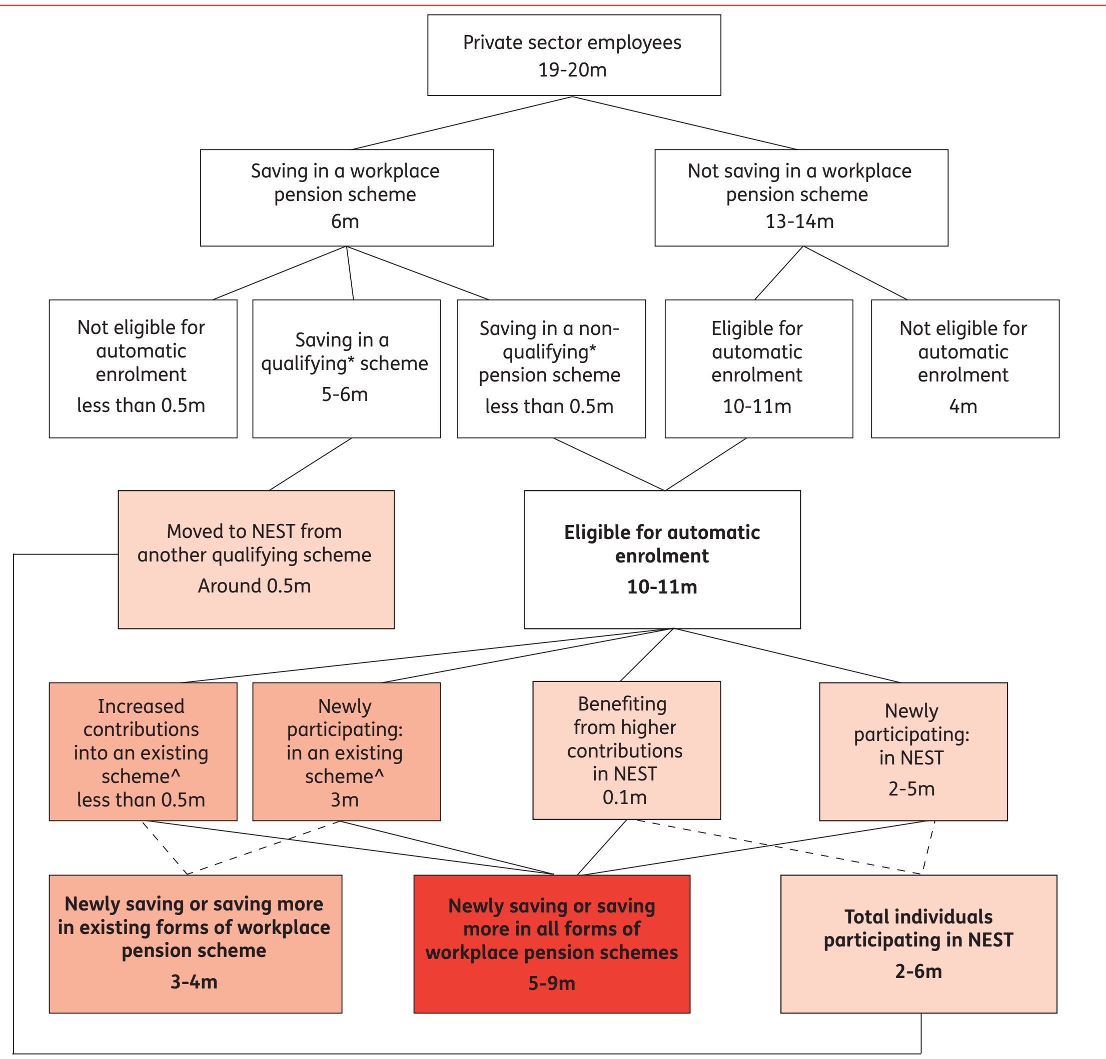
Annex C
Further analysis

C.1 Individuals

C.1.1 Impact of automatic enrolment

Chart C.1.1: How participation estimates are constructed



Note: Ranges are rounded to the nearest million, and therefore may not sum.

* Taking an employer contribution of at least 3 per cent into a current workplace pension scheme as a proxy for a defined contribution scheme that is likely to qualify under the Pensions Act 2008. We have assumed that all defined benefit schemes qualify in this analysis.

^ This is an existing or newly set up workplace pension scheme, other than NEST.

Source: Department of Work and Pensions modelling.

For further detail exploring the methodology around this, please see: http://www.legislation.gov.uk/uksi/2010/917/pdfs/uksiem_20100917_en.pdf.

C.1.2 Replacement rates: illustrative case studies

To show the potential impacts of pensions saving and state interventions, we set out several example case studies below. These set out what a person in this situation is likely to receive if they saved for a pension in the same way. The calculations assume that the lump sum is annuitised in the first year of retirement. Sensitivity testing of real fund growth using 1.5 per cent and 3.5 per cent are presented in brackets after main results, which use real fund growth of 2.2 per cent. All figures are in current earnings terms.

Case study 1: A low earner with dynamic earnings profile, starting work on £11,000 at age 25 increasing to £21,000 by age 50 retires at 68:

- Their net income at retirement is £205 per week (£203-£211) and £188 per week (£186-£193) ten years after retirement. The corresponding figures if they had not saved are £181 per week and £168 per week. They are eligible for Council Tax Benefit whether or not they have saved and become eligible for Pension Credit in their mid-70s if they had not saved.
- The net replacement rate increases from 55 per cent to 62 per cent (61–63 per cent) with saving. Income-related benefits contribute 2 per cent (2–1 per cent) to replacement rate with saving and 4 per cent without saving.
- The payback for saving is £1.90 (£1.68–£2.42) for each £1. The tax free lump sum available at the point of retirement is worth £9,600 (£8,600–£12,100).

Case study 2: Early retiree: lower earner (71 per cent of median earnings), starts saving at 25, retires at 55, annuitises at 68:

- Their net income at retirement is £200 per week (£197–£205) and £183 per week (£180–£188) 10 years after retirement. The corresponding figures if they had not saved are £183 per week and £169 per week. They are eligible for Council Tax Benefit whether or not they have saved and become eligible for Pension Credit in their mid-70s if they had not saved.
- The net replacement rate increases from 63 per cent to 68 per cent (68–70 per cent) with saving. Income-related benefits contribute 3 per cent (3–2 per cent) to replacement rate with saving and 4 per cent without saving.
- The payback for saving is £2.25 (£1.84–£3.24) for each £1. The tax free lump sum available at the point of retirement is worth £6,400 (£5,400–£9,000).

Case study 3: Couple: lower earning man plus median earning woman who takes a 7 year career break in late 20s/early 30s to raise children:

- Their net income at retirement is £409 per week (£402–£426) and £366 per week (£360–£382) 10 years after retirement. The corresponding figures if they had not saved are £344 per week and £313 per week. They become eligible for Council Tax Benefit in their mid-70s if they had not saved.
- The net replacement rate increases from 51 per cent to 60 per cent (59–63 per cent) with saving.
- The payback for saving is £2.41 (£2.11–£3.11) for each £1. The tax free lump sum available at the point of retirement is worth £22,100 (£19,600–£28,300).

Note: figures are in constant earnings terms, and income does not keep pace with earnings over retirement. Whilst Basic State Pension (BSP) rises by earnings (generally under triple guarantee earnings are the highest of the 3 options) the other parts of income normally rises by prices or are flat in earnings terms (level annuity) so overall income declines relative to earnings over time.

The figures set out in the case studies are important as they show the potential impact of private pensions saving on those who are automatically enrolled.

As can be seen in case study 2, a man on the national minimum wage for all of his working life potentially risks seeing little return for his saving: if he saved in a private pension, the difference in his income in retirement is around four-six per cent. It is likely that as private pension income does not keep pace with earnings over retirement, whilst Basic State Pension (BSP) does rise by earnings, that the replacement rate will decrease over time.

The lower earner with a dynamic earnings profile (case study 1) experiences a greater return from saving, compared to the man on the national minimum wage (case study 2), due to a lower interaction with means-tested benefits. Private saving raises his net replacement rate from 55 per cent to 62 per cent, although the bulk of his pension income still comes from the State Pension.

The case studies above also show the impact that variable investment returns have on pension outcomes. The early retiree benefits most (proportionally) from higher fund growth since their savings do not get any extra contributions once they stop working, they just increase through compounded investment return. For most of the individuals modelled above the effect of changing fund growth from 1.5 per cent to 3.5 per cent varies the net replacement rate by around three percentage points.

C.2 Employers

C.2.1 Employer processes under the reforms

This section provides further information on the tasks that must be undertaken by employers in order to comply with the new duties.

Identifying eligible workers and jobholders

Before their staging date, the employer must identify what pension provision they must have in place with respect to different classes of worker, since different employees may have different rights under the Pensions Act 2008. Box C.2.1.1 gives more details of different classes of worker.

Box C.2.1.1

Eligible jobholders must be automatically enrolled into a qualifying automatic enrolment scheme. These are individuals who meet the following criteria:

- Works under a contract of employment or has a contract to perform work or services personally and is not undertaking the work as part of their own business.
- Ordinarily works in Great Britain.
- Is aged between 22 and State Pension age.
- Have qualifying earnings payable by the employer in the relevant pay reference period.

Jobholders who are aged between 16 and 21 but otherwise meet the criteria above may choose to opt into a pension scheme. In this case, the employer must enrol them in a qualifying scheme and provide at least the minimum employer contribution.

Workers who do not meet the definition of jobholder (or eligible jobholder), but nevertheless meet certain criteria, may opt into a pension scheme. The employer is obliged to provide a pension scheme and process any employee contributions, but does not have to pay employer contributions. The worker must be:

- Working under a contract of employment or has a contract to perform work or services personally and is not undertaking the work as part of their own business.
- Ordinarily works in Great Britain.
- Is aged between 16 and 75.
- Does not have qualifying earnings.

If an employee does not meet the necessary criteria to be defined as an eligible "worker", the employer is not obliged to provide them with access to a pension scheme. There are very few circumstances where an employee is not classified as a worker. These include:

- Single person directors where the company has no other employees.
- Armed forces and members of the Combined Cadet Force, Sea Cadet Corps, Army Cadet Force and Air Training Corps.

Setting up a qualifying scheme

If the employer identifies that they have at least one employee that is eligible to be automatically enrolled or to opt into a qualifying scheme, they must then ensure that they have an appropriate scheme in place. Schemes used for automatic enrolment versus those used for employees to opt in to have slightly different quality criteria.

The majority of employers in Britain do not already provide a pension, and so will have to set up a pension scheme for the first time. The majority will seek advice about the right scheme to use for their circumstances.[85]

Box C.2.1.2: Employers who already provide pensions

If the employer already provides a pension scheme to some, or all, of its staff, they have a number of options:

- Use their existing scheme for automatic enrolment (provided it meets the qualifying and automatic enrolment criteria). Changes to the scheme rules may be required and the employer should discuss this with the trustees, managers or provider of the scheme.
- Use part or parts of the scheme for different categories of members, so that only a part of the scheme needs to be qualifying and able to be used for automatic enrolment.
- Use their existing scheme as a qualifying scheme for existing members, and set up an alternative pension scheme to fulfil their automatic enrolment duties.
- Set up an alternative pension scheme to fulfil their automatic enrolment duties for all their eligible jobholders.

Calculation of contributions for automatic enrolment must be based on a band of qualifying earnings or equivalent. Where the employer wishes to use an existing scheme which calculates contributions on a different basis, for instance basic pay, total contributions need to be equivalent to a minimum of eight per cent of qualifying earnings, with at least three per cent coming from the employer. DWP is currently working with employers and the pensions industry to design a simple process for employers with existing high quality schemes to 'certify' that their scheme qualifies for automatic enrolment. A simple certification system is one of our core priorities for minimising regulatory burdens on employers and is considered further in Chapter 6.

Changes to payroll and other administration

The employer may need to make a number of changes to payroll, to ensure the necessary capabilities to administer automatic enrolment. Box C.2.1.3 sets out the changes employers may need to make to payroll systems.

85 Eight in ten micro employers said they would seek advice on how to respond to the reforms; Grant C, Fitzpatrick A, Sinclair P and Donovan JL, 2008, *Employers' attitudes and likely reactions to the workplace pension reforms 2007: Report of a quantitative survey,* DWP research report number 546.

Box C.2.1.3: Changes to payroll

- Determine whether tax relief is to be given at source (contributions deducted from net pay) or under net pay arrangements (contributions deducted from gross pay), and build this into calculations.
- Calculate the correct amount of employer and member contributions and pay them over to the scheme; this includes deducting contributions for the very first pay reference period, during the joining window whilst membership is still being set up.
- For employees who become eligible jobholders part way through a pay reference period the employer will need to be able to make part-period calculations of contributions.
- Build into payroll a schedule of payments setting out the contribution amounts and due dates for paying member contributions and employer contributions to the scheme.
- The employer should build into their payroll processes the ability to refund any contributions deducted from an eligible jobholder who opts out during the opt out period.

When the legislation first applies (on the employer's staging date) it is likely there will be a number of eligible jobholders to be enrolled at the same time. This means that payroll should be set up ready to make deductions and pay across to the scheme from the staging date. Employers who operate a weekly payroll will need to allow enough time to set this up because, if the eligible jobholder is making contributions, deductions must be made from the first week.

Deciding when to automatically enrol eligible jobholders

An individual's automatic enrolment date is the date they first meet the criteria whilst working for that employer, unless they are already an active member of a qualifying scheme. This date may be:

- The employer's staging date (assuming the person is an eligible jobholder on that date).
- The date the person takes up employment with that firm (assuming they are an eligible jobholder on that date).
- Whilst in employment, and once the duties apply to that employer, the first time the person has qualifying earnings (if they already meet the age criterion).
- Whilst in employment, and once the duties apply to that employer, the person turns 22 years old (if they already meet the earnings criterion).

However, Box C.2.1.4 sets out three choices some employers face, depending on their circumstances.

Box C.2.1.4: Employer choices about when to automatically enrol

- Any employer staged into the duties on or after 1 November 2012 may choose to bring their staging date forward to any other date specified as a staging date in regulations (i.e. between 1 October 2012 and 1 September 2016). They must ensure they are able to make appropriate pension arrangements, and have informed the Pensions Regulator of these arrangements before exercising this choice.
- An employer with a defined benefit scheme or hybrid scheme may take advantage of transitional arrangements that allow them to defer automatically enrolling individuals who had been eligible to join the scheme before the employer's staging date (but who had chosen not to join).
- An employer using a scheme that meets certain higher quality criteria may choose to postpone automatically enrolling jobholders into that scheme for three months, as long as they maintain those higher quality standards for at least three months after enrolling the individual.

The employer must decide what the automatic enrolment date should be for each eligible jobholder, and take action to ensure they are enrolled at the right time. An additional complexity for the employer is that staging dates are determined on the basis of the employer's PAYE scheme reference. So where an employer has more than one PAYE scheme, they must identify the largest one and determine the associated staging date, which will be an unfamiliar task.

Information requirements

As a part of the automatic enrolment process, the employer must provide certain information to the eligible jobholder, to the scheme, and to individuals eligible to opt in to the scheme:

- The eligible jobholder must be informed that they are being automatically enrolled and given information about the scheme and the amount of contributions coming from them, from their employer, and from tax relief. They must be informed of their right to opt out.
- The postponed eligible jobholder must be given information within one month of the original automatic enrolment date, informing them about the postponement.
- Eligible jobholders who are subject to transitional arrangements for defined benefit and hybrid schemes must be informed of these arrangements and the date on which they will be enrolled into the scheme.
- Employees who are eligible to opt in must be given information about their right to opt in and what this means.
- The employer must provide their chosen pension scheme or pension provider with personal information about the eligible jobholder within one month of the person's automatic enrolment date.

Registration with TPR

Employers are required to tell the Pensions Regulator what they have done to comply with the automatic enrolment duties, within two months of the employer's staging date. This includes providing information about the employer themselves, their chosen pension scheme or schemes, and the numbers of people who: have been automatically enrolled; who have been postponed; are subject to DB/hybrid transitional arrangements; who were pre-existing members; or are not eligible for automatic enrolment.

C.2.2 Scheme quality

Table C.2.2.1: Annual Management Charges in workplace personal pensions, by scheme size

Annual Management Charge	5-49 members	50-149 members	150+ members
			Column percentage
up to 0.39%	3	2	8
0.4%-0.59%	11	15	16
0.6%-0.79%	16	25	33
0.8%-0.99%	18	32	35
1%+	53	26	8

Source: Croll A, Vargeson E and Lewis A, 2010, "Charging levels and structures in money purchase pension schemes: Report of a quantitative survey", Department for Work and Pensions Research Report No 630.

Table C.2.2.2: Pension scheme membership by contribution rate and scheme type

Current provision	Percentage Proportion of employer's workforce that have joined the scheme
Contribution rate (all scheme types):	
No contributions	32
Average rate of 0.1-2.9%	43
Average rate of 3.0%	46
Average rate of 3.1-5.9%	60
Average rate of 6.0%+	63
Scheme type (all contribution rates):	
Stakeholder schemes	20
GPPs	45
Occupational schemes (DB + DC)	68

Base: all employers with workplace pension provision (excluding contributions to personal pensions only).

Source: Bewley H and Forth J, 2010, "Employers' attitudes and likely reactions to the workplace pension reforms 2009: Report of a quantitative survey", Department for Work and Pensions Research Report No 683.

Table C.2.2.3: Use of scheme eligibility restrictions by firm size

							Column percentage
	1 to 4	5 to 49	50-249	250-499	500 or more	All	All
All employees in organisation (and no waiting period)	54	57	44	44	48	55	54
All with a minimum length of service only	29	34	45	40	43	33	33
All with a minimum length of service and other eligibility criteria	4	4	7	5	4	4	4
Some other eligibility criteria	11	3	4	11	5	7	8
Don't know/not stated	2	1	*	*	*	2	1
Unweighted base	*121*	*409*	*444*	*294*	*413*	*1,681*	*1,941*
Weighted base	*369*	*376*	*41*	*4*	*12*	*801*	*801*

Base: All providers with an open pension scheme.

Source: Grant C, Fitzpatrick A, Sinclair P and Donovan J, 2008, "Employers' attitudes and likely reactions to the workplace pension reforms 2007: Report of a quantitative survey", Department for Work and Pensions Research Report No 546.

Table C.2.2.4: Use of scheme eligibility restrictions by current contribution rates

					Column percentage
	3% or more	Less than 3%	All contributors	Non-contributors	All
All employees in organisation (and no waiting period)	47	55	48	62	55
All with a minimum length of service only	37	25	36	29	33
All with a minimum length of service and other eligibility criteria	5	17	6	3	4
Some other eligibility criteria	9	*	9	5	7
Don't know/not stated	2	2	2	2	2
Unweighted base	*1,079*	*78*	*1,193*	*488*	*1,681*
Weighted base	*365*	*30*	*429*	*372*	*801*

Base: All providers with an open pension scheme.

Source: Grant C, Fitzpatrick A, Sinclair P and Donovan J, 2008, "Employers' attitudes and likely reactions to the workplace pension reforms 2007: Report of a quantitative survey", Department for Work and Pensions Research Report No 546.

Table C.2.2.5: Methods for joining pension schemes

Joining mechanism	Employers *column percentage*	Proportion of the employer's eligible workforce that joined the scheme *cell percentage*
Automatic membership (not as part of contract)	2	[77]
Automatic membership (as part of contract)	4	79
Make a yes/no declaration	32	41
Sign a pre-completed form	7	45
Complete a detailed form	37	34
Something else	7	38
Don't know	11	48
All	100	**42**
Unweighted base	*1681*	
Weighted base	*801*	

Source: Grant C, Fitzpatrick A, Sinclair P and Donovan J, 2008, "Employers' attitudes and likely reactions to the workplace pension reforms 2007: Report of a quantitative survey", Department for Work and Pensions Research Report No 546.
Number in square brackets are percentages based on fewer than 50 observations.

C.2.3 Estimating administrative costs

The standard cost model methodology takes the regulations and breaks them down into the individual activities that an employer has to complete. The cost of each activity will depend on:

- The time taken to carry out the activity.
- The person carrying out the activity and their effective wage per hour, or the cost of outsourcing the activity to a specialist organisation; and
- The number of times the activity has to be completed.

The fundamental concept and unit of measurement is a normally efficient business. The costs exclude business as usual costs that an employer may already be incurring. The employer administrative costs take into account the range of new activities employers will need to perform to fulfil their legal obligations. These can be categorised into four high level groups.

Preparing for start-up:

- Investigating whether existing schemes meet the quality criteria.
- Decision makers meeting to discuss changes to business strategy due to the reforms.
- Making an arrangement with a pension scheme so that employees can be enrolled from the automatic enrolment date.
- Adapting or purchasing in-house or internal payment systems.

- Training staff to carry out the administrative processes; and
- Communicating with all employees about the firm's response to the reforms.

Registration:

- Receiving written confirmation from the Pensions Regulator about the firm's automatic enrolment date 12 and three months before that date.
- Registering for the PAYE service with the Government Gateway if payroll is outsourced.
- Registering with the Pensions Regulator each PAYE scheme, giving details of the pension scheme(s) used to comply with the duties; and
- Re-registering once every three years, verifying the details of the pension scheme(s) being used.

Enrolment:

- Providing information to existing members of qualifying schemes.
- Providing information to jobholders whose automatic enrolment is being postponed.
- Enrolling eligible jobholders, providing them with the required information and providing their details to the pension scheme.
- Dealing with opt outs and refunding any contributions deducted by the employer before the opt out form was received; and
- Providing information to jobholders not eligible for automatic enrolment and workers without qualifying earnings about their right to opt in to pensions saving.

Collection and administration:

- The calculation and collection of contributions from employees' pay with effect from day one.
- Payment of contributions to the pension scheme.
- Dealing with queries about deductions; and
- Processing requests to cease pension saving.

The estimates of costs for employers as a result of the reforms were the result of a cross-Government working group which refined the estimates of the cost impacts for employers presented in the December 2006 White Paper Personal Accounts: a new way to save. The working group comprised economists from the Department of Work and Pensions, the Enterprise Directorate at the Department for Business, Enterprise and Regulatory Reform (BERR), and the Better Regulation Executive.

The working group:

- Systematically reviewed all of the assumptions underlying the estimates.
- Incorporated evidence from the latest data sources including the Annual Survey of Hours and Earnings and evidence from a Department of Work and Pension's survey of employer attitudes and likely responses to reform; and

- Commissioned two new research projects on the costs to employers:
  - A series of focus groups with employers of different sizes to help validate our estimates of the cost of internally administering monthly contributions.[86] This research found the estimates to be broadly accurate and, if anything, slightly high; and
  - A small telephone-based survey to help establish the additional costs of administering monthly contributions to employers who currently outsource their payroll functions.[87]

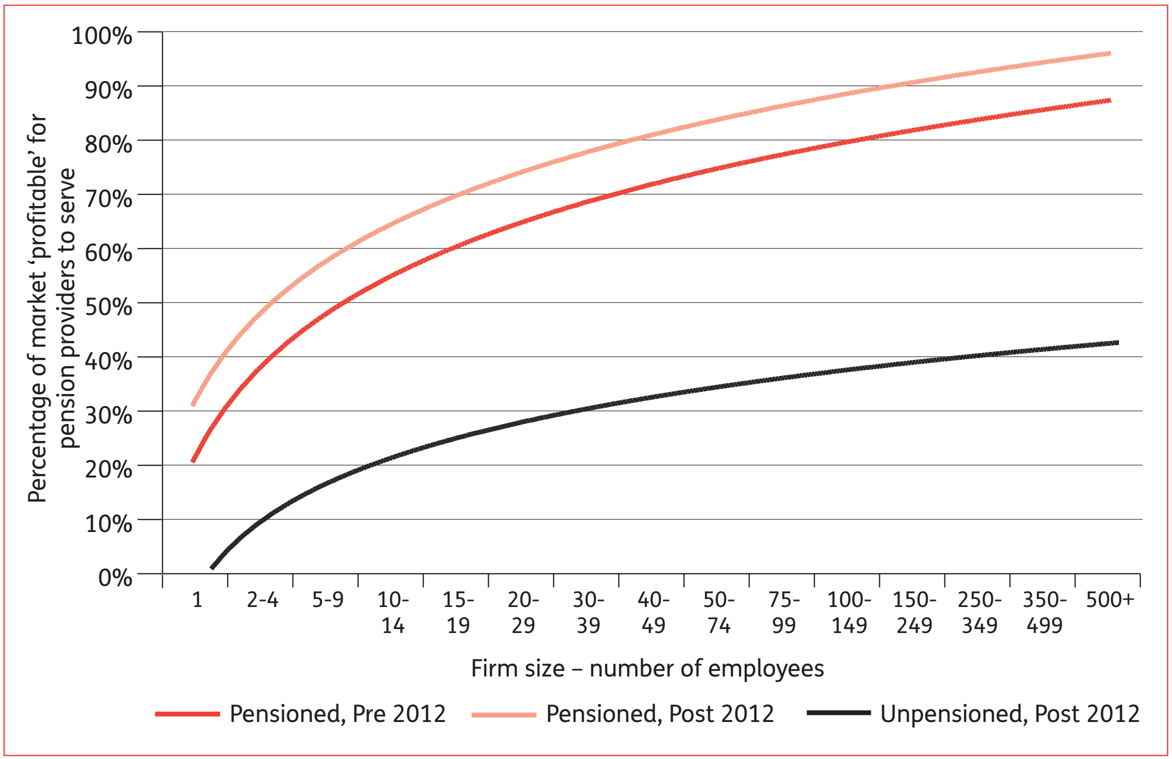
86 Stone A, Allison G, Braidford P, Houston M, (Durham University) 2007, "*Anticipated administrative burdens on businesses of proposed personal accounts arrangements*". Available at: http://www.berr.gov.uk/files/file42160.doc

87 Butters S, North D, Vickers I, Engelbert S, Macauley P, (Middlesex University Business School) 2007, *Enquiry for BERR and DWP on the predicted costs of additional payroll services to support personal account pensions*. Available at: http://www.berr.gov.uk/files/file42159.doc

C.3 Industry

C.3.1 How will automatic enrolment affect profitability in the market?

Chart C.3.1.1: Profitability of all firms before and after the introduction of automatic enrolment, assuming charges of 0.5 per cent AMC plus a three per cent contribution charge



Source: Department for Work and Pensions modelling.

C.3.2 Analysis of key factors determining how 'profitable' schemes are

Box C.3.2.1: Modelling profitability

In 2009 DWP commissioned external consultants, Charles River Associates, to develop a model of profitability in the workplace personal pensions market, with the intention of building on the Pension Commission's analysis.[88] By modelling both costs and revenues, the model assesses whether or not it is profitable for the private sector to offer a new pension to a particular type of firm. The model uses primary research with pension providers and is updated to reflect changes to policy and understanding of industry reactions.

The model begins by analysing pension provision in a cross-section of UK employers, based on the DWP's Employers Pension Provision survey. It introduces into this 'churn' analysis from the Office for National Statistics' (ONS's) Labour Force Survey, salary analysis from the ONS's Annual Survey of Hours and Earnings and charge rate and structure assumptions, participation rate assumptions and contribution rate assumptions from the DWP to predict:

- The cost of setting up new schemes to cover eligible employees.
- The volumes and persistency (relating to employee turnover, or 'churn') of contributions into each scheme; and therefore
- The present value of revenue streams to each scheme provider.

Based on the cost of provision to each employer and the revenues each employer is expected to generate for pension providers, a 'Net Present Value' statistic is calculated for each employer, evaluating whether or not over a given horizon a provider would be able to recover their costs at reasonable charge levels, and the magnitude of the difference between costs and revenues. This information is aggregated in our charts to give the proportion of employers in each size class on whom providers would be able to recover their costs, and so who might be expected to be offered provision in a well-functioning open market.

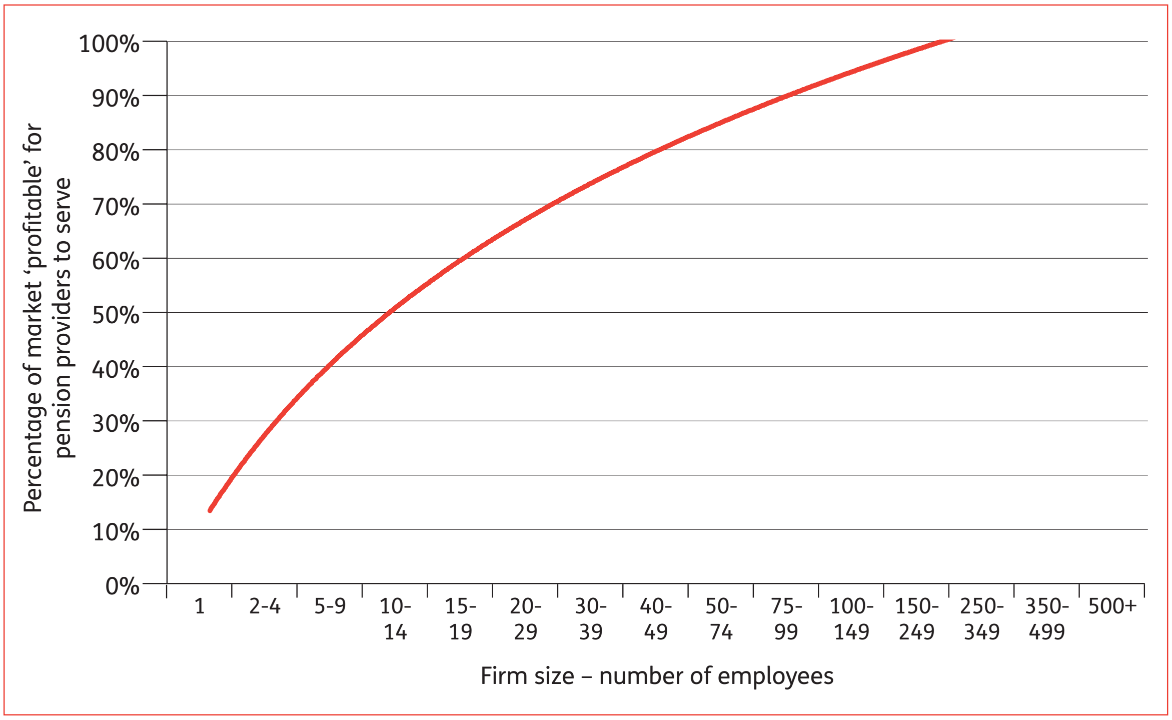
The model and its underpinning assumptions go through thorough quality assurance processes within DWP. To reflect the uncertainty surrounding the response of the pension industry to the reforms and the assumptions used in the model, scenarios are being developed to put ranges around the modelled results.

88 Malcolm K, Wilsdon T and Xie C, 2009, Workplace Pension Market Model, DWP working paper 74.

Employer size

Pension schemes will be profitable to providers when larger funds are accrued and maintained over longer periods. The number of members also matters; higher volumes not only increase total contributions but also spread the fixed costs of set up over more members. Thus employer size can be a proxy for membership, and potential profitability. Chart C.3.2.1 shows a very strong positive association between the number of employees in a company and the likelihood that a company scheme will be profitable. So around three quarters of employers who have 20-29 employees would be profitable at the Stakeholder Charge Cap, compared with only around two in ten employers who have two-four employees.

Chart C.3.2.1: Employer size and profitability, assuming charges at the Stakeholder Charge Cap and average take up of 70 per cent



Source: Department for Work and Pensions modelling.

In considering this analysis, it is worth bearing in mind the highly uneven distribution of employers and employees in the UK. Only around six per cent of employers have 20 or more employees. However, these companies employ just over 70 per cent of the working population, with 43 per cent of workers being employed by the very largest employers (with 500 or more employees).

Worker salaries

Chart C.3.2.2 shows a very strong relationship between average pay and profitability. Employers who offer an average salary below £16,000 are very rarely profitable to pension providers; around half those paying between £16,000 and £20,000 are profitable; the majority who pay more than this are profitable.

However, we must remember that this is an unusual way of breaking down the employer population, which cannot really give a sense of how profitable the market is overall. Most employers, and particularly large employers, will have employees across a range of salaries, and so companies with an average salary of over £50,000 (or even over £30,000) will be relatively rare.

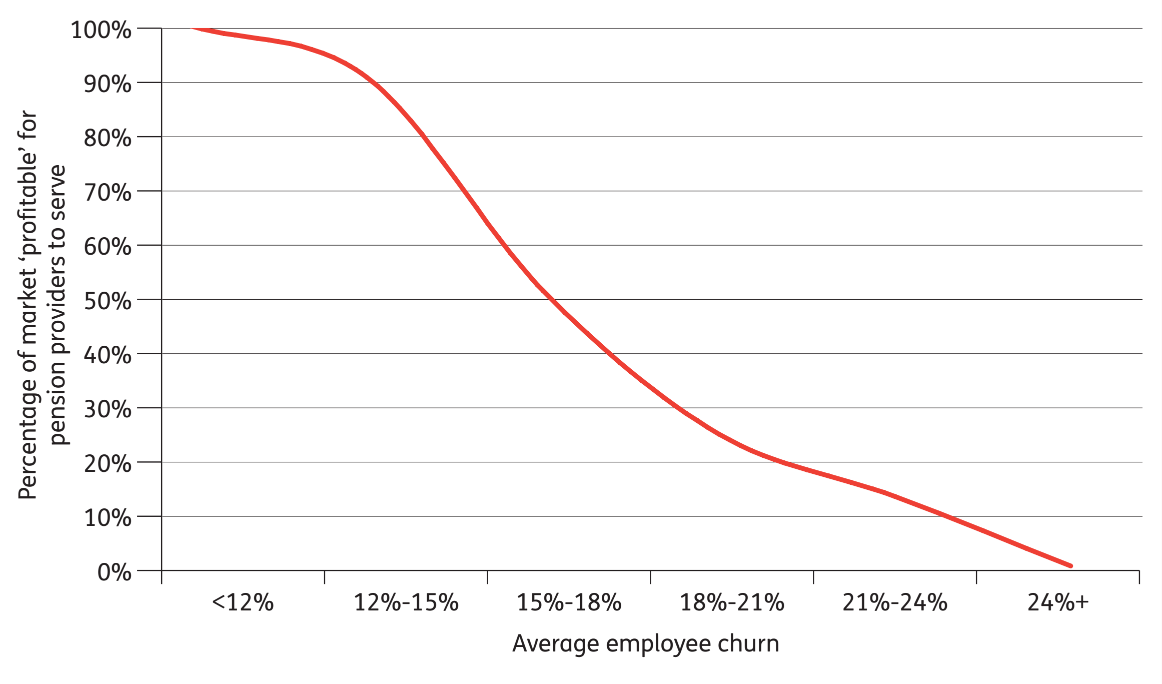
Chart C.3.2.2: Pay and profitability, assuming charges at the Stakeholder Charge Cap and participation of 70 per cent

Source: Department for Work and Pensions modelling.

Jobchurn

We have discussed the potential impact of member persistency on profitability. Members may cease being an active member of a pension scheme either because they stop making contributions into that scheme, or because they leave that employer. Whilst we do not have robust data on the former, Chart C.3.2.3 shows a clear relationship between job churn (in terms of the number of individuals leaving an employer per year) and profitability. Almost all employers with the lowest jobchurn are profitable, compared with less than ten per cent of the employers with the highest jobchurn.

Chart C.3.2.3: Job churn and profitability, assuming charges at the Stakeholder Charge Cap



Source: Department for Work and Pensions modelling.

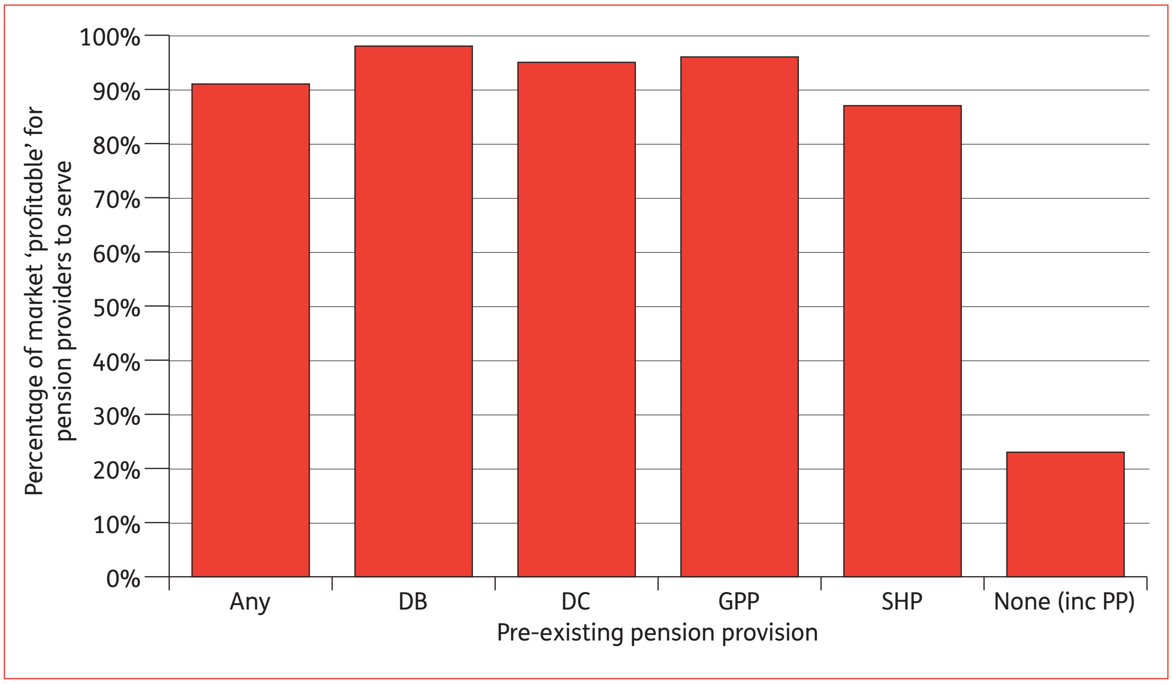
Sectors with low average salaries and a greater prevalence of seasonal and/or part time working (resulting in higher jobchurn), such as retailers and hotels and restaurants, are less likely to generate profits for pension providers than other sectors.

Current pension provision

Chart C.3.2.4 shows that around 90 per cent of employers who currently offer any kind of pension scheme to some of their employees will be profitable to pension providers post-reform under the stakeholder charge cap. Of those who offer a defined benefit or GPP scheme, almost all are profitable, compared with 23 per cent of those who offer no pension.

It seems likely that types of provision will correlate strongly with firm size, average salaries and inversely with staff turnover, and so that existing provision will be a marker for other features. This analysis also suggests that the workplace pensions market is currently functioning well in the economic sense: those employers on whom providers can recover costs are well covered; those on whom providers could expect to make a loss are generally not covered.

Chart C.3.2.4: Current provision and profitability, assuming charges at the Stakeholder Charge Cap

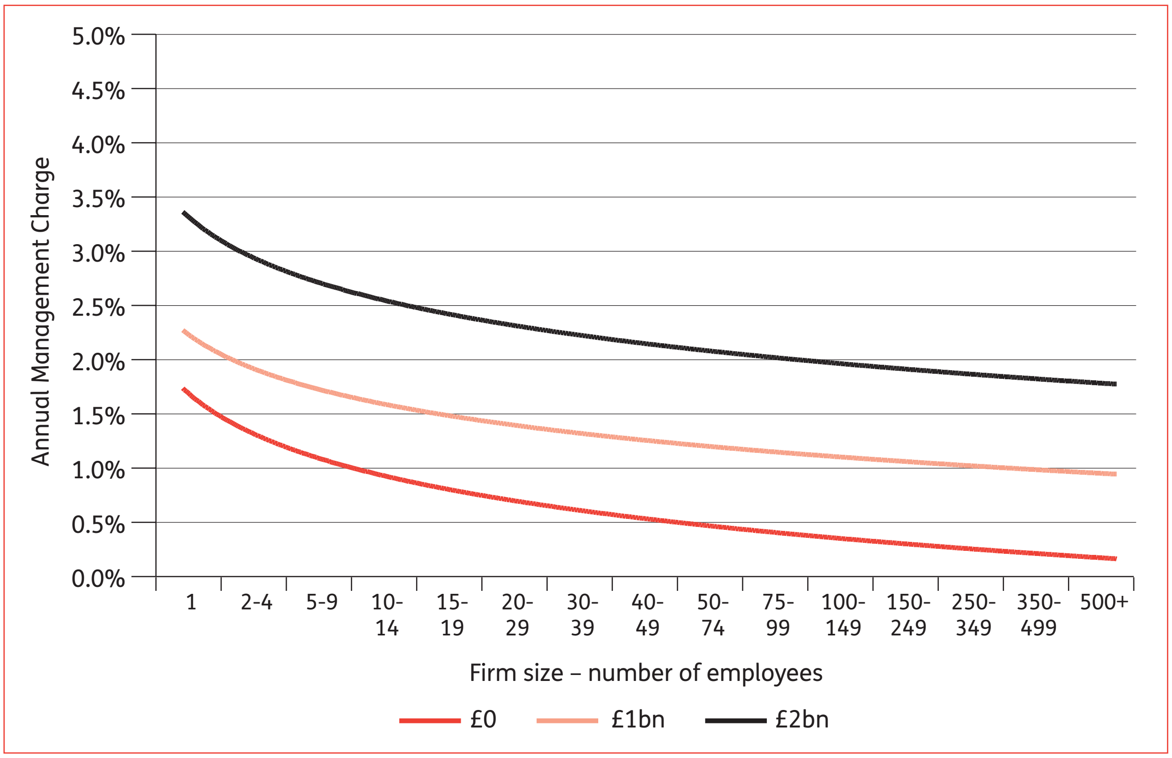


Source: Department for Work and Pensions modelling.

It is striking that the maximum profitability shown in each of these analyses varies quite substantially. This is likely to be a result of cutting the employer population up in different ways, which creates slightly odd distributions and masks other effects. Profitability will depend on a combination of factors, which may not be correlated within groups depending on how the data is cut, resulting in apparently low or high profitability across the whole population.

C.3.3 Free market response: Master-trusts

Chart C3.3.1: Impacts of pooling employers by size: AMC levels needed to generate £0 NPV, £1bn profit, or £2bn profit across pools



Source: Department for Work and Pensions modelling.

C.4 Target Group

C.4.1 The Earnings Threshold

To determine the impact on individuals, we need to understand the characteristics of eligible employees without a qualifying pension. This section provides further analysis of earnings of these individuals (the target group) by gender, ethnicity and disability status.

Gender

Overall there are more men than women in the target group. Women are more likely to have broken work histories due to economic inactivity, such as caring responsibilities. Individuals with longer, unbroken periods of pensions saving are more likely to yield better returns in later life than those who start saving later or who have broken pension provision.

Table C.4.1.1 shows gross earnings for the target group split by gender. 46 per cent of women in the target group earn less than £14,000, compared with 17 per cent of men.

Table C.4.1.1: Target group by earnings and gender

						Row percentage
	Individual gross earnings					
Gender	£5,715-£7,335	£7,336-£9,999	£10,000-£13,999	£14,000-£19,999	£20,000-£24,999	£25,000 and over
Male	2	4	11	27	19	37
Female	10	15	21	26	12	15
All	6	9	16	27	16	27

Source: Family Resources Survey, United Kingdom 2005-06, Department for Work and Pensions.

Ethnicity

Table C.4.1.2 shows gross earnings by ethnicity for the target group. 33 per cent of White individuals in the target group earn less than £14,000 compared with 34 per cent of those from non-White ethnic groups.

Table C.4.1.2: Target group by earnings and ethnic group

						Row percentage
	Individual gross earnings					
Ethnic Group	£5,715-£7,335	£7,336-£9,999	£10,000-£13,999	£14,000-£19,999	£20,000-£24,999	£25,000 and over
White	6	10	16	27	15	26
Mixed	5	10	13	27	18	27
Indian	6	7	18	24	18	27
Pakistani and Bangladeshi	9	13	26	24	12	16
Black or Black British	6	7	14	25	17	30
Other Ethnic Groups	6	9	19	20	14	33
All	6	9	16	26	15	26

Source: Family Resources Survey, United Kingdom 2003-04, 2004-05, 2005-06, Department for Work and Pensions.

Disability

Table C.4.1.3 shows gross earnings for the target group by disability status. Disabled employees are over represented amongst the lowest income bands: 39 per cent of the target group who are disabled have gross earnings of less than £14,000, compared with 29 per cent of the non-disabled. 12 per cent of the target group are disabled.

Table C.4.1.3: Target group by earnings and disability status

						Row percentage
	Individual gross earnings					
Disability status	**£5,715-£7,335**	**£7,336-£9,999**	**£10,000-£13,999**	**£14,000-£19,999**	**£20,000-£24,999**	**£25,000 and over**
Disabled	8	12	19	26	14	21
Not disabled	5	9	15	27	16	28
All	6	9	16	27	16	27

Source: Family Resources Survey, United Kingdom 2005-06, Department for Work and Pensions.

C.4.2 Impact of separating the enrolment threshold and the band on which contributions are calculated

It is important to consider the impact on individuals of **separating the enrolment threshold** (at £7,336, £10,000 or £14,000) and the **band on which contributions are calculated** (£5,715 to £38,185). The primary impact of this is that the individual will experience a ‘cliff edge’ of contributions when their earnings increase such that they are over the enrolment threshold. This is where they feel a strong relative effect on net pay from making pension contributions on earnings over £5,715, in some instances resulting in a small nominal loss of net pay. Employers will also experience this cliff edge, through mandatory employer pension contributions increasing the total remuneration given to the individual by £4, £11 or £21 a month if the threshold rises to £7,336, £10,000 or £14,000.

Chart C.4.2.1: Impact on Employees and Employers of Meeting £10,000 Eligibility Criteria

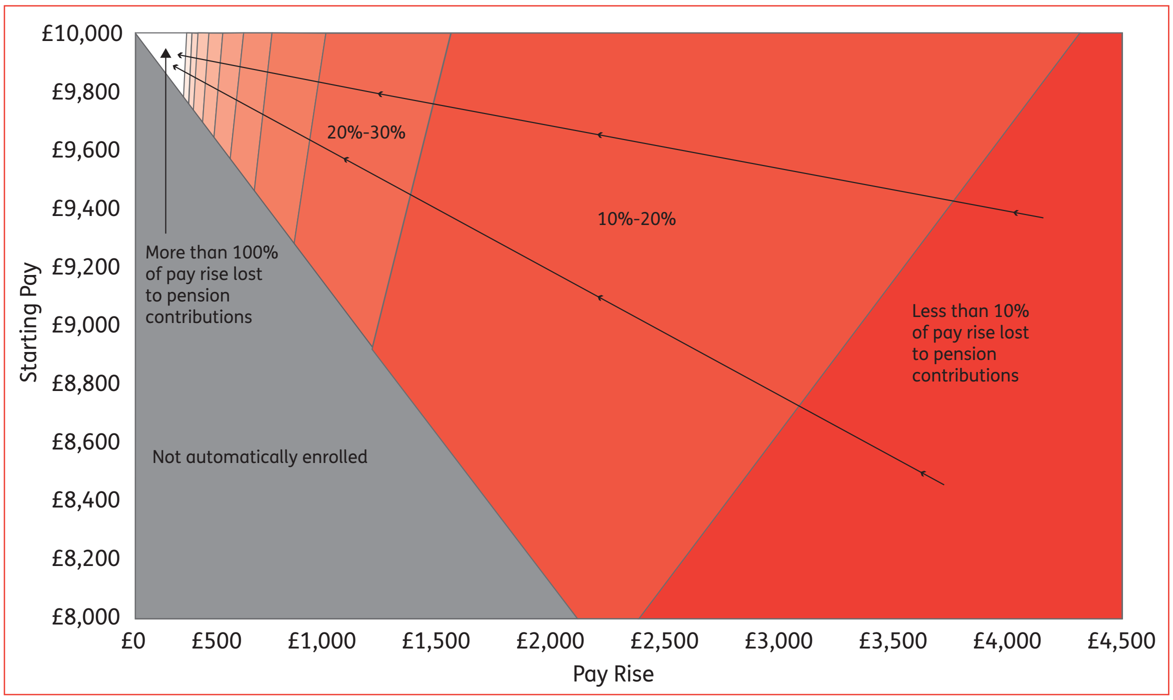
The main relevance of the cliff edge to individuals comes when they experience a pay rise taking their earnings over the enrolment threshold. When someone starts earning at least £7,336, £10,000 or £14,000 they could see a fall in their net pay of up to £5, £14 or £28 per month as they start paying pension contributions (four per cent on earnings above £5,715). This equates to a weekly net pay decrease of just £1, £3 or £6. (It should be noted that they would only see the full fall if they went from earning £10,000 to £10,001. Most people will have a smaller or no loss in net pay).

There is a risk that this counterintuitive reduction in take home pay at the time of a pay rise could increase the likelihood of individuals opting out of their scheme due to affordability. By looking at the proportion of any pay rise that would go towards pension contributions – the amount of the pay rise that the individual "loses" from their visible pay increase – it is clear that **few people could be perceived as being significantly adversely affected in this way**.

It is unlikely for an individual to experience a net pay decrease, where they contribute more into a pension than their pay rise was worth. In order for this to happen the individual would have had to have been earning between £9,750 and £10,000, and had a pay rise of less than £230. It is expected that employers will generally seek to avoid this position arising.

If an individual receives a pay rise of 10 per cent (which is approximately what you might expect to receive with a promotion) to take their earnings over £10,000, they would lose between 25 per cent and 30 per cent of their pay rise to pension contributions. When the pay rise is over more than 10 per cent the amount lost to pension contributions is minimal and the cliff edge becomes negligible.

Chart C.4.2.2 Deciles of Proportion of Gross Pay Rise Lost to Pension Contributions



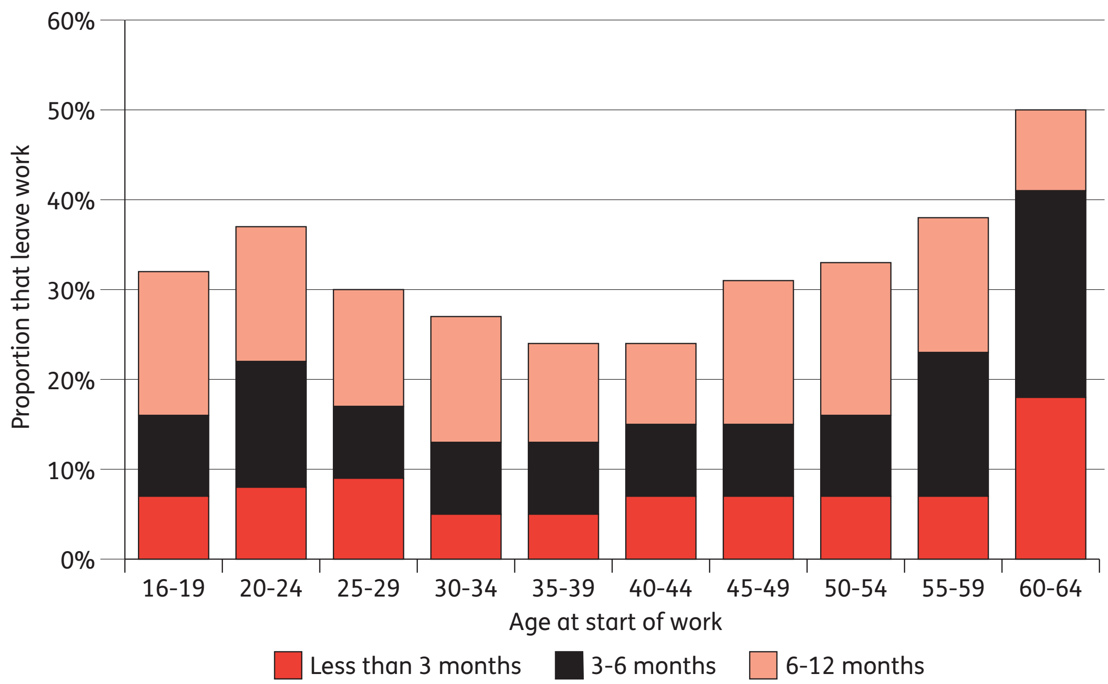
C.4.3 Introducing waiting periods prior to automatic enrolment

Employer churn analysis

The quarterly Labour Force Survey collects information on the length of the previous spell in employment for each respondent. From this, we can calculate how many spells in employment are less than three months, six months, and twelve months, and we can split this by age.

Chart C.4.3.1 shows the proportion of new starters leaving work before three months, six months, and 12 months by age. So, for example, nine per cent of those aged 20-24 who start working for a new employer will leave work before three months, compared to five per cent of those aged 30-34. Young people exhibit greater employer churn, whilst those starting a job aged 30-45 are likely to stay with that employer for longer. Far fewer people start a job aged 45 and over, but of those that do, they are more likely to leave their employer earlier than those in the below 45 age group.

Chart C.4.3.1: Proportion of new starters in each age group leaving work before three, six, and twelve months

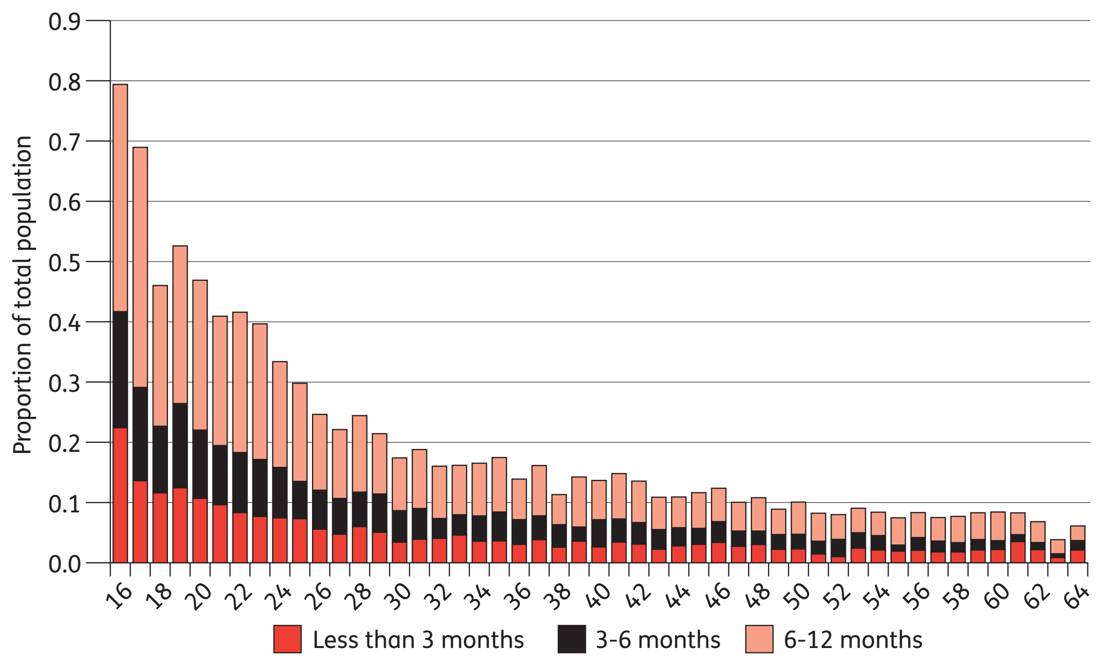


Source: Labour Force Survey, January-March 2008, Office for National Statistics.

Since the Labour Force Survey only gives information on the length of time in the previous job, first time jobholders will be excluded from the data. These jobholders will tend to be younger, and so they may be under represented in the analysis above.

Analysis using the Labour Force Survey supports the finding that *there is no identifiable age where the job churn rate significantly reduces* with a step change in the age of an individual. Chart C.4.3.2 shows the proportion of people in work for less than three months, six months and 12 months, out of the total employed population. The analysis shows how a waiting period would affect the population if implemented today. Far more younger employees have been in work for less than three and six months than older employees, and so a waiting period would have a disproportionate effect on younger employees.

Chart C.4.3.2 Proportion of people in current job for less than three months, six months, and twelve months, out of the total employed population



Source: Labour Force Survey, April-June 2007, Office for National Statistics.

C.4.4 Excluding smaller employers

Employer Transitions

Looking at the transition of employees across firm sizes, DWP analysis suggests that the majority of employees who work for smaller employers; one employee, 4 or fewer employees, and 19 or fewer employees **do not stay working for employers of the same size throughout their working lives**.

Analysis summarised in Table 5.4 show that the majority of employees working for smaller employers move into firms with more employees, and the overall proportion of employees who continue to work in the same size firm increased with firm size; employees who work for employers with only one employee were the least likely to stay working in the same size firm.[89]

89 The ONS cut the ASHE sample by 20 per cent in 2007 and 2008. This will have an adverse affect on the interpretation of longitudinal analysis, therefore these years have been excluded. The results are based on un-weighted data, and restricted to the main job. The results under-estimate the number of employees staying in smaller employers from one year to the next because the sampling frame slightly under-represented smaller firms, and because employer growth (workforce increasing from 4 to 5 employees) will be classified as a move between employers. Missing data due to an employee either leaving employment, or employer non-response will also lead to an under-estimate of the number of moves between employers over the 10 year period. The net effect is unknown. For this reason, great care should be taken when interpreting the results.

The analysis is based on individuals present in the survey for ten consecutive years, therefore it captures all moves. However, the restriction means sample sizes are relatively small and that the results should be treated with caution. Bearing this in mind, further analysis of this data shows that:

- *Working for an employer with one employee:* in any one year, around three per cent of employees who are eligible for automatic enrolment work for such an employer. DWP analysis suggests that 15 per cent of these employees continued to work for 10 consecutive years for an employer with one employee, whilst 85 per cent moved to larger employers at some stage in the ten year period
- *Working for an for an employer with four or fewer employees:* in any one year, around 13 per cent of employees who are eligible for automatic enrolment work for such an employer. DWP analysis suggests that 31 per cent of employees continue to work for 10 consecutive years for employers in this size band. Overall employees who worked for an employer with four or fewer employees in 1997 spent 4.1 years working for a larger employer at some stage in the ten year period
- *Working for an employer with 19 or fewer employees:* in any one year, around 32 per cent of employees who are eligible for automatic enrolment work for such an employer. DWP analysis suggests that, 51 per cent of employees continued to work for ten consecutive years for employers with 19 or fewer employers in this size band. Overall employees who worked for an employer with 19 or fewer employees in 1997 spent 2.7 years working for a larger employer at some stage over this ten year period

Overall, these results show that employees do not stay working for employers of the same size throughout their working lives. Excluding employees who are employed by smaller employers will therefore not exclude individuals permanently, but it is clear that the larger the employer, the larger the effect on potentially permanently excluding individuals from pensions saving.