

## Introduction

This Briefing Note considers the impact of the introduction of automatic enrolment on younger people and future generations particularly the young cohort of workers entering the workforce who may be automatically enrolled in to pension schemes for their entire working life.

This note highlights the change in participation brought about by automatic enrolment, and uses case study projections to consider the types of outcomes for individual millennials (see summary box).

## Background

Automatic enrolment (AE) was part of the package of recommendations set out by The Pensions Commission, who were set up in the 2002 to look at the state and private pension system in the UK. These proposals received cross-party support in Parliament and were legislated to come into effect from 2012.

Under AE employers are required to enrol employees who meet eligibility criteria into a workplace pension. The eligibility criteria are comprised of being over age 22 and below State Pension age (SPa), and earning over a trigger amount (currently set at £10,000) from the employer.

Having satisfied the eligibility requirements, employees must be automatically enrolled into a qualifying workplace pension scheme.

## Summary: Automatic enrolment of young people and future generations

*(all figures in 2017 earnings terms)*

- Millennials make up around 40% of the target group for automatic enrolment.
- Automatic enrolment has almost doubled the participation of 22 to 29 year olds in pension schemes.
- A 22 year old median earning man in 2017 may be able to achieve a pension fund of £108k under AE minimum contributions.
- Removing the triple lock on State Pensions could reduce the retirement income of a 22 year old low earner by 5%.
- A median earning 18 year old automatically enrolled under the AE Review recommendations, at age 18, with the lower earnings limit removed, could achieve a fund of £146k at their SPa, 32% higher than under the current AE policy.

In the case of a Defined Contribution (DC) scheme, there must be a minimum total contribution level (increasing up to 8% of band salary, from 2019), of which a prescribed percentage must come from the employer (3% of band salary). Minimum contributions are expressed in terms of band salary, which is the amount of earnings between the lower earnings limit up to the higher rate tax threshold (currently £5,876 to £45,000).

## Automatic Enrolment Review 2017

During 2017 the Department for Work and Pensions carried out a review of the first five years of AE. The findings of that review were published in December 2017.<sup>1</sup>

The review made recommendations regarding the future of AE:

- expand eligibility to 18 year olds,
- calculate pension contributions from the first pound of salary, and
- suggested piloting expanding automatic enrolment to self employed people.

## Millennials

There is no universally accepted definition of millennials. Conceptually, the phrase refers to the generation who came of age in the new millennium. This is taken by researchers and demographers to include people born in the early 1980s up to people born in the mid to late 1990s. For the purpose of this note we consider individuals born between 1982 and 1995 to be millennials, that is people who were aged 22 to 35 by the end of 2017.

Changes within the pensions landscape mean that millennials have very different opportunities and potential outcomes to those who came before. For example, the decline in Defined Benefit (DB) pension schemes in the private sector means that few millennials working in the private sector will have any substantial DB entitlement at retirement.

### The impact of automatic enrolment upon saving coverage

There are estimated to be approximately 11 million people in the eligible target group, the employees who fulfil the eligibility criteria for AE and who were not active members of appropriate schemes already. Millennials make up around 40% of the eligible target group for automatic enrolment.<sup>2</sup>

### AE has increased millennials likelihood of participating in a pension scheme

Saving data for eligible employees suggests that by 2015/16, participation in workplace pensions stood at 72% of eligible 22-29 year olds. In 2011/12, before the introduction of automatic enrolment, participation for the then 22-29 year olds was at 36%.<sup>3</sup> This is an increase of 36 percentage points, suggesting that participation in workplace pension schemes has doubled as a result of automatic enrolment (Table 1).

### Opt out rates

The average opt out rate for automatically enrolled employees has been fairly consistent since implementation at around 9% of employees. Data on opt-outs from

## Table 1: Automatic enrolment has increased participation in pension savings, especially among younger people

Participation rate in 2012 (pre automatic enrolment) and in 2016 by age group

Age group	Participation rate in 2012	Participation rate in 2016	Change in participation
22-29	36%	72%	36%
30-39	54%	77%	23.4%
40-49	62%	81%	19%
50-SPa	62%	80%	18.1%

automatic enrolment does not suggest that millennials are more likely to opt out than older individuals.

DWP analysis of samples of employers who staged in 2013 and in 2014 indicated that millennials were least likely to opt out (with opt out rates at around 7% in 2014), with employees over 50 being most likely (with opt out rates around 23% in 2014).<sup>4</sup>

### Impact of AE on millennial savers: case studies

As millennials are the employees who entered the workforce during the initial implementation of automatic enrolment they may be the first cohort to spend their entire working life in pension schemes that they were automatically enrolled into.

The PPI have modelled four hypothetical individuals to examine the effect of automatic enrol-

ment on millennials with different characteristics.

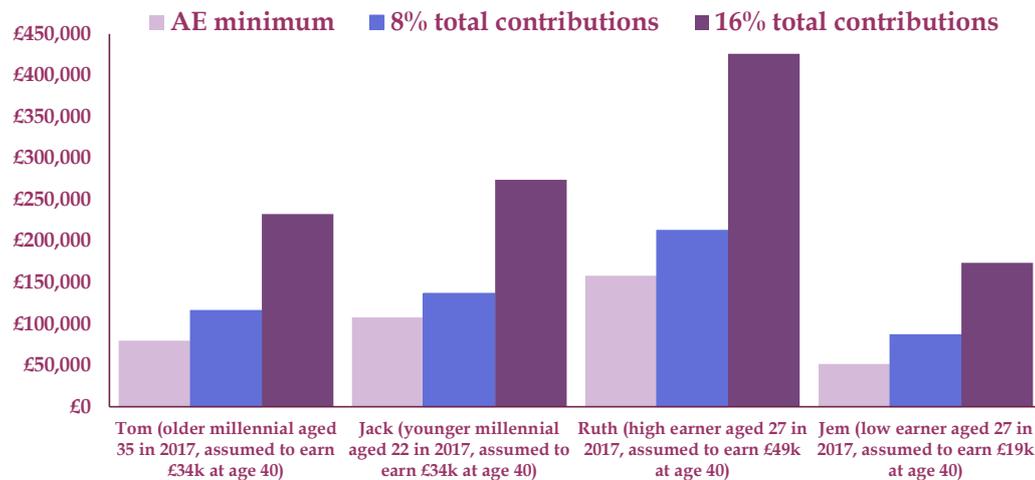
The individuals are modelled stochastically by performing runs using 3,000 scenarios of possible future economic outcomes and investment returns. Key results are presented as the median outcome of the stochastic runs, with distributional results highlighting the quartile outcomes.

The case study individuals are:

- **Tom**, an **older** median earning millennial man, aged 35 in 2017, at age 40 he earns £34,000 in 2017 earnings terms;
- **Jack**, a **younger** median earning millennial man, aged 22 in 2017, at age 40 he earns £34,000 in 2017 earnings terms;
- **Ruth**, a **high earning** millennial woman, earning at the 90th percentile rate, aged 27

### Chart 1: Saving more than automatic enrolment minimum contributions can provide a better outcome in retirement

Median fund value at State Pension age (in 2017 earnings terms) from saving at auto-enrolment minimum, traditional DC pension schemes, generous DC pension



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in 2017, at age 40 she earns £49,000 in 2017 earnings terms;

- **Jem**, a **low earning** millennial woman, earning at the 30th percentile rate, aged 27 in 2017, at age 40 she earns £19,000 in 2017 earnings terms.

Without any private saving, millennials would be reliant in retirement solely on the State Pension. With private saving they may be able to improve their post retirement wealth, or income. Automatic enrolment appears to be effective in getting young people to start saving earlier.

At current annuity prices Ruth's fund could double the income she might receive from the State. Ruth is the highest earner and therefore has the highest private pension, others are less likely to have such a high income. For example, Jem,

who is the lowest earning of the examples, has an additional income as a result of AE of a third of the State Pension level.

After initial phasing of the contributions under automatic enrolment, the minimum required contributions are at 8% of band salary. Having pension saving at minimum AE contribution levels leads to better outcomes in retirement than having no pension saving, which might have been the case for many individuals before automatic enrolment.

However, the pension under minimum AE contributions may be a starting point for pension savings, leading to greater pension savings. Schemes with higher contributions will likely achieve higher pension funds at retirement.

Chart 1 compares fund sizes at retirement in three DC pension schemes:

- AE minimum – AE minimum contributions;
- 8% total contributions – a scheme with total contributions of 8% of full salary, a common total contribution level before automatic enrolment was introduced;
- 16% total contributions – a scheme with 16% total contributions, a relatively generous DC pension scheme.

Tom, the older millennial might have a private pension fund of £79,700 (in 2017 earnings terms) under AE minimum contributions, compared with £116,300 (in 2017 earnings terms) under the 8% DC pension scheme, 46% higher than the AE minimum.

## Chart 2: The range of possible fund values is larger under a scheme with higher contributions

Distribution of outcomes of case studies saving under automatic enrolment minimum contributions, and generous DC pension scheme with 16% contributions

(£,000s in 2017 earnings terms, 75<sup>th</sup> percentile, median and 25<sup>th</sup> percentile results labelled. Results of 3,000 economic scenarios)

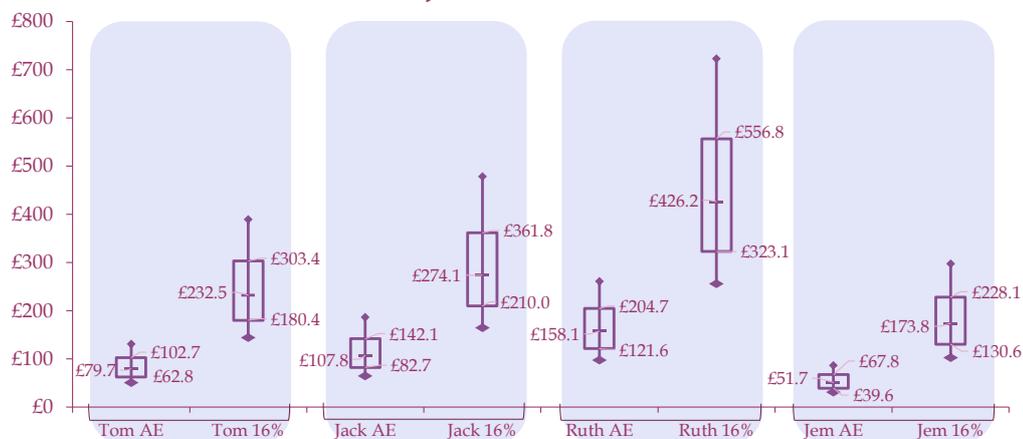


Chart 2 is a box plot. Box plots allow graphic representation of a distribution of outcomes. The rectangle represents the 25<sup>th</sup> to 75<sup>th</sup> percentiles of the distribution while the ends of the vertical line represent the 10<sup>th</sup> and 90<sup>th</sup> percentiles. The horizontal marker in the box represents the median. (Median, 25<sup>th</sup>, and 75<sup>th</sup> percentile values are labelled in the chart.)

The pension fund under the automatic enrolment minimum is less than the pension fund at 8% contributions for two reasons:

- contributions to AE are phased, and until 2019 are less than 8%, and
- contributions under AE are on a portion of salary rather than the total salary, so are less than 8% of full salary

Under the 8% DC scheme Jack, the younger millennial has a fund 27% higher than his fund under the AE minimum. The difference is smaller for Jack than for Tom because Jack was enrolled in 2017 so missed a lot of the phasing of contributions.

The lower limit on band earnings is more restrictive for lower earners than for higher earners. For example, Ruth, the higher earner has a pension fund at 8% contributions which is 35% higher than under the AE minimum. Jem, the lower earner, has a pension fund 68% higher under the 8% contributions compared to AE minimum.

### Distribution of fund values

In contrast with Chart 1, which set out the median fund values of pension savings, Chart 2 shows the distribution of possible fund values. Making higher contributions can result in a higher range of outcomes than under the AE minimum contri-

butions. The possible outcomes are as a result of better or worse than expected investment returns and are modelled using the PPI's economic scenario generator.

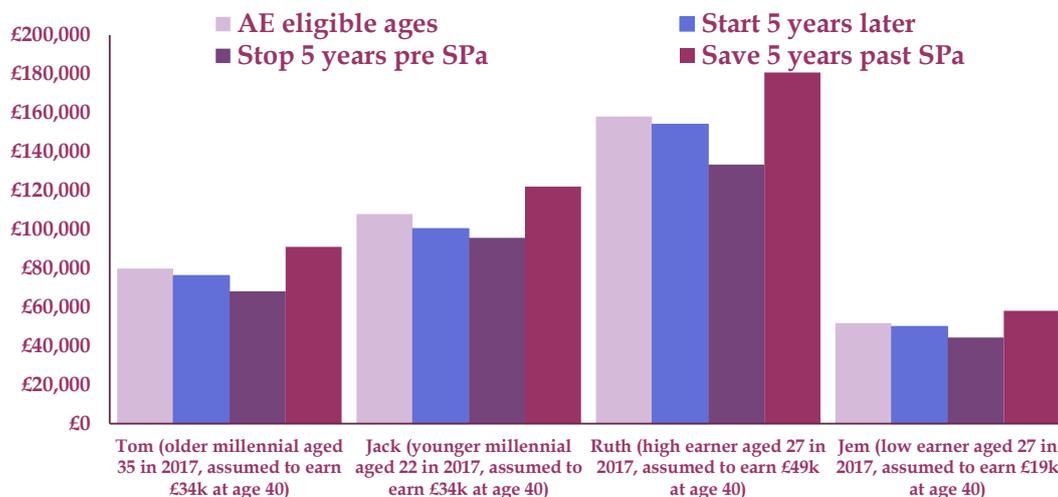
For example, under the current automatic enrolment minimum contributions, the median outcome for Ruth is a fund at retirement of £158,100, however she has a 10% chance that her outcome will be above £261,500, and a 10% chance it will be below £97,700. If Ruth were in a generous pension scheme with total contributions of 16% of salary, then her median fund value might be around £426,200, but she might have a

### Chart 3: Stopping saving before retirement can be significantly detrimental to retirement outcome

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Median fund value at retirement (in 2017 earnings terms) from saving at auto-enrolment minimum, delaying starting for 5 years, stopping 5 years before SPa, saving 5 years after SPa



10% chance of achieving over £723,100.

#### Saving for a longer or shorter period of time

Saving for five years beyond State Pension age (SPa) can increase the amount in the pension fund. For example, Ruth could increase her pension by 14% from £158,100 to £180,700 by saving for five more years. However this requires individuals to be in a position to continue to work, which is not always easy; family commitments, health issues, employment opportunities may all limit an individual's ability to continue saving (Chart 3).

Ceasing to save before State Pension age can be detrimental to the pension fund. In the case of Tom, ceasing to save five years before retirement reduces his pension

from £79,700 to £68,000, a reduction of around 15%.

Delaying starting saving by five years is also detrimental, but in the case of the modelled individuals it is not as damaging as ceasing to save. The reasons for this are that the amount of money going into the pension scheme in the first five years is low. This is because earnings at younger ages are likely to be relatively lower than at older ages. Also, for this cohort of individuals, the first five years of saving coincides with the phasing of the minimum AE contributions, where the contribution rates are relatively low.

Taking a career break during their working life also reduces the individual's ability to build

up private pension savings. Breaks can, depending on circumstances, also reduce the number of qualifying years for the State Pension being built up. However in the instances of caring, receiving unemployment or disability benefits, the qualifying years are credited.

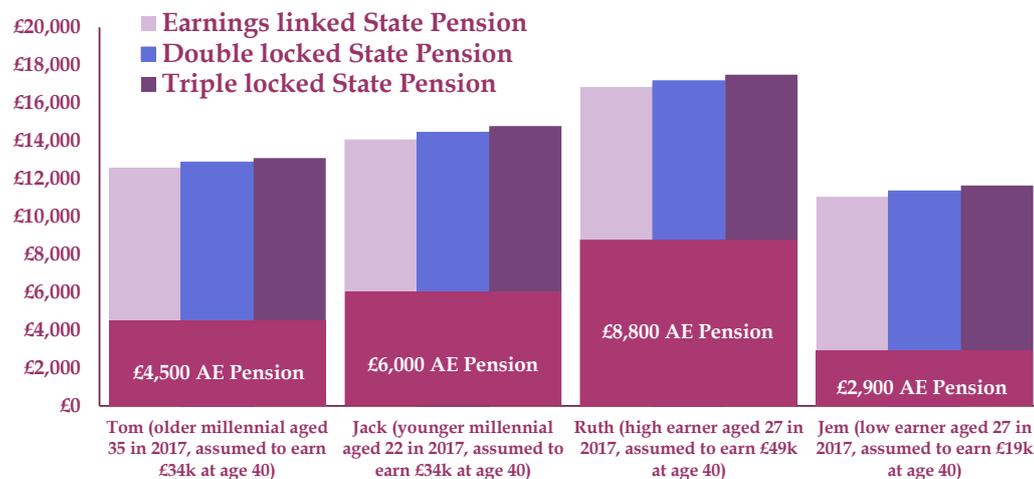
A career break of 10 years for ages 30-39 inclusive could reduce the pension fund saved by Jem by 30% from £51,700 to £36,300. The impact of the career break on an individual depends on the level of earnings forgone during the period of the career break.

#### Impact of the triple lock

The impact of the triple lock on the retirement income of future pensioners is likely to be greater

## Chart 4: The triple lock has a proportionally larger impact on lower earning millennials than higher earners

Total annual income at retirement (in 2017 earnings terms) from private pension plus State Pension under differing State Pension upratings



than it is for current pensioners. When the first millennials reach their SPa, the triple lock would have been in effect for around 40 years, therefore would have had a longer period to influence the level of State Pension.

The triple lock defines the way in which the State Pensions are uprated, it does not apply to private pensions. However the State Pension and the triple lock are important in considering what millennials' total retirement income might be.

The triple lock increases the State Pension by the greater of the annual growth in earnings, CPI, or by 2.5%. The triple lock is due to last at least until 2020, and is assumed to continue in the PPI modelling.

If the triple lock were to be removed, then there are two likely replacement policies:

- Double lock—the greater of earnings and CPI.
- Earnings growth—in line with legislation.

When the first millennials reach SPa in around 2050, any uprating policy introduced in 2020 will have been in effect for 30 years.

Jem's total pension income (state and private) would be 2% lower under the double lock than the triple lock, and would be 5% lower under earnings growth than triple lock (Chart 4).

The proportional impact of a change in State Pension uprating on an individual's total retirement income depends on how

reliant they are on the State Pension.

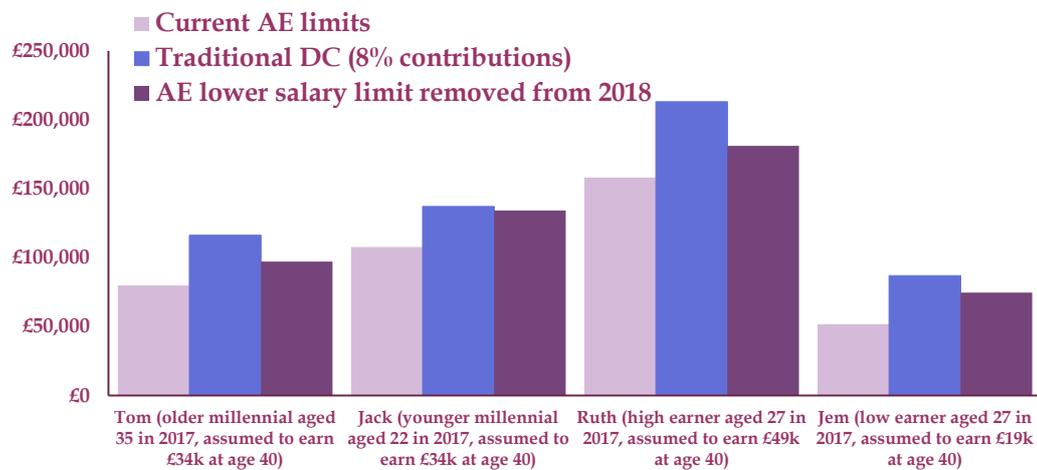
Ruth is less dependent on the State Pension, so her reduction is a lower proportion of her total retirement income. For example, the reduction from triple lock to earnings uprated is less than 4% of her total retirement income.

### 2017 AE Review recommendations

The 2017 Automatic Enrolment Review made recommendations for the future of automatic enrolment. These included removing the lower limit on salary for contributions, and reducing the minimum age for eligibility to AE from 22 to 18.

## Chart 5: Removing the lower earnings limit can bring AE pension savings closer to traditional DC schemes

Median fund value at State Pension age (in 2017 earnings terms) from saving at current auto-enrolment limits, traditional DC contributions, and AE removing the lower salary limit from 2018



### Removing the lower limit on eligible salary

Removing the lower limit on eligible salary would mean that contributions are made on more of the individual's salary. Indeed, contributions would be on total income for eligible basic rate taxpayers; because the upper band limit which curtails eligible salary is currently set at the higher tax rate threshold.

The impact of this change is larger for lower earners than higher earners as a larger portion of lower earners' total salary is excluded by the lower limit (Chart 5). For example Jem, the lowest earning of our individuals, might see an increase on her pension fund of 44%, while Jack, who earns more than Jem but is still a basic rate taxpayer, would have an increase of 25% of his pension fund.

For someone whose salary is £10,000 a year, the trigger value for eligibility, removing the lower limit on contributions would increase their salary eligible for contributions from £4,124 (£10,000 – £5,876) to £10,000, over twice as high as the existing salary band.

### Reducing the age limit

Starting saving earlier can improve an individual's pension outcome. An 18 year old could have a pension fund 4% higher if they were to begin saving now rather than waiting until they are automatically enrolled 4 years later. A median earning man could have a pension pot of £115,200 if they start saving immediately, 4% higher than if they were to start saving at age 22 (£111,000) (Chart 6).

The removal of the lower limit on contributions acts on all future years of contributions. If the lower limit were removed then Dan could achieve a pension fund of around £146,200 in 2017 earnings terms, 32% higher than under the current AE policy.

### High earning individuals who start saving from age 18 could achieve large pension funds

The distributional analysis for an 18 year old suggests that the median earning 18 year old has a 10% chance of achieving a pension fund of over £250,000 under minimum contributions with no lower earnings limit (Chart 7).

A high earning 18 year-old, earning at the 90th percentile level who is in a generous DC

## Chart 6: Removing lower limit on salary for contributions can have a significant impact on outcomes

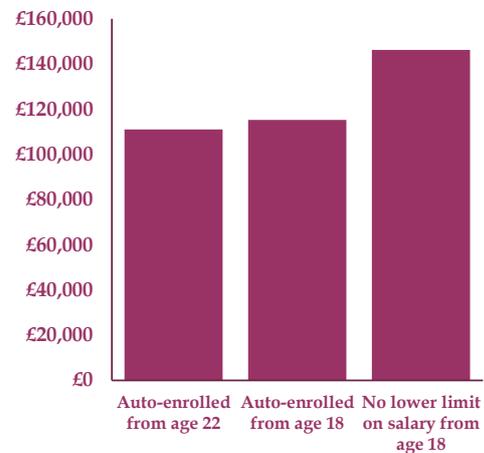
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Impact of removing the lower limit on salary eligible for minimum AE contributions

Salary level	Band Salary	No Lower Limit	Difference
£10,000	£4,124	£10,000	142%
£15,000	£9,124	£15,000	64%
£20,000	£14,124	£20,000	42%
£25,000	£19,124	£25,000	31%
£30,000	£24,124	£30,000	24%
£35,000	£29,124	£35,000	20%
£40,000	£34,124	£40,000	17%
£45,000 +	£39,124	£45,000	15%

Pension fund at SPa of an 18 year old in 2018 under current and recommended AE policies (2017 earnings terms)

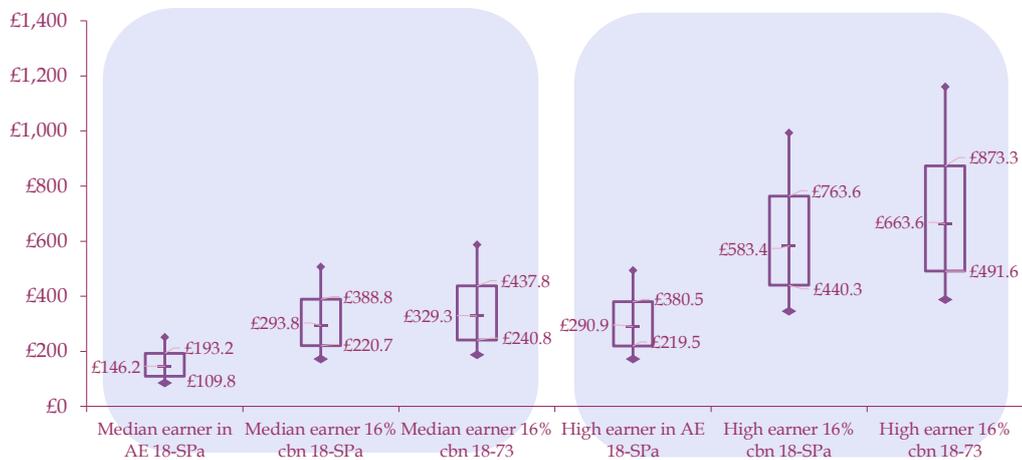


## Chart 7: Long term saving in a generous pension scheme could lead to pension pots over £1 million

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Distribution of outcomes of 18 year old median earner and 90th percentile earner saving under automatic enrolment minimum contributions (cbns), and generous DC pension scheme with 16% contributions (£,000s in 2017 earnings terms, 75<sup>th</sup> percentile, median and 25<sup>th</sup> percentile results labelled. Results of 3,000 economic scenarios)



pension scheme with 16% contributions has a 10% chance of achieving a pension fund of around £1million, if they save up to SPa, or £1.2 million if they continue saving to age 73.

### Conclusions

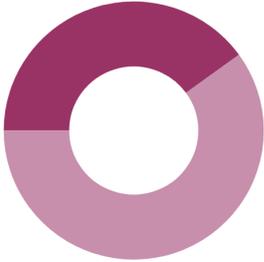
AE has increased participation of millennials in pension saving, likely giving a better pension outcome to more people than the existing system by bringing many millennials into saving at a younger age. The recommendations of the 2017 AE review should increase pension savings further, by starting still earlier and increasing the contribution amounts being saved, especially for lower earning individuals.

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1. DWP (2017): *Automatic Enrolment Review 2017*
  2. DWP (2017): *Automatic Enrolment Review 2017*
  3. DWP (2017): *Automatic Enrolment Review 2017*
  4. DWP (2014): *Automatic enrolment opt out rates: Findings from qualitative research with employers staging in 2014*

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Millennials make up around 40% of the target population for automatic enrolment.

2011/12



36%

2015/16



72%

Participation in workplace pensions has doubled for 22-29 year olds due to the introduction of automatic enrolment.



A median earning male aged 22 in 2017 who saves at 8% contributions will have a pension fund 27% higher than his fund under the AE minimum.



A high earning female earning at the 90th percentile and aged 27 in 2017 has a median pension pot of £158,100 under the AE minimum.

If she contributes 16% to her pension, her median pension pot would be £426,200.



If the triple lock remains up to the retirement of millennials, it has a larger proportional impact on lower earners. Removing the triple lock could reduce retirement income by 5%.

Removing the lower earnings limit and automatically enrolling at age 18 means a median earner could achieve a pension pot of £146,200, 32% higher than under the current policy.

