



Office of Manpower
Economics

**Comparative Pension Valuation for Review Body
Remit Groups -
Report on results of comparative pension
valuation of pension benefits for illustrative
individuals**

Commissioned by:
Office of Manpower Economics

Undertaken by:
Towers Watson Limited

December 2014

This work was commissioned to provide information about the value to illustrative individuals of the pension benefits provided by current public sector pension schemes and by their successor schemes from April 2015. This is intended to provide context for the Pay Review Bodies' deliberations. The detailed results should not be regarded as providing a comprehensive assessment of the changing value of pensions but, rather, as indicative of the impact of changes on illustrative career paths.

The work described in this report was carried out under contract as part of OME's research programme. The views and judgements expressed in this report are therefore those of the contractor and do not necessarily reflect those of OME.



Office of Manpower Economics

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To: the Office of Manpower Economics

This Report sets out the results of our comparative valuation of pension benefits for illustrative individuals from the Review Body remit groups as requested by the Office of Manpower Economics (OME). Note that the AFPRB is excluded from this exercise as that Review Body separately commissions pension valuations on a regular basis for its remit groups.

This Report is based on the methodology and assumptions set out in our Report dated 22 December 2014, which was prepared by Towers Watson following discussion with the OME.

The information contained in this Report focuses on the valuation of the pension benefits provided to members of a remit group based on illustrative career paths and how these pension benefits have changed over time. It also sets out the value of pension benefits under comparator pension schemes based on the same career paths. In considering the results, users should note that:

- The values placed on the remit group pension benefits for individual career paths considered are sensitive to the assumed earnings profile over the career. The individual career paths analysed in this Report differ significantly across the various remit groups. Therefore, it is not valid to use the results set out in this Report to draw conclusions regarding the relative values of the different pension arrangements offered across different remit groups.
- The pension arrangements offered in the private sector and by other non-remit group comparators have been valued assuming that there would be no difference between the earnings profile for a particular career path within the remit groups and a comparator career path in the private sector or other non- remit group occupations. As such, the research is not intended to take into account how career paths and earnings profile might differ in comparator organisations or the impact of such differences on the value of pension benefits.

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Section 1: Introduction and Executive Summary

The purpose of the research

- 1.1 Over the last few years, there have been a number of changes to the pension benefits provided to members of the remit groups looked after by the public sector pay Review Bodies. Some of these changes have already taken place, while others are expected to take place in the next year or two. Significant changes include:
- The change from RPI to CPI indexation from April 2011
 - Increases in member contributions phased in progressively between 2012 and 2014
 - The reforms to the design of individual schemes, including the moves from final salary to career average style benefits from April 2015 and increases to retirement ages
 - The wider changes to contracting out from April 2016 which will affect the remit groups.
- 1.2 The purpose of this Report is to set out the results of analysis carried out by Towers Watson on the impact of these changes on the value of pension benefits to a range of illustrative individual members of the remit groups, considering three reference points:
- i. **Past:** A retrospective valuation at September 2010, pre-dating the April 2011 changes to indexation (from RPI to CPI), but after the introduction of the career average schemes for Civil Service new entrants.
 - ii. **Present:** A present valuation at September 2013, taking account of pension changes that have occurred up to that date.
 - iii. **Future:** A prospective valuation at April 2016 taking account of further pension changes that are currently known, including the implications of changes to contracting out of State benefits in April 2016.
- 1.3 There have also been and are expected to be significant changes to the pension benefits provided elsewhere in the public sector and in the private sector. Therefore, the research covered in this Report also considers the change in the relative value of the pension benefits available to members of the remit groups compared to the value of the pension benefits provided in other organisations.

Methodology and assumptions

- 1.4 The research has focused on the value of pension benefits provided to a selection of illustrative individuals with career paths and pay progression specified by the OME. The

methodology looks at both the net value of the benefits to the employees over their whole careers and over the next year of service at points across the careers.

- 1.5 The assumptions used in the research have been selected to be long-term, best-estimate assumptions and the same assumptions (with the exception of promotion / progression pay increases) have been used for all remit groups and comparators.
- 1.6 Section 2 of this Report provides a summary of the methodology and assumptions used to value the pension arrangements. Further details of the methodology and assumptions, including a full description of the career paths that were analysed are set out in our "Report on methodology and assumptions" dated 22 December 2014.
- 1.7 The Appendices of this Report summarise the pension benefits that have been valued for each of the remit groups. The pension values shown in this Report are based on gross pensions before allowing for income tax, the lifetime allowance charge or the annual allowance charge.

Setting the scene

- 1.8 Section 3 of this Report provides context for the current research by summarising the significant changes to pension provision that have taken place in both the public and private sector since 2000. Over this period there was a significant and consistent move in the private sector away from defined benefit schemes towards defined contribution schemes, particularly for new hires, and since 2010 for existing members as well. In the public sector, there were also changes over this period, especially for new hires, but the most significant change in terms of the impact on the expected value of the remit group pension benefits was the move from RPI to CPI indexation in April 2011.

Commentary on the results

- 1.9 The Appendices of this Report set out the values of the pension benefits for the specified career paths over the whole careers and, for the remit groups benefits, during each year of the careers considered. Section 4 of this Report provides a guide to interpreting the results of the valuation.
- 1.10 Key findings of the research are as follows:
 - The net value to the employee of their pension benefits varies significantly depending on their career path (including promotion/progression increases, age of entry, age of leaving, age of retirement and remit group) and the point they have reached on that career path at the reference point.
 - In general, the difference between the net value to the employee of the 2013 and 2010 benefits is greater than the difference between the 2016 and 2013 benefits. This reflects the combination of the change from RPI to CPI indexation in April 2011 and increasing member contributions which, in most cases, led to a significant reduction in the value of the remit group pension benefits between 2010 and 2013. The indexation

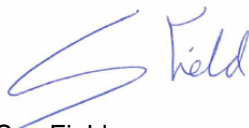
changes typically resulted in a reduction of around 15% in the value for employees who remain in service through to retirement (for example, for an individual with a net value of around 30% of salary, the indexation changes reduced the net value by around 4.5% of salary).

- In general, the changes to remit group pension benefits in 2015 and 2016 are projected to have a lesser impact than the changes between 2010 and 2013. For some career paths (especially where salary progression is slow), the difference between the net value to the employee of the 2016 benefits and 2013 benefits is minimal, or there is an increase rather than reduction in value as a result of the changes. This is because employees who experience slow salary progression tend to be favoured by the move to a career average style pension design. This is particularly noticeable where the revaluation applied to past earnings in a career average scheme is relatively high (e.g. the new Teachers and NHS schemes where revaluation is to be based on CPI plus 1.6% pa and 1.5% pa respectively). In contrast, employees who enjoy rapid salary progression are more likely to experience a reduction in net value as a result of the 2015 and 2016 changes. This is because final salary pension arrangements tend to favour employees with rapid salary growth especially in the years leading up to retirement.
- The changes in private sector benefits between 2010, 2013 and 2016 are less significant than the changes in the remit group pension benefits; on the basis of the methodology and assumptions adopted
- However, as noted in Section 3, there were very significant changes to private sector benefits over the preceding decade and in most cases there remains a material difference between the net value to the remit group member of their pension benefits and alternative pension benefits in the private sector – although the changes to public sector pension benefits since 2010 have narrowed the gap, it still remains.

1.11 Further commentary on the results is set out in Section 5 of this Report.

Sensitivity of the results to changes in the assumptions

- 1.12 Pension values are sensitive to the assumptions used. In Section 5 we comment on the sensitivity to the discount rate and salary increase assumption and illustrate the impact of changing the assumed male:female split. In summary, reducing the discount rate results in a significant increase in the net value placed on the pension benefits, but has less of an impact on the relative values. Changes to the earnings growth assumption have a smaller, but still material, impact than changes in the discount rate on the net value of the pension benefits, while changing the assumption regarding the male:female split has a much smaller impact.



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Limitations and reliances

We have prepared this Report under the terms of the Framework Agreement with the Office of Manpower Economics dated 1 April 2012. We have prepared it to provide guidance to the Office of Manpower Economics and the Review Bodies it supports on the comparative value, based on certain assumptions, of the pension benefits provided to illustrative members of the relevant remit groups relative to those provided elsewhere and how that valuation is changing over time. As such, it should not be used or relied upon by any other person for any other purpose. Towers Watson Limited does not accept any responsibility for any consequences arising from any third party relying on this report.

The investment and economic assumptions used in the comparative valuation have been derived by Towers Watson Limited through a blend of economic theory, analysis and the views of investment managers. They inevitably contain an element of subjective judgement. There is no guarantee that the assumptions made will be borne out in practice.

Section 2: Key principles of methodology and assumptions

- The calculations have been based on illustrative individuals with career paths and pay progression proposed by the OME
- The methodology looks at both the net value of the pension benefits to the employee over their whole career and over the next year of service at points across their career.
- The assumptions used have been selected to be long-term, best-estimate assumptions and the same assumptions (with the exception of promotion / progression pay increases) have been used for all remit groups and comparators.

- 2.1 In this Section we set out a high-level overview of the methodology and assumptions adopted for the research. Further details on the methodology and assumptions are set out in the “Report on methodology and assumptions” prepared by Towers Watson and dated 22 December 2014.
- 2.2 It is important that the limitations of the methodology and the sensitivities of the results to the approach and assumptions are recognised in considering how the results of this research might be used.
- 2.3 The approach adopted in this research is to focus on illustrative individuals in the relevant remit groups, in order to illustrate the variance that can arise in the value of pension benefits to members who have the same pension provision but different ages, career paths and earnings profiles.
- 2.4 The career paths used have been selected by OME and aim to strike a balance between covering as many types of career paths as possible with keeping the research to a manageable level.
- 2.5 No allowance has been made for pension benefits built up in other careers either before or after the relevant individual’s career in the remit group to avoid differing patterns obscuring the key messages arising from these results.

Pension benefits are valued net of member contributions

- 2.6 One of the key changes to the pension benefits available to the remit groups is the level of member contributions to the pension plans; in most cases these have increased and are expected to increase further in future; in many cases they vary by the member’s level of pay.

- 2.7 In order to reflect these changes and to focus on the value of the pension benefits provided by the employer, we have calculated net employee values after deducting employee contributions. No allowance has been made for the effect of taxation (income tax, lifetime allowance charges or annual allowance charges) on the value of the pension benefits (refer to paragraphs 5.22 to 5.34 for further information).

Methodology defined benefit schemes

- 2.8 We have set out in this Report the results using both the value of benefits building up over the next year of service (the projected unit method) and a whole career approach.
- 2.9 The projected unit method looks at the value of benefits to employees arising over the next year of service, **allowing for future pay increases** prior to retirement or earlier exit and expressed as a percentage of the salary received over the next year of service. This is a common approach used for pay comparison purposes as it offers consistency with other items of remuneration which are commonly considered on an annualised basis.
- 2.10 In addition we present the results of looking at the aggregated position over an individual's past and future on a given career path, using a whole career approach. This looks at the value of benefits arising over the whole of an individual's career, both benefits built up in the past and expected to be built up in the future, **allowing for future pay increases** prior to retirement or earlier exit. The value is expressed as a percentage of the value of the individual's total salary over that career; the salary received to date and the salary expected to be received in the future.

Methodology for valuing defined contribution schemes

- 2.11 In order to provide a consistent value of the benefits to an employee from defined contribution arrangements to the net employee value for defined benefit arrangements, our approach has been to adjust the employer element of the contribution payable to broadly reflect the cost of purchasing an annuity at retirement for the retrospective valuations at September 2010 and September 2013. As the 2014 budget provides greater flexibility for defined contribution members to access their benefits thereby somewhat shifting the focus away from annuities, this adjustment has not been made when looking at how the value of pension arrangements might have changed by April 2016. For ease of comparison and to avoid making undue assumptions which potentially distort the results we have assumed that the investment return (net of expenses) on employer contributions is, on average over a career, the same as our long-term discount rate for valuing defined benefit schemes.

Valuations at different reference dates

- 2.12 The comparative valuation considers not only current pension benefit designs (using September 2013 as a reference point), but also the benefit designs that existed in 2010 (using September 2010 as a reference point) and the pension benefits that are anticipated to apply in the future (using April 2016 as a reference point). In the latter case we have allowed for the changes to public sector schemes expected to come in from April 2015, including the

general moves from final salary to career average and to older retirement ages, as well as the contracting out changes to all defined benefit schemes from April 2016.

Assumptions

- 2.13 The value of a defined benefit pension for an individual depends not only on the pension scheme benefit rules and current salary, but also on other factors, unknown in advance, including how the individual's salary will increase in the future, how long the member will remain in service and how long the member will live in retirement. The value also depends on how we place a value on payments to be received at a point in the future (i.e. what "discount rate" is used).
- 2.14 Therefore, in carrying out the comparative valuation it is necessary to make a number of financial assumptions (e.g. future levels of inflationary salary growth) and demographic assumptions (e.g. future mortality rates).
- 2.15 In setting the assumptions for the comparative valuation, a key principle was consistency. We have used the same assumptions to value all the remit group schemes and the comparator schemes. The differences between the valuations therefore only relate to the differences in pension benefits and differences in career paths (length of service, date of leaving/retirement and promotion / progression pay scales).
- 2.16 By using identical assumptions wherever possible, differences in the value placed on the remit group pension scheme and comparator schemes for a given career path can be directly attributed to differences in current age and pension benefit design rather than a combination of other factors which may or may not be relevant for any given individual.
- 2.17 Following the principle of consistency we have used the same assumptions at the three reference dates. These assumptions have been set to be long term, so that they are not unduly influenced by market conditions, and the results distorted by differences in conditions at the different dates.
- 2.18 The assumptions adopted have been set to be a long-term best estimate of the expected future experience (in particular, they have not incorporated any margins of prudence that might be adopted for funding purposes).

Financial assumptions

- 2.19 The financial assumptions that we have used based on our proposed principles (long-term, best-estimate assumptions that are consistent across comparator schemes) are summarised in Table 2.1 below both in nominal terms and 'real' terms (i.e. relative to CPI price inflation).

Table 2.1 Summary of financial assumptions

Assumption	Nominal (% pa)	Real relative to CPI (% pa)
CPI price inflation	2% pa	-
RPI price inflation	3% pa	1% pa
General salary increases	3% pa	1% pa
Promotion / progression pay increases	Based on current pay scales for the relevant career paths	
Discount rate	5% pa	3% pa

- 2.20 The most significant assumption is the discount rate, which is the investment return assumption used to discount the expected future benefit payments. There are a number of possible approaches to setting this assumption (as discussed in Appendix D of our “Report on methodology and assumptions” dated 22 December 2014).
- 2.21 We have adopted the discount rate of 3% pa above CPI which is the rate currently used by the Government to assess pension costs for unfunded schemes. We believe that this assumption offers a reasonable measure of cost in relation to the remit group schemes (which are funded out of Government revenues over time) and it is not dependent on making additional subjective assumptions regarding the possible investment strategy that might be followed in a funded defined benefit arrangement (which could vary substantially from scheme to scheme) or making additional subjective assumptions around the investment strategy an individual might choose in a defined contribution arrangement (which, again could vary substantially from individual to individual). We set out in this Report the sensitivity of the results to a 1% pa reduction in this assumption.
- 2.22 In addition to promotion / progression pay increases (which are part of the career paths), inflationary pay increases are an important assumption, not least when looking at the impact of switching from final salary to career average pensions. Over the short to medium term, the outlook for earnings growth remains low, both in the public sector and the economy as a whole. However, looking to the longer term, earnings growth is forecast to increase back towards more historic levels. Based on this, we have adopted a long-term assumption for inflation pay increases of 1% pa above CPI. We set out in this Report the sensitivity of the results to a 1% pa reduction in this assumption.

Demographic assumptions

- 2.23 The demographic assumptions adopted are discussed in Appendix E of our “Report on methodology and assumptions” dated 22 December 2014 and are summarised in Table 2.2 below.

Table 2.2 Summary of demographic assumptions

Assumption	Recommendation
Post-retirement mortality	SAPS S2 all pensioner (amounts weighted) male and female tables, with allowance for future improvements based on the CMI model (2013, long-term trend of 1.25% pa)
Male:female ratio *	50:50
Assumed age of retirement	As specified for each career path
Assumed age of leaving service	As specified for each career path
Proportion of members with an eligible dependant at retirement	80%
Age difference (husband-wives)	3 years
Allowance for commutation	<p>For defined benefits schemes, 25% of pension commuted where no separate lump sum accrued.</p> <p>For private sector comparator schemes, the commutation terms are assumed to be cost-neutral unless fixed factors are specified and available. For remit group schemes the current commutation terms have been used.</p> <p>For defined contribution schemes, 25% of fund is taken as cash at retirement</p>

*This ratio will vary significantly from one remit group to another. However, as we will set out in this Report, the overall results are not especially sensitive to this assumption.

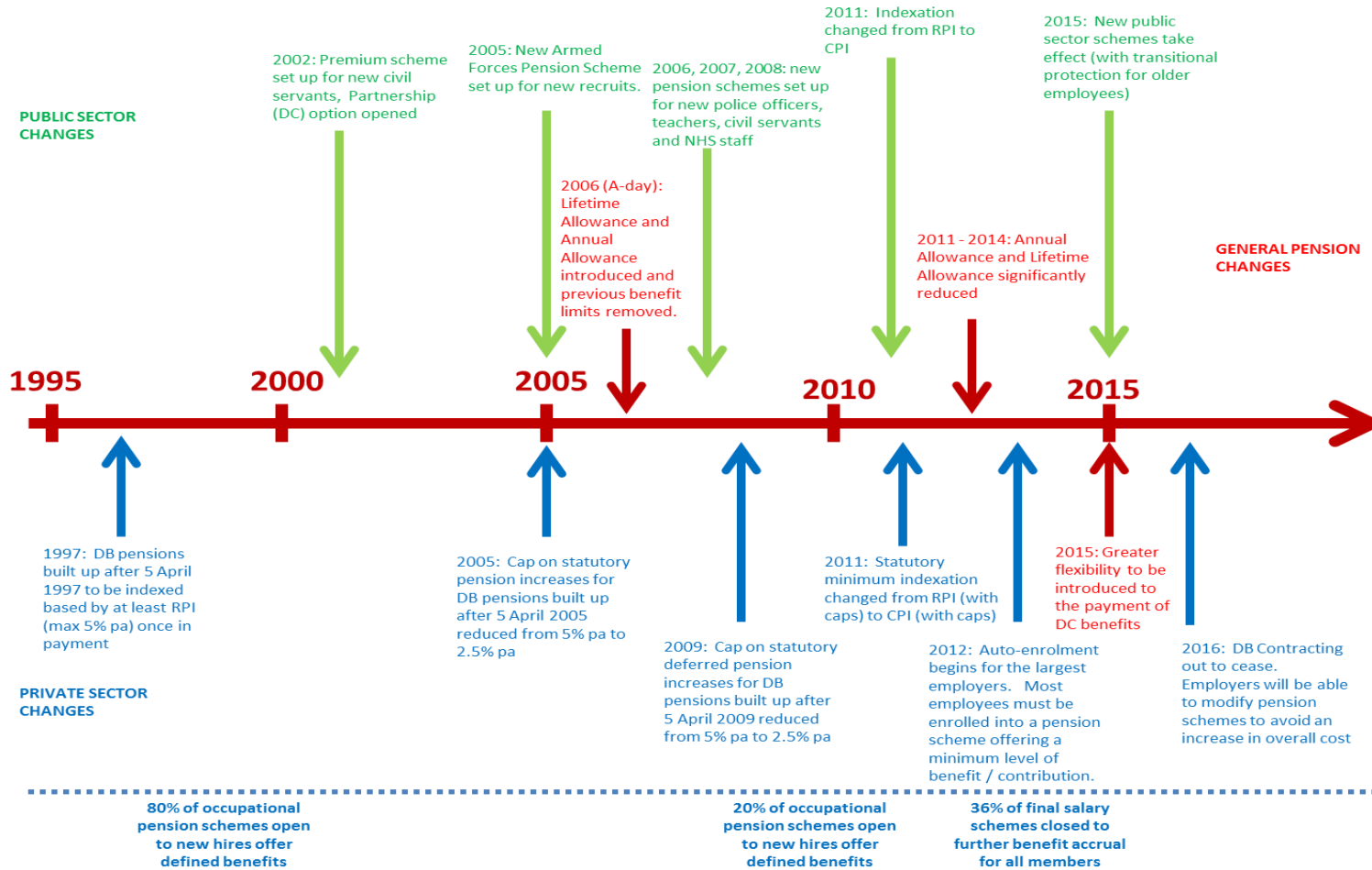
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Section 3: Setting the scene for the valuation – pension changes in the private and public sector since 2000

- Between 2000 and 2010 there was a significant and consistent move in the private sector away from defined benefit schemes to defined contribution schemes, particularly for new hires, as well as a reduction in the level of defined benefit provision.
- Since 2010, there has been a continued move in the private sector away from defined benefit provision towards defined contribution provision, particularly for existing scheme members.
- The flexibility in the defined contribution environment assumed in the March 2014 Budget may make it more attractive in future.
- There have also been changes to pension benefits in the public sector over the period prior to 2010, especially for new hires.
- Changes to the taxation of pension benefits in recent years are most likely to lead to an increased tax burden for high earners but may also impact others, especially longer-serving employees and those receiving large pay rises on promotion.

- 3.1 The results presented in Section 5 and the appendices to this report consider the impact of changes to pension benefits in the public and private sector since 2010.
- 3.2 The changes since 2010, particularly in relation to the indexation of pension benefits, have led to a significant reduction in the value of pension benefits provided in the public sector.
- 3.3 The changes in the value of pension benefits provided by the private sector comparators since 2010 are, in general, less significant. However, these changes should be put in the context of the very material changes that occurred to private sector pension provision, particularly in relation to new hire pension benefits, over the preceding decade.
- 3.4 The timeline on the next page highlights some of the main changes that have occurred to pension benefits in the public sector and the private sector over recent years. Further details and comments are set out on the following pages.

Pension changes in the private and public sectors

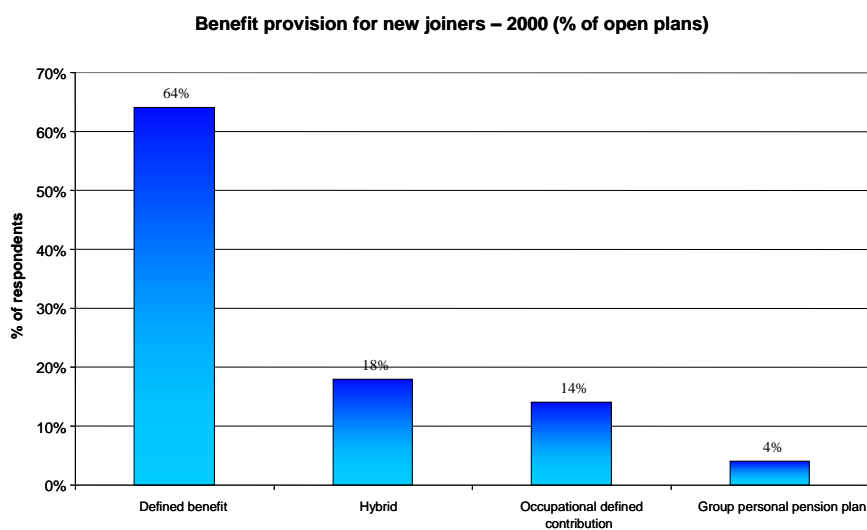


Changes to private sector pensions since 2000

3.5 Historically, defined benefit final salary arrangements formed the primary basis of occupational pension provision in the private sector. As an example, Chart 3.1 shows that even as recently as 2000, the majority of employers provided new hires with final salary defined benefits. The Government Actuary Department's Occupational Pension Schemes Survey in 2000 reported that of the 5.7 million private sector active employees in occupational pension plans, some 4.6 million were members of defined benefit arrangements.

Chart 3.1: Pension benefit provision for new hires in 2000 (private sector)

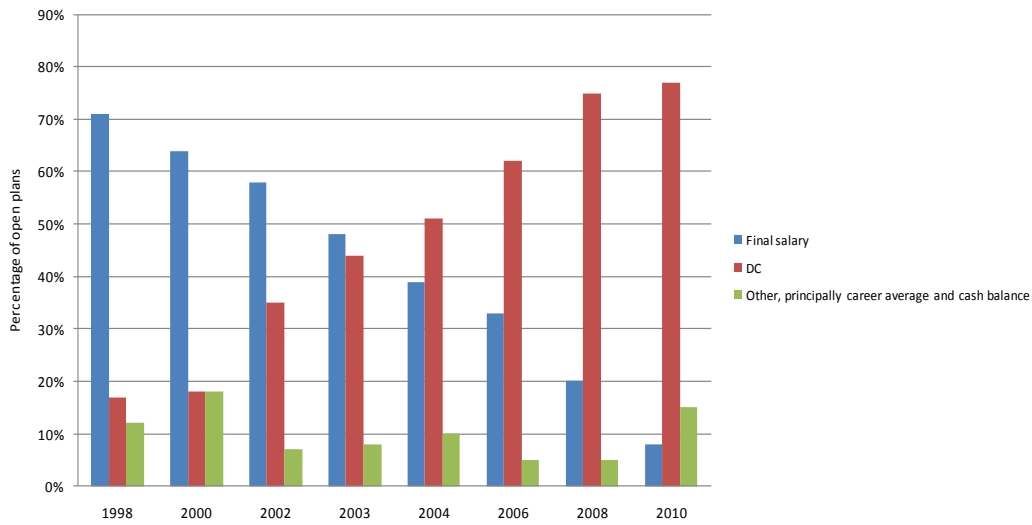
Watson Wyatt 2000 pension plan design survey



3.6 Over the decade that followed, there was a significant and consistent move in the private sector towards defined contribution schemes for new hires as illustrated by Chart 3.2 below which shows that by 2010 (the first reference date for the comparative valuation), fewer than 10% of employers in the private sector offered new hires the opportunity to join a final salary scheme. This change was driven by the perceived increased cost and risk to employers of providing defined benefit pensions, reflecting a combination of regulatory changes, increasing life expectancy and volatile economic conditions.

Chart 3.2: Trends in the type of pension scheme open to new hires (private sector)

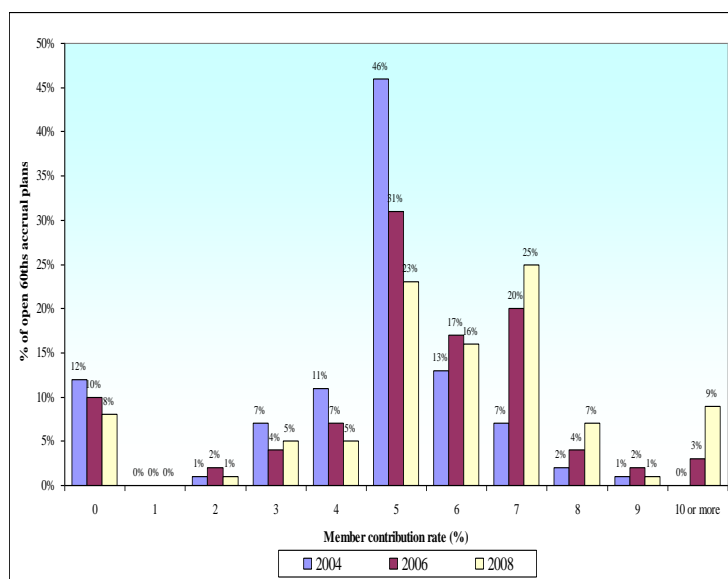
Towers Watson 2010 design survey



3.7 There were also many examples of changes made to defined benefit schemes in the private sector between 2000 and 2010 to reduce the value of pension benefits provided to members. For example, over the decade average member contribution rates and scheme retirement ages were increased (chart 3.3 illustrates the upward trend in member contributions between 2004 and 2008).

Chart 3.3: Trends in member contribution rates (schemes offering pension accrual of 1/60th of final salary each year)

Watson Wyatt 2006 pension plan design survey



- 3.8 Changes to the statutory regulations around the minimum indexation of pension benefits also served to reduce the value of pension benefits building up for many employees in the private sector. (The actual reduction in value resulting from these changes varied significantly from scheme to scheme depending on the individual scheme rules. For example, for some schemes, the rules specifically refer to RPI indexation meaning that the changes to the minimum requirements did not affect the value of pension benefits.)
- For pension benefits built up after 5 April 2005, the indexation requirements for pensions in payment were changed from being based on RPI with a maximum of 5% pa to be RPI with a maximum of 2.5% pa
 - For pension benefits built up after 5 April 2009, the indexation requirements for deferred pensions were changed from being based on RPI with a maximum of 5% pa to be RPI with a maximum of 2.5%
 - The reference point for statutory indexation was changed from RPI to CPI in 2011.
- 3.9 More recently, there have been some high profile examples of private sector schemes placing a cap on increases to pensionable salary. Some examples include GSK and RBS (2% pa cap on increases) and Marks & Spencer and ITV (1% pa cap on increases). However, more commonly, we are now seeing the “full closure” of defined benefit schemes to all members, rather than changes to specific aspects of the defined benefit design.
- 3.10 When a “full closure” occurs, existing employees stop building up further pension benefits in the defined benefit scheme, with new pension benefits provided through a defined contribution arrangement. To illustrate this trend, the 2009 ACA survey showed that 18% of final salary schemes were closed to further accrual. By 2013, this had increased to 36% of final salary schemes.
- 3.11 Meanwhile, typical employer contributions to defined contribution schemes have increased slightly over the past decade. For example, average maximum employer contributions to defined contribution schemes among FTSE 100 employers increased from just under 8% of salary in 2004 to around 10% of salary now (Towers Watson FTSE 100 defined contribution surveys).
- 3.12 In part, the apparent improvement in defined contribution schemes is linked to the closure of defined benefit schemes. Many employers have taken the opportunity to improve the defined contribution offering in order to partly soften the blow of the closure of the defined benefit scheme. Auto-enrolment is also playing an important part in the expansion of pension coverage in the private sector, particularly for smaller and medium sized enterprises; although in some cases this has led to a reduction in the level of contributions to defined contribution schemes as some employers level down to the auto-enrolment minimum level. On balance, given that there are reasons for contributions to increase or decrease in future, we have assumed in our analysis that on average employer contributions remain at the current rate.
- 3.13 However, defined contribution scheme members who have retired in recent years have faced high annuity rates, which have reduced the pension benefits put into payment. The 2014 budget announced changes to allow defined contribution members greater flexibility in the

ways that pension benefits are paid to them in the future, including the option of taking all pension as a lump sum payment, thereby somewhat reducing in the future the dependency on annuity pricing.

Changes to public sector pensions since 2000

- 3.14 Between 2000 and 2010, there were a number of changes made to the public sector pension arrangements available to new hires. These changes included the establishment of new pension arrangements for new hires for a number of the remit groups:

Remit group	Date of change	New scheme	Key changes
Prison service and Senior Civil Service	2002	Premium Pension Scheme	Increase in member contributions, accrual rate changed
Prison service and Senior Civil Service	2002	Partnership Pension Scheme (for new entrants)	Defined contribution scheme
Senior Military	2005	Armed Forces Pension Scheme 2005 (for new entrants, option to transfer for existing members)	Accrual rate changed, early leaving benefits changed
Police	2006	New Police Pension Scheme (for new entrants)	Accrual rate changed, retirement age increased, change in member contributions
Prison service and Senior Civil Service	2007	Nuvos Pension Scheme (for new entrants)	Career average scheme, increase in retirement age
Teachers	2007	Benefits changed for new entrants	Increase in retirement age, accrual rate changed
Doctors and Dentists and NHS Very Senior Managers	2008	New NHS Pension Scheme for new entrants	Retirement age increased, Increase in member contributions (applied to old scheme also), accrual rate changed

- 3.15 The new schemes typically featured higher retirement ages and changed accrual arrangements. However, overall the impact of the changes in the public sector between 2000 and 2010 were not as dramatic as in the private sector where the move towards less generous defined contribution schemes dramatically reduced the typical value of pension benefits.
- 3.16 The changes to public sector schemes since 2010 have had a more reaching impact on the value of public sector pension benefits, particularly with the change in indexation from RPI to CPI which significantly reduced the value of pension benefits. The impact of these changes are analysed in more detail in Section 5.

Changes to the taxation of pension benefits

- 3.17 Recent years have also seen significant changes to the taxation of pension benefits, which affects the net value of pension benefits available to individuals.
- 3.18 Prior to April 2006, the pension benefits payable from approved pension schemes were restricted to certain limits depending on the salary and length of service of an employee.

- 3.19 With effect from 5 April 2006, these limits were removed and replaced with a Lifetime Allowance and an Annual Allowance. The Lifetime Allowance is the maximum amount of pension saving that an individual can build up over his or her life that benefit from tax relief. Pension savings that are paid out above the Lifetime Allowance are subject to an excess tax charge. The Annual Allowance is the maximum amount of pension saving that an individual can build up over a year. Pension benefits building up above the Annual Allowance are subject to an Annual Allowance charge. (Note that the Judiciary pension schemes were not registered for the purposes of the Finance Act 2004. As a result, in net terms Judges benefited by not being subject to the Lifetime Allowance or Annual Allowance charges. However, the new Judicial pension scheme from 2015 will be registered and subject to these charges.)
- 3.20 The Lifetime Allowance was initially set at £1.5 million and gradually increased to £1.8 million by April 2010. Similarly, the Annual Allowance was initially set at £215,000 and gradually increased to £255,000 by April 2010.
- 3.21 However, both the Lifetime Allowance and Annual Allowance have been significantly reduced in recent years. For example, for the 2014/15 tax year the Lifetime Allowance is £1.25 million and the Annual Allowance is £40,000. As a result, these charges now adversely affect the pension benefits of a far greater number of individuals.
- 3.22 In the private sector, the reductions to the Lifetime Allowance and Annual Allowance have meant that many companies now offer employees an option to take cash-in-lieu of pension. We understand that such options are generally not available to employees in the public sector. The potential impact of the Lifetime Allowance and Annual Allowance charges on individuals are discussed further in Section 5.

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Section 4: Guide to interpreting the results

- 4.1 In the Appendices we set out the results of our calculations on the methodology and assumptions described in Section 2. Commentary on the results is set out in the Appendices and also in Section 5.
- 4.2 The information below out below is intended to help users with the interpretation of the results.
- 4.3 The results are first set out in the form of a table headed ‘Value of pension benefits accruing over the entire career (% of pensionable salary over career)’. This shows the results on the whole career approach described in paragraph 2.10.

Table 4.1 Example

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

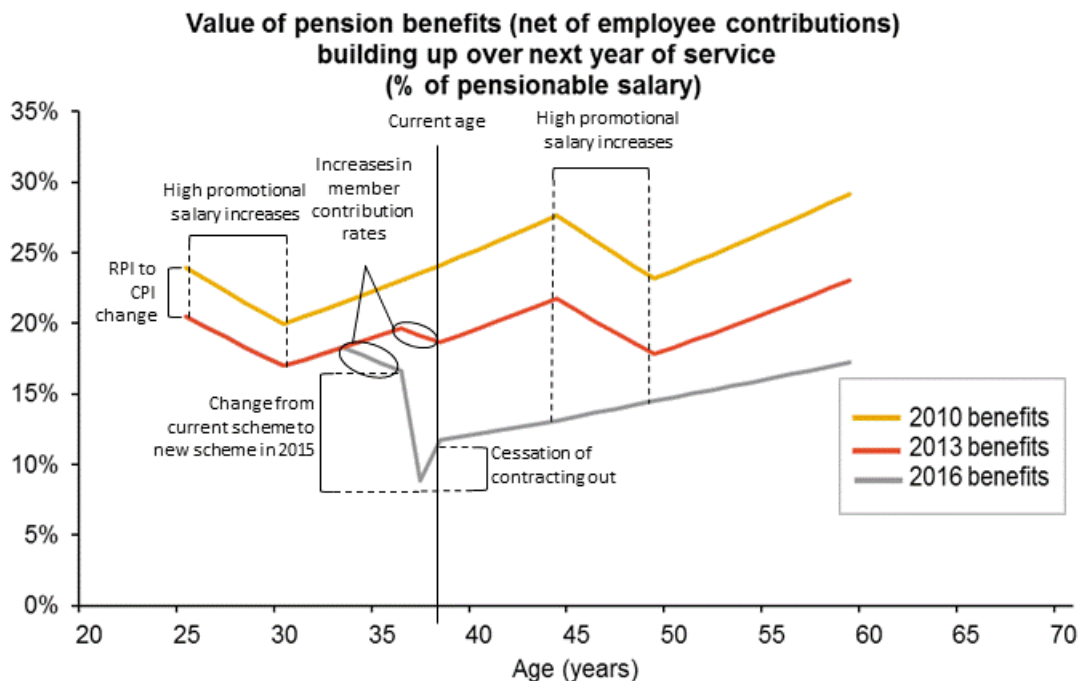
Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	40%	30%	20%
<i>Comparators - value of typical private sector arrangements</i>			
Typical DB Scheme	45%	40%	40%
Typical DC Scheme	12%	12%	15%
Representative mid-level scheme	30%	20%	18%

- 4.4 The percentages shown in the table are the present net value, at the individual’s current age, of the pension arising over the whole of the individual’s career (refer to Appendix A of our “Report on methodology and assumptions” dated 22 December 2014 for an explanation of the calculation of present net values). The whole of career figures include both pension built up in the past and expected to be built up in the future, allowing for future pay increases prior to retirement or earlier exit. This present net value is expressed as a percentage of the value of the individual’s total salary over that career; the salary received to date and the salary expected to be received in the future.
- 4.5 In addition to the net value of the remit group benefits, the table also shows what the net value of pension benefits over the individual’s entire career would be if the pension scheme benefit design were instead to be identical to a “typical” defined benefit (DB) or a “typical” defined contribution (DC) scheme in the private sector. Further details of the “typical” scheme benefits are set out in Section 5 of our “Report on methodology and assumptions” dated 22 December 2014. The comparator scheme values shown in the table assume that, with the exception of the pension benefits offered, the individual’s career path is identical in all respects to that assumed to apply in the remit group.
- 4.6 Different net values are shown for the comparator schemes for different individuals, both across and within remit groups. The different net values reflect differences in the underlying

remit group career paths for each individual. Some differences also arise for individuals at the executive level where the “typical” private sector comparator schemes are assumed to be more generous than at the non-executive level.

- 4.7 The “Representative mid-level scheme” is an illustrative combined private sector comparator value, based on an assumed percentage split in the private sector between defined benefit and defined contribution schemes taking into account length of service (refer to Section 5 of our “Report on methodology and assumptions” dated 22 December 2014 for more details). A growing proportion of defined benefit schemes have closed to new benefit accrual in recent years. Therefore, the split used to calculate the “Representative mid-level scheme” moves gradually closer towards the “Typical DC Scheme” value at the later reference dates.
- 4.8 Secondly, the results are set out in the form of a chart headed ‘Value of pension benefits building up over next year of service (% of pensionable salary)’. This looks at the value of benefits in a different way, as described in paragraph 2.9. The chart shows at each point of the individual’s career, the net value of pension building up over the next year, allowing for future pay increases prior to retirement or earlier exit and expressed as a percentage of the salary received, or projected to be received, over the next year. The percentages shown in the chart are therefore different to the percentages shown in the table (the whole of career figures shown in the table are an average, weighted by the present value of projected salaries received each year, of the one year values shown at each age on the chart). For older members, closer to the end of their career, the present net value shown in the table will be more weighted towards their salaries and pension while they were in the pension scheme on 2010 benefits.
- 4.9 An example chart and explanatory notes are set out on the following pages.

Chart 4.1: Example

**Notes on Chart 4.1:**

- Current age:** This is the current age assumed for the typical member illustrated. So that the comparison is directly comparable between different benefit structures, rather than distorted by changes in net value as a result of changing age, the current age is fixed for each benefits line. That is, if the current age is 38, say, in 2010 for the 2010 benefits line, it is also 38 (not 41) in 2013 for the 2013 benefits line and 38 (not 44) in 2016 for the 2016 benefits line.
- RPI to CPI change:** The gap at each age between the 2010 and 2013 benefits lines shows the difference between the net value of the pension benefits at that age allowing for RPI pension increases (the approach applicable in 2010) compared to allowing for CPI pension increases (the approach applicable in 2013 and 2016) at the assumed future rates of RPI and CPI (as described in paragraph 2.19). This change affects the value of pension benefits already built up and the value of pension benefits that will be built up in the future.
- Promotion / progression pay increases:** In a final salary scheme, the value of pension benefits is based on the assumed salary when the individual is assumed to retire or leave. Therefore, a higher expected future salary results in a higher value being placed on a pension benefit now. At the same time, pension payments in the future are “discounted back” to a present value to allow for the time value of money – the higher the discounting, the lower the present value placed on a pension benefit (refer to Appendix A of our “Report on methodology and assumptions” dated 22 December 2014 for an explanation of discounting).
- If the individual's salary was constant throughout their career, or only increased in line with assumed salary inflation, the value of pension benefits expressed as a percentage of salary would generally be lower for younger individuals than for older individuals. This is because the impact of discounting is greater at younger ages as the time to retirement is longer. However, when a member is expected to receive high promotion / progression pay increases in the future (ie the member's final salary on retirement is assumed to be higher than his or her salary in the

earlier stages of his or her career path), this increases pension value throughout the career path. To the extent that the combined promotion / progression and general salary increases exceed the assumed discount rate, the value of final salary-based pension benefits expressed as a percentage of the next year's salary would be higher at younger ages than at older ages (i.e. reversing the normal pattern of the value of pension benefits increasing with age). A worked example is set out in Appendix G of our "Report on methodology and assumptions" dated 22 December 2014.

- Similar principles apply to career average schemes. In a career average scheme, earnings in past years may be revalued (e.g. in line with RPI or CPI plus a margin) when calculating the career average salary. If the rate of expected future revaluation of past earnings is less than the discount rate, the value will be lower at younger ages and vice versa. Under the assumptions made in this valuation, the discount rate is greater than the rate of revaluation for all schemes.
- **Cessation of contracting out:** Current remit group pension schemes are contracted out of the State Second Pension (S2P) so employees and employers pay reduced National Insurance contributions and do not build up any S2P accrual. In carrying out the comparative valuation, we have adjusted the pension values to make allowance for the additional State pension built up alongside a contracted-in scheme, net of the additional National Insurance contributions payable by the individual (refer to Section 3 of our "Report on methodology and assumptions" dated 22 December 2014 for further details). In 2016, contracting out will cease, so employees will instead build up additional state pension benefits. This leads to an increase in the value of the pension benefits accrued from 2016 onwards. The 2010 and 2013 benefits lines are unaffected by the 2016 contracting-out change as these assume benefits levels before 2013.
- **Increases in member contribution rates:** Increases in member contribution rates reduce the net value of pension benefits building up over the next year of service, expressed as a percentage of pensionable salary (because the higher member contributions are deducted from the value of the pension benefits, while the pensionable salary is unchanged). For the 2010 benefits line, employee contributions are assumed to be at the 2010 level throughout their career. There are therefore no steps down in value from employee contributions affecting the 2010 benefits line. From 2011 onwards, employee contribution rates in many of the public sector pension schemes increased. In the 2013 benefits lines, the member contribution rate for the member's current age onwards is at the 2013 level, with allowance made for the gradual transition to higher contributions in the preceding years. There is therefore a fall in the net value of pension benefits accruing during the two years before the member's current age as the employee contribution rate increased in those two years. Similarly, in the 2016 benefits line, there is a fall in the value of benefits during the five years before the member's current age reflecting the gradual transition to higher contribution rates.
- **Change from current scheme to new scheme:** The new scheme is introduced in 2015, so there is a change in the value of pension benefits accruing in the 2016 benefits line starting from one year prior to the current age. The 2016 benefits line also deviates from the 2013 benefits line in the years preceding 2015 as a result of the gradual transition to higher contribution rates described above.

Section 5: Commentary on the results of valuation

Key findings

- The net value to the employee of his or her pension benefits varies significantly depending on the employee's career path (including pay progression) and the point the employee has reached on that career path. The charts in the Appendices demonstrate that variability.
- The combination of the change from RPI to CPI indexation in April 2011 and increasing member contributions had a significant impact on the value of the remit group pension benefits between 2010 and 2013.
- In general, the changes to remit group pension benefits in 2015 and 2016 are expected to have a lesser impact than the changes between 2010 and 2013.
- For some career paths, the difference between the net value to the employee of the 2016 and 2013 benefits is minimal, or there is an increase rather than reduction in value as a result of the changes.
- The changes in private sector pension benefits between 2010, 2013 and 2016 are less significant than the changes in the remit group pension benefits; on the basis of the methodology and assumptions adopted.
- However, there were very significant changes to private sector benefits over the preceding decade and in most cases there remains a material difference between the net value to the remit group member of their pension benefits and alternative pension benefits in the private sector – although the changes to public sector pension benefits since 2010 have narrowed the gap, it still remains.

5.1 The full results of the comparative valuation are set out in the Appendices.

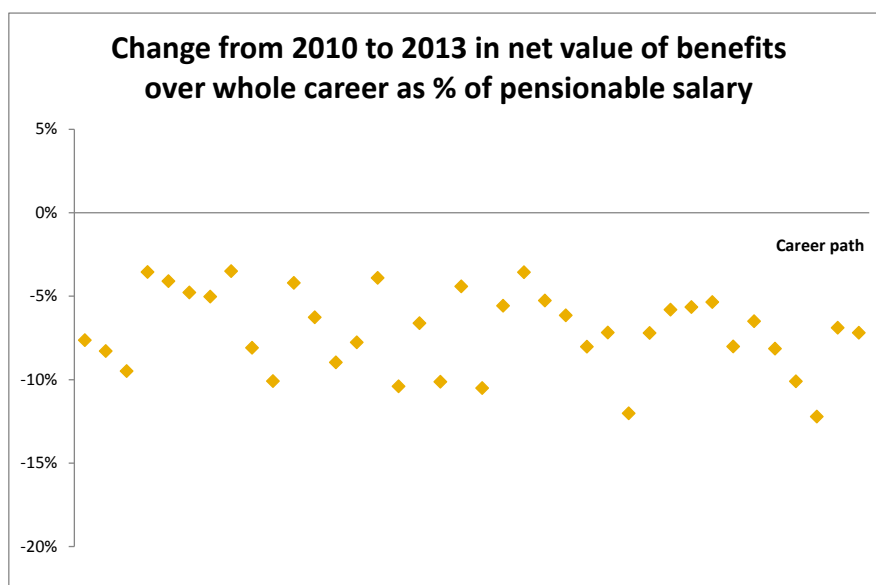
5.2 **Importance of career path on the value of pension benefits:** The results show that, even within remit groups, there are significant differences in the net value of pension benefits to the employee depending on the employee's career path. This is particularly the case for final salary defined benefit schemes under which the pension paid depends on salary in the final year of service. With the move towards career average schemes in the public sector and defined contribution schemes in the private sector, the difference in net value (as a percentage of salary) between different career paths within particular remit groups is reduced.

5.3 **Moving from RPI to CPI indexation:** The change from RPI to CPI indexation in April 2011 led to a significant reduction in the net value to employees of the remit group pension arrangements. These indexation changes were of particular significance as they affected pension benefit entitlements in respect of completed past service and future service. In

contrast, the subsequent changes to member contributions, retirement ages and the move to career average style benefits generally only affect pension benefits in respect of future service.

- 5.4 The indexation changes typically resulted in a reduction of around 15% in the value for employees who remain in service through to retirement (for example, for an individual with a net value of around 30% of salary, the indexation changes reduced the net value by around 4.5% of salary).
- 5.5 For an employee in a final salary scheme with short service who leaves with a deferred pension, the difference between the net value to the employee of the 2013 and 2010 benefits is even greater, because the change from RPI to CPI indexation is expected to result in lower revaluation being applied up to the point of retirement as well as increases in payment.
- 5.6 The reduction in pension value resulting from the RPI to CPI indexation changes in the private sector varied significantly from scheme to scheme depending on the wording of scheme rules, and some were not affected by the change. For the sample DB private sector schemes analysed as part of this research, the reduction in pension value resulting from the change in indexation is less significant than the impact of the changes for the remit group schemes. This reflects the cap on pension increases for the sample DB private sector schemes which has the effect of dampening down the impact of the indexation change.
- 5.7 The chart below shows the reduction between 2010 and 2013 in the net value of remit group benefits as a percentage of pensionable salary over the whole career across all the illustrative career paths covered in this Report. It can be seen that in general the reduction is between 5% and 10% of pensionable salary. This reduction largely relates to the RPI to CPI indexation changes but also covers the increase in member contributions where these commenced before September 2013.

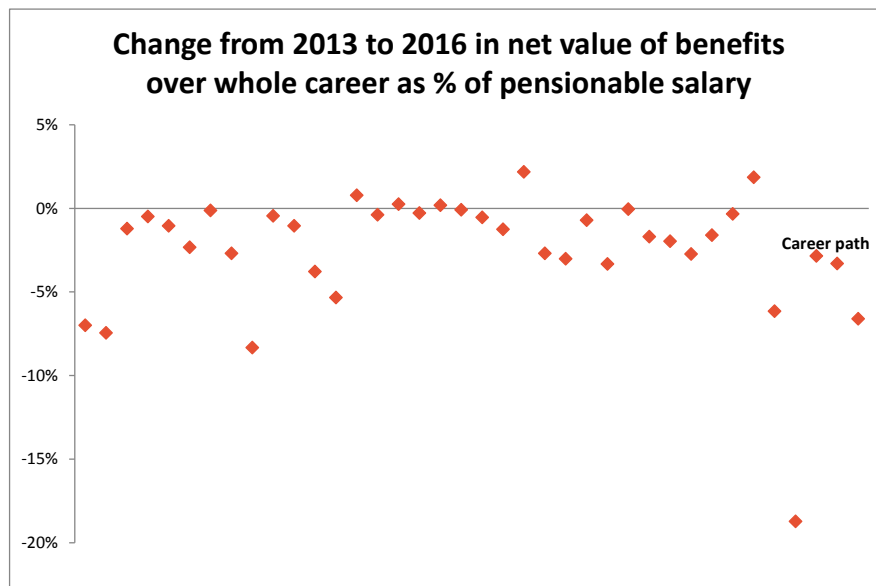
Chart 5.1



5.8 **The 2015 and 2016 changes:** In general, the changes to remit group pension benefits in 2015 and 2016 are expected to have a lesser impact than the changes between 2010 and 2013.

5.9 The chart below shows the reduction between 2013 and 2016 in the net value of remit group benefits as a percentage of pensionable salary over the whole career across all illustrative career paths covered in this Report. It can be seen that the reduction is generally much smaller than the reduction between 2010 and 2013 and in some cases there is an increase.

Chart 5.2



5.10 The lesser impact, generally speaking, of the changes in 2015 and 2016 is most apparent when looking at the whole career methodology, because the RPI/CPI change affected the net value of past benefits as well as future benefits. For example, when looking at a member approaching the end of their career path, the 2015 and 2016 changes (which only affect future service) will only affect a small part of the net value to the member on the whole career approach.

5.11 The impact of the 2015 and 2016 changes depends on the career path analysed. For some career paths (especially where salary progression is slow), the difference between the net value to the employee of the 2016 benefits and 2013 benefits is minimal, or there is an increase rather than reduction in value as a result of the changes.

5.12 This is because employees who experience slow salary progression tend to be favoured by the move to a career average style pension design. This is particularly noticeable where the revaluation applied to past earnings in a career average scheme is relatively high (e.g. the new Teachers and NHS schemes where revaluation is to be based on CPI plus 1.6% pa and 1.5% pa respectively).

- 5.13 In contrast, employees who enjoy rapid salary progression are more likely to experience a reduction in net value as a result of the 2015 and 2016 changes. This is because final salary pension arrangements tend to favour employees with rapid salary growth especially in the years leading up to retirement.
- 5.14 **Private sector and other public sector comparators:** The changes in private sector pension benefits between 2010, 2013 and 2016 are less significant than the changes in the remit group pension benefits; on the basis of the methodology and assumptions adopted.
- 5.15 In part, this reflects the significant changes that took place over the preceding decade meaning that by 2010 the net value of many private sector pension arrangements had already been cut back.
- 5.16 In most cases, the private sector comparators considered in the research are of a lower net value to employees than the remit group pension schemes. However, the gap narrows between 2010 and 2016.

Sensitivity of the results to the assumptions and methodology

- 5.17 **Discount rate and earnings growth:** The Appendices show the sensitivity of the results to changes in the discount rate and the earnings growth assumption.
- 5.18 The results show that changing the discount rate significantly changes the net value of pension benefits. For the defined benefit arrangements considered, a 1% decrease in the discount rate leads to an increase in the net value of around 40% on average (for example, for an individual with a net value of around 30% of salary, the reduction in discount rate of 1% increases the net value by around 12% of salary). The net value is particularly sensitive to changes in the discount rate for schemes with high member contributions. However, the relative net values (e.g. between 2010 and 2016) are less sensitive to the discount rate.
- 5.19 Similarly, the results show that changing the earnings growth assumption significantly changes the net value of the pension benefits for final salary schemes, particularly for employees who join at a younger age and particularly for the 2010 and 2013 benefits (the higher the earnings growth assumption, the higher the net value placed on the pension benefits).
- 5.20 The earnings growth assumption is less material when it comes to considering the 2016 benefits – salary growth has a smaller impact on career average style benefits compared to final salary style benefits.
- 5.21 **Male:female split:** The results shown in the Appendices are based on an assumed 50:50 male:female split. It is recognised that for certain remit groups, this assumption is not realistic. However, the research shows that this assumption does not significantly affect the results, particularly compared to assumptions such as the discount rate and earnings growth. This is because, although females are assumed to live longer than males, there is relatively little difference between the factors used to value males and females, after allowing for the spouse's pension assumed to be payable on death. Indeed in most cases the factors used

to value males are greater than those used to value females after taking this into account. For example, if we were to assume that all employees were male, this would increase the net pension values by a maximum of 2% (equivalent to an increase of around 0.5% of salary).

The Lifetime Allowance and Annual Allowance

- 5.22 The results shown in this Report focus on the gross net value of pension benefits, before allowing for any income tax that might apply to pension income or tax charges that might apply to individuals who build up benefits in excess of the Lifetime Allowance or Annual Allowance.
- 5.23 The tax position will vary significantly from individual to individual depending on his or her circumstances. Relevant factors include other pension savings and sources of income an individual might have and any transitional protection that the individual might have put in place at the time the Lifetime Allowance was introduced or subsequently amended.
- 5.24 As described in Section 3, the Lifetime Allowance has been reduced and is currently £1.25 million. The Annual Allowance has also been significantly reduced in recent years and is currently £40,000. As a result of the reductions, these charges now affect the benefits of a far greater number of individuals than was previously the case.
- 5.25 In the private sector, the reductions to the Lifetime Allowance and Annual Allowance have meant that many companies now offer employees an option to take cash-in-lieu of pension. We understand that such options are generally not available to employees in the public sector.

The Lifetime Allowance

- 5.26 For the purpose of assessing pension benefits against the Lifetime Allowance, a valuation factor of 20 to 1 is used (e.g. a member retiring with a pension of £50,000 pa and a £100,000 lump sum would have an assessed value of $£50,000 \times 20 + £100,000 = £1,100,000$). Therefore, an individual receiving a pension at retirement of more than £62,500 pa could be subject to a Lifetime Allowance charge (less if a lump sum is also paid or if the individual has other pension savings).
- 5.27 The pension benefits of a number of the illustrative individuals analysed in the Appendices have the potential to exceed the Lifetime Allowance at retirement. Very generally speaking, this is most likely to be the case for individuals who have a long career and a salary at retirement of over around £100,000 (most relevant for the Senior Salaries Review Body and the Doctors' and Dentists' Review Body). That said, short-serving employees are more likely to have pension savings from other employers (and so might still be affected by the Lifetime Allowance) and the relevant salary level could be higher or lower depending on whether the individual makes additional contributions and the specific level of benefits provided.
- 5.28 The Lifetime Allowance charge is assessed on the benefits in excess of the Lifetime Allowance and equates to an effective rate of taxation of 55% on the excess benefits.

The Annual Allowance

- 5.29 The Annual Allowance charge is assessed based on the increase in an individual's accrued pension over the relevant 12 month period in excess of CPI revaluation. For this purpose, defined benefit pensions are valued using a valuation factor of 16 to 1 (e.g. the pension savings for an individual with a pension that increases by £3,000 pa above CPI revaluation over a year would be valued as £3,000 x 16 = £48,000).
- 5.30 The value of pension savings in the year is compared to the Annual Allowance (currently £40,000) and the Annual Allowance charge applies to the excess at the individual's marginal tax rate. Further tax may then be applicable in the normal way when the pension benefits are paid, thereby making pension savings above the Annual Allowance unattractive from a tax perspective.
- 5.31 Any unused Annual Allowance from the preceding three tax years can be carried forward to the current tax year.
- 5.32 The Annual Allowance is most likely to be applicable to individuals who are building up defined benefits and who have a salary of above, very generally speaking, around £150,000 pa. However, this will vary significantly from individual to individual depending on the rate at which pension benefits are accruing, the revaluation / salary increases added to past benefits and other pension contributions that the individual might be making.
- 5.33 For example, members of the Police Pension Scheme (1987) build up pension benefits at the rate of 1/30th of final salary between 20 and 30 years of service. An individual in this category with a salary of around £75,000 pa and with salary increases in line with CPI would come up against the Annual Allowance.
- 5.34 The Annual Allowance charge can also apply at lower salary levels for some members of final salary schemes who receive large salary increases (e.g. as a result of moving up the pay scale). This is most likely to occur where an individual has a long period of service, meaning that the increase in the individual's accrued pension following a salary increase is large, or if an individual is making significant additional pension contributions. However, the ability to carry forward unused Annual Allowance from the preceding three tax years is helpful in limiting such cases.

Appendix A: Doctors and Dentists Review Body

Introduction

The results of the valuation of the pension benefits for the illustrative Doctors and Dentists career paths are set out on the following pages.

Important notes to consider when reviewing the results

When reviewing the results, it is important for users to note that the purpose of the results is to illustrate to the Review Bodies how the net values of benefits for particular Remit Groups have changed and are expected to change over time, relative to the pension benefit available in the private and with the public sector; not how the benefits compare across Remit Groups.

The research does not consider how career paths and earnings profile might differ in comparator organisations or the impact of such differences on the value of pension benefits. Therefore, when comparing the results for the net employee value of benefits for Remit Group members based on the pension benefits available with the net employee value of benefits for a comparator schemes, it is assumed that the career path in the comparator organisation (including length of service and the earnings profile) are identical. In practice, this is unlikely to be the case.

Furthermore, care is needed to avoid comparing the value of pension benefits across Remit Groups as the particular career paths analysed differ across the groups.

Career paths

Three illustrative career paths have been chosen covering the following scenarios:

- A1 An individual, who joins as a Junior Doctor (FHO1) at age 25, becomes FHO2 at age 26, Specialty Registrar at age 27 and Consultant at age 37. The individual retires as a consultant with two local clinical excellence awards at the earliest point the scheme allows without reduced benefits. For illustration purposes, this individual is assumed to currently be age 25 and qualify initially for benefits through the NHS Pension Scheme 2008 section.
- A2 An individual, who joins as a Junior Doctor (FHO1) at age 25, becomes FHO2 at age 26, Specialty Registrar at age 27 and Consultant at age 37. The individual retires as a consultant with six local clinical excellence awards at the earliest point the scheme allows without reduced benefits. For illustration purposes, this individual is assumed to currently be age 40 and qualify initially for benefits through the NHS Pension Scheme 1995 section
- A3 An individual who joins as a Band A salaried dentist at age 25, becomes Band B at age 33 and leaves at age 45 to go into private practice before retiring at the earliest point the scheme allows without reduced benefits. For illustration purposes, this individual is assumed to

currently be age 30 and qualify initially for benefits through the NHS Pension Scheme 2008 section.

Note that for career paths A1 and A2 (both of which are consultants), no allowance has been made in the career paths for intensity payments/on-call payments. These amounts are currently pensionable, range from 1% to 8% of basic salary and will vary from consultant to consultant according to their job plans.

Further details on each illustrative career path can be found in the Methodology Report dated 22 December 2014.

Design of pension benefits for individuals within the Doctors and Dentists Review Body pension schemes

The tables below summarise the pension benefits provided to the individuals on the above career paths within the NHS pension schemes and provide details of the member contribution requirements.

Summary of benefits

Name	NHS 1995 section	NHS 2008 section	NHS 2015
Type (Final salary/Career average)	Final salary	Final salary	Career average
Contracted out?	Yes	Yes	No
Deferred Retirement Age (age at which deferred member can retire without reduction)	60	65	SPA
NRA (age at which active member can retire without reduction)	60	65	SPA
Pension accrual rate	1/80	1/60	1/54
Lump sum accruing as multiple of pension	3	0	0
Maximum service (if restricted)			
Spouse's pension as % of member's on death after retirement	50%	37.5%	33.75% (ie 37.5% x 54/60)
Guarantee period (number of years from retirement date that pension is guaranteed to be paid in full even if member dies)	0	0	0
Career average revaluation rate in 2010	n/a	n/a	n/a
Career average revaluation rate in 2013/2016	n/a	n/a	CPI+1.5%
Deferred pension revaluation in 2010	RPI	RPI	n/a
Increases in payment 2010	RPI	RPI	n/a
Deferred pension revaluation in 2013/2016	CPI	CPI	n/a
Increases in payment 2013/2016	CPI	CPI	n/a
Commutation Terms (n/a where lump sum is accrued)	n/a	12	12

Summary of member contributions (% of pension salary)

Final details of the contribution requirements under the 2015 scheme have not yet been announced. For the purpose of the comparative valuation, we have assumed that the contribution rates for 2015 (as shown in the table) are the same as those in the current scheme for 2014.

Salary from (2013 terms)	NHS (1995 and 2008)	NHS (1995 and 2008)	NHS (1995 and 2008)	NHS (1995 and 2008)	NHS 2015
	Up to 2011	2012	2013	2014	2015 onwards
£ -	5.00%	5.00%	5.00%	5.00%	5.00%
£ 15,279	5.00%	5.00%	5.30%	5.60%	5.60%
£ 21,176	6.50%	6.50%	6.80%	7.10%	7.10%
£ 26,558	6.50%	8.00%	9.00%	9.30%	9.30%
£ 48,983	6.50%	8.90%	11.30%	12.50%	12.50%
£ 69,932	7.50%	9.90%	12.30%	13.50%	13.50%
£110,274	8.50%	10.90%	13.30%	14.50%	14.50%

Results

The results of the comparative valuation for Doctors and Dentists pension benefits are set out on the following pages. Key themes emerging from the analysis are as follows:

- **Importance of career path on the value of pension benefits:** The results show that within the Doctors and Dentists remit group, there are significant differences in the net value of pension benefits depending on the employee's career path:
 - The individual's salary progression (the faster the salary progression, the greater the net value), although this is less of a factor in the 2015 scheme as this is career average rather than final salary.
 - Completed service, age and salary level at the time that the 2015 scheme is introduced. For example, for individuals who are older in 2010 or who are not expecting much future salary progression, the 2015 and 2016 changes (which only affect future service) have a lesser effect on the net value of benefits over the individual's whole career.
- **2010 to 2013 benefit changes:** The change from RPI to CPI indexation in April 2011 had a significant impact on the net value to employees of the Doctors and Dentists pension arrangements:
 - The indexation changes were of particular significance as they affected pension benefit entitlements in respect of completed past service and future service. In contrast, the subsequent changes to member contributions, retirement ages and the move to career average style benefits generally only affect pension benefits in respect of future service.
 - For a shorter service career (for example career path A3) the change from RPI to CPI indexation has a relatively greater impact, as it affects not only pension increases in payment but also pension increases after leaving service and prior to payment.

- **2013 to 2015/16 changes:** In general over the whole career, the changes to Doctors and Dentists benefits in 2015 and 2016 are expected to have a similar impact to the changes between 2010 and 2013, for a member remaining in the scheme until retirement (career paths A1 and A2).
 - The transitional arrangements will further protect some older individuals from the 2015 changes (not applicable for the illustrative career paths considered here).

- **Comparison with private sector:** The changes in the private sector comparators have been less material over this period. While the net values of the 2010 benefits over the whole career were greater than the net value of the typical private sector benefits, the differentials were reduced for the 2013 benefits and the net values of the 2016 benefits were lower than those of the typical private sector comparators – particularly for a shorter career path (such as A3). This is, in part, because the DB Scheme comparators at the salary levels relevant for the remit group are generally more valuable than the typical DB Scheme comparators analysed, and have not reduced in value materially over this period.

Remit Group:

Doctors and Dentists

Career path	A1
Age on joining (years)	25
Current age (years)	25
Age on leaving (years)	65
Level on joining	Junior doctor (FHO1)
Current level	Junior doctor (FHO1)
Level at leaving	Consultant
Pensionable salary on joining (£)	22,636
Current pensionable salary (£)	22,636
Pensionable salary at leaving (£)	107,365
Retirement age	65

Comments on career path

Individual joins as FHO1 aged 25 and retires as Consultant at age 65

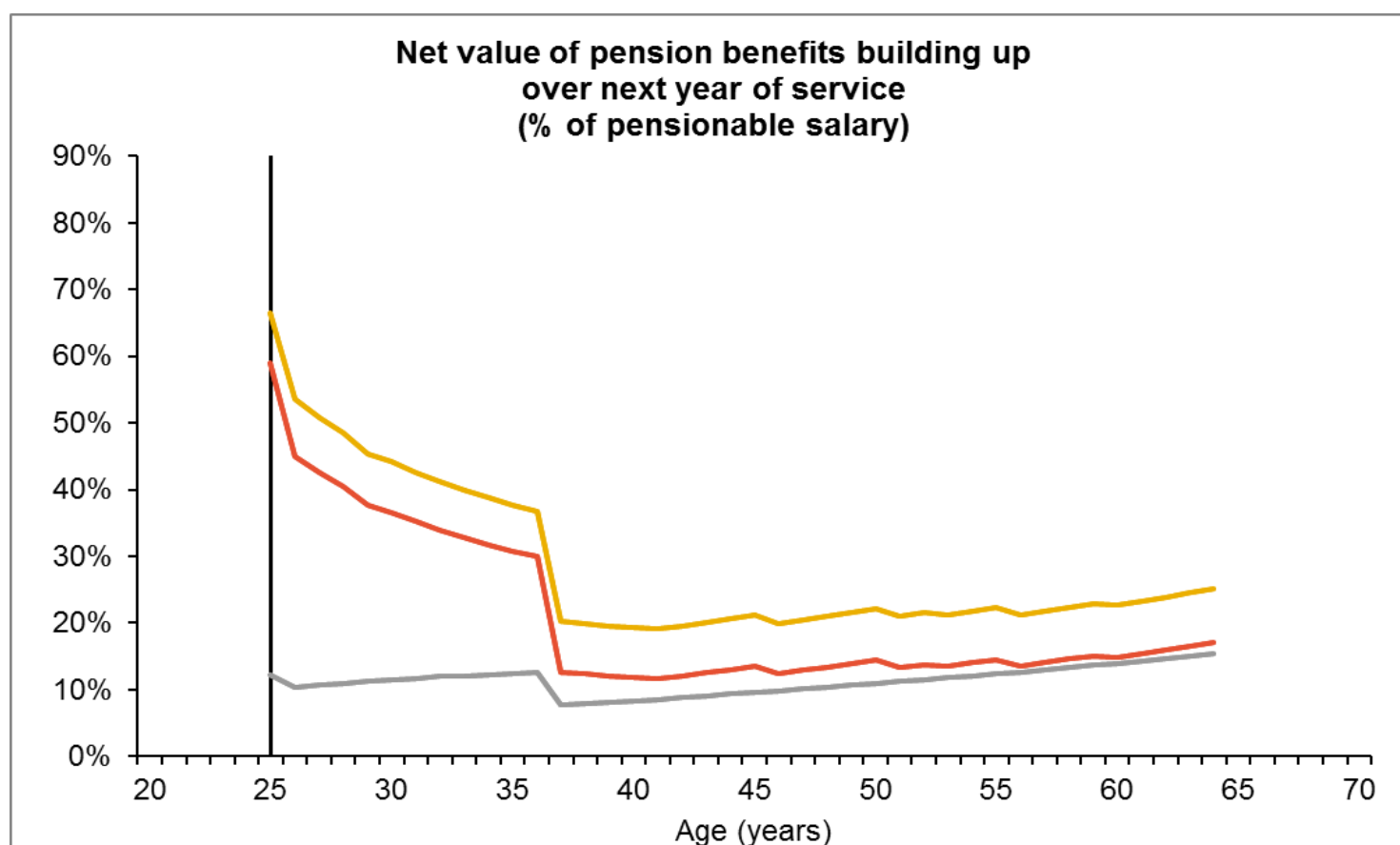
Large promotion/progression salary increases up to age 41 and at 46 and 51, with particularly large increase at age 37

Local clinical excellence awards given at ages 53 and 60

Currently in NHS 2008 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	26%	18%	11%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	27%	26%	26%
Typical DC Scheme	11%	11%	14%
Representative mid-level scheme	14%	13%	14%



Comments on results

Both RPI to CPI change in indexation and change to the new scheme in 2015 lead to a large reduction in value

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases. The net value (as a percentage of salary) falls after large salary increases.

The net value of the 2016 benefits is significantly lower than NHS 2008 scheme at younger ages as the loss of linkage to future salary for a member expected to receive high promotional salary increases is material

Remit Group:

Doctors and Dentists

Career path	A2
Age on joining (years)	25
Current age (years)	40
Age on leaving (years)	60
Level on joining	Junior doctor (FHO1)
Current level	Consultant
Level at leaving	Consultant
Pensionable salary on joining (£)	22,636
Current pensionable salary (£)	82,318
Pensionable salary at leaving (£)	119,193
Retirement age	60

Comments on career path

Individual joins as FHO1 aged 25 and retires as Consultant at age 60

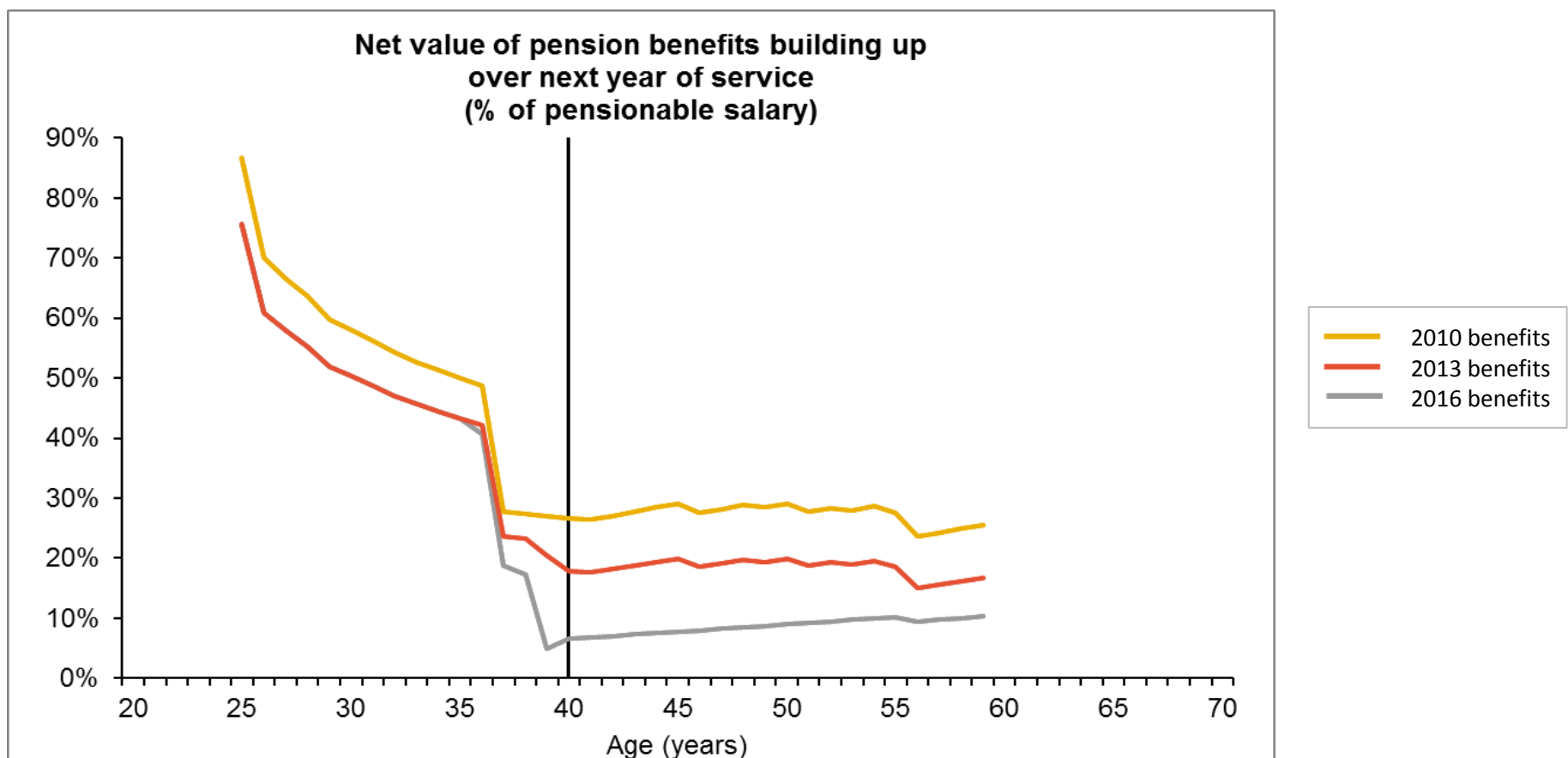
Large promotion/progression salary increases up to age 41 and at age 46, with particularly large increase at age 37

Local clinical excellence awards given at ages 49, 53 and 56

Currently in NHS 1995 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	34%	26%	18%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	31%	29%	29%
Typical DC Scheme	11%	11%	14%
Representative mid-level scheme	26%	21%	19%



Comments on results

Both RPI to CPI change in indexation and change to the new scheme in 2015 lead to a large reduction in value

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases. The net value (as a percentage of salary) falls after large salary increases.

The net value of the 2016 benefits is significantly lower than NHS 1995 scheme due to the increase in retirement age from 60 to SPA and as the loss of linkage to future salary for a member expected to receive high promotional salary increases is material

Remit Group:

Doctors and Dentists

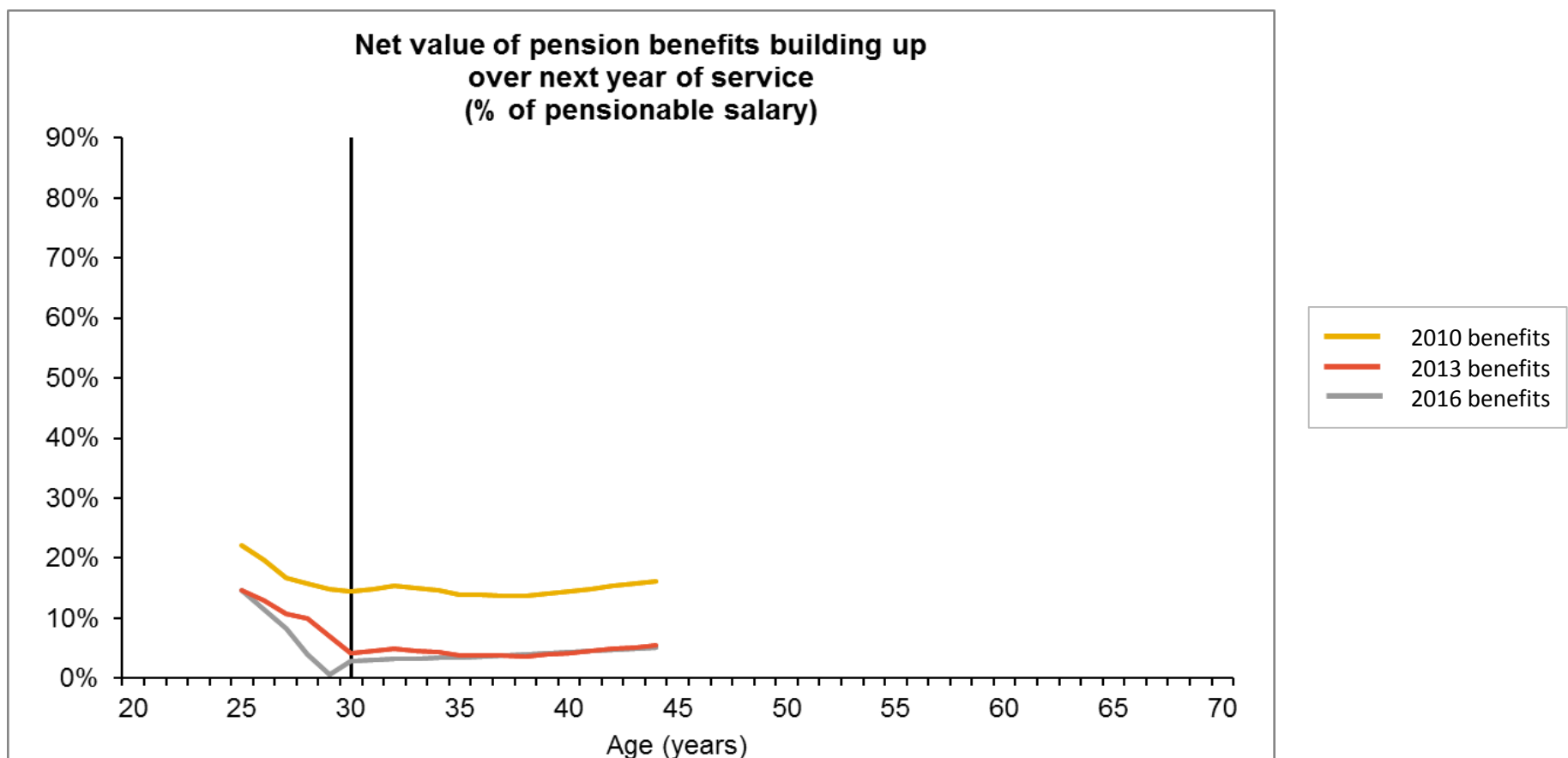
Career path	A3
Age on joining (years)	25
Current age (years)	30
Age on leaving (years)	45
Level on joining	Band A
Current level	Band A
Level at leaving	Band B
Pensionable salary on joining (£)	38,095
Current pensionable salary (£)	57,142
Pensionable salary at leaving (£)	69,311
Retirement age	65

Comments on career path

Individual joins as Band A dentist at age 25 and leaves at Band B at age 45 to go into private practice
 Large promotion/progression salary increases up to age 30 with some further increases up to age 38
 Currently in NHS 2008 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	15%	6%	5%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	14%	11%	11%
Typical DC Scheme	10%	10%	12%
Representative mid-level scheme	12%	11%	12%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015 as member is short serving so change affects increases after leaving service as well as in payment

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion/progression salary increases. The net value (as a percentage of salary) falls after large salary increases

Sensitivities

The table below shows the value of Doctors and Dentists pension benefits (net of the employee cost, as a % of salary) on the whole career basis for each career path, using the central assumptions and with sensitivities to the discount rate (a reduction from 5% pa to 4% pa) and salary increases (a reduction from 3% pa to 2% pa). For both sets of sensitivities, all assumptions other than the one described are unchanged. The table shows that a lower discount rate leads to a higher net value being placed on the pension benefits. Conversely, a lower salary increase rate leads to a lower net value being placed on the pension benefits.

Remit Group	Career path	2010			2013			2016		
		Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases
Doctors & Dentists	A1	26%	37%	21%	18%	27%	13%	11%	19%	11%
Doctors & Dentists	A2	34%	47%	28%	26%	37%	21%	18%	28%	16%
Doctors & Dentists	A3	15%	26%	13%	6%	13%	4%	5%	12%	4%

Appendix B: NHS Pay Review Body

Introduction

The results of the valuation of the pension benefits for the illustrative NHS career paths are set out on the following pages.

Important notes to consider when reviewing the results

When reviewing the results, it is important for users to note that the purpose of the results is to illustrate to the Review Bodies how the net values of benefits for particular Remit Groups have changed and are expected to change over time, relative to the pension benefit available in the private and with the public sector; not how the benefits compare across Remit Groups.

The research does not consider how career paths and earnings profile might differ in comparator organisations or the impact of such differences on the value of pension benefits. Therefore, when comparing the results for the net employee value of benefits for Remit Group members based on the pension benefits available with the net employee value of benefits for a comparator schemes, it is assumed that the career path in the comparator organisation (including length of service and the earnings profile) are identical. In practice, this is unlikely to be the case.

Furthermore, care is needed to avoid comparing the value of pension benefits across Remit Groups as the particular career paths analysed differ across the groups.

Career paths

Eight illustrative career paths have been chosen covering the following scenarios:

- B1 An individual who joins the NHS as a Nurse at Band 6 at age 25 and remains at that level until retiring at age 60. For illustration purposes, this individual is assumed to currently be age 50 and qualify initially for benefits through the NHS Pension Scheme 1995 section.
- B2 An individual who joins the NHS as a Nurse at Band 6 at age 25, is promoted to Band 7 at age 51 and remains at that level until retiring at age 60. For illustration purposes, this individual is assumed to currently be age 49 and qualify initially for benefits through the NHS Pension Scheme 1995 section.
- B3 An individual who joins the NHS as a Nurse at Band 5 at age 25, is promoted to Band 6 at age 46 and remains at that level until retiring at age 60. For illustration purposes, this individual is assumed to currently be age 41 and qualify initially for benefits through the NHS Pension Scheme 1995 section.
- B4 An individual who joins the NHS as a Nurse at Band 5 at age 25, is promoted to Band 6 at age 27, Band 7 at age 37 and Band 8a at age 41 and remains at that level until retiring at age 65.

For illustration purposes, this individual is assumed to currently be age 26 and qualify initially for benefits through the NHS Pension Scheme 2008 section.

- B5 An individual who joins the NHS as a Receptionist at Band 2 at age 30, is promoted to Band 3 at age 35 and remains at that level until retiring at age 60. For illustration purposes, this individual is assumed to currently be age 36 and qualify initially for benefits through the NHS Pension Scheme 1995 section.
- B6 An individual who joins the NHS at Band 6 at age 30, is promoted to Band 7 at age 36, Band 8a at age 43 then progresses through Band 8 to retire at Band 8d at age 60. For illustration purposes, this individual is assumed to currently be age 45 and qualify initially for benefits through the NHS Pension Scheme 1995 section.
- B7 An individual who joins the NHS at Band 8b at age 38 and remains at that level until leaving at age 44 then retires at age 65. For illustration purposes, this individual is assumed to currently be age 39 and qualify initially for benefits through the NHS Pension Scheme 2008 section.
- B8 An individual who joins the NHS as a Nurse at Band 5 at age 25 and remains at that level until retiring at age 60. For illustration purposes, this individual is assumed to currently be age 41 and qualify initially for benefits through the NHS Pension Scheme 1995 section.

Further details on each illustrative career path can be found in the Methodology Report dated 22 December 2014.

Design of pension benefits for individuals within the NHS Pay Review Body schemes

The tables below summarise the pension benefits provided to the individuals on the above career paths within the NHS pension schemes and provide details of the member contribution requirements.

Summary of benefits

Name	NHS 1995 section	NHS 2008 section	NHS 2015
Type (Final salary/Career average)	Final salary	Final salary	Career average
Contracted out?	Yes	Yes	No
Deferred Retirement Age (age at which deferred member can retire without reduction)	60	65	SPA
NRA (age at which active member can retire without reduction)	60	65	SPA
Pension accrual rate	1/80	1/60	1/54
Lump sum accruing as multiple of pension	3	0	0
Maximum service (if restricted)			
Spouse's pension as % of member's on death after retirement	50%	37.5%	33.75% (ie 37.5% x 54/60)
Guarantee period (number of years from retirement date that pension is guaranteed to be paid in full even if member dies)	0	0	0
Career average revaluation rate in 2010	n/a	n/a	n/a
Career average revaluation rate in 2013/2016	n/a	n/a	CPI+1.5%
Deferred pension revaluation in 2010	RPI	RPI	n/a
Increases in payment 2010	RPI	RPI	n/a
Deferred pension revaluation in 2013/2016	CPI	CPI	n/a
Increases in payment 2013/2016	CPI	CPI	n/a
Commutation Terms (n/a where lump sum is accrued)	n/a	12	12

Summary of member contributions (% of pension salary)

Final details of the contribution requirements under the 2015 scheme have not yet been announced. For the purpose of the comparative valuation, we have assumed that the contribution rates for 2015 (as shown in the table) are the same as those in the current scheme for 2014.

Salary from (2013 terms)	NHS (1995 and 2008)	NHS (1995 and 2008)	NHS (1995 and 2008)	NHS (1995 and 2008)	NHS 2015
	Up to 2011	2012	2013	2014	2015 onwards
£ -	5.00%	5.00%	5.00%	5.00%	5.00%
£ 15,279	5.00%	5.00%	5.30%	5.60%	5.60%
£ 21,176	6.50%	6.50%	6.80%	7.10%	7.10%
£ 26,558	6.50%	8.00%	9.00%	9.30%	9.30%
£ 48,983	6.50%	8.90%	11.30%	12.50%	12.50%
£ 69,932	7.50%	9.90%	12.30%	13.50%	13.50%
£110,274	8.50%	10.90%	13.30%	14.50%	14.50%

Results

The results of the comparative valuation for the NHS pension benefits are set out on the following pages. Key themes emerging from the analysis are as follows:

- **Importance of career path on the value of pension benefits:** The results show that within the NHS remit group, there are significant differences in the net value of pension benefits depending on the employee's career path:
 - The individual's salary progression (the faster the salary progression, the greater the net value – see in particular career path B6), although this is less of a factor in the 2015 scheme as this is career average rather than final salary.
 - Completed service, age and salary level at the time that the 2015 scheme is introduced. For example, for individuals who are older in 2010 (for example career path B2) or who are not expecting much future salary progression (for example career path B5 and B8), the 2015 and 2016 changes (which only affect future service) have a lesser effect on the net value of benefits over the individual's whole career.
- **2010 to 2013 benefit changes:** The change from RPI to CPI indexation in April 2011 had a significant impact on the net value to employees of the NHS pension arrangements:
 - The indexation changes were of particular significance as they affected pension benefit entitlements in respect of completed past service and future service. In contrast, the subsequent changes to member contributions, retirement ages and the move to career average style benefits generally only affect pension benefits in respect of future service.
 - For a shorter service career (for example career path B7) the change from RPI to CPI indexation has a relatively greater impact, as it affects not only pension increases in payment but also pension increases after leaving service and prior to payment.
- **2013 to 2015/16 changes:** In general over the whole career, the changes to NHS benefits in 2015 and 2016 are expected to have a lesser impact than the changes between 2010 and 2013, for a member remaining in the scheme until retirement (career paths B1 to B6 and B8) unless that member has significant expected future promotional salary increases (career path B6).
 - The transitional arrangements will further protect some older individuals from the 2015 changes (not applicable for the illustrative career paths considered here).
 - With the move to a career average scheme, the difference in net value by career path is reduced (as salary progression has less of an impact).
- **Comparison with private sector:** The changes in the private sector comparators have been less material over this period. While the net values of the 2010 benefits over the whole career were greater than the net value of the typical private sector benefits, the differentials were reduced for the 2013 benefits and further reduced for the 2016 benefits; although the net values of the 2016 benefits were still higher than those of the typical private sector comparators analysed – except for the shorter career path (B7)

Remit Group:

NHS

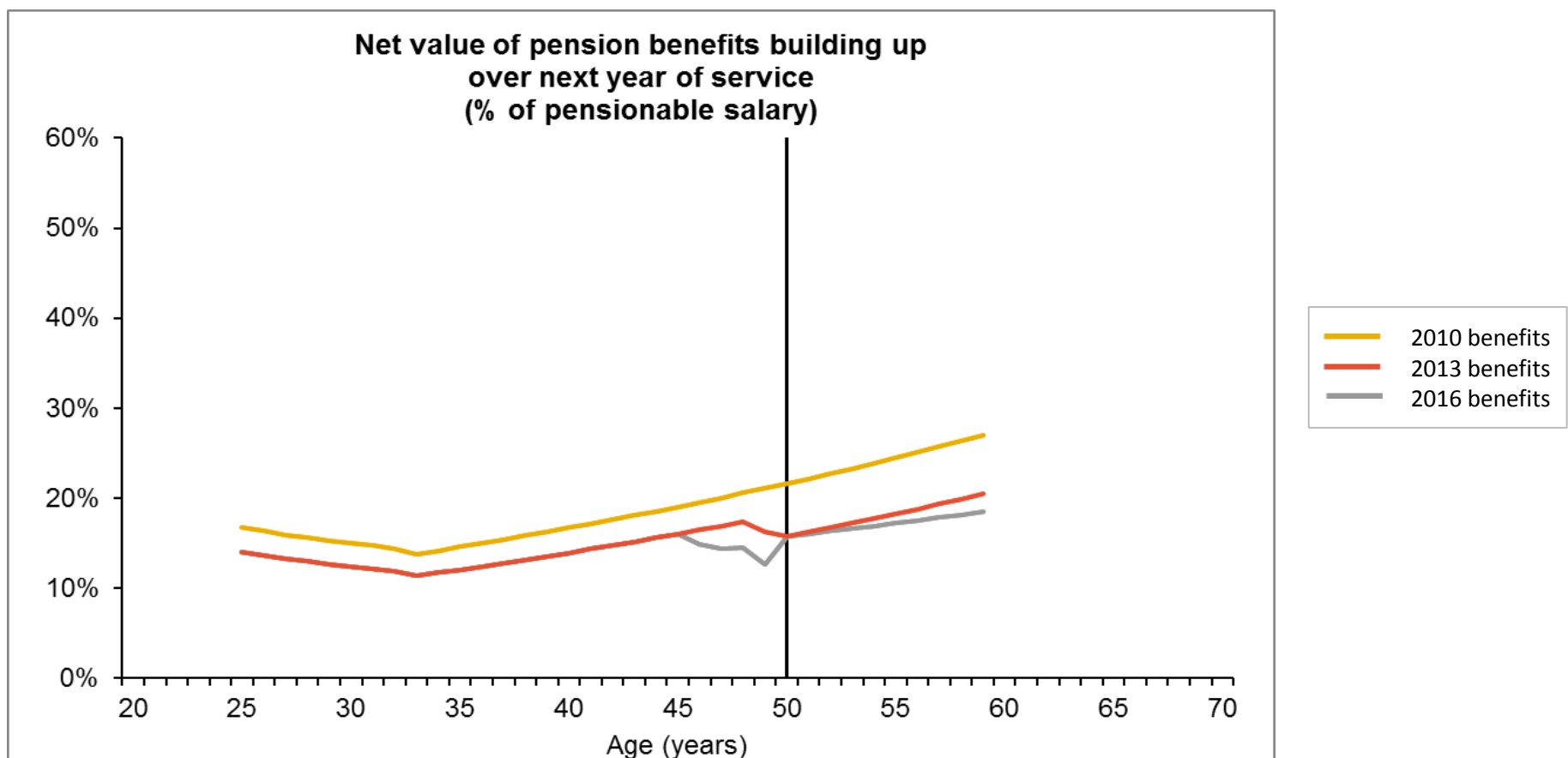
Career path	B1
Age on joining (years)	25
Current age (years)	50
Age on leaving (years)	60
Level on joining	Band 6
Current level	Band 6
Level at leaving	Band 6
Pensionable salary on joining (£)	25,783
Current pensionable salary (£)	34,530
Pensionable salary at leaving (£)	34,530
Retirement age	60

Comments on career path

Individual remains as Band 6 throughout career
 Progression salary increases up to age 33
 Currently in NHS 1995 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	18%	15%	14%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	14%	13%	13%
Typical DC Scheme	10%	10%	12%
Representative mid-level scheme	13%	12%	12%



Comments on results

The net value of the benefits building up over one year falls in the final salary structures (2010 and 2013) over the period where there are large progression salary increases but rises when progression salary increases cease

Over the whole career, RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015

The net value of the 2016 benefits is similar to the NHS 1995 scheme as the increase in retirement age from 60 to SPA is broadly offset by revaluation in service being higher than expected salary increases

Remit Group:

NHS

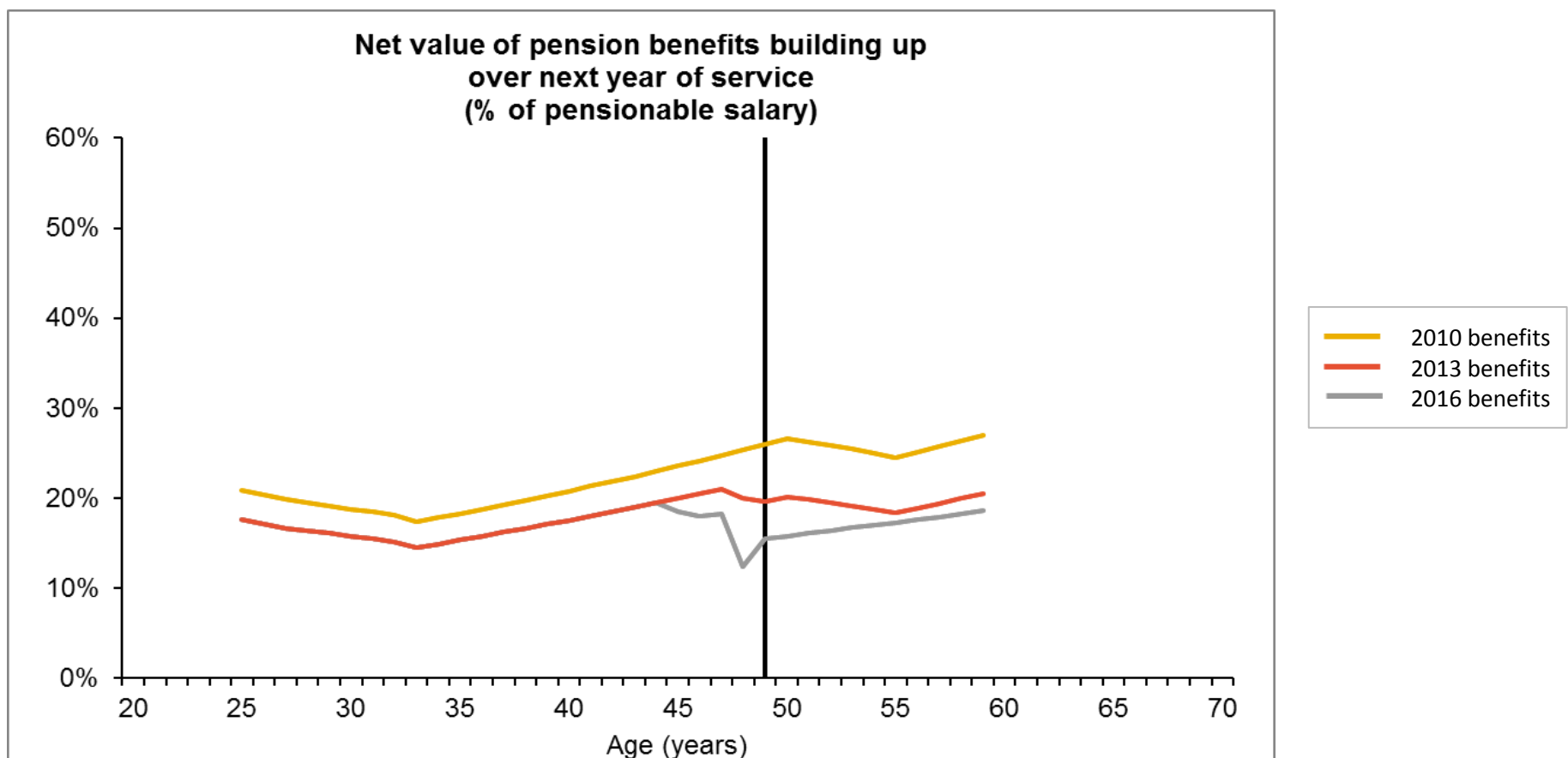
Career path	B2
Age on joining (years)	25
Current age (years)	49
Age on leaving (years)	60
Level on joining	Band 6
Current level	Band 6
Level at leaving	Band 7
Pensionable salary on joining (£)	25,783
Current pensionable salary (£)	34,530
Pensionable salary at leaving (£)	40,558
Retirement age	60

Comments on career path

Individual joins at Band 6, is promoted to Band 7 at age 51 and retires at that level
 Progression/promotion salary increases up to age 33 and from 51 to 55
 Currently in NHS 1995 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	22%	18%	17%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	17%	16%	16%
Typical DC Scheme	10%	10%	12%
Representative mid-level scheme	15%	13%	13%



Comments on results

The net value of the benefits building up over one year falls in the final salary structures (2010 and 2013) over the period where there are large promotion/progression salary increases but rises when these salary increases cease

Over the whole career, RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015

The net value of the 2016 benefits is lower than the NHS 1995 scheme due the increase in retirement age from 60 to SPA, partially offset by revaluation in service being on average higher than expected salary increases

Remit Group:

NHS

Career path	B3
Age on joining (years)	25
Current age (years)	41
Age on leaving (years)	60
Level on joining	Band 5
Current level	Band 5
Level at leaving	Band 6
Pensionable salary on joining (£)	21,388
Current pensionable salary (£)	27,901
Pensionable salary at leaving (£)	34,530
Retirement age	60

Comments on career path

Individual joins at Band 5, is promoted to Band 6 at age 46 and retires at that level
 Progression/promotion salary increases up to age 32 and from 46 to 51
 Currently in NHS 1995 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	23%	18%	15%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	17%	16%	16%
Typical DC Scheme	10%	10%	12%
Representative mid-level scheme	16%	13%	13%



Comments on results

The net value of the benefits building up over one year falls in the final salary structures (2010 and 2013) over the period where there are large promotion/progression salary increases but rises when these salary increases cease

Over the whole career, RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015

The net value of the 2016 benefits is lower than the NHS 1995 scheme due the increase in retirement age from 60 to SPA, partially offset by revaluation in service being on average higher than expected salary increases

Remit Group:

NHS

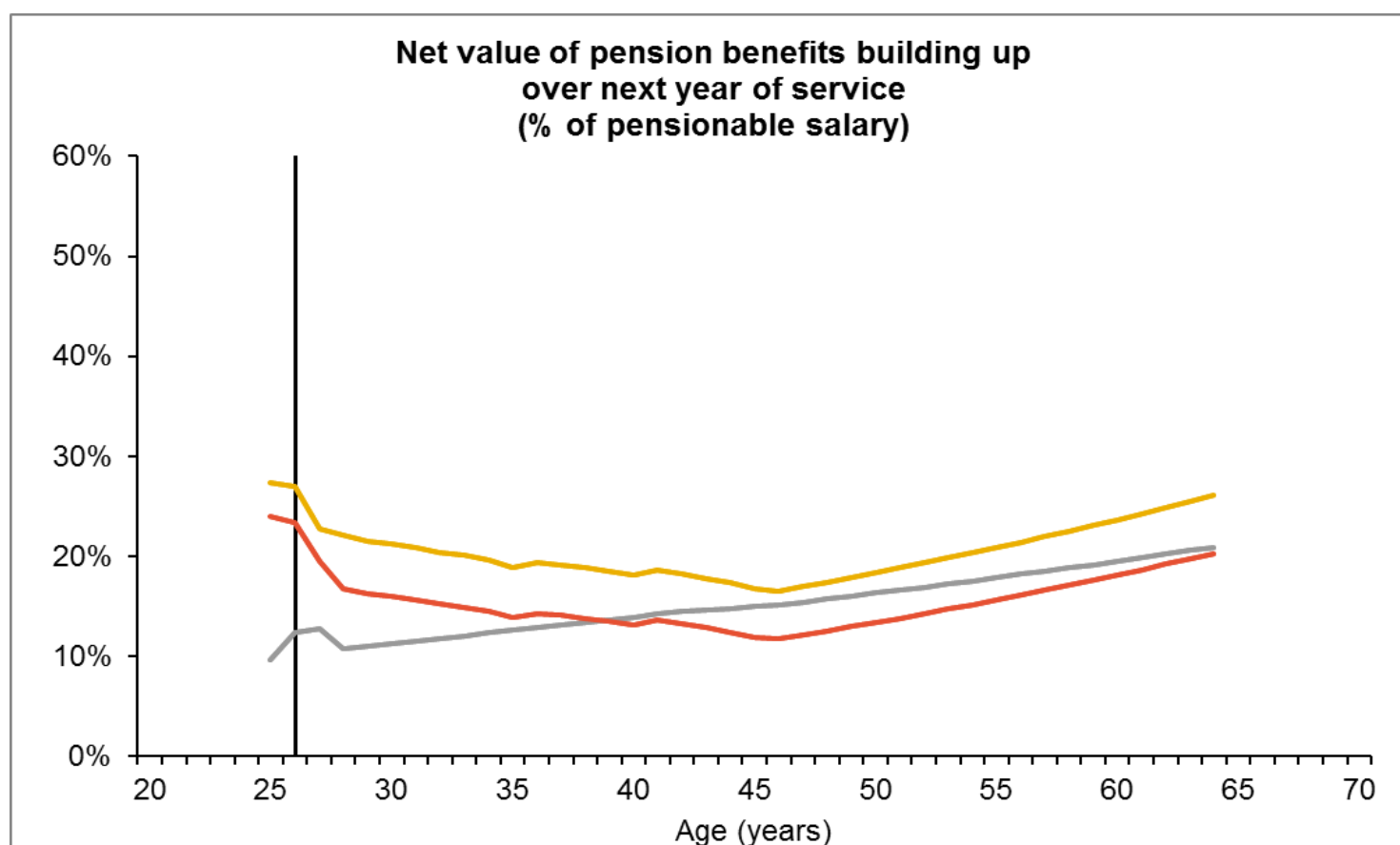
Career path	B4
Age on joining (years)	25
Current age (years)	26
Age on leaving (years)	65
Level on joining	Band 5
Current level	Band 5
Level at leaving	Band 8a
Pensionable salary on joining (£)	21,388
Current pensionable salary (£)	22,016
Pensionable salary at leaving (£)	47,088
Retirement age	65

Comments on career path

Individual joins at Band 5 and rises to Band 8a before retiring at that level
 Progression/promotion salary increases up to age 45 with large salary increase at age 27
 Currently in NHS 2008 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	20%	15%	15%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	21%	20%	20%
Typical DC Scheme	10%	10%	11%
Representative mid-level scheme	12%	11%	12%



Comments on results

Over the whole career, RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015
 The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases, but low in the 2016 structure
 The net value (as a percentage of salary) falls after large salary increases but rises when these salary increases cease
 Over the whole career, the loss of salary linkage under the 2016 design is broadly offset by the higher revaluation rate in service

Remit Group:

NHS

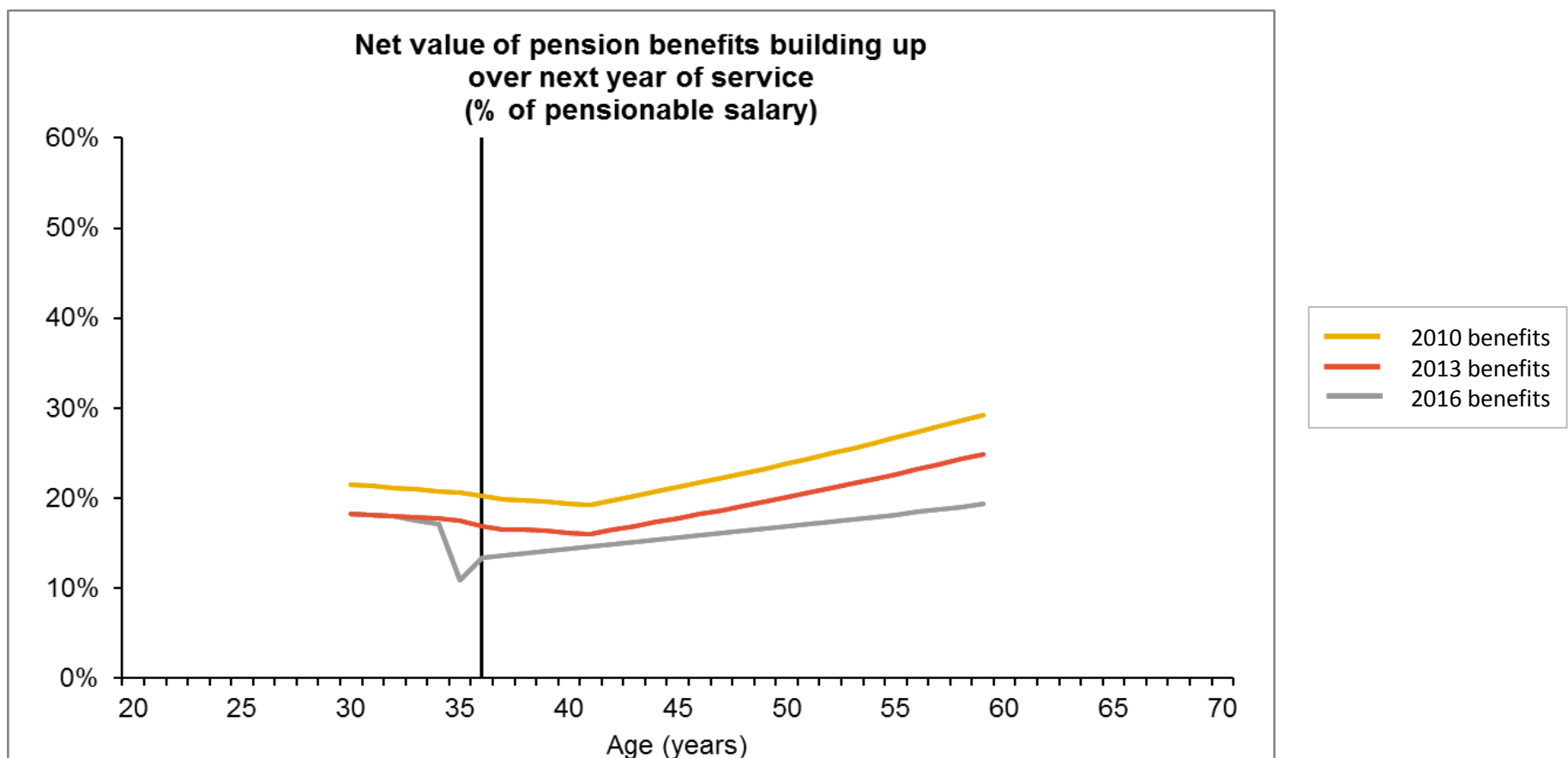
Career path	B5
Age on joining (years)	30
Current age (years)	36
Age on leaving (years)	60
Level on joining	Band 2
Current level	Band 3
Level at leaving	Band 3
Pensionable salary on joining (£)	14,294
Current pensionable salary (£)	16,811
Pensionable salary at leaving (£)	19,268
Retirement age	60

Comments on career path

Individual joins at Band 2, is promoted to Band 3 at age 35 and retires at that level
 Progression/promotion salary increases up to age 41
 Currently in NHS 1995 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	22%	19%	16%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	16%	15%	15%
Typical DC Scheme	9%	9%	11%
Representative mid-level scheme	12%	11%	12%



Comments on results

The net value of the benefits building up over one year falls in the final salary structures (2010 and 2013) over the period where there are promotion/progression salary increases but rises when these salary increases cease

RPI to CPI change in indexation has a similar impact to the change to the new scheme in 2015

The net value of the 2016 benefits is lower than the NHS 1995 scheme due the increase in retirement age from 60 to SPA, partially offset by revaluation in service being on average higher than expected salary increases

Remit Group:

NHS

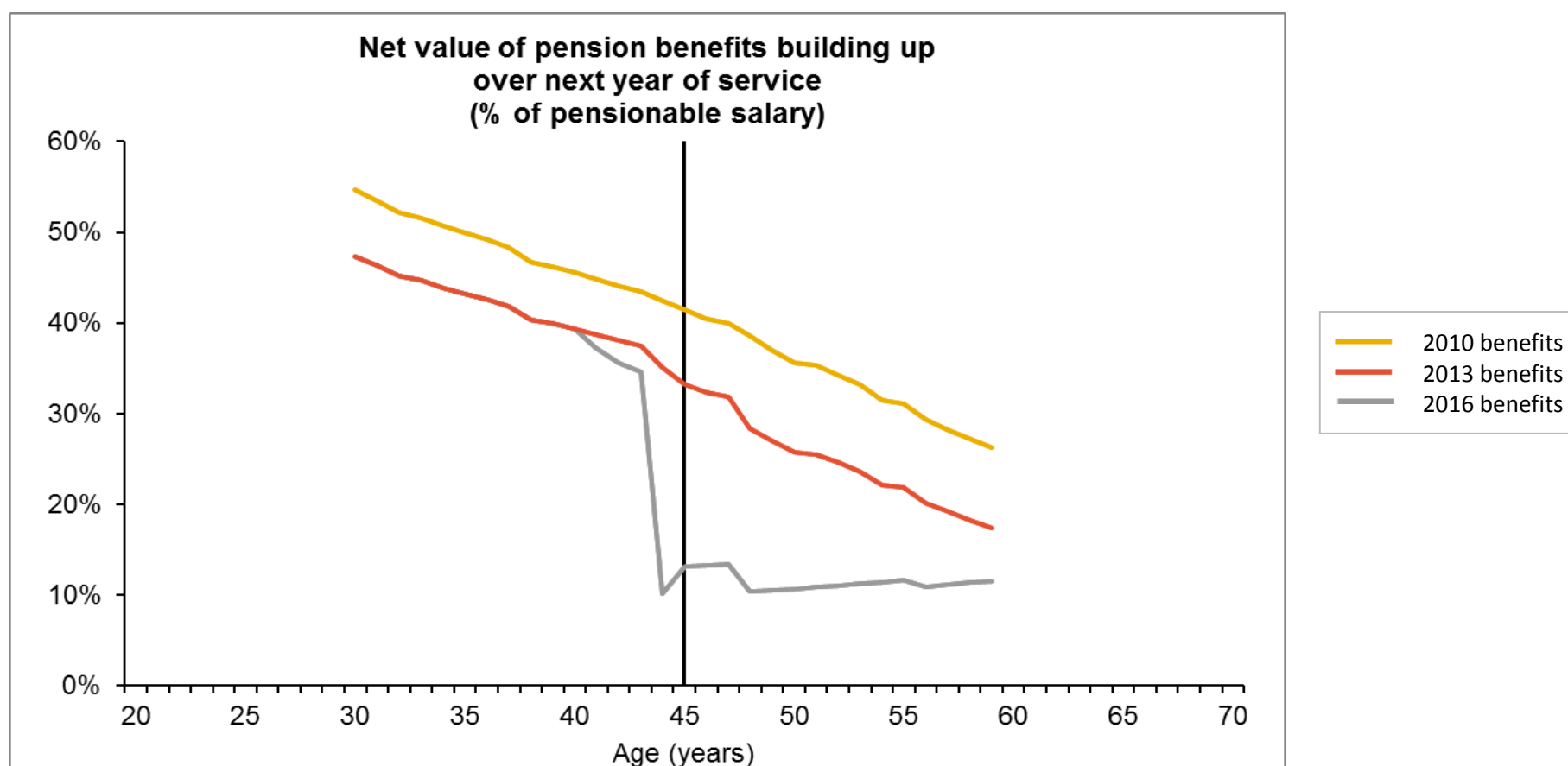
Career path	B6
Age on joining (years)	30
Current age (years)	45
Age on leaving (years)	60
Level on joining	Band 6
Current level	Band 8a
Level at leaving	Band 8d
Pensionable salary on joining (£)	25,783
Current pensionable salary (£)	43,822
Pensionable salary at leaving (£)	81,618
Retirement age	60

Comments on career path

Individual joins at Band 6 and rises to Band 8d before retiring at that level
 Progression/promotion salary increases throughout career
 Currently in NHS 1995 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	40%	32%	23%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	31%	29%	29%
Typical DC Scheme	10%	10%	12%
Representative mid-level scheme	25%	20%	18%



Comments on results

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion/progression salary increases. The net value (as a percentage of salary) falls after large salary increases. Both RPI to CPI change in indexation and change to the new scheme in 2015 lead to a large reduction in value. The net value of the 2016 benefits is significantly lower than NHS 1995 scheme due to the increase in retirement age from 60 to SPA and as the loss of linkage to future salary for a member expected to receive high promotion/progression salary increases is material.

Remit Group:

NHS

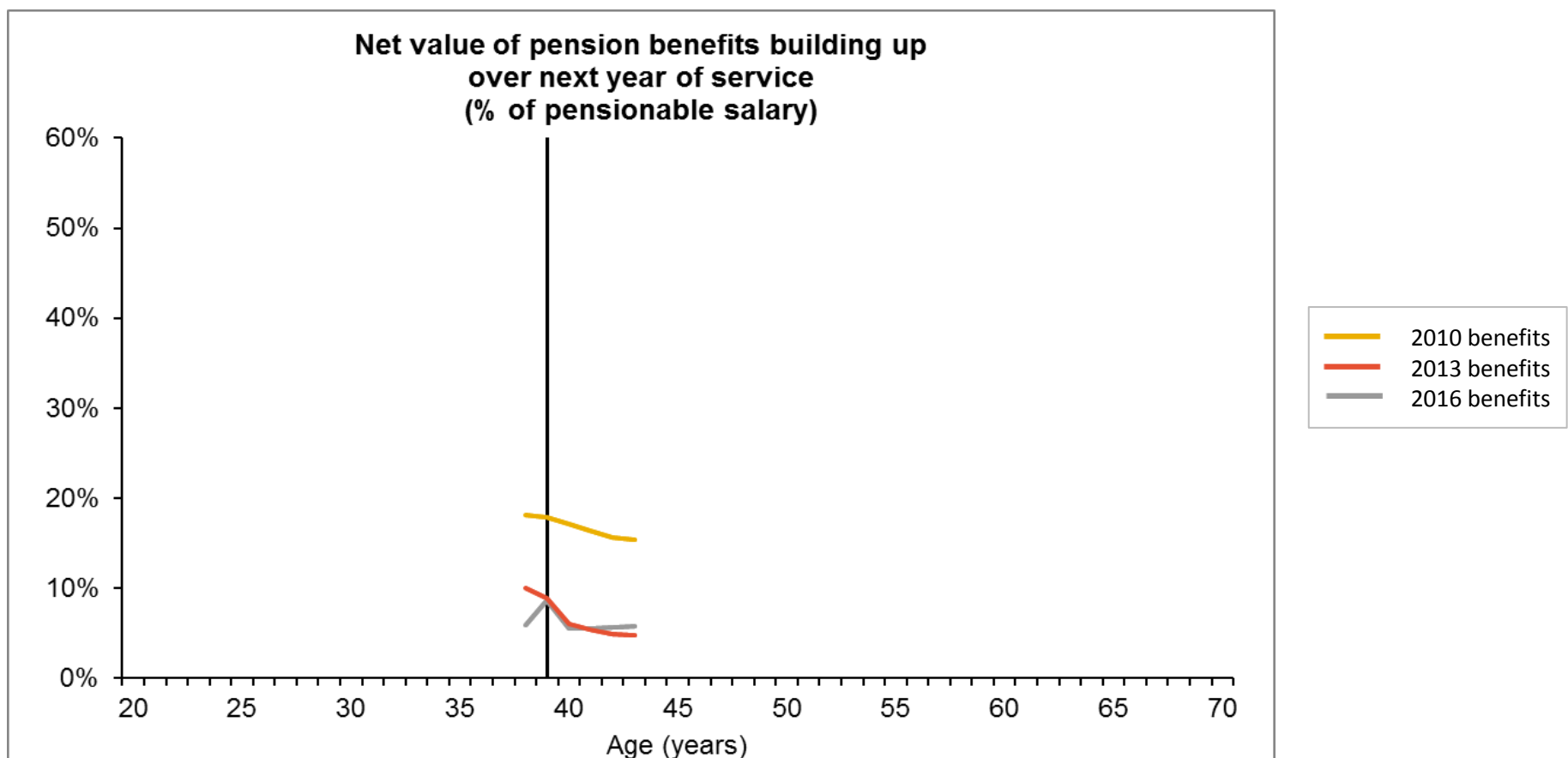
Career path	B7
Age on joining (years)	38
Current age (years)	39
Age on leaving (years)	44
Level on joining	Band 8b
Current level	Band 8b
Level at leaving	Band 8b
Pensionable salary on joining (£)	45,707
Current pensionable salary (£)	47,088
Pensionable salary at leaving (£)	56,504
Retirement age	65

Comments on career path

Individual joins at age 38 as Band 8b and leaves at age 44
 Progression salary increases throughout short career
 Currently in NHS 2008 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	17%	7%	6%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	15%	12%	12%
Typical DC Scheme	9%	9%	11%
Representative mid-level scheme	10%	10%	11%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015 as short serving member so change affects increases after leaving service as well as in payment

The net value of the benefits building up over one year falls in the final salary structures (2010 and 2013) over the period where there are large progression salary increases

Remit Group:

NHS

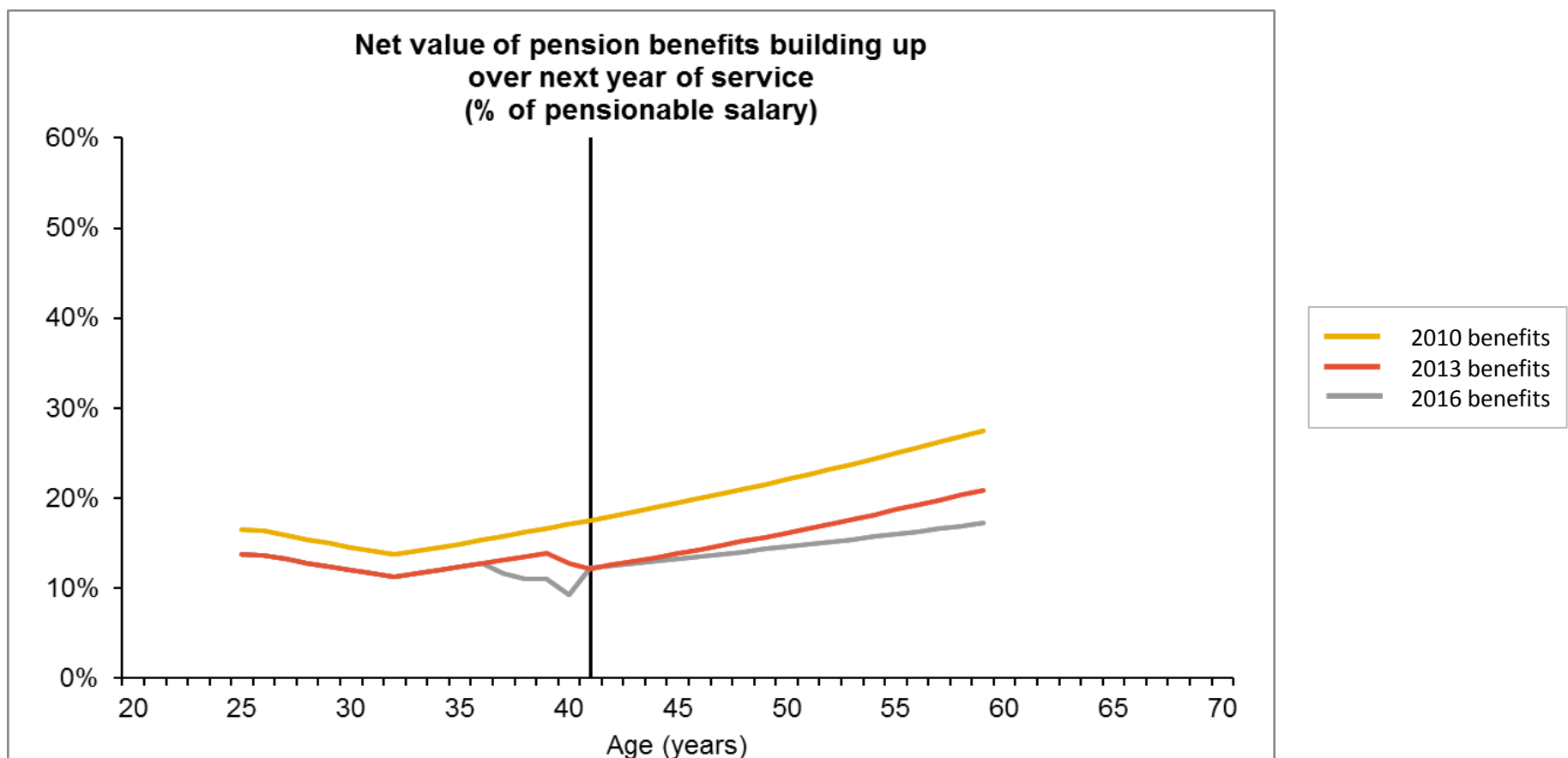
Career path	B8
Age on joining (years)	25
Current age (years)	41
Age on leaving (years)	60
Level on joining	Band 5
Current level	Band 5
Level at leaving	Band 5
Pensionable salary on joining (£)	21,388
Current pensionable salary (£)	27,901
Pensionable salary at leaving (£)	27,901
Retirement age	60

Comments on career path

Individual joins at Nurse Band 5 and retires at that level
 Progression salary increases up to age 32
 Currently in NHS 1995 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	18%	14%	13%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	14%	13%	13%
Typical DC Scheme	10%	10%	11%
Representative mid-level scheme	13%	12%	12%



Comments on results

The net value of the benefits falls in the final salary structures (2010 and 2013) over the period where there are large progression salary increases but increases when progression salary increases cease

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015

The net value of the 2016 benefits is similar to the NHS 1995 scheme as the increase in retirement age from 60 to SPA is broadly offset by revaluation in service being higher than expected salary increases

Sensitivities

The table below shows the value of NHS pension benefits (net of the employee cost, as a % of salary) on the whole career basis for each career path, using the central assumptions and with sensitivities to the discount rate (a reduction from 5% pa to 4% pa) and salary increases (a reduction from 3% pa to 2% pa). For both sets of sensitivities, all assumptions other than the one described are unchanged. The table shows that a lower discount rate leads to a higher net value being placed on the pension benefits. Conversely, a lower salary increase rate leads to a lower net value being placed on the pension benefits.

Remit Group	Career path	2010			2013			2016		
		Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases
NHS	B1	18%	27%	14%	15%	22%	11%	14%	22%	11%
NHS	B2	22%	32%	17%	18%	26%	14%	17%	25%	13%
NHS	B3	23%	33%	18%	18%	26%	14%	15%	24%	13%
NHS	B4	20%	30%	16%	15%	23%	11%	15%	23%	15%
NHS	B5	22%	31%	19%	19%	26%	15%	16%	23%	15%
NHS	B6	40%	53%	34%	32%	43%	27%	23%	33%	20%
NHS	B7	17%	26%	16%	7%	13%	6%	6%	13%	6%
NHS	B8	18%	28%	14%	14%	22%	11%	13%	21%	11%

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Appendix C: Police

Introduction

The results of the valuation of the pension benefits for the illustrative Police career paths are set out on the following pages.

Important notes to consider when reviewing the results

When reviewing the results, it is important for users to note that the purpose of the results is to illustrate to the Review Bodies how the net values of benefits for particular Remit Groups have changed and are expected to change over time, relative to the pension benefit available in the private and with the public sector; not how the benefits compare across Remit Groups.

The research does not consider how career paths and earnings profile might differ in comparator organisations or the impact of such differences on the value of pension benefits. Therefore, when comparing the results for the net employee value of benefits for Remit Group members based on the pension benefits available with the net employee value of benefits for a comparator schemes, it is assumed that the career path in the comparator organisation (including length of service and the earnings profile) are identical. In practice, this is unlikely to be the case.

Furthermore, care is needed to avoid comparing the value of pension benefits across Remit Groups as the particular career paths analysed differ across the groups.

Career paths

Three illustrative career paths have been chosen covering the following scenarios:

- C1 An individual who joins the Police Force as a Constable at age 26 and remains at that rank through his or her career before retiring at age 56. For illustration purposes, this individual is assumed to currently be aged 30 and qualify initially for benefits through the Police Pension Scheme 2006.
- C2 An individual who joins the Police Force as a Constable at age 23 and then rises through the ranks to Inspector before retiring at age 55. For illustration purposes, this individual is assumed to currently be aged 40 and qualify initially for benefits through the Police Pension Scheme 1987.
- C3 An individual who joins the Police Force as a Constable at age 22 and then rises through the ranks to Superintendent before retiring at age 60. For illustration purposes, this individual is assumed to currently be aged 35 and qualify initially for benefits through the Police Pension Scheme 1987.

Upon reaching the maximum service period in the scheme, individuals have the choice whether to opt out of the scheme and stop paying contributions and salary linkage ceases, or to continue to pay contributions so that pension is based on salary at retirement but there are no extra years of accrual. For the purpose of this analysis, we have assumed the latter, which leads to a negative net value of pension benefits for these individuals in 2010 and 2013 after the maximum service has been reached.

For members in the 1987 scheme, benefits earned up to the point at which the member changes to the new career average scheme will be protected to allow for the expectation of double accrual as long as the member remains in service and contributing to the new scheme. Ultimately, a member who remains in pensionable service for 30 years will have an average accrual rate of 45ths applied to all service in the 1987 scheme.

Further details on each illustrative career path can be found in the Methodology Report dated 22 December 2014.

Design of pension benefits for individuals within the Police Pay Review Body schemes

The tables below summarise the pension benefits provided to the individuals on the above career paths within the Police pension schemes and provide details of the member contribution requirements.

Summary of benefits

Pension scheme	Police 1987	Police 2006	Police 2015
Type (Final salary/Career average)	Final salary	Final salary	Career average
Contracted out?	Yes	Yes	No
Deferred Retirement Age (age at which deferred member can retire without reduction)	not relevant for career paths considered	not relevant for career paths considered	not relevant for career paths considered
Normal Retirement Age (age at which active member can retire without reduction)	50	60	60
Pension accrual rate	1/60 for first 20 years, 1/30 for next 10 years	1/70	1/55.3
Lump sum accruing as multiple of pension	0	4	0
Maximum service (if restricted)	30	35	
Spouse's pension as % of member's on death after retirement	50%	50%	50%
Guarantee period (number of years from retirement date that pension is guaranteed to be paid in full even if member dies)	0	0	0
Career average revaluation rate in 2010	n/a	n/a	n/a
Career average revaluation rate in 2013/2016	n/a	n/a	CPI+1.25%
Deferred pension revaluation in 2010	RPI	RPI	n/a
Increases in payment 2010	RPI	RPI	n/a
Deferred pension revaluation in 2013/2016	CPI	CPI	n/a
Increases in payment 2013/2016	CPI	CPI	n/a
Commutation Terms (n/a where lump sum is accrued)	Age-related factors	n/a	12

Summary of member contributions (% of pension salary)

Final details of the contribution requirements under the 2015 scheme have not yet been announced. For the purpose of the comparative valuation, we have assumed that the contribution rates for 2015 (as shown in the table) will be a simple average of the 2014 contribution rates under the 1987 and 2006 schemes.

Salary from (2013 terms)	Police 1987	Police 1987	Police 1987	Police 1987	Police 2006	Police 2006	Police 2006	Police 2006	Police 2015
	Up to 2011	2012	2013	2014	Up to 2011	2012	2013	2014	2015 onwards
£ -	0.00%	n/a	n/a	n/a	9.50%	10.10%	10.70%	11.00%	11.00%
£ 27,000	11.00%	12.25%	13.50%	14.20%	9.50%	10.50%	11.50%	12.00%	13.10%
£ 60,000	11.00%	12.50%	14.00%	15.00%	9.50%	10.75%	12.00%	12.70%	13.85%

Results

The results of the comparative valuation for the Police pension benefits are set out on the following pages. Key themes emerging from the analysis are as follows:

- **Importance of career path on the value of pension benefits:** The results show that within the Police remit group, there are significant differences in the net value of pension benefits depending on the employee's career path:
 - The pension scheme applicable to the individual (the 1987 scheme is generally more valuable than the 2006 scheme)
 - The individual's salary progression (the faster the salary progression, the greater the net value), although this is less of a factor in the 2015 scheme as this is career average rather than final salary.
 - The length of service (accrual ceases in the 1987 scheme after 30 years so the net value of benefits is reduced for longer serving individuals when valued over the whole career)
 - Completed service, age and salary level at the time that the 2015 scheme is introduced. For example, for individuals who are older in 2010 or who are not expecting much future salary progression, the 2015 and 2016 changes (which only affect future service) have a lesser effect on the net value of benefits over the individual's whole career.
- **2010 to 2013 benefit changes:** The change from RPI to CPI indexation in April 2011 had a significant impact on the net value to employees of the Police pension arrangements:
 - The indexation changes were of particular significance as they affected pension benefit entitlements in respect of completed past service and future service. In contrast, the subsequent changes to member contributions, retirement ages and the move to career average style benefits generally only affect pension benefits in respect of future service.
- **2013 to 2015/16 changes:** In general over the whole career, the changes to Police benefits in 2015 and 2016 are expected to have a slightly smaller impact than the changes between 2010

and 2013, for a member remaining in the scheme until retirement. However, the difference in net value can be significant in any individual year for members of the 1987 scheme in particular because of the increase in accrual rate after 20 years in that scheme structure (despite the protection to the member's weighted average accrual rate for service in the 1987 scheme) and the cessation of accrual after 30 years. Some individuals who are members of the 1987 scheme and who are nearing the current maximum years of accrual (for example career path C3) will be able to continue accruing benefits for longer following the introduction of the 2015 scheme if they remain in service.

- The transitional arrangements will further protect some older individuals from the 2015 changes (not applicable for the illustrative career paths considered here).
- **Comparison with private sector:** The changes in the private sector comparators have been less material over this period. While the net values of the 2010 benefits over the whole career were greater than the net value of the typical private sector benefits, the differentials were reduced for the 2013 benefits and, in general, further reduced for the 2016 benefits; although the net values of the 2016 benefits were still higher than those of the typical private sector comparators analysed.

Remit Group:

Police

Career path	C1
Age on joining (years)	26
Current age (years)	30
Age on leaving (years)	56
Level on joining	Constable
Current level	Constable
Level at leaving	Constable
Pensionable salary on joining (£)	23,493
Current pensionable salary (£)	30,366
Pensionable salary at leaving (£)	36,885
Retirement age	56

Comments on career path

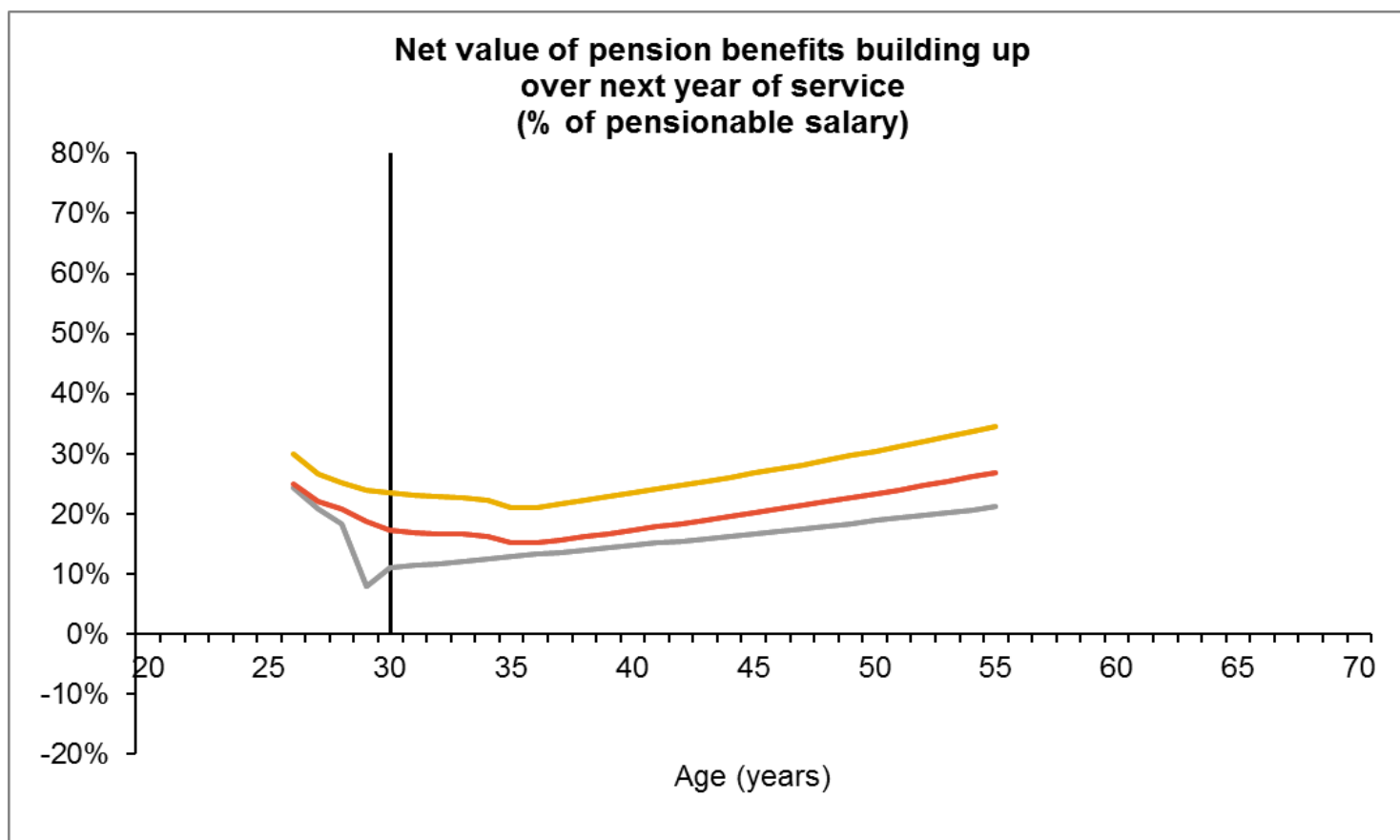
Individual remains as Constable throughout career

Large progression salary increases in first three years, no progression salary escalation from age 36 onwards

Currently in Police Pension Scheme 2006

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	26%	20%	16%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	14%	13%	13%
Typical DC Scheme	10%	10%	12%
Representative mid-level scheme	11%	10%	12%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large progression salary increases

The net value (as a percentage of salary) falls after large salary increases but rises when progression salary increases cease

Remit Group:

Police

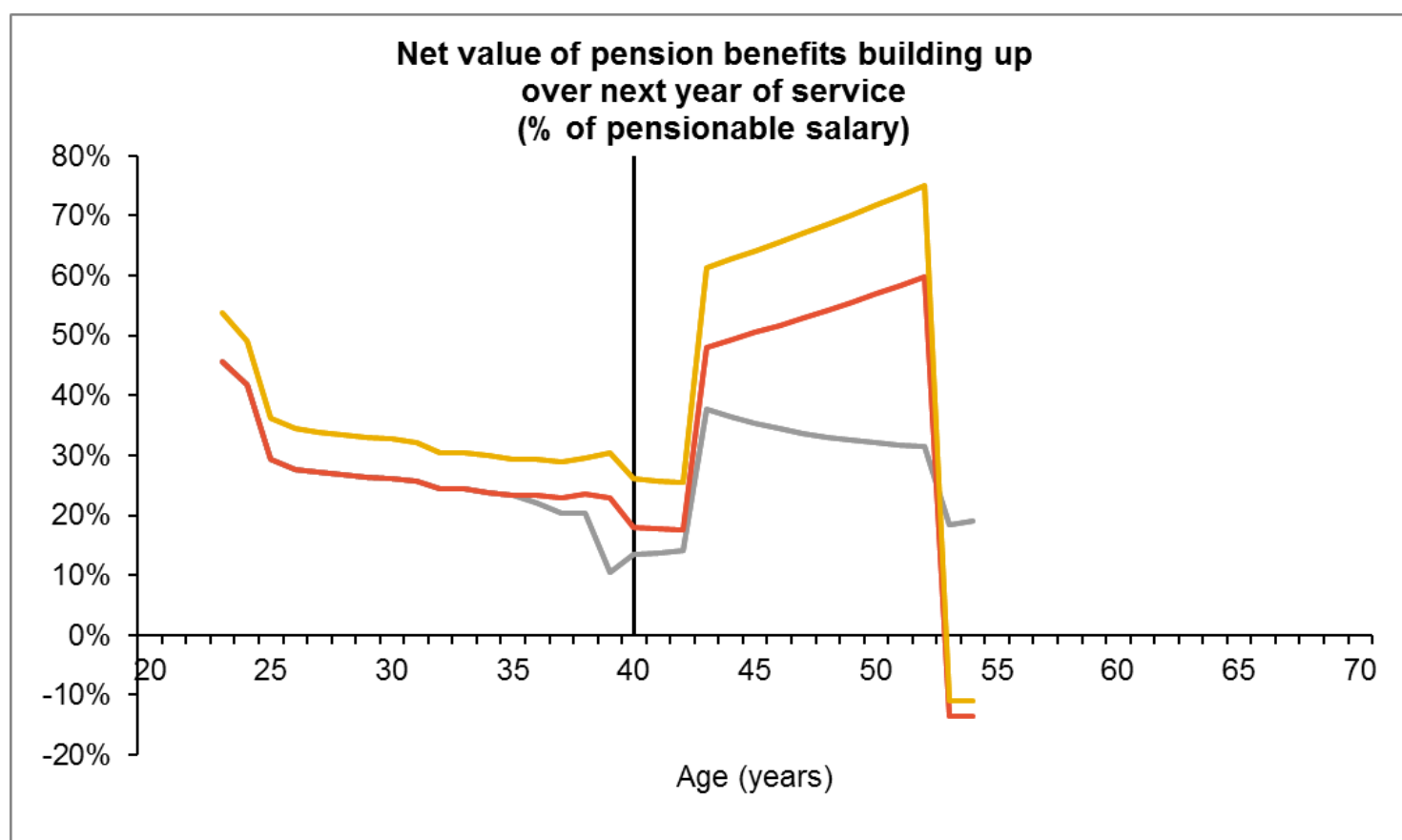
Career path	C2
Age on joining (years)	23
Current age (years)	40
Age on leaving (years)	55
Level on joining	Constable
Current level	Inspector
Level at leaving	Inspector
Pensionable salary on joining (£)	23,493
Current pensionable salary (£)	47,256
Pensionable salary at leaving (£)	51,258
Retirement age	55

Comments on career path

Individual rises through ranks from Constable to Inspector by age 40
 Large promotion/progression salary increases in first three years and at age 40
 Currently in Police Pension Scheme 1987

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	41%	32%	27%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	16%	14%	14%
Typical DC Scheme	9%	9%	11%
Representative mid-level scheme	14%	12%	12%



Comments on results

Under 1987 scheme, accrual rate increases from 60ths to 30ths at age 43 (20 years' service) and accrual ceases at age 53 (30 years' service)
 The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion/progression salary increases. The net value (as a percentage of salary) falls after large salary increases
 The net value of the 2016 benefits is significantly lower than 2013 benefit accrual between ages 43 and 53 because of the higher accrual rate in the 1987 scheme at those ages, even allowing for the extra accrual from the weighted average accrual rate
 The net value of benefits in 1987 scheme is negative from age 53 (because there is no further accrual but member contributions are assumed to continue)

Remit Group:

Police

Career path	C3
Age on joining (years)	22
Current age (years)	35
Age on leaving (years)	60
Level on joining	Constable
Current level	Sergeant
Level at leaving	Superintendent
Pensionable salary on joining (£)	23,493
Current pensionable salary (£)	40,266
Pensionable salary at leaving (£)	73,311
Retirement age	60

Comments on career path

Individual rises through ranks from Constable to Superintendent

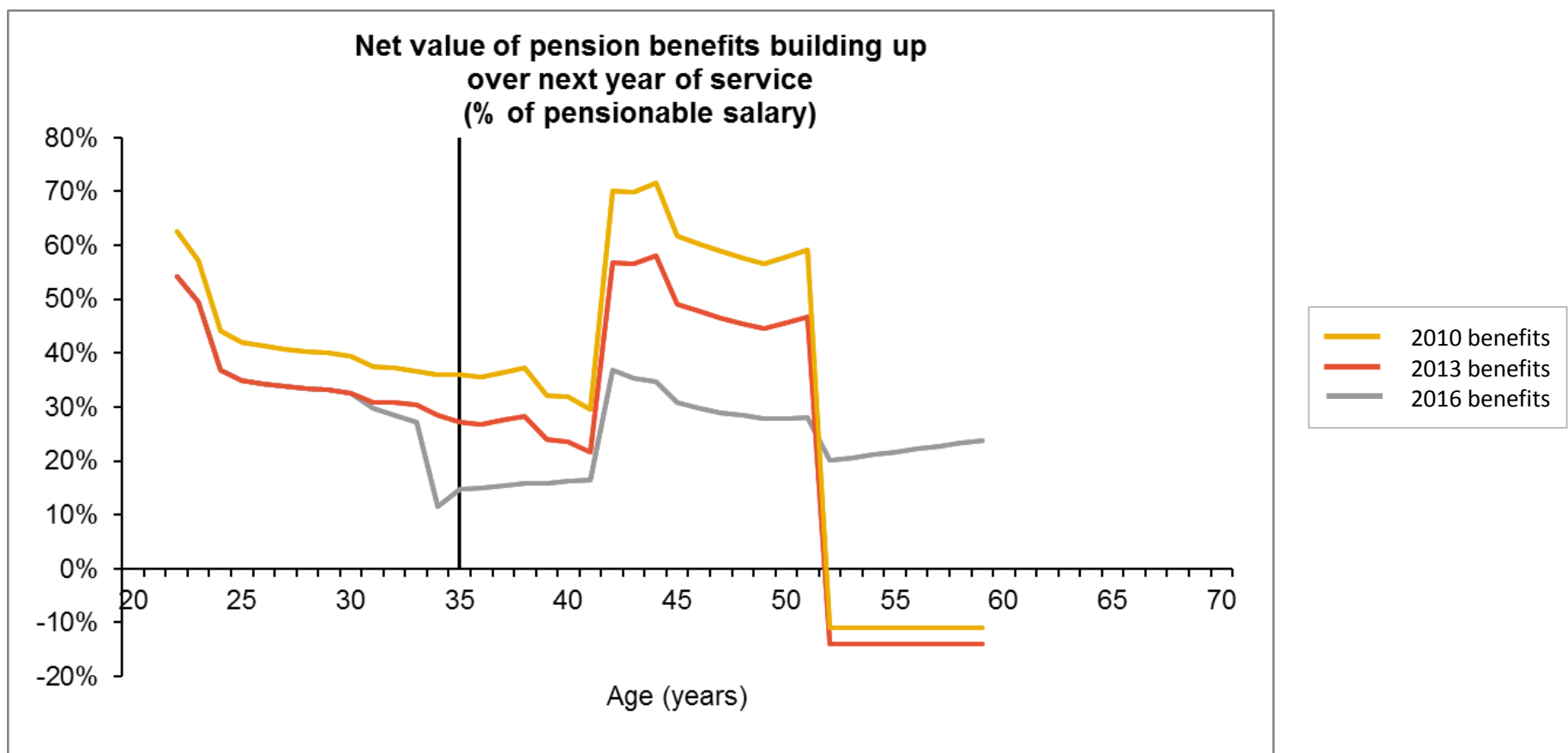
Large promotion/progression salary increases in first three years and at ages 39, 41 and 45

Smaller promotion/progression increases throughout career until age 49

Currently in Police Pension Scheme 1987

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	34%	26%	27%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	23%	21%	21%
Typical DC Scheme	10%	10%	12%
Representative mid-level scheme	19%	16%	15%



Comments on results

Under 1987 scheme, accrual rate increases from 60ths to 30ths at age 42 (20 years' service) and accrual ceases at age 52 (30 years' service)

The net value of benefits in 1987 scheme is negative from age 52 (because there is no further accrual but member contributions are assumed to continue)

Over the whole career the move to 2015 scheme has little impact, as accrual continuing beyond 30 years offsets the lower accrual in the period up to 30 years' service

The net value (as a percentage of salary) falls after large salary increases but rises when progression salary increases cease

Sensitivities

The table below shows the value of Police pension benefits (net of the employee cost, as a % of salary) on the whole career basis for each career path, using the central assumptions and with sensitivities to the discount rate (a reduction from 5% pa to 4% pa) and salary increases (a reduction from 3% pa to 2% pa). For both sets of sensitivities, all assumptions other than the one described are unchanged. The table shows that a lower discount rate leads to a higher net value being placed on the pension benefits. Conversely, a lower salary increase rate leads to a lower net value being placed on the pension benefits.

Remit Group	Career path	2010			2013			2016		
		Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases
Police	C1	26%	38%	21%	20%	30%	15%	16%	25%	15%
Police	C2	41%	61%	34%	32%	48%	26%	27%	40%	22%
Police	C3	34%	51%	27%	26%	40%	20%	27%	40%	23%

Appendix D: Prison Service Pay Review Body

Introduction

The results of the valuation of the pension benefits for the illustrative Prison Service career paths are set out on the following pages.

Important notes to consider when reviewing the results

When reviewing the results, it is important for users to note that the purpose of the results is to illustrate to the Review Bodies how the net values of benefits for particular Remit Groups have changed and are expected to change over time, relative to the pension benefit available in the private and with the public sector; not how the benefits compare across Remit Groups.

The research does not consider how career paths and earnings profile might differ in comparator organisations or the impact of such differences on the value of pension benefits. Therefore, when comparing the results for the net employee value of benefits for Remit Group members based on the pension benefits available with the net employee value of benefits for a comparator schemes, it is assumed that the career path in the comparator organisation (including length of service and the earnings profile) are identical. In practice, this is unlikely to be the case.

Furthermore, care is needed to avoid comparing the value of pension benefits across Remit Groups as the particular career paths analysed differ across the groups.

Career paths

Seven illustrative career paths have been chosen covering the following scenarios:

Prison Service England and Wales

- D1 An individual who joins the England and Wales Prison Service on the old scale as a Prison Officer at the age of 25 and remains at that level until their retirement at 60. For illustration purposes, this individual is assumed to be currently aged 45 and initially qualifies for benefits through the Civil Service classic Pension Scheme.

- D2 An individual who joins the England and Wales Prison Service as a Band 3 Prison Officer on the Fair and Sustainable scale at the age of 25. They are promoted to Band 4 at age 33 and Band 5 at age 42, where they remain until their retirement at age 65. For illustration purposes, this individual is assumed to be currently aged 26 and initially qualifies for benefits through the Civil Service nuvos pension scheme.

- D3 An individual who joins the England and Wales Prison Service on the old scale as a Prison Officer at the age of 25, is promoted to Manager level F by age 36, rising to Manager level B by retirement age 60. For illustration purposes, this individual is assumed to be currently aged 50 and initially qualifies for benefits through the Civil Service classic pension scheme.
- D4 An individual who joins the England and Wales Prison Service as a Band 3 Prison Officer on the Fair and Sustainable scale at the age of 35 and leaves the Prison Service after 5 years having remained at that level, before retiring at age 65. For illustration purposes, this individual is assumed to be currently aged 35 and initially qualifies for benefits through the Civil Service nuvos pension scheme.

Prison Service Northern Ireland

- D5 An individual who joins the Northern Ireland Prison Service as a Main Grade Officer on the pre 02 scale at the age of 25 and remains in that role until retirement at age 60. For illustration purposes, this individual is assumed to be currently aged 45 and initially qualifies for benefits through the Civil Service classic pension scheme.
- D6 An individual who joins the Northern Ireland Prison Service as a Custody Prison Officer on the post 02 at the age of 25; becomes a Prison Officer Offender Supervisor at age 35 and Senior Officer at age 44. They are promoted to the role of a level 5 Governor at age 49 where they remain until their retirement at age 65. For illustration purposes, this individual is assumed to be currently aged 26 and initially qualifies for benefits through the Civil Service nuvos pension scheme.
- D7 An individual who joins the Northern Ireland Prison Service as a Main Grade Officer on the pre 02 scale at the age of 25. They are promoted to the role of Senior Officer at age 30, Principal Officer at age 32 and Level 5 Governor by the age of 34 and retire at age 60 having attained the role of Level 2 Governor. For illustration purposes, this individual is assumed to be currently aged 50 and initially qualifies for benefits through the Civil Service classic pension scheme.

Further details on each illustrative career path can be found in the Methodology Report dated 22 December 2014.

Design of pension benefits for individuals within the Prison Service Pay Review Body schemes

The tables below summarise the pension benefits provided to the individuals on the above career paths within the Civil Service pension schemes and provide details of the member contribution requirements.

Summary of benefits

Name	Civil Service classic	Civil Service nuvos	Civil Service 2015
Type (Final salary/Career average)	Final salary	Career average	Career average
Contracted out?	Yes	Yes	No
Deferred Retirement Age (age at which deferred member can retire without reduction)	60	65	SPA
NRA (age at which active member can retire without reduction)	60	65	SPA
Pension accrual rate	1/80	2.30%	2.32%
Lump sum accruing as multiple of pension	3	0	0
Maximum service (if restricted)	45		
Spouse's pension as % of member's on death after retirement	50%	37.5%	37.5%
Guarantee period (number of years from retirement date that pension is guaranteed to be paid in full even if member dies)	5	5	5
Career average revaluation rate in 2010	n/a	RPI	n/a
Career average revaluation rate in 2013/2016	n/a	CPI	CPI
Deferred pension revaluation in 2010	RPI	RPI	n/a
Increases in payment 2010	RPI	RPI	n/a
Deferred pension revaluation in 2013/2016	CPI	CPI	CPI
Increases in payment 2013/2016	CPI	CPI	CPI
Commutation Terms (n/a where lump sum is accrued)	n/a	12	12

Summary of member contributions (% of pension salary)

Salary from (2013 terms)	Civil Service classic	Civil Service classic	Civil Service classic	Civil Service classic
	Up to 2011	2012	2013	2014
£ -	1.50%	1.50%	1.50%	1.50%
£ 15,000	1.50%	2.10%	2.70%	3.00%
£ 21,000	1.50%	2.70%	3.88%	4.48%
£ 30,000	1.50%	3.10%	4.67%	5.27%
£ 47,000	1.50%	3.10%	4.67%	5.27%
£ 50,000	1.50%	3.50%	5.46%	6.06%
£ 60,000	1.50%	3.90%	6.25%	6.85%
£150,000	1.50%	3.90%	6.25%	6.85%

Salary from (2013 terms)	Civil Service nuvos	Civil Service nuvos	Civil Service nuvos	Civil Service nuvos	Civil Service 2015
	Up to 2011	2012	2013	2014	2015 onwards
£ -	3.50%	3.50%	3.50%	3.50%	4.60%
£ 15,000	3.50%	4.10%	4.70%	5.00%	4.60%
£ 21,000	3.50%	4.70%	5.88%	6.48%	5.45%
£ 30,000	3.50%	5.10%	6.67%	7.27%	5.45%
£ 47,000	3.50%	5.10%	6.67%	7.27%	7.35%
£ 50,000	3.50%	5.50%	7.46%	8.06%	7.35%
£ 60,000	3.50%	5.90%	8.25%	8.85%	7.35%
£150,000	3.50%	5.90%	8.25%	8.85%	8.05%

Results

The results of the comparative valuation for the Prison Service pension benefits are set out on the following pages. Key themes emerging from the analysis are as follows:

- **Importance of career path on the value of pension benefits:** The results show that within the Prison Service remit group, there are significant differences in the net value of pension benefits depending on the employee's career path:
 - The pension scheme applicable to the individual (whether the member is in classic, which is final salary with a lower accrual rate, or nuvos, which is career average with a higher accrual rate)
 - The individual's salary progression (the faster the salary progression, the greater the net value), although this is less of a factor in both nuvos and the 2015 scheme as these are career average rather than final salary.
 - Completed service, age and salary level at the time that the 2015 scheme is introduced. For example, for individuals who are older in 2010 (such as D3 and D7) or who are not expecting much future salary progression (such as D1), the 2015 and 2016 changes (which only affect future service) have a lesser effect on the net value of benefits over the individual's whole career.
- **2010 to 2013 benefit changes:** The change from RPI to CPI indexation in April 2011 had a significant impact on the net value to employees of the Prison Service pension arrangements:
 - The indexation changes were of particular significance as they affected pension benefit entitlements in respect of completed past service and future service. In contrast, the subsequent changes to member contributions, retirement ages and the move to career average style benefits generally only affect pension benefits in respect of future service.
 - For a shorter service career (for example career path D4) the change from RPI to CPI indexation has a relatively greater impact, as it affects not only pension increases in payment but also pension increases after leaving service and prior to payment.

- **2013 to 2015/16 benefit changes:** In general over the whole career, the changes to Prison Service benefits in 2015 and 2016 are expected to have a much smaller impact than the changes between 2010 and 2013, particularly for those members currently in nuvos.
 - The transitional arrangements will further protect some older individuals from the 2015 changes (not applicable for the illustrative career paths considered here).
- **Comparison with private sector:** The changes in the private sector comparators have been less material over this period. While the net values of the 2010 benefits over the whole career were greater than the net value of the typical private sector benefits, the differentials were reduced for the 2013 benefits and further reduced for the 2016 benefits; although the net values of the 2016 benefits were still higher than those of the typical private sector comparators analysed.

Remit Group:

Prison Service E&W

Career path	D1
Age on joining (years)	25
Current age (years)	45
Age on leaving (years)	60
Level on joining	Prison officer
Current level	Prison officer
Level at leaving	Prison officer
Pensionable salary on joining (£)	18,635
Current pensionable salary (£)	28,930
Pensionable salary at leaving (£)	28,930
Retirement age	60

Comments on career path

Individual remains as Prison Officer on old scale throughout career

Large progression salary increases in first seven years, no progression salary escalation from age 31 onwards

Currently in Civil Service classic

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	24%	20%	19%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	14%	13%	13%
Typical DC Scheme	10%	10%	11%
Representative mid-level scheme	13%	12%	12%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015

The net value of the benefits building up over one year falls in the final salary structures (2010 and 2013) over the period where there are large progression salary increases but rises when these salary increases cease

The net value of the 2016 benefits is not materially different from the 2013 benefits

Remit Group:

Prison Service E&W

Career path	D2
Age on joining (years)	25
Current age (years)	26
Age on leaving (years)	65
Level on joining	Prison officer band 3
Current level	Prison officer band 3
Level at leaving	Prison officer band 5
Pensionable salary on joining (£)	18,860
Current pensionable salary (£)	19,802
Pensionable salary at leaving (£)	32,421
Retirement age	65

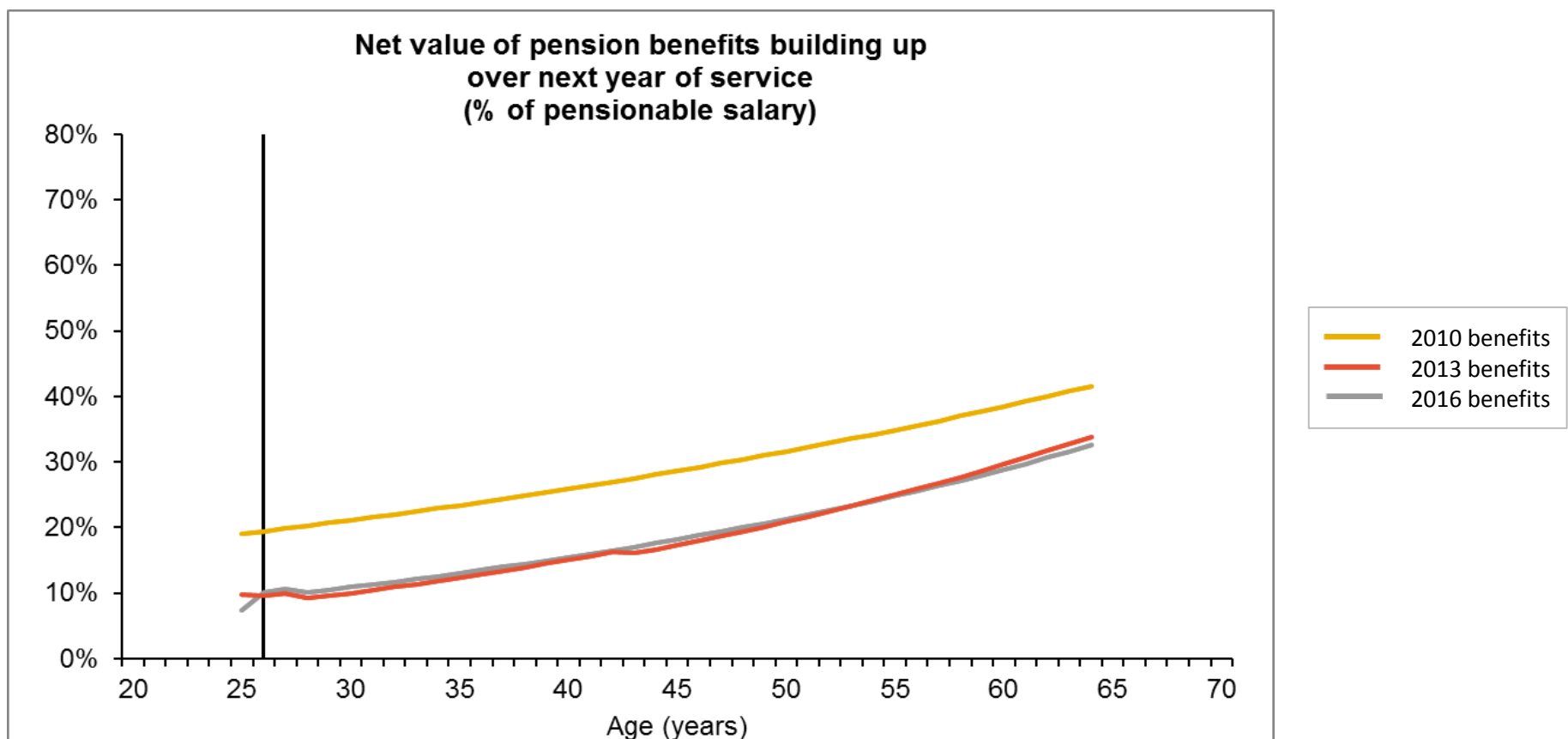
Comments on career path

Individual rises from Band 3 to Band 5 of Fair and Sustainable scale

Currently in Civil Service nuvos so promotion/progression salary increases less relevant

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	29%	18%	18%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	19%	19%	19%
Typical DC Scheme	10%	10%	11%
Representative mid-level scheme	12%	11%	12%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015 as currently in nuvos

Remit Group:

Prison Service E&W

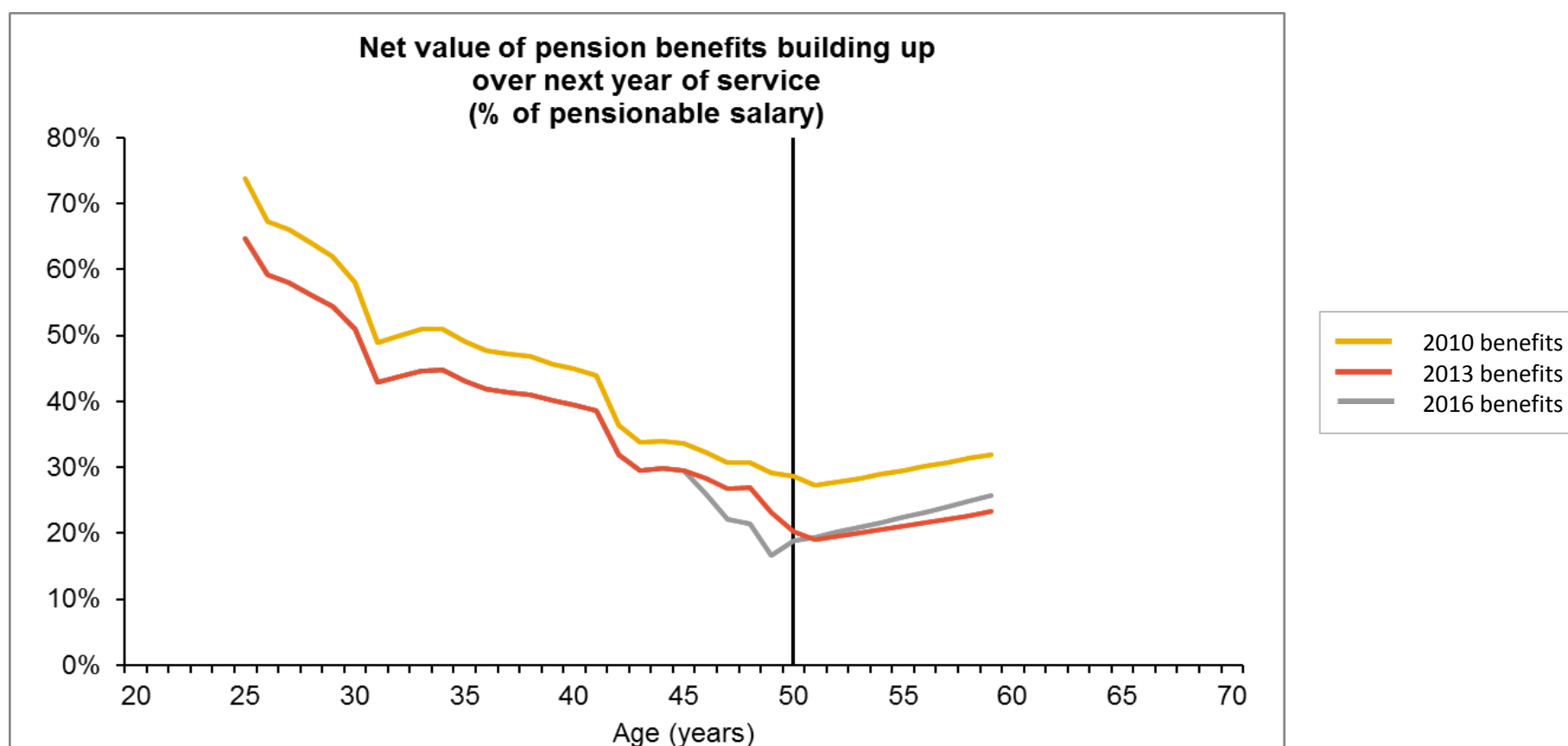
Career path	D3
Age on joining (years)	25
Current age (years)	50
Age on leaving (years)	60
Level on joining	Prison officer
Current level	Senior manager
Level at leaving	Senior manager
Pensionable salary on joining (£)	18,635
Current pensionable salary (£)	75,195
Pensionable salary at leaving (£)	80,458
Retirement age	60

Comments on career path

Individual rises from Prison Officer to Manager B on old scale
 Large promotion/progression salary increases throughout career
 Currently in Civil Service classic

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	39%	32%	32%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	26%	24%	24%
Typical DC Scheme	10%	10%	12%
Representative mid-level scheme	23%	19%	17%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015
 The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases. The net value (as a percentage of salary) falls after large salary increases.
 The net value of the 2016 benefits is lower than the 2013 benefits at younger ages because the higher accrual rate does not offset the loss of final salary linkage when future promotion salary increases are expected

Remit Group:

Prison Service E&W

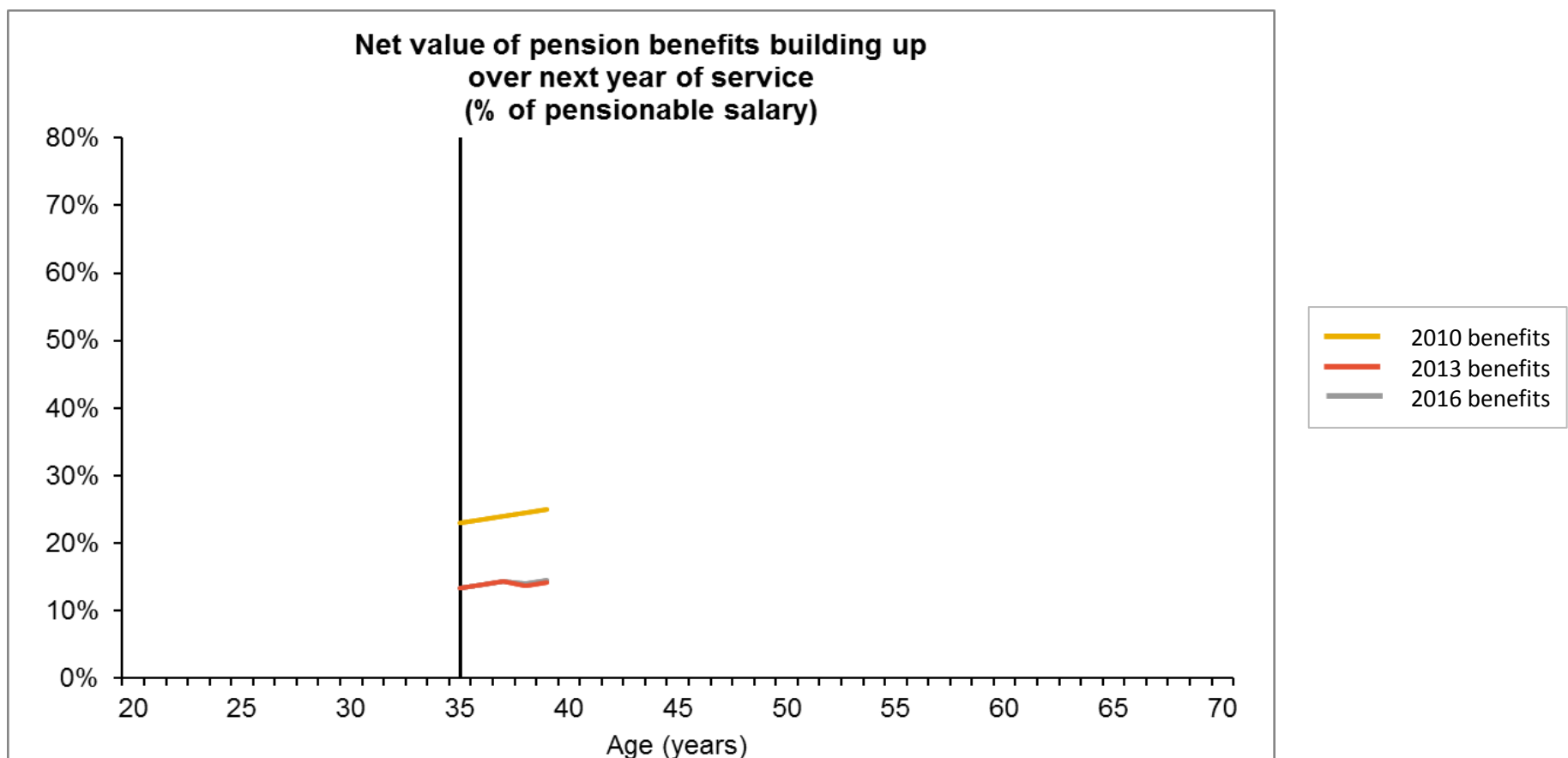
Career path	D4
Age on joining (years)	35
Current age (years)	35
Age on leaving (years)	40
Level on joining	Prison officer band 3
Current level	Prison officer band 3
Level at leaving	Prison officer band 3
Pensionable salary on joining (£)	18,860
Current pensionable salary (£)	18,860
Pensionable salary at leaving (£)	22,265
Retirement age	65

Comments on career path

Individual joins at Band 3 on Fair and Sustainable scale at age 35 and leaves prison service at same level at age 40
Currently in Civil Service nuvos so promotion/progression salary increases less relevant

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	24%	14%	14%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	13%	10%	10%
Typical DC Scheme	10%	10%	11%
Representative mid-level scheme	10%	10%	11%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015 as currently in nuvos

Remit Group:

Prison Service NI

Career path	D5
Age on joining (years)	25
Current age (years)	45
Age on leaving (years)	60
Level on joining	Main Grade Officer
Current level	Main Grade Officer
Level at leaving	Main Grade Officer
Pensionable salary on joining (£)	19,538
Current pensionable salary (£)	37,364
Pensionable salary at leaving (£)	37,364
Retirement age	60

Comments on career path

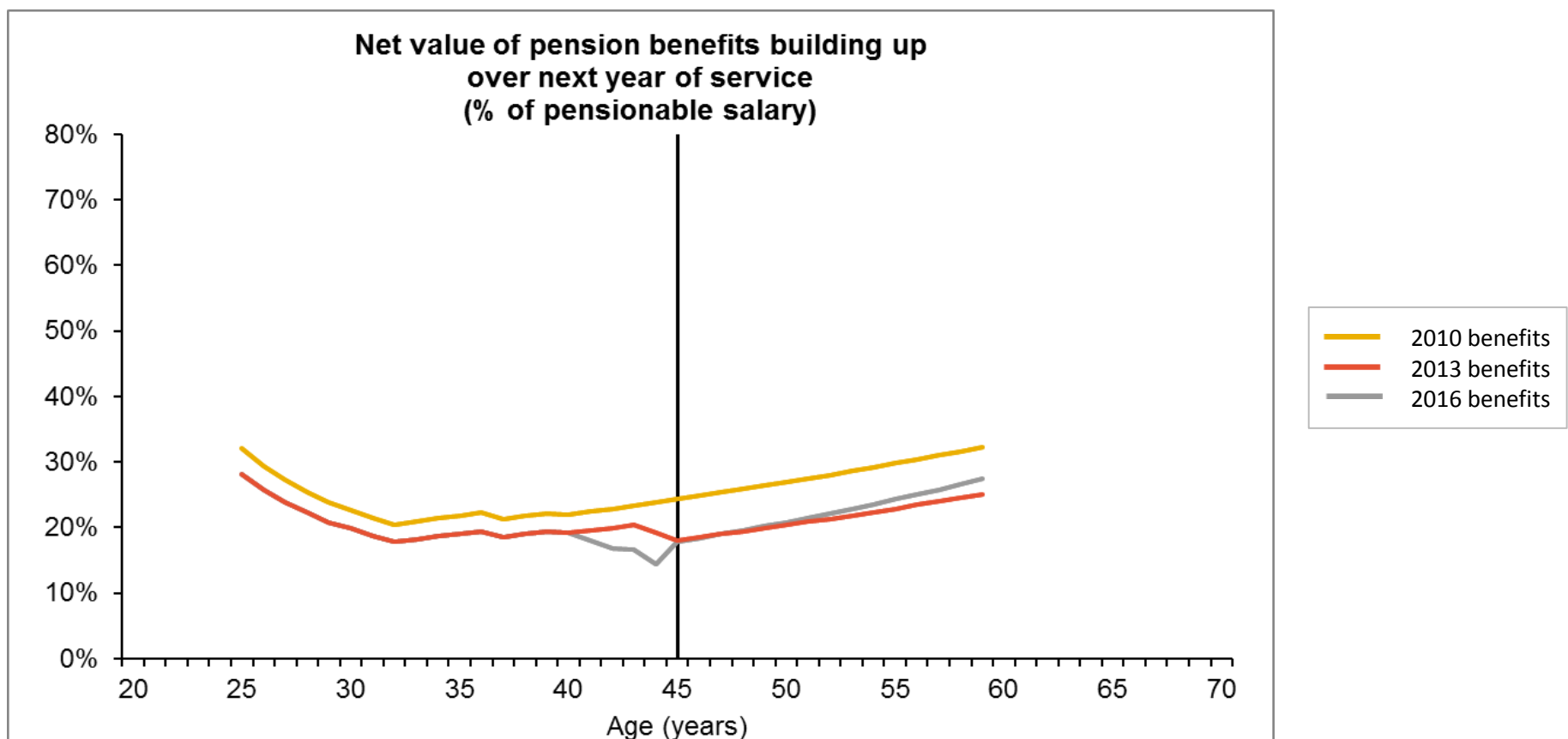
Individual remains as Main Grade Officer on pre 02 scale throughout career

Large progression salary increases in first ten years, no progression salary escalation from age 40 onwards

Currently in Civil Service classic

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	25%	21%	20%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	15%	14%	14%
Typical DC Scheme	10%	10%	12%
Representative mid-level scheme	14%	12%	13%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large progression salary increases

The net value (as a percentage of salary) falls after large salary increases but rises when these salary increases cease

Remit Group:

Prison Service NI

Career path	D6
Age on joining (years)	25
Current age (years)	26
Age on leaving (years)	65
Level on joining	Custody Prison officer
Current level	Custody Prison officer
Level at leaving	Prison Governor 5
Pensionable salary on joining (£)	18,180
Current pensionable salary (£)	18,180
Pensionable salary at leaving (£)	50,396
Retirement age	65

Comments on career path

Individual rises from Custody Prison Officer to Governor 5 on post 02 scale
Currently in Civil Service nuvos so promotion/progression salary increases less relevant

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	30%	19%	19%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	28%	27%	27%
Typical DC Scheme	10%	10%	11%
Representative mid-level scheme	13%	12%	12%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015 as currently in nuvos

Remit Group:

Prison Service NI

Career path	D7
Age on joining (years)	25
Current age (years)	50
Age on leaving (years)	60
Level on joining	Main Grade Officer
Current level	Prison Governor 4
Level at leaving	Prison Governor 2
Pensionable salary on joining (£)	19,538
Current pensionable salary (£)	54,584
Pensionable salary at leaving (£)	70,051
Retirement age	60

Comments on career path

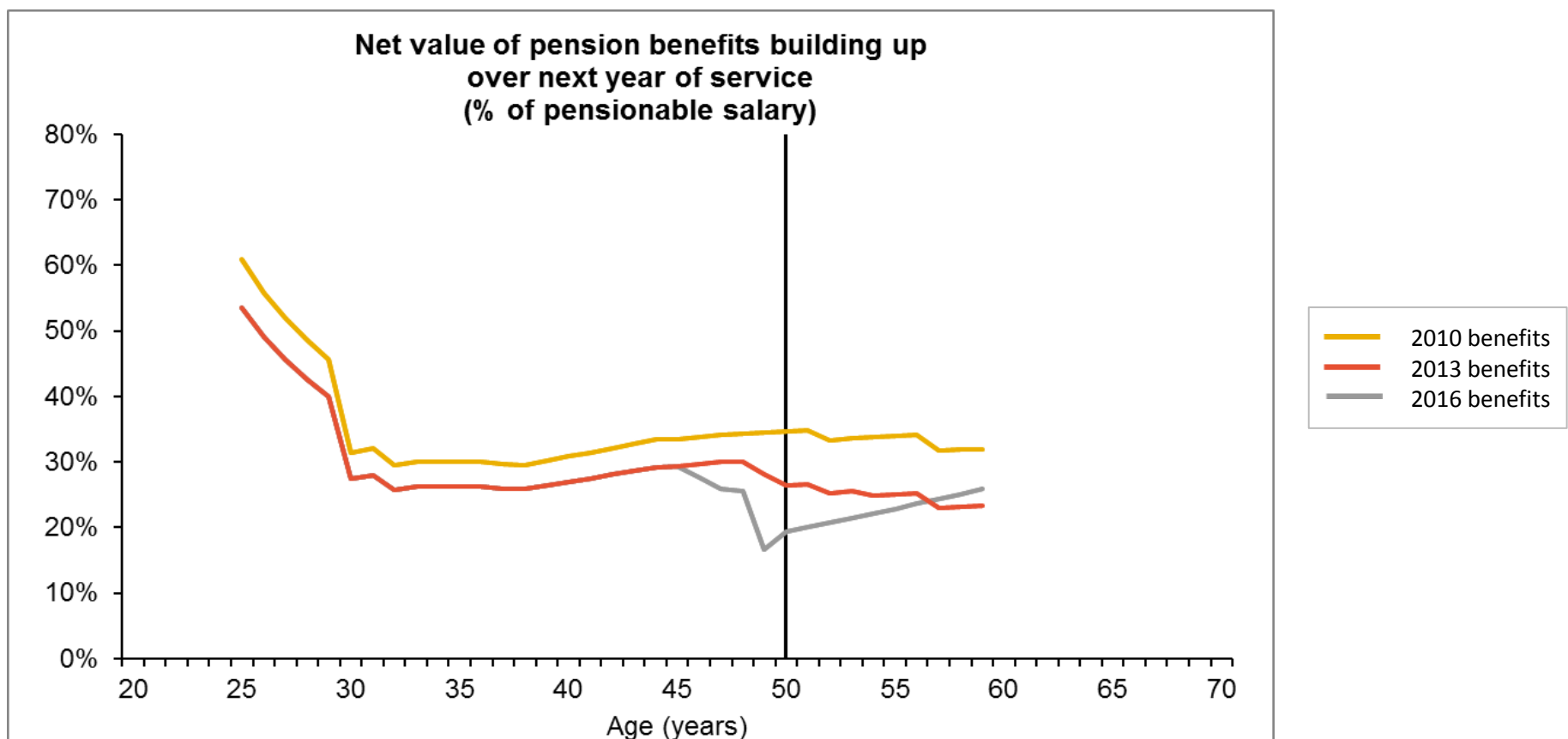
Individual rises from Main Grade Officer to Governor 2 on pre 02 scale

Large progression salary increases up to age 30 (very large promotional increase at age 30) and smaller salary increases later in career

Currently in Civil Service classic

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	34%	28%	27%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	22%	21%	21%
Typical DC Scheme	10%	10%	12%
Representative mid-level scheme	20%	16%	15%



Comments on results

Over the whole career, RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases. The net value (as a percentage of salary) falls after large salary increases.

The net value of the 2016 benefits is lower than the 2013 benefits at younger ages because the higher accrual rate does not offset the loss of final salary linkage when large future progression salary increases are expected

Sensitivities

The table below shows the value of the Prison Service pension benefits (net of the employee cost, as a % of salary) on the whole career basis for each career path, using the central assumptions and with sensitivities to the discount rate (a reduction from 5% pa to 4% pa) and salary increases (a reduction from 3% pa to 2% pa). For both sets of sensitivities, all assumptions other than the one described are unchanged. The table shows that a lower discount rate leads to a higher net value being placed on the pension benefits. Conversely, a lower salary increase rate leads to a lower net value being placed on the pension benefits.

Remit Group	Career path	Central	2010		Central	2013		Central	2016	
			Lower discount rate	Lower salary increases		Lower discount rate	Lower salary increases		Lower discount rate	Lower salary increases
Prison Service E&W	D1	24%	33%	20%	20%	27%	16%	19%	28%	16%
Prison Service E&W	D2	29%	40%	28%	18%	26%	17%	18%	26%	18%
Prison Service E&W	D3	39%	51%	33%	32%	42%	27%	32%	43%	28%
Prison Service E&W	D4	24%	36%	24%	14%	22%	14%	14%	22%	14%
Prison Service NI	D5	25%	34%	21%	21%	28%	17%	20%	29%	17%
Prison Service NI	D6	30%	41%	29%	19%	27%	19%	19%	26%	18%
Prison Service NI	D7	34%	46%	29%	28%	39%	24%	27%	37%	23%

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Appendix E: School Teachers Review Body

Introduction

The results of the valuation of the pension benefits for the illustrative Teachers career paths are set out on the following pages.

Important notes to consider when reviewing the results

When reviewing the results, it is important for users to note that the purpose of the results is to illustrate to the Review Bodies how the net values of benefits for particular Remit Groups have changed and are expected to change over time, relative to the pension benefit available in the private and with the public sector; not how the benefits compare across Remit Groups.

The research does not consider how career paths and earnings profile might differ in comparator organisations or the impact of such differences on the value of pension benefits. Therefore, when comparing the results for the net employee value of benefits for Remit Group members based on the pension benefits available with the net employee value of benefits for a comparator schemes, it is assumed that the career path in the comparator organisation (including length of service and the earnings profile) are identical. In practice, this is unlikely to be the case.

Furthermore, care is needed to avoid comparing the value of pension benefits across Remit Groups as the particular career paths analysed differ across the groups.

Career paths

Four illustrative career paths have been chosen covering the following scenarios:

- E1 An individual who becomes a Primary School Teacher at age 23 and remains in that role until retirement at age 65. This individual takes a 5 year career break from age 30. For illustration purposes, this individual is currently assumed to be aged 28 and qualified initially for benefits as a member of the Teachers' Pension Scheme Post 2007 section.
- E2 An individual who becomes a Secondary School Teacher at age 23 and remains in that role until age 60, retiring at the top end of the upper pay scale with the Teaching and Learning Responsibility payment. For illustration purposes, this individual is currently assumed to be aged 33 and qualified initially for benefits as a member of the Teachers' Pension Scheme Pre 2007 section.
- E3 An individual who becomes a Primary School Teacher at age 25 and retires at age 60 as a Primary Head Teacher on level 32 of the Leadership pay spine. For illustration purposes, this

individual is currently assumed to be aged 45 and qualified initially for benefits as a member of the Teachers' Pension Scheme Pre 2007 section.

- E4 An individual who becomes a classroom teacher at age 25 but leaves the profession after 5 years' service before retiring at age 65. For illustration purposes, this individual is currently assumed to be aged 26 and qualified initially for benefits as a member of the Teachers' Pension Scheme Post 2007 section.

Further details on each illustrative career path can be found in the Methodology Report dated 22 December 2014.

Design of pension benefits for individuals within the School Teachers Review Body pension schemes

The tables below summarise the pension benefits provided to the individuals on the above career paths within the Teachers' pension schemes and provide details of the member contribution requirements.

Summary of benefits

Name	Teachers Pre 2007	Teachers Post 2007	Teachers 2015
Type (Final salary/Career average)	Final salary	Final salary	Career average
Contracted out?	Yes	Yes	No
Deferred Retirement Age (age at which deferred member can retire without reduction)	60	65	SPA
NRA (age at which active member can retire without reduction)	60	65	SPA
Pension accrual rate	1/80	1/60	1/57
Lump sum accruing as multiple of pension	3	0	0
Maximum service (if restricted)	45	45	
Spouse's pension as % of member's on death after retirement	50%	37.5%	35.625% (ie 37.5% x 57/60)
Guarantee period (number of years from retirement date that pension is guaranteed to be paid in full even if member dies)	5	5	5
Career average revaluation rate in 2010	n/a	n/a	n/a
Career average revaluation rate in 2013/2016	n/a	n/a	CPI +1.6%
Deferred pension revaluation in 2010	RPI	RPI	n/a
Increases in payment 2010	RPI	RPI	n/a
Deferred pension revaluation in 2013/2016	CPI	CPI	CPI
Increases in payment 2013/2016	CPI	CPI	CPI
Commutation Terms	n/a	12	12

Summary of member contributions (% of pension salary)

Final details of the contribution requirements under the 2015 scheme have not yet been announced. For the purpose of the comparative valuation, we have assumed that the contribution rates for 2015 (as shown in the table) will be the same as the 2014 contribution rates.

Salary from (2013 terms)	Teachers (Pre and Post 2007)	Teachers (Pre and Post 2007)	Teachers (Pre and Post 2007)	Teachers (Pre and Post 2007)	Teachers 2015
	Up to 2011	2012	2013	2014	2015 onwards
£ -	6.40%	6.40%	6.40%	6.40%	6.40%
£ 15,000	6.40%	7.00%	7.00%	7.20%	7.20%
£ 26,000	6.40%	7.30%	7.90%	8.30%	8.30%
£ 32,000	6.40%	7.60%	8.80%	9.50%	9.50%
£ 40,000	6.40%	8.00%	9.20%	9.90%	9.90%
£ 45,000	6.40%	8.00%	10.10%	11.00%	11.00%
£ 75,000	6.40%	8.40%	10.60%	11.60%	11.60%
£100,000	6.40%	8.40%	11.20%	12.40%	12.40%
£112,000	6.40%	8.80%	11.20%	12.40%	12.40%

Results

The results of the comparative valuation for School Teachers pension benefits are set out on the following pages. Key themes emerging from the analysis are as follows:

- **Importance of career path on the value of pension benefits:** The results show that within the Teachers remit group, there are significant differences in the net value of pension benefits depending on the employee's career path:
 - The individual's salary progression (the faster the salary progression, the greater the net value – see in particular career path E3), although this is less of a factor in the 2015 scheme as this is career average rather than final salary.
 - Completed service, age and salary level at the time that the 2015 scheme is introduced. For example, for individuals who are older in 2010 or who are not expecting much future salary progression, the 2015 and 2016 changes (which only affect future service) have a lesser effect on the net value of benefits over the individual's whole career.
- **2010 to 2013 benefit changes:** The change from RPI to CPI indexation in April 2011 had a significant impact on the net value to employees of the Teachers' pension arrangements:
 - The indexation changes were of particular significance as they affected pension benefit entitlements in respect of completed past service and future service. In contrast, the subsequent changes to member contributions, retirement ages and the move to career average style benefits generally only affect pension benefits in respect of future service.

- For a shorter service career (for example career path E4) the change from RPI to CPI indexation has a relatively greater impact, as it affects not only pension increases in payment but also pension increases after leaving service and prior to payment.
- **2013 to 2015/16 changes:** In general over the whole career, the changes to Teachers' benefits in 2015 and 2016 are expected to have a lesser impact than the changes between 2010 and 2013. Those in the post 2007 section, who have a Normal Retirement Age of 65, are likely to have a smaller impact due to the 2015/16 changes than those in the pre 2007 section, as the benefit structure is less different.
 - Some individuals who are not expecting much future salary progression (for example career path E1) may benefit from the introduction of the 2015 scheme due to the higher revaluation.
 - The transitional arrangements will further protect some older individuals from the 2015 changes (not applicable for the illustrative career paths considered here).
 - With the move to a career average scheme, the difference in net value by career path is reduced (as salary progression has less of an impact).
- **Comparison with private sector:** The changes in the private sector comparators have been less material over this period. While the net values of the 2010 benefits over the whole career were greater than the net value of the typical private sector benefits, the differentials were reduced for the 2013 benefits and further reduced for the 2016 benefits; although the net values of the 2016 benefits were still higher than those of the typical private sector comparators analysed – except for the shorter career path (E4).

Remit Group:

School teachers

Career path	E1
Age on joining (years)	23
Current age (years)	28
Age on leaving (years)	65
Level on joining	Primary classroom teacher
Current level	Primary classroom teacher
Level at leaving	Primary classroom teacher
Pensionable salary on joining (£)	21,804
Current pensionable salary (£)	31,868
Pensionable salary at leaving (£)	31,868
Retirement age	65

Comments on career path

Individual remains as primary classroom teacher throughout career

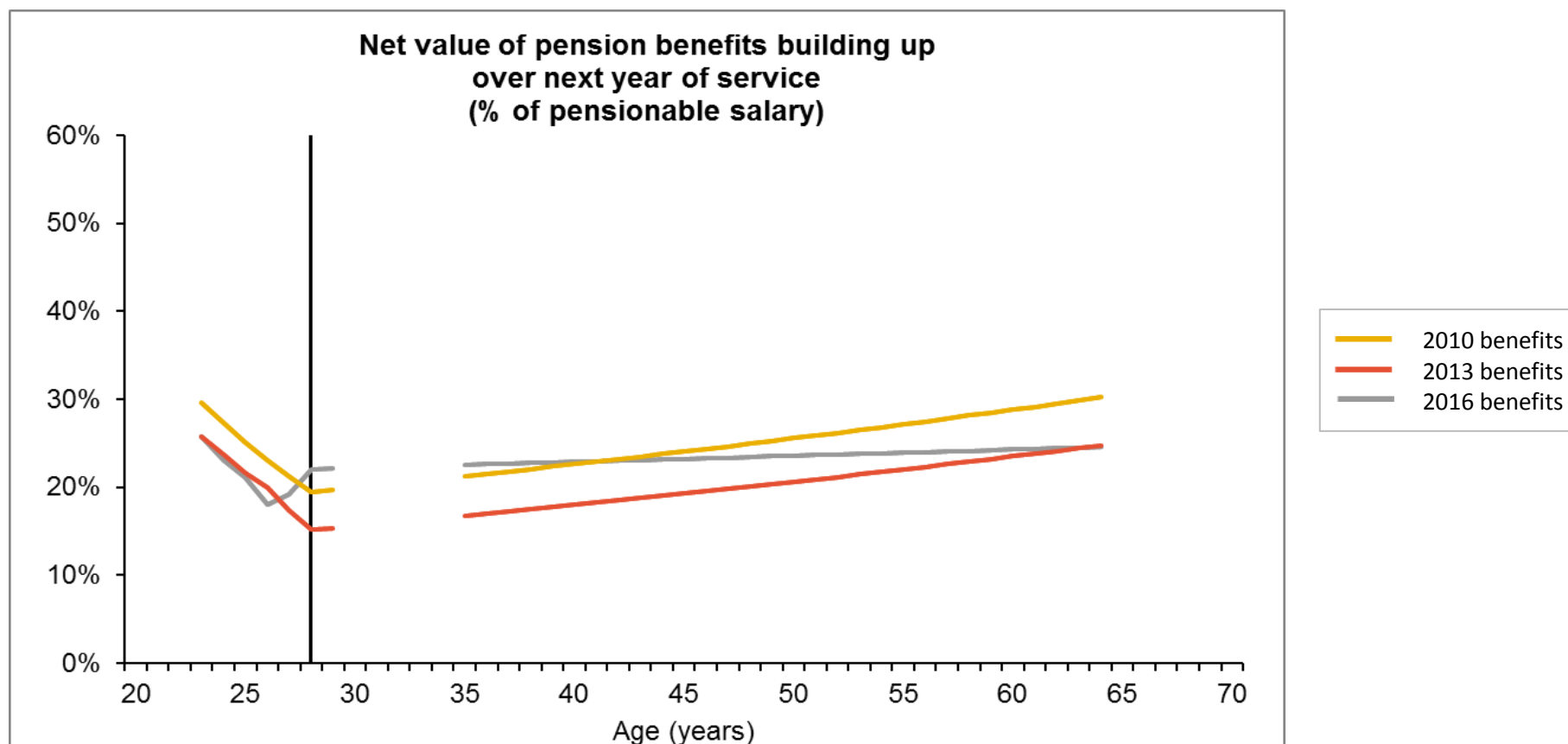
Career break from ages 30 to 35

Large progression salary increases in first five years then no progression salary increases

Currently in Teachers post 2007 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	16%	13%	15%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	17%	16%	16%
Typical DC Scheme	10%	10%	12%
Representative mid-level scheme	13%	11%	12%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015

Move to new scheme in 2015 increases value of benefits, as revaluation in service is greater than salary increases and change in normal retirement age is smaller than for some other career paths

The net value of the benefits building up over one year falls in the final salary structures (2010 and 2013) over the period where there are large progression salary increases but rises when progression salary increases cease

Remit Group:

School teachers

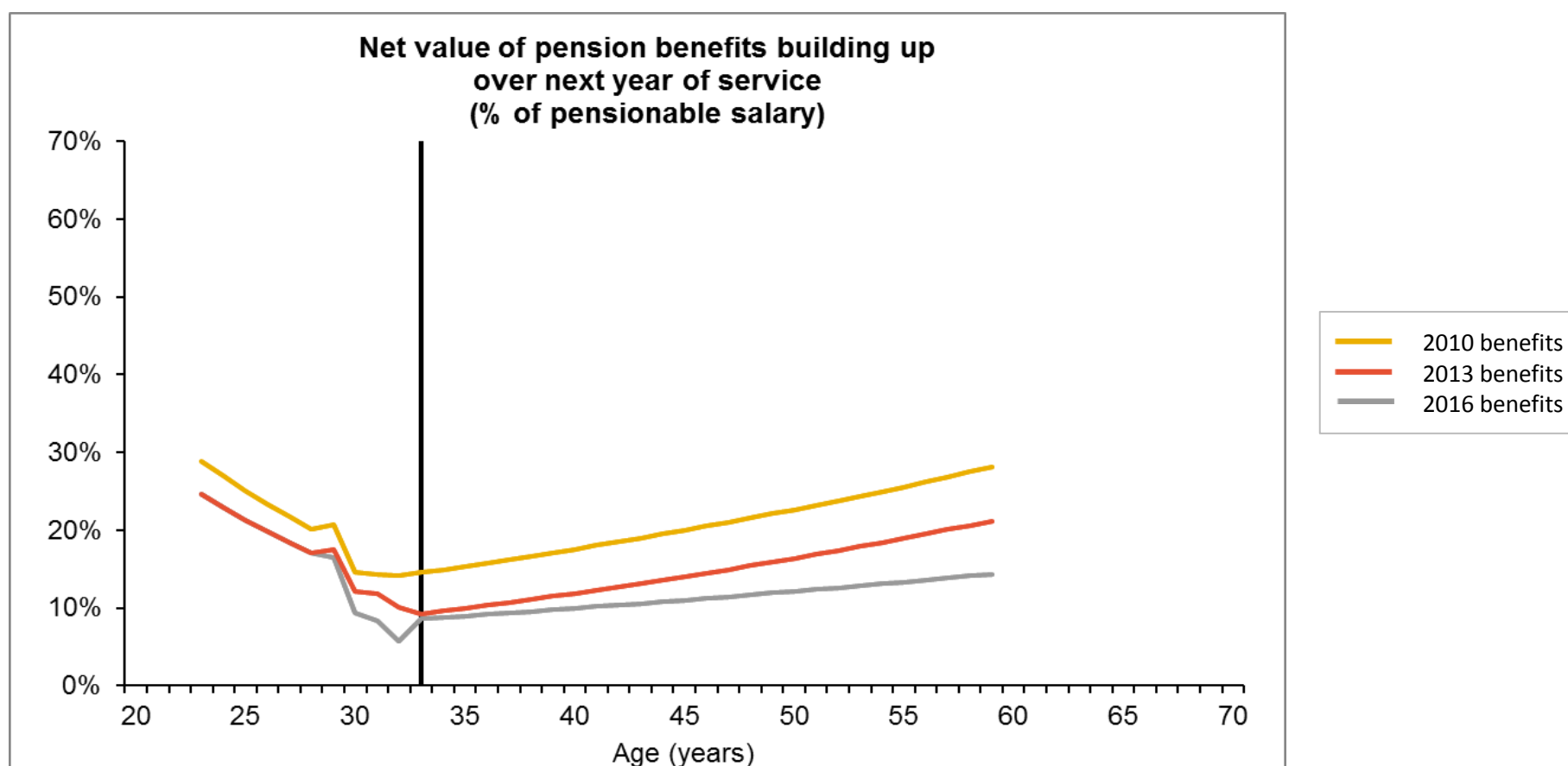
Career path	E2
Age on joining (years)	23
Current age (years)	33
Age on leaving (years)	60
Level on joining	Secondary classroom teacher
Current level	Secondary classroom teacher
Level at leaving	(top of upper pay scale, TLR payment)
Pensionable salary on joining (£)	21,804
Current pensionable salary (£)	44,521
Pensionable salary at leaving (£)	44,521
Retirement age	60

Comments on career path

Individual joins as secondary classroom teacher and reaches top of upper pay scale by age 32
 Large progression salary increases in first five years and promotion and extra TLR payment from age 30
 Currently in Teachers pre 2007 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	20%	15%	12%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	15%	14%	14%
Typical DC Scheme	10%	10%	11%
Representative mid-level scheme	13%	11%	12%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015
 Move to new scheme in 2015 reduces net value of benefits, as retirement age has increased from 60 to SPA (partially offset by revaluation in service being greater than salary increases)
 The net value of the benefits building up over one year falls in the final salary structures (2010 and 2013) over the period where there are large progression salary increases but rises when progression salary increases cease

Remit Group:

School teachers

Career path	E3
Age on joining (years)	25
Current age (years)	45
Age on leaving (years)	60
Level on joining	Primary teacher
Current level	Primary head teacher
Level at leaving	Leadership pay spine, 32
Pensionable salary on joining (£)	21,804
Current pensionable salary (£)	79,081
Pensionable salary at leaving (£)	81,047
Retirement age	60

Comments on career path

Individual joins as primary teacher and reaches leadership pay spine level 32 by age 46
 Large promotion/progression salary increases up to age 36 and at age 42
 Currently in Teachers pre 2007 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	27%	21%	18%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	21%	20%	20%
Typical DC Scheme	10%	10%	13%
Representative mid-level scheme	19%	16%	15%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015
 Move to new scheme in 2015 reduces value of benefits, as retirement age has increased from 60 to SPA (partially offset by revaluation in service being greater than salary increases)
 The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases. The net value (as a percentage of salary) falls after large salary increases but rises when progression salary increases cease

Remit Group:

School teachers

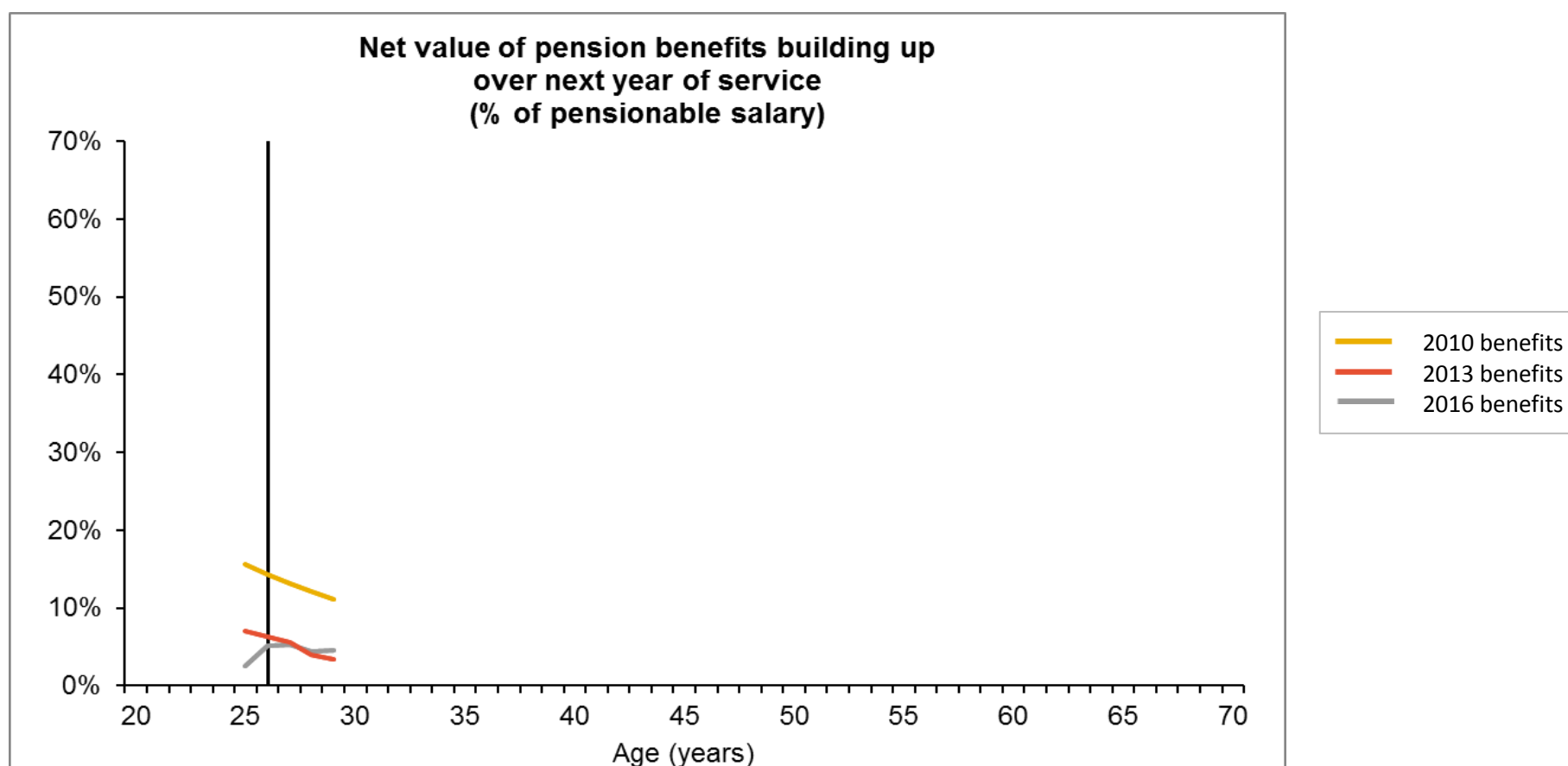
Career path	E4
Age on joining (years)	25
Current age (years)	26
Age on leaving (years)	30
Level on joining	Classroom teacher
Current level	Classroom teacher
Level at leaving	Classroom teacher
Pensionable salary on joining (£)	21,804
Current pensionable salary (£)	23,528
Pensionable salary at leaving (£)	29,533
Retirement age	65

Comments on career path

Individual joins as classroom teacher aged 25 and leaves after five years' service
 Large progression salary increases throughout (short) service
 Currently in Teachers post 2007 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	13%	5%	4%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	10%	7%	7%
Typical DC Scheme	10%	10%	11%
Representative mid-level scheme	10%	9%	11%



Comments on results

RPI to CPI change in indexation has a much more significant impact than the change to the new scheme in 2015 as short service member so change affects increases after leaving service as well as in payment

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases. The net value (as a percentage of salary) falls after large salary increases.

Sensitivities

The table below shows the value of School Teachers pension benefits (net of the employee cost, as a % of salary) on the whole career basis for each career path, using the central assumptions and with sensitivities to the discount rate (a reduction from 5% pa to 4% pa) and salary increases (a reduction from 3% pa to 2% pa). For both sets of sensitivities, all assumptions other than the one described are unchanged. The table shows that a lower discount rate leads to a higher net value being placed on the pension benefits. Conversely, a lower salary increase rate leads to a lower net value being placed on the pension benefits.

Remit Group	Career path	2010			2013			2016		
		Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases
School Teachers	E1	16%	25%	12%	13%	20%	9%	15%	23%	14%
School Teachers	E2	20%	30%	16%	15%	23%	11%	12%	20%	11%
School Teachers	E3	27%	38%	23%	21%	30%	17%	18%	27%	15%
School Teachers	E4	13%	25%	13%	5%	12%	5%	4%	11%	4%

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Appendix F: Senior Salaries Review Body – Senior Civil Service

Introduction

The results of the valuation of the pension benefits for the illustrative Senior Civil Service career paths are set out on the following pages.

Important notes to consider when reviewing the results

When reviewing the results, it is important for users to note that the purpose of the results is to illustrate to the Review Bodies how the net values of benefits for particular Remit Groups have changed and are expected to change over time, relative to the pension benefit available in the private and with the public sector; not how the benefits compare across Remit Groups.

The research does not consider how career paths and earnings profile might differ in comparator organisations or the impact of such differences on the value of pension benefits. Therefore, when comparing the results for the net employee value of benefits for Remit Group members based on the pension benefits available with the net employee value of benefits for a comparator schemes, it is assumed that the career path in the comparator organisation (including length of service and the earnings profile) are identical. In practice, this is unlikely to be the case.

Furthermore, care is needed to avoid comparing the value of pension benefits across Remit Groups as the particular career paths analysed differ across the groups.

Career paths

Three illustrative career paths have been chosen covering the following scenarios:

- F1 An individual who joins the Civil Service Fast Stream at age 23 and is promoted to Senior Civil Service Band 1 at age 39. They remain in this Band until retirement at age 60. For illustration purposes, this individual is currently assumed to be age 30 and qualified initially for benefits through the Civil Service premium pension scheme.
- F2 An individual who joins the Civil Service as a Senior Civil Service Band 1 at age 44 and leaves at age 50 before retiring at age 65. For illustration purposes, this individual is currently assumed to be age 45 and qualified initially for benefits through the Civil Service nuvos pension scheme.
- F3 An individual who joins the Civil Service Fast Stream at age 25 and is promoted to Senior Civil Service Band 1 at age 40. They retire at age 60 having become a Senior Civil Servant Band 3. For illustration purposes, this individual is currently assumed to be age 50 and qualified initially for benefits through the Civil Service classic pension scheme.

Further details on each illustrative career path can be found in the Methodology Report dated 22 December 2014.

Design of pension benefits for individuals within the Senior Salaries Review Body – Senior Civil Service pension schemes

The tables below summarise the pension benefits provided to the individuals on the above career paths within the Civil Service pension schemes and provide details of the member contribution requirements.

Summary of benefits

Name	Civil Service classic	Civil Service premium	Civil Service nuvos	Civil Service 2015
Type (Final salary/Career average)	Final salary	Final salary	Career average	Career average
Contracted out?	Yes	Yes	Yes	No
Deferred Retirement Age (age at which deferred member can retire without reduction)	60	60	65	SPA
NRA (age at which active member can retire without reduction)	60	60	65	SPA
Pension accrual rate	1/80	1/60	2.30%	2.32%
Lump sum accruing as multiple of pension	3	0	0	0
Maximum service (if restricted)	45	45		
Spouse's pension as % of member's on death after retirement	50%	37.5%	37.5%	37.5%
Guarantee period (number of years from retirement date that pension is guaranteed to be paid in full even if member dies)	5	5	5	5
Career average revaluation rate in 2010	n/a	n/a	RPI	n/a
Career average revaluation rate in 2013/2016	n/a	n/a	CPI	CPI
Deferred pension revaluation in 2010	RPI	RPI	RPI	n/a
Increases in payment 2010	RPI	RPI	RPI	n/a
Deferred pension revaluation in 2013/2016	CPI	CPI	CPI	CPI
Increases in payment 2013/2016	CPI	CPI	CPI	CPI
Commutation Terms (n/a where lump sum is accrued)	n/a	12	12	12

Summary of member contributions (% of pension salary)

Salary from (2013 terms)	Civil Service classic	Civil Service classic	Civil Service classic	Civil Service classic
	Up to 2011	2012	2013	2014
£ -	1.50%	1.50%	1.50%	1.50%
£ 15,000	1.50%	2.10%	2.70%	3.00%
£ 21,000	1.50%	2.70%	3.88%	4.48%
£ 30,000	1.50%	3.10%	4.67%	5.27%
£ 47,000	1.50%	3.10%	4.67%	5.27%
£ 50,000	1.50%	3.50%	5.46%	6.06%
£ 60,000	1.50%	3.90%	6.25%	6.85%
£150,000	1.50%	3.90%	6.25%	6.85%

Salary from (2013 terms)	Civil Service premium and nuvos	Civil Service premium and nuvos	Civil Service premium and nuvos	Civil Service premium and nuvos	Civil Service 2015
	Up to 2011	2012	2013	2014	2015 onwards
£ -	3.50%	3.50%	3.50%	3.50%	4.60%
£ 15,000	3.50%	4.10%	4.70%	5.00%	4.60%
£ 21,000	3.50%	4.70%	5.88%	6.48%	5.45%
£ 30,000	3.50%	5.10%	6.67%	7.27%	5.45%
£ 47,000	3.50%	5.10%	6.67%	7.27%	7.35%
£ 50,000	3.50%	5.50%	7.46%	8.06%	7.35%
£ 60,000	3.50%	5.90%	8.25%	8.85%	7.35%
£150,000	3.50%	5.90%	8.25%	8.85%	8.05%

Results

The results of the comparative valuation for Senior Civil Service pension benefits are set out on the following pages. Key themes emerging from the analysis are as follows:

- **Importance of career path on the value of pension benefits:** The results show that within the Senior Civil Service remit group, there are significant differences in the net value of pension benefits depending on the employee's career path:
 - The pension scheme applicable to the individual (whether the member is in classic or premium, which are final salary with a lower accrual rate, or nuvos, which is career average with a higher accrual rate)
 - The individual's salary progression (the faster the salary progression, the greater the net value), although this is less of a factor in both nuvos and the 2015 scheme as these are career average rather than final salary.

- Completed service, age and salary level at the time that the 2015 scheme is introduced. For example, for individuals who are older in 2010 (for example career path F3) or who are not expecting much future salary progression, the 2015 and 2016 changes (which only affect future service) have a lesser effect on the net value of benefits over the individual's whole career.
- **2010 to 2013 benefit changes:** The change from RPI to CPI indexation in April 2011 had a significant impact on the net value to employees of the Civil Service pension arrangements:
 - The indexation changes were of particular significance as they affected pension benefit entitlements in respect of completed past service and future service. In contrast, the subsequent changes to member contributions, retirement ages and the move to career average style benefits generally only affect pension benefits in respect of future service.
 - For a shorter service career (for example career path F2) the change from RPI to CPI indexation has a relatively greater impact, as it affects not only pension increases in payment but also pension increases after leaving service and prior to payment.
- **2013 to 2015/16 benefit changes:** In general over the whole career, the changes to Civil Service benefits in 2015 and 2016 are expected to have a smaller impact than the changes between 2010 and 2013, particularly for those members currently in nuvos.
 - The transitional arrangements will further protect some older individuals from the 2015 changes (not applicable for the illustrative career paths considered here).
- **Comparison with private sector:** The changes in the private sector comparators have been less material over this period. While the net values of the 2010 benefits over the whole career were greater than the net value of the typical private sector benefits, the differentials were reduced for the 2013 benefits and, in general, further reduced for the 2016 benefits; although the net values of the 2016 benefits were still higher than those of the typical private sector comparators analysed.

Remit Group:

Senior Civil Service

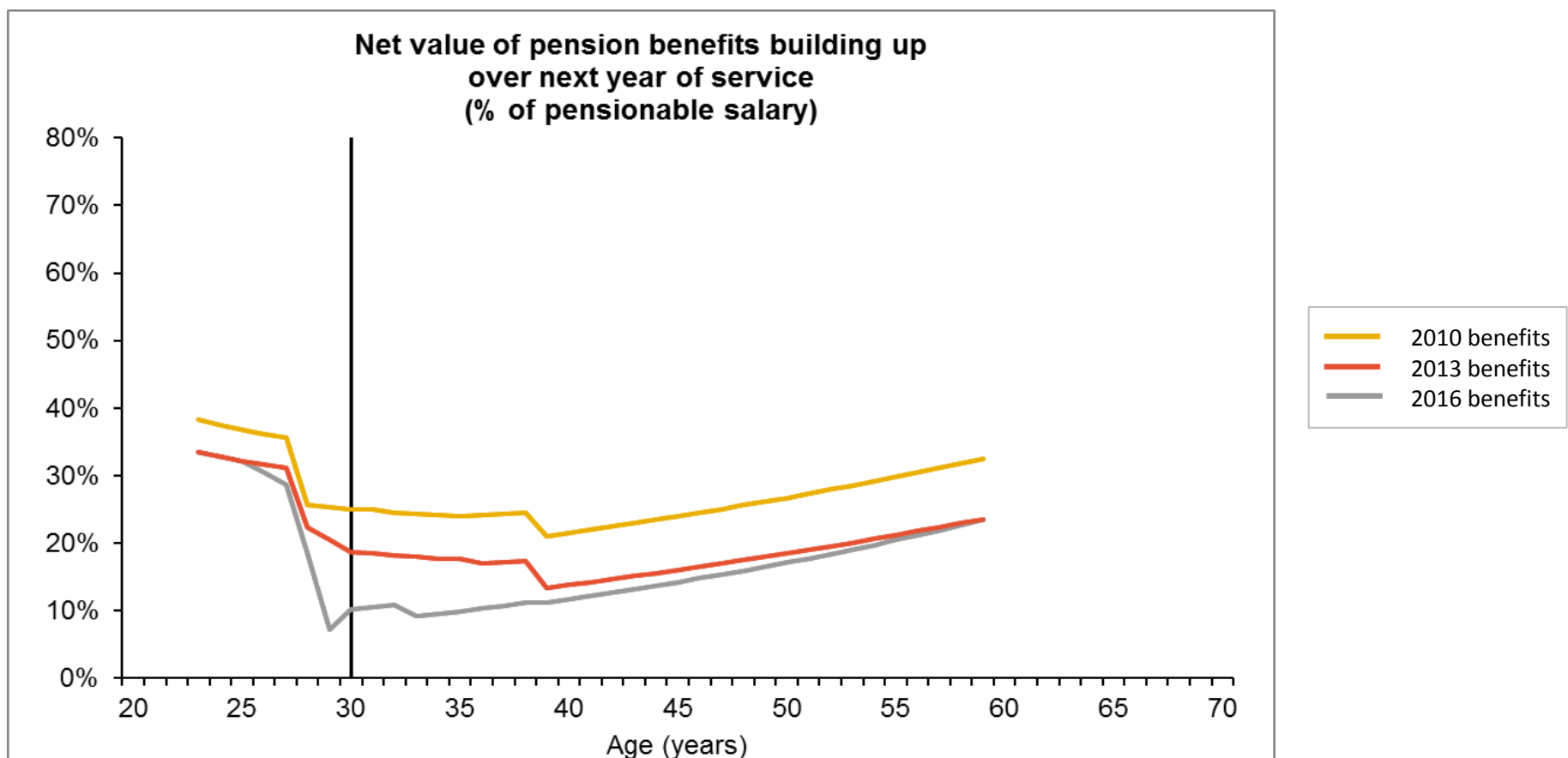
Career path	F1
Age on joining (years)	23
Current age (years)	30
Age on leaving (years)	60
Level on joining	Fast stream
Current level	Grade 7
Level at leaving	SCS band 1
Pensionable salary on joining (£)	25,800
Current pensionable salary (£)	43,214
Pensionable salary at leaving (£)	60,000
Retirement age	60

Comments on career path

Individual rises from Fast stream to SCS band 1 - currently Grade 7
 Large promotion salary increases at ages 28 and 39
 Smaller progression increases throughout career until age 39
 Currently in Civil Service premium

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	27%	19%	16%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	17%	16%	16%
Typical DC Scheme	10%	10%	13%
Representative mid-level scheme	14%	12%	13%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases. The net value (as a percentage of salary) falls after large salary increases but rises when progression salary increases cease

The net value of the 2016 benefits is lower than the 2013 benefits at younger ages because the higher accrual rate does not offset the loss of final salary linkage when large future promotional salary increases are expected

Remit Group:

Senior Civil Service

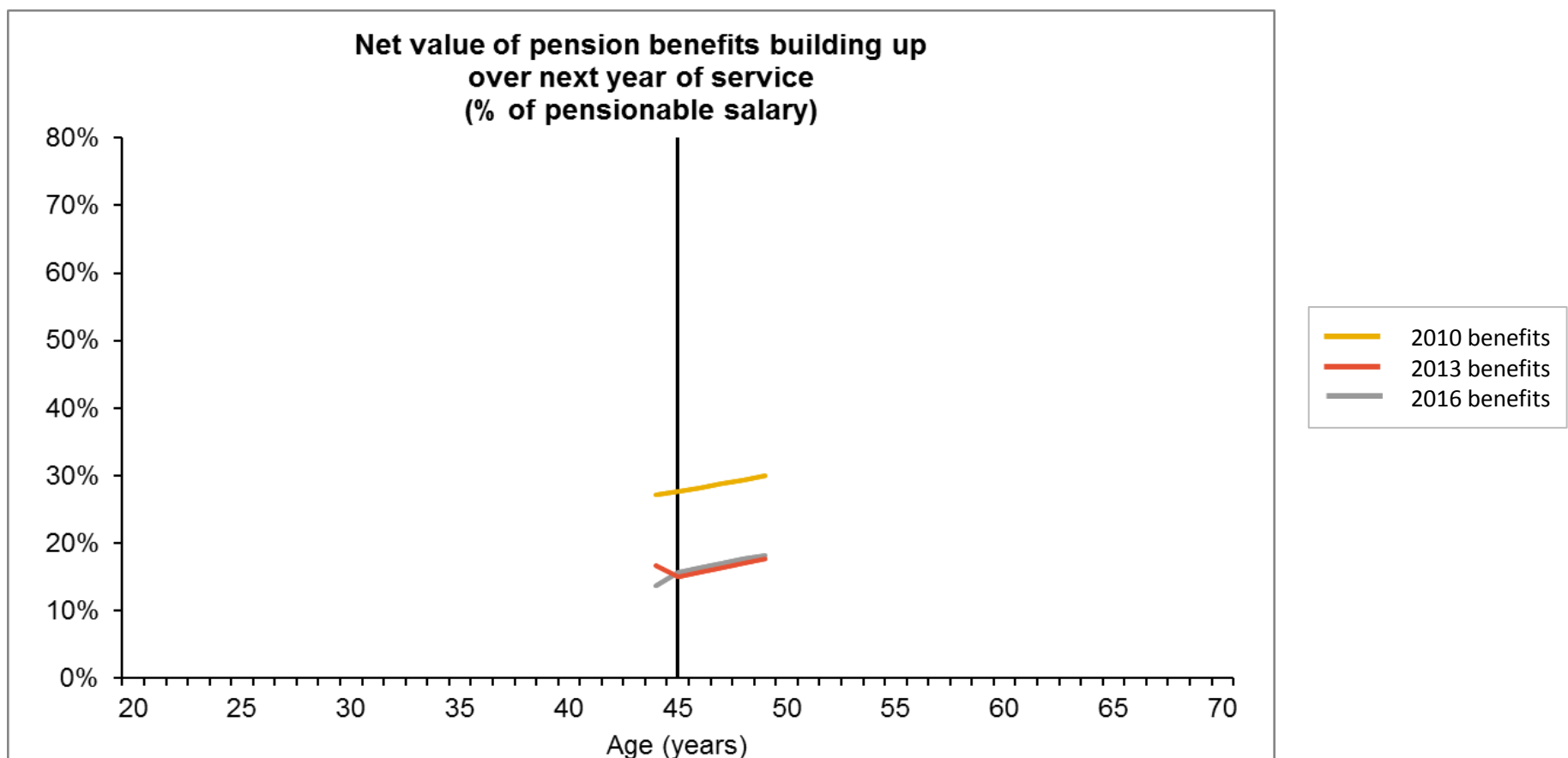
Career path	F2
Age on joining (years)	44
Current age (years)	45
Age on leaving (years)	50
Level on joining	SCS band 1
Current level	SCS band 1
Level at leaving	SCS band 1
Pensionable salary on joining (£)	75,000
Current pensionable salary (£)	75,000
Pensionable salary at leaving (£)	75,000
Retirement age	65

Comments on career path

Individual joins at SCS band 1 age 44 and leaves civil service at same level at age 50
No promotion/progression salary increases

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	28%	16%	16%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	15%	13%	13%
Typical DC Scheme	11%	11%	13%
Representative mid-level scheme	12%	11%	13%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015 as currently in nuvos

Remit Group:

Senior Civil Service

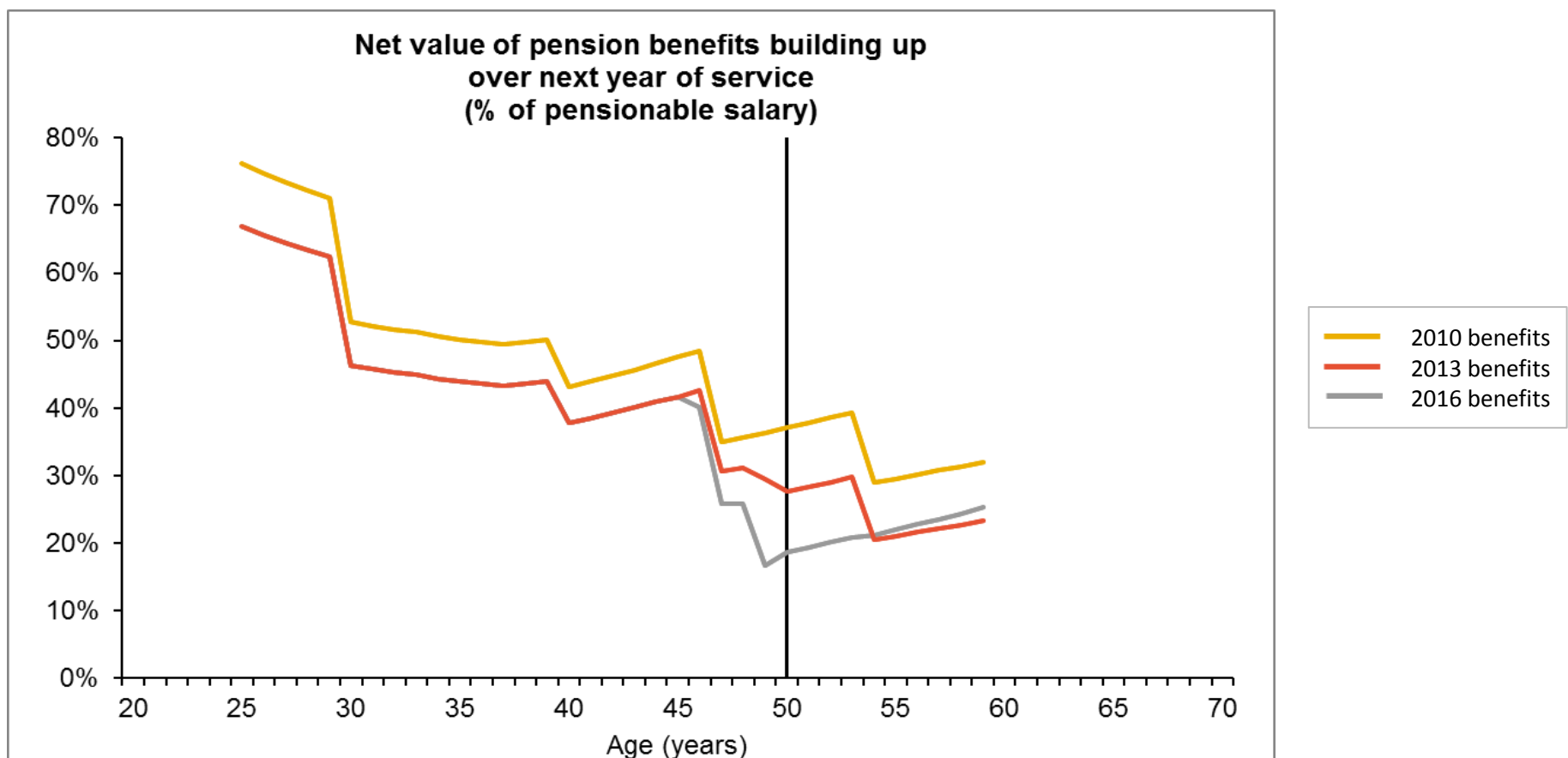
Career path	F3
Age on joining (years)	25
Current age (years)	50
Age on leaving (years)	60
Level on joining	Fast stream
Current level	SCS band 2
Level at leaving	SCS band 3
Pensionable salary on joining (£)	25,800
Current pensionable salary (£)	84,000
Pensionable salary at leaving (£)	115,000
Retirement age	60

Comments on career path

Individual rises from Fast Stream to SCS band 3 - currently SCS band 2
 Large promotion salary increases at ages 30, 40, 47 and 54
 Smaller progression increases up to age 40
 Currently in Civil Service classic

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	44%	36%	35%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	31%	29%	29%
Typical DC Scheme	11%	11%	13%
Representative mid-level scheme	27%	22%	20%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases. The net value (as a percentage of salary) falls after large salary increases but rises when progression salary increases cease

The net value of the 2016 benefits is lower than the 2013 benefits at younger ages because the higher accrual rate does not fully offset the loss of final salary linkage when large future promotional salary increases are expected

Sensitivities

The table below shows the value of Senior Civil Service pension benefits (net of the employee cost, as a % of salary) on the whole career basis for each career path, using the central assumptions and with sensitivities to the discount rate (a reduction from 5% pa to 4% pa) and salary increases (a reduction from 3% pa to 2% pa). For both sets of sensitivities, all assumptions other than the one described are unchanged. The table shows that a lower discount rate leads to a higher net value being placed on the pension benefits. Conversely, a lower salary increase rate leads to a lower net value being placed on the pension benefits.

Remit Group	Career path	2010			2013			2016		
		Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases
Senior Civil Service	F1	27%	37%	22%	19%	28%	15%	16%	24%	15%
Senior Civil Service	F2	28%	39%	28%	16%	24%	16%	16%	24%	16%
Senior Civil Service	F3	44%	58%	37%	36%	48%	31%	35%	47%	30%

Appendix G: Senior Salaries Review Body – Judiciary

Introduction

The results of the valuation of the pension benefits for the illustrative Judiciary career paths are set out on the following pages.

Important notes to consider when reviewing the results

When reviewing the results, it is important for users to note that the purpose of the results is to illustrate to the Review Bodies how the net values of benefits for particular Remit Groups have changed and are expected to change over time, relative to the pension benefit available in the private and with the public sector; not how the benefits compare across Remit Groups.

The research does not consider how career paths and earnings profile might differ in comparator organisations or the impact of such differences on the value of pension benefits. Therefore, when comparing the results for the net employee value of benefits for Remit Group members based on the pension benefits available with the net employee value of benefits for a comparator schemes, it is assumed that the career path in the comparator organisation (including length of service and the earnings profile) are identical. In practice, this is unlikely to be the case.

Furthermore, care is needed to avoid comparing the value of pension benefits across Remit Groups as the particular career paths analysed differ across the groups.

Career paths

Three illustrative career paths have been chosen covering the following scenarios:

- G1 An individual who joins the Judiciary as a High Court Judge at age 54 and remains at that level through his or her career before retiring at age 70. For illustration purposes, this individual is assumed to currently be age 60, qualify initially for benefits through the JPS93 and remain in the JPS93 from 2015 onwards due to transitional protection.
- G2 An individual who joins the Judiciary as a District Judge at age 40 and remains at that level through his or her career before retiring at age 65. For illustration purposes, this individual is assumed to currently be age 50 and qualify initially for benefits through the JPS93.
- G3 An individual who joins the Judiciary as an Employment Judge at age 45, becomes President of Employment Tribunals at age 61 and remains at that level through his or her career before retiring at age 70. For illustration purposes, this individual is assumed to currently be age 55, qualify initially for benefits through the JPS93 and remain in the JPS93 from 2015 onwards due to transitional protection.

Further details on each illustrative career path can be found in the Methodology Report dated 22 December 2014.

Design of pension benefits for individuals within the Senior Salaries Review Body – Judiciary pension schemes

The tables below summarise the pension benefits provided to the individuals on the above career paths within the judiciary pension schemes and provide details of the member contribution requirements.

Summary of benefits

Name	JPS93	JPS 2015
Type (Final salary/Career average)	Final salary	Career average
Contracted out?	No	No
Deferred Retirement Age (age at which deferred member can retire without reduction)	65	SPA
NRA (age at which active member can retire without reduction)	65	SPA
Pension accrual rate	1/40	2.32%
Lump sum accruing as multiple of pension	2.25	0
Maximum service (if restricted)	20	
Spouse's pension as % of member's on death after retirement	50%	37.5%
Guarantee period (number of years from retirement date that pension is guaranteed to be paid in full even if member dies)	5	5
Career average revaluation rate in 2010	n/a	n/a
Career average revaluation rate in 2013/2016	n/a	CPI
Deferred pension revaluation in 2010	RPI	n/a
Increases in payment 2010	RPI	n/a
Deferred pension revaluation in 2013/2016	CPI	CPI
Increases in payment 2013/2016	CPI	CPI
Commutation Terms	n/a	12

Summary of member contributions (% of pension salary)

Final details of the contribution requirements under the 2015 scheme have not yet been announced. For the purpose of the comparative valuation, we have assumed that the contribution rates for the new Judicial Pension Scheme 2015 (as shown in the table) will be in line with the Civil Service 2015 contribution rates.

Salary from (2013 terms)	JPS93	JPS93	JPS93	JPS93	JPS93	JPS 2015
	Up to 2011	2012	2013	2014	2015 onwards	2015 onwards
£ 47,000	0.00%	1.80%	3.08%	4.36%	5.00%	7.35%
£150,000	0.00%	1.80%	3.08%	4.36%	5.00%	8.05%

Results

The results of the comparative valuation for the Judiciary pension benefits are set out on the following pages. Key themes emerging from the analysis are as follows:

- **Importance of career path on the value of pension benefits:** The results show that within the Judiciary remit group, there are significant differences in the net value of pension benefits depending on the employee's career path:
 - The individual's salary progression (the faster the salary progression, the greater the net value), although this is not relevant for career paths G1 and G2 as they are not expecting any future salary progression and this is less of a factor in the 2015 scheme as this is career average rather than final salary.
 - The length of service (accrual ceases in the JPS93 scheme after 20 years so the net value of benefits is reduced for longer serving individuals such as career paths G2 and G3 when valued over the whole career)
 - Completed service, age and salary level at the time that the 2015 scheme is introduced. For example, for individuals who are older in 2010 or who are not expecting much future salary progression, the 2015 and 2016 changes (which only affect future service) have a lesser effect on the net value of benefits over the individual's whole career.
 - The transitional arrangements will protect some older individuals from the 2015 changes (for example career paths G1 and G3).
- **2010 to 2013 benefit changes:** The change from RPI to CPI indexation in April 2011 had a significant impact on the net value to employees of the Judiciary pension arrangements:
 - The indexation changes were of particular significance as they affected pension benefit entitlements in respect of completed past service and future service. In contrast, the subsequent changes to member contributions, retirement ages and the move to career average style benefits generally only affect pension benefits in respect of future service.
 - The introduction of member contribution rates in 2012 led to the possibility of a negative net value of pension benefits once members had reached the maximum years of accrual (for example career paths G2 and G3)
- **2013 to 2015/16 changes:** In general, the changes to Judiciary benefits in 2015 and 2016 are expected to have a lesser impact than the changes between 2010 and 2013. Two of the three career paths considered here are protected by the transitional arrangements so the changes in 2015 relate to increases in member contributions only. Some individuals who are nearing the

current maximum years of accrual but do not have transitional protection (such as G2) will be able to continue accruing benefits for longer following the introduction of the 2015 scheme if they remain in service.

- **Comparison with private sector:** The changes in the private sector comparators have been less material over this period. While the net values of the 2010 benefits over the whole career were greater than the net value of the typical private sector benefits, the differentials were reduced for the 2013 benefits and, in general, further reduced for the 2016 benefits; although the net values of the 2016 benefits were still higher than those of the typical private sector comparators analysed.
- Our analysis does not allow for the impact of differences in taxation that will apply to the JPS 2015 scheme which will be registered for tax purposes.

Remit Group:

Career path
 Age on joining (years)
 Current age (years)
 Age on leaving (years)
 Level on joining
 Current level
 Level at leaving
 Pensionable salary on joining (£)
 Current pensionable salary (£)
 Pensionable salary at leaving (£)
 Retirement age

Judiciary

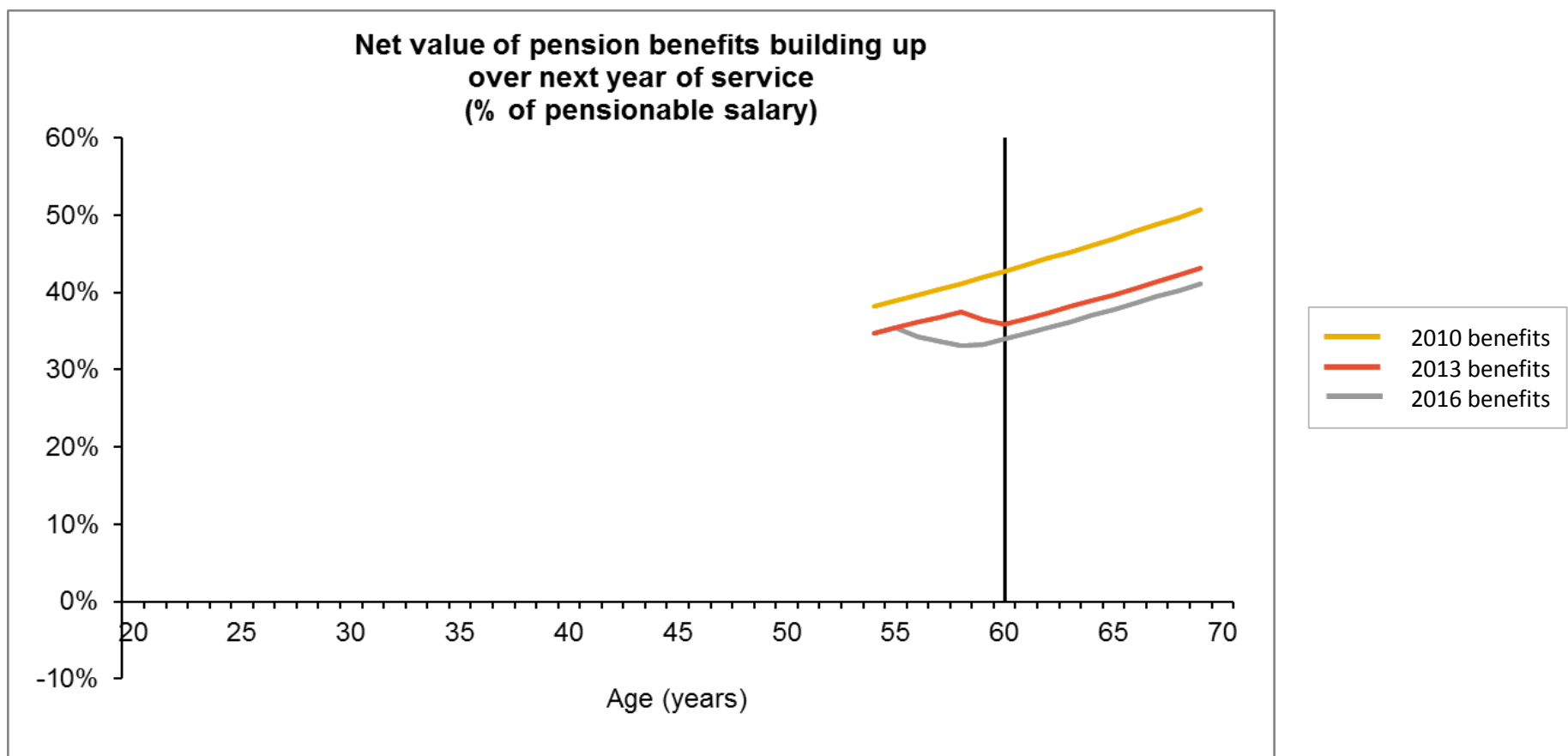
G1
 54
 60
 70
 High court judge
 High court judge
 High court judge
 174,481
 174,481
 174,481
 70

Comments on career path

Individual joins at age 54 as High Court Judge and remains at this level until retirement
 No promotion salary increases
 Currently within 10 years of NRA so will have full transitional protection

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	44%	38%	36%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	30%	29%	29%
Typical DC Scheme	17%	17%	20%
Representative mid-level scheme	23%	20%	21%



Comments on results

Individual remains in JPS93
 Reductions to net value are only due to increase in member contributions and RPI to CPI change in indexation

Remit Group:

Judiciary

Career path	G2
Age on joining (years)	40
Current age (years)	50
Age on leaving (years)	65
Level on joining	District judge
Current level	District judge
Level at leaving	District judge
Pensionable salary on joining (£)	103,950
Current pensionable salary (£)	103,950
Pensionable salary at leaving (£)	103,950
Retirement age	65

Comments on career path

Individual joins at age 40 as District Judge and remains at this level until retirement
 No promotion salary increases
 Currently more than 10 years to NRA so will not have transitional protection

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	38%	32%	29%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	19%	18%	18%
Typical DC Scheme	12%	12%	15%
Representative mid-level scheme	16%	14%	15%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015
 Over the whole career the impact of RPI to CPI change in indexation is broadly offset by the move to 2015 scheme, as accrual continues beyond 20 years
 The net value of the 2016 benefits is significantly lower than JPS93 scheme due largely to a reduction in the rate of accrual of benefits
 The net value of benefits in JPS93 scheme is negative in 2013 from age 60 (because there is no further accrual but member contributions are assumed to continue)
 The chart does not allow for the impact of differences in taxation that will apply to the new scheme which will be registered for tax purposes

Remit Group:

Judiciary

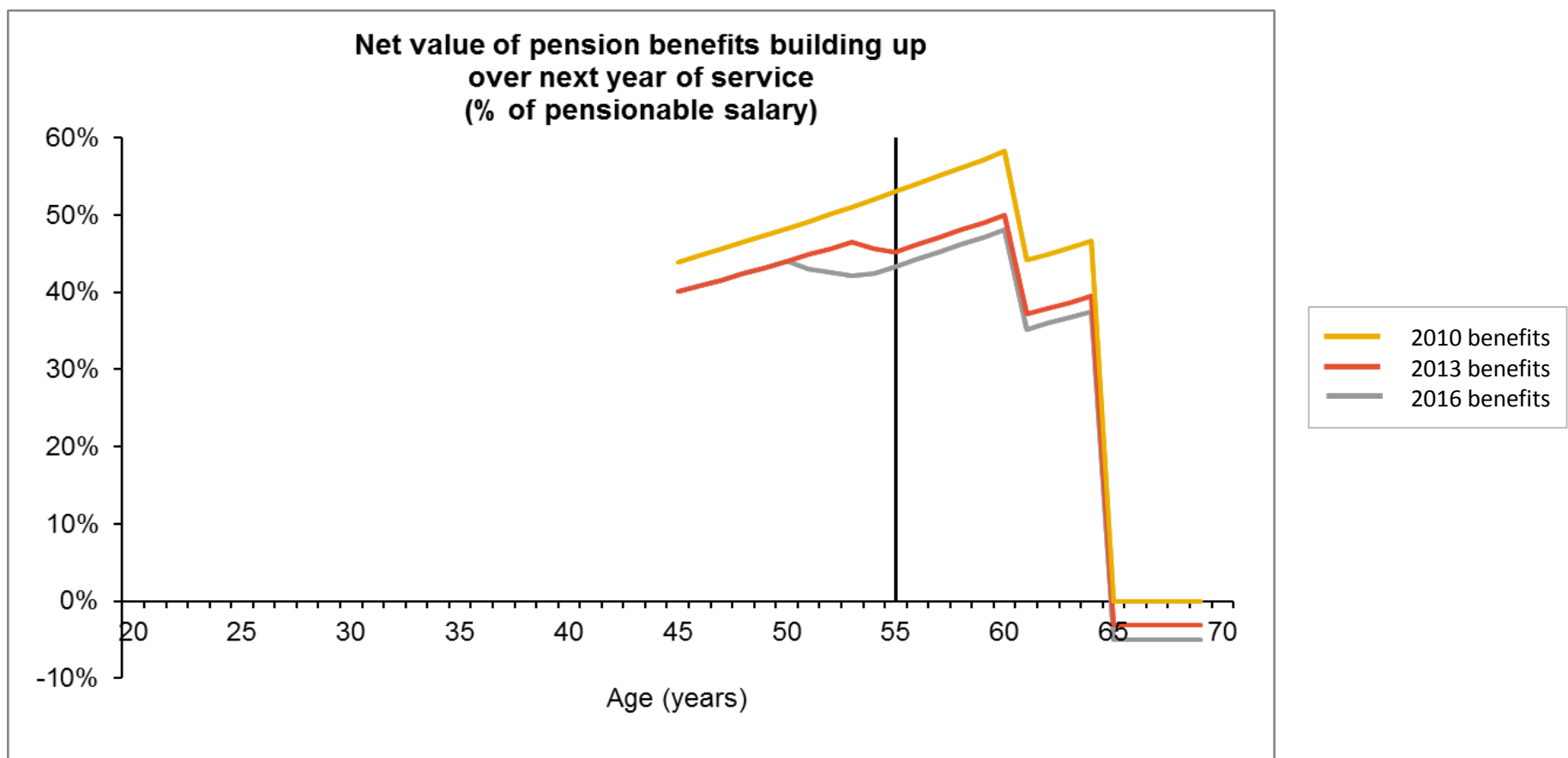
Career path	G3
Age on joining (years)	45
Current age (years)	55
Age on leaving (years)	70
Level on joining	Employment judge
Current level	Employment judge
Level at leaving	President
Pensionable salary on joining (£)	103,950
Current pensionable salary (£)	103,950
Pensionable salary at leaving (£)	139,933
Retirement age	70

Comments on career path

Individual joins at age 45 as Employment Judge and becomes President at age 61
 Large promotion salary increase at age 61
 Currently within 10 years of NRA so will have full transitional protection

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	40%	34%	33%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	25%	24%	24%
Typical DC Scheme	14%	14%	17%
Representative mid-level scheme	21%	18%	18%



Comments on results

Individual remains in JPS93
 Reductions to net value are only due to increase in member contributions and RPI to CPI change in indexation
 The net value of benefits in JPS93 scheme is negative in 2013 and 2016 from age 65 (because there is no further accrual but member contributions are assumed to continue)

Sensitivities

The table below shows the value of the Judiciary pension benefits (net of the employee cost, as a % of salary) on the whole career basis for each career path, using the central assumptions and with sensitivities to the discount rate (a reduction from 5% pa to 4% pa) and salary increases (a reduction from 3% pa to 2% pa). For both sets of sensitivities, all assumptions other than the one described are unchanged. The table shows that a lower discount rate leads to a higher net value being placed on the pension benefits. Conversely, a lower salary increase rate leads to a lower net value being placed on the pension benefits.

Remit Group	Career path	2010			2013			2016		
		Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases
Judiciary	G1	44%	52%	41%	38%	45%	35%	36%	43%	33%
Judiciary	G2	38%	48%	33%	32%	41%	28%	29%	38%	27%
Judiciary	G3	40%	49%	35%	34%	42%	30%	33%	41%	29%

Appendix H: Senior Salaries Review Body – Senior Military

Introduction

The results of the valuation of the pension benefits for the illustrative Senior Military career paths are set out on the following pages.

Important notes to consider when reviewing the results

When reviewing the results, it is important for users to note that the purpose of the results is to illustrate to the Review Bodies how the net values of benefits for particular Remit Groups have changed and are expected to change over time, relative to the pension benefit available in the private and with the public sector; not how the benefits compare across Remit Groups.

The research does not consider how career paths and earnings profile might differ in comparator organisations or the impact of such differences on the value of pension benefits. Therefore, when comparing the results for the net employee value of benefits for Remit Group members based on the pension benefits available with the net employee value of benefits for a comparator schemes, it is assumed that the career path in the comparator organisation (including length of service and the earnings profile) are identical. In practice, this is unlikely to be the case.

Furthermore, care is needed to avoid comparing the value of pension benefits across Remit Groups as the particular career paths analysed differ across the groups.

Career paths

Three illustrative career paths have been chosen covering the following scenarios:

- H1 An individual who joins the Army as a 2nd Lieutenant at age 22 and rises through the ranks to 2 star general before retiring at age 55. For illustration purposes, this individual is assumed to currently be age 40 and qualify initially for benefits through AFPS 75.
- H2 An individual who joins the Army as a 2nd Lieutenant at age 22 and rises through the ranks to 4 star general before retiring at age 60. For illustration purposes, this individual is assumed to currently be age 35 and qualify initially for benefits through AFPS 75.
- H3 An individual who joins the Army as a 2nd Lieutenant at age 22 and rises through the ranks to 2 star general before retiring at age 55. For illustration purposes, this individual is assumed to currently be age 40 and qualify initially for benefits through AFPS 75, before switching to AFPS 05 in 2006 (receiving a year for year service credit in AFPS 05).

Further details on each illustrative career path can be found in the Methodology Report dated 22 December 2014.

Design of pension benefits for individuals within the Senior Salaries Review Body – Senior Military schemes

The tables below summarise the pension benefits provided to the individuals on the above career paths within the Armed Forces pension schemes and provide details of the member contribution requirements.

Summary of benefits

Name	AFPS 75	AFPS 05	AFPS 2015
Type (Final salary/Career average)	Final salary	Final salary	Career average
Contracted out?	Yes	Yes	No
Deferred Retirement Age (age at which deferred member can retire without reduction)	not relevant for career paths considered	not relevant for career paths considered	not relevant for career paths considered
NRA (age at which active member can retire without reduction)	55	55	60
Pension accrual rate	28.5% total over 16 years, 48.5% over 34 years (equivalent to 1/56.1 over first 16 years, 1/90 for next 18 years)	1/70	1/47
Lump sum accruing as multiple of pension	3	3	0
Maximum service (if restricted)	34	40	
Spouse's pension as % of member's on death after retirement	50%	62.5%	42% (ie 62.5% from AFPS05 x 47/70)
Guarantee period (number of years from retirement date that pension is guaranteed to be paid in full even if member dies)	0	5	5
Career average revaluation rate in 2010	n/a	n/a	n/a
Career average revaluation rate in 2013/2016	n/a	n/a	Average earnings
Deferred pension revaluation in 2010	RPI	RPI	n/a
Increases in payment 2010	RPI	RPI	n/a
Deferred pension revaluation in 2013/2016	CPI	CPI	CPI
Increases in payment 2013/2016	CPI	CPI	CPI
Commutation Terms	n/a	n/a	12

Summary of member contributions (% of pension salary)

AFPS 75, AFPS 05 and AFPS 2015 are all non-contributory for members.

Results

The results of the comparative valuation for the Senior Military pension benefits are set out on the following pages. Key themes emerging from the analysis are as follows:

- **Importance of career path on the value of pension benefits:** The results show that within the Senior Military, there are significant differences in the net value of pension benefits depending on the employee's career path due to:
 - The individual's salary progression (the faster the salary progression, the greater the net value), although this is less of a factor in the 2015 scheme as this is career average rather than final salary.
 - The length of service (accrual ceases in AFPS75 after 34 years so the net value of benefits is reduced for longer serving individuals such as career path H2 when valued over the whole career)
 - Completed service, age and salary level at the time that the 2015 scheme is introduced. For example, for individuals who are older in 2010 or who are not expecting much future salary progression, the 2015 and 2016 changes (which only affect future service) have a lesser effect on the net value of benefits over the individual's whole career.
- **2010 to 2013 benefit changes:** The change from RPI to CPI indexation in April 2011 had a significant impact on the net value to employees of the Armed Forces pension arrangements:
 - The indexation changes were of particular significance as they affected pension benefit entitlements in respect of completed past service and future service. In contrast, the subsequent changes to member contributions, retirement ages and the move to career average style benefits generally only affect pension benefits in respect of future service.
- **2013 to 2015/16 changes:** In general over the whole career, the changes to Senior Military benefits in 2015 and 2016 are expected to have a much smaller impact than the changes between 2010 and 2013. However, the difference in net value can be significant in any individual year for members because of the change in accrual rate after 16 years in AFPS 75 structure and the cessation of accrual after 34 years. With members who have switched to AFPS 05, the changes in 2015 and 2016 result in a higher accrual rate at all ages, but this is offset by the higher retirement age and the loss of linkage to future salary for members expected to receive high promotional salary increases which can be material. Some individuals who are members of the AFPS 75 scheme and who are expected to exceed the current maximum years of accrual (for example career path H2) will be able to continue accruing benefits for longer following the introduction of the 2015 scheme if they remain in service.
 - The transitional arrangements will further protect some older individuals from the 2015 changes (not applicable for the illustrative career paths considered here).

- **Comparison with private sector:** Over this period, the net value of the private sector comparators has reduced. The move from defined benefit to defined contribution over this period has had a relatively greater impact on individuals with greater salary increase expectations, such as the career paths illustrated here. Consequently, the relation of the net value of the remit group benefits and typical private sector benefits analysed has remained relatively constant in some cases and in some cases slightly increased with the overall difference remaining high.

Remit Group:

Senior Military

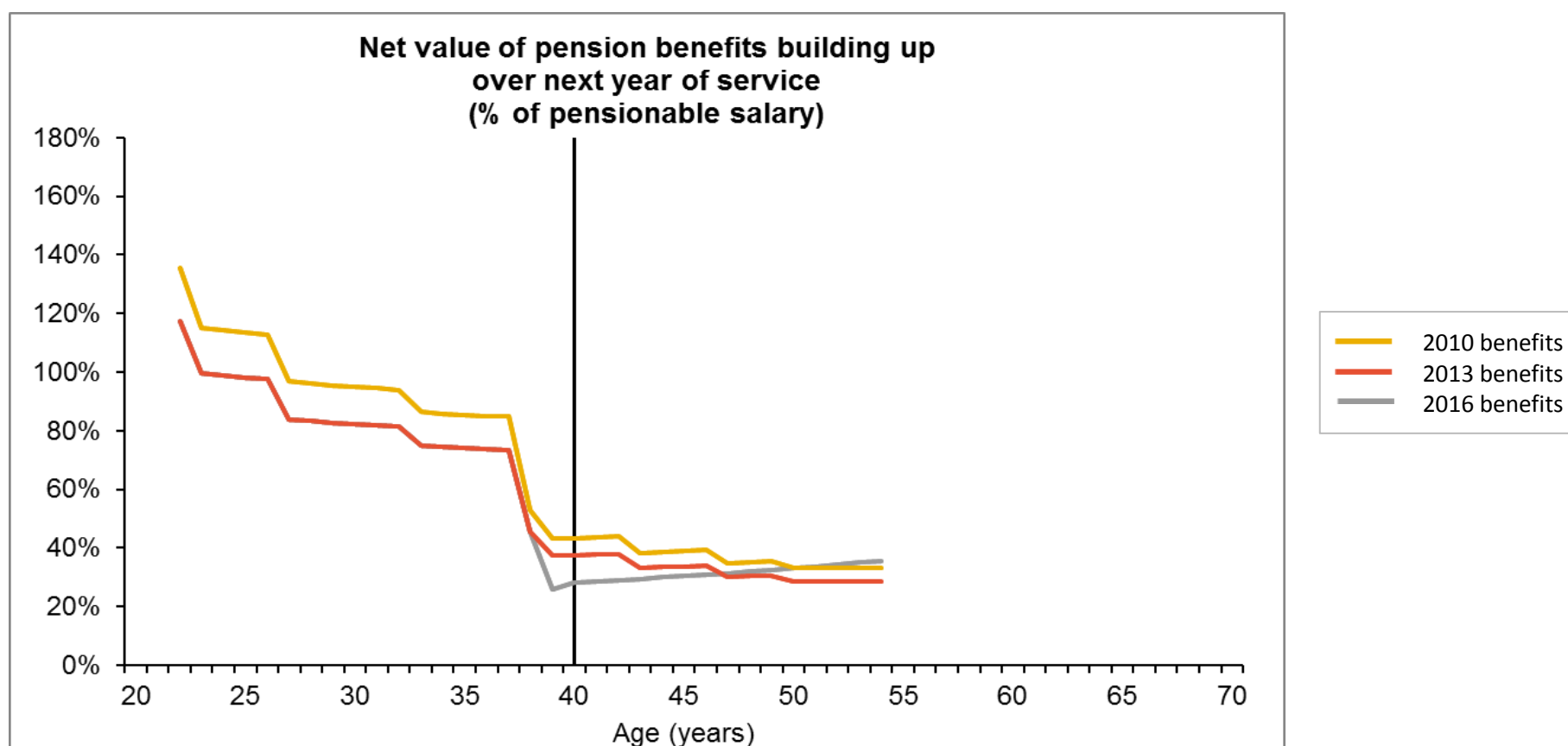
Career path	H1
Age on joining (years)	22
Current age (years)	40
Age on leaving (years)	55
Level on joining	Lieutenant
Current level	Lt Colonel
Level at leaving	2 star general
Pensionable salary on joining (£)	24,971
Current pensionable salary (£)	68,900
Pensionable salary at leaving (£)	118,179
Retirement age	55

Comments on career path

Individual rises from Lieutenant to 2 star General - currently Lieutenant Colonel
 Large promotion salary increases at ages 23, 27, 33, 39, 43, 47 and 50
 Smaller progression increases throughout career
 Currently in AFPS 75

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	60%	52%	51%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	29%	26%	26%
Typical DC Scheme	10%	10%	13%
Representative mid-level scheme	24%	20%	18%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015
 The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases. The net value (as a percentage of salary) falls after large salary increases.
 The net value falls significantly at age 38 as the rate of accrual reduces after 16 years' service
 The net value over the whole career of the 2013 and 2016 benefits are not significantly different - the higher accrual offsets the higher retirement age and move to career average

Remit Group:

Senior Military

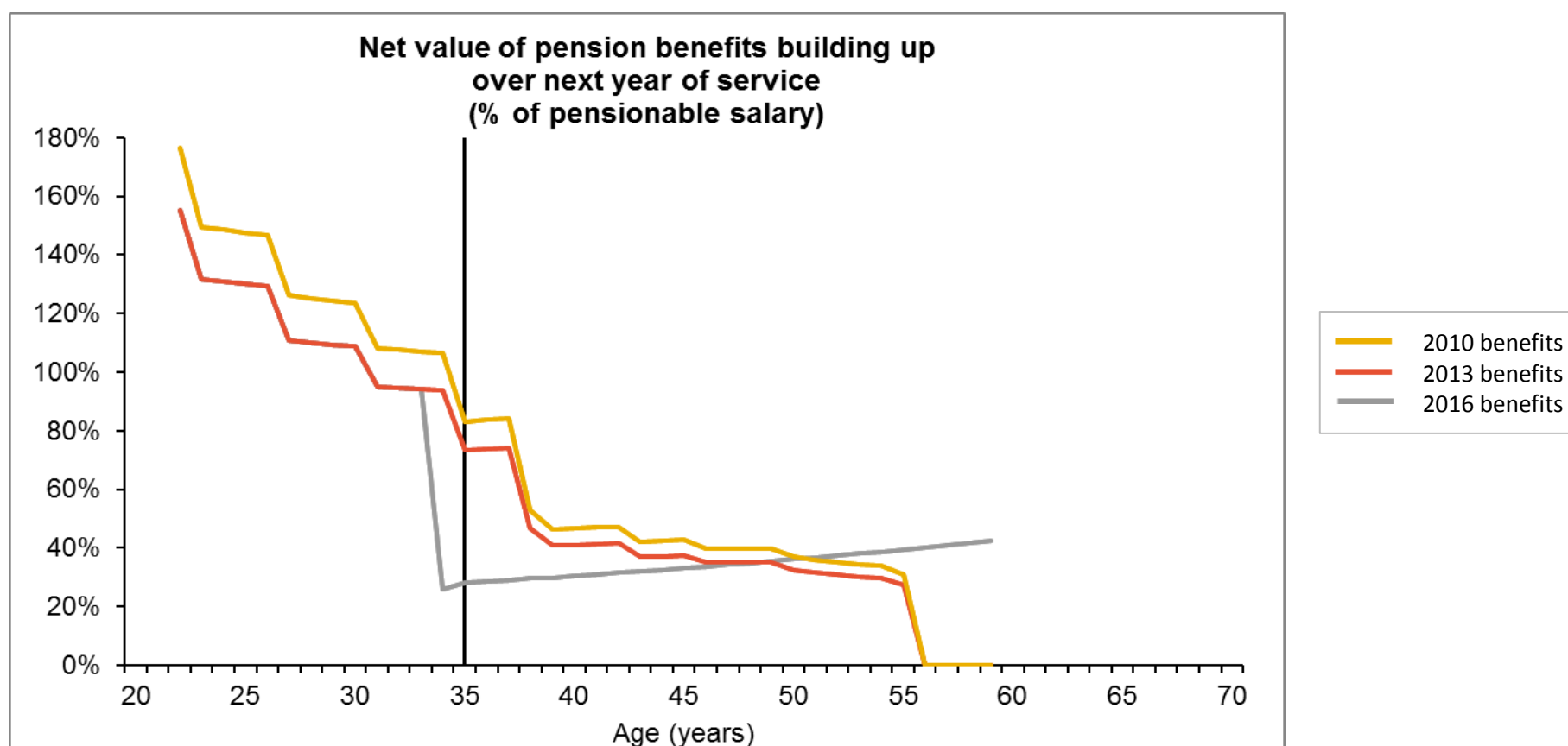
Career path	H2
Age on joining (years)	22
Current age (years)	35
Age on leaving (years)	60
Level on joining	Lieutenant
Current level	Lt Colonel
Level at leaving	4 star general
Pensionable salary on joining (£)	24,971
Current pensionable salary (£)	67,999
Pensionable salary at leaving (£)	183,369
Retirement age	60

Comments on career path

Individual rises from Lieutenant to 4 star General - currently Lieutenant Colonel
 Large promotion salary increases at ages 23, 27, 31, 35, 39, 43, 46, 50 and 55
 Smaller progression increases throughout career
 Currently in AFPS 75

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	54%	48%	50%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	47%	45%	45%
Typical DC Scheme	13%	13%	16%
Representative mid-level scheme	37%	28%	24%



Comments on results

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases. The net value (as a percentage of salary) falls after large salary increases. Under AFPS 75 scheme, accrual reduces at age 38 (after 16 years' service) and accrual ceases at age 56 (34 years' service). The change to the 2015 scheme has a very significant impact when it first takes place as the loss of linkage to future salary for a member expected to receive high promotional salary increases is material. Unlike the previous career path, the change to 2015 benefits takes place while the member is building up benefits at the higher accrual rate. Over the whole career the impact of RPI to CPI change in indexation is partially offset by the move to 2015 scheme, as accrual continues beyond 34 years.

Remit Group:

Senior Military

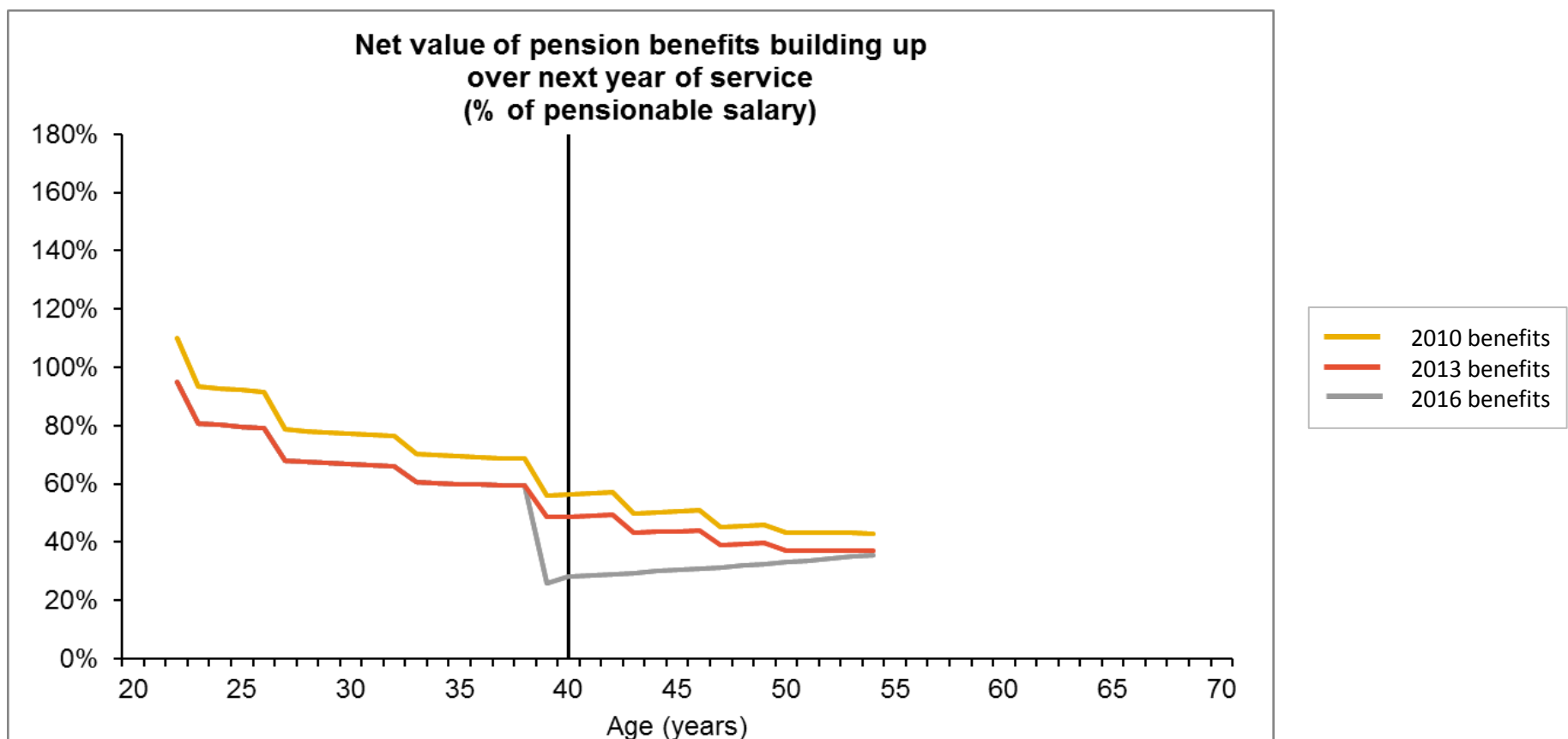
Career path	H3
Age on joining (years)	22
Current age (years)	40
Age on leaving (years)	55
Level on joining	Lieutenant
Current level	Lt Colonel
Level at leaving	2 star general
Pensionable salary on joining (£)	24,971
Current pensionable salary (£)	68,900
Pensionable salary at leaving (£)	118,179
Retirement age	55

Comments on career path

Individual rises from Lieutenant to 2 star General - currently Lieutenant Colonel
 Large promotion salary increases at ages 23, 27, 33, 39, 43, 47 and 50
 Smaller progression increases throughout career
 Member originally joined AFPS 75 and opted to switch to AFPS 05 in 2006

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	60%	52%	46%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	29%	26%	26%
Typical DC Scheme	10%	10%	13%
Representative mid-level scheme	24%	20%	18%



Comments on results

RPI to CPI change in indexation has a similar impact to the change to the new scheme in 2015

The net value of the benefits falls in the final salary structures (2010 and 2013) over the period where there are large promotional salary increases

For the purpose of this chart, the member is assumed to be in AFPS 05 throughout career, as on switching from AFPS 75 to AFPS 05 a year for year service credit was given in the new scheme

The net value over the whole career of the 2013 benefits is higher than the 2016 benefits as the higher retirement age and move to career average more than offset the higher accrual rate

Sensitivities

The table below shows the value of the Senior Military pension benefits (net of the employee cost, as a % of salary) on the whole career basis for each career path, using the central assumptions and with sensitivities to the discount rate (a reduction from 5% pa to 4% pa) and salary increases (a reduction from 3% pa to 2% pa). For both sets of sensitivities, all assumptions other than the one described are unchanged. The table shows that a lower discount rate leads to a higher net value being placed on the pension benefits. Conversely, a lower salary increase rate leads to a lower net value being placed on the pension benefits.

Remit Group	Career path	Central	2010		Central	2013		Central	2016	
			Lower discount rate	Lower salary increases		Lower discount rate	Lower salary increases		Lower discount rate	Lower salary increases
Senior Military	H1	60%	80%	52%	52%	68%	45%	51%	68%	46%
Senior Military	H2	54%	72%	47%	48%	63%	41%	50%	65%	46%
Senior Military	H3	60%	80%	53%	52%	68%	45%	46%	61%	41%

Appendix I: Senior Salaries Review Body – NHS Very Senior Managers

Introduction

The results of the valuation of the pension benefits for the illustrative NHS Very Senior Managers career paths are set out on the following pages.

Important notes to consider when reviewing the results

When reviewing the results, it is important for users to note that the purpose of the results is to illustrate to the Review Bodies how the net values of benefits for particular Remit Groups have changed and are expected to change over time, relative to the pension benefit available in the private and with the public sector; not how the benefits compare across Remit Groups.

The research does not consider how career paths and earnings profile might differ in comparator organisations or the impact of such differences on the value of pension benefits. Therefore, when comparing the results for the net employee value of benefits for Remit Group members based on the pension benefits available with the net employee value of benefits for a comparator schemes, it is assumed that the career path in the comparator organisation (including length of service and the earnings profile) are identical. In practice, this is unlikely to be the case.

Furthermore, care is needed to avoid comparing the value of pension benefits across Remit Groups as the particular career paths analysed differ across the groups.

Career paths

Four illustrative career paths have been chosen covering the following scenarios:

- I1 An individual who joins the NHS at Agenda for Change Band 5 at age 22, becomes ALB Chief Operating Officer at age 46 and ALB Chief Executive at age 55 before retiring at age 60. For illustration purposes, this individual is assumed to currently be age 30 and qualify initially for benefits through the NHS Pension Scheme 1995 section.
- I2 An individual who joins the NHS at Agenda for Change Band 5 at age 22, becomes ALB HR Director at age 40 before leaving at age 45 and retiring at age 60. For illustration purposes, this individual is assumed to currently be age 40 and qualify initially for benefits through the NHS Pension Scheme 1995 section.
- I3 An individual who joins the NHS as ALB Finance Director at age 40 before leaving at age 45 and retiring at age 65. For illustration purposes, this individual is assumed to currently be age 44 and qualify initially for benefits through the NHS Pension Scheme 2008 section.

- 14 An individual who joins the NHS as ALB Finance Director at age 40, becomes ALB Chief Executive at age 55 before retiring at age 60. For illustration purposes, this individual is assumed to currently be age 50 and qualify initially for benefits through the NHS Pension Scheme 1995 section.

Further details on each illustrative career path can be found in the Methodology Report dated 22 December 2014.

Design of pension benefits for individuals within the Senior Salaries Review Body – NHS Very Senior Managers schemes

The tables below summarise the pension benefits provided to the individuals on the above career paths within the NHS pension schemes and provide details of the member contribution requirements.

Summary of benefits

Name	NHS 1995 section	NHS 2008 section	NHS 2015
Type (Final salary/Career average)	Final salary	Final salary	Career average
Contracted out?	Yes	Yes	No
Deferred Retirement Age (age at which deferred member can retire without reduction)	60	65	SPA
NRA (age at which active member can retire without reduction)	60	65	SPA
Pension accrual rate	1/80	1/60	1/54
Lump sum accruing as multiple of pension	3	0	0
Maximum service (if restricted)			
Spouse's pension as % of member's on death after retirement	50%	37.5%	33.75% (ie 37.5% x 54/60)
Guarantee period (number of years from retirement date that pension is guaranteed to be paid in full even if member dies)	0	0	0
Career average revaluation rate in 2010	n/a	n/a	n/a
Career average revaluation rate in 2013/2016	n/a	n/a	CPI+1.5%
Deferred pension revaluation in 2010	RPI	RPI	n/a
Increases in payment 2010	RPI	RPI	n/a
Deferred pension revaluation in 2013/2016	CPI	CPI	n/a
Increases in payment 2013/2016	CPI	CPI	n/a
Commutation Terms (n/a where lump sum is accrued)	n/a	12	12

Summary of member contributions (% of pension salary)

Final details of the contribution requirements under the 2015 scheme have not yet been announced. For the purpose of the comparative valuation, we have assumed that the contribution rates for 2015 (as shown in the table) are the same as those in the current scheme for 2014.

Salary from (2013 terms)	NHS (1995 and 2008)	NHS (1995 and 2008)	NHS (1995 and 2008)	NHS (1995 and 2008)	NHS 2015
	Up to 2011	2012	2013	2014	2015 onwards
£ -	5.00%	5.00%	5.00%	5.00%	5.00%
£ 15,279	5.00%	5.00%	5.30%	5.60%	5.60%
£ 21,176	6.50%	6.50%	6.80%	7.10%	7.10%
£ 26,558	6.50%	8.00%	9.00%	9.30%	9.30%
£ 48,983	6.50%	8.90%	11.30%	12.50%	12.50%
£ 69,932	7.50%	9.90%	12.30%	13.50%	13.50%
£110,274	8.50%	10.90%	13.30%	14.50%	14.50%

Results

The results of the comparative valuation for the NHS Very Senior Managers pension benefits are set out on the following pages. Key themes emerging from the analysis are as follows:

- **Importance of career path on the value of pension benefits:** The results show that within the NHS Very Senior Managers remit group, there are significant differences in the net value of pension benefits depending on the employee's career path:
 - The individual's salary progression (the faster the salary progression, the greater the net value – see in particular career paths I1 and I2), although this is less of a factor in the 2015 scheme as this is career average rather than final salary.
 - Completed service, age and salary level at the time that the 2015 scheme is introduced. For example, for individuals who are older in 2010 or who are not expecting much future salary progression, the 2015 and 2016 changes (which only affect future service) have a lesser effect on the net value of benefits over the individual's whole career.
- **2010 to 2013 benefit changes:** The change from RPI to CPI indexation in April 2011 had a significant impact on the net value to employees of the NHS pension arrangements:
 - The indexation changes were of particular significance as they affected pension benefit entitlements in respect of completed past service and future service. In contrast, the subsequent changes to member contributions, retirement ages and the move to career average style benefits generally only affect pension benefits in respect of future service.
 - For a shorter service career (for example career paths I2 and I3) the change from RPI to CPI indexation has a relatively greater impact, as it affects not only pension increases in payment but also pension increases after leaving service and prior to payment.

- **2013 to 2015/16 changes:** In general over the whole career, the changes to NHS benefits in 2015 and 2016 are expected to have a lesser impact than the changes between 2010 and 2013, other than for those career paths with significant expected future promotional salary increases (such as career path I1).
 - The transitional arrangements will further protect some older individuals from the 2015 changes (not applicable for the illustrative career paths considered here).
 - With the move to a career average scheme, the difference in net value by career path is reduced (as salary progression has less of an impact).

- **Comparison with private sector:** The changes in the private sector comparators have been less material over this period. While the net values of the 2010 benefits over the whole career were greater than the net value of the typical private sector benefits, the differentials were reduced for the 2013 benefits and the net values of the 2016 benefits were in general lower than those of the typical private sector comparators – particularly for a shorter career path (such as I3). This is, in part, because the DB Scheme comparators at the salary levels relevant for the remit group are generally more valuable than the typical DB Scheme comparators analysed and have not reduced in value materially over this period.

Remit Group:

NHS Very Senior Managers

Career path	I1
Age on joining (years)	22
Current age (years)	30
Age on leaving (years)	60
Level on joining	Band 5
Current level	Band 7
Level at leaving	ALB Chief Executive
Pensionable salary on joining (£)	21,388
Current pensionable salary (£)	37,921
Pensionable salary at leaving (£)	150,000
Retirement age	60

Comments on career path

Individual rises from Band 5 to ALB Chief Executive - currently Band 7

Large promotion salary increases, particularly in first 10 years and at ages 36, 46 and 55

Smaller progression salary increases up to age 46

Currently in NHS 1995 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	43%	33%	14%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	42%	40%	40%
Typical DC Scheme	12%	12%	15%
Representative mid-level scheme	28%	21%	19%



Comments on results

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases. The net value (as a percentage of salary) falls after large salary increases.

Change to the new scheme in 2015 has a much more significant impact than the RPI to CPI change in indexation

The net value of the 2016 benefits is significantly lower than NHS 1995 scheme as the loss of linkage to future salary for a member expected to receive high promotional salary increases is material and also due to the increase in retirement age from 60 to SPA

Remit Group:

NHS Very Senior Managers

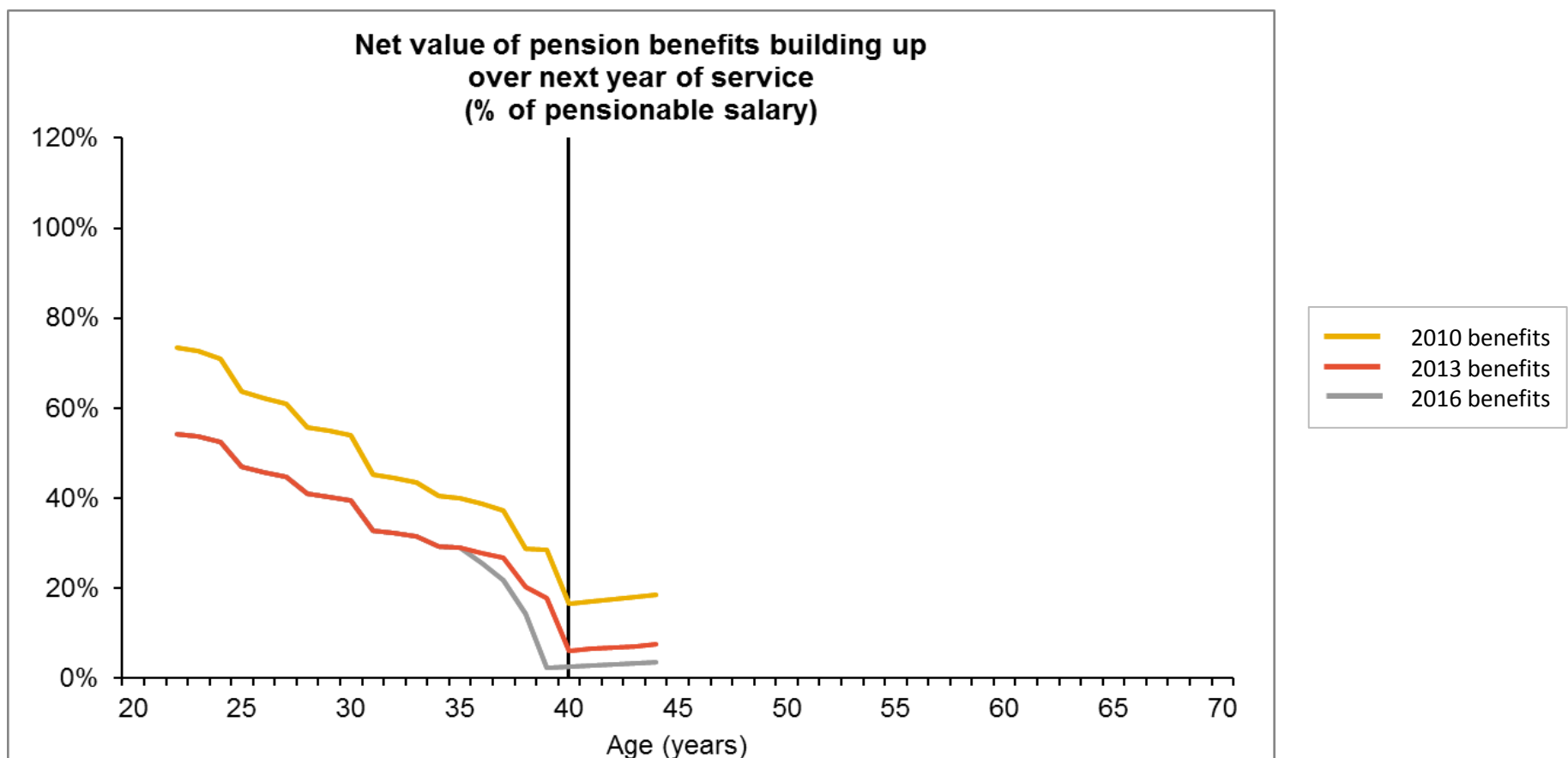
Career path	I2
Age on joining (years)	22
Current age (years)	40
Age on leaving (years)	45
Level on joining	Band 5
Current level	ALB HR Director
Level at leaving	ALB HR Director
Pensionable salary on joining (£)	21,388
Current pensionable salary (£)	100,000
Pensionable salary at leaving (£)	100,000
Retirement age	60

Comments on career path

Individual rises from Band 5 to ALB HR Director before leaving at age 45
 Large promotion/progression salary increases until age 40
 Currently in NHS 1995 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	36%	24%	21%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	27%	23%	23%
Typical DC Scheme	11%	11%	13%
Representative mid-level scheme	23%	18%	17%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015 as short serving member so change affects increases after leaving service as well as in payment

The net value of the benefits building up over one year is high at young ages in the final salary structures (2010 and 2013) reflecting the expectation of large promotion salary increases. The net value (as a percentage of salary) falls after large salary increases.

The net value of the 2016 benefits is lower than NHS 1995 scheme due largely to the increase in retirement age from 60 to SPA

Remit Group:

NHS Very Senior Managers

Career path	I3
Age on joining (years)	40
Current age (years)	44
Age on leaving (years)	45
Level on joining	ALB Finance Director
Current level	ALB Finance Director
Level at leaving	ALB Finance Director
Pensionable salary on joining (£)	95,000
Current pensionable salary (£)	95,000
Pensionable salary at leaving (£)	95,000
Retirement age	65

Comments on career path

Individual joins at age 40 as ALB Finance Director and leaves at age 45
 No promotion/progression salary increases
 Currently in NHS 2008 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	14%	7%	4%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	13%	11%	11%
Typical DC Scheme	12%	12%	15%
Representative mid-level scheme	13%	12%	15%



Comments on results

RPI to CPI change in indexation has a more significant impact than the change to the new scheme in 2015 as short service member so change affects increases after leaving service as well as in payment
 Change to the new scheme in 2015 only applies for the last year of service - other changes in 2016 benefits reflect increase in member contribution rates over the years to 2015

Remit Group:

NHS Very Senior Managers

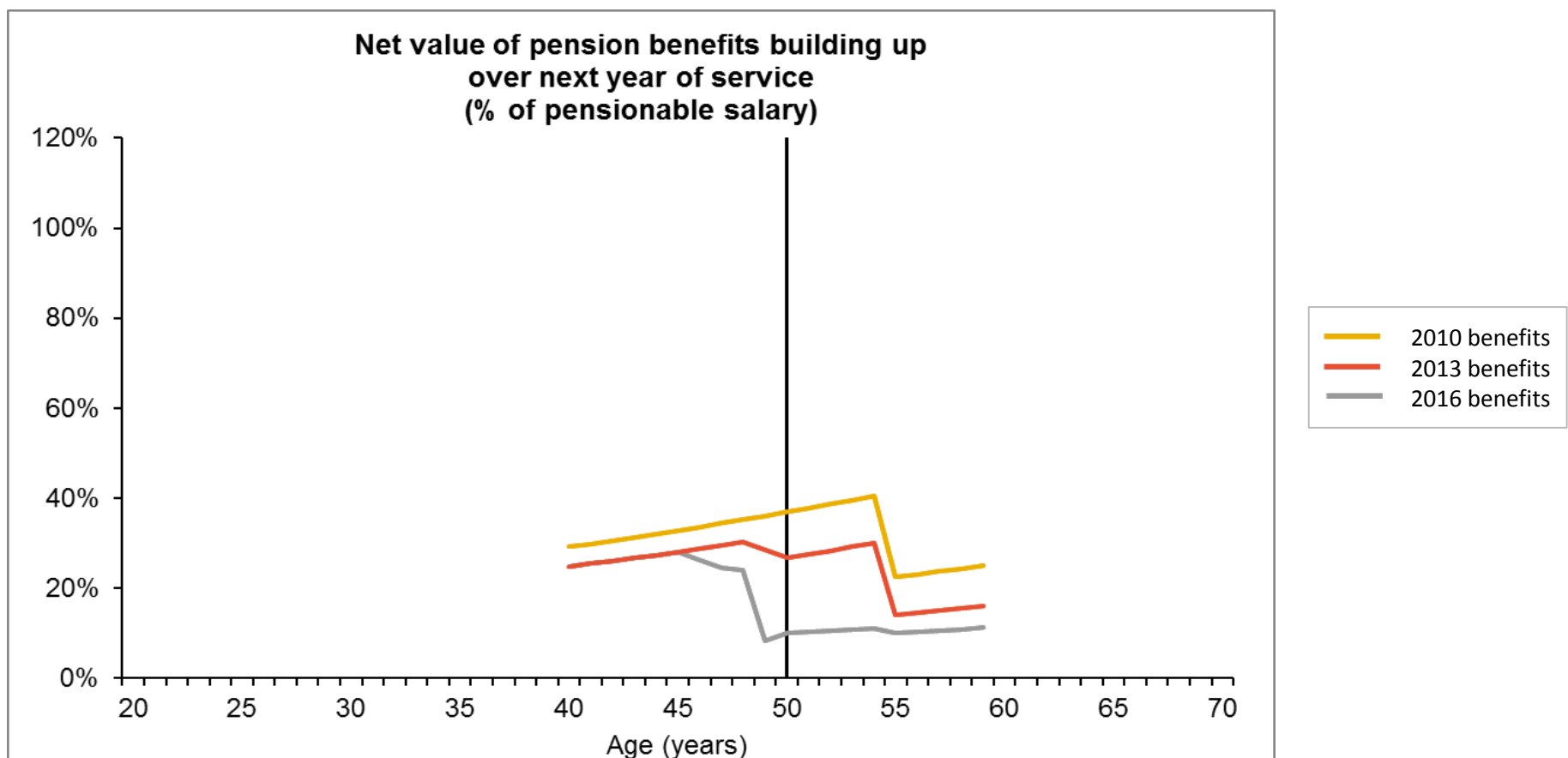
Career path	I4
Age on joining (years)	40
Current age (years)	50
Age on leaving (years)	60
Level on joining	ALB Finance Director
Current level	ALB Finance Director
Level at leaving	ALB Chief Executive
Pensionable salary on joining (£)	95,000
Current pensionable salary (£)	95,000
Pensionable salary at leaving (£)	150,000
Retirement age	60

Comments on career path

Individual joins at age 40 as ALB Finance Director and becomes ALB Chief Executive at age 55
 Promotion salary increase at age 55
 Currently in NHS 1995 section

Net value of pension benefits accruing over the entire career (% of pensionable salary over career)

Reference date for benefits	2010	2013	2016
Net value of remit group benefits (% of salary, net of employee cost)	31%	24%	17%
Comparators - value of typical private sector arrangements			
Typical DB Scheme	38%	37%	37%
Typical DC Scheme	13%	13%	17%
Representative mid-level scheme	29%	23%	21%



Comments on results

Over the whole career, the RPI to CPI change in indexation and increase in contribution rates to 2013 has similar impact to the change to the new scheme in 2015

The net value of the benefits building up over one year falls in the final salary structures (2010 and 2013) when there is the large promotion salary increase but rises when there are no promotion/progression salary increases

The net value of the 2016 benefits is significantly lower than NHS 1995 scheme as the loss of linkage to future salary for a member expected to receive a high promotion salary increase is material and also due to the increase in retirement age from 60 to SPA

Sensitivities

The table below shows the value of the NHS Very Senior Managers pension benefits (net of the employee cost, as a % of salary) on the whole career basis for each career path, using the central assumptions and with sensitivities to the discount rate (a reduction from 5% pa to 4% pa) and salary increases (a reduction from 3% pa to 2% pa). For both sets of sensitivities, all assumptions other than the one described are unchanged. The table shows that a lower discount rate leads to a higher net value being placed on the pension benefits. Conversely, a lower salary increase rate leads to a lower net value being placed on the pension benefits.

Remit Group	Career path	2010			2013			2016		
		Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases	Central	Lower discount rate	Lower salary increases
NHS Very Senior Managers	I1	43%	59%	36%	33%	47%	27%	14%	23%	13%
NHS Very Senior Managers	I2	36%	55%	33%	24%	38%	21%	21%	34%	19%
NHS Very Senior Managers	I3	14%	22%	13%	7%	13%	7%	4%	10%	3%
NHS Very Senior Managers	I4	31%	41%	28%	24%	32%	21%	17%	25%	15%

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Appendix J: Selected private sector and wider public sector comparator schemes – net value of benefits for career paths

The results of the valuation of the pension benefits in the selected private sector and wider public sector comparator schemes for the illustrative career paths are set out in this appendix. Comments on individual schemes are set out below:

- The value shown can differ significantly for individual schemes between career paths, as some schemes have all three of final salary, career average and defined contribution sections, with the section appropriate to each career path depending on the length of service completed to date. In general, defined contribution sections have the lowest values and final salary sections have the highest values.
- The values shown for the BBC Pension Scheme and Royal Mail Pension Plan for members in defined benefits sections are the same at all three dates as there are no changes to the level of benefit in these sections over this period (except for career path C3 who is assumed to be in a section of the Royal Mail Pension Plan which was affected by the RPI to CPI indexation change). For members in the defined contribution sections of these two schemes, the 2016 values are higher than those in 2010 and 2013 due to the new flexibilities in defined contribution pension provision announced in the 2014 Budget.
- The Universities Superannuation Scheme was affected by the RPI to CPI indexation change so the 2010 values are higher than those at the other two dates. The 2013 and 2016 values are the same as there are no changes to the benefits between these two dates.
- The Firefighters' Pension Scheme and Local Government Pension Schemes were both affected by the RPI to CPI indexation change, so the 2010 values are higher than the 2013 values. There are more significant changes affecting these two schemes in 2015 and 2014 respectively, which can lead to 2016 values being either higher or lower than 2013 values, depending on the career path.

A: Doctors and Dentists Review Body**Net value of pension benefits accruing over the entire career (% of pensionable salary over career)**

Career path	A1			A2			A3			
	Reference date for benefits	2010	2013	2016	2010	2013	2016	2010	2013	2016
BBC Pension Scheme		9%	9%	11%	35%	35%	35%	15%	15%	15%
Firefighters' Pension Scheme		24%	20%	11%	42%	35%	24%	12%	6%	5%
Local Government Pension Scheme		26%	23%	10%	27%	22%	17%	15%	9%	7%
Royal Mail Pension Plan		7%	7%	8%	17%	17%	17%	7%	7%	9%
Universities Superannuation Scheme		16%	14%	14%	25%	20%	20%	15%	9%	9%

B: NHS Pay Review Body**Net value of pension benefits accruing over the entire career (% of pensionable salary over career)**

Career path	B1			B2			B3			B4		
	2010	2013	2016	2010	2013	2016	2010	2013	2016	2010	2013	2016
BBC Pension Scheme	19%	19%	19%	23%	23%	23%	22%	22%	22%	10%	10%	12%
Firefighters' Pension Scheme	20%	16%	15%	25%	20%	18%	27%	21%	16%	18%	15%	11%
Local Government Pension Scheme	14%	11%	12%	17%	14%	14%	18%	14%	14%	20%	18%	12%
Royal Mail Pension Plan	15%	15%	15%	16%	16%	16%	16%	16%	16%	8%	8%	9%
Universities Superannuation Scheme	12%	9%	9%	14%	11%	11%	15%	12%	12%	15%	13%	13%

Career path	B5			B6			B7			B8		
	2010	2013	2016	2010	2013	2016	2010	2013	2016	2010	2013	2016
BBC Pension Scheme	17%	17%	17%	40%	40%	40%	10%	10%	12%	18%	18%	18%
Firefighters' Pension Scheme	20%	17%	16%	60%	50%	27%	14%	8%	5%	21%	17%	13%
Local Government Pension Scheme	17%	13%	13%	31%	26%	21%	16%	10%	9%	14%	11%	12%
Royal Mail Pension Plan	17%	17%	17%	18%	18%	18%	8%	8%	9%	16%	16%	16%
Universities Superannuation Scheme	14%	11%	11%	28%	23%	23%	13%	8%	8%	12%	9%	9%

C: Police Pay Review Body**Net value of pension benefits accruing over the entire career (% of pensionable salary over career)**

Career path Reference date for benefits	C1			C2			C3		
	2010	2013	2016	2010	2013	2016	2010	2013	2016
BBC Pension Scheme	16%	16%	16%	22%	22%	22%	29%	29%	29%
Firefighters' Pension Scheme	17%	13%	12%	38%	31%	18%	31%	25%	19%
Local Government Pension Scheme	14%	10%	10%	16%	12%	12%	23%	18%	14%
Royal Mail Pension Plan	8%	8%	10%	14%	14%	14%	17%	17%	17%
Universities Superannuation Scheme	12%	9%	9%	17%	12%	12%	23%	19%	19%

D: Prison Service Pay Review Body**Net value of pension benefits accruing over the entire career (% of pensionable salary over career)**

Career path	D1			D2			D3			D4		
	2010	2013	2016	2010	2013	2016	2010	2013	2016	2010	2013	2016
BBC Pension Scheme	20%	20%	20%	11%	11%	12%	39%	39%	39%	10%	10%	12%
Firefighters' Pension Scheme	21%	17%	13%	17%	14%	11%	45%	37%	34%	13%	7%	5%
Local Government Pension Scheme	14%	11%	12%	19%	17%	13%	29%	24%	23%	16%	9%	10%
Royal Mail Pension Plan	16%	16%	16%	8%	8%	10%	17%	17%	17%	8%	8%	9%
Universities Superannuation Scheme	12%	9%	9%	15%	13%	13%	26%	21%	21%	12%	7%	7%

Career path	D5			D6			D7		
	2010	2013	2016	2010	2013	2016	2010	2013	2016
BBC Pension Scheme	21%	21%	21%	10%	10%	12%	31%	31%	31%
Firefighters' Pension Scheme	22%	18%	14%	25%	21%	12%	35%	28%	26%
Local Government Pension Scheme	15%	12%	13%	28%	24%	13%	22%	18%	18%
Royal Mail Pension Plan	16%	16%	16%	8%	8%	9%	16%	16%	16%
Universities Superannuation Scheme	13%	10%	10%	16%	14%	14%	20%	16%	16%

E: School Teachers Review Body**Net value of pension benefits accruing over the entire career (% of pensionable salary over career)**

Career path	E1			E2			E3			E4		
	2010	2013	2016	2010	2013	2016	2010	2013	2016	2010	2013	2016
BBC Pension Scheme	19%	19%	19%	19%	19%	19%	29%	29%	29%	11%	11%	12%
Firefighters' Pension Scheme	14%	12%	11%	21%	16%	15%	32%	26%	21%	11%	4%	1%
Local Government Pension Scheme	17%	14%	14%	15%	12%	11%	21%	17%	16%	13%	6%	6%
Royal Mail Pension Plan	8%	8%	10%	16%	16%	16%	17%	17%	17%	8%	8%	9%
Universities Superannuation Scheme	16%	14%	14%	13%	10%	10%	18%	15%	15%	9%	4%	4%

F: Senior Salaries Review Body – Senior Civil Service**Net value of pension benefits accruing over the entire career (% of pensionable salary over career)**

Career path	F1			F2			F3		
	2010	2013	2016	2010	2013	2016	2010	2013	2016
BBC Pension Scheme	22%	22%	22%	9%	9%	11%	41%	41%	41%
Firefighters' Pension Scheme	21%	17%	15%	13%	8%	7%	47%	39%	36%
Local Government Pension Scheme	17%	13%	10%	16%	11%	10%	30%	25%	23%
Royal Mail Pension Plan	16%	16%	16%	7%	7%	8%	17%	17%	17%
Universities Superannuation Scheme	18%	14%	14%	15%	10%	10%	27%	22%	22%

G: Senior Salaries Review Body – Judiciary**Net value of pension benefits accruing over the entire career (% of pensionable salary over career)**

Career path	G1			G2			G3		
	2010	2013	2016	2010	2013	2016	2010	2013	2016
BBC Pension Scheme	18%	18%	18%	17%	17%	17%	18%	18%	18%
Firefighters' Pension Scheme	13%	11%	10%	19%	15%	10%	20%	16%	10%
Local Government Pension Scheme	16%	14%	15%	18%	15%	14%	19%	17%	16%
Royal Mail Pension Plan	19%	19%	19%	21%	21%	21%	17%	17%	17%
Universities Superannuation Scheme	15%	13%	13%	16%	14%	14%	17%	15%	15%

H: Senior Salaries Review Body – Senior Military**Net value of pension benefits accruing over the entire career (% of pensionable salary over career)**

Career path Reference date for benefits	H1			H2			H3		
	2010	2013	2016	2010	2013	2016	2010	2013	2016
BBC Pension Scheme	38%	38%	38%	47%	47%	47%	38%	38%	38%
Firefighters' Pension Scheme	62%	51%	29%	53%	44%	27%	62%	51%	29%
Local Government Pension Scheme	27%	21%	16%	37%	30%	16%	27%	21%	16%
Royal Mail Pension Plan	15%	15%	15%	18%	18%	18%	15%	15%	15%
Universities Superannuation Scheme	25%	19%	19%	34%	28%	28%	25%	19%	19%

I: Senior Salaries Review Body – NHS Very Senior Managers**Net value of pension benefits accruing over the entire career (% of pensionable salary over career)**

Career path Reference date for benefits	I1			I2			I3			I4		
	2010	2013	2016	2010	2013	2016	2010	2013	2016	2010	2013	2016
BBC Pension Scheme	44%	44%	44%	39%	39%	39%	16%	16%	16%	32%	32%	32%
Firefighters' Pension Scheme	49%	41%	21%	44%	30%	24%	11%	6%	5%	32%	26%	21%
Local Government Pension Scheme	35%	29%	12%	29%	19%	18%	14%	9%	8%	25%	20%	16%
Royal Mail Pension Plan	18%	18%	18%	14%	14%	14%	7%	7%	8%	19%	19%	19%
Universities Superannuation Scheme	32%	26%	26%	25%	17%	17%	14%	9%	9%	22%	18%	18%