

How much is enough?

A contextual view of retirement savings



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About this report

This report contributes to Nest Insight's larger research programme on supporting financial resilience and wellbeing through joined-up savings solutions. For more information, visit: nestinsight.org.uk/research-projects/pensions-adequacy-and-the-household-balance-sheet/

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Foreword

Life is a series of trade-offs. One of the hardest for anyone to make is how much money to put aside for a future that is, by definition, uncertain. Save too little, and risk an inadequate standard of living in later life. Save too much, and you've sacrificed your present-day financial health in the interest of having more than you need when you retire.

In a retirement system that increasingly depends on people's private savings decisions, they need to know how much of their incomes they should save, to ensure they still have enough to live off in retirement. But, as this report shows, this is a difficult question for anyone to answer - and, for many, there's no perfect solution to this trade-off, as they lack the funds to support an adequate lifestyle both today and in the future.

This matters for individuals, of course, but it also matters for those responsible for setting the default rates at which people contribute to the retirement system – including both policy-makers at the national level, and individual employers and pension schemes. This is particularly true in the modern retirement system in the UK, where many millions of people are enrolled automatically in pensions, and in vast numbers, stick to the default settings at which they were enrolled. In this system, many people don't even know they *can* change the rate they're saving at. No default can take into account people's diverse needs and circumstances. Still, this means it's incumbent on those making decisions about default rates to set them in a way that maximises the benefit to as many people as possible, while minimising harm.

This is why, in recent years, there have been increasing efforts to define standards and targets for 'retirement income adequacy'. In this report, we examine these adequacy measures and ask how well they work for people living in the diverse circumstances being experienced today by UK households.

We do this using panel data on UK households. As well as using these data to look at the diverse circumstances of people in the pension saving system, we have also built a sophisticated new model that maps the financial lives of a set of realistic and diverse 'saver personas'. By calculating optimal rates of retirement contributions for each persona at each stage of their working lives, we see that different models of 'retirement savings adequacy' are sometimes needed for people in different circumstances.

Executive summary

The report is divided into four main sections:

Balancing today and tomorrow

We start by setting out the questions and challenges we addressed in our research. In particular, we explain the importance of looking at the full diversity of people's household circumstances – rather than just individual ages and incomes. This is why we have used household panel data to create 30 'saver personas', who reflect a diverse range of circumstances experienced by real households today.

These individuals are all members of the target population for auto enrolment (AE), in that they have earnings from work that make them eligible to be auto-enrolled, but lower than the upper earnings limit on AE contributions. In our research, we've used data on real households to model our saver personas' lifetime experiences of work and money, as well as their wider household circumstances. This allows us to see with 20/20 foresight what would be their optimal retirement savings choices at each stage of their working lives.

This section also explains the research and analysis process we've gone through on this project, and introduces two key sets of benchmarks that we refer to in our modelling – Loughborough University's Minimum Income Standards and the Pensions and Lifetime Savings Association's Retirement Living Standards.

Key themes

Next, we set out a number of key observations we've drawn from our research.

- › **Many people aren't saving enough for a smooth transition into retirement.** It's easy for someone with earnings approaching, or above, the national median to find their living standards dropping starkly at retirement. This is especially true for those in mid-life who didn't benefit from more generous pensions available in the past, but who only benefitted from auto-enrolment relatively late in their careers. There is a strong case for raising their contributions.
- › Even so, **lifetime incomes vary widely.** Even across our small group of saver personas, we see significant variations, not just between different people, but over the careers of a single individual. This is especially true of the disposable incomes of people who experience multiple changes in the makeup of their household – be this through marriage, caring for children and adults, or separation and divorce.
- › Drilling down further into our saver population, we see that **many working incomes are lower than minimum benchmarks.** A significant number of people who appear to be eligible for auto enrolment have disposable incomes that are below the Minimum Income Standard (MIS) defined by Loughborough University. Anyone in this situation needs to trade off how far they miss out on an adequate standard of living in the present, or face the same kind shortfall in their working life
- › Turning to our saver personas, we find that many people on below-median earnings, even those with patchy savings histories, can still achieve the PLSA benchmarks in retirement without shifting from the current default AE rates – in no small part because of the relatively high level of the full State Pension. However, many others are **wide of the mark** and will struggle to reach the PLSA Minimum standard. Setting unachievable targets for this group is likely to be off-putting or demotivating.
- › Furthermore, financial **pressures are acute** for many households, and not just because of recent cost-of-living pressures. These pressures can be seen across a range of measures – whether this is the level of debt in the household, the absence of any liquid savings to protect from financial shocks, or the likelihood of falling behind on bills or rent. So decisions about how much people should contribute need to be made in the context of their spending power and a wider set of financial priorities.
- › Taking this point further, the **financial risks facing lower-earning households can be increased** if their retirement contributions rise. Although there are limits to how much our model can measure the causal impact of higher contribution costs on factors like higher debt, or falling behind on bills and rent, it does suggest that these issues will be real for lower-income households if their contributions were to rise. And this is supported by other recent evidence on the knock-on effects that auto enrolment has on wider household finances.

How much should our saver personas save?

Based on these key themes, we then use an algorithm to produce an **optimised savings approach** for each of our modelled saver personas – though this is by no means the *only* possible optimised savings approach. Although this exercise mainly serves to reinforce the idiosyncratic nature of everybody's financial priorities, we do see some patterns emerging that may help inform the better design of pensions saving systems.

In particular, the optimal savings approaches look distinctly different for people whose earnings fall above and below the national median earnings of around £35,000 a year:

- › The model often tries to maximise the contributions of **above-median earners** (i.e. the top 50% of earners), up to whatever contribution limit we set it, through most or all of their working lives. This is because, even though these people are usually saving enough to meet basic standard of living in retirement, they can still face significant drop-offs in spending power when they retire. They are also more likely to have the spare disposable income to contribute at significant levels. However, we also suggest that the standard settings in a retirement system should not aim to get higher earners saving enough to fully meet a better level of income replacement – not least because many people in this earnings cohort have other sources of retirement income. Rather, a system that gets them saving enough to meet the needs of people at or around median earnings could provide a base level of savings on top of which it would depend on individuals to save enough to meet their future needs.
- › For those earning **at or just below the national median** (representing approximately 20% of workers, though it is hard to draw a clear line between these groups) there does seem to be a case for raising their default levels of contributions above the current auto enrolment (AE) minimum rates – though no one specific rate will work perfectly for all. For this group, our model recommends contribution rates ranging from zero to the maximum we allow it to recommend, at different stages of their lives. The reasons for this wide variation relate to the levels of partners' incomes and to a range of spending priorities in the household, including essential expenditure, housing costs and care commitments.
- › The greater challenge, though, is with those earning **closer to the minimum earnings threshold** for being auto enrolled (representing a further 20% of workers). Financial pressures become more acute as an individual's monthly earnings fall below £2,000 per month. Here we find a range of individuals whose circumstances make it hard to prioritise pensions saving – both because of affordability constraints, and the fact that the full State Pension will provide a relatively high proportion of the amounts they earn from work. Also, disposable incomes change significantly over the course of a working life, and pension saving may be more accessible at some times than at others. As individuals' earnings approach the minimum earnings threshold of £10,000 a year, our model is often unable to find an optimal savings approach – because the household doesn't have enough money to generate a comfortable standard of living both in the present and in retirement.

We also look at some examples of other groups – including **those earning below the current eligibility threshold** for AE, and **the self-employed** – and see reasons why at least some people in these groups might not benefit as much from participating at the standard rates. This is often because their earnings are too low to have the capacity to save. In the case of self-employed people, the lack of an employer contribution also makes this choice of savings vehicle less attractive.

However, other savings structures might create greater reasons for people in these groups to save, just as they might for lower earners within the AE eligibility net.

Implications for the pensions system

We then turn to the role of those who set the design of pensions arrangements – policy-makers and scheme fiduciaries. We point out the importance of how they set the defaults within the systems they control – because so many people stick to these defaults after they're enrolled. We conclude that there's a case for a system that **adapts where possible to the earnings levels of participants**. In particular:

- › The lowest earners should be protected from over-saving
- › Middle earners should be encouraged to save at a rate that will get close to smoothing their lifetime spending power
- › Higher earners should also be encouraged to save at a level suitable for middle earners, but will need to plan their own approach to building on this basic level.

Our focus on standard or default settings within pensions system reflects the fact that most people tend to stick to the savings rates that are set up for them. Of course, there will be a minority of participants who do engage, so we also consider what should be the focus of **guidance and messaging** that's delivered to whole populations of people, rather than individually tailored. We conclude that this should also be structured around income, as well as by age, and that use diverse examples of different household needs.

We also make the case that **a more 'forgiving' savings system** would benefit everyone. Many of the challenges we've uncovered in this research are a result of the rigid and sometimes irreversible choices that people need to make between different aspects of their financial lives – be this accessible savings for emergencies, an adequate income in retirement, or the chance to own the property they live in. There is scope to explore ways of helping people shift between these different priorities as their circumstances change.

We consider the **distributional effects** of the current pensions system. Putting all its elements together, those lower down the income spectrum get a less generous share of the money available in the system through tax relief and employer contributions. If this balance was adjusted, people on lower incomes would be helped to save at a more adequate level without eating into their much-needed liquidity in the short term. Given this, we consider the possible role of **employer-only contributions** – contributions made by the employer whether or not the employee contributes themselves. Although there are definite downsides and challenges to this approach, it would significantly rebalance the system in favour of those who struggle to balance their present day and future living standard

Conclusion

We conclude that policymakers, employers and scheme fiduciaries need to be aware of people's **overall financial contexts** when they set policies and defaults. This means a holistic view of all aspects of household financial wellbeing – not just a narrow focus on retirement saving. In particular, they should ensure that any changes to the system are designed to protect lower earners from harm.

While recognising that many people do not engage, schemes, advisors and employers should continue to help retirement savers set appropriate priorities at different life stages. In the absence of detailed household-level data, this help will take the form of **better-targeted defaults** and simplified choices. This can be done by taking on board the earnings of scheme participants.

This will by definition mean an element of **additional complexity** in the design of systems. However, we have also seen that the overall challenge to savers and their households would be reduced if the personal financial system was more 'forgiving' and didn't force them to make binary choices between different financial goals.

We recognise that the scale of the challenge is significant, and our findings emphasise, rather than simplify, the picture. Still, we hope that the evidence provided here, and the suggestions for positive future directions of travel, will help those making key design decisions protect the interests of the widest possible spectrum of people, and support their diverse lived experiences.

Section 1

Balancing today and tomorrow

Before someone can work out how much money to invest for tomorrow, they need to understand what their retirement contributions cost them today. This equation is hard to solve because it means taking into account the whole unique make-up of their household finances.

For all but the most affluent, financial decisions inevitably involve trade-offs. One of the most complex choices anyone needs to make is how much to save for retirement. This means trading off between our present-day and future living standards – and the future is always uncertain.

This is why the pensions policy community has been working to develop standards and benchmarks for ‘retirement adequacy’: simple ways of working out the ‘right’ amount of income to aim for in retirement, and the level of savings they need to make throughout their working lives to achieve this goal. There’s added pressure to come up with these kinds of universal standards in the UK retirement system, where millions of workers have their contribution rates set to the default national rates defined in the auto-enrolment (AE) system.

Yet these kinds of universal standards are never going to suit everyone. As we hope this report will demonstrate, when it comes to retirement savings decisions, one size does not fit all. There are many reasons why different households will need to save at different rates.

What’s needed is a clear definition of ‘retirement *savings* adequacy’ – a concept encompassing the optimal level of retirement income that any given individual should aim for, and the rate at which they should contribute to a private pension in order to achieve this outcome. A number of helpful models have been proposed, and there is active debate in the retirement industry and among policy-makers about which is the most suitable. But retirement income adequacy benchmarks on their own can’t give definitive answers to the question that’s actually facing individual savers: ‘How much should I save for retirement?’ This question can only really be answered with full knowledge of the household circumstances of the saver. And in an ideal world, nobody would ask this question in isolation. It would be one element of a wider plan for the short- and long-term financial health of the whole household.

That’s why, in our collaboration with Phoenix Insights, we’ve set out to understand the real-life differences that exist between people’s household circumstances. We’ve then used the household data we’ve gathered to model the future outcomes that different people are likely to experience throughout their working lives, depending on their present-day realities. Finally, based on this modelling, we’ve calculated alternative contribution rates for different people at different stages of their working lives, with the aim of better smoothing their spending power throughout their lives.

Yet even with a detailed picture of someone’s household circumstances, there isn’t always a clear and simple answer to this question. People’s future paths are too uncertain and, as we’ll see, many people don’t have the financial headroom to achieve a comfortable standard of living in either the present day or in retirement. For them, the question ‘how much should I save’ is more a case of finding the least-worst option, rather than ensuring an optimal balance between their short and long term living standards.

Also, even if we were to find a perfect formula that anyone can use to calculate their optimal savings rate, we shouldn’t assume that individual pension savers would adopt the formula and manage their contributions in line with this formula. As we’ll see later in this report, unless someone gets financial advice, it’s likely they will follow the default savings settings presented to them by their employer or by government. This puts added pressure on those in charge of designing pension savings systems to set defaults that create the best possible balance of outcomes for the maximum number of participants – and avoids creating unnecessary risks for the most vulnerable.

But by looking at the pressures and risks that different people are likely to face as a result of their savings choices, we hope these results will help inform decisions about the future design of retirement savings systems, by ensuring that people’s real-life financial footings are taken into account.

Our approach

Our work to understand retirement adequacy in the context of the household balance sheet began in the second half of 2023. It has involved:

- › A review of relevant literature, including economic research about lifecycle models of saving
- › A series of interviews with experts from across the retirement savings sector, including a roundtable session – quotations used in this report are taken from these expert interviews
- › Exploration of a range of data sources to identify those that would let us investigate the diverse make-up of people's household finances
- › Descriptive analysis of data from these sources showing the objective and subjective financial positions of individuals and their households
- › Development of modelling methods that will allow us to project households' future financial circumstances, and their retirement incomes
- › Creation of a set of model household scenarios that illustrate key differences that exist between real-world households today

Most of our analysis of individual and household circumstances has been done using the Understanding Society panel study, waves 1–13, from interviews conducted between 2009 and 2022. Within this panel, the descriptive analysis in this report is restricted to a sample of working people who earn enough from their labour to be considered eligible for automatic enrolment, but excluding the highest earners. Throughout this report, we refer to this sample as 'our **saver population**'. For a detailed explanation of this sample, and our analytical and modelling techniques, please see the technical report that accompanies this report.

Our thirty saver personas

To make sure our model reflects a sufficient diversity of circumstances, we've built it around thirty contrasting personas. Each persona reflects an individual living in a different set of demographic, household, labour market and financial characteristics.

We believe the adequacy question only really comes to life when we consider how different households living under different conditions might trade off between the present day and later life, to understand what 'retirement savings adequacy' might mean to them. That's why we've created a set of 30 representative personas, and modelled the full richness of their households' financial lives over the remainder of their careers and into retirement.

Each persona is closely based on the characteristics of real households who have contributed over the years to the Understanding Society survey. Most are drawn from our saver population, though we've included some individuals that fall outside the selection criteria for our sample – for instance two individuals earn below the lower earnings threshold for auto enrolment.

We have avoided using data on real individuals, largely for ethical reasons. Instead, we've defined the characteristics of our personas to reflect *realistic* characteristics that we observe in the over 40,000 real individuals covered by the USoc data – from demographics and household composition through objective and subjective financial conditions, to employment and health.

Based on these characteristics, we've then used statistical techniques¹ to predict the future career path and earnings of each individual and their households as their circumstances change over time. This enables us to see, with the 20/20 foresight that real-world individuals lack, how their current savings behaviours will play out right through into retirement. In this way, we're able to track right through into retirement:

- › their gross incomes from work and pensions
- › the resulting disposable income shared by all adults in their households.

By default, all our personas start out by contributing to a defined contribution (DC) scheme at the default automatic enrolment minimum rates – a total of 8% of a band of earnings, of which they pay 5% (4% net of tax relief). Each also has a distinctive contribution record of DC and defined benefit (DB) savings. As we'll see, these

¹ For a full account of the methods used, please see the technical report that accompanies this report.



default pension savings settings, combined with different ages, incomes and contribution histories, create very different outcomes, both in working life and at retirement – which by default is at age 68 for all personas. Many of these outcomes look less than optimal. In this report, therefore, we seek to optimise their contribution rates throughout the remainder of their working lives, to create a more consistent standard of living throughout their lives.

Meet saver persona 7

For a snapshot² of some of the key variables we’ve calculated for each persona, figure 1.1 provides a summary table of saver persona 7, at two points in time – the present day, when he is aged 23, and retirement, when he is aged 68. The figures show here are based on him contributing to a workplace pension at the default minimum rates in automatic enrolment.

We can see that his household consists of him and his spouse at both points in time. However, between these time they have a child who grows up and leaves home. They also buy their home and pay off their mortgage.

Figure 1.1: snapshot data for saver persona 7

Saver persona 7	Today – age 27	At retirement
	Male, Chinese origin, degree educated	
Household	 Married No children in household	 Married No children in household
Housing	Renting – per adult £265 Yorkshire	Wholly owned Yorkshire
Work	Management job – communications Labour income £2,100 , volatility 0 No benefits	Final labour income: £2,598 No benefits
Savings and pension	Regular saver DC contributions since age 22 at AE minimum	Pension income £1,872 Replacement rate 72%
Financial/physical wellbeing	Debt under £100 Up to date with bills Subjective financial: doing all right Long-term health condition	Debt under £100 Up to date with bills Subjective financial: living comfortably Long-term health condition

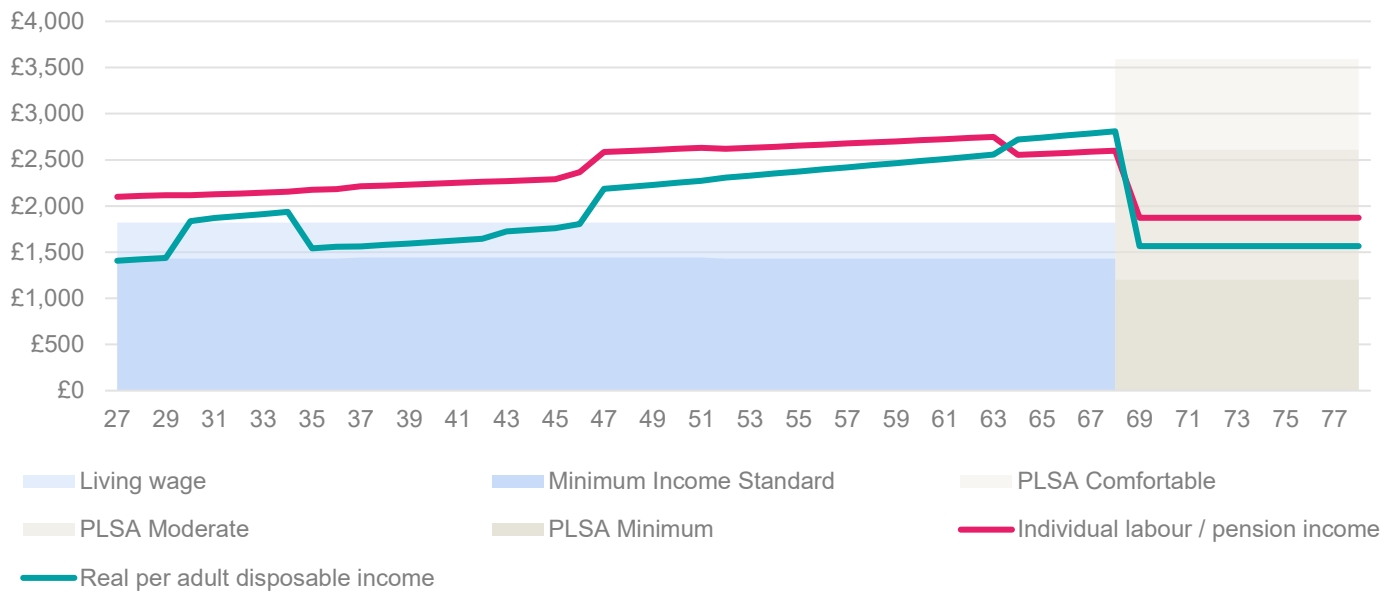
Saver persona 7. source: Nest Insight modelling using Understanding Society data

The impact of these and other changes can be seen in figure 1.2, which provides a view of the same persona’s lifetime income. We can see how, even though his earnings rise steadily in real terms for most of his life (dark pink line), the average disposable income³ of the two adults in the household (teal line) varies significantly as they navigate these various life changes.

² Detailed profiles of all our personas can be found in section 3 and in the Annex to this report.

³ Throughout this report, ‘disposable income’ means all sources of income received by the individual or household, minus housing costs. We use this as a measure of spending power on non-housing consumption.

Figure 1.2: lifetime income trajectory for saver persona 7



Saver persona 7. source: Nest Insight modelling using Understanding Society data

These income charts are used extensively in this report to follow the whole-life incomes of our personas, and to give an impression of their living standards at each point in time, by comparing these income measures to standard income and consumption benchmarks. Box 1.1 introduces the benchmarks used in these charts.

Box 1.1: Income benchmarks

We use different benchmarks for minimum income for working life and retirement. This is because people's consumption needs are generally quite different at these two stages of life.

Working life: The **Minimum Income Standard (MIS)** is produced annually by a team at Loughborough University. It sets out the budgets needed for different household types, based on what members of the public think is needed for a minimum acceptable standard of living in the UK⁴. The MIS amounts in this report don't include housing costs, because our figures for disposable income are net of housing costs.

Depending on the make-up of the household, the MIS amounts for our personas vary between **£1,429** and **£2,355** a month.

In retirement: The **Retirement Living Standards** are provided by the Pensions and Lifetime Savings Association (PLSA), with the input of the MIS team at Loughborough University. Similarly to the MIS, they provide budget figures for single people and couples, based on what members of the public think is needed for Basic, Moderate and Comfortable level of retirement expenditure⁵. As with the MIS figures, this does not include housing costs.

In this report, we show the Retirement Living Standards as monthly budget figures, per individual:

	Single	In a couple
Minimum	£1,200	£933
Moderate	£2,608	£1,796
Comfortable	£3,592	£2,458

⁴ See [Minimum Income Standard | Centre for Research in Social Policy | Loughborough University](#).

⁵ See [Home - PLSA - Retirement Living Standards](#). Note that on these charts we show the PLSA standards for a single person, regardless of whether the saver persona is single or in a couple. As can be seen from the table in box 1.1, the income standards for couples are lower per head than those for individuals. We've done this for consistency between the charts, and to indicate the target income under the 'worst case' scenario where a household breaks up. Where an couple's disposable income falls between the individual's and couple's standards, we note this.

For each persona, the lifetime income charts track, in real terms:

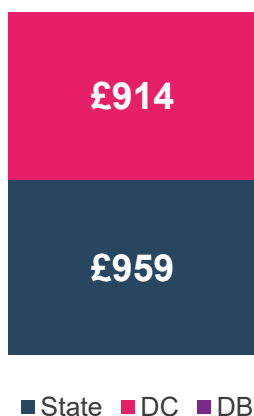
- › **Gross individual income** (dark pink line):
 - real-terms gross labour income up to age 68
 - income from state and private pension from age 69
- › **Per-adult disposable income** (teal line):
 - per-adult disposable income for the household to age 68
 - per-adult retirement income, including benefits, after housing costs, from age 69
- › **Income benchmarks** (shaded areas):
 - up to age 68 (shaded light blue):
 - the lower shaded area shows the non-housing Minimum Income Standard (MIS) relevant to the individual’s circumstances, as defined by Loughborough University⁶
 - above this, we have also included the national living wage
 - from age 69 (shaded stone grey):
 - the three shaded areas show the Minimum, Moderate and Comfortable Retirement Living Standards, as set by the Pensions and Lifetime Savings Association (PLSA)⁷

It should be noted that:

- the living wage is a metric of gross income, and so this benchmark should generally be compared to the dark pink line
- the Minimum Income Standards and the PLSA Retirement Living Standards are measures of non-housing consumption so should generally be compared to the teal line⁸.

Returning to figure 1.2, we can see that saver persona 7 earns more than the national living wage for his whole working life, yet because of his changes in circumstances, there’s a significant period in his 30’s where the average disposable income per adult in his household falls below this level, and almost down to the MIS. We can also see that, although he has a retirement income (gross and disposable) above the PLSA Minimum standard for an individual, and which is 72% of his gross income at retirement, he also experiences a more significant drop in per-adult disposable income. In this report, we assume that people should in general try to avoid this kind of *relative* drop in disposable income, even if their disposable incomes remain above minimum standards.

Figure 1.3: saver persona 1 monthly pension breakdown



Saver persona 7. source: Nest Insight modelling using Understanding Society data

Finally, figure 1.3 shows the breakdown of saver persona 7’s pension income, split into State, defined contribution (DC) and defined benefit (DB) income. In persona 7’s case, there is no defined benefit income, but the other two sources are shown as monthly real-terms amounts.

This persona-led approach helps us envisage the actual household circumstances into which contribution policies are launched, and understand how the consequences of different savings choices can ripple throughout an individual’s working life and retirement.

By taking on board this diversity of household circumstances, we are inevitably complicating questions about how to set targets or defaults. We believe that in making these kinds of design decisions, it’s important to embrace this complexity, and understand it. .

⁶ See box 1.1.

⁷ See box 1.1.

⁸ One reason we have chosen to use these two sets of non-housing consumption benchmarks is that both are based on the analysis of the MIS team at Loughborough University.

This report

This report captures the insights we have gained from all the methods listed above.

In the following section, we point out some of the key themes raised by our analysis and modelling. Then, in section 3, we seek to optimise the individual savings choices of our personas, and draw general conclusions about retirement savings adequacy. The remaining sections and appendices reinforce our learnings from the personas by providing a more detailed analysis of the key themes, illustrated with descriptive data about the UK working population. There is also a separate Annex to this report, containing detailed analysis of the savigns priorities of all 30 of our saver personas.

The fundamental challenge we'll see throughout is that people's circumstances vary widely, meaning everyone would ideally have an individualised retirement savings plan. Yet, at the same time, we know that the vast majority of people saving for retirement are doing so at the default rates set for them by government or by their employer. In this report, we suggest two ways in which we might address this central paradox:

- › Policymakers and scheme fiduciaries need to be aware of people's overall financial contexts when they set policies and defaults. This means a holistic view of all aspects of household financial wellbeing – not just a narrow focus on retirement saving. In particular, they should ensure that any changes to the system are designed to protect lower earners from harm.
- › While recognising that many people do not engage, schemes, advisors and employers should continue to help retirement savers set appropriate priorities at different life stages. In the absence of detailed household-level data, this help will take the form of better-targeted default and simplified choices. These can be better tailored by taking on board factors such as the age and earnings of scheme participants.

We will also see that both these challenges would be reduced if the personal financial system was more 'forgiving' and didn't force people to make binary choices between different financial goals.

Section 2

Key themes

Policies are often built around the needs of average people. This is also true of many of the benchmarks and targets that are offered to people saving into a pension. Yet people differ from the average in important ways.

Throughout this report, we'll see a range of factors that should affect people's calculus about how much to save for retirement. This includes their earnings, their existing levels of saving, the composition of their households, and their present and planned housing situations. This leads us to suggest different adequacy approaches for people at different life stages and different levels of earnings. It also shows that people need to take a range of financial priorities into account when deciding what to save for retirement.

The challenge this presents is that the workplace pensions system is dominated by default contribution rates that are set by government and by employers. This means many people never engage in active planning about the amounts that they're saving. Given this, policy makers and scheme fiduciaries need to be highly mindful of the full diversity of people's circumstances when designing the default settings in the savings systems that they govern.

'People are all different and what suits one person isn't necessarily going to suit another. But if you've only got a single default style arrangement you're putting people into, that's the challenge we have. You want it to suit most people most of the time. But you can't help everybody all of the time.'

Renny Biggins, TISA

Many people aren't saving enough for a smooth transition

There are many ways to define an 'adequate' level of pension savings. We will consider a number of them later in this report. Yet one thing is clear: by any of the established measures of adequacy, many people currently saving for retirement are falling well short of an optimal savings rate.

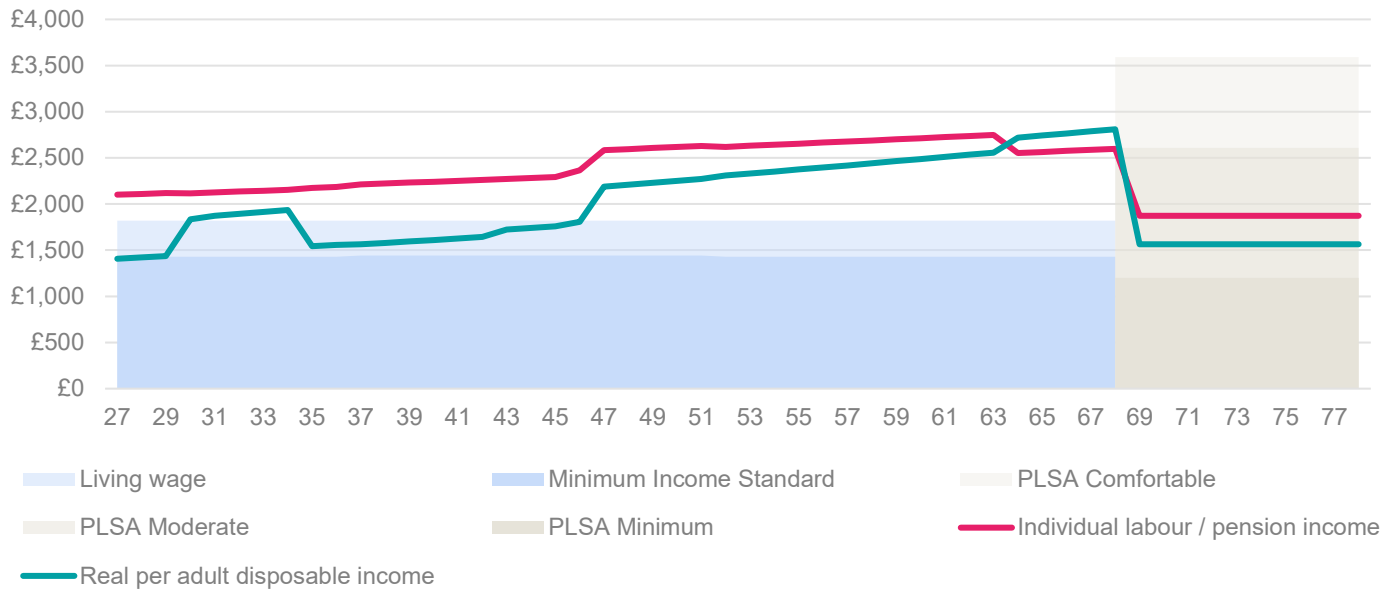
As we will see, it's clear that many people are under-saving against the main industry benchmarks, at all levels of income. Although in this report we'll question whether this means lower-earning groups should be saving more into a pension, the position becomes somewhat clearer as people's earnings approach national median levels. Higher contributions are generally – if not universally – affordable⁹ for most middle and upper earning households, and many also have a strong incentive to save more for retirement, at least if they want to avoid a significant drop-off of spending power when they retire.

Our saver person 7 is a case in point. As Figure 2.1 shows, saver persona 7 earns £2,000 a month, earnings which grow over time in real terms (dark pink line). The disposable income in his household (teal line) is quite a bit lower at times, thanks to a range of things including paying into a mortgage and his partner taking a reduced income while caring for their children. By the time he reaches retirement age, though, his share of their disposable income is around the level of his labour income. But, in spite of saving throughout his career into an auto-enrolment pension at the standard minimum rates, and nearly achieving the PLSA Moderate standard for a couple, he and his partner experience a drop in both gross and disposable income when they retire.

In a sense, his is the optimal case of a middle earner saving through auto-enrolment: he was young enough to start saving in his 20's. As we'll see, a number of older personas who are on similar and higher levels of labour income have built up less pension savings than persona 7 by mid-life. They have bigger gaps to fill.

⁹ In this report, we sometimes ask whether pension contributions are 'affordable' to an individual. By this, we mean, will making these contributions create pressures on already limited household spending power, and/or create negative knock-on effects on other aspects of the household's financial resilience? To achieve a smooth transition when they retire, an individual needs to smooth their spending power across working life and retirement. But this goal isn't 'affordable' if making a recommended level of pension contributions will negatively impact the financial health of the household.

Figure 2.1: disposable income drops off at retirement



Saver persona 7, male, Bangladeshi heritage, married, works in restaurants, making minimum AE contributions

People in this kind of situation would achieve a smoother pattern of disposable income across their lives if they contributed at a higher rate. This reflects the classic lifecycle model of income smoothing, where an individual saves when their incomes exceed their consumption needs, in order to ‘dissave’ when their incomes fall short.

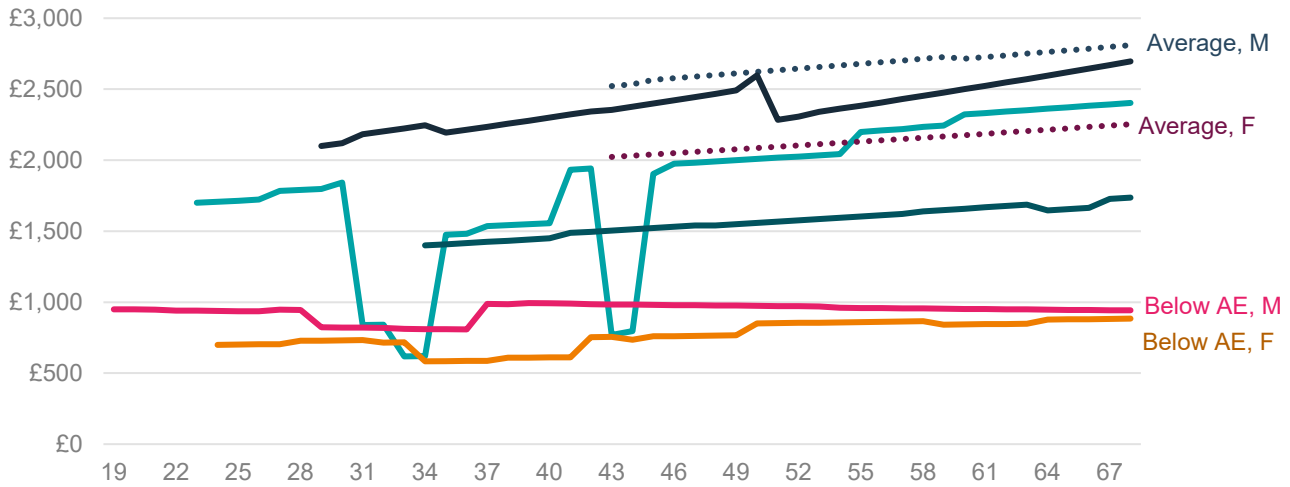
This model is relatively easy to apply to an individual whose household earnings and expenses are smooth, and whose income tends to exceed their consumption needs. But it’s harder to smooth the lifetime spending power of someone with more complex or challenging household circumstances.

Incomes vary widely

Many aspects of the pensions system are structured around the labour income of the individual. Yet people’s financial priorities are defined at the household level. By either measure, their lifetime earnings vary widely.

Figure 2.2 compares the predicted labour incomes of seven saver personas, which we’ve selected to highlight the disparities in working-life finances. Figure 2.X shows their income from work, in real terms, from their current ages through to age 68. All these personas are at or below median earnings within our group of workers who are eligible for auto enrolment. The dotted lines represent saver personas 3 and 4, who represent the average conditions of our population sample. The two lowest-earning personas, numbers 5 and 6, have labour income below the auto-enrolment minimum threshold and so would not usually be auto-enrolled under current rules.

Figure 2.2: Real labour income of personas 2, 3, 4, 5, 6, 8, 9



Source: Nest Insight modelling using Understanding Society waves 1–13

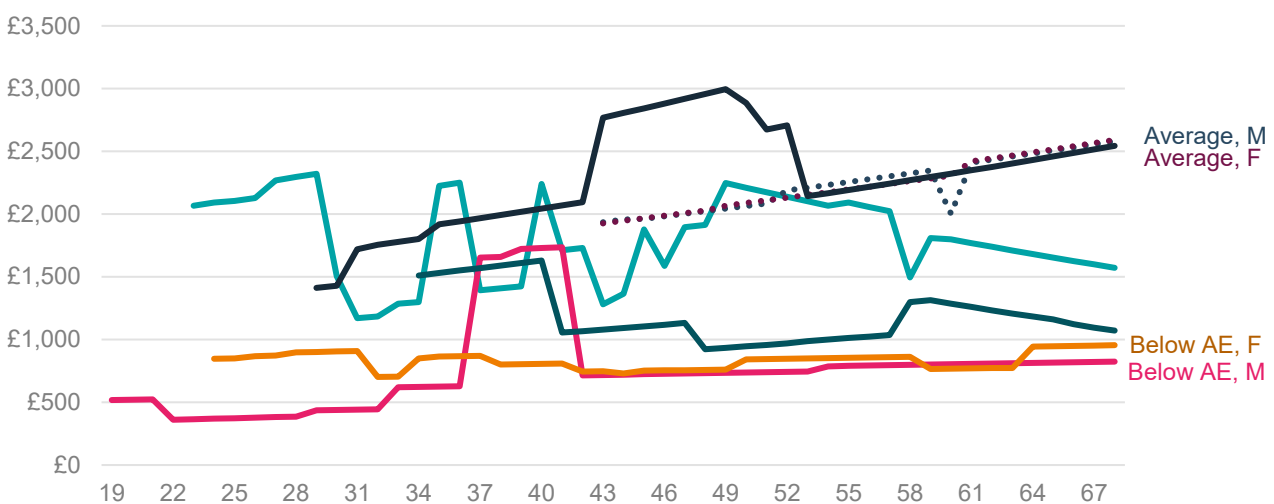
We can see from these examples how much labour incomes can vary, both between individuals and for the same individual across a working life. This is particularly true for person 2 (the pale blue line) who has periods of significantly lower earnings due to childcare, though others experience less significant ups and downs as they move between jobs¹⁰.

However, income from labour doesn't tell the whole story. Living standards within the household can be better understood if we look instead at the average disposable income available to each adult across the household. Returning to the same set of saver personas, figure 2.3 shows an even higher degree of variation by this measure. This is caused by a range of different things, including changes in housing costs, moving in and out of benefits entitlements, and changes in the number of adults in the household.

Expenditure is going to be based on finances aggregated at a household level and the resources they have. So to understand how an individual needs to work feels wrong, it needs to be geared to the household.

Tim Pike, Pensions Policy Institute

Figure 2.3: Real per-adult disposable income of personas 2, 3, 4, 5, 6, 8, 9



Source: Nest Insight modelling using Understanding Society waves 1–13

¹⁰ For a full account of the changes to each persona's lifetime earnings, see the Annex.

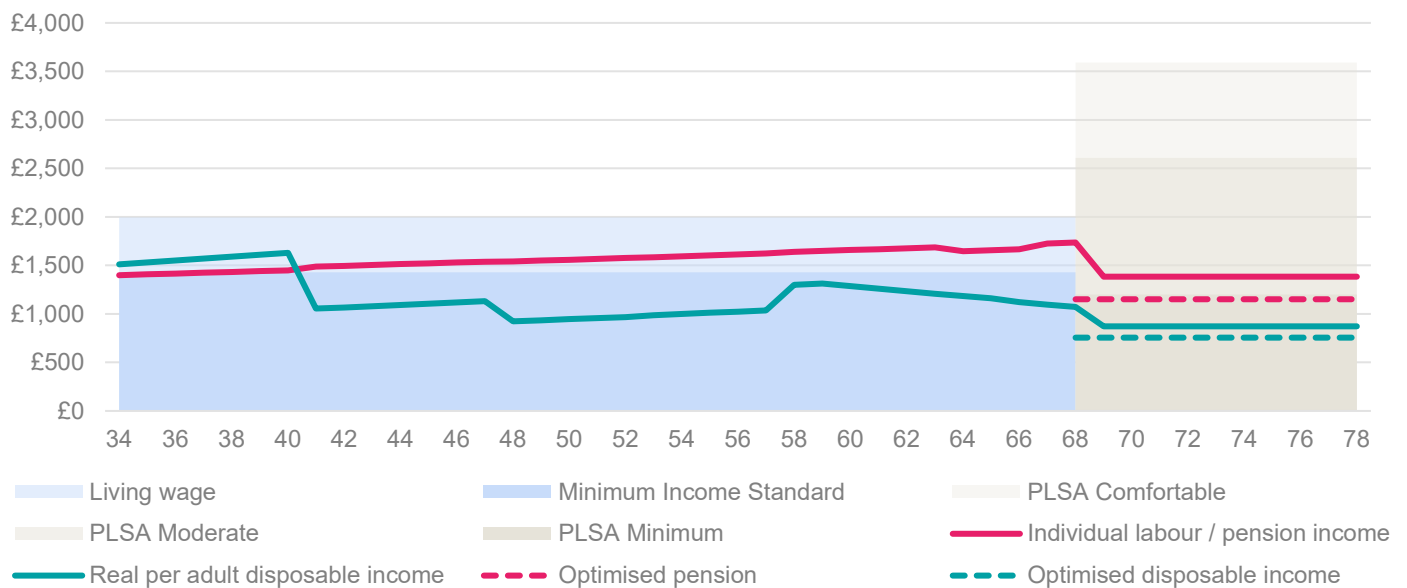
Many working incomes are lower than benchmarks

Furthermore, when we look at the data on per-adult disposable income, we find that many people’s present-day realities are already more constrained than the minimum standards recommended for them in working life. Often, they’re even lower than the targets they might be aiming for in retirement.

To be eligible for auto enrolment under current rules, a worker needs to be earning just over £830 per month. Unless they have other sources of income, someone earning at this level will have a disposable income below the Minimum Income Standard. In fact, a large proportion of our saver population have incomes that are lower still: over one million have disposable incomes below the PLSA ‘Minimum’ standard for retirement. Unlike the Minimum Income Standard, the PLSA benchmark does not take into account a raft of costs that affect working-age people, such as housing, commuting or childcare. If someone’s disposable income during working life falls below a minimum retirement benchmark, their best strategy is unlikely to be saving more into a pension.

We can see this if we look at the lifetime income we predict for savings persona 9, in figure 2.4. The dark pink line shows his labour income, which remains below the full-time national living wage throughout his working life. But when we look at the teal line, which shows the per-adult disposable income in his household, we can see that this is not only below the Minimum Income Standard for most of this period – it is usually lower than the PLSA minimum level.

Figure 2.4: Working-life disposable income can fall below the PLSA’s Minimum standard



Saver persona 9: Male age 34, Caribbean heritage, single, works in retail, making minimum AE contributions

Many people are wide of the (bench)mark

Simple benchmark targets are effective ways of communicating a savings goal but for many people they will be wide of the mark

Pounds-and-pence targets like the PLSA standards have the great virtue of simplicity and ease of communication. Their advocates argue that, even if they can’t give everyone a precise retirement savings strategy, nonetheless, they can be a helpful starting point.

As we’ve noted already, our modelling suggests that these targets are within sight for many, including some earning below median incomes, even if they remain on the current 8% minimum contribution rate in auto-

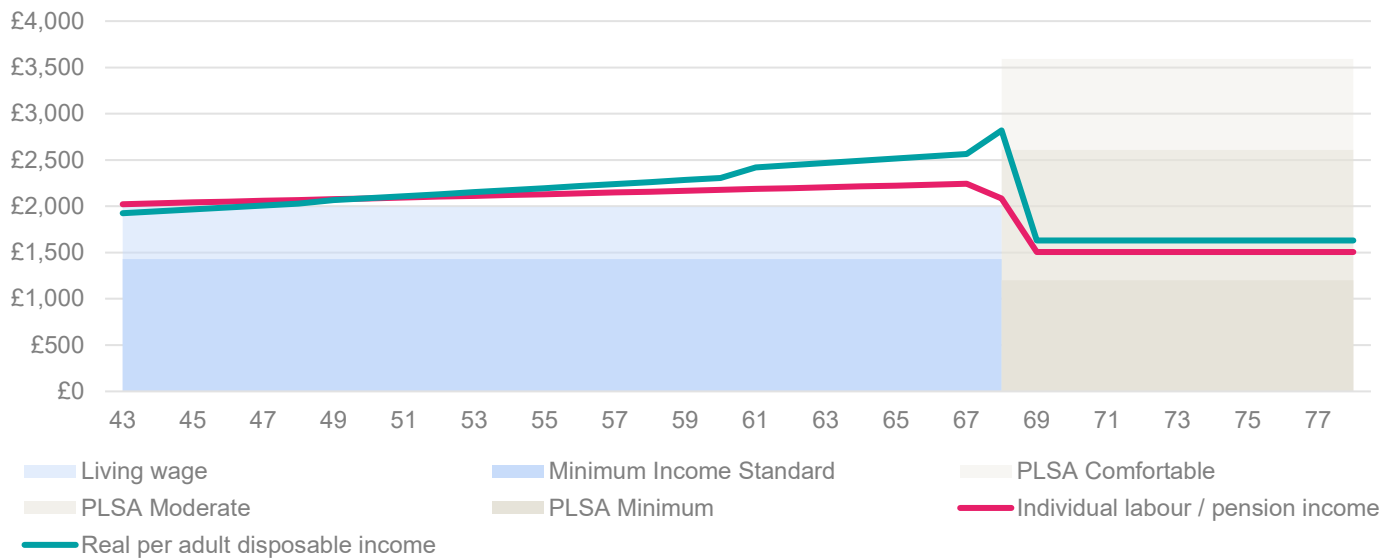
enrolment. Our saver personas 3 and 4¹¹ were created to reflect the average situation of people in our saver population. They are aged 43, with annual earnings just over £25,000 – well below national median levels.

Both are predicted to have pension incomes over the PLSA Minimum level, in spite of having patchy pension savings records until auto enrolment began, at which point they were in their mid-30’s. Figure 2.5 shows that persona 4 is on target to have a pension income over the PLSA Minimum for a single person. As she’s in a couple, she theoretically only needs to meet the lower standards that apply to couples. In fact, the per-adult disposable income in her household is only slightly short of the PLSA Moderate standard for a couple. This is partly to do with her partner’s pension income, but also because they’ve paid off their mortgage just before she retires (explaining the way their disposable income ticks up at age 68). However, partly because of this change pre-retirement, they do still experience a fall in disposable income moving into retirement.

This last point is important, as it shows that even someone on below median earnings might benefit from contributing more in order to achieve a smoother transition from working life to retirement. As the chart shows, this doesn’t just mean the difference between labour income at retirement, and pension income. As explained appendix 2, this ratio – the so-called ‘replacement rate’ – is often used for defining an adequate level of savings. Yet it doesn’t always reflect the lived experience of how someone’s standard of living changes at retirement. This is why in calculating optimised contribution rates for our saver personas, we look instead at the change in per-adult disposable income.

In the case of persona 4, the model suggests that the 8% rate she’s already paying at is optimal, and her optimised retirement income (shown by the dotted lines on the chart) is the same as the default. This is because we also take into account the lifetime disposable income in making the calculation. But as we’ve seen, our model often suggests that people on middle or higher earnings should increase their contributions.

Figure 2.5: Some below-median earners may meet the PLSA Minimum standard by contributing at the AE minimum rates



Saver persona 4 (median individual): age 43, married, works in education/sport, making minimum AE contributions
 Source: Nest Insight modelling using Understanding Society waves 1–13

This shows that someone on this level of income can achieve the PLSA’s Minimum or Moderate standard by making AE default contributions. But, as we’ve seen, people’s incomes vary widely from this midpoint across their careers. And there can be significant mismatches between their present-day and projected pension incomes, and the PLSA targets. The applicability of any one of the PLSA standards will depend to some extent on how realistic it is for any given individual to attain it.

¹¹ As ever, please see the Annex to this report for full descriptions and data for all our saver personas.

Of course, a retirement income target might still be useful for a saver, even if it doesn't reflect their specific circumstances. More than once during our research, we heard how in advisory settings, the PLSA standards can help people calibrate their retirement plans by working out how their own expectations diverge from the target amount they're being presented with. However, not all households can afford to access advice, and those who don't might not be able to judge how much they should or shouldn't aim for a given target amount.

As soon as you put it in front of a client, they go, that's not me. This is me. And so it allows them to focus in on that.

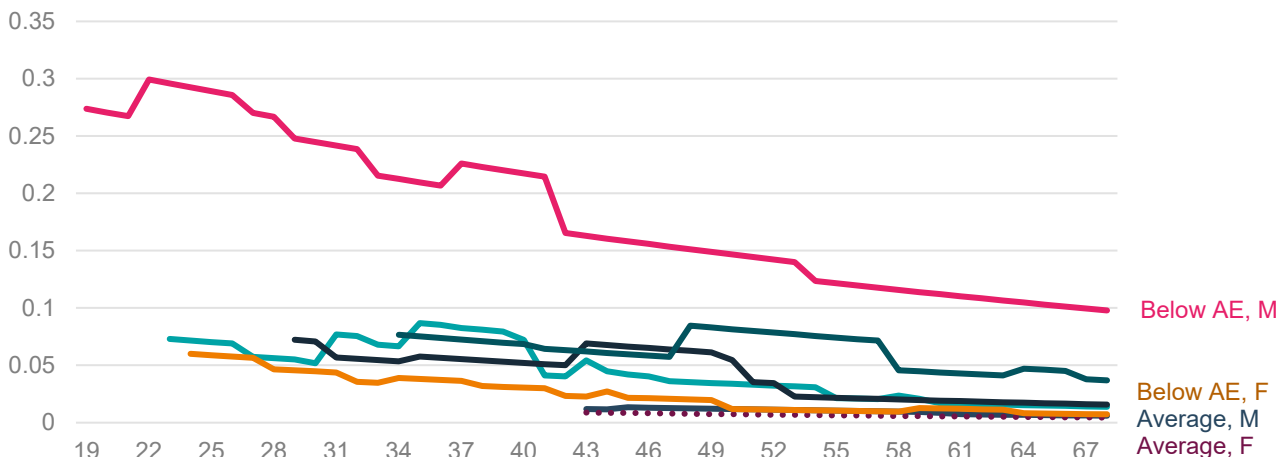
– Nathan Long, Hargreaves Lansdowne

Financial pressures are acute

Lower earners can experience tensions between the cost of contributions, and their overall financial health. The severity of these affordability concerns also varies widely. To understand them, household circumstances need to be factored in.

Many households are experiencing significant liquidity pressure in the present day – and were doing so even before the recent period of historically high inflation. As we've seen, many are below income benchmarks and, as a consequence, large numbers of working people are experiencing significant cost challenges¹². Returning to our sample set of saver personas, we can see from figure 2.6 that many have relatively high risks of falling behind on bills, or on housing payments. In this and the following figure, the Y axis shows probability, with 1.0 being certainty, and 0.5 being an even chance.

Figure 2.6: likelihood of falling behind on rent or mortgage payments, for personas 2, 3, 4, 5, 6, 8, 9



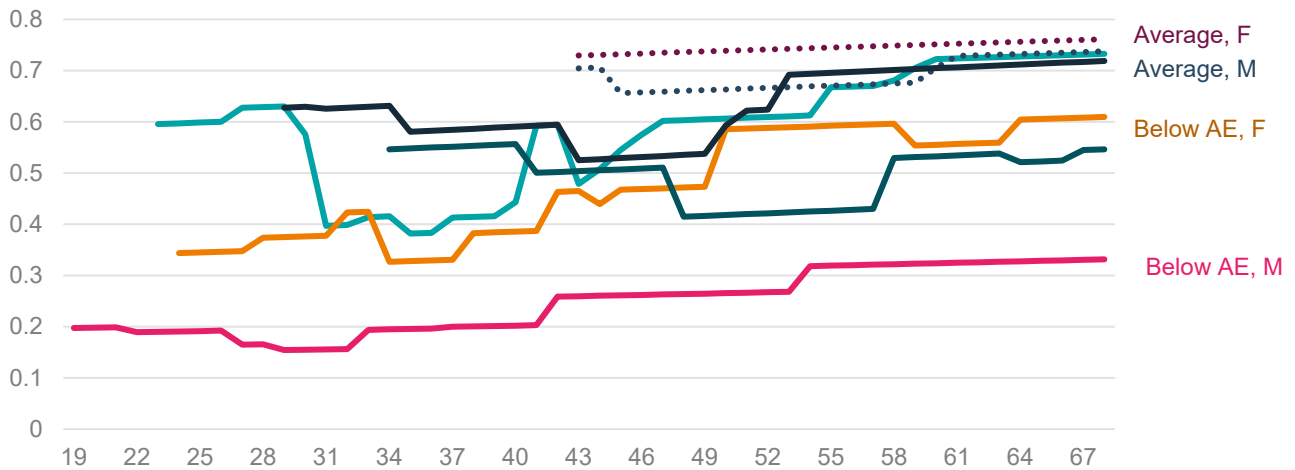
Source: Nest Insight modelling using Understanding Society waves 1–13

Such risks are heightened for households that have little or no money saved in accessible pots that they can draw on in emergencies. Figure 2.7 shows that many of our lower-earning personas are unlikely to be making any kind of non-pension savings, even while they are saving into a workplace pension. This reflects the reality we saw in a recent study of the Nest population¹³: auto-enrolment has got many workers saving for the future, while their levels of saving in other more accessible products have remained very low.

¹² For recent analysis of these pressures at the lower end of the earnings spectrum see for instance the Joseph Rowntree Foundation's analysis at <https://www.jrf.org.uk/news/hardship-deepens-as-millions-find-the-poverty-line-further-out-of-reach>

¹³ <https://www.nestinsight.org.uk/how-does-pensions-automatic-enrolment-affect-savings/>

Figure 2.7: likelihood of having non-pensions savings, for personas 2, 3, 4, 5, 6, 8, 9



Source: Nest Insight modelling using Understanding Society waves 1–13

We also see relatively high levels of debt across the board. This creates another set of risks and tensions around the affordability of pension contributions. Another recent Nest Insight study¹⁴ showed that, when AE was first introduced, at a cost to the employee of less than 1% of earnings, even so those with existing credit balances covered some of the cost of their contributions through increased levels of borrowing.

Furthermore, many are experiencing high levels of income volatility. As we've seen in our wider research programme¹⁵, it can be harder to commit to regular financial commitments when your future stream of income is both variable and unpredictable. This situation makes people focus on short-term strategies to manage day-to-day and week-to-week.

In other words, across the full spectrum of household financial factors, we see risks that paying more into a pension could trigger negative outcomes in the short to medium terms. Where our model shows this risk to be relatively high for one of our lower-earning personas, we take this into account when suggesting how they could optimise their level of retirement contributions.

Contribution costs may accentuate risks for the lowest earners

Many lower earners would have a better chance of suitable living standards in retirement if more was paid into their workplace pensions. Yet paying higher contributions could take them further underwater in the short term.

As we've already seen, many people spend significant parts of their working lives with disposable incomes below standard minimum targets for retirement consumption. Given the short-term financial risks we've also described, people in this situation might be better off in many respects if they didn't pay anything into a pension – at least for the time being. Most people will want to maintain a manageable standard of living in the short term, if they possibly can. The challenges this raises, though, are:

- › this increases their change of not having an adequate living standard in retirement
- › if they don't contribute into the workplace pensions system, they will miss out on employer contributions and tax relief.

This is a particular concern for those earning under, or just over, the £10,000 threshold for auto enrolment. The relative generosity of State Pension entitlements will mean many of this group could see their incomes rise at retirement, especially if they save into a workplace pension. This is true, for instance, for saver persona 6, as we can see in figure 2.8. The dark pink line in this graph shows her income from work up to age 68, and after this age, her income from State and workplace pensions.

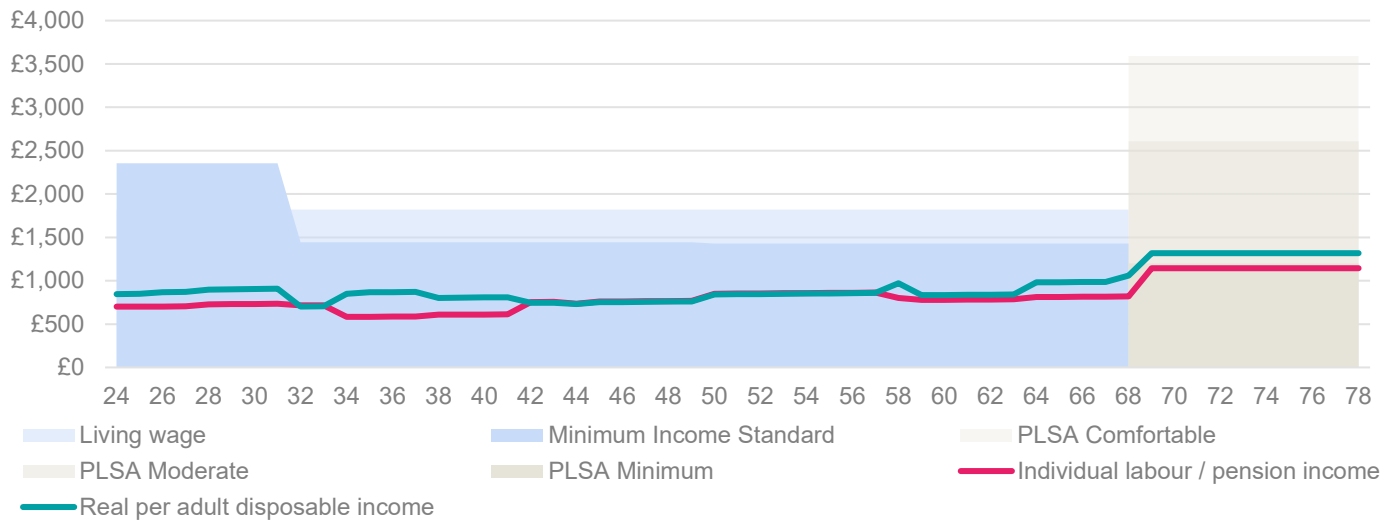
¹⁴ See [Auto enrolment and debt - NEST Insight Unit](#)

¹⁵ For more on our research into the impacts of income volatility, see [Why understanding volatility matters - NEST Insight Unit](#)

For illustrative purposes we have assumed this individual and her employer both contribute to a workplace pension at the standard minimum contribution rates in the auto enrolment system. This might be the case if she enrolled voluntarily, or if the current lower earnings threshold was removed, as some have suggested.

We can see that her pension income is higher than her working-life income, though still lower than the PLSA minimum for either a single person or a couple. She experiences a replacement rate of 130% against her labour income at retirement. Clearly, we would hope she was able to attain a higher level of retirement income, but it's not clear that she will have benefitted from having some of her working income deducted into a pension, given the additional risks and pressures this might expose her to during her working life.

Figure 2.8: the retirement income of the lowest earners may be higher than their income from work



Saver persona 6 (earning under the AE threshold): age 24, divorced, works in retail, making minimum AE contributions
 Source: Nest Insight modelling using Understanding Society waves 1–13

This situation could be exacerbated if her earnings were to drop in the run-up to retirement, something we know to be true of many lower earners who for a range of reasons are less able or willing to continue working at the same intensity into their late 60's. In this scenario, there could be real value in having accrued some DC savings, not to use as an uplift to the State Pension from their state retirement age, but rather to supplement a declining level of labour income at any point from age 55, when pension rules allow them to start drawing on their DC savings¹⁶.

Another crucial factor here is the interaction with benefits. Although a detailed exploration of this issue is beyond the scope of this report, our data analysis shows that a number of our personas are likely to be receiving benefits for much of their working lives, and often in retirement, too. The interactions between income, savings and entitlements create complex and sometimes perverse incentive structures that can make it hard for people to decide whether or not to save, and retrospectively devalue the savings they have made. In the worst case, people might reduce their standard of living today by saving, but see little or no increase in their standard of living in retirement, due to the interaction of their saving and benefit entitlement.

Depending on their specific circumstances, this applies during working life and in retirement, for instance:

- › those receiving universal credit while in work could find that contributing to a pension increases their entitlements, effectively meaning they do not have to pay the full cost of their contributions.
- › those who are likely to be entitled to benefits in retirement – in particular, housing benefit – could find these entitlements reduced because they are also drawing an income from a private pension. This position could

¹⁶ This alternative use of DC savings pre-retirement is beyond the scope of our model, but it follows the exact same logic as the model: to smooth disposable income across the life course. For low earners, early access could always be an additional reason to save in a workplace pension, over and above what our model suggests.

change, though, if they instead take their pension pot as a lump sum at retirement, as many people with smaller pot sizes tend to do¹⁷.

Everyone's choice about what (if anything) to contribute to a pension is a complex decision, made under conditions of uncertainty. For low earners, the risks around benefit entitlements only add to this burden of complexity. It isn't feasible for anyone to predict with 20/20 accuracy whether or not their current level of retirement savings will leave them at the sharp end of a benefits entitlement taper, some 30 or 40 years in the future.

As a result, this isn't something we've been able to factor into our modelling with any specificity. Although we've predicted the benefits entitlements of our personas using data on real households, this can only be indicative. But we hope it will act as a reminder of the role that benefits play in the incomes of many working people and pensioners¹⁸.

Priorities change over the life-course

Standard economic models of retirement saving assume that the goal is to smooth consumption across their working life. Yet people's circumstances are not static. Their consumption and spending power changes during their working lives.

Lifecycle models of saving are based on the idea that, at certain stages of an individual's career, their income will outstrip their consumption. This allows them to save the surplus for retirement. By contrast, at times where consumption outstrips income, in particular during retirement, they will 'dis-save', drawing on the assets they've built up over their lives. In this way, across the whole life course, consumption is flattened to a horizontal line.

Yet we only need to look at the recent inflationary context to see that consumption capacity fluctuates during working life. Even in less stretched economic times, the changing size of the household causes significant changes, and as we've already seen from the variations in per-individual income across the population, and in the diverse projected life-paths of our saver personas, many careers include periods of non-earning, or reduced wage growth. Household breakdown, for instance at divorce, completely changes the calculus for each individual that subsequently establishes their own separate household.

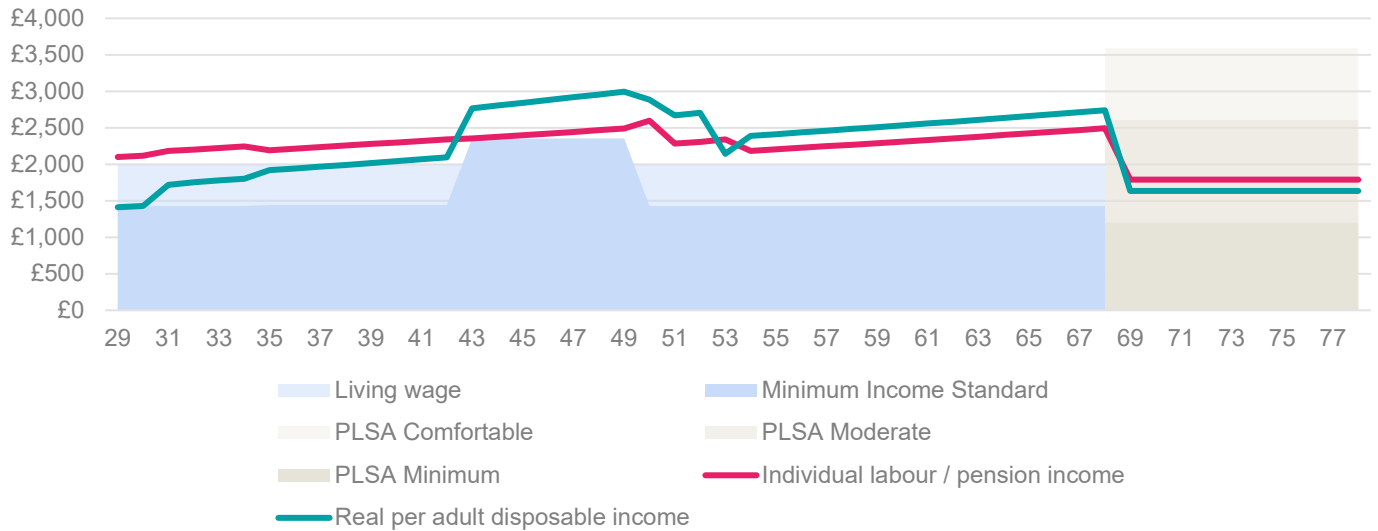
Taking this into account, an individual would need to revisit their retirement saving strategy at different points in their life to maintain an optimised approach. A sustained period of reduced consumption should imply a reduction in lifetime retirement saving. Formation or breakdown of a family will alter both short- and long-term priorities. As we'll see in section 3, our idealised model of when to contribute to a pension, and at what rate, prefers each individual to stop saving for retirement when the spending power of their household moves below an adequate level, and restart when and if their situation improves.

In reality, most people are unlikely to keep making constant changes to their savings rate throughout their lives. Yet the future is uncertain, and no strategy should be presented as set in stone for life. As illustrated in figure 2.9, we predict that the adequacy position for a number of our saver personas will be very different in 10 or 20 years time, compared to their positions today. In the case of saver persona 8, when she's in her late 20s, she finds herself under pressure in terms of disposable income, as a single person living in a multi-generational household. Later in life, thanks to changes in her household situation due to leaving home, marrying and separating, the per-adult disposable income in her household changes starkly, even though her personal earnings from work grow relatively steadily in real terms.

¹⁷ This is because eligibility for different benefits is based on different combinations of savings and income, in ways that create complex incentive structures. For a thorough analysis of these interactions, see for instance Lane Clarke and Peacock's report, *How getting pension freedoms wrong could cost you your benefit*, at <https://www.lcp.com/media/nszb4z4r/how-getting-pension-freedoms-wrong-could-cost-you-your-benefit.pdf>

¹⁸ For more on the role that in-work benefits play as a component of incomes, see appendix 1.

Figure 2.9: Circumstances change throughout a working life



Saver persona 8: Female, mixed heritage, A-level educated

This emphasises the importance of re-evaluating any strategy from time to time, especially at major inflection points like a change in the composition of the household, or in the costs of housing.

Nobody can predict the future with certainty – but our ability to predict and prioritise future outcomes becomes greater as we age. An individual who’s followed a very general rule of thumb, or a savings default, at the start of their working life, can hone in on a more specific strategy as their longer-term household composition, and their future income and housing situation, become more certain. A young person who believes their future income will grow significantly later in life might deprioritise retirement savings for the time being; but if they fail to achieve this goal by mid-life, they might need to change their plans. Among our saver personas, we see examples of people who should be able to turn their position around having potentially under-saved up to their late thirties or early forties – but beyond this point it will get harder to catch up. At this age an individual will also know whether or not they have time to start and pay off a mortgage before they retire. This makes it a crucial life stage for a ‘pension check-in’.

An optimal savings strategy also needs to hedge against the possible shocks that the future may bring, before aiming for a target that might never be achieved. Someone in a couple who is relying on the pension of their partner is well advised to consider what their position will be if their relationship was to break down. Many of our saver personas see their own pensions boosted by income from other sources in their household, but others are entirely reliant on the combination of state and DC pension income.

The optimised savings rates presented in the next section are reset every decade, to take account of these kinds of changes. Whether in reality an individual will keep reassessing and resetting their contribution rate is of course a moot point, but this would seem to be a good idea for all but those with the steadiest earnings trajectories and life experiences.

Section 3

How much should our saver personas save?

We've seen that everyone's retirement saving priorities are different, and intricately linked with their wider financial health of their households. These priorities also change frequently over the course of different people's working lives. Yet when we model their optimal savings rates, we do see some common strategies that could usefully be applied to real-life savers facing complex choices.

One of the key reasons for creating such a detailed set of data on our saver personas is that it allows us to model an entire working life's worth of retirement contributions, and weigh the level of retirement income that this provides against the whole household's spending power, both before and after retirement. In this section, we present the most informative examples of our model's optimised recommendations, and draw some general conclusions about how people might try to solve the retirement adequacy challenge.

How we've modelled 'optimal' savings strategies

A central goal of this project is to calculate optimal pension contribution rates for each of our personas. In doing this, we've taken into account the insights in this report, including the risks, challenges, needs and opportunities of today's UK households. Throughout, we've applied a core assumption that the implicit goal of every saver is to smooth their spending power over the course of their lives.

Our personas are idiosyncratic, and diverse – just like real households – and it's sometimes hard for our model to find a simple solution to this goal. Initially, we allowed it to change people's contribution rates on an annual basis, or choose fractional percentage rates. Accordingly, it recommended strategies far too complex for an individual to follow. Also, this kind of micro-calculation of optimal contributions is bound to be full of spurious accuracy given the uncertainties of anyone's present and future finances. So we adjusted the rules of our model to produce simpler outputs that broadly aimed for the goal of smoothing spending power.

We landed on the following set of assumptions and constraints:

- › Whenever possible during the persona's working life, the per-head disposable income¹⁹ of their household doesn't fall below the Minimum Income Standard.
- › Wherever possible, in retirement, the per-head disposable income of their household should be between 66% and 85% of that during their working life.
- › They take only an income at retirement and the DC income they receive is modelled using the investment strategy and charging structure of the Nest pension²⁰.
- › They retire at age 68 and start taking a full State Pension at that point. We assume the State Pension will not grow in real terms from its current level²¹.
- › The employer keeps contributing at 3%²². The exception is where the model recommends an employee contribution less than the AE default, in which case we reduce the employer contribution by the same proportion²³.
- › The individual changes their contribution settings at most once every ten years and never contributes more than a total of 15%.

¹⁹ As elsewhere, we're using 'disposable income' to mean all sources of net income, net of housing costs.

²⁰ Alternative choices of product or investments would of course change these outcomes, but we've taken the Nest settings as a reasonable proxy for the returns that an auto-enrolled individual might expect to get from a default investment strategy.

²¹ Of course, given the 'triple lock' mechanism it will often grow by more than this, but it was beyond the scope of our model to predict this real growth in a way that is consistent with the other assumptions in our model. And we didn't want to assume that this generous uprating mechanism would be in place for the whole duration of our personas' working lives. Given this, the State Pension figures in our projections can probably be treated as lower bounds.

²² Clearly, this would change if the default employer contribution rate in AE was increased. This would mean the individual pays a lower share of the optimised contribution rates shown here, increasing their disposable incomes. Also, if employer contributions for lower earners were not conditional on the employee making a contribution, this would provide higher incomes to those who our model suggests can't afford to contribute.

²³ This is not totally realistic, because in this situation the employer isn't legally obliged to make an employer contribution, but we have used this rule to allow the model to reduce the total contribution incrementally.

- › The pension income of any partner in the household remains static – only the person themselves changes their contribution rate.

Looking at these assumptions in the round, it can be seen that our model aims to keep the individual's retirement income within generally accepted replacement rates²⁴, though crucially we've focussed on the change in per-head spending power in the household, rather than 'replacement rates' (the ratio of pension income to final labour income). Crucially, we've also limited the contribution rates to a realistic level. We've also sense-tested the outputs of the model against the PLSA standards. In this way we've tried to incorporate both relative and absolute measures of adequacy for each individual, both pre-and post-retirement.

Drawing general conclusions from specific scenarios

The method laid out above is just one possible approach that a pension saver might use to solve the adequacy equation, if they had the perfect foresight that our model gives us about their future life paths: which of course they don't. The results we show here by definition specific to the rules we've chosen, and we're not suggesting they're the only possible solution. But they are one reasonable approach that might smooth an individual's lifetime spending power and minimise the risks of falling below widely-accepted income standards. In the commentaries in the Annex to this report, we point out some of the alternative strategies our saver personas might adopt.

In spite of the very different approaches that our model suggests for different personas, we do see some patterns. In this section we bring these patterns out, by highlighting examples of the approaches our model proposes for different groups of personas who share certain characteristics. In the following section, we use these results to draw conclusions about the future evolution of pension savings systems.

To see the full range of personas, in all their diversity, and an account of each persona's recommended savings strategy, please see the Annex.

²⁴ See appendix 2 for a fuller discussion of the pros and cons of replacement rates.

1 Above-median earners

It's striking that our model tends to recommend that any above-median earners increase their contributions, often to the maximum amount we've allowed it to recommend – a total of 15%. However, in the case of the three examples that follow, this is in large part because their savings track records to date are patchy, and/or the earnings of their partners, are lower. It should also be noted that this is being calculated on the auto-enrolment band of earnings, so the actual percentage rate they need to pay would be lower if their contributions were being calculated on their total earnings, as is more often the case for higher-earning workers.

In other words, the precise formula for calculating an optimal contribution rate is highly contextual – and we're not aiming here to provide an exact formula that works for all. Rather, we're using these rich examples to highlight the diversity of people's saving needs. Nevertheless, our modelling does lead us to some general conclusions about how standard or default rates might be set for people with above-median earnings.

- › People in mid-life who haven't built up many retirement assets will need to maximise their contributions to ensure their standard of living does not drop significantly when they retire. Our model 'maxes out' at a total 15% contribution, but it would recommend higher rates for some of our personas who are on track to experience a drop in disposable income at retirement. At this level of income, this is usually an issue for the individual, rather than for those who set the defaults in pension arrangements. People in this situation will need to act for themselves, because it's difficult to imagine a situation where the default rates offered in a pension scheme – even a relatively generous one – would rise to the kind of levels required for them to 'catch up'.
- › And, of course, many people with higher incomes have other assets, or sources of income, other than pensions, that they can draw on in retirement. This is true of some of our personas. These specific individuals can smooth their spending power by contributing between 8 and 15%. But if these other sources of income don't materialise, they will face more significant drops in living standards at retirement. Even if this happens, though, they will each have disposable incomes well above the PLSA's Minimum standard.

These cases illustrate two points:

- › savings rates for higher earners could reasonably be set higher than the current minimum rates
- › but they should probably not be set at a level that aims to guarantee a target replacement rate for higher earners – because this creates the risk that those with other sources of income will over-save.

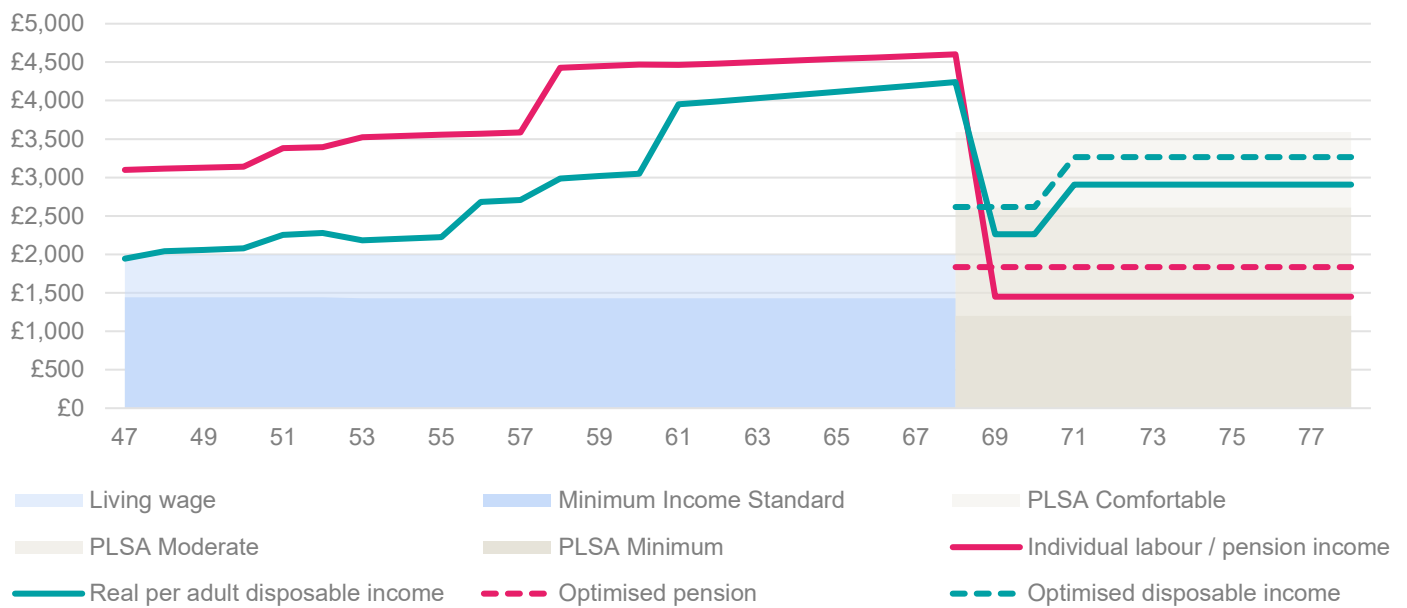
Higher earners are probably more likely to make their own proactive savings choices, rather than follow the defaults that have been set for them – though evidence from corporate pensions suggests that many do stick to the default rate set by their employer – or the rate they need to pay to maximise an employer match. So the choices made by company pension managers or trustees will have a major impact on the savings rates of many participants. Still, it seems reasonable for them to conclude that the task of getting their members to an optimal target replacement rate might not wholly rest with them: they're likely to assume that their more affluent participants can to some extent take care of themselves.

Saver persona 16

Persona 16 has the capacity and the incentive to contribute more. Although an **above-median earner**, the per-head disposable income in her **multigenerational household** starts out not much higher than the Minimum Income Standard. Her projected pension income is low, thanks to only having stopped opting out of workplace pensions in her mid 40s. Her income increases in her 50's through non-labour sources, and she separates from his partner – the net effect being that her **disposable income rises steadily** in relation to her labour income. Although she has a **mortgage, the term carries two years into her retirement**. In the chart below, she pays this off out of her retirement income, but given her high later-life disposable income she might instead choose to pay it off sooner, if that option is available.

In spite of having a disposable income in retirement around the level of the **PLSA Moderate standard**, our model suggests she maximise her contributions for the remainder of her working life, up to the highest level we allow it to recommend – 15%. This is in order to better smooth her lifetime spending power, within this constraint.

Saver persona 16: lifetime income



Saver persona 16: default and optimised contribution rates

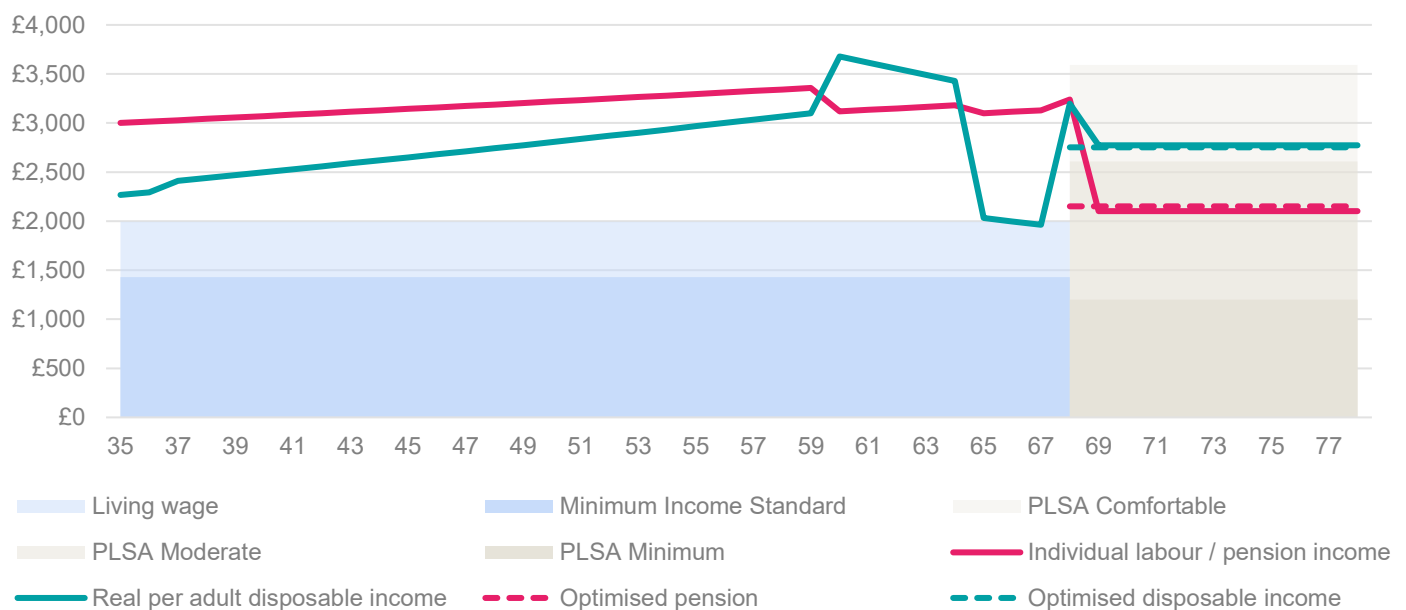
Decade of life	40's	50's	60's
Default employee inc. tax relief	5%	5%	5%
Default total including employer	8%	8%	8%
Optimised employee inc. tax relief	12%	12%	12%
Optimised total including employer	15%	15%	15%

Saver persona 11

Persona 11 already has a comfortable level of disposable income, in spite of a **mortgage** on a London property. He also acquires a **buy-to-let property** which produces additional income from his 50's. Later in life, his disposable income fluctuates during a series of changes – **paying off his mortgage, caring for a terminally ill relative who moves in with him**, and switching to a **less demanding job in the run-up to retirement**. Given this, it's hard to say how he will experience the transition to a disposable income in retirement that's higher than the **PLSA Moderate standard**. It may feel like a significant increase from the period when his relative was depending on him, or a fall in the standards he experienced before then.

Our model answers this question by attempting to smooth the to the average disposable income across his lifetime. It wants him to have a pension slightly over the PLSA Moderate standard, and although it suggests a different contribution profile²⁵ to achieve this, it broadly equates to the current minimum rates. He could, however, afford a higher rate of contribution, and achieve a disposable income closer to that he experienced in his early 60's. Perhaps the key point that this scenario illustrates is that this would need to be up to him.

Saver persona 11: lifetime income



Saver persona 11: default and optimised contribution rates

Decade of life	30's	40's	50's	60's
Default employee inc. tax relief	5%	5%	5%	5%
Default total including employer	8%	8%	8%	8%
Optimised employee inc. tax relief	5%	2%	7%	12%
Optimised total including employer	8%	3.2%	10%	15%

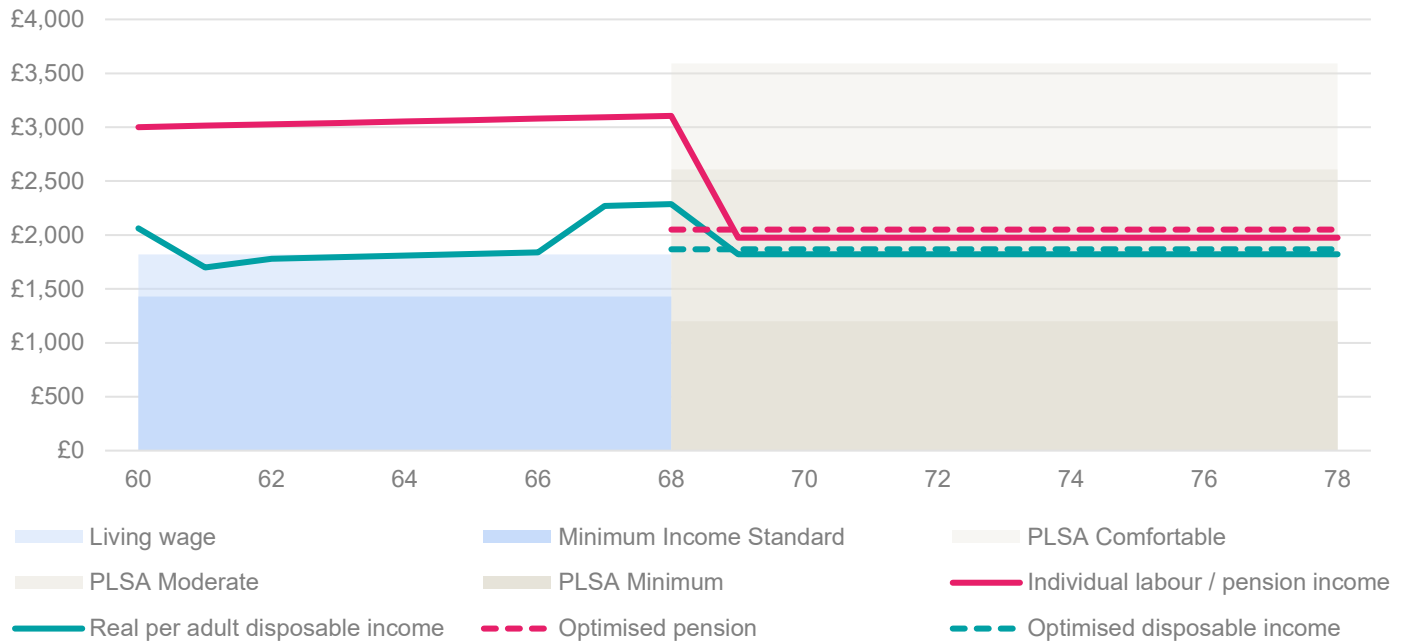
²⁵ This profile is imperfect because the pattern of contributions is set by decade. But it's aiming for him to maximise his contributions during the period when he has the highest disposable income, in his early 60's.

Saver persona 21

Thanks in part to a significant level of **defined benefit income** from a previous public sector job, persona 21 has £2,000 a month of retirement income. His **partner has a lower level of labour income** and pension, but their per-head disposable income in retirement falls only just shy of the **Moderate PLSA level** for a couple (£1,796/m).

Our model recommends he maximises his retirement savings for the remainder of his career to help smooth income pre-and post retirement, but at this stage of life this significant increase in contributions makes only a marginal difference to their situation. An alternative strategy would be to work for longer and defer claiming State and private pensions, provided his capacity to work and access to the labour market allows it.

Saver persona 21: lifetime earnings



Saver persona 21: default and optimised contribution rates

Decade of life	60's
Default employee inc. tax relief	5%
Default total including employer	8%
Optimised employee inc. tax relief	12%
Optimised total including employer	15%

2 People with earnings just below the UK median

As our saver personas' earnings fall to national median levels, and just below this level, our model continues to suggest contribution rates above the current AE default levels. However, the specific levels recommended to each individual depend heavily on their distinct household circumstances, and how much savings they've previously built up for retirement. This is because at these kinds of income levels, we still see some significant drops in disposable earnings at retirement, if our personas continue to save at the AE minimum rates. And many, but by no means all, personas earning at this level appear to have the spending power to contribute more, as well as experiencing low financial risks if they defer more of their income to a retirement account.

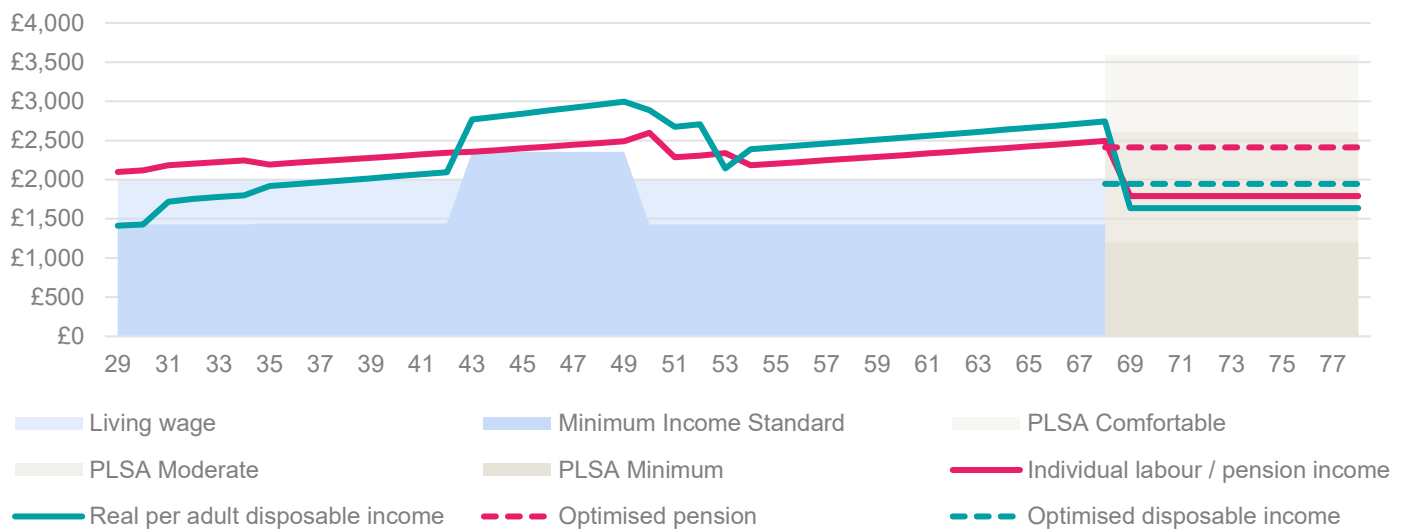
However, as monthly earnings drop below £2,000, the impact of household conditions can get more complex, and we start to see examples of affordability pressures. Our personas are not fully representative of everyone earning at this level, but it's striking that we see more examples of difficult trade-offs for people earning in the £1,000-£2,000 range than we do for higher earners. Though this is by no means true of all below-median earners, it suggests attention needs to be paid to the impact of higher minimum contribution rates on people earning at these levels.

Saver persona 8

Persona 8 earns a little less than the UK median wage from her managerial role, and experiences **steady real-terms earnings growth** throughout her life. She also **pays off her mortgage before retirement**. From this point of view, she is in a relatively comfortable position as compared to some of our lower-earning personas. However, she experiences significant changes in her level of disposable income as she moves from being **single**, then **married with a child**, then **a single mother of one**, then once again **married**, as she continues to be through into retirement. This leads to peaks and troughs in savings capacity over her working life. As things stand, on auto enrolment minimum levels, she saves up a per-head disposable income just below the **PLSA Moderate standard** for a couple (£1,796/m). This is in spite of her partner's pension being somewhat lower. However, the net effect of this is a significant drop-off in their disposable income.

As a result, our model suggests she contribute at quite a high level – the maximum 15% we've allowed it to recommend. This would create a much smoother lifetime disposable income. As with the recommendation for persona 7, this would mean she took on the entire burden of saving more for retirement, leaving him on minimum AE contributions. The optimal picture for them both might instead be for them each to contribute closer to the 12% level that a number of industry stakeholders have recommended as the new rate for auto-enrolment contributions.

Saver persona 8: lifetime income



Saver persona 8: default and optimised contribution rates

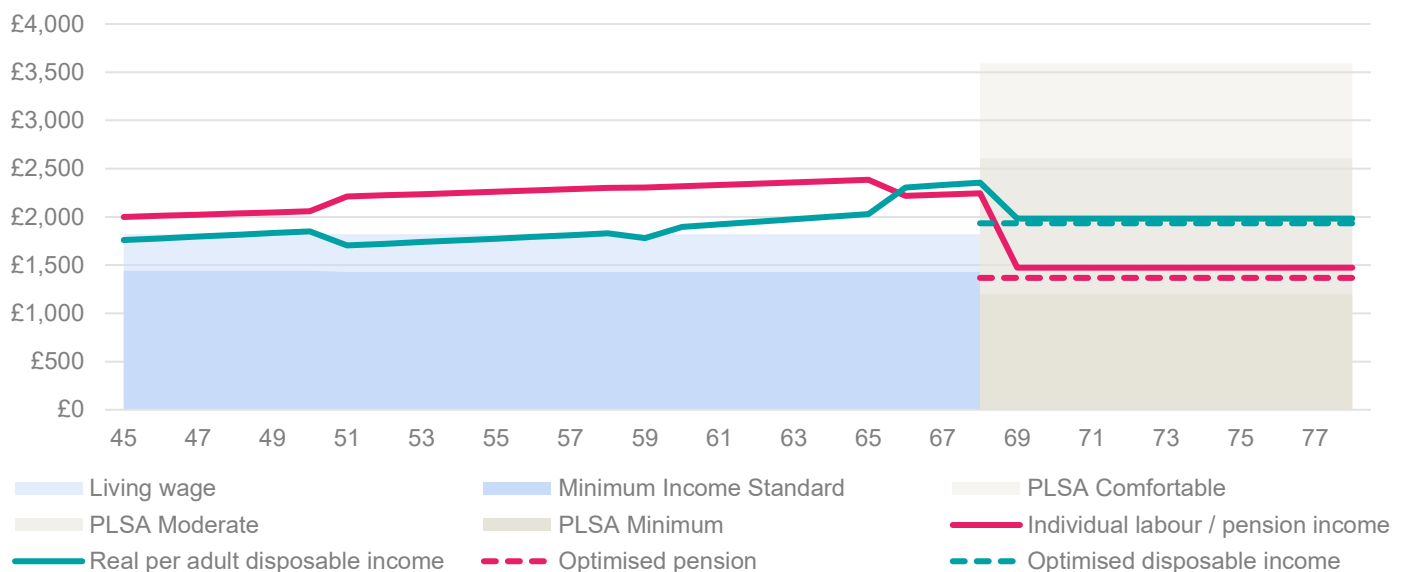
Decade of life	30's	40's	50's	60's
Default employee inc. tax relief	5%	5%	5%	5%
Default total including employer	8%	8%	8%	8%
Optimised employee inc. tax relief	12%	12%	12%	12%
Optimised total including employer	15%	15%	15%	15%

Saver persona 15

In spite of a wage that's approaching the national median, Persona 15 has a variable disposable income, which improves in her 50's as she **pays off her mortgage** and **separates from her partner**. As a result she has a higher capacity to save during her final decade before retirement. And from her 60s she has other sources of income, including from an **inheritance**. Of course, many relationship breakdowns have the opposite effect, especially on the lower-earning partner. In this sense at least, person 15 is fortunate. Her disposable income in retirement is between the **PLSA Minimum and Moderate standards**.

Our model is comfortable with her reducing her contributions to make them more affordable, because this keeps her lifetime disposable income relatively stable. However, this is contingent on her continuing to receive her other income sources. If she became more dependent on her pension income alone, she would still be above the PLSA minimum level but would experience a steeper drop in disposable income at retirement. So she should be cautious about saving less.

Saver person 15: lifetime income



Saver persona 15: default and optimised contribution rates

Decade of life	40's	50's	60's
Default employee inc. tax relief	5%	5%	5%
Default total including employer	8%	8%	8%
Optimised employee inc. tax relief	2%	6%	0%
Optimised total including employer	3.2%	9%	0%

3 Lower earners

There's no precise line we can draw based on our limited set of personas that separates 'below median' from 'lower' earners, but as people's labour incomes get closer to the full-time national living wage, we start to see increasing challenges to the affordability of increased pensions savings. For people whose earnings are near the bottom of the AE eligibility criteria, the following things are often true:

- › their household spending power is tight through much of their working lives, and their capacity to contribute to retirement savings is limited
- › the State Pension equates to a relatively significant proportion of their working-life incomes

As a result, their optimal savings strategies tend towards lower contributions than are suitable for median and higher earners, at least at some stages of their lives. In many cases, even the current 8% minimum rate in the AE system look to high to our model. Where it does recommend someone makes a contribution, it tries ensure that this is at a level of at least 5% (including tax relief), as this allows the saver to receive the maximum employer match available on these settings – 3%, making up the total of 8%. But very often it finds even this level of savings to be too high, and for those with limited household spending power, it often recommends a zero contribution.

This is illustrated by the following examples, but a much more diverse range of saver personas, with an equal diversity of optimal savings strategies, can be found in the Annex to this report. The three selected examples that follow illustrate the situations of individuals at different life stages:

- › **Younger workers.** A number of our younger saver personas reflect that fact that people in their 20's and early 30's can have a bit more disposable income than they'll go on to have in mid-life. Of course this is not the case for all, and many may be targeting this surplus income into other goals such as a deposit for a property purchase. Our model often recommends they maximise their contributions during this time, then stop contributing as their cost pressures grow in mid-life. Whilst this 'save as much as you can while you're young' approach is a sensible hedge against future affordability challenges, it's not clear that this is a realistic option for people near the start of their careers. At this stage in life, they have no way of knowing what their future earning and spending trajectories will be.
- › **Mid-career workers.** As people take on greater responsibilities in their households, their disposable incomes often fall in relation to their earnings. But at the same time, the longer term plan – in terms of who and what they might be saving for, is clearer. Someone knows with a fair degree of certainty by their 40's whether they will be able to buy their home and pay off the mortgage before they retire. In mid-life, though, many lower earners will have to make tough trade-offs, and may find it hard to afford to contribute to a pension, even though they often need to save if they're to avoid a poor standard of living in retirement. In section 4, we consider whether people in this situation could benefit from a system that lets them accumulate savings even when they're not themselves contributing.
- › **Older workers.** Our modelling brings a stark focus on the limited options available to those within a decade or so of retirement, who have not yet built up an adequate level of retirement savings. However much our model tries to optimise their savings rates, it can make minimal difference to their outcomes over the small number of years remaining. For people in this situation, the only way to improve their standard of living in retirement may be to defer retirement and benefit from an uplifted State Pension and some additional months of saving. However, this option depends on their capacity to continue work, and their access to the labour market.

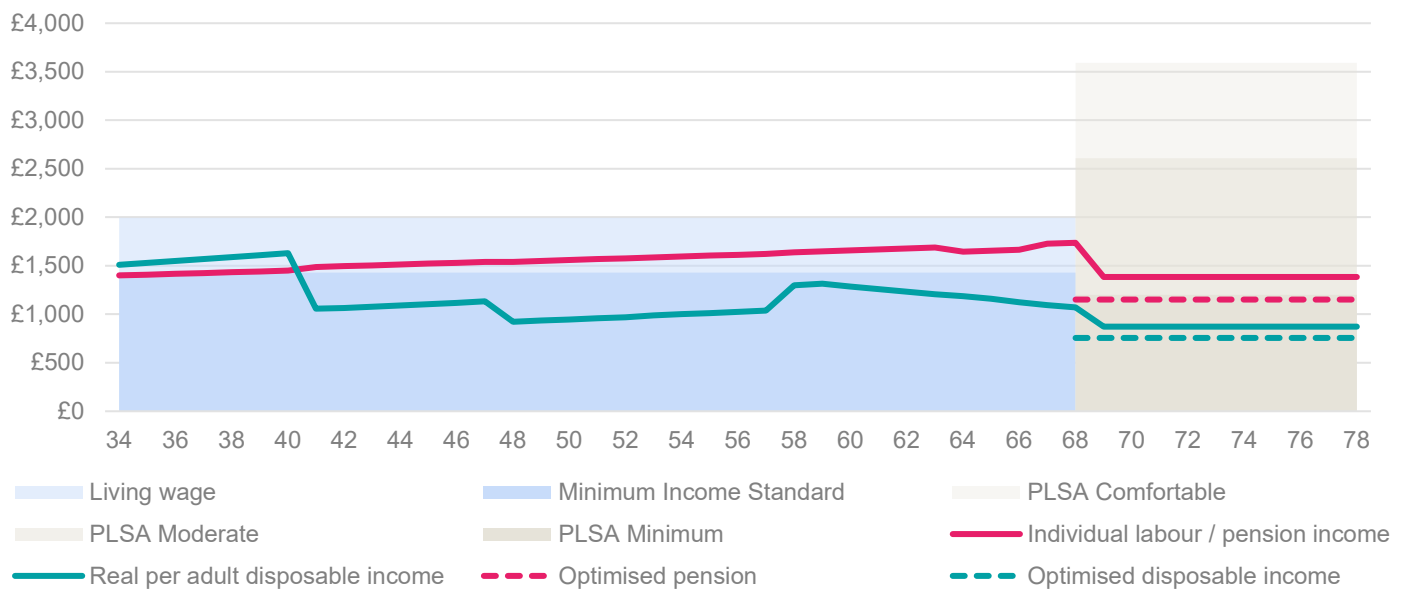
It's worth pointing out here that our model assumes that employers will contribute no more than the 3% they're currently obliged to make under AE rules, and that the individual needs to make at least a 5% contribution (including tax relief) to be given this level of employer match. If any part of this formula was to change, this might unlock some of the difficult trade-offs facing these saver personas. We will return to this theme in the following section.

Younger workers – persona 9

Persona 9’s household situation changes through his mid-life, as he starts relationships with **two different partners**. His **London rent** is also relatively high compared to his income. The net effect on his disposable income is that he spends most of his working life below the relevant Minimum Income Standard. Thanks to a steady contribution record into his pension, he and his partner end up with disposable income in retirement that’s just below the **PLSA Minimum standard** for a couple (£933/m). The question is whether it was worth paying these contributions given that his disposable income in working life rarely rose above this minimum target for a retirement income?

Our model says not. It wants him to save more, as it doesn’t see his retirement income as adequate, but we’ve told it not to recommend contributions that will take an individual further below the Minimum Income Standard. This is why it recommends a maximum total contribution of 15% during his 30’s. That’s a logical recommendation given his future trajectory, but in reality this is unlikely to be a strategy followed by someone already facing significant affordability pressures and without the perfect knowledge of the future he’d need to alight on this strategy. It’s fairer to say the model doesn’t have an optimal solution for persona 9.

Saver persona 9: lifetime income



Saver persona 8: default and optimised contribution rates

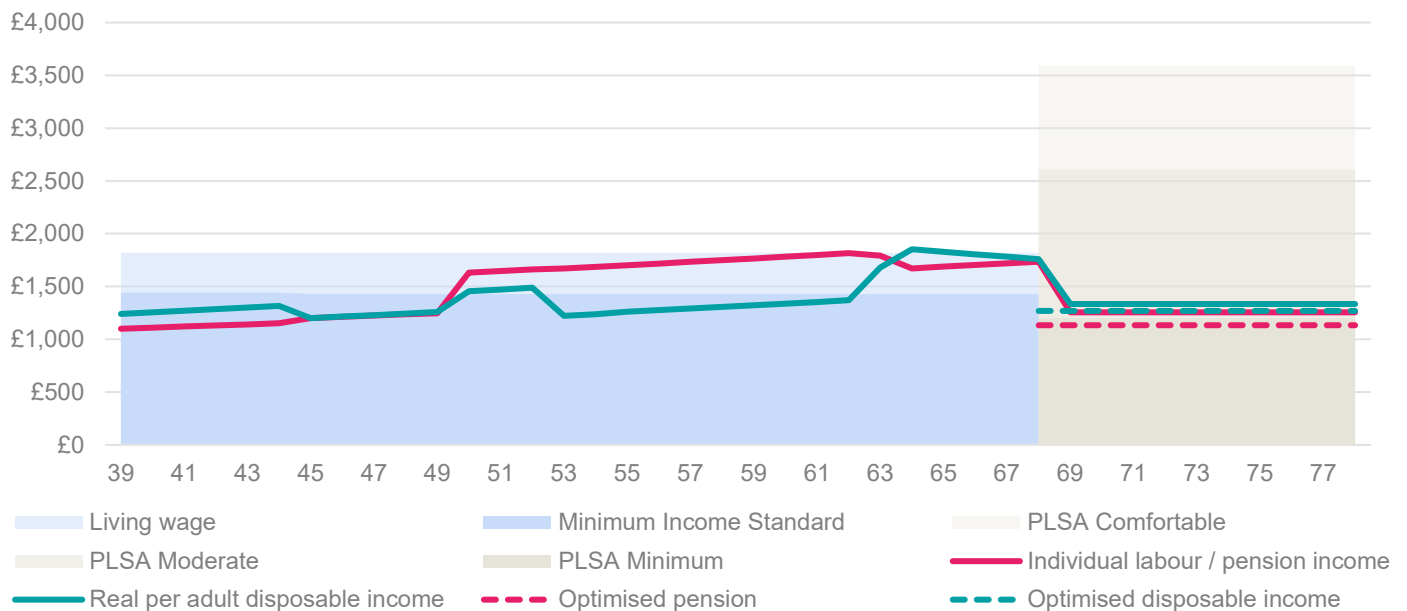
Decade of life	30's	40's	50's	60's
Default employee inc. tax relief	5%	5%	5%	5%
Default total including employer	8%	8%	8%	8%
Optimised employee inc. tax relief	12%	0%	0%	0%
Optimised total including employer	15%	0%	0%	0%

Mid-life workers – persona 13

Persona 13 illustrates the trade-offs that people with limited means need to make between retirement savings and property. Although she’s on a lower income, she has been able to get onto the housing ladder and is paying off the **mortgage** on her West Midlands home until her early 60’s. The effect is that her disposable income remains low, especially when she **separates from her first partner** in her early 50s. This improves when she **pays off her mortgage** and **remarries** in her 60s. The positive impact of owning her home continues into retirement, when the disposable income of her and her second partner remains above the **PLSA minimum standard** for an individual - comfortably above the level for a couple. However, they experience a drop in disposable income at the point of retirement.

Because her disposable income is stubbornly below the Minimum Income Standard, our model recommends that she doesn’t contribute at all. This is understandable, as our analysis suggests that the cost of pension contributions could increase the risk of her falling behind on mortgage payments, during her 40’s especially. However, if we relax the condition that contribution rates need to be fixed for whole decades, the model suggests she start contributing at a 10% rate during her 60’s. So we can see the model ‘wants’ her to save: the only thing stopping it from recommending this is the low level of disposable income in her household.

Saver person 13: lifetime income



Saver persona 13: default and optimised contribution rates

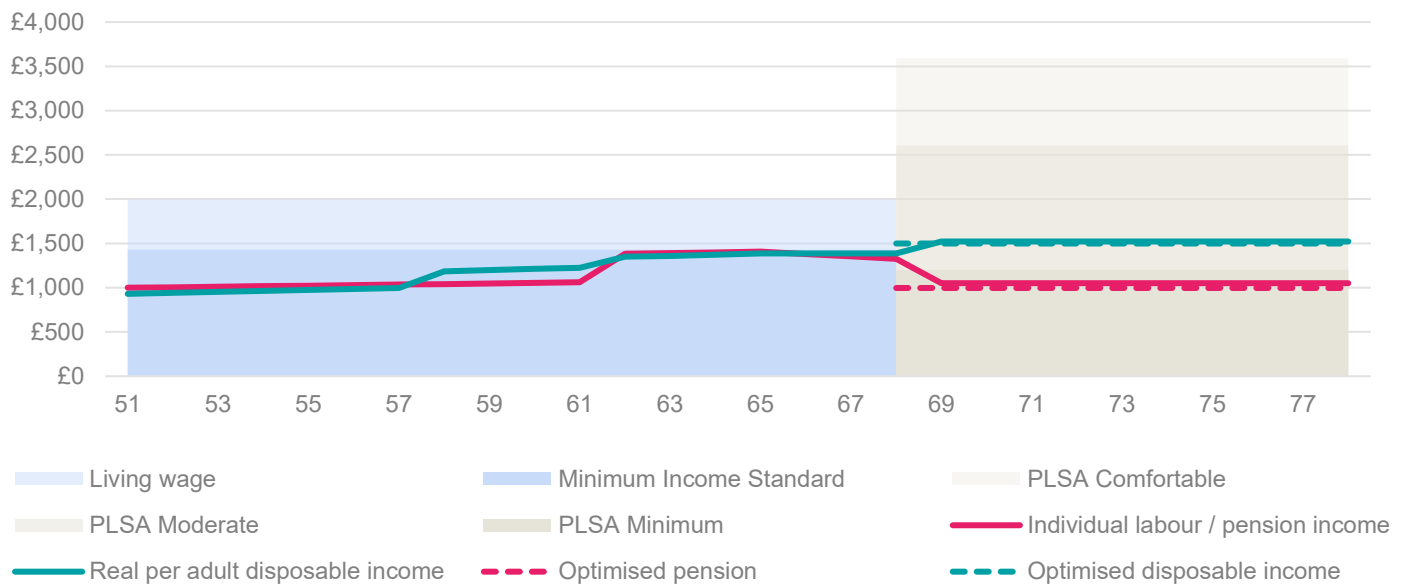
Decade of life	30’s	40’s	50’s	60’s
Default employee inc. tax relief	5%	5%	5%	5%
Default total including employer	8%	8%	8%	8%
Optimised employee inc. tax relief (with constraints relaxed)	0%	0%	0%	0% (10%)
Optimised total including employer (with constraints relaxed)	0%	0%	0%	0% (13%)

Pre-retirees – saver persona 25

As life-long **renters**, persona 25 and his partner depend on their **housing benefit** entitlement to keep themselves afloat, and their capacity for saving is very limited. Thanks to **job changes**, their earnings grow above the rate of inflation but still, by the time they retire, their per-head disposable income is barely higher than the Minimum Income Standard. This is even after taking into account their **working-age benefits**. In retirement, their joint disposable income rises a little. As in working life, their entitlement to benefits will be a key factor, as there is no point in their working lives where they have much capacity for additional retirement saving.

Our model does not see any benefit in his continuing to contribute, given the expect uplift in their disposable income on retirement. However, he might choose to do so, given that he will attract an employer contribution and the money will be accessible from age 55.

Saver persona 25: lifetime income



Saver persona 25: default and optimised contribution rates

Decade of life	50's	60's
Default employee inc. tax relief	5%	5%
Default total including employer	8%	8%
Optimised employee inc. tax relief	0%	0%
Optimised total including employer	0%	0%

Specific factors

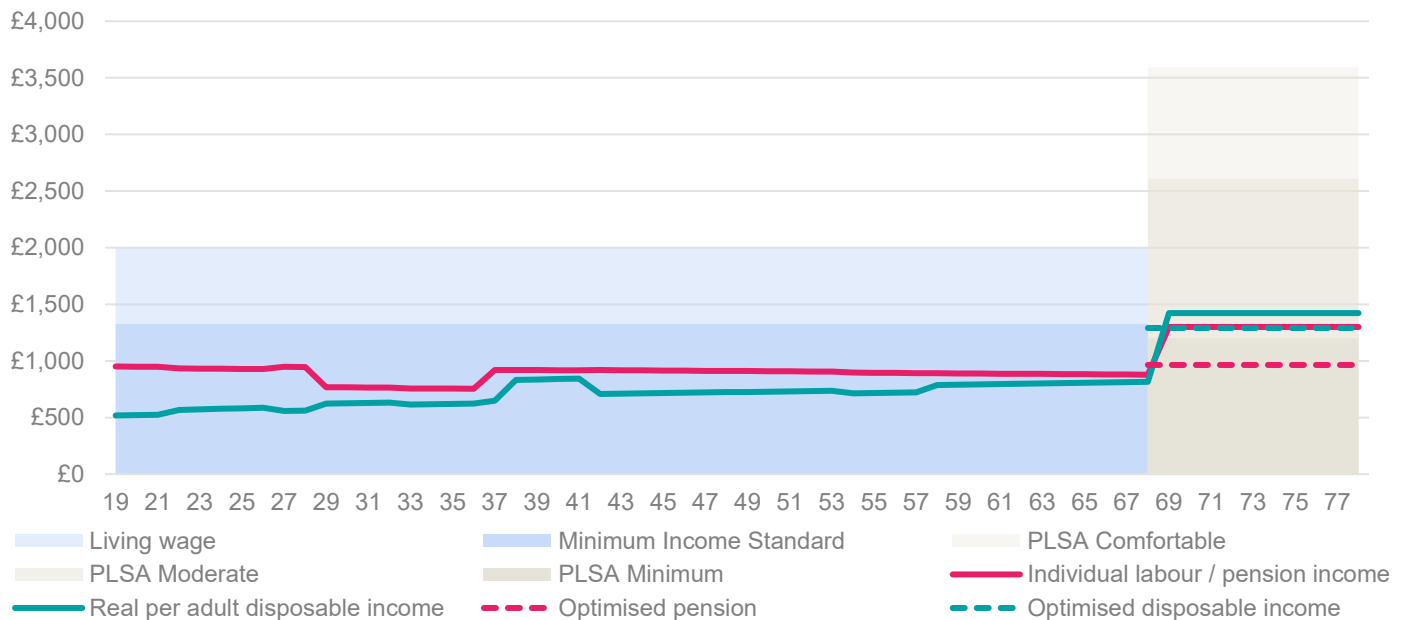
Finally, we consider some specific types of individuals whose circumstances tend to lead to different priorities.

People with earnings below the threshold for auto-enrolment – saver persona 5

Persona 5 earns less than the threshold to be automatically enrolled under current rules. Nonetheless, for the purposes of our modelling exercise, we've started by assuming he enrolls voluntarily and receives **employer contributions** at the standard rate of 3%. His **partner does not earn** any labour income. The effect of this is to put additional pressure on an already limited monthly budget, though this is bolstered by **working-age benefits**. He experiences a jump up in gross and disposable income at retirement, because of the relative generosity of the State Pension.

Given the increase in his disposable income at retirement, and the affordability pressures he faces, our model prefers him not to contribute, in line with current AE policy that would exclude him from enrolment. This leaves him with a pension income that's closer to his labour income, and a per-head disposable income (£1,290) above the PLSA Minimum standard for a couple.

Saver Persona 5: lifetime income



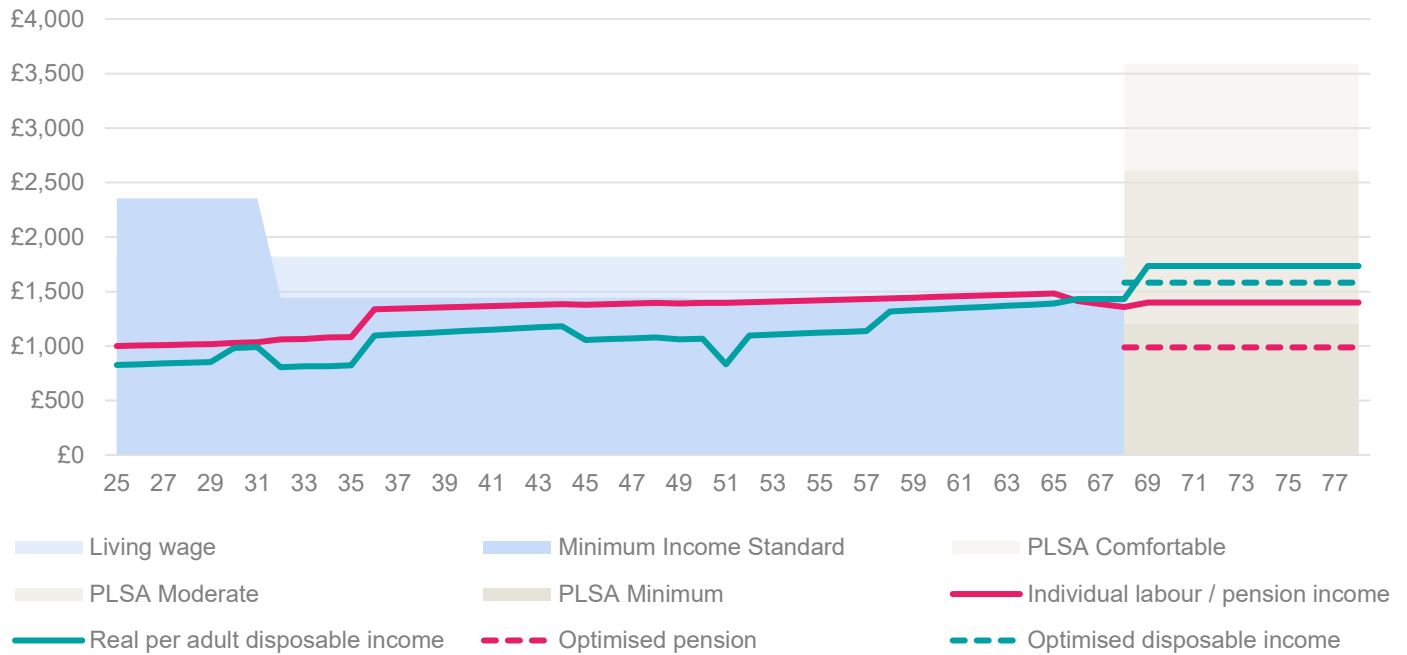
Saver persona 5: default and optimised contribution rates

Decade of life	20's	30's	40's	50's	60's
Default employee inc. tax relief	5%	5%	5%	5%	5%
Default total including employer	8%	8%	8%	8%	8%
Optimised employee inc. tax relief	0%	0%	0%	0%	0%
Optimised total including employer	0%	0%	0%	0%	0%

The self-employed – saver persona 27

We have assumed that persona 27 starts out saving at the default rate for an auto-enrolled employee – even though this is unlikely to be the case in reality, as he is self-employed, and not eligible for enrolment into a workplace pension. Also, there is **no employer to make matching contributions** into his pension pot. Even so, persona 27 does manage to save up a moderate level of DC pension, thanks to persistent contributions from his early 20’s. Though we should note that, like all our self-employed personas, our model predicts a **bumpy pattern of disposable income**. His per-head disposable income in retirement is expected to be higher, but this is highly dependent on the level of benefits that he receives at this stage of life. Assuming this is the case, though, our model does not see a benefit to his saving in a pension.

Saver persona 27: lifetime income



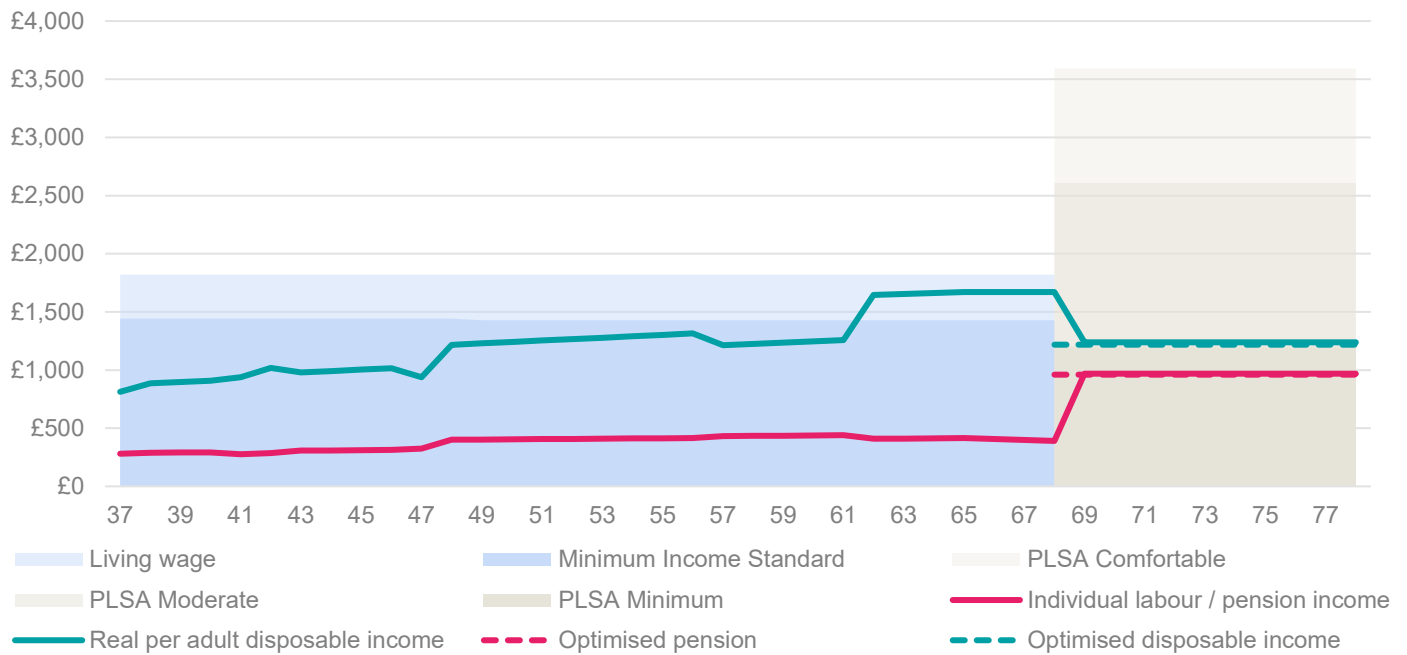
Saver persona 27: default and optimised contribution rates

Decade of life	20's	30's	40's	50's	60's
Default employee inc. tax relief	5%	5%	5%	5%	5%
Default total including employer	5%	5%	5%	5%	5%
Optimised employee inc. tax relief	0%	0%	0%	0%	0%
Optimised total including employer	0%	0%	0%	0%	0%

People with higher-earning partners – saver persona 28

Saver persona 28 is one of our self-employed personas. Like many self-employed people, her own **labour income is low and fluctuating**. However, thanks to a **higher-earning partner**, she experiences a per-adult disposable income that’s significantly higher than she’d have on her own. She saves very little into her pension, and like persona 27, as a self-employed person she **doesn’t receive employer contributions**, meaning her own pension entitlement is barely higher than the State Pension. This emphasises the risks to lower-earning partners who depend on their partners for income, especially should their relationships break down. However, in her case, her own earnings are too low to realistically consider an alternative contribution strategy, and our model doesn’t recommend she goes on contributing.

Save persona 28: lifetime income



Saver persona 28: default and optimised contribution rates

Decade of life	30's	40's	50's	60's
Default employee inc. tax relief	5%	5%	5%	5%
Default total including employer	5%	5%	5%	5%
Optimised employee inc. tax relief	0%	0%	0%	0%
Optimised total including employer	0%	0%	0%	0%

Section 4

Implications for the pensions system

When someone gets personalised support from an expert, they can shape an approach that will target their idiosyncratic situation. But what about policy-makers, employers or the fiduciaries of individual pension schemes? They need to apply blanket policies, and have very limited knowledge of participants' individual needs. How can they design systems that do the best possible job for the maximum number of people?

Among all the choices they have, perhaps the most important is to set the right default contributions – because we know that most people will stick to them. In this section, we will look at the role of guidance and advice, and suggest some ways that this might be targeted to groups of people rather than just individuals. But, fundamentally, it will be the default rates, and the underlying structure of the system, that determine outcomes, especially for those who can't afford, or don't choose to engage with, financial advice.

We start, therefore, by considering what the implications might be for the design of the private pensions system, and of individual schemes.

Auto enrolment contribution rates: the new normal

The auto-enrolment (AE) regime can make it hard to think about people's retirement savings levels on an individualised basis. The overriding effect of the policy has been to impose the same standard pension contribution rates on millions of UK workers.

These minimum rates are only intended as a base level of saving, on top of which each individual can be encouraged to save more. Yet the evidence shows that hundreds of thousands of employers are enrolling people at these minimum rates, and millions of savers persistently remain at the minimum contribution rates set by policy²⁶.

When it comes to auto-enrolment, the solution and the problem are the same thing: the default works, which is great for *improving* the retirement adequacy of people who weren't previously saving at all. Yet it works so well that few people are even thinking about whether their own individual contribution rates are right for them, either in terms of affordability today, or in terms of their welfare in retirement. A number of studies²⁷ show that workers often believe that contribution rates set by government or by their employer are 'correct' for them. And so they see no reason to change their savings choices. Many do not even know they **can** contribute more.

It is also important to mention the many individuals who are not currently entitled to auto enrolment. This includes:

- › those who do not earn enough in any given employment to be eligible for enrolment – a group currently under consideration for inclusion in the AE system. In considering whether AE should be extended to include people earning under the threshold (currently £10,000 per year), there has been considerable thought about whether they and their households could afford the contributions they would start paying in this scenario²⁸. We should also consider, though, whether this would represent the best trade-off between their present day and future financial health.
- › the self-employed – a large segment of the UK labour market who are completely excluded from the AE net as they do not have employers to enrol them. Nest Insight is currently working with the Department for Work

²⁶ See [Retirement saving in the UK - NEST Insight Unit](#) for evidence from the Nest pension scheme.

²⁷ See for instance *Beyond the defaults: What role can language play in helping pension scheme members contribute the right amount for them?* at <https://www.nestinsight.org.uk/research-projects/engagement-in-pensions/language-and-messaging>

²⁸ See for instance the Pensions and Lifetime Savings Association's *uncovering the profile of low earners in the uk and the potential for pension saving through automatic enrolment* available at <https://www.plsa.co.uk/Policy-and-Research/Document-library/Uncovering-the-profile-of-very-low-earners-in-the-UK-2023>

and Pensions (DWP) to identify behavioural interventions that might encourage more self-employed people to contribute to retirement savings²⁹.

In contrast to employees who are eligible for auto-enrolment, the current 'default' rate of savings among both these groups is effectively zero.

Could the system better adapt to people's incomes?

Our saver personas illustrate a broad and complex range of household factors that affect any individuals' retirement saving priorities – but the thing that makes the greatest difference to their retirement adequacy is, perhaps unsurprisingly, their income.

There's been a great deal of discussion in retirement policy circles about whether the private pensions system, and in particular the standard contribution rates in AE, need to be different for different groups of savers. A number of very reasonable concerns have been raised about introducing this kind of differentiation in the system, not least the desire to avoid complexity. But it is clear from our modelling that any one-size fits all approach will diverge from the needs of some workers and households, and income is the strongest proxy by which to group savers in relation to this challenge.

In this report, we've aimed to highlight the idiosyncratic needs and challenges of a contrasting set of individuals and their households. We've not attempted to quantify groups of people with specific needs, or to draw clear lines between such groups. So when it comes to setting thresholds around which people might benefit from different treatment, we defer to parallel work already under way by a range of other research organisations. What we've sought to do here is show how the mechanics of retirement savings adequacy differ for people in different circumstances.

We've seen that the priorities of our saver personas shift as their earnings rise:

- › For many whose earnings are significantly below the median – and especially those earning below the current auto enrolment threshold – there is a risk that contributions are unaffordable, or unbalance the relationship between living standards today and living standards in retirement too far in favour of the latter. For some this might be true even at the current minimum AE rates but it certainly looks to be the case under higher default contribution regimes.
- › For those whose earnings approach or equal the national median, the current rates may get them to adequate standards of living if they save persistently over a lifetime, but many will experience significant falls in income at retirement, and appear to have the capacity to save more. There's an argument for higher rates that are tailored better to the retirement adequacy of people earning around the middle.
- › For higher earners, there's an even clearer need to save more, to avoid really significant drops in living standards when they hit retirement. However, there are many non-pensions routes to this goal, which people in higher income brackets have more access to. Striving for a system that targets a replacement rate for all higher earners would push beyond what national policy needs to achieve. For this group, system designers should probably be content to apply rates that suit those with incomes around the median – and rely on channels of guidance and advice to encourage people to do more – a topic we now turn to.

People would benefit from simpler sets of choices

Our modelling also suggests that people would benefit from information and guidance that are adapted to their ages and incomes.

The power of the AE defaults is a reminder that information and guidance will only ever achieve partial changes in people's behaviour. The reason we have auto-enrolment into pensions is precisely that the previous focus on encouraging informed choice simply didn't achieve significant changes in people's savings behaviours. But there are obvious benefits to having people actively choose their own contribution approaches, based on their personal needs and preferences. And to the extent that an information-led approach might influence people's choices, there are some lessons to be taken from our analysis of our saver personas.

²⁹ See Nest Insight's work on self-employed savings, supported by the DWP, at <https://www.nestinsight.org.uk/research-projects/self-employed-pension-saving/>

First, this evidence reinforces the benefit of simple segmentation by age and income, as is increasingly applied in communication with participants. For instance:

- › Below median earners would benefit from a simple checklist to prioritise between present day and long-term savings. In particular:
 - building and maintaining liquid savings needs to take priority for households that are vulnerable to shocks
 - those in early working life should focus on what level of contribution is affordable today
 - individuals in midlife should start to factor expected housing costs into their retirement plans
 - those near retirement should concentrate on their retirement dates.
- › By contrast, above-median earners with the capacity to save would benefit from knowing the replacement rates they are currently predicted to attain, and comparing this with their real-terms earnings from work.

Second, the use of recognisable case study examples, similar to the saver personas but packaged in a more engaging fashion, would help people in different life stages and circumstances anchor on situations and choices that are familiar to them, and gauge their savings priorities against these.

None of this is to say that adequacy targets such as the PLSA standards shouldn't be used, but these might be better understood if they were contextualised within a segmented communications approach that portrays the different kinds of choices that suit people in different conditions.

A more 'forgiving' system would benefit everyone

Everyone's future is uncertain. Yet very often people are being asked to make irreversible decisions about how to allocate their scarce disposable money.

Even where these decisions aren't totally binary, there are generally penalties if they switch to a different strategy at a later date. Should they lock their money away in a pension account where it can experience growth and top-ups from employers and the government, but they can't get at it if they later need it? Or should they keep it on hand to be better prepared for the unexpected, but miss out on growth? Should they commit all their resources to getting on the housing ladder, at any cost? What happens if they're never able to save enough to do so?

A more 'forgiving' financial system would provide pathways for all households to achieve overall financial health, without a narrow focus on one aspect of saving, spending, borrowing or protection. It would mean fewer binary decisions between short and long-term future savings needs. It would allow for a degree of access to savings, while maintaining long-term returns for retirement. Ideally, it would also ease access to the housing market for those who are saving.

A range of such solutions have been tried in other parts of the world, or are being proposed for adoption in the UK system. These include ways of incorporating emergency saving into auto enrolment, as well as different forms of flexible access to, or loans against, pension savings, hybrid products that blend savings with different levels of liquidity, new types of tax-efficient savings vehicles that could be used to meet a range of savings needs, and the use of pension savings as collateral against home loans. Such proposals are beyond the scope of this report, although many are the subject of separate Nest Insight research. Most need significantly more evidence to be clear which might be worthy of serious consideration. But we hope that the findings presented here help emphasise the general benefits of this kind of more holistic system in terms of simpler choices and reduced stress for savers and their households.

The distributive effects of pension top-ups

Employer contributions and tax relief are generally presented as incentives that encourage people to save. But in a system where the main driver of savings behaviour is auto-enrolment, should we instead consider the role these 'pension top-ups' play as contributions to people's retirement welfare?

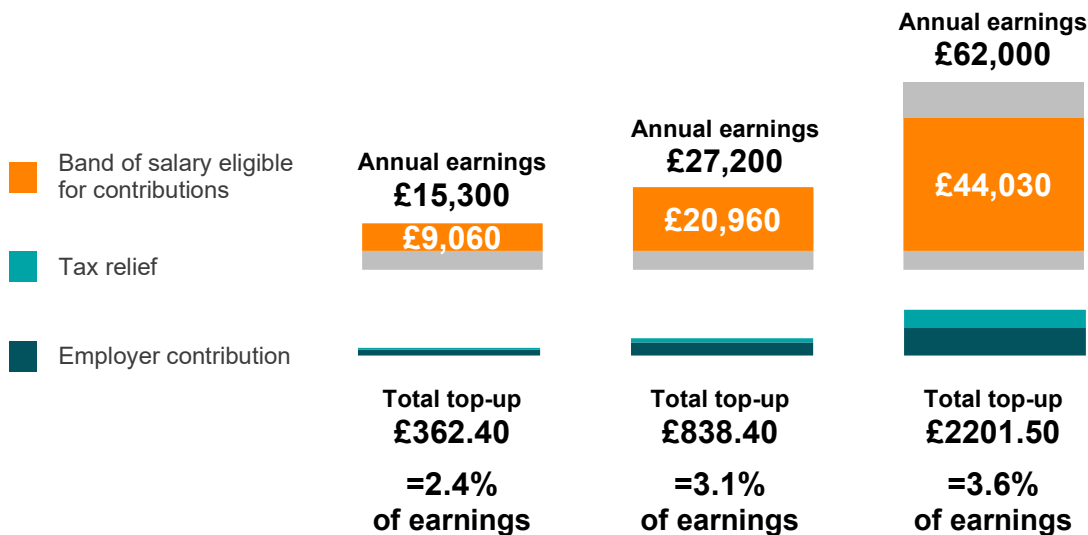
In calculating optimal contribution rates for our saver personas, our model assumes that employer contributions would remain at the current rate of 3% - which puts the burden of higher contributions entirely on the individuals who most need to make them.

Throughout this report, we've tended to focus on the needs of lower earners. This isn't because we don't believe there's an adequacy challenge for people earning above the median. We do consider their needs in our analysis. It's because conventional models of adequacy raise the greatest challenges for those with the most limited means. Behind these challenges is a deeper question: can the lowest earners ever achieve retirement adequacy from a system that requires them to fund their own future standards of living?

This might lead us to think about the welfare and distributional effects of the workplace pensions system we have today. Consider for instance the levels of top-up payments that people on different earnings get from the auto enrolment system. Figure 6.2 shows the top-ups received per year by three people from the lowest, middle and highest quintiles of earnings, assuming they are on the statutory minimum contributions (though, as we'll see, this is more likely to be the case for the lower earner than for the higher).

In this graphic, the upper bars show the total annual earnings for each individual, with the band of earnings that's eligible for auto-enrolment contributions highlighted in orange. The grey areas show earnings that are below the bottom of the eligible earnings band, or above the upper limit. Below this, the lower bars show the amounts of tax relief and employer contribution received by each individual. The total value of these 'top-ups' is shown at the bottom.

Figure 6.2: Distributional effect of employer contributions and tax relief



As can be seen, the higher earner receives a 1.5 times greater rate of top-up on their earnings as compared to the lower earner. This is due to the compounded effect of a number of factors:

- › A high proportion of the lowest earner's earnings aren't eligible for contributions, because the lower limit of the earnings band represents a bigger proportion of their earnings.
- › The higher earner is also affected by the upper limit of this band, assuming their employer imposes this on them, but...
- › ...they also benefit from the higher rate of tax relief received by higher rate taxpayers.

We can see how the combination of tax relief and contribution calculations have a regressive effect on these 'top-up' amounts. However, this calculation doesn't show the full extent of the inequality of pension top-ups between higher and lower earners. Those workers who aren't contributing to a workplace pension, whether because they're not eligible due to lower earnings or being self-employed receive a 0% top-up. As do those who opt out, for instance because they can't afford to contribute.

On top of this, there is a risk that some or all employers may reduce the wage growth of all workers to cover the additional cost of having to pay employer contributions. Alternatively, they might increase the price of goods and services, affecting all consumers. In the absence of firm evidence of how much this has happened to date, we can at least say that those workers who aren't eligible or who have opted out would experience any impact of

lower wage growth, even while they're failing to benefit from the employer contributions that their enrolled colleagues are receiving.

Finally, to compound these regressive impacts, we also know that higher earners are more likely to be offered more generous matched contribution rates by their employers³⁰. According to a recent study by the Institute for Fiscal Studies³¹, higher earners tend to get more generous employer contributions. They found that the top quintile were offered 8.1% on average, while for the lowest quintile the figure was 4.6%.

There could be a place for employer-only contributions

The Institute for Fiscal Studies (IFS) has suggested changing the workplace pensions system so that employees don't have to make employee contributions to receive contributions from their employers.

If lower earners in particular could receive retirement contributions without themselves having to surrender any of their incomes into a pension, this might be a way of 'squaring the circle' and meeting their short and long term needs. This would be especially relevant if, as many are suggesting, employer contributions were to rise in the future.

In our model, many lower earners are not on track to achieve traditional benchmarks of retirement adequacy. However, it also shows that this doesn't necessarily mean they should save into a pension, given their living standards in the present day. Rather, they experience a direct trade-off over which stage in life will be the time when they bear a hit in their living standards. The hard reality is that some people have lifetime incomes that are too low to meet objective living standards benchmarks in both working life and retirement. While this might be an unacceptable position for people to live in, our research makes clear is that people in this situation cannot save their way out of this situation.

It's hard to see a way out of this tension without increasing the retirement contributions they receive from elsewhere. Approaches that give lower earners, at least, the option to opt out of their own contributions while continuing to receive employer contributions would be one way to achieve this. Such an approach would also enable opening up the auto enrolment system to those currently excluded because they earn under £10,000 a year.

In this way, they could continue to save during those periods when it would be challenging to defer any of their own income into a pension. As we see in a number of our saver personas, they might hope to reach a stage in life when contributions become affordable again, so it would be best if this system made it easy for them to return to a situation where they are contributing alongside their employer, and receiving tax relief, as soon as this is affordable. And indeed, within the current rules of the system, they could still continue to be re-enrolled with an employee contribution whenever they moved employer or, if they remained at the same employer, through the existing three-yearly automatic re-enrolment mechanism. In this way they could opt out of contributing only when they needed to.

There are strong arguments in favour of this kind of approach. We've suggested that employer contributions and tax relief might be better thought of as contributions to an individual's welfare, rather than as incentives to save. Looking through this lens, it would be strange if we insisted that someone lower their living standards in the present day in order to be allowed to receive a contribution to their retirement welfare. A system of employer-only contributions for the lowest earners would support their retirement welfare while avoiding negative impacts on their present-day finances.

Such an approach has the added advantage of correcting a distributional feature of the current system, which penalises those who opt out and those earning under £10,000. One way that employers can manage the costs of paying pension contributions is to pass them through over time into lower wage increases and/or higher prices for goods and services. The cost of this is borne right across the labour market, but the benefits only accrue to those eligible for AE and who don't opt out. As we've seen, this is one of the ways in which the pensions system is already regressive

³⁰ For a full view of the current landscape of employer contributions, see Nest Insight's report on this topic: [Employer contributions to pensions and other financial workplace benefits - NEST Insight Unit](#)

³¹ *Challenges for the UK pension system: the case for a pensions review, 2023*

As with any change to AE rules, there would be pros and cons to this approach, and further consideration would need to be given. The approach could add cost and complexity for employers. Complexity could be a particular challenge if this option is only made available below a given income. However, the policy would not be well-targeted if made universal. And the point at which that income cut-off was set would also involve trade-offs. Nonetheless, based on the analysis in this research, there are reasons to think that this approach is worth exploring.

Section 5

Conclusion

In this report we've explored the present-day reality of actual UK households, and delved into the trade-offs facing our realistic saver personas. We believe this provides compelling evidence for a nuanced and contextual approach to retirement savings adequacy.

The fundamental challenge is that people's circumstances vary widely, meaning everyone would ideally have an individualised retirement savings plan. Given that this can never be fully achieved, those responsible for designing retirement systems and providing information to participants need to bear in mind the evidence on the wide variation in people's household circumstances, and understand the implications for designing schemes and setting default contributions.

These differences not only make it hard to set a common standard that will work for everyone. They also mean that a narrow focus on simply saving 'enough' for retirement could have unforeseen consequences. In reality, people can't plan their retirement savings strategy independently of their wider household finances. An optimal financial security strategy would not focus solely on an optimal rate of pensions savings, and certainly not just on an objectively desirable retirement income. It would seek to help someone build adequate retirement, emergency and precautionary savings; protection cover; and housing security through a path to ownership or secure affordable rent. And if some of these things turn out to be attainable, it would then help people balance these priorities as best as they can. A tunnel focus reaching on a given standard of living in retirement without taking these trade-offs into account risks unbalancing the finances of the household.

Those responsible for retirement systems therefore need to consider a number of different goals for an adequate pensions saving system:

- › to prevent people falling below a minimum acceptable level of income
- › to avoid large numbers of people having a significant mis-match in their lifestyles pre- and post-retirement
- › to make sure people have sufficient information and stimulus to adjust their default behaviours where these defaults are working against their best interests.

Policymakers and scheme fiduciaries need to be aware of people's overall financial contexts when they set policies and defaults. This means a holistic view of all aspects of household financial wellbeing – not just a narrow focus on retirement saving. In particular, they should ensure that any changes to the system are designed to protect lower earners from harm.

While recognising that many people do not engage, schemes, advisors and employers should continue to help retirement savers set appropriate priorities at different life stages. In the absence of detailed household-level data, this help will take the form of better-targeted default and simplified choices. These can be better tailored by taking on board factors such as the age and earnings of scheme participants.

This will by definition mean tailoring their approach for people at different levels of income and different ages.

However, we have also seen that the overall challenge to savers and their households would be reduced if the personal financial system was more 'forgiving' and didn't force them to make binary choices between different financial goals.

We recognise that the scale of the challenge is significant, and we recognise that our findings here serve to emphasise, rather than simplify the complexities involve. Still, we hope that the evidence provided here, and the suggestions for positive future directions of travel, will help those making key design decisions protect the interests of the widest possible spectrum of people, and support their diverse lived experiences.

APPENDICES

Supporting evidence

The main body of this report looks in some detail at the individual circumstances of our saver personas to help inform a fresh perspective on retirement savings adequacy. The following appendices support this analysis by exploring broader perspective on the key themes that emerge.

- › In **Appendix 1, How much should households save?**, we pull back our focus to explore variations in individual and household circumstances across the whole UK population.
- › In **Appendix 2, Adequacy for all**, we consider the established models for retirement adequacy and draw some conclusions about the role of adequacy targets in general.

Appendix 1

How much should households save?

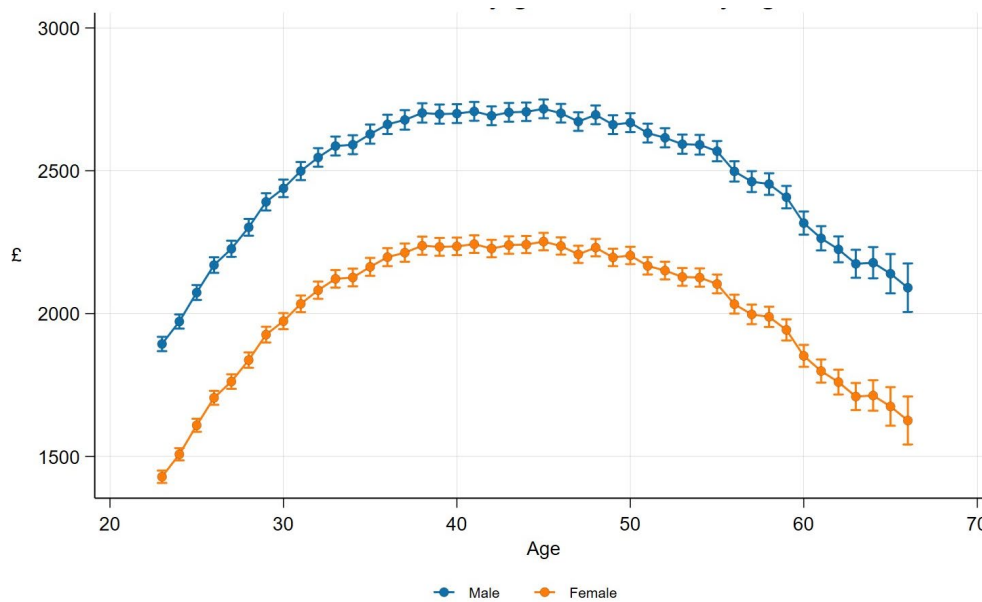
In this section we look at the diversity of individual and household circumstances across a number of factors that are important when working out how much an individual should save for retirement³².

Variations in income

We've seen the wide range of income dynamics across the working lives of people in the auto-enrolled population. Now we explore some of the drivers of those differences.

Figure A1.1 shows a hump-shaped curve of income over age, consistent with standard models. Yet, when we factor in individual factors like sex and having children aged 15 or under, we see noticeable differences in individuals' income levels. As can be seen in Figure A1.2, having children is associated with higher incomes for men, while for women, it is associated with much lower income in their 20s and 30s, with a reversal by the mid-40s. The irregular pattern for males and females in their 60s is due to fewer individuals in their 60s having children under 16.

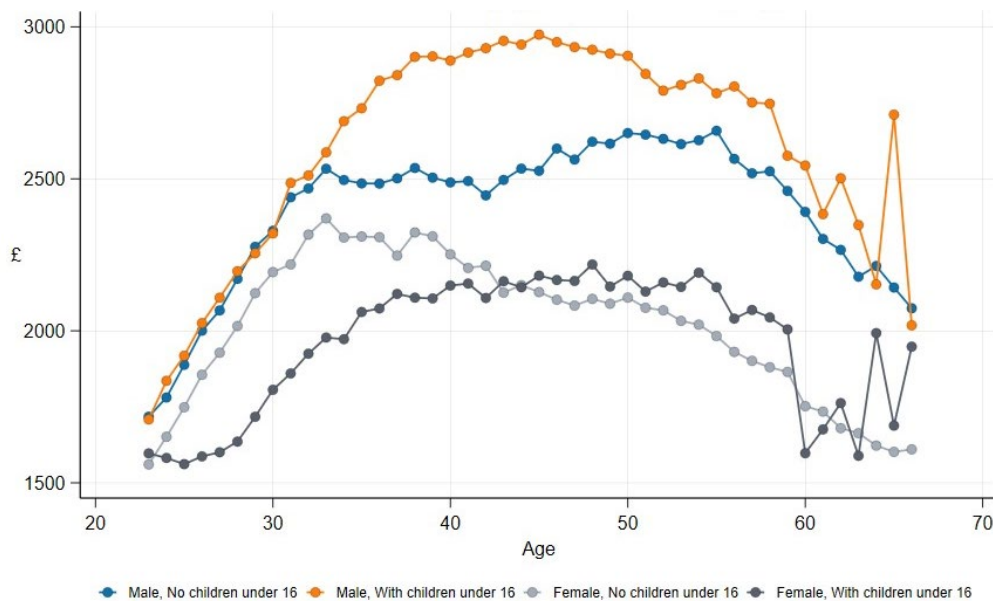
Figure A1.1: Distribution of monthly gross income by age



Source: Understanding Society: Waves 1-13, 2009-2022. UK Data Service. SN: 6614. Linear prediction of mean income age and sex, including 95% confidence intervals.

³² Once again, the data in this section are taken from Understanding Society. We're specifically looking at a group of individuals from this study ages between 22 and 65, who are in paid employment and earn monthly gross income above £833 and below £6,000. We're using this subset to capture a working age population that is broadly eligible for auto-enrolment, and representative of low and middle income individuals.

Figure A1.2: Impact of having children on distribution of monthly gross income



Source: *Understanding Society: Waves 1-13, 2009-2022. UK Data Service. SN: 6614, Linear prediction of mean income by age, sex, and having a child.*

Responsibilities for looking after children in the household are often divided between parents, with mothers mostly likely to assume the role of the parent responsible for the child. This highlights the labour market and financial vulnerabilities of women. It also explains why total household income is widely distributed across people with similar individual labour incomes and ages – even though for the average household, income is broadly uniform. We’ve seen this in the household income predictions of our thirty saver personas, and the wider data confirm it.

This shows that when we make assumptions based on group average values, we can miss substantial differences. Individual income is not reflective of household income, and that is particularly true at the lower tail of income distribution.

Risks of falling behind

Differences in individual circumstances translate into a diversity of challenges faced by households of similar ages and incomes group.

One of the most striking facts is that there is clear variation in the likelihood of developing mortgage or bills arrears at most income levels. Unsurprisingly, individuals with lower incomes are overall more likely to develop arrears. Still, individual labour income cannot be the main predictor as there are spikes in arrears across all types of bills for different income-age groups.

These differences in affordability illustrate the complexities of circumstances that households find themselves in, and the challenging decisions people face when asked to juggle intertemporal decisions and the affordability of surrendering income into long-term savings.

Figure A1.3: Probability of being behind on some bills by individual gross labour income and age quintiles



By way of illustration, an individual in the age group 33–40 with monthly labour income of £833–£1150 faces a 14 per cent chance of being behind on rent or mortgage payments. They might experience less urgency in thinking about their financial priorities at retirement. On the other hand, there is a high probability of arrears among people aged 41–47 across the first three quintiles of earnings. So what happens to the same individual who is still struggling with bills by the age of 45 but is simultaneously saving for retirement? Whether this strategy is deliberate or not, it creates a risk that the benefits of retirement savings may be offset by the arrears they carry into retirement.

‘There seems to be a lot of social pressure saying you should be saving. But actually, if at the end of the month you’ve only got £100 or £200 to spare, particularly with things like childcare costs as well. it just all adds up.’

Vivien Burrows, International Longevity Centre

It perhaps goes without saying that these kinds of liquidity pressures on households have been at historically high levels. This is borne out in a range of economic analyses, for instance the January 2024 wave of the Hargreaves Lansdowne Savings & Resilience Barometer³³ highlights the affordability challenges faced by households at the lower end of the income distribution. It shows that any gains in financial resilience metrics following the Covid lockdowns have already eroded, with levels falling back to pre-pandemic levels.

³³ <https://www.hl.co.uk/features/5-to-thrive/savings-and-resilience-comparison-tool/savings-and-resilience-barometer-report-january-2024>

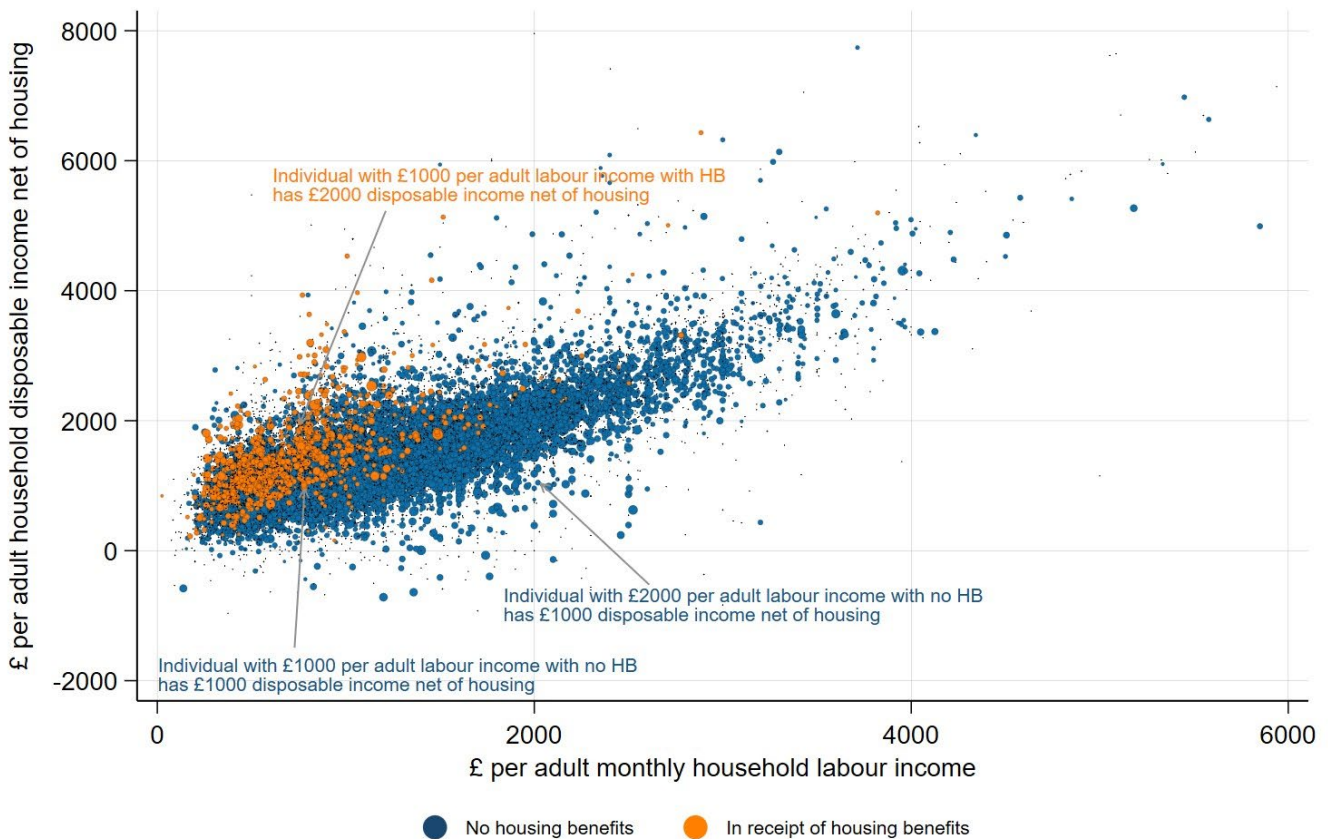
Labour is only one source of household income

To understand household income, we need to know about sources of income other than work.

Labour income is the main source of total disposable household income. The second largest is social benefits, particularly for those with the lowest incomes. This is to be expected, as many social benefits are means-tested. Even so, there are significant variations in the levels of social benefits received by people at middle and higher individual incomes. It's only when we look at the household level that we see a strong relationship between labour income per adult and the level of social benefits being received.

One important form of social benefit is housing benefit. It's striking to note how much these payments can change the picture of a household's disposable income where they are received. Figure A1.4 plots the per-adult disposable income of households, net of housing costs, against the overall labour income of the household. Households who do not receive housing benefits (the blue dots on the chart) often have lower or similar levels of per-adult disposable income (shown on the y axis), even at higher levels of per-adult labour income (shown on the x axis).

Figure A1.4: Disposable income net of housing by household labour income



Source: *Understanding Society: Waves 1-13, 2009-2022. UK Data Service. SN: 6614. Per household labour income is top coded at 99th percentile threshold.*

The role of state benefits in retirement is also a key factor. For example, those who are likely to be paying rent in retirement and still depending on housing benefits, there is a risk that any additional pension savings they make during their working lives will reduce their eligibility for this benefit. This could mean it does not 'pay to save' under certain conditions – a point brought out, for instance, in the 2010 DWP review of auto enrolment³⁴.

³⁴ *Making automatic enrolment work: A review for the Department for Work and Pensions:* Paul Johnson, David Yeandle and Adrian Boulding, available at www.dwp.gov.uk/automatic-enrolment

It can pay to save towards a housing purchase – provided this is affordable

Certain key financial factors will have the most significant effect on whether a household can prioritise retirement savings over their short-term needs. Perhaps the most critical, and the greatest challenge to ‘one size fits all’ adequacy models, is housing.

As is often noted, levels of home ownership among future retirees will be much lower than they are among the current cohort of people reaching retirement age. Phoenix Insights research³⁵ has found that fewer than a third of current renters expect to buy a house, leaving close to 11 million people needing to fund ongoing rental costs in retirement. A recent report from the Pensions Policy Institute (PPI)³⁶ reinforces the point, predicting that the proportion of households owning their own home in retirement could fall from 78 per cent to 63 per cent by 2041. The same study estimates that the percentage of retirees living in private rentals will rise from 6 per cent to 17 per cent over the same period.

Clearly, this matters. Paying rent in retirement can be a significant drain on someone’s retirement income. Recent research from Standard Life³⁷ projects that those renting in retirement will have costs 87% higher than those who are mortgage- and rent-free. The impact of this is clear in figures from the Institute of Fiscal Studies (IFS), who show that while the State Pension is generally sufficient to keep a household out of retirement poverty, this often is not the case for single people who are private renters and for whom housing benefit doesn’t cover their housing costs.

The best thing you can do for your financial security in retirement is own a house and get married, neither of which have anything to do with pension saving directly.

Tim Pike, Pensions Policy Institute

In contrast, those who own their homes can experience multiple benefits, provided they have fully paid off any mortgage by the time they retire. Clearly, they do not have to pay rent, but in addition they own a significant asset. And, even though downsizing may not be a realistic retirement income strategy for many, especially given the costs of moving home, homeowners can potentially draw on the value of their housing asset, for instance through equity release – whether this is as part of their proactive plan for funding retirement, or as a fall-back in extremis.

Given these differences, owning a home can make as big an impact on a person’s retirement wellbeing as the value of their pension savings. Yet consumption benchmarks tend not to factor in housing wealth. We’ve already seen how our saver personas take into account whether who has been able to purchase property by retirement age, and the cost of housing is factored into our adequacy assessments.

‘[The Retirement Living Standards are contingent] on people having no housing costs when they’re retired. Which is perfectly reasonable assumption to make for the current cohort of retirees, because most of those retirees do not have housing costs. But it is not a reasonable assumption to make of my generation when we retire.’

Joe Ahern, WPI Economics

Of course, this will all depend on whether the household has the financial capacity to afford to buy a home. So we also see here an important link between housing situation and another key factor: level of non-pension savings.

Figure A1.5 illustrates the savings capacity of our age-income groups. We can see that people in the first two income quintiles tend to save the lowest amounts, while younger individuals in higher income groups tend to have the highest amount of savings. In many cases, this will be because they are saving towards a mortgage downpayment. This figure demonstrates that if an individual does not progress into higher income group over the course of their life it is unlikely they will be able to save enough for a mortgage.

³⁵ <https://www.thephoenixgroup.com/phoenix-insights/longer-lives-index/>

³⁶ <https://www.pensionspolicyinstitute.org.uk/media/fjgla1kv/20231130-the-uk-pensions-framework-2023-final.pdf>

³⁷ <https://www.standardlife.co.uk/about/press-releases/the-cost-of-renting-in-retirement>

Figure A1.5: Average amount saved monthly against individual income from work



Source: *Understanding Society: Waves 1-13, 2009-2022. UK Data Service. SN: 6614. Quintiles of gross individual labour income and age are created within our standard sample of ages and incomes.*

It should be borne in mind that saving for a house purchase needs to be further traded off against other savings priorities, including precautionary and emergency savings. As explored in a range of previous studies by Nest Insight³⁸, an emergency savings buffer can be the most urgent financial priority, before the household can consider saving towards other goals.

E¹³⁸ See <https://www.nestinsight.org.uk/research-projects/workplace-emergency-savings/>

Appendix 2

Adequacy for all

We've seen that the question 'how much should I save for retirement' is hard for individuals and households to answer, and harder still to answer for an entire population. Yet this is exactly what adequacy targets somehow need to do.

In this final section, we look at some of the established models that are used to set retirement savings targets, and consider when and how these different approaches might be useful for different groups of savers.

Are people currently under-saving for retirement?

There are good reasons to say that many defined contribution (DC) savers need to contribute more than they are currently doing. This was certainly true in the UK before the introduction of automatic enrolment (AE), but the more pressing challenge at that time was that so many workers were not saving for retirement at all. In this sense, AE has been a resounding success, greatly increasing the number of people contributing to a pension through their work. But there remain significant concerns about whether people are saving enough, whether or not they were auto enrolled.

The minimum contribution rate under AE is 8% of a band of earnings. The employee usually makes up half of this amount, net of tax relief. The great majority of people who have been automatically enrolled into Nest and other schemes have never changed that default, and are still saving at that rate³⁹. This is why we've chosen to start our saver personas off with contributions at this rate.

Even those who are saving more than these minimum amounts may not have chosen to do so for any specific reason. They are often contributing at rates set by their employers, or the amount they need to pay to take full advantage of an employer match. Neither amount will have been set with their specific needs in mind.

Given this, it's unsurprising that many people do seem to be under-saving for retirement. In 2023, the Department for Work and Pensions estimated⁴⁰ how many people were under-saving for retirement against standard measures of savings adequacy⁴¹. Figure A2.1 shows the proportions of working-age people they found to be under-saving against two different measures of adequacy, broken down into five bands of earnings:

- › The bars on the left show the proportions of people who were **not** expected to achieve a **relative** measure of retirement adequacy: the 'target replacement rates' set out by the Pensions Commission. We can see that fewer low income people are under-saving by these measures, compared to higher earners. This makes sense, as a greater proportion of a low earner's retirement income will tend to be made up by the State Pension, meaning they need to have proportionally less in private savings.
- › The bars on the right show the proportions of people in these bands of earnings who were **not** expected to achieve an **absolute** measure of retirement adequacy: the Pensions and Lifetime Savings Association's Moderate Retirement Income Standard for a single person. This is a pounds-and-pence target represents a basket of consumption that is perceived by people in retirement as reflecting a 'moderate' living standard. By contrast to the relative measure to the left, we can see that lower earners are less likely to be on track to exceed this target. Again, this is logical, because this is an absolute amount, and in our retirement system, the more a worker earns, the more they generally contribute to retirement⁴².

³⁹ See for instance Nest Insight's series [Retirement Saving in the UK](#)

⁴⁰ See [gov.uk/government/statistics/analysis-of-future-pension-incomes/analysis-of-future-pension-incomes](https://www.gov.uk/government/statistics/analysis-of-future-pension-incomes/analysis-of-future-pension-incomes)

⁴¹ It's worth noting that both these standards exclude any housing costs that individual may have in retirement – and we'll be returning to this point often in this report

⁴² For more on the choice between relative and absolute retirement income targets, see below.

Figure A2.1: Proportion of people not expected to achieve standard measures of retirement income adequacy



Source: DWP analysis of under-saving – pre-retired adults. Benchmark definitions and earnings basis are as at 2021.

Whichever income bracket we look at, the chart makes it clear that many people aren’t saving enough to reach these targets.

But does this necessarily mean that all these people should increase their retirement savings? Everyone has a range of different financial priorities, and they need to decide how to trade off between them. Even assuming people will make their own active choices about how much to contribute to a pension, how would they decide whether to prioritise their immediate financial needs, or sacrifice some of their income to support a better living standard in retirement?

‘Enough to retire on’ or ‘Enough to live on today’?

As we’ve seen, retirement income benchmarks like the PLSA Retirement Living Standards are based on the standard of living that a person might want or expect in retirement. What these targets don’t take into account is the same individual’s living standards in the present day.

Nor can they tell us what might happen to that individual’s financial wellbeing if they were to pay into a pension at a sufficient rate to be confident of achieving this target income in retirement.

One reason to think this matters is that many people’s incomes during their working lives are already lower than the PLSA’s Minimum standard for retirement – as shown in boxes A2.1 and A2.2. It’s worth dwelling on this fact. According to these figures, over a million working people are earning enough to be auto enrolled in a workplace pension, but too little to cover the PLSA’s Minimum standard for consumption in retirement. This calls into questions whether they should be encouraged to aim for this level of income in retirement. Of course, because this benchmark is based on *retirement* living standards, it excludes many additional costs experienced in working age, such as commuting costs and childcare. The Minimum Incomes Standards used in this report provide a more ‘like for like’ comparison. These basket-of-goods based benchmark for working age and for retirement show that many more people have insufficient income today, and are projected to also fall short in retirement.

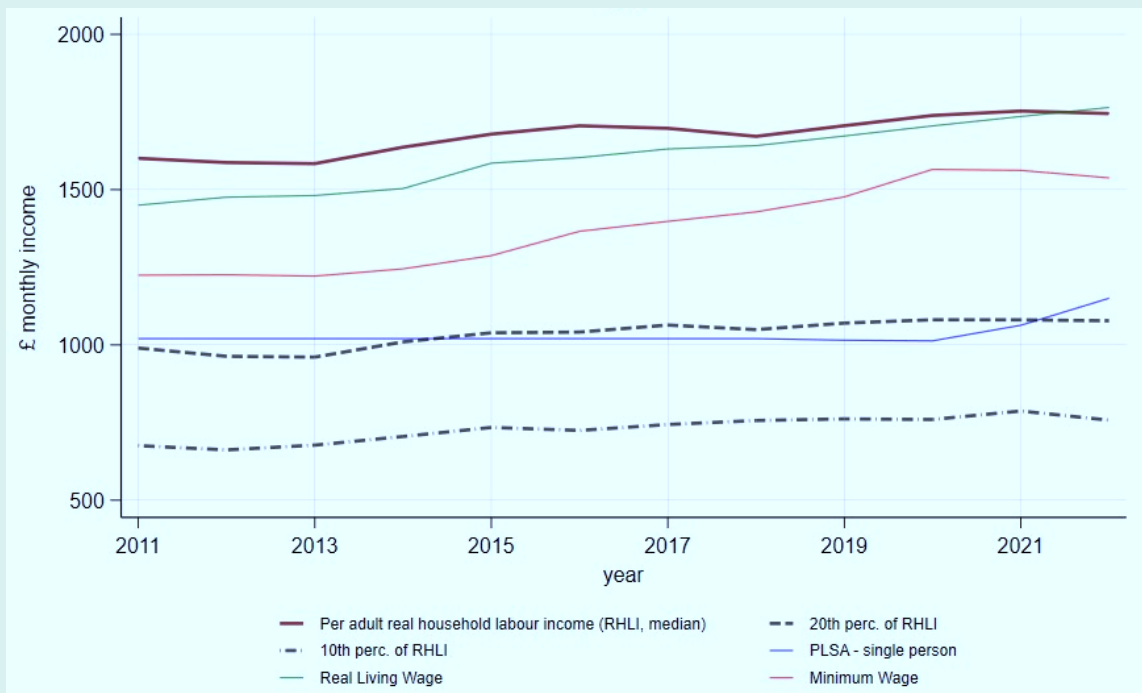
In our view this is clear evidence that while the PLSA Minimum standard is a useful and important benchmark for consumption in retirement, it is incomplete as a basis for assessing the appropriateness of existing contribution rates for those on lower incomes. This isn’t a criticism of the PLSA standards, which are well-evidenced and based on extensive work with real people living on different levels of income. For this reason, in fact, we have used the PLSA standards throughout this report, as a benchmark of an adequate level of non-housing consumption in retirement. The issue is a wider one: no standard that’s based only on living standards post-retirement and is silent on the pre-retirement trade-offs needed to reach it can, on its own, answer questions about how much people can or should aim to contribute.

Box A2.1: Incomes compared to benchmarks

By comparing the distribution of people’s incomes, we illustrate the challenges that individuals and households at the lower end of the income distribution face. This helps show how individual circumstances and challenges can be aggravated when making a choice between standard of living in the present versus in retirement. This is particularly true when we look at income from labour at individual or household level.

The chart compares the average per-adult disposable incomes of our saver sample to a number of benchmarks. The median disposable income, shown in the heavy purple line, has remained above both the minimum wage (light purple line) and the Real Living Wage (light green line) for over a decade⁴³. Yet the bottom 10% and 20% of these incomes (dotted lines) fall well below these benchmarks. Not only that, the lower 20% has remained below the PLSA Minimum standard for retirement.

The PLSA has recently revised the retirement standards, increasing the minimum level by 10% for London and by 12.5% for the rest of the UK. According to the recent ONS report and related data on real average weekly earnings in Great Britain⁴⁴, even though the real growth has been picking up since mid-2023, the real levels are just reaching, but not quite yet, pre-Ukraine war levels. This indicates that the increase in PLSA retirement standards has not been matched by earnings growth, and even more individuals would find their working-life earnings falling below the revised PLSA Minimum standards.



Source: Understanding Society: Waves 1-13, 2009-2022. UK Data Service. SN: 6614

Note: The sample include individuals between ages 23 and 66. The benchmarks income measures of statutory minimum wage for over 23's and the Real Living Wage by the Living Wage Foundation are computed based on 35-hour working week. The PLSA standards and the Real Living Wage vary for London versus the rest of the UK. All income measures are adjusted at 2023 prices using annual household expenditure deflator.

⁴³ Monthly amounts for the minimum and Real Living wages are based on a 35-hour working week.

⁴⁴ See Office for National Statistics (ONS), released 13 February 2024, ONS website, statistical bulletin, Average weekly earnings in Great Britain: February 2024 <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/February2024>

Box A2.2: Women’s and men’s incomes compared to benchmarks

Building on the comparisons in box 3.1, the charts below compare individual and per-adult household incomes against the same set of benchmarks. Given that the gender earnings gap is already well-understood, the results will not be surprising, but they serve to emphasise the issues around lower incomes. Although at the household level, these differences average out for heteronormative couples, a woman will lose this higher per-adult income if she separates from her partner.



While we’re comparing the working-life and in-retirement incomes of low earners, it’s also worth mentioning the many people who are paying into a workplace pension even though their earnings from work are less than the State Pension. This is because the value of the State Pension has risen significantly in recent years as a result of the ‘triple lock’ approach to revaluing it year-on-year. At the time of writing, the full basic State Pension is just over £11,500 a year. By contrast, the minimum earnings threshold for auto-enrolment has remained at £10,000 since the policy was launched.

The effect is that some people whose incomes lie between these amounts are being auto-enrolled, and having their incomes slightly reduced to pay their employee contributions, in order to increase a retirement income that’s already higher than the amount they’re living on today. We saw in section 2 that this can mean low earners are heading for a higher income from the State Pension than they get from work. Of course, as our work shows, people’s gross incomes and their real disposable incomes change throughout life. Just because someone earns less than the State Pension in the present day, this does not on it’s own mean they shouldn’t be saving privately in order to maintain living standards into retirement. Still, on the face of it, the trade-off someone in that position needs to make at any given point in time is quite stark.

Retirement income targets: a reality check

Retirement income targets help people focus on the rate at which they are building up a pension asset, but they don’t take into account other vital financial factors. Yet financial wellbeing, during working life and in retirement, depends in part on non-pension assets and on the overall financial resilience of a household.

For an adequacy target to be meaningful to all, it needs to allow for the enormous differences between the financial lives of different people in different circumstances at different times of life – and for the different strategies they might have. Some will want to maximise their chances of being able to buy a property before they retire. Others will need to tackle the short-term costs of servicing debt. For certain people, the ‘right’ level of retirement savings will be lower than the amount recommended by traditional models of adequacy at certain

times in their lives. In some cases, their target savings rate may be zero, at least in the short term. Better understanding these moments will allow for better targeting of nudges and other interventions that can help people make the right choices at the right times.

Targets assume an average individual, but people's circumstances differ in important ways. What's more, workplace pensions are based on each *individual's* own labour market experiences – because the rate at which a worker saves is defined by their individual earnings from labour. Yet finance happens at the *household* level. Individual and household idiosyncrasies make it extremely difficult to tell any individual saver how much they should be putting aside or retirement at any given time.

Given these challenges, it might seem reasonable for policy makers, pension providers and employers to retreat from this challenge and hand the problem of retirement savings adequacy back to the individual saver. This is a problem about individual savings behaviours, and it's up to everyone to make up their minds about how, and how much, to save. But evidence shows that millions of people are continuing to save at the default contribution rates at which they were enrolled⁴⁵. And even when people do engage, unless they are able and willing to pay for expert financial advice, they need some sort of benchmark target to help them make a plan.

Adequacy standards are meant to help pension participants make choices in the face of the deep uncertainty and extreme complexity that dog the retirement saving system. Each recommends a standardised level of saving that's broadly right for many people. But it's also important to assess how suitable these recommended savings levels are for other groups.

What are adequacy targets for?

The adequacy debate can sometimes seem to shift back and forth between two different goals:

- › **welfare and basic wellbeing** – how can we keep people above a minimum standard of living in retirement?
- › **financial optimisation** – how can we ensure they live at the level of comfort that they expect from their retirement?

Normally when we talk about income support, we're talking about getting to that base level, whereas with pensions we often talk about getting to a decent standard of living that's beyond the base level.

Paul Cullum, Frontier Economics

The first is more clearly a public policy question, especially when it is framed in terms of keeping people out of poverty in later life. The second introduces people's personal preferences about their spending and saving priorities: my expectation of a 'comfortable' retirement for my household may look very different to yours. This makes it appear more a question for individuals and for the financial sector that serves them.

Yet this question, of whether people are on track for a suitably 'comfortable' lifestyle, can escalate to a societal challenge if many people, all at once, end up retiring into much less comfort than they were expecting – not least when there are clear and well-evidenced behavioural and psychological barriers such as present bias which make it very hard for individuals to actually make optimal inter-temporal choices. In the UK, there are structural factors that make this likely to happen to whole cohorts of future retirees – particularly those who fall in the middle of some key distributions:

- › **People in mid working life.** For historical reasons, the people currently in their late 30s to early 50s have tended to 'fall between the stools' when it comes to workplace pensions. They are less likely than older workers to have built up significant levels of pension assets from their work – especially when it comes to the gold-plated defined benefit pensions, many of which closed to new members in the 1990s and

'A lot of Gen X has got caught between those gaps – post the end of the rolling down of the defined benefit schemes, but before auto enrolment came in. And I think for that cohort in particular, it's likely to be to be challenging.'
– *Vivien Burrows, International Longevity Centre*

⁴⁵ See for instance <http://nestinsight.org.uk/how-much-are-uk-workers-really-saving-as-a-result-of-pensions-auto-enrolment/>. For analysis of default-rate savings outside Nest see DWP's *Automatic Enrolment evaluation report 2019* pp 73ff.

2000s⁴⁶. They are also unlikely to fully benefit from the recent workplace pension reforms, as they will have less than half a working life over which to contribute within this system.

- › **People on mid incomes** who have not yet built up sufficient pension savings. The more they are relying on the flat-rate State Pension to take care of their income needs, the more likely they are to experience a significant drop-off in incomes when they reach retirement. Compared to them, the wealthy are likely to benefit from financial planning across a range of assets; while those on lower incomes will find that the State Pension substitutes a higher proportion of their working life earnings.

Given this, it makes sense to address both adequacy goals:

- › setting minimum income standards for those who are most at risk of falling below them
- › maintaining standards of living, for those who might anticipate more comfort that is offered by these minimum standards.

Relative vs absolute targets

This helps explain why adequacy targets tend to fall into one of two distinct types: relative or absolute. The choice between them depends on whether our objective is to bring everyone up to a minimum living standard, or to maintain people's standards of living.

Relative income benchmarks calculate someone's target retirement income by multiplying their working-life income by a 'replacement rate' that is generally lower than 100%. For instance, someone retiring on a salary of £50,000 might be recommended a pension income of £33,000, based on a replacement rate of two thirds. This approach was embraced by the UK's Pensions Commission⁴⁷, though they adapted it to account for the different needs of lower earners by setting a range of replacement rates based on earnings.

This approach is appealing because it takes into account the fact that higher earners should usually target higher retirement incomes than lower earners. Even so, replacement rate models are blunt instruments that do not take account of people's highly varied living standards. Some people's consumption will be much lower in retirement than it was during their working life, and replacement rates of 50% or more may be too high for them. For others, they may be too low.

More recently, these concerns have encouraged a shift of focus to **absolute** income standards, based on typical households' consumption needs, expressed in pounds and pence. This includes the Pensions and Lifetime Savings Association's (PLSA) **Retirement Living Standards**⁴⁸, along with the Living Wage Foundation and Resolution Foundation's **Living Pension** benchmark⁴⁹. These initiatives have significantly shifted the terms of debate. Absolute models define a minimum income level that everyone should aim for, in order to be able to afford the basics. Often, they also suggest higher target incomes that some savers might aim for, such as the PLSA's 'Comfortable' living standard.

Even more than relative targets, these simple pounds-and-pence targets have the great virtue of simplicity and ease of communication.

If the aim was to get you to a minimum standard of living then a cash target would come more naturally, right? And if you set it as a percentage terms, then high earners are going to massively overachieve.

– Mike Brewer, Resolution Foundation

⁴⁶ See for instance [Median private pension wealth \(active, preserved or in payment\) by age: Wealth and Assets Survey, Great Britain, April 2018 to March 2020 - Office for National Statistics \(ons.gov.uk\)](#) for a breakdown of pension wealth by age.

⁴⁷ Pensions Commission, 2004. *Pensions: Challenges and Choices. The First Report of the Pensions Commission* London. TSO.

⁴⁸ <https://www.retirementlivingstandards.org.uk/>

⁴⁹ <https://www.livingwage.org.uk/living-pension>

Percentage contribution rates

Workplace pension contributions, too, are usually calculated in relative terms, as a percentage of an individual's labour income. This makes them easy to calculate and communicate, and it means they automatically adjust as income rises and falls.

Most people contributing to workplace pensions probably only think about their contributions – to the extent they think about them at all – in terms of a percentage of their earnings. However, this approach means that each individual saving into a pension is seen through one narrow lens: their pensionable earnings from the employer. By definition, centrally-applied contribution rates will fail to account for the full range of circumstances the individual is facing. An optimal savings rate would need to take into account the financial priorities of their whole households. Clearly, this would be hard to do based only on the data that an employer holds on their workers.

Another challenge is that percentage contributions do not account for pre-existing inequalities between different individuals and households, including gender and racial inequalities.

Individual versus household

This highlights an underlying tension. Retirement adequacy and pension contributions are usually calculated around the individual's earnings – but as we're seeing in this report, the factors that determine an optimal savings rate are determined at the level of the household.

Two individuals who might look identical when seen through the lens of their age and their employment income, might have wildly divergent priorities for retirement saving, because of differences in the composition or the financial health of their households.

Clearly, employers and pension schemes do not have sufficient data on their participants and employees to personalise contribution rates around these wider circumstances. But we've already seen how powerful default contribution rates are in determining the savings behaviours of the vast majority of pension savers. Given this, a pragmatic view of pensions adequacy will need to answer more than one question:

- › When individuals and their households make their own active plans for retirement, what factors should they take into account?
- › When designing default contribution rates, how can policymakers and scheme fiduciaries take into account the full range of people's household circumstances, to ensure the best possible outcomes for the maximum number of people?

To answer each of these questions, we need to look beyond the average individual, and the average household, and consider the full range of divergent circumstances that people are living in today.

An adequacy system has more than one goal

In summary, we've seen that an approach to adequacy might try to address three quite different goals:

- › Prevent people falling below a minimum acceptable level of income
- › Avoid large numbers of people having a significant mis-match in their lifestyles pre- and post-retirement
- › Make sure people have sufficient information and stimulus to adjust their default behaviours where these defaults are working against their best interests.

We believe that each of these goals is important, and have tried to address them all in this report.



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