figure 7: **Median pay by age for women, by cohort / generation: UK, 1975-2016**

Median real weekly pay for all employees (RPIJ-adjusted to 2016 prices)



Notes: For the years in which it is available, published Annual Survey of Hours and Earnings pay estimates (which cover the UK as a whole, as opposed to the microdata which only covers Great Britain) are used as control totals, and the results from each individual dataset are indexed to those from the Annual Survey of Hours and Earnings to create a consistent series over time.

Source: RF analysis of ONS, *Quarterly Labour Force Survey*; ONS, *Annual Survey of Hours and Earnings*; ONS, *New Earnings Survey Panel Dataset*

Second, having children later has the added consequence of reducing the total number of children that a mother is likely to have – effectively the childbirth 'window' is narrowed so families have been getting smaller. Of course, other factors are at play here too, including financial pressures as having fewer children saves money over the life course. This represents a potential coping strategy if the aim is to maintain living standards with longer lives (as well as mitigating increases in the cost of living).

Equivalisation factors, used to make comparisons between household incomes while accounting for the additional costs faced by larger households (and the savings of living as a couple rather than single), suggest that a child increases the living costs of a couple by an average 25 per cent a year across their first 18 years. Taking average expenditure for a couple with no children that suggests an additional real terms income requirement of an additional £140,000 to maintain living standards over the period. Recouping these costs is the equivalent of each member of the couple working for over 4 years each in their 60s at typical rates of pay for those ages.[11]

10 L Gardiner, Is the gender pay gap on the brink of closure for young women today?, *Resolution Foundation blog*, 4 January 2017

11 Assuming that both members of the couple earn at today's median rate of pay for individuals in their 60s, applying the current tax system to their gross income and using OECD equivalisation factors.

Living as a single for longer

As well as longer spent in education and later family formation, another significant shift – and one that rather than representing a potential 'coping strategy' for dealing with longer lives pulls in the other direction – is the dissolution of couples' relationships. Easements in divorce laws meant that since the 1950s it has become easier – at least from a process point of view – to end marriages. Therefore not only do we have a rise in singles in the early part of life but also in mid-life too. The total proportion of singles in the UK population has increased by almost 12 per cent (from 23.1 per cent to 25.7 per cent) between 1996 and 2015. The greatest increase has come not at younger ages, due to delayed couple formation, but at older ages. Around half of all singles were aged 40 to 64 in 1996, a figure that had risen to around three-quarters in 2015.[12]

On the other hand, it should be noted that an offsetting factor in the trend towards a greater number of single households is the narrowing gap in life expectancy for men and women. Those couples that do stay together into later life are more likely to remain as couples for longer.

Living as a single is more expensive than living as a couple. Therefore from the perspective of living standards this acts in the opposite direction to having fewer children, increasing the cost of living over the lifetime. More singles in the UK will also create additional pressure on housing needs – as will an increase in the size of the older population (given those of retirement age tend to live in households containing one or two people). Overall, according to the Department for Communities and Local Government's projections, the total number of households is set to increase by almost a quarter (23 per cent) from 22.7 million in 2014 to 28 million by 2039 ,with the greatest growth in older households without children.

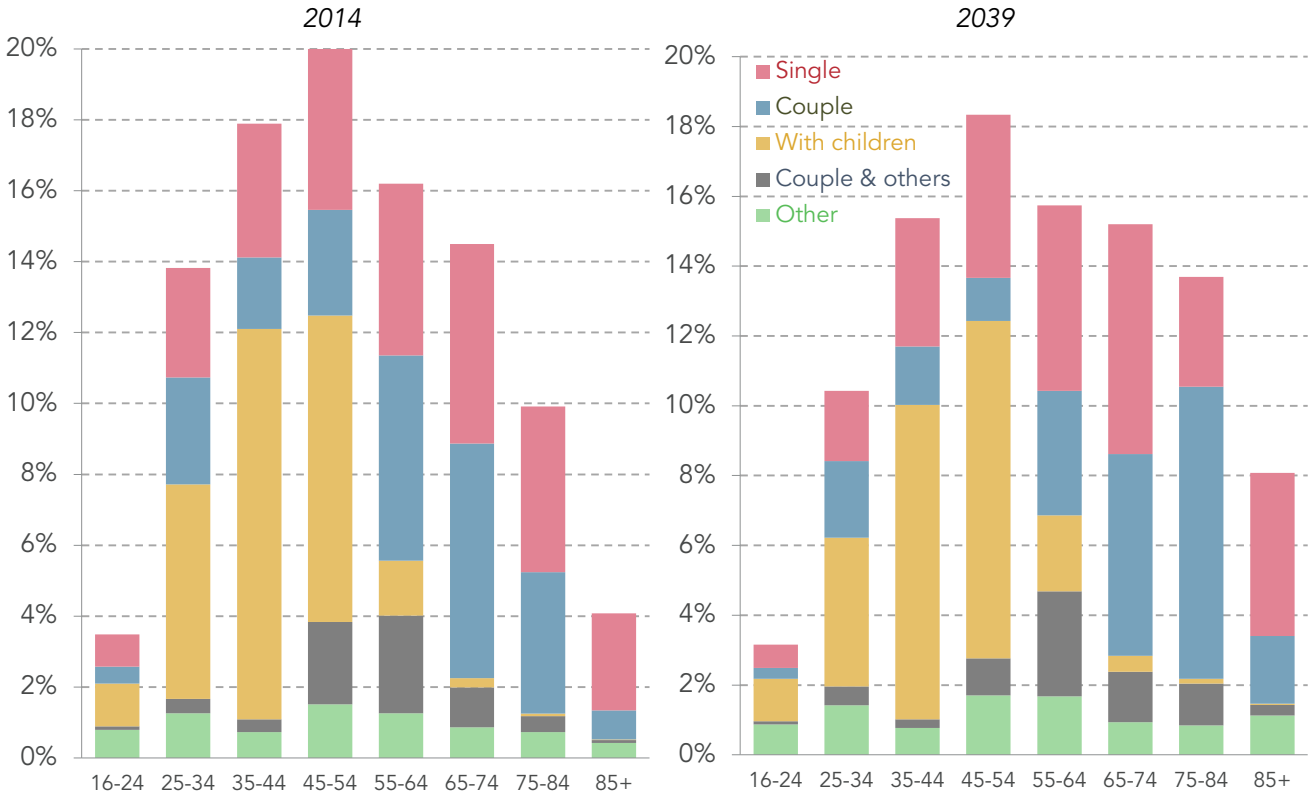
Figure 8 shows these latest households projections, highlighting how household composition is expected to change over the next 13 years based on historic trends in family formation and the latest ONS population projections:

- The biggest proportional increases are among singles and shared households (couples with other adults and 'other' household types).
- The greatest increase in households with children is at older ages (between the ages of 45 and 54).
- There is a significant shift in the proportion of older households with a greater number of couples at ages 65 to 85 (with both men and women living longer on average) and singles at age 85+ (as people live longer overall).

12 P Gregg & D Finch, *Employing new tactics: The changing distribution of work across British households*, Resolution Foundation, January 2016

Figure 8: **Projections of households by type and age of head: England, 2014 and 2039**

Proportion of households



Source: DCLG, *2014-base household projections in England, 2014 to 2039*

With not just the number of households growing – but also their size and composition shifting – a significant challenge is created for government. Beyond the pressing need for an increasing in the overall housing stock, house-building plans will need to reflect this shift in the composition of household types.

Entering retirement

The point at which people retire signals the end of their working life, but determining precisely when this points starts is difficult. The government has no formal retirement point with no explicit link between the payment of State Pension and employment, and the removal of the Default Retirement Age (where employers could force their employees to retire at age 65) since 2011.

However, we first look at the State Pension age as one potential indicator of when retirement may begin. State Pension age (the age at which an individual becomes entitled to their State Pension) was set at 65 for men and 60 for women in 1940. It is only since 2010 that women's State Pension age has started to rise to first equalise with men's, with both then moving to 66 by 2020. In future it is set to increase further still with a legislated rise to 67 by 2028 and an expectation of further increases broadly in line with rising life expectancy beyond that point.

The State Pension age is sometimes conflated with the point of retirement, but in reality many people stop working before they reach that age, and many work beyond it. Two-thirds of the net employment growth since 2010 has come from those aged 50 plus – the overall employment level has increased by 2.5 million between the three months to October in 2010 and 2016, with the level for those aged 50 plus increasing by 1.6 million. Indeed the employment rate of those aged 65+ has steadily grown over the last two decades and now, in the three months to October 2016, stands at 10.6 per cent. That compares to 5.0 per cent for the

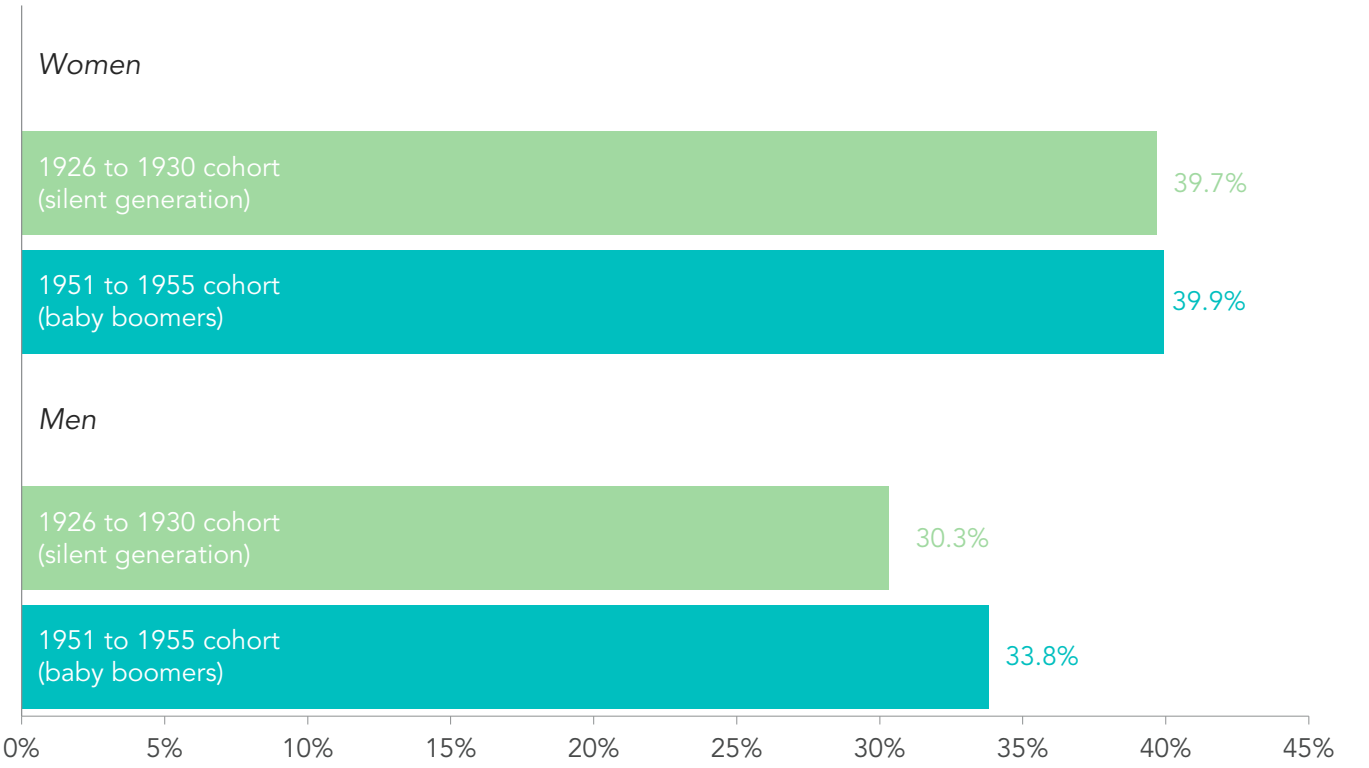
same period in 1992.[13]

An alternative approach to understanding retirement is to consider the age at which members of a cohort have typically stopped working. Absent longevity improvements, in a country of rising prosperity we might expect that a greater number of people retire earlier. But in fact trends are moving in the opposite direction, with the proportion of women aged 60 in work increasing from 33 per cent for the silent generation to 48.6 per cent for the baby boomers (the figures for men are 59 per cent and 64.6 per cent respectively).[14] For the latest cohort of baby boomers (born 1951-1955) for whom we have sufficient data, the typical retirement age for women was age 61, compared to age 58 for the youngest cohort of the silent generation (born 1926-1930). The corresponding figures for men were ages 64 and 62.[15]

Although people are retiring later, increasing life expectancy means that they are not necessarily spending a smaller share of their adult life in retirement. Figure 9 compares the expected proportion of adult life spent in retirement, on average, for women and men in the cohorts born in 1951-1955 to those born in 1926-1930. It shows that for women, the younger cohort is projected to spend only an additional 0.2 per cent of adult

Figure 9: **Comparison of adult life spent in retirement for select cohorts within the silent generation and baby boomer generation: UK? 1926-1930 & 1951-1955**

Proportion of adult life in retirement



Notes: Adult life in retirement is calculated by taking average life expectancy for the given cohort at the relevant retirement age and dividing by the adult life (age 20 to retirement age plus life expectancy at that retirement age). Typical retirement age is taken from the point at which less than 50 per cent of the relevant cohort is observed to be in employment.

Source: RF analysis of ONS, *Quarterly Labour Force Survey*; ONS, *UK lifetables 2014-based, England and Wales*

13 ONS, *UK Labour Market Statistics*, December 2016

14 L Gardiner, *Stagnation Generation: The case for renewing the intergenerational contract*, Resolution Foundation, July 2016

15 Resolution Foundation analysis of ONS, *Labour Force Survey*

life in retirement despite retiring 3 years later. For men the increase, as a proportion of adult life, is much larger – the younger cohort can expect to spend 33.8 per cent of their life in retirement compared to 30.36 per cent for the cohort from the silent generation. Men still lag behind the share for women because women retire earlier and, on average, live for longer.

It is unclear whether future generations will enjoy a continually rising share of their adult life in retirement. On one hand, the government intends to hold the average share of adult life spent entitled to State Pension broadly constant into the future – at up to one third of 'adult life'. Though it should be noted that the Government Actuary's Department has been asked to provide a State Pension age timetable which meets a lower target of 32 per cent of 'adult life in retirement'. The implications of this move in future are discussed further in the following section but, put simply, it would bring a rise in State Pension age to 68 forwards from 2046 to the end of the next decade. This would mean that for women State Pension age had risen from 60 to 68 within a twenty-year period, a significant adjustment for the affected cohorts to make in a relatively short period of time.

The increases in female State Pension age observed so far – a rise from 60 to 63 – have been associated with large increases in female employment at age 60+,[16] but it is as yet unclear whether this trend will continue with further increases. It is possible that the strong reaction observed so far reflects a natural change in retirement patterns. Women are on average two to three years younger than their husbands and historically State Pension claims by women have often begun beyond State Pension age, in line with men's claims. If the employment gains already seen have been the easiest pickings, pushing the State Pension age so much further so quickly could have a negative impact on living standards. And that is before considering how such quick rises in a short period of time compare to what has been a recent slowdown in 'healthy life expectancy' improvements for women from the lowest NS-SEC classes (see Box 2 earlier in this section for further details).

On the other hand, it has historically been the case that expectations of life expectancy are continually, and at times significantly, under-predicted (see Box 3 for more detail). If this continues it would mean that even if State Pension age rises faster, accounting for the latest expectations of longevity, people would still live for longer in retirement than in previous generations.

Defining retirement is clearly not a straightforward activity. Regardless of available wealth and assets, some people may choose to work to older ages. Others may decide to draw on private resources in order to retire early, while still more may choose to not work and instead provide care for children or sick relatives. Women especially tend to report that they are not working, or only working part time, due to wider informal caring responsibilities. This highlights a trade-off between working for longer and spending time in roles which effectively reduce financial pressures for others – be it providing care for an elderly relative or looking after grandchildren – as well as reducing the need for the state to make formal provision.

With employment for women at older ages rising significantly in recent years, there may be a risk of a shortage of supply of informal care. Measuring the extent of this activity is tough relative to measures such as employment used above, but the value of such activity should not be overlooked when considering lifetime living standards (nor indeed, as in the following section, when considering the cost to the state of an older population). In the short term, greater efforts to measure this activity through household surveys should be a priority.

And of course 'retirement' may not be voluntary. Many report to surveys such as the Labour Force Survey that they have retired, but a large proportion also report that they have ill-health or a disability.[17] As discussed in more detail in Box 2, divergence between socio-economic groups remaining healthy for longer is a concern on equity grounds, as is the negative effect on lifetime income of leaving the labour market early due to health problems or a disability.[18] The variation in the experience of longer lives – and the extent to which the changing shape of lives reflects constraints and shocks rather than active choices – highlights the need to recognise fairness within generations, not just between them.

16 J Cribb, et al, *Labour Supply effects of increasing the female state pension age in the UK from age 60 to 62*, IFS, July 2014

17 P Gregg & L Gardiner, *The road to full employment: What the journey looks like and how to make progress*, Resolution Foundation, March 2016

18 For more detail on proposals to maintain employment for people with long term ill health or disability, see: L Gardiner & D Gaffney, *Retention deficit: a new approach to boosting employment for people with health problems and disabilities*, Resolution Foundation, June 2016

Typical lifetimes for different generations

Taking the above analysis of changing life stages as a whole, we are able to build an informed picture of 'typical' lifetimes for individuals from different generations. Figure 10 sets out the absolute number of years and proportion of total life spent in education, work, parenthood and retirement for each generation. Obviously it is impossible to predict with certainty what will happen in future, and averages masks a wealth of variation within generations and cohorts. But this exercise helps to put shape to shifting lifestyles and life stages across generations, highlighting where key cost of living pressures may occur and the potential strategies for dealing with those challenges.

This exercise rests on a mix of outturn data, projections and assumptions about future trends, working backwards from the end of life and taking an average across generations and men and women unless stated otherwise:

- The *overall life span* is calculated by taking average life expectancy at retirement age from ONS cohort life expectancy projections.
- The *retirement age* for generation X, millennials and the latest generation is estimated by taking the expected State Pension age.[19]
- The point at which *families are formed* is estimated by assuming the current trend for the age at which mothers give birth to their first child for millennials relative to generation X continues, with a similar shift applied for the latest generation relative to millennials.
- The typical age at which the latest generation *leave full-time education* is assumed as age 19 given the extension of compulsory school leaving age to 18 and four-fifths of those aged 23 to 25 holding at least an undergraduate degree or equivalent.[20]

The first, anticipated, key trend is that lives are getting longer for successive generations. The latest generation is expected to live to 94 on average (using life expectancy at retirement age) compared to 84 for the silent generation (born almost a century earlier). But life stages are also shifting:

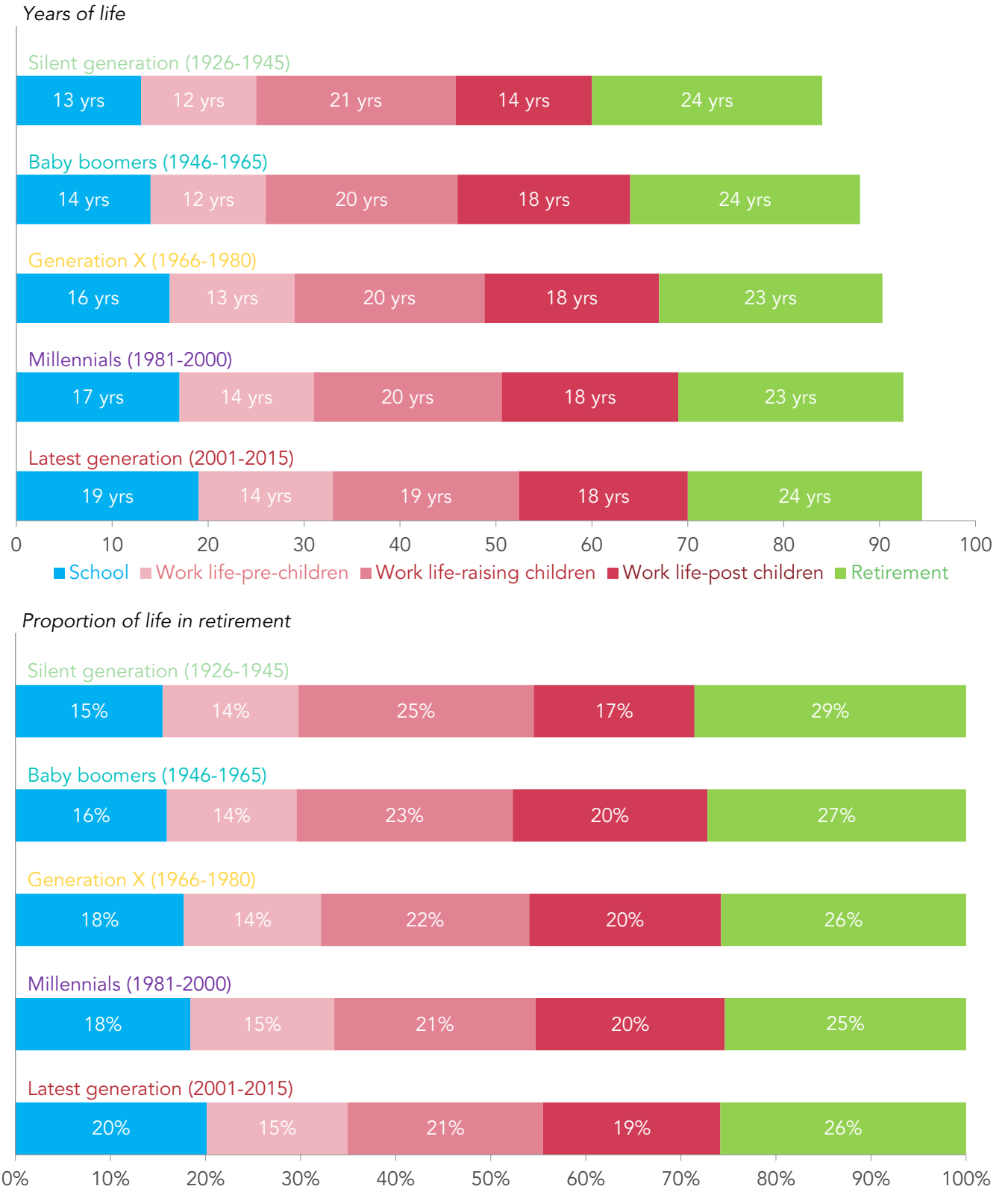
- Perhaps most significantly, as both number of years and share of lifetime, time spent in **education** has grown steadily across generations, with the latest generation likely to spend one fifth of their life (19 years) in full-time education, compared to 15 per cent (13 years) for the silent generation. A longer education implies that more recent generations are building greater earnings potential before entering the labour market.
- The point at which **family formation** starts has been delayed and time spent raising children is reducing. The latest generation are expected to start having children at age 33 and spend 21 per cent of their lifetime raising children, compared to a starting point of age 25 and 23 per cent of a shorter lifetime for the silent generation. This has the consequence of boosting lifetime resources with people spending longer building a career before having children and then experiencing lower living costs from having fewer of them.
- The length of the **working life** has grown by up to five years, despite recent generations spending longer in education. The latest generation are expected to work for 51 years, compared to 47 years for the silent generation. However the share of life in work is expected to slightly fall from 56 to 55 per cent between these same generations.
- Perhaps surprising is the lack of any large shift in number of years generations are expected to spend in **retirement**. In large part this reflects a rising retirement age alongside rising life expectancy (and State Pension age increases explicitly linked to longevity expectations[21]). The proportion of life spent in retirement for each generation fell after the silent generation but has then remained broadly constant.

19 Given an expectation of spending one third of adult life in retirement, note that a lower proportion is shown in Figure 9 because this represents the whole lifespan.

20 C D'Arcy & D Finch, *Finding your routes: non-graduate pathways in the UK's labour market*, Resolution Foundation, May 2016

21 Current policy is to set the State Pension age so that on average people spend one third of their adult life in retirement.

Figure 10: **Lifetimes and life stages across the generations: UK, 1926-2015**



Source: Resolution Foundation analysis using various sources detailed in this section

Living longer is one boost to living standards that is expected to continue to deliver for younger generations, but one that opens up risks as well as opportunity. Living for more years implies the need for a greater lifetime income for individuals if living standards are to be maintained. This section has explored the extent to which adapting lifestyles reflect potential strategies to boost lifelong income, or in fact exacerbate the income-requirement pressures of longevity.

However, as well as an individual challenge, rising longevity also represents a collective risk. An ageing population poses new challenges for any country, made tougher by the size of different generations. The following section of this report considers how the structure of the UK population is changing as individuals live for longer and cohorts move through the life stages, and the implications these collective risks have for living standards across the generations.

Section 3

Living standards in a longer-living society

Longevity improvements also have important implications for collective living standards. The fact that the large baby boomer generation is now beginning to retire makes this a particularly crucial period, with the older population growing faster than the working age population. In simple terms as the working age population shrinks in relative terms so it becomes harder to generate the growth required to meet the needs of society.

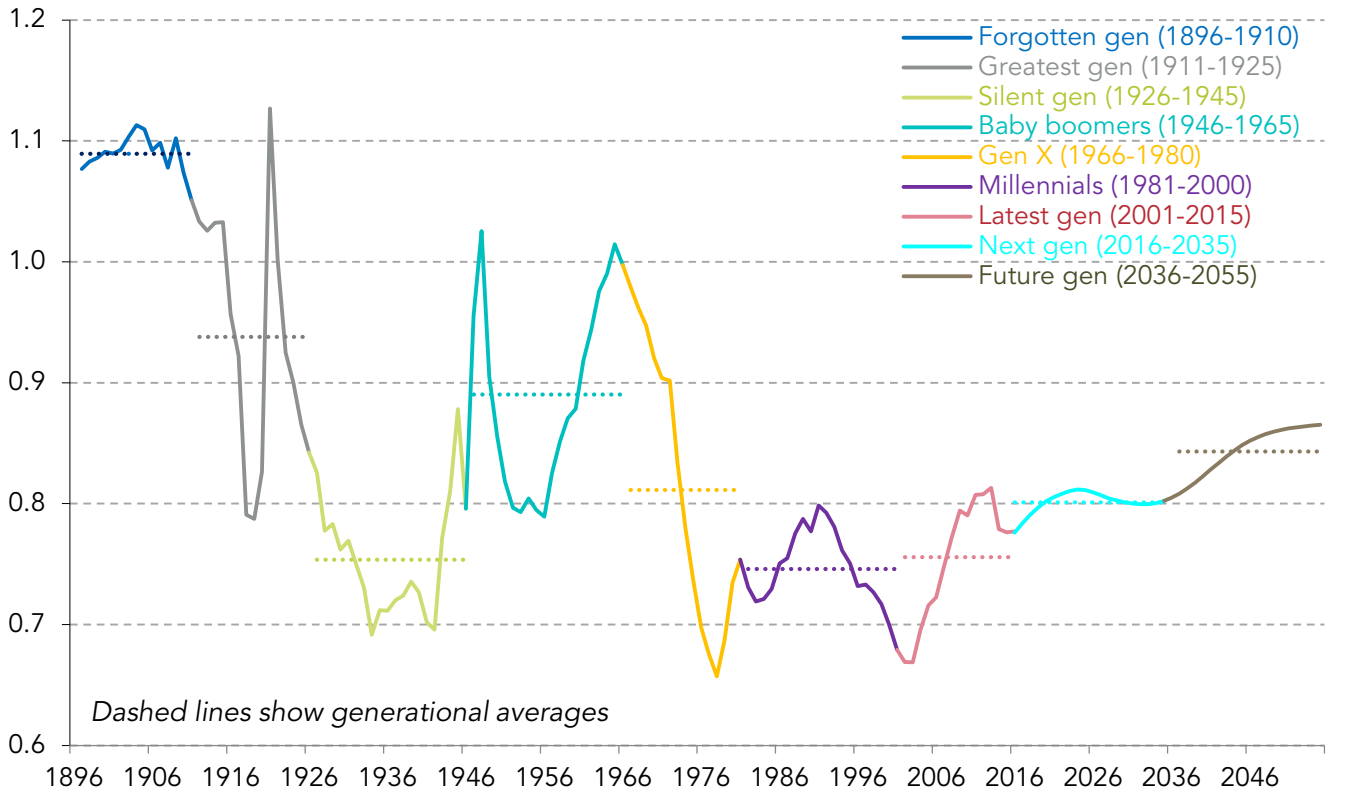
A greater number of older people also means additional costs through state pensions, healthcare and other services. Simple metrics such as dependency ratios – comparing the relative size of different age groups in the population – may overstate the challenge and strategies exist to at least partly offset demographic headwinds, such as boosting employment levels or increasing State Pension age. However, there seems little doubt that the size of the coming wave retirees combined with continued ageing poses a challenge for the UK, and signals a continuation of the longer-term shift in the balance of government support towards the older population. It is therefore essential that government is actively monitoring and managing these demographic trends, including considering how best to allocate resources fairly between generations to help support and boost living standards for all.

Historic birth patterns are driving a shift in population structure

Widespread population ageing across developed countries has been a concern for some time with Japan – which started the process in the early 1990s – perhaps the most prominent example. Indeed, while birth rates remain high across developing countries, the rapidly ageing Chinese population suggests the picture we have so far painted is truly a global phenomenon. In the UK the picture looks less extreme than in some countries, but it is quickly becoming apparent that our population has entered an ageing phase as the large baby boomer generation reaches retirement age.

Figure 11 sets out historic and projected births for different generations. It highlights the sustained spike in the number of births in the two decades that followed the Second World War. A subsequent ripple effect is visible with spikes in births roughly every 20 to 25 years later. But these spikes are of a much smaller magnitude, reflecting societal shifts discussed in the previous section.

Figure 11: **Historic and projected number of births by generation: UK, 1896-2056**



Source: ONS, *Characteristics of Births, England & Wales*, 1838-2015; ONS, *Birth summary tables, England & Wales, 2015*; NISRA, *Northern Ireland live Births, 1887-2015*; NRS, *Births Time Series Data*, Scotland

Since the birth of the baby boomers, the UK has enjoyed a relative period of peace, low infant mortality and continual medical advances, leading to the large birth cohorts in that post-war period remaining large as they have aged. Their size has remained greater than those that came before them and those that followed.

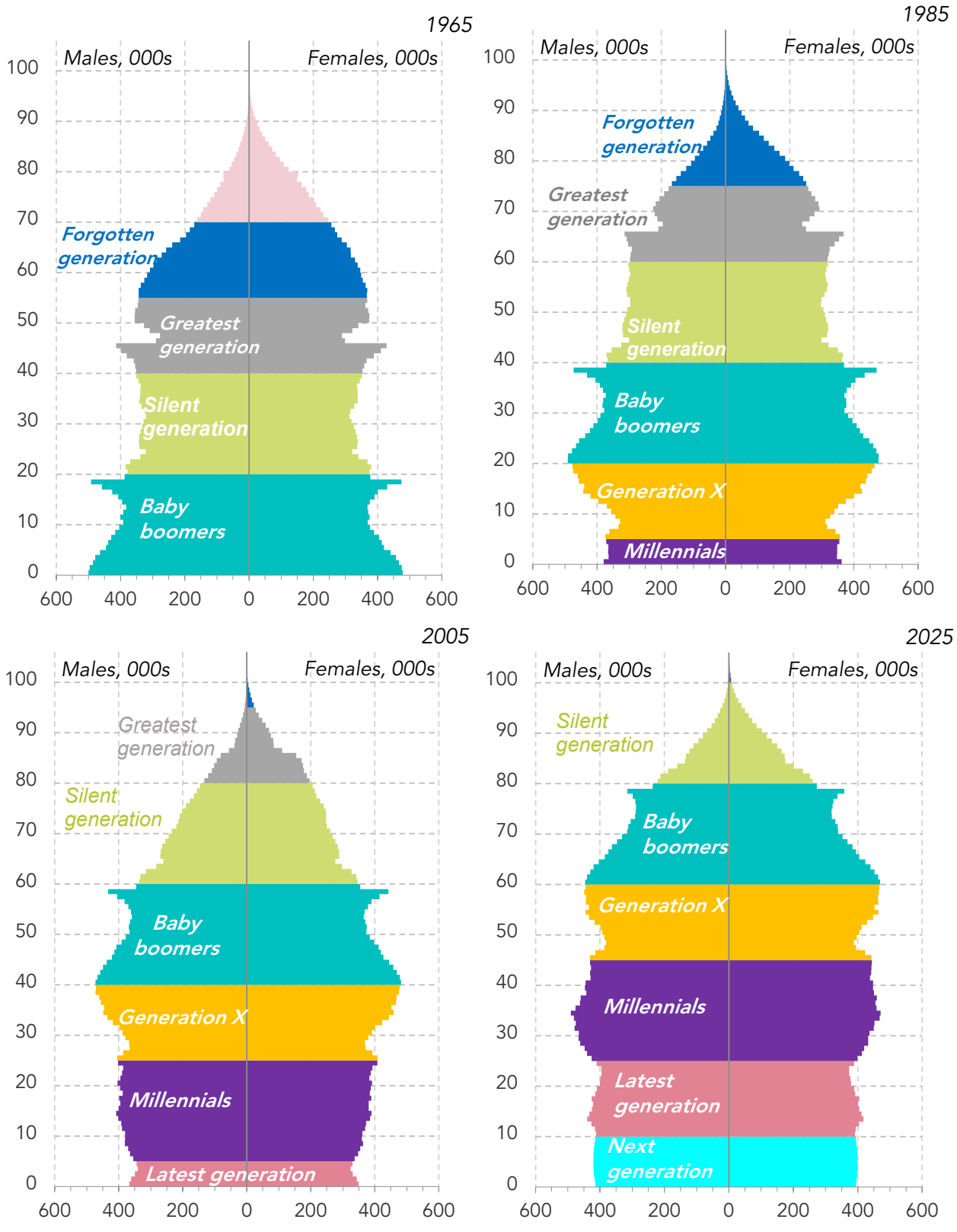
Tracking the progress of the baby boomers as they age shows how they have dominated the overall shape of the population over the last 70 years and are set to do so for some years into the future.

Figure 12 presents population pyramids for selected years since 1965, highlighting the influence of the baby boomers:

- By 1965 the entire generation of baby boomers had been born and made up the entirety of the young population (those aged under 20). They were larger than the generations coming before them, then of working age.
- Twenty years later (1985) and baby boomers made up the first twenty years of the working age population. They provided a boost to the working age population, helping to offset what even then was a growing older population due to rising longevity.
- By 2005 the baby boomers were approaching retirement, with the eldest age 60. However they still boosted the working age population, being larger than generations they followed.
- The baby boomers will have reached ages 70 to 89 by 2025. But because of their size the shape of the overall population is expected to be very different than in 1965 when they were young. The ratio of the older and younger population relative to those of working age will have grown significantly driven by the ageing of the baby boomers.

Figure 12: **Population estimates and projections by generation: UK, 1965-2025**

Age by number of individuals



Source: ONS, *2014 mid-year population estimates*; ONS, *2014-based population projections*

We are moving into a period in which growth in the older population will dominate, due to both the large baby boomer cohort entering retirement age and continued longevity. At the same time the working age population is expected to increase although how fast is less clear: predicting future birth rates and migration flows is even harder than estimating how long people with live for.

Although it is very hard to judge, the projections underpinning Figures 11 and 12 suggest that the overall number of births in future generations is set to grow, providing some counterbalance to rising longevity. The rising number of births is in part due to an increase in the absolute number of potential mothers as well as a recent rise in the overall fertility rate. However, the overall fertility rate (1.9) is projected to remain below the long-term 'replacement' fertility rate (2.1) – that required for the population to replace itself in the long run. The long-run consequence of such an outcome would be a smaller and older population.[22]

The future role that migration will play remains highly uncertain at this early stage of the Brexit process

Beyond births and longevity which we have so far discussed, there is one more component of population change: migration. Unlike births and deaths, changes in rates of net migration have an immediate impact on the size of the population, usually concentrated at working age. For example, since 1991 around 80 per cent of long-term net migration has consisted of people aged 15 to 64.[23]

With baby boomers now starting to retire, and the younger cohorts entering the working age population smaller than those they replace, the working age population would have shrunk in the years 2011 to 2014 in the absence of net migration. Migration flows are not the greatest contributor to the overall size of the UK population, but they do play the key role in how fast the working age population is expected to grow relative to the older population. In this way, migration has the potential to offset demographic headwinds such as those we have described. The extent to which this will be a feature of the UK's future demographic change has been thrown into doubt by the recent decision to leave the EU.

A long term shift in the dependency ratio

Such shifts in the structure of the population are important. The UK tends to be seen as operating on a Pay as You Go basis, broadly meaning that the working population generates the resources necessary to support the 'dependant' population – usually the old and the young. Rather than generations setting resources aside in working life which they consume in their retirement, they instead support older generations in their working life. The deal struck is that they will, in later life, be supported by those that follow them. If the working population becomes relatively smaller then providing such support becomes more burdensome per head, placing a greater strain on living standards. However, the reality is not so clear cut as private asset accumulation also plays a key role. People accumulate private resources when in work – such as housing or savings – which are then run down in retirement.

For living standards, in simple terms, two interconnected factors are at play. The size of the economy is in large part dependent on the size of the workforce, which is in turn largely dictated by the size of the working age population. However, GDP per capita, which tells us the amount of output produced for each person, is also determined by the total population. If the dependant population grows faster than the working age population we could expect GDP per capita to fall. In turn this could lead to an increased tax burden for working age individuals.

One way to represent this balance, and consider the scale of change is through the 'age dependency' ratio, defined here as the number of people aged 20 to 64 (working age) relative to those aged under 20 (the young) and 65+ (the old).

Figure 13 maps the ratio of dependants to those of working age in the UK based on population estimates and projections from 1961 to 2065:

22 ONS, *National Population Projections:2014-based reference volume, series PP2*, March 2016

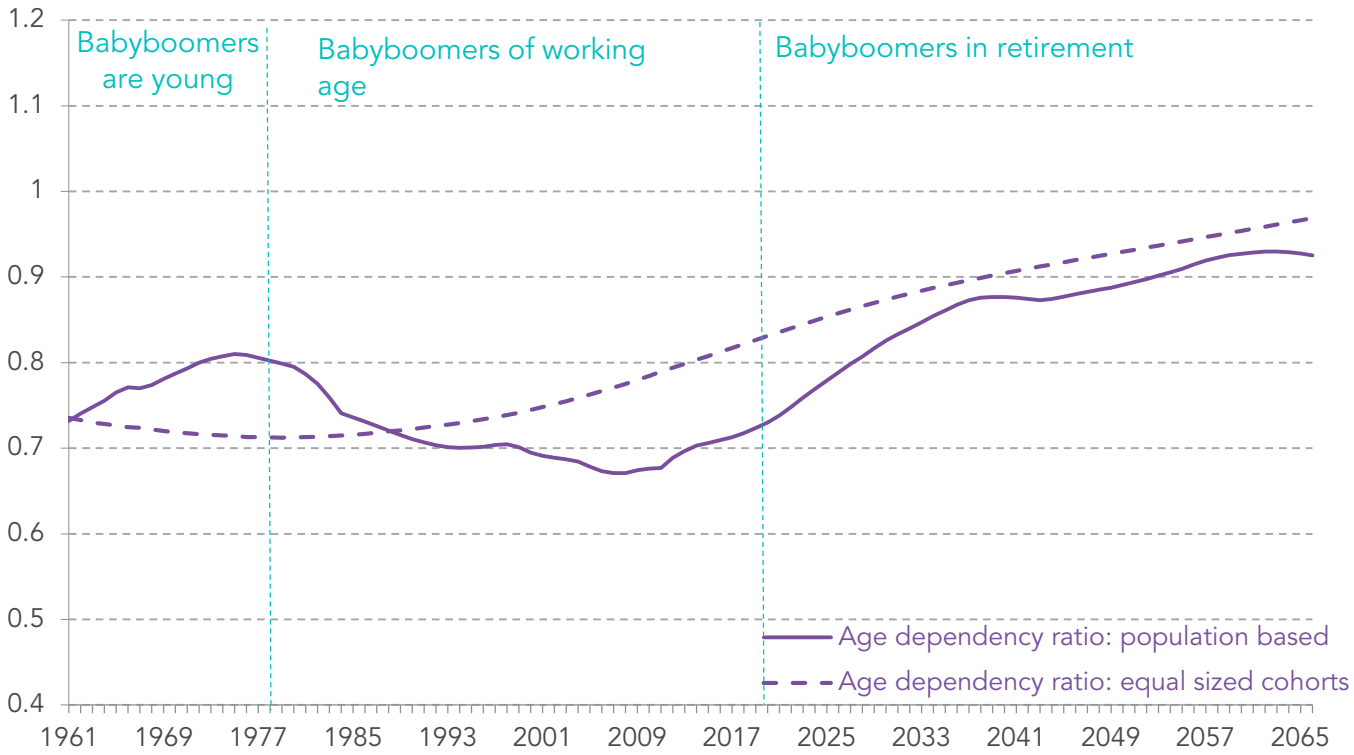
23 ONS, *Long Term International Migration into and out of the United Kingdom, 1964 to 2014*

- In 1961 the age dependency ratio stood at 74 per cent meaning there were approximately 3 dependants for every 4 people of working age.
- Today the ratio remains broadly the same at 71 per cent, having gradually risen in recent years following a period where the ratio fell due to the baby boomer generation moving through working age.
- The increase in the dependency ratio is set to accelerate as the baby boomers enter retirement, reaching 88 per cent by 2038 – meaning 9 dependants to every 10 people of working age.
- The dependency ratio is then expected to gradually rise to reach 93 per cent – almost the same number of dependants to workers by 2065.

The centrality of the baby boomers, against general rises in longevity, is shown by the dashed line in Figure

Figure 13: **The changing balance of age dependency: UK, 1961-2065**

Dependency ratio ((under 20s & 65+)/ages 20 to 64)



Notes: 'Equal sized cohorts' provides a dependency ratio assuming an equal number of births each year, as well as an even gender balance. The life stages of the baby boomer cohort are taken from the mid-point of birth cohort at age 20 and age 65.

Source: Resolution Foundation analysis using ONS, *2014-based mid-year population estimates*, ONS, *2014-based population projections*

13 which replicates the dependency ratio but in a scenario where the size of each cohort is the same, effectively stripping out the impact of uneven birth numbers.

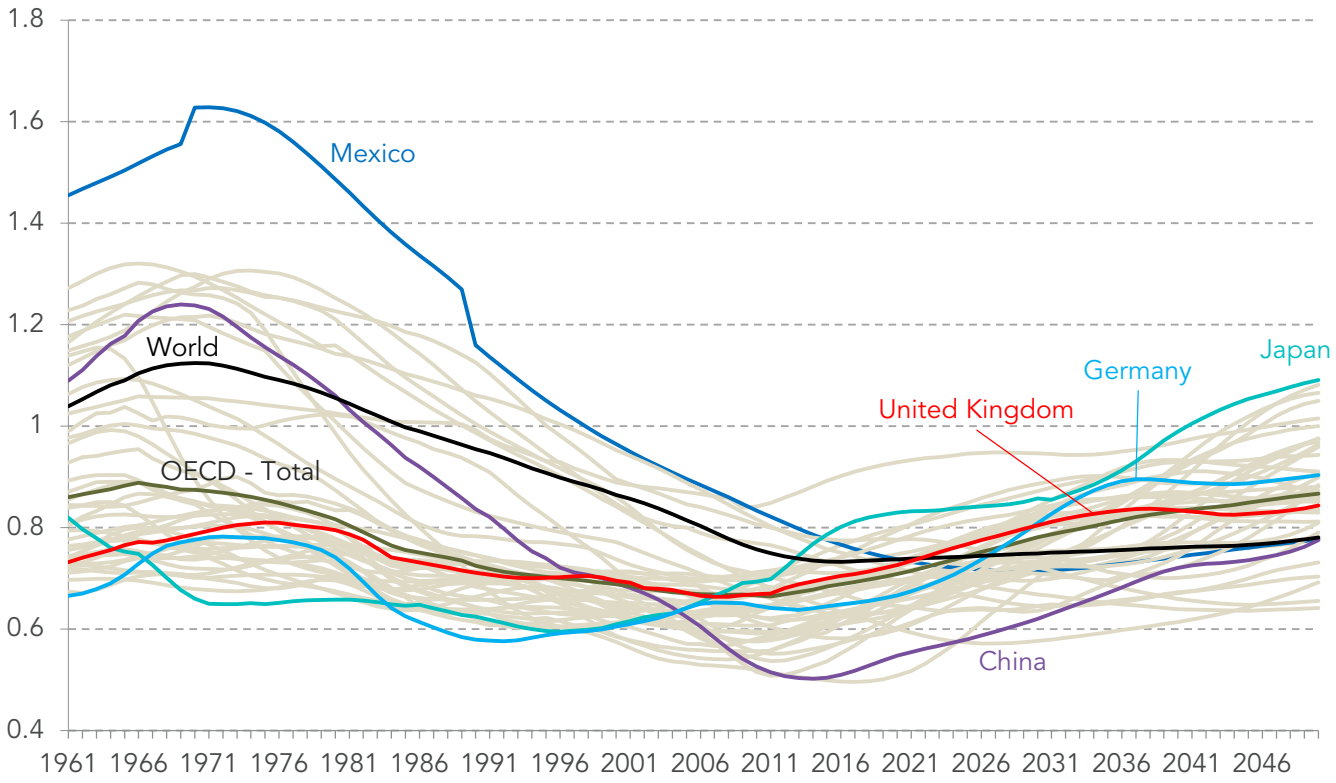
It highlights the extent to which the baby boomers caused the dependency ratio to rise when they were young – increasing the relative size of the group aged under 20. They have since suppressed what would have been a gradual rise in the dependency ratio caused by the improved longevity of older generations. In the near future the balance of dependants is set to rapidly change as baby boomers enter retirement over this decade and the next.

As noted, ageing populations are not phenomenon unique to the UK. Figure 14 shows that across most OECD countries the dependency ratio has followed a broadly similar pattern to that in this country: falling in the second half of the last century and set to rise into the first half of this century. However, importantly, the scale of change for the UK is less than other major developed economies such as Germany. Japan stands out as a country which experienced this shift earlier and to a greater magnitude than other developed countries.

Such demographic change is also prevalent in emerging economies. Due to its sheer size, how China's population changes is important for the global economy. Having experienced a rapid improvement in the dependency ratio between 1970 and 2015, the Chinese population is now set to age and the dependency ratio to rise.

Figure 14: **International comparisons of the dependency ratio: 1961-2050**

Dependency ratio ((under 20s & 65+)/ages 20 to 64)



Notes: Figure includes OECD countries as well as other selected countries including China, South Africa and Mexico.

Source: OECD.stat, *Historical population data and projections (1950-2050)*, extracted September 2016

This potential slowing in the growth of the global working age population has implications for domestic markets as well as the global economy. Precisely how has been the focus of much debate.[24] One feature that seems fairly predictable is a slowing in the growth of the global labour force with countries such as China, which in recent decades contributed significantly to the global increase in the labour supply now likely to put pressure on in the other direction. How this will affect economies is less certain, but some expect upward pressure on real wages driven by a smaller global labour supply, reversing the secular stagnation of the last fifteen years and potentially leading to increased investment, which in turn could boost productivity.

24 See for example C Goodhart, et al, *Could Demographics Reverse Three Multi-Decade Trends?*, September 2015; R Sharma, *Demographics of Stagnation: Why people matter for economic growth*, March/April 2016 and B Clements, et al, *Older and Smaller*, Finance and Development, March 2016

Depending on dependency ratios

However, useful though the dependency ratio is for providing a high level overview of key demographic trends we should be careful not to overstate the coming challenge based on what is a simplistic approach. We have already seen that some countries face a greater challenge than the UK. But this approach also fails to recognise a number of other key factors that alter the conclusions otherwise drawn: sensitivities in population projections and assumptions about the underpinning drivers; improvements in longevity against a fixed threshold for the older population; and how labour market participation rates have changed and may change in future.

Projecting the population

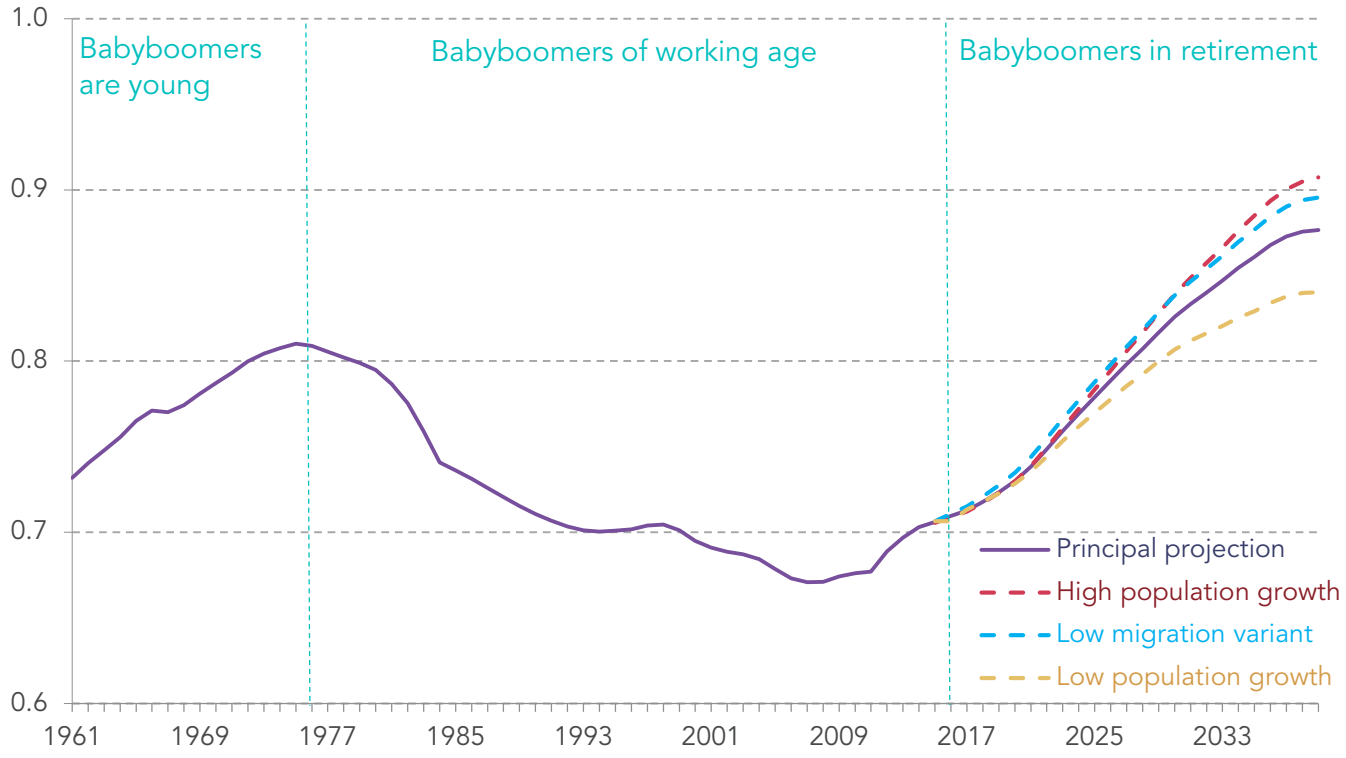
Population projections underpin key official estimates of the size and shape of the future UK economy. But these are not forecasts of the future, rather projections based on the best and latest available evidence on key recent trends of the drivers of population growth: births, deaths and migration. Inevitably, historic population projections have failed to reflect eventual actual population change (see Box 3 for details).

Given this uncertainty, it is important to consider a range of possible scenarios for future population growth when assessing future trends. Figure 15 depicts the same age dependency ratio shown in Figure 13, which is based on principal projections, compared to a selection of variant population projections with differing underlying assumptions about future population growth:

- The red dotted line depicts a low migration scenario where migration flows to the UK fall by two-thirds of their current levels over the medium term. With a smaller working age population, and all other factors held constant, the dependency ratio rises to around 90 per cent.
- A similar pattern appears in the high population growth scenario (blue dotted line) but for different reasons – here both a greater number of births and increased longevity increase the dependant (younger and older) populations.
- The low population growth scenario (yellow dotted line) shows the opposite. The dependency ratio improves due to slower improvements in longevity and a reduced birth rate.

Figure 15: **Dependency ratio under selected population projection variant scenarios: UK, 1961 to 2039**

Dependency ratio ((under 20s & 65+)/ages 20 to 64)



Source: Resolution Foundation analysis using: ONS, 2014-based mid-year population estimates; ONS, 2014-based population projections

Box 3: Predicting the future

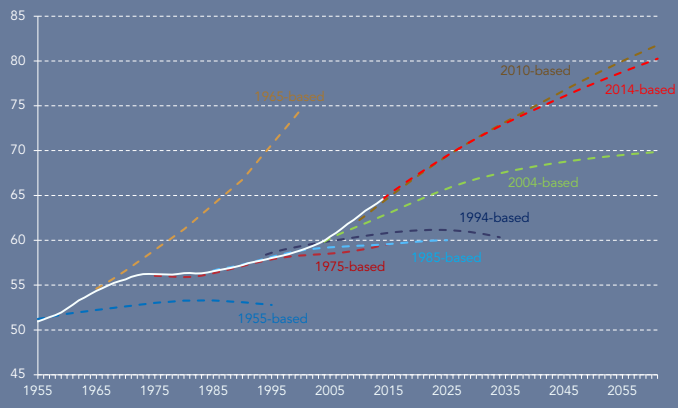
Precise population trends are difficult to predict. In part they rely on unknown government policy, with the pace of migration a clear current case in point. Improving average longevity has been heavily influenced by improvements in healthcare, and the timing and impact of future medical advances are very difficult to predict. The timing and number of births in the UK has also altered in different decades, sometimes dramatically and influenced by a number of factors like social trends and the cost of living.

The population projections regularly produced by the ONS are based on expert review of the latest outturn data and wider evidence related to births, deaths and migration. However, historic projections have often differed widely from eventual outturn, with the greatest inaccuracies caused by sudden changes in the underpinning drivers of population change.

Figure 3.1 compares estimates of the actual population (based on census and other survey data) against projections made at different points in the past. Projections made in 1955 and 1965 significantly under- and then over-shot the eventual actual population. This is largely because the 1955 projections were just as the number of births hit a trough (and subsequently rose), with the 1965 projections made just as births reached their peak (and subsequently fell).

Similar sudden and difficult to predict changes underlie the differences in projection in future years. Key assumptions that have been under-estimated are longevity – which until the most recent 2014-based projections has improved faster than expected – and net migration flows which increased faster than expected throughout the 2000s.

Figure B3.1: Population estimates and historic projections: UK, 1955-2064



Source: ONS, *Historical and current population projections*

Looking to the future, it is perhaps easier than in the past to pick out at least one component that is likely to differ to the latest set of population projections – migration. Whatever form it takes, Brexit seems likely to have a direct impact on future long-term migration flows, leading to lower levels of net migration.

Longevity and fertility changes are much harder to predict. Successive life expectancy projections undershot the outturn between the 2004-based and 2012-based sets of projections. Yet in 2014 an increase in mortality since 2012 meant that the pace of increase has been slightly downgraded. It is too early to tell if this is a blip or a flattening in the long term trend.

Changes in fertility rates are similarly tricky. Lower migration levels are likely to add some downward pressure, but over the longer term social trends – where women have been having children at later ages – have had a greater influence. These trends may change.

What can, perhaps, be predicted with some certainty is that demographic trends point to an increasingly ageing UK population.

Longevity and the dependency ratio

The simple dependency ratio presented above holds constant the age thresholds of the young and older populations. It takes no account of increases in the 'young' population being associated with a greater number of people staying in education for longer, representing an investment in their future earnings potential. This also equates to an investment for older generations who will benefit from the taxes paid by those workers with improved skills and education.

Within such a measure there is also no space for considering the implications of increasing longevity, a rising State Pension age (SPA) and increased working in later life, which together are blurring the upper dependency boundary. We have already discussed that people are not only living longer, they are living healthily for longer and working for longer. Increasing the upper age threshold as life expectancy improves would reduce the rate of increase in the dependency ratio.

Expected increases in the SPA can be used as a starting point. It is set to increase to 66 by 2020 and 67 by 2028. The precise year at which it should reach age 68 or beyond is under review,[25] but taking the government's stated principle of maintaining an average of up to one third of adult life in retirement[26] suggests that SPA would reach 68 in 2041 and 69 by 2056.

Figure 16 compares the standard age dependency ratio – with an old age threshold of 65 – with one where this threshold increases in line with SPA. The point at which each SPA is reached is highlighted, with the impact of each increase in the older age threshold bearing down on the dependency ratio. In the longer term, from around 2040, the dependency ratio would increase at a slower rate, reaching and remaining at around 80 per cent. But primarily due to the baby boomer generation moving into old age, there is still a relatively rapid increase in the ratio from the late-2020s.

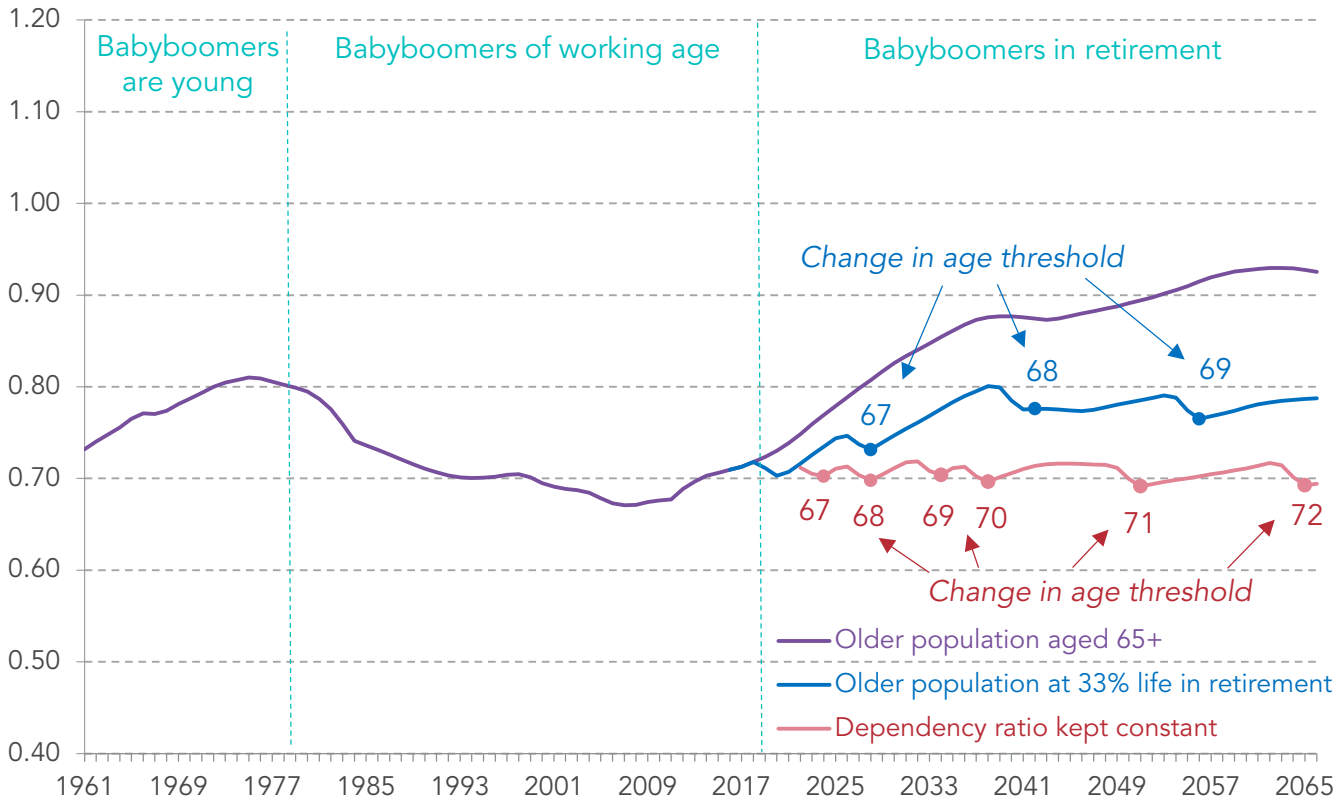
By way of thought experiment, it is worth considering what age threshold would be needed to keep the dependency ratio broadly constant at around 70 per cent. In the short-term the age threshold would rise rapidly to 70 by the late-2030s. This increase is necessary to offset the shift in the older population as baby boomers retire. In the longer term, slower increases are required with an age threshold of 72 by the early-2060s. This stage is more gradual, reflecting ongoing longevity improvements. The key trade-off between the two scenarios explored in Figure 16 is between the risk to individuals (by lengthening the time pre- state support for old age) and to the aggregate (by allowing the dependency ratio, and so old age support costs, to rise).

25 DWP, *State Pension age review: terms of reference*, March 2016

26 DWP, *Independent review of the State Pension age: interim report with questions*, October 2016, and note that one third of adult life is calculated by taking life expectancy at a given SPA to be life in retirement compared to 'adult life' (years 20 to SPA plus life expectancy age at SPA)

Figure 16: **Dependency ratios with different age threshold definitions for the older population: UK, 1961 to 2066**

Dependency ratio ((under 20s & old age population)/ages 20 to old age threshold)



Source: Resolution Foundation analysis using: ONS, *2014-based mid-year population estimates*; ONS, *2014-based population projections*

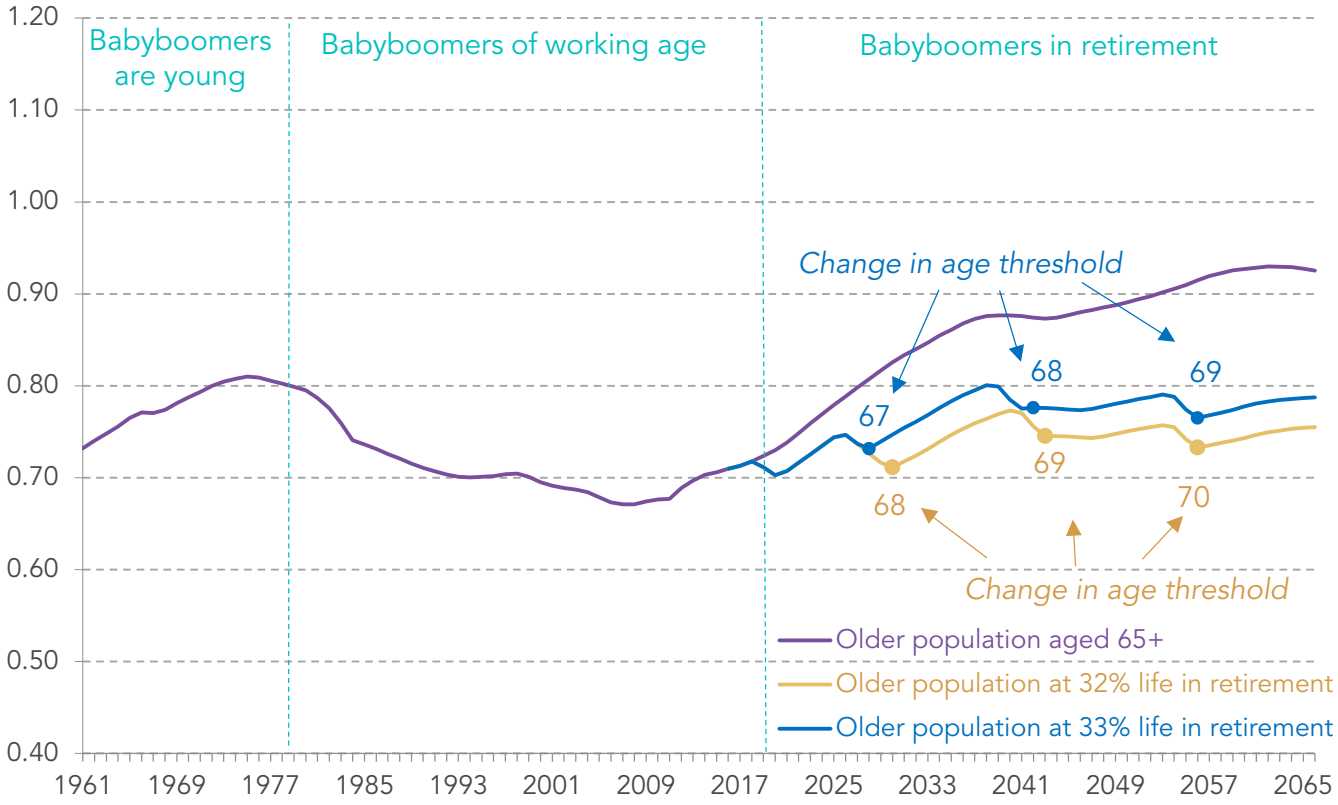
Increasing the SPA at such a rate as implied by the 'dependency ratio kept constant' thought experiment in Figure 16 would raise distributional questions, curtailing the period of old-age state support most for those with lower average life expectancy. It would also mean breaking the government guideline of spending up to one third of adult life in retirement.

Interestingly, as part of the ongoing SPA review, the government has commissioned the Government Actuary's Department to set out an implied SPA timetable that allows a share of adult life in retirement of both one third and 32 per cent. Only requesting a variant that would lead to increasing the SPA faster perhaps signals a change in policy direction. Figure 17 maps what such a target would mean for both the dependency ratio and the SPA timetable.

Figure 17 adds an additional line to Figure 16 to compare the government's previously stated aim of one third of adult life in retirement and one in which SPA rises to deliver 32 per cent of adult life in retirement. It is clear that aiming for 32 per cent of life in retirement is, in the short term at least, very close to our 'dependency ratio kept constant' thought experiment in Figure 16, with an SPA increase to 68 penciled in by 2030, straight after the currently legislated move to 67 by 2028.

Figure 17: **State Pension age-based dependency ratios, planned and variant: UK, 1961 to 2066**

Dependency ratio ((under 20s & old age population)/ages 20 to old age threshold)



Source: Resolution Foundation analysis using ONS, *2014-based mid-year population estimates*; ONS, *2014-based population projections*

It is important to note that if such a timetable were to be suggested, current legislation states that the government must give ten years notice before any further rises take effect to allow people to prepare appropriately for retirement. Such notice is vital for people to have the time to adapt in time to the change. This means an increase in SPA to 68 by 2030 would have to be announced by 2020, so it could become government policy at some point this year and would have to by the end of the parliament.

From an intergenerational perspective such a move would be largely placing the burden of a longer working life on the generations that come after the baby boomers, rather than the baby boomers themselves who are causing the older population to swell. A SPA of 68 in 2030 would just catch the last four birth years of the twenty years of cohorts making up the baby boomer population but also mean that all of the generations that follow have a higher SPA.

On the other hand, even these much faster adjustments might fail to keep pace with ageing if longevity improvements outperform projections – a common outcome in recent years (see Box 3). Conversely, the dependency ratio might overstate the imbalance between workers and dependants if employment rates at older ages increased, an issue that we explore in more detail later in this section.

There is clearly inherent uncertainty when analysing such trends, but one way of illustrating the scale of the challenge is to consider what an increase in the dependency ratio might mean for an individual's tax bill. For example, if the SPA based dependency ratio were to increase to its 2060 level today (with an old age threshold of 69) the tax burden on those of working age would

increase by £15bn – equivalent to a 4p rise in the basic rate of income tax.[27]

State Pension age policy represents one area where (at least in broad terms) a cross-party consensus has been reached relatively early and action is being taken. In principle at least the future State Pension bill is being controlled, while ensuring that future generations spend a similar proportion of their life in retirement to previous ones and so guaranteeing a degree of fairness. This clear policy consensus also helps to encourage people to work longer or make greater private provision for themselves.

Labour market participation and dependency

Age provides a broad indicator of the dependant and non-dependant populations, but there are a range of ways in which such a measure can be adapted, and their consequences mitigated. For example, age alone takes no account of how many individuals are either in work or engaged in activities that help to support different sections of the population – such as informal caring responsibilities for those with ill health or disability. Here we focus on how employment can be taken into account through a dependency ratio.

An 'effective dependency ratio'[28] compares the number of people in work with those not in work. Such a comparison is particularly important given recent and sustained increases in the number of older workers, as well what has been overall a remarkable improvement in the employment rate.

Figure 19 presents the number of non-working individuals per worker over time. There is a similar pattern to that discussed previously with the effective dependency ratio falling over the last four decades from around 1.3 non-workers per worker to 1.1 non-workers per worker today. This is a slightly faster improvement than under the age dependency ratio, driven by increased female employment during the period as well as the baby boomer led growth in the working age population. The other main difference stems from peaks and troughs created by the cyclical nature of employment.

Looking further ahead, the effective dependency ratio is set to gradually rise to reach 1.2 non-workers for each worker, and that is despite accounting for increased employment at older ages as the SPA rises in future years. This suggests that the growth in the older population will outpace employment growth, though at a slower pace than it outstrips growth in the working age population.

Legislation passed in early 2016 created a statutory duty for government to report on progress towards meeting its target of full employment.[29] The government is yet to define precisely what this means, and is expected to do so in their first report to parliament, but previous Resolution Foundation research set a benchmark for full employment of a 78 per cent employment rate by 2020-21, 3.9 percentage points higher than the current rate, equivalent up to an additional two million people in work.[30]

What achieving such an ambition would mean for the effective dependency ratio is also depicted

27 Analysis uses ONS population projections and the reported tax and benefit and service usage of retired and non-retired households from: ONS, *Tax and benefits for households*. We assume that the contribution and use of services for non-retired households remains at current levels, but the size of that population increases with non-retired households making up the difference in the required contribution.

28 Often the unemployed are included to provide a measure of the 'active' population and to reduce, to some extent, the impact of economic cycles on the ratio. However, this is less of an issue for this analysis where long term projections do not include a cyclical element.

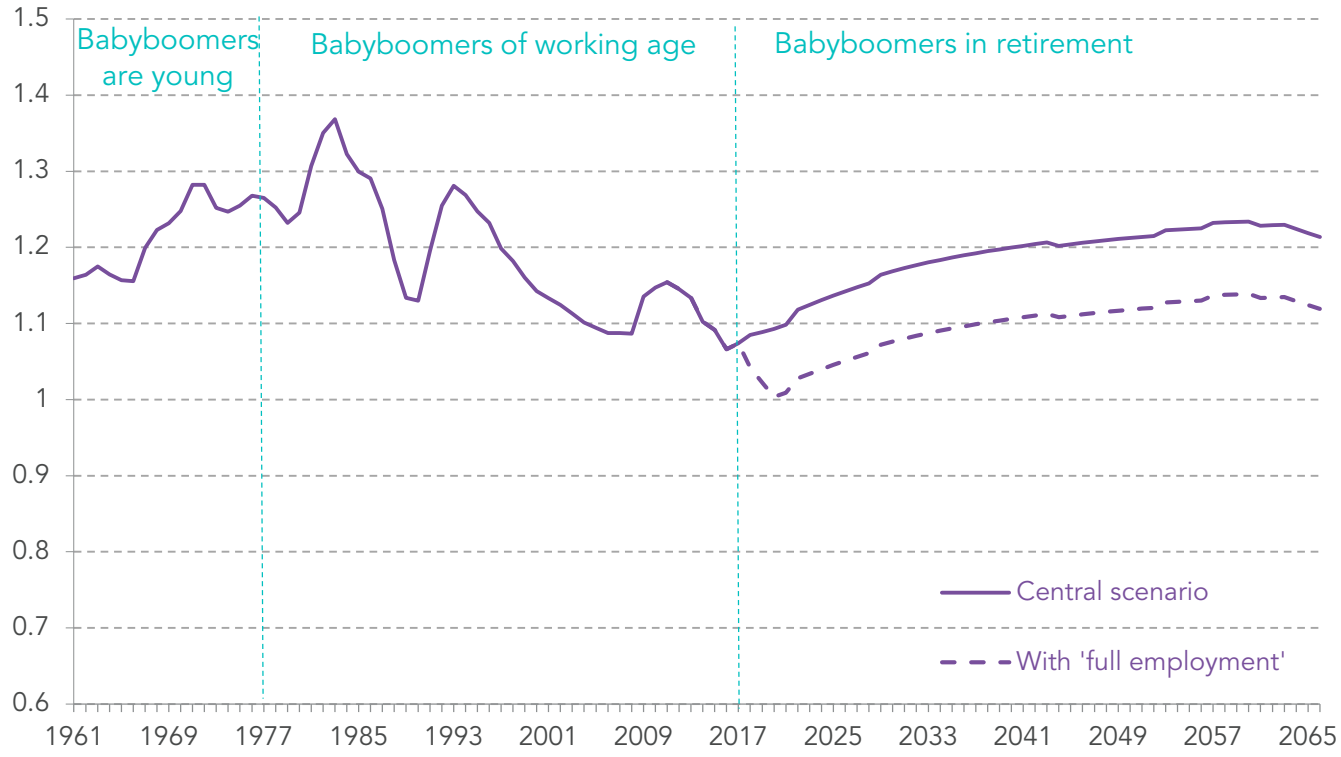
29 Welfare Reform and Work Act, 2016

30 This benchmark is set by modelling geographical convergence in participation for low activity groups towards the tightest sub-regional labour markets. For further detail, see: P Gregg & L Gardiner, *The road to full employment: What the journey looks like and how to make progress*, Resolution Foundation, March 2016

in Figure 19. Making the assumption that this target is met by 2020 leads to a one off fall in the effective dependency ratio, which would be relatively short-lived. However, the key impact of such a rise in employment would be to help restrict the long-term effective dependency ratio to a level similar to today's.

Figure 18: **Effective dependency ratio: UK, 1961-2066**

Ratio of non-workers to workers



Notes: Estimates do not take account of the impact of Brexit on employment levels or the population. Any large-scale impact on employment levels is likely to be temporary and this analysis looks to highlight long-term trends.

Source: Resolution Foundation analysis using: Bank of England, Three centuries of macroeconomic data; ONS, *2014-based mid-year population estimates;* ONS, *2014-based population projections*; OBR, *Economic and Fiscal Outlook*, March 2016; OBR, *Fiscal Sustainability Review*, June 2015

While the effective dependency ratio suggests less of a challenge to living standards in future, there is still an expected long-term rise in the ratio and wider factors should still be taken into consideration.

First, this comparison takes no account of the average number of hours worked or average earnings of each worker. Over the long term, the average number of hours worked has fallen.[31] In part this is because a large share of the increase in participation has been driven by more mothers and older people being in work. These two groups are more likely to work part-time, implying that the falling dependency ratio in recent decades may overstate the scale of economic contribution made.

Second, this approach also fails to recognise the role and importance of informal caring. Caring – for children, the sick, disabled and the old – represents both a transfer of support across generations and an alternative to formal provision. So while increased participation can help to increase the tax base, if in doing so it reduces time previously spent providing support that the state then needs to resource, the fiscal implications are more neutral than may be first thought.

31 Bank of England, *Three centuries of macroeconomic data*

Finally, the resources available to individuals extend beyond current income streams – wealth and assets also play a role. As a generation the baby boomers are a wealthy one.[32] They enter retirement with greater resources than preceding generations which suggests that, as a whole, they will be less dependent on the state in retirement. This represents one more facet that a simple dependency ratio fails to fully capture

The challenge to maintain individual living standards set by increasing longevity is clear, but should not be overstated. A simplistic model considering the size of the dependant population compared to the working age population suggests a dramatic rise in dependency – and the fiscal challenges this brings – in the next two decades. But this must be balanced against coming policy changes and the extent to which people will be able to work for longer as longevity continues to improve.

32 L Gardiner, *Stagnation Generation: The case for renewing the intergenerational contract*, Resolution Foundation, July 2016

Section 4

Conclusion

Demographic trends tend to be slow moving and overlooked in the immediate debate about living standards, which usually focuses on the current state of the economy or the latest tax and benefit policy choices. Shifts in the population structure in part reflect a complex mix of social and economic factors which can be difficult to disentangle. Yet these changes have important implications for policy and the fairness between generations.

Perhaps contrary to expectations, the large baby boomer generation has fared well and not suffered from increased completion for scarce resources, jobs and housing. This is likely to continue as the boomers enter retirement and drive not only demographic change – with a fast growing older population – but also continue to exercise their democratic power to shape institutions, culture and the role of the state.

Much discussion of an ageing society leads to a fatalistic sense of rising cost pressures and squeezed living standards – particularly for those younger generations tasked with supporting the old. But this depiction is too simple and by no means inevitable, failing to recognise the already-significant adaptations in how people live their longer lives. Increasing longevity is a trend to be celebrated, with people able to enjoy a longer lifespan. It may present a challenge for individuals – who will need a higher lifetime income to maintain a given standard of living – but strategies to cope exist. People are staying in education for longer, having children later in life (and fewer of them) and remaining in work to older ages.

Yet it is clear that from the perspective of the state, the demographic picture complicates the challenge of supporting living standards. As the population ages society will continue to adapt but how it does will in part depend on future policy decisions as to how government allocates resources across generations. It is important that these challenges are taken into account both in the evidence provided to the Intergenerational Commission, and in its formulation of recommendations to ensure fairness between the generations.

Resolution Foundation

Intergenerational Commission

Resolution Foundation is an independent research and policy organisation. Our goal is to improve the lives of people with low to middle incomes by delivering change in areas where they are currently disadvantaged. We do this by:

undertaking research and economic analysis to understand the challenges facing people on a low to middle income;

developing practical and effective policy proposals; and

engaging with policy makers and stakeholders to influence decision-making and bring about change.

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