The implications of the Coalition Government’s reforms for members of the public service pension schemes
The implications of the Coalition Government’s reforms for members of the public service pension schemes is a research project carried out by the Pensions Policy Institute and funded by the Nuffield Foundation.

The Pensions Policy Institute (PPI) is an independent, apolitical, educational research charity with a charitable objective to inform the policy debate on pensions and other provision for retirement.

The objective of the report is to aid understanding about the potential impact of the Coalition Government’s proposed reforms to the public service schemes in order to inform the policy debate. The PPI is not lobbying for or against the implementation of the Government’s proposals. The PPI will also publish a second stage of this research which will examine the implications of the reforms for the long-term affordability and sustainability of the public service pension schemes.

The analysis has been funded by a grant from the Nuffield Foundation, an endowed charitable trust that aims to improve social well-being in the widest sense. It funds research and innovation in education and social policy and also works to build capacity in education, science and social science research. The Nuffield Foundation has funded this project, but the views expressed are those of the authors and not necessarily those of the Foundation. More information is available at www.nuffieldfoundation.org.
The implications of the Coalition Government’s reforms for members of the public service pension schemes

Executive Summary

Introduction

1. Measuring the value of the pension benefit for a scheme member

2. The impact of the Coalition Government’s proposed reforms on the value of the:
   - NHS Pension Scheme
   - Teachers’ Pension Scheme
   - Local Government Pension Scheme
   - Civil Service Pension Scheme

3. The impact of the different components of the Coalition Government’s proposed reforms

4. The impact of the Coalition Government’s reform on members with particular characteristics
   - High-flyers versus Low-flyers
   - High earners versus Low earners
   - Early leavers versus Long stayers

Annex 1: Summary of the main elements of the existing and proposed public service pension schemes

Annex 2: Technical Annex on the Effective Employee Benefit Rate calculation

Annex 3: The impact of the switch from RPI to CPI as the index used for revaluation and indexation of benefits

Annex 4: The impact of the Coalition’s reforms on members of the Teachers’ Pension Scheme

Annex 5: Impact of the Coalition’s reforms on members of the Local Government Pension Scheme

Annex 6: Impact of the Coalition’s reforms on members of the Principal Civil Service Pension Scheme

Acknowledgements and contact details
Executive Summary

Introduction
The Coalition Government has proposed a number of reforms to the public service pension schemes following the broad thrust of the recommendations made by Lord Hutton in his fundamental review of the public service pension schemes. In September 2012 the Government introduced draft legislation to Parliament in the form of the Public Service Pensions Bill which will provide the legislative framework to enable the Government to implement Lord Hutton’s recommendations.

The Coalition Government’s proposed reforms include linking the pension benefits for public service workers to average salary rather than to final salary, linking the Normal Pension Age (NPA) to the State Pension Age (SPA) for the four largest schemes: NHS, Teachers, Local Government and the Civil Service and increasing the average contributions to be made by scheme members. The Government’s reforms also cover the uniformed services (Police, Fire Service and Armed Forces) although the proposals are slightly different for these schemes; where a Normal Pension Age of 60 is proposed.

The proposed reforms apply to all members; however, members within ten years of their Normal Pension Age on 1 April 2012 will have their pension calculated according to the rules in place prior to the introduction of the proposed reforms.

Purpose of this report
This report sets out the PPI’s independent assessment of the potential impact of the Coalition Government’s proposed reforms to the public service pension schemes on the value of the pension benefit being offered to public service workers as set out in the Government’s Proposed Final Agreements. The analysis covers the four largest public service schemes: the NHS, Teachers, Local Government and Civil Service pension schemes which account for around 85% of public service pension scheme members. The Government has also proposed reforms to the schemes for the uniformed services (Police, Fire Service and Armed Forces). It should be noted that not all of the public service unions have accepted the Government’s proposals.

Previous reforms to the public service pension schemes
The Coalition Government’s proposed reforms are the latest in a series of reforms to public service pension schemes. The Labour Government implemented reforms to the four largest public service pension schemes in 2007 and 2008. Under Labour’s reforms all of the reformed schemes retained their final salary benefit structure except for the Civil Service scheme which moved to a new Career Average Revalued Earnings scheme (CARE) for new entrants to the Civil Service from 30 July 2007. In addition, the Normal Pension Age for the NHS, Teachers and Civil Service schemes was increased from 60 to 65 for new entrants, and the rates of accrual in the final salary schemes were amended. The Local Government Pension Scheme (LGPS) already had an NPA
of 65 although the rule of 85 which enabled retirement before age 65 in some circumstances was abolished in these reforms.

Higher rates of member contributions were introduced for all four of the main schemes for all scheme members (both existing members and new entrants) and for some schemes (e.g. the NHS and LGPS) the introduction of tiered member contributions saw higher earners pay higher rates of contribution than lower earners for the first time.

In June 2010, the Coalition Government changed the inflation measure used to uprate public service pension benefits. From April 2011, public service pensions in payment and pensions accrued are uprated in line with changes in the Consumer Prices Index (CPI), instead of the Retail Prices Index (RPI) as had been the previous policy. The CPI typically rises more slowly than the RPI because different formulae are used to calculate each index and because the CPI excludes housing costs.

**Methodology**

In order to provide comparisons of the value of the benefits offered by alternative Defined Benefit pension schemes, such as a final salary scheme and a career average scheme, the Pensions Policy Institute calculates the Effective Employee Benefit Rate (EEBR) of different schemes for scheme members with different characteristics.

The Effective Employee Benefit Rate provided by a particular pension scheme is calculated by translating the value of the pension benefit offered in the scheme into an equivalent percentage of salary that the scheme member would need to be given to compensate for the loss of the pension scheme. For example, an Effective Employee Benefit Rate of 15% for a member of a public service pension scheme means that the scheme member would have to be given a 15% increase in their salary by their employer to compensate for the loss of the pension scheme. The member contributions are taken into account in the calculation of the EEBR. So if a scheme has a benefit structure that would be worth 20% of the member’s salary, but the member is contributing 5% themselves in member contributions, then the Effective Employee Benefit Rate would be 15%.

**Assessing the Impact of the Coalition’s proposed reforms on scheme members**

The Coalition Government’s proposed reforms to the public service pensions include:

- Increased member contributions which will increase by an average 3.2% for each scheme (except the Local Government Pension Scheme);
- The switch to a Career Average Revalued Earnings (CARE) scheme;
- The linking of the Normal Pension Age with the State Pension Age for the four largest schemes.
In order to assess the impact of the Coalition Government’s reforms on the value of the pension benefit for public service scheme members it is necessary to have a baseline to compare the value of the schemes before the proposed reforms.

We have assumed in the baseline used in this report that from 1 April 2011 all public service pensions in payment and pensions accrued are uprated in line with changes in the Consumer Prices Index (CPI), instead of the Retail Prices Index (RPI) as had been the previous policy. In Annex 3 we have also calculated a counterfactual analysis of what the schemes would have been worth if the Government had continued to uprate public service pensions in line with the RPI.

**Headline Findings**
The PPI’s analysis suggests that the Coalition Government’s proposed reforms to the NHS, Teachers, Local Government and Civil Service pension schemes will reduce the average value of the benefit offered across all scheme members by more than a third, compared to the value of the schemes before the Coalition Government’s proposed reforms. Across the four largest public service pension schemes the value of the schemes reduces, on average, from 23% of a scheme member’s salary before the reforms to 15% of a scheme member’s salary after the Coalition Government’s proposed reforms. (Chart A)

**Chart A**

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Value before Coalition reforms</th>
<th>Value after Coalition reforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHS Pension Scheme</td>
<td>23%</td>
<td>14%</td>
</tr>
<tr>
<td>Teachers’ Pension Scheme</td>
<td>23%</td>
<td>14%</td>
</tr>
<tr>
<td>Local Government Pension Scheme</td>
<td>22%</td>
<td>14%</td>
</tr>
<tr>
<td>Principal Civil Service Pension Scheme</td>
<td>27%</td>
<td>17%</td>
</tr>
<tr>
<td>Average Four Main Public Sector Schemes</td>
<td>23%</td>
<td>15%</td>
</tr>
<tr>
<td>Average Private Sector Defined Contribution</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Average Private Sector CPI-linked Defined Benefit</td>
<td>23%</td>
<td>23%</td>
</tr>
</tbody>
</table>

1 PPI EEBR analysis using scheme designs as set out in the proposed final agreements for each scheme. Figures are weighted averages based on the relative membership of each scheme. Figures rounded to the nearest 1%.
The impact across all members of the NHS scheme is to reduce, on average, the value of the pension benefit from 23% of a member’s salary before the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

The impact across all members of the Teachers’ scheme is to reduce, on average, the value of the pension benefit from 23% of a member’s salary before the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

For members of the LGPS scheme the impact of the Coalition’s proposed reforms is to reduce, on average, the value of the pension benefit from 22% of a member’s salary before the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

The impact across all members of the Civil Service scheme is to reduce, on average, the value of the pension benefit from 27% of a member’s salary before the proposed reforms, to 17% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

Nevertheless, even after the Coalition’s proposed reforms the benefit offered by all four of the largest public service pension schemes remains more valuable, on average, than the pension benefit offered by Defined Contribution (DC) schemes that are now most commonly offered to employees in the private sector, which are typically worth around 10% of a DC scheme member’s salary.

There are still some Defined Benefit schemes in the private sector, although less than 10% of private sector employees are active members of a Defined Benefit Scheme. A typical Defined Benefit scheme in the private sector has an average pension benefit value of 23% of a member’s salary, assuming that the scheme benefits are linked to the Consumer Prices Index (CPI). Some private sector schemes still have benefits linked to the Retail Prices Index (RPI), and for a typical private sector Defined Benefit scheme linked to RPI the average value of the pension benefit is 27% of a member’s salary.

The impact of the components of the Coalition’s proposed reforms on the value of the NHS scheme

To illustrate how the different components of the Coalition’s proposed reforms would impact on members of the NHS Pension Scheme who have joined the scheme before 1 April 2008 Chart B shows how each component of the Coalition’s reforms contributes to the average reduction in the value of the scheme. The equivalent analysis for the Teachers, Local Government and Civil Service schemes are published in Annexes 4, 5 and 6.
The Coalition Government’s proposed reforms reduce the value to pre 2008 entrants of the NHS Pension Scheme by more than a third

Impact of each component of the Coalition Government’s proposed reforms on average value of the pension for members who joined the NHS Pension Scheme before 1 April 2008

<table>
<thead>
<tr>
<th>Component</th>
<th>Impact</th>
<th>Value after Coalition reforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of CPI linked pension before Coalition reforms</td>
<td>23%</td>
<td>0%</td>
</tr>
<tr>
<td>Impact of average 3.2% increase on contributions</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Impact of switch to CARE scheme</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Impact of linking retirement to SPA</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Total Impact</td>
<td>14%</td>
<td></td>
</tr>
</tbody>
</table>

The increase in average member tiered contributions, under which higher earners pay higher contributions than lower earners, reduces the average value of the pension benefit offered by the scheme by 3% of salary.

The switch from a final salary scheme with a 1/80th accrual rate with a 3/80th lump sum to the new NHS Career Average Revalued Earnings scheme reduces the average value of the pension benefit being offered by the scheme by 3% of salary.

Linking the Normal Pension Age to the State Pension Age instead of having an NPA of 60 reduces the average value of the pension benefit by a further 3% of salary.

The above figures show the average impact of the reforms across all members of each of the schemes. The individual impact of the reforms on the value of the pension benefit available to a particular scheme member will be influenced by a wide range of factors including: the member’s age and salary when the reforms are introduced, their salary progression and whether they leave public service early or stay in the scheme until they retire.

The impact of the reforms for an individual scheme member could therefore be substantially different to the average impacts presented here. To illustrate this point the report analyses the potential impact of the proposed reforms on

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2 PPI EEBR analysis using scheme designs as set out in the proposed final agreement for the NHS Pension Scheme. Figures rounded to the nearest 1%.
members who joined the NHS Pension Scheme before 1 April 2008 for individuals with fast and slow salary progression (high-flyers and low-flyers), with high and low earnings, and those who leave after a short period of time (early leavers) or who stay until Normal Pension Age (long stayers). This analysis suggests that:

- The Coalition’s proposed reforms will remove the different outcomes for high-flyers and low-flyers which exist in final salary schemes. If two median earning 40-year-old men had joined the NHS scheme before 1 April 2008 under the pre-reform schemes, the high-flyer would have had a pension benefit of 29% of salary, compared to 11% of salary for the low-flyer. Under the Coalition Government’s proposed reforms high-flyers and low-flyers have a pension benefit worth the same percentage of salary, with the average value of the pension offered being worth 15% of salary for both members.

- After the Coalition’s proposed reforms the value of the pension received by lower earners will be higher as a percentage of their salary than that of higher earners, as higher earners must pay higher contributions for the pension they receive, compared to lower earners. For example, a 50-year-old member of the NHS Pension Scheme who joined the scheme before 1 April 2008 earning up to £15,000 will have a pension benefit worth 21% of salary. By contrast, a 50-year-old member of the NHS Pension Scheme who joined the scheme before 1 April 2008 with earnings above £110,274 will have a pension benefit worth 11% of salary. This does not mean that a higher earner gets a lower pension in absolute terms than a lower earner, but that a lower earner accrues a pension per year that represents a higher percentage of their salary, compared to a high earner.

- Under the Coalition’s proposed reforms there is a smaller difference between the value of the pension earned for each year of service by a long stayer and an early leaver than before the Coalition’s proposed reforms for members of the NHS and Teachers’ Pension Schemes. For example, before the Coalition Government’s proposed reforms, a median earning 40-year-old member of the NHS Pension Scheme whose earnings increase in line with average earnings growth, who joined before 1 April 2008 and stays in the scheme until they retire at their NPA - a long stayer - would have a value of the pension benefit earned in a year worth 26% of a member’s salary. This compares to a value of the pension benefit earned in a year of 14% of a member’s salary for an early leaver who has the same earnings and earnings growth but leaves the scheme after 5 years of membership.

- By comparison, after the Coalition Government’s proposed reforms, the value of the pension earned in a year for a long stayer in the NHS Scheme would be 14% of a member’s salary, compared to 9% of a member’s salary for an early leaver. After the Coalition’s proposed reforms there is a smaller difference between the value of the pension earned for each year of service by a long stayer and an early leaver in the NHS scheme. The impact on members of the Teachers’ Pension Scheme would be similar.
For members of the Civil Service Pension Scheme and the Local Government Pension Scheme, under the Coalition’s proposed reforms the amount of pension earned in a year would be the same percentage of salary for members with similar characteristics who leave the scheme early and for members who stay in active service until they retire. The same would be true for members of the Civil Service Pension Scheme. In both the LGPS and the Civil Service schemes after the Coalition’s reforms the value of the pension earned in a year is not affected by whether the pension was earned at the beginning of a member’s career or over their whole career.
Introduction

This report sets out the PPI’s independent assessment of the potential impact of the Government’s proposed reforms to the public service pension schemes on the value of the pension benefit being offered to public service workers as set out in the Government’s Proposed Final Agreements. The analysis covers the four largest public service schemes: the NHS, Teachers, Local Government and Civil Service schemes which account for around 85% of public service pension scheme members. The Government has also proposed reforms to the schemes for the uniformed services (Police, Fire Service and Armed Forces.)

While this report focuses primarily on the impact of the latest set of proposals for reform of the public service pensions put forward by the Coalition Government, it is important to set these reforms in the context of the series of changes which have affected public service pensions in recent years.

The Labour Government’s reforms

The Labour Government implemented reforms to the four main public service pension schemes in 2007 and 2008. All of the reformed schemes retained their final salary benefit structure except for the Civil Service scheme which moved to a new Career Average Revalued Earnings scheme for new entrants to the Civil Service from 30 July 2007.

As part of the 2007/8 reforms the Normal Pension Age (NPA) for the Civil Service, NHS and Teachers’ schemes was increased from 60 to 65 – but only for new entrants; existing members of these schemes retained an NPA of 60. The Local Government Pension Scheme (LGPS) already had an NPA of 65, although the “rule of 85,” in which a member of the LGPS could retire with an unreduced pension before age 65 if the sum of their age and length of service exceeded 85, was abolished in these reforms.

For new entrants into the NHS and Teachers’ schemes new accrual rates were introduced with the schemes moving from a system in which members accrued a pension of 1/80th of their final salary for each year of service and a lump sum of 3/80ths of their final salary, to an accrual rate of 1/60th of final salary for each year of service with a lump sum only by commutation. For the LGPS this new accrual rate applied to all existing members as well as to new entrants from 1 April 2008.

In addition, higher rates of member contributions were introduced for all four of the main schemes for all scheme members (both existing members and new entrants) and for some schemes (e.g. the NHS and LGPS) the introduction of tiered member contributions saw higher earners pay higher rates of contribution than low earners for the first time.
Coalition Government changes to public service pensions
In June 2010, the Coalition Government changed the inflation measure used to uprate public service pension benefits. From April 2011, public service pensions in payment and pensions accrued are uprated in line with changes in the Consumer Prices Index (CPI), instead of the Retail Prices Index (RPI) as had been the previous policy. The CPI typically rises more slowly than the RPI because different formulae are used to calculate each index and because the CPI excludes housing costs.

Some of the reforms which have already been introduced by successive Governments, such as higher rates of member contributions and the switch from RPI indexation to CPI indexation will have affected all members of the public service schemes – both existing members and new entrants. Other reforms, such as the reforms to the Normal Pension Ages, affected only new entrants to the schemes.  

Independent Public Service Pensions Commission
In 2010 the Coalition Government set up an Independent Public Service Pension Commission (IPSPC), chaired by Lord Hutton, to conduct a fundamental review of public service pension provision. The Commission reported in March 2011. The key recommendations of the Commission were that:

- The Defined Benefit (DB) structure of public service pensions should be maintained, but the pension benefit should be linked to Career Average Revalued Earnings (CARE), rather than to the scheme member’s final salary.

- A single benefit design should apply across the whole income range. The differing characteristics of higher and lower earners should be addressed through tiered member contribution rates.

- The Normal Pension Age (NPA) in public service schemes should be aligned with the State Pension Age (SPA), with the exception of the schemes for the uniformed forces (Police and Fire Service and Armed Forces) where an NPA of 60 was recommended.

- The reforms should apply to all members from the moment the new scheme design is introduced.

The Government accepted the broad thrust of the Commission’s recommendations. In September 2012 the Government introduced a Public Service Pensions Bill, which would enable the Government to implement the main elements of Lord Hutton’s reforms – including ending the link to final salary and increasing schemes’ Normal Pension Ages.

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3 Annex 3 provides more detail on the impact of the reforms of successive Governments to the schemes
The Government has also undertaken detailed negotiations with the public service unions to determine the precise details of each public service schemes, including the rate of accrual, the indexation arrangement and the rate of member contributions. The Government set out its final offer in the Proposed Final Agreements. The Tables in Annex 1 summarise the proposed structure and parameters for the four largest public service schemes: NHS, Teachers, Local Government and Civil Service and how these compare to the main sections of the previous schemes. It should be noted that not all of the unions have accepted the Government’s proposals.

The proposed reforms apply to all members; however, members within ten years of their Normal Pension Age on 1 April 2012 will have their pension calculated according to the rules in place prior to the introduction of the proposed reforms.

This report presents analysis of the potential impact of the Coalition Government’s proposed reforms to the public service pensions on the value of the pension benefit being offered to members of the four largest public service schemes: the NHS, Teachers’, Local Government and Civil Service Pension Schemes.

The analysis considers the potential impact of three main elements of the Coalition’s proposed reforms to the public service pensions:

- Increased member contributions which will increase by an average 3.2% for each scheme (except the Local Government Pension Scheme);
- The switch to a Career Average Revalued Earnings scheme;
- The linking of the Normal Pension Age with the State Pension Age for the four largest schemes.

The Tables in Annex 1 summarise the proposed structure and parameters for the four largest public service schemes under the Coalition Government’s reforms as set out in the Government’s Proposed Final Agreements.
Chapter one: measuring the value of the pension benefit for a scheme member

To assess the implications of the Coalition Government’s proposed reforms to the four largest public service pension schemes for members of public service pension schemes, it is necessary to have a way of comparing the value of Defined Benefit pension schemes with different benefit structures and with different scheme parameters. For example, we need to be able to compare the value of a final salary scheme with benefits indexed by the Consumer Prices index (CPI) with a Career Average Revalued Earnings (CARE) scheme with benefits linked to the CPI or other index (eg CPI +1.5%).

In order to provide comparisons of the value of the benefits offered by alternative Defined Benefit pension schemes, the Pensions Policy Institute calculates the Effective Employee Benefit Rate (EEBR) of different schemes for scheme members with different characteristics.

The Effective Employee Benefit Rate provided by a particular pension scheme is calculated by translating the value of the pension benefit offered into an equivalent percentage of salary that the scheme member would need to be given to compensate for the loss of the pension scheme. For example, an Effective Employee Benefit Rate of 15% for a member of a public service pension scheme means that the scheme member would have to be given a 15% increase in their salary by their employer to compensate for the loss of the pension scheme.4

The level of members’ contributions is taken into account in the calculation of the EEBR. So if a scheme has a benefit structure that would be worth 20% of the member’s salary, but the member is contributing 5% themselves in member contributions, then the Effective Employee Benefit Rate would be 15%. The calculations of the benefits offered by the main public service pension schemes after the Coalition’s reforms contained in this note therefore factor in the impact of the new tiered member contributions which vary by salary level.

Translating the value of the pension scheme to the scheme member into an equivalent percentage of their salary enables comparisons to be made of the relative value of Defined Benefit schemes with different scheme structures and with different parameters, such as different accrual rates and indexation arrangements. It also enables comparisons to be made between the value of Defined Benefit schemes and the value of Defined Contribution schemes, which are now most commonly available in the UK private sector.

4 More details about the calculation of the EEBR can be found in Annex 2.
The baseline used in this analysis

In order to assess the impact of the Coalition Government’s reforms on the value of the pension benefit for members of the public service pension schemes it is necessary to have a baseline to compare the value of the schemes to scheme members before and after the introduction of the Coalition’s proposed reforms.

The impact of the previous Labour Government’s reforms of 2007/8

The Labour Government implemented reforms to the four largest public service pension schemes in 2007 and 2008. Under Labour’s reforms:

- All of the reformed schemes retained their final salary benefit structure except for the Civil Service scheme which moved to a new Career Average scheme for new entrants to the Civil Service from 30 July 2007.

- The Normal Pension Age (NPA) for the Civil Service, NHS and Teachers’ schemes was increased from 60 to 65 – but only for new entrants; existing members of these schemes retained an NPA of 60. The Local Government Pension Scheme (LGPS) already had an NPA of 65, although the “rule of 85,” in which a member of the LGPS could retire with an unreduced pension before age 65 if the sum of their age and length of service exceeded 85, was abolished in these reforms.

- For new entrants into the NHS and Teachers’ schemes new accrual rates were introduced so that new entrants accrued a final salary pension of $1/60^{th}$ of their final salary for each year of service with a lump sum by commutation only, instead of a pension of $1/80^{th}$ of their final salary for each year of service and a lump sum of $3/80^{ths}$ of their final salary. For the LGPS this reform applied to all existing members as well as new entrants.

- Higher rates of member contributions were introduced for all four of the largest schemes for all scheme members (both existing members and new entrants) and for some schemes (e.g. the NHS and LGPS) the introduction of tiered member contributions saw higher earners pay higher rates of contribution than lower earners for the first time.

In June 2010, the Coalition Government changed the inflation measure used to uprate public service pension benefits. From April 2011, public service pensions in payment and pensions accrued are uprated in line with changes in the Consumer Prices Index (CPI), instead of the Retail Prices Index (RPI) as had been the previous policy. The CPI typically rises more slowly than the RPI because different formulae are used to calculate each index and because the CPI excludes housing costs.

In the baseline we have assumed that all of Labour’s 2007/8 reforms have been implemented and that public service pensions in payment and pensions accrued are uprated in line with changes in the Consumer Prices Index (CPI), instead of the Retail Prices Index (RPI). This baseline is used because this
reflects the position for current members of the public service pension schemes. In Annex 3 we have also calculated a counterfactual analysis of what the schemes would have been worth if the Government had continued to uprate public service pensions in line with the RPI.

**The different sections of the public service pension schemes**

As a result of some of the main elements of the 2007/8 reforms to the NHS, Teachers and Civil Service schemes applying only to new entrants, some public service employees who joined the public service before the introduction of the 2007/8 reforms are currently members of the pre 2007/8 sections of the public service schemes. Other public service employees who have joined the public service since the introduction of the 2007/8 reforms will be in the post 2007/8 sections of the schemes.

The different scheme rules that apply to members who joined each of the main sections of the NHS, Teachers, Local Government and Civil Service schemes before and after the 2007/8 reforms are summarised in Annex 1. As the 2007/8 reforms to the Local Government pension scheme applied to all members, all members of the LGPS are now in the post 1 April 2008 reformed scheme.

**The value of the pension benefit for members who joined before and after the previous Labour Government’s 2007/8 reforms**

Differences in scheme rules between members who joined before and after the previous Labour Government’s 2007/8 reforms give rise to different average Effective Employee Benefit Rates for each section. In order to illustrate how these differences arise, the NHS scheme has been considered as an example.

A member of the NHS scheme who joined the scheme before 1 April 2008 would currently:

- have a Normal Pension Age of 60,
- be in a final salary scheme with an accrual rate of 1/80ths of final salary and would receive a lump sum of 3/80ths of their final salary;
- be paying member contributions in 2011/12 of between 5% and 8.5% of their salary depending on their salary level;
- receive CPI indexation for revaluation and to index pensions in payment.

By contrast, a member of the NHS scheme who joined the scheme after 1 April 2008 would currently:

- have a Normal Pension Age of 65,
- be in a final salary scheme with an accrual rate of 1/60ths of final salary with a lump sum by commutation only;
- be paying member contributions in 2011/12 of between 5% and 8.5% of their salary depending on their salary level;
- receive CPI indexation for revaluation and to index pensions in payment.
The main differences for members who joined after 1 April 2008 are therefore:

- Normal Pension Age is 65, compared to a Normal Pension Age of 60 for those who joined before 1 April 2008.
- The accrual rate is 1/60th (with a lump sum only available through commutation), compared to an accrual rate of 1/80th plus 3/80th lump sum for those who joined before 1 April 2008.

Chart 1 shows for members who joined the NHS scheme before 1 April 2008, the value of the pension benefit is, on average, 23% of a member’s salary.

Chart 1:

The value of the pension benefit for members of the two main sections of the NHS pension scheme

Impact of scheme rule differences for entrants to the NHS pension scheme before and after 1 April 2008

- The impact of increasing the Normal Pension Age from 60 for those joining before 1 April 2008 to 65 for those joining after 1 April 2008 is to reduce the value of the pension benefit, on average, by 3% of a member’s salary.
- The impact of changing the accrual rate from 1/80ths plus a 3/80ths lump sum for those joining before 1 April 2008 to 1/60ths (with a lump sum only available through commutation) for those who joined after 1 April 2008 is to increase the value of the pension benefit, on average, by 2% of a member’s salary.

The overall impact of the 2007/8 reforms on the NHS scheme is therefore to reduce the value of the pension benefit, on average, from 23% of a member’s salary for members who joined before 1 April 2008 to 22% of a member’s salary, on average, for members who joined after 1 April 2008.

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5 PPI EEBR analysis using scheme designs as set out in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
Assessing the impact of the Coalition Government’s proposed reforms
The analysis considers the potential impact of the Coalition Government’s proposed reforms to the public service pensions on the value of the pension benefit for members of the four largest public service schemes before and after the introduction of the Coalition’s proposed reforms.

The Coalition Government’s proposed reforms to the public service pensions include:
- Increased member contributions which will increase by an average 3.2% for each scheme (except the Local Government Scheme);
- The switch to a Career Average Revalued Earnings scheme;
- The linking of the Normal Pension Age (NPA) with the State Pension Age (SPA) for the four largest schemes.

Modelling Normal Pension Age increasing in line with State Pension Age
A feature of the Coalition Government’s proposed reforms to the four largest public sector pension schemes is that the Normal Pension Age has been set to increase in line with future changes to the State Pension Age for men. The modelling in this project assumes increases in SPA approximating a combination of current legislation and announced Government policy.

Since April 2010 women’s State Pension Age has been increasing in a series of steps to equalise with men’s SPA, and will reach age 65 by November 2018 when SPA will be equal for men and women. According to current legislation, both men and women’s SPA will then rise to 66 by 2020.

The NPA for each scheme under the Coalition’s proposed reforms is therefore 65 until 2018 (which is consistent with the current SPA for men), increasing to 66 by 2020. Scheme NPAs are then assumed to increase in line with the Government’s announced intention that SPA for both men and women will rise to 67 between 2026 and 2028. In the longer term, SPA and NPA are then modelled as increasing to 68 between 2044 and 2046 as stipulated in current legislation.

Taking account of the different starting points for scheme members who have joined the different sections of the four largest public service schemes
As scheme members will be in different sections of the existing public service pension schemes depending on when they joined the schemes, precisely how a scheme member is affected by the Coalition Government’s proposed reforms will be affected by when they joined their scheme as this will affect the value of their current scheme.
We have therefore analysed the impact of the Coalition’s reforms for three different scenarios:

1. The impact of the Coalition’s reforms on the value of the pension benefit offered to a scheme member who joined the scheme before the introduction of the 2007/8 reforms. At this point in time, the majority of public service employees are likely to have joined the schemes before the 2007/8 reforms were introduced.

2. The impact of the Coalition’s reforms on the value of the pension benefit offered to a scheme member who has joined the scheme since the introduction of the 2007/8 reforms. Fewer members will be in this situation, but members who have joined the schemes within the last four or five years are likely to be in this position.

3. The impact of the Coalition’s reforms on the value of the pension benefit offered for all scheme members (both pre 2007/8 entrants and post 2007/8 entrants). This is an average of the figures for the impact on pre 2007/8 entrants and post 2007/8 entrants weighted by the size of the respective scheme memberships.

For example, for members of the NHS scheme we consider separately:

- The impact on those who joined the NHS scheme before 1 April 2008 of moving to the Coalition’s proposed Career Average Revalued Earnings scheme with an accrual rate of 1/54\textdegree, with a Normal Pension Age equal to State Pension Age and with the proposed new member contribution rate of between 5\% and 14.5\% depending on their salary level.

- The impact on those who joined the NHS scheme after 1 April 2008 of moving to the Coalition’s proposed Career Average Revalued Earnings scheme with an accrual rate of 1/54\textdegree, with a Normal Pension Age equal to State Pension Age and with the proposed new member contribution rate of between 5\% and 14.5\% depending on their salary level.

- The weighted average impact across all members of the NHS scheme of moving to the Coalition’s proposed Career Average Revalued Earnings scheme with an accrual rate of 1/54\textdegree, with a Normal Pension Age equal to State Pension Age and with the proposed new member contribution rate of between 5\% and 14.5\% depending on their salary level.

The next chapter outlines the main findings from the analysis. For the NHS, Teachers and Local Government schemes whether a scheme member joined the scheme before or after the implementation of the 2007/8 reforms makes only a relatively small difference to the results. However, for the Civil Service scheme the impact of the Coalition’s reforms will be more significant for current members of the old final salary schemes than for more recent entrants to the Civil Service who have joined the Career Average Revalued Earnings scheme introduced in the Civil Service in 2007.
Chapter two: the impact of the Coalition Government’s proposed reforms on the value of the four largest public service pension schemes

Headline Findings
The PPI’s analysis suggests that the Coalition Government’s proposed reforms to the NHS, Teachers, Local Government and Civil Service pension schemes will reduce the average value of the benefit offered across all scheme members by more than a third, compared to the value of the schemes before the Coalition Government’s proposed reforms. Across the four largest public service pension schemes the average value of the schemes reduces, on average, from 23% of a scheme member’s salary before the reforms to 15% of a scheme member’s salary after the Coalition Government’s proposed reforms. (Chart 2)

Chart 2

The Coalition Government’s proposed reforms reduce the average value of the public service pension schemes by more than a third

Average value of the four main public service pension schemes as a percentage of the scheme member’s salary before and after the Coalition Government’s proposed reforms for all scheme members (CPI linked)

The impact across all members of the NHS scheme is to reduce, on average, the value of the pension benefit from 23% of a member’s salary before the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

The impact across all members of the Teachers’ scheme is to reduce, on average, the value of the pension benefit from 23% of a member’s salary before

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PPI EEBR analysis using scheme designs as set out in the proposed final agreements for each scheme, summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

For members of the LGPS scheme the impact of the Coalition’s proposed reforms is to reduce, on average, the value of the pension benefit from 22% of a member’s salary before the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

The impact across all members of the Civil Service scheme is to reduce, on average, the value of the pension benefit from 27% of a member’s salary before the proposed reforms, to 17% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

Nevertheless, even after the Coalition’s proposed reforms the benefit offered by all four of the largest public service pension schemes remains more valuable, on average, than the average pension benefit offered by Defined Contribution schemes that are now most commonly offered to employees in the private sector, which are typically worth around 10% of a DC scheme member’s salary. 

There are still some Defined Benefit schemes in the private sector, although less than 10% of private sector employees are active members of a Defined Benefit Scheme. A typical Defined Benefit scheme in the private sector has an average pension benefit value of 23% of a member’s salary, assuming that the DB scheme benefits are linked to the Consumer Prices Index (CPI). Some private sector schemes still have benefits linked to the Retail Prices Index (RPI), and for a typical private sector Defined Benefit scheme linked to RPI the average value of the pension benefit is 27% of a member’s salary.

The following sections look at the impacts for members of the different schemes, depending on when members joined the schemes.

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7 See Annex 2 for more information on the average private sector Defined Contribution level
8 See Annex 2 for more information on the average value of a typical private sector Defined Benefit scheme
NHS Pension Scheme

Chart 3*

The Coalition Government’s proposed reforms reduce the average value to members of the NHS Pension Scheme by more than a third

Average value of CPI linked pension to members of the NHS Pension Scheme as a percentage of the scheme member’s salary before and after the Coalition Government’s proposed reforms

- For members of the NHS scheme who joined the scheme before 1 April 2008 the impact of the Coalition’s proposed reforms is to reduce, on average, the value of the pension benefit from 23% of a member’s salary before the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

- For members of the NHS scheme who joined the scheme since 1 April 2008 the impact of the Coalition’s proposed reforms is to reduce, on average, the value of the pension benefit from 22% of a member’s salary before the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

- The impact across all members of the NHS scheme is to reduce, on average, the value of the pension benefit from 23% of a member’s salary before the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

- Nevertheless, even after the reforms the value of the NHS pension scheme remains more valuable than an average private sector Defined Contribution scheme which is typically worth around 10% of a DC scheme member’s salary.

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9 PPI EEBR analysis using scheme designs as set out in the proposed final agreement for the NHS Pension Scheme, summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
The Coalition Government’s proposed reforms reduce the average value to members of the Teachers’ Pension Scheme by more than a third

Average value of CPI linked pension to members of the Teachers’ Pension Scheme as a percentage of the scheme member’s salary before and after the Coalition Government’s proposed reforms

• For members of the Teachers’ scheme who joined the scheme before 1 January 2007 the impact of the Coalition’s proposed reforms is to reduce, on average, the value of the pension benefit from 23% of a member’s salary before the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

• For members of the Teachers’ scheme who joined the scheme since 1 January 2007 the impact of the Coalition’s proposed reforms is to reduce, on average, the value of the pension benefit from 22% of a member’s salary before the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

• The impact across all members of the Teachers’ scheme is to reduce, on average, the value of the pension benefit from 23% of a member’s salary before the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

• Nevertheless, even after the reforms the value of the Teachers’ pension scheme remains more valuable than an average private sector Defined Contribution scheme which is typically worth around 10% of a DC scheme member’s salary.

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10 PPI EEBR analysis using scheme designs as set out in the proposed final agreement for the Teachers’ Pension Scheme, summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
Local Government Pension Scheme

Chart 5

The Coalition Government’s proposed reforms reduce the average value to members of the Local Government Pension Scheme by more than a third

Average value of CPI linked pension to members of the Local Government Pension Scheme as a percentage of the scheme member’s salary before and after the Coalition Government’s proposed reforms

- As the 2008 reforms to the Local Government pension scheme applied to all members, all members of the LGPS are now in the post 1 April 2008 reformed scheme.

- For members of the LGPS scheme the impact of the Coalition’s proposed reforms is to reduce, on average, the value of the pension benefit from 22% of a member’s salary before the proposed reforms, to 14% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

- Nevertheless, even after the reforms the value of the Local Government Pension Scheme remains more valuable than an average private sector Defined Contribution scheme which is typically worth around 10% of a DC scheme member’s salary.

11 PPI EEBR analysis using scheme designs as set out in the LGPS 2014 proposals, summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
Civil Service Pension Scheme

Chart 6:

The Coalition Government’s proposed reforms reduce the average value to members of the Principal Civil Service Pension Scheme by more than a third

Average value of CPI linked pension to members of the Principal Civil Service Pension Scheme as a percentage of the scheme member’s salary before and after the Coalition Government’s proposed reforms

- For members of the Civil Service scheme who joined the scheme before 30 July 2007 and are still in the Civil Service Classic Final Salary scheme the impact of the Coalition’s proposed reforms is to reduce, on average, the value of the pension benefit from 28% of a member’s salary before the proposed reforms, to 17% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

- For members of the Civil Service scheme who joined the scheme since 30 July 2007 and have joined the Civil Service Nuvos Career Average scheme the impact of the Coalition’s proposed reforms is to reduce, on average, the value of the pension benefit from 22% of a member’s salary before the proposed reforms, to 18% of a member’s salary after the Coalition’s proposed reforms, a reduction of less than a fifth.

- The impact across all members of the Civil Service scheme is to reduce, on average, the value of the pension benefit from 27% of a member’s salary before the proposed reforms, to 17% of a member’s salary after the Coalition’s proposed reforms, a reduction of more than a third.

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12 PPI EEBR analysis using scheme designs as set out in the proposed final agreements for the Principal Civil Service Pension Scheme, summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
Nevertheless, even after the reforms the value of the Civil Service pension scheme remains more valuable than an average private sector Defined Contribution scheme which is typically worth around 10% of a DC scheme member’s salary.
Chapter three: the impact of the different components of the Coalition Government’s proposed reforms

This chapter looks at the impact of the different components of Coalition Government’s proposed reforms for members of the NHS pension scheme who joined the scheme before the 2007/8 reforms and for members who joined after the introduction of the 2007/8 reforms.

The impact of the Coalition’s reforms on members of the NHS Pension Scheme who have joined the scheme before 1 April 2008

Chart 7

The Coalition Government’s proposed reforms reduce the value to pre 2008 entrants of the NHS Pension Scheme by more than a third

Impact of each component of the Coalition Government’s proposed reforms on average value of the pension for members who joined the NHS Pension Scheme before 1 April 2008

• Chart 7 shows that the average value of the pension benefit offered to members who have joined the NHS Pension Scheme before 1 April 2008 reduces by more than a third under the Coalition Government’s proposed reforms, from 23% of a scheme member’s salary before the proposed reforms with final salary benefits paid out from age 60 and CPI indexation, to 14% of a scheme member’s salary after the Coalition’s proposed reforms are introduced which increase member contributions, move to CARE and link the Normal Pension Age (NPA) to State Pension Age (SPA).

13 PPI EEBR analysis using scheme designs as set out in the proposed final agreement for the NHS Pension Scheme, summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
• The different components of the Coalition’s proposed reforms all contribute to the total reduction in the average value of the pension benefit offered by the scheme. The increase in average member tiered contributions, under which higher earners pay higher contributions than lower earners, reduces the average value of the pension benefit offered by the scheme by 3% of a member’s salary. For a higher earner the reduction in value due to the contribution increase would be higher than 3% and for a low earner it may be lower than 3%.

• The switch from a final salary scheme with a 1/80th accrual rate with a 3/80th lump sum to the new NHS CARE scheme reduces the average value of the pension benefit being offered by the scheme by 3% of a member’s salary.

• Linking the Normal Pension Age to the State Pension Age instead of having an NPA of 60 reduces the average value of the pension benefit by a further 3% of a member’s salary.

• Nevertheless, even after the Coalition’s proposed reforms the average value of the NHS Pension Scheme of 14% of a member’s salary is still worth more than the value of an average Defined Contribution pension scheme that many workers in the private sector are offered, typically worth around 10% of a DC scheme member’s salary.
The impact of the Coalition’s reforms on members of the NHS Pension Scheme who have joined the scheme since 1 April 2008

Chart 8

The Coalition Government’s proposed reforms reduce the value to post 2008 entrants of the NHS Pension Scheme by more than a third

Impact of each component of the Coalition Government’s proposed reforms on average value of the pension for members who joined the NHS Pension Scheme since 1 April 2008

- Chart 8 shows that the average value of the pension benefit offered to members who have joined the NHS Pension Scheme since 1 April 2008 reduces by more than a third under the Coalition Government’s proposed reforms, from 22% of a scheme member’s salary before the proposed reforms with final salary benefits paid out from age 65 and CPI indexation to 14% of a scheme member’s salary after the Coalition’s proposed reforms are introduced which increase member contributions, move to CARE and link the NPA to SPA.

- The different components of the Coalition’s proposed reforms contribute to the total reduction in the average value of the pension benefit offered by the scheme. The increase in average member tiered contributions, under which higher earners pay higher contributions than lower earners, reduces the average value of the pension benefit offered by the scheme by 3% of salary. For a higher earner the reduction in value due to the contribution increase would be higher and for a low earner it may be lower than 3%.

14 PPI EEBR analysis using scheme designs as set out in the proposed final agreement for the NHS Pension Scheme, summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
• The switch from a final salary scheme with a 1/60th accrual rate to the new NHS CARE scheme with an accrual rate of 1/54th reduces the average value of the pension benefit in the scheme by 4% of salary.

• Linking the NPA to SPA instead of having an NPA of 65 reduces the average value of the pension benefit by a further 1% of salary.

• Nevertheless, even after the Coalition’s proposed reforms the average value of the NHS Pension Scheme of 14% of a scheme member’s salary is still worth more than the value of an average Defined Contribution pension scheme that many workers in the private sector are offered, typically worth around 10% of DC scheme member’s salary.

Annex 4, 5 and 6 show the impact of the Coalition’s proposed reforms for members of the Teachers’, Local Government and Civil Service pension schemes who joined before the 2007/8 reforms and for members who have joined the schemes since the 2007/8 reforms.

**The impact of the reforms on scheme members with different characteristics**

The average EEBR figures presented in this report so far have enabled us to compare the average value of the four largest public service pension schemes – the NHS, Teachers’, Local Government and Principal Civil Service pension schemes - both before and after the Coalition Government’s proposed reforms. The figures illustrate the overall impact of the reforms on the value of the pension benefits for public service workers.

However, care should be taken when interpreting the average figures as the outcomes can vary significantly for scheme members with different characteristics. The salary progression, earnings, and whether a member leaves the scheme before reaching their Normal Pension Age, could also influence the impact of the reforms on their pension benefit. As a result, the actual impact of the reforms for any given scheme member could differ substantially from the average figures shown for the four main schemes in this report, depending on the scheme member’s own individual circumstances.

The next chapter in this report provides estimates of the EEBR for members with different salary progression, earnings levels and membership characteristics.
Chapter four: the impact of the Coalition Government’s reforms on members with particular characteristics

This chapter considers the implications of the Coalition Government’s reforms to the four largest public service pension schemes for scheme members with different characteristics, including:

- Those with fast salary progression (high-flyers) compared to those with slow salary progression (low-flyers).
- Those with high earnings compared to those with low earnings.
- Those who stay in the scheme for only a short period of time (early leavers) compared to those who stay for a long period of time (long stayers).

The NHS Pension Scheme for members joining before 1 April 2008 has been used to illustrate the impact of the Government’s proposed reforms on members with different characteristics. We have used the NHS scheme because it is the largest of the unfunded public service pension schemes, and the scheme for those that joined before 1 April 2008 still contains most of the active scheme members.

High-flyers versus Low-flyers
For a member with faster than average salary progression – a high-flyer - the pension provided by a final salary scheme may be more valuable than for a member with below average salary progression – a low-flyer. This is because in a final salary scheme the pension is linked to final salary but employee contributions are based on current salary, leading to a high benefit for a lower contribution for a high-flyer. By contrast, a scheme with Career Average Revalued Earnings (CARE) benefits tends to be equally valuable to high-flyers and low-flyers in terms of the value of the benefit provided as a percentage of salary because members accrue a pension based on their salary level in each year of membership.

In the NHS Pension Scheme for members joining before 1 April 2008 and before the introduction of the Coalition Government’s proposed reforms the scheme had final salary benefits, a Normal Pension Age of 65 and CPI indexation. For a high-flyer 40-year-old member, whose earnings are assumed to increase above average earnings inflation, the value of the pension benefit offered in the NHS final salary scheme would be 29% of salary. This compares to an average value of 11% of salary for a low-flyer 40-year-old member in the NHS final salary scheme whose earnings increase in line with the CPI until he retires at age 65. The analysis shows that before the reforms public service final salary schemes were offering very valuable benefits to high-flyers who tend to benefit disproportionately from final salary schemes. (Chart 9)
High-flyers and low-flyers have a pension benefit worth the same percentage of their salary under the Coalition Government’s proposed reforms

Value of the NHS Pension Scheme to members joining before 1 April 2008 who are:
- a high flying 40 year old man compared with low flying 40 year old man who both start at the median earning level at age 40

After the Coalition Government’s proposed reforms high-flyers and low-flyers will have a pension benefit worth the same percentage of salary, with the average value of the pension offered being worth 15% of salary for both members. The reforms will therefore reduce the disparity in the pension benefits received between high-flyers and low-flyers.

It should be noted that after the Coalition’s reforms the low-flyer receives a benefit that is worth 15% of their salary, which is higher than the 11% of salary that the low-flyer would have received before the reforms. The analysis shows that for some scheme members with modest salary progression throughout their career the CARE scheme reforms may offer more valuable benefits than the pre-reform final salary scheme would have done.

Conversely, it is also worth noting that the value of the high-flyer’s pension benefit falls substantially as a result of the Coalition’s reforms, reducing from 29% of the high-flyer’s salary before the reforms, to 15% of their salary after the reforms.

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13 PPI EEBR analysis based on proposed NHS Pension Scheme reforms. A high-flyer is assumed to have faster than average salary increases equivalent to 1% higher earnings growth every year. A low flyer is assumed to receive no promotional advancement and annual salary increases in line with growth in CPI. Median salary is assumed to be £26,100 per year, in line with the median earnings of a full-time employee in the UK in the Annual Survey of Hours and Earnings in 2011. Figures rounded to the nearest 1%. 

Higher earners versus lower earners
The Coalition Government’s proposed reforms use tiered contributions so higher earners pay, on average, a higher contribution rate than lower earners. As a consequence, the value of the pension received by lower earners will be higher as a percentage of their salary than that of higher earners, as higher earners must pay higher contributions for the pension they receive, compared to lower earners.

For example, a 50-year-old member of the NHS Pension Scheme who joined the scheme before 1 April 2008 earning up to £15,000 will pay a contribution rate of 5% of salary by 2014/15 under the Coalition Government’s proposed reforms. As a result, the pension benefit that this low earning member will receive is worth 21% of salary.

By contrast, a 50-year-old member of the NHS Pension Scheme who joined the scheme before 1 April 2008 with earnings above £110,274 will pay contributions of 14.5% of salary by 2014/15 under the Coalition Government’s proposed reforms. As a result, the value of the pension offered by the scheme to this high earning scheme member is worth 11% of salary. This does not mean that a higher earner gets a lower pension in absolute terms than a lower earner, but that a lower earner accrues a pension per year that represents a higher percentage of their salary, compared to a high earner (Chart 10).

Chart 10

The value of the NHS Pension Scheme is higher for lower earners as a percentage of their salary than for higher earners

Value of the NHS Pension Scheme to 50-year-old males earning at each of the tiered contribution salary band levels and joined before 1 April 2008

Figures rounded to the nearest 1%.

16 PPI EEBR analysis using the scheme design set out in the proposed final agreement for the NHS Pension Scheme and summarised in in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
Chart 10 also shows that the average value of the pension benefit across all earning levels of a member of the NHS Pension Scheme who joined before 1 April 2008 is 14% of a member’s salary. 50-year-old members who joined the NHS scheme before 1 April 2008 with earnings below £49,000 will have a pension benefit worth higher than the average of 14% of a member’s salary, while 50-year-old members who joined the NHS scheme before 1 April 2008 with earnings above £49,000 will have a pension benefit worth less than the average of 14% of a member’s salary.

**Early leavers versus long stayers**

Before the introduction of the Coalition Government’s proposed reforms, members who leave the scheme before reaching their Normal Pension Age, have their pension calculated according to their earnings during their last year of membership uprated by changes in the CPI until reaching NPA. Active members have their pension benefit calculated according to their earnings before retirement. Therefore before introduction of the Coalition’s reforms the value of the pension for an early leaver could be much lower than for a long stayer, as CPI could increase more slowly than earnings.

Under the Coalition Government’s proposed reforms pensions accrued are linked to Career Average Revalued Earnings (CARE). The pension accrued by active members for each year of membership in the NHS Pension Scheme and Teachers’ Pension Scheme will be uprated by changes in the CPI plus 1.5% and plus 1.6%, respectively, and by the CPI in the Local Government and Civil Service pension schemes. Deferred members will have their pension benefits uprated by the CPI in all schemes.

Reducing the difference in the measure used to uprate pensions accrued by active and deferred members could reduce the difference in the value of the pension scheme for early leavers and long stayers of the schemes that would arise if earnings grew faster than the index used to revalue deferred pensions. (Chart 11)
Under the Coalition Government’s reforms there is less difference in the value of pension schemes for early leavers and long stayers

Value of the NHS Pension Scheme for a median earning 40 year old member joining before 1 April 2008 if remaining as active member until NPA vs. a similar member leaving the scheme after 5 years of membership

For example, before the Coalition Government’s proposed reforms, the value of the pension benefit earned in a year for a median earning 40-year-old member of the NHS Pension Scheme whose earnings increase in line with average earnings growth, who joined before 1 April 2008 and stays in the scheme until they retire at their NPA - a long stayer - would be worth 26% of salary. This compares to the value of the pension benefit earned in a year of 14% of a member’s salary for an early leaver who has the same earnings and earnings growth but leaves the scheme after 5 years of membership.

By comparison, under the Coalition Government’s proposed reforms for the NHS Pension Scheme, the value of the pension earned in a year for a long stayer would be 14% of salary, compared to 9% for an early leaver. Under the Coalition’s proposed reforms there is therefore a smaller difference between the value of the pension offered to a long stayer and an early leaver than before the Coalition’s proposed reforms. The same effect applies to the Teachers’ Pension Scheme.

The effect is slightly different for the Local Government Pension Scheme (LGPS) and the Civil Service pension scheme. Before the Coalition’s reforms a member of the LGPS or the final salary sections of the Civil Service pension scheme who stayed in the scheme until retirement would be likely to receive a

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17 PPI EEBR analysis based on proposed NHS Pension Scheme reforms. A long stayer is assumed to be an active member of the pension scheme until their NPA. A short stayer is assumed to become a deferred member of the pension scheme after 5 years of service. Median salary is assumed to be £26,100 per year, in line with the median earnings of a full-time employee in the UK in the Annual Survey of Hours and Earnings in 2011. Figures rounded to the nearest 1%.
higher value for the pension earned in a year than an employee who left early. This is because the employee’s pension would be linked to their final salary and their salary is likely to continue to increase annually during their career, whereas the deferred member’s salary used for the calculation of pension benefits will only increase in line with the CPI once they have left public service.

However following the Coalition’s reforms members with the same salary in the LGPS and Civil Service schemes would receive the same value for the pension earned in a year irrespective of whether they remained employed up to their NPA. This is because the pension earned is revalued up to retirement in line with CPI whether or not the member is still employed. So, for example, after the Coalition’s reforms members of the LGPS scheme will receive the same percentage of salary in pension benefit each year irrespective of whether they are in the scheme for a short period – an early leaver – or for the whole of their career – a long stayer. The same effect applies to the Civil Service Pension Scheme.
Annex 1: Summary of the main elements of the existing Public Service Pension schemes and the Coalition Government’s proposed reforms

Table A1: Summary of the main sections of the NHS Pension Scheme

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<th>Normal Pension Age (NPA)</th>
<th>NHS Scheme for members who joined after 1995 and before 1 April 2008</th>
<th>NHS Scheme for members who joined after 1 April 2008</th>
<th>Coalition Government’s proposed reforms</th>
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<td>No. Employer cost-cap introduced‡</td>
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<tr>
<td>In place</td>
<td>From 1995 for all members</td>
<td>From 1 April 2008 for new members</td>
<td>From 1 April 2015 for all members‡</td>
</tr>
</tbody>
</table>

18 Based on the Proposed Final Agreement for the NHS Scheme published in March 2012.
19 Cost-sharing meant that unanticipated future increases in costs would be shared 50:50 between public sector employers and the members of the schemes, rather than passed automatically onto public sector employers, as was the former situation. An employer cost cap was also introduced, which capped employer contributions at 14% of salary.
20 The employer cost cap will be set following a full actuarial valuation. The cap will be set at 2% above, and the floor set 2% below, the employer contribution rates calculated ahead of the introduction of the new scheme in 2015.
21 Members within ten years of their Normal Pension Age on 1 April 2012 will have their pension calculated according to the rules in place prior to the introduction of the proposed reforms.
Table A2: Summary of the main sections of the Teachers’ Pension Scheme††

<table>
<thead>
<tr>
<th><strong>Normal Pension Age (NPA)</strong></th>
<th>Teachers’ Pension Scheme for members who joined before 1 January 2007</th>
<th>Teachers’ Pension Scheme for members who joined after 1 January 2007</th>
<th>Coalition Government’s proposed reforms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60</td>
<td>65</td>
<td>SPA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Basic design</strong></th>
<th>Final salary</th>
<th>Final Salary</th>
<th>Career average with benefits accrued revalued in line with CPI + 1.6% while active member</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Revaluation in deferment</strong></th>
<th>CPI</th>
<th>CPI</th>
<th>CPI</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Accrual rate</strong></th>
<th>1/80th with 3/80ths lump sum</th>
<th>1/60th with commutation only lump sum</th>
<th>1/57th with commutation only lump sum</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Rate of employee contributions</strong></th>
<th>2011/12</th>
<th>2011/12</th>
<th>2012/13††</th>
</tr>
</thead>
<tbody>
<tr>
<td>All earnings levels</td>
<td>6.4%</td>
<td>6.4%</td>
<td>6.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Up to £14,999</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>From £15,000 to £25,999</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>From £26,000 to 31,999</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>From £32,000 to £39,999</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>From £40,000 to £74,999</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>From £75,000 to £111,999</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>£112,000 and above</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Indexation of pensions paid</strong></th>
<th>CPI</th>
<th>CPI</th>
<th>CPI</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Cost-sharing?</strong></th>
<th>No</th>
<th>Yes††</th>
<th>No. Employer cost-cap introduced††</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>In place</strong></th>
<th>Before 1 January 2007 for all members</th>
<th>From 1 January 2007 for new members</th>
<th>From 1 April 2015 for all members††</th>
</tr>
</thead>
</table>

†† Based on the Proposed Final Agreement for the Teachers’ Pension Scheme published in March 2012

†† The Department of Education will undertake further negotiate with the unions regarding the increases in member contributions for 2013/14 and 2014/15.

†† Cost-sharing meant that unanticipated future increases in costs would be shared 50:50 between public sector employers and the members of the schemes, rather than passed automatically onto public sector employers, as was the former situation. An employer cost cap was also introduced, which capped employer contributions at 14% of salary.

†† The employer cost cap will be set following a full actuarial valuation. The cap will be set at 2% above, and the floor set 2% below, the employer contribution rates calculated ahead of the introduction of the new scheme in 2015.

†† Members within ten years of their Normal Pension Age on 1 April 2012 will have their pension calculated according to the rules in place prior to the introduction of the proposed reforms.
Table A3: Summary of the main sections of the Local Government Pension Scheme

| Section                                      | Scheme available for all members before 1 April 2008 (now closed)                                                                 | Scheme as reformed for all members from 1 April 2008                                                                                                                                                                                                 | Coalition Government’s proposed reforms                                                                 |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Normal Pension Age (NPA)                     | 65 with the rule of 85<sup>27</sup>                                                                                                                                                                                                                                                                               | 65. Rule of 85 abolished for new service with transitional protection                                                                                                                                                                                                                                           |
| Basic design                                 | Final Salary                                                                                                                                                                                                                                                                                                       | Final Salary                                                                                                                                                                                                                                                                                                        |
| Revaluation in deferment                    | CPI                                                                                                                                                                                                                                                                                                               | CPI                                                                                                                                                                                                                                                                                                               |
| Accrual rate                                 | 1/80<sup>th</sup> with 3/80<sup>th</sup> lump sum                                                                                                                                                                                                                                                                  | 1/60<sup>th</sup> with commutation only lump sum                                                                                                                                                                                                                                                                    |
| Rate of employee contributions              | All earnings levels 6%                                                                                                                                                                                                                                                                                               | 2011/12                                                                                                                                                                                                                                               | 2014/15                                                                                                                                                                                                                                               |
|                                              | Up to £13,500 5.5%                                                                                                                                                                                                                                                                                                | Up to £13,500 5.5%                                                                                                                                                                                                                                                                                                  |
|                                              | From £13,501 to £15,800 5.8%                                                                                                                                                                                                                             | From £13,501 to £21,000 5.8%                                                                                                                                                                                                                                                                                        |
|                                              | From £15,801 to £20,400 5.9%                                                                                                                                                                                                                             | From £21,001 to £34,000 6.5%                                                                                                                                                                                                                                                                                       |
|                                              | From £20,401 to £34,000 6.5%                                                                                                                                                                                                                              | From £34,001 to £43,000 6.8%                                                                                                                                                                                                                                                                                       |
|                                              | From £34,001 to £45,000 6.8%                                                                                                                                                                                                                             | From £43,001 to £60,000 8.5%                                                                                                                                                                                                                                                                                       |
|                                              | From £45,001 to £85,300 7.2%                                                                                                                                                                                                                              | From £60,001 to £85,000 9.9%                                                                                                                                                                                                                                                                                       |
|                                              | £85,301 and above 7.5%                                                                                                                                                                                                                                  | From £85,001 to £100,000 10.5%                                                                                                                                                                                                                         |
|                                              | 1/49<sup>th</sup> with commutation only lump sum                                                                                                                                                                                                          | From £100,001 to £150,000 11.4%                                                                                                                                                                                                                         |
|                                              | From £150,01 and above 12.5%                                                                                                                                                                                                                             | £150,001 and above 12.5%                                                                                                                                                                                                                                                                                           |
| Indexation of pensions paid                  | CPI                                                                                                                                                                                                                                                                                                               | CPI                                                                                                                                                                                                                                                                                                               |
| Cost-sharing?                                | No                                                                                                                                                                                                                                                                                                                | Yes<sup>29</sup>                                                                                                                                                                                                                                                                                                   |
| In place                                     | Before 1 April 2008 for all members                                                                                                                                                                                                                     | From 1 April 2008 for all members                                                                                                                                                                                                                       |
|                                              | From 1 April 2014 for all members<sup>30</sup>                                                                                                                                                                                                            | From 1 April 2014 for all members<sup>30</sup>                                                                                                                                                                                                           |

<sup>27</sup> Based on the Final Proposed Agreement for the Local Government Pension Scheme published in March 2012
<sup>28</sup> According to this rule, individuals could retire before age 65 with an unreduced pension provided that the sum of their age and years of service was at least 85.
<sup>29</sup> Cost-sharing meant that unanticipated future increases in costs would be shared 50:50 between public sector employers and the members of the schemes, rather than passed automatically onto public sector employers, as was the former situation. An employer cost cap was also introduced.
<sup>30</sup> The employer cost cap will be set following a full actuarial valuation. The cap will be set at 2% above, and the floor set 2% below, the employer contribution rates calculated ahead of the introduction of the new scheme in 2015.
<sup>31</sup> Members within ten years of their Normal Pension Age on 1 April 2012 will have their pension calculated according to the rules in place prior to the introduction of the proposed reforms.
Table A4: Summary of the main sections of the Principal Civil Service Pension Scheme³²

<table>
<thead>
<tr>
<th></th>
<th>Classic Final Salary scheme (from 1972 to 2002)³³</th>
<th>Nuvos Career Average For new members from 30 July 2007</th>
<th>Coalition Government’s proposed reforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Pension Age (NPA)</td>
<td>60</td>
<td>SPA</td>
<td>SPA</td>
</tr>
<tr>
<td>Basic design</td>
<td>Final salary</td>
<td>Career average</td>
<td>Career average with benefits accrued revalued in line with CPI while active member</td>
</tr>
<tr>
<td>Revaluation in deferment</td>
<td>CPI</td>
<td>CPI</td>
<td>CPI</td>
</tr>
<tr>
<td>Accrual rate</td>
<td>1/80&lt;sup&gt;th&lt;/sup&gt; with 3/80&lt;sup&gt;ths&lt;/sup&gt; lump sum</td>
<td>2.3% with commutation only lump sum only</td>
<td>2.32% (equivalent to 1/43&lt;sup&gt;th&lt;/sup&gt;) with commutation only lump sum</td>
</tr>
<tr>
<td>Rate of employee contributions</td>
<td>2011/12</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>All earnings levels</td>
<td>All earnings levels</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.5%</td>
<td>3.5%</td>
<td></td>
</tr>
<tr>
<td>Indexation of pensions paid</td>
<td>CPI</td>
<td>CPI</td>
<td></td>
</tr>
<tr>
<td>Cost-sharing?</td>
<td>No</td>
<td>Yes³⁴</td>
<td>No. Employer cost cap introduced³⁷</td>
</tr>
<tr>
<td>In place</td>
<td>From 1972 for all members.</td>
<td>From 30 July 2007 for new members</td>
<td>From 1 April 2015 for all members³⁷</td>
</tr>
</tbody>
</table>

³² Based on the Final Proposed Agreement for the Principal Civil Service Pension Scheme published in March 2012
³³ The Classic section closed in 2002 to new members. New members between 2002 and 30 July 2007 were offered membership in the Premium section, with broadly similar final salary benefits. As of 2010 around 58% of Civil Servants were members of the Classic section of the scheme.
³⁴ As laid out in the Final Proposed Agreement, these tiered contributions levels are indicative and will be subject to consultation and review with the unions.
³⁵ Cost-sharing meant that unanticipated future increases in costs would be shared 50:50 between public sector employers and the members of the schemes, rather than passed automatically onto public sector employers, as was the former situation. An employer cost cap was also introduced, which capped employer contributions at 20% of salary.
³⁶ The employer cost cap will be set following a full actuarial valuation. The cap will be set at 2% above, and the floor set 2% below, the employer contribution rates calculated ahead of the introduction of the new scheme in 2015.
³⁷ Members within ten years of their Normal Pension Age on 1 April 2012 will have their pension calculated according to the rules in place prior to the introduction of the proposed reforms.
Annex 2: Technical Annex on the Effective Employee Benefit Rate Calculation

Effective Employee Benefit Rate
The PPI uses the Effective Employee Benefit Rate (EEBR) to measure the value of the pension benefit provided by alternative Defined Benefit pension schemes and allow for meaningful comparisons of the value of the benefits provided for scheme members in different schemes.

The effective employee benefit rate is an established measure used to compare the value of the pension benefit provided by alternative Defined Benefit pension schemes, as a percentage of a member’s salary. The PPI has used this measure in a previous assessment of the implications of the Labour Government’s reforms to public service schemes. The PPI has also used this measure in analysis conducted for the Independent Public Service Pension Commission (IPSPC) on the implications of different reform options.

The value of the pension benefit provided by a Defined Benefit pension scheme for a scheme member, as measured by the EEBR, will be determined by a range of factors including, but not limited to:

- **The benefit design of the scheme** – in a Defined Benefit scheme the pension benefit may be linked to the scheme member’s final salary or to a measure of their average salary revalued over the course of their career;
- **The accrual rate** – this is the rate at which the pension benefit accrues for each year of service;
- **The Normal Pension Age** – the age at which the scheme member is able to start drawing their pension;
- **The way that the pension benefit is uprated or indexed** – both during active service and when the scheme member leaves the scheme;
- **The extent of other benefits provided** – such as widow’s, ill-health or death benefits.
- The extent to which the scheme member is expected to *pay their own member contributions* to meet, or partially meet, the cost of providing the pension benefit.

The EEBR:

- Is expressed as a percentage of the member’s salary.
- Is calculated as the percentage of salary that would needed to be given to the scheme member to compensate them for the loss of the scheme, not taking into account the different treatments of pension and salary for national insurance purposes. Member contributions are deducted, to show the value of the pension benefit being offered to the scheme member that is effectively paid for by the employer.

The calculation of the effective employee benefit rate requires a series of assumptions to be made, including demographic and financial assumptions. The calculations are sensitive to the assumptions made, particularly the discount rate.

**Demographic assumptions**
Demographic assumptions include mortality rates, the likelihood that individuals have a partner on death, rates of early withdrawal from service, and rates of retirement through ill-health.

The PPI’s research uses assumptions based on the set of assumptions used by HM Treasury when publishing long-term cashflow projections of the future amount of benefits paid by the unfunded public service schemes. These assumptions are produced by the Government Actuary’s Department (GAD).

The assumptions in this report are based on the note issued by the GAD in December 2010 setting out the assumptions and data which GAD used in preparing projections of the cashflows for the 2009 Pre-Budget Report related to public service pay-as-you-go pensions. These are the latest estimates that are publicly available at the time of publication.

**Financial assumptions**
Financial assumptions include the discount rate, price inflation and salary growth. The financial assumptions used for the EEBR calculations are taken from the assumptions used by the Office of Budget Responsibility (OBR) in their July 2012 Fiscal Sustainability publication, with the exception of the RPI assumption (see Annex 3). The main financial assumptions are set out in Table A5.

<table>
<thead>
<tr>
<th>Financial Variable</th>
<th>Assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>2.0%</td>
</tr>
<tr>
<td>RPI</td>
<td>2.95%</td>
</tr>
<tr>
<td>Earnings</td>
<td>4.75%</td>
</tr>
<tr>
<td>Discount rate</td>
<td>5.1% (3% above CPI)</td>
</tr>
</tbody>
</table>

The discount rate is used to convert a projected stream of income from a pension into a single figure. The OBR’s economic outlook projections do not require an assumption for the discount rate. The discount rate assumption used in the PPI’s EEBR calculations is based on the Government’s stated methodology to set the discount rate for calculating public service pension contributions at 3% above CPI. This methodology was announced by the Government following a consultation exercise by HM Treasury in 2011.
Modelling Normal Pension Age
A feature of the Coalition Government’s proposed reforms to the four largest public sector pension schemes is that the Normal Pension Age (NPA) has been set to increase in line with future changes to the State Pension Age (SPA) for men. The modelling in this project assumes increases in SPA approximating a combination of current legislation and announced Government policy.

Since April 2010 women’s State Pension Age has been increasing in a series of steps to equalise with men’s SPA, and will reach age 65 by November 2018 when SPA will be equal for men and women. According to current legislation, both men and women’s SPA will then rise to 66 by 2020.

The NPA for each scheme under the proposed reforms is therefore 65 until 2018 (which is consistent with the current SPA for men), increasing to 66 by 2020. Scheme NPAs are then assumed to increase in line with the Government’s announced intention that SPA for both men and women will rise to 67 between 2026 and 2028. In the longer term, SPA and NPA are then modelled as increasing to 68 between 2044 and 2046 as stipulated in current legislation.

Member contribution rate assumptions
In the baseline analysis for this report, it is assumed that members make contributions at the post 2007/8 reforms member contribution rates. For example, all members of the NHS scheme pay a member contribution between 5% and 8.5% of salary, depending on their salary level.

In the assessment of the Government’s proposed reforms, all members are assumed to make contributions at the long-term rates set out in the Government’s Proposed Final Agreements for 2014/15 and beyond. Some of these rates are still subject to negotiation, so where possible this analysis uses the illustrative contribution rates shown in the Proposed Final Agreements. Where no illustrative contribution rates are shown, PPI have estimated long term rates based on the pattern of agreed rates and the principles for reform set out in the Agreements.

Transitional Protection for those with 10 years of Normal Pension Age
The Government has proposed that members within ten years of their Normal Pension Age on 1 April 2012 will have their pension calculated according to the rules in place prior to the introduction of the proposed reforms. This has been allowed for in the EEBR analysis. These members will however still be subject to the increased contributions as outlined above.

Assumptions for distributional analysis
High-flyer vs. low-flyer
Under the high-flyer scenario, the employee is assumed to attain earnings increases of 1% p.a. above general earnings inflation. A low-flyer is assumed to receive no promotional salary increases, and to receive inflationary increases in line with the growth of the Consumer Prices Index (CPI).
The median salary level is assumed to be £26,100, in line with the median salary level for all UK full-time employees in 2011.39

**Short stayers vs. long stayers**
Under the short stayer scenario, the employee is assumed to leave service after 5 years employment. Under the long stayer the employee is assumed to stay in service until they reach their Normal Pension Age. All other pre-retirement decrements are suspended.

**Private Sector Defined Contribution Scheme Comparator**
This report provides a Defined Contribution (DC) comparator of the average value of the pension benefit offered to members of a typical DC scheme in the private sector. An average employer contribution rate of 6.5% has been assumed, based on the 2011 data in the ONS Occupational Pension Scheme Survey.40

The comparator figure also takes into account that a private sector member of a DC scheme would be contracted into the State Second Pension (S2P) and would accrue rights to an S2P pension. We estimate the value of the State Second Pension that a private sector worker saving in a DC pension would accrue at around 3.5% of salary. Therefore, the overall value of a typical Defined Contribution scheme is estimated at around 10% of the private sector worker’s salary.

**Private Sector Defined Benefit Comparator**
This report provides a private sector comparator of the average value of the pension benefit offered to members of a typical Defined Benefit (DB) scheme in the private sector.

The typical private sector DB pension scheme is assumed to have the following characteristics, based on 2011 data from the ONS Occupational Pension Scheme Survey.41

<table>
<thead>
<tr>
<th>Table A6: Characteristics of a typical private sector Defined Benefit pension scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normal Pension Age</strong></td>
</tr>
<tr>
<td><strong>Accrual Rate</strong></td>
</tr>
<tr>
<td><strong>Commutation factor</strong></td>
</tr>
<tr>
<td><strong>Member contributions</strong></td>
</tr>
<tr>
<td><strong>Spouses pension</strong></td>
</tr>
<tr>
<td><strong>Pension increases</strong></td>
</tr>
<tr>
<td><strong>Death in service lump sum</strong></td>
</tr>
</tbody>
</table>

On this basis, a typical Defined Benefit scheme in the private sector has an average pension benefit value of 23% of a member’s salary, assuming that the scheme benefits are linked to the Consumer Prices Index (CPI). Some private sector schemes still have benefits linked to the Retail Prices Index (RPI), and for a typical private sector Defined Benefit scheme linked to RPI the average value of the pension benefit is 27% of a member’s salary. (Table A7)

Table A7: Average Effective Employee Benefit Rate (EEBR) for a typical private sector Defined Benefit scheme, with different levels of indexation and revaluation

<table>
<thead>
<tr>
<th>Typical private sector DB scheme with:</th>
<th>Average EEBR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI pension increases</td>
<td>23%</td>
</tr>
<tr>
<td>RPI pension increases</td>
<td>27%</td>
</tr>
</tbody>
</table>

Reconciliation of current analysis with PPI 2010 figures

The PPI last carried out EEBR modelling of public service pension schemes in the paper *The future of public sector pensions* in 2010. In the 2010 paper, the average EEBR for post 2007/8 entrants to public service pension schemes was calculated assuming CPI indexation of pensions in payment and the revaluation of deferred pensions. Similar calculations were made for the current paper in 2012 as the basis of comparison for the Coalition Government’s proposed reforms for these members.

The results calculated in 2012 are different from those which were calculated in 2010. This is largely due to differences in the assumptions used. Since 2010, the modelling assumptions used in PPI EEBR analysis have been updated. This is in part a general update to ensure current relevance of the results and in part to allow for the Government’s new approach to setting the discount rate in line with average GDP growth. Table A8 provides a comparison of the different assumptions used in this calculation:

Table A8: Assumptions used in current and previous PPI EEBR analysis

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>1.9%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Earnings growth</td>
<td>4.3%</td>
<td>4.75%</td>
</tr>
<tr>
<td>Discount Rate</td>
<td>5.3% (2.5% over RPI)</td>
<td>5.1% (3.0% over CPI)</td>
</tr>
</tbody>
</table>

In addition to the changes outlined above, the calculation and data were updated, changing the base year of the calculation from 2010 to 2012 and using updated membership distributional data for the schemes.

Each of the changes described here has the effect of increasing the average EEBR for post 2007/8 entrants in this paper relative to the 2010 figures. For example, the average EEBR of the NHS scheme is 18% of a scheme member’s salary using the 2010 assumptions, compared with 22% of a scheme member’s salary using the 2012 assumptions. Table A9 illustrates the composition of this increase.
Table A9: Breakdown of the change in average EEBR for post 2007/8 entrants to the NHS scheme between 2010 and 2012

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average EEBR using 2010 data and assumptions</td>
<td>18%</td>
</tr>
<tr>
<td>Changes arising from updating calculation and data</td>
<td>+0.5%</td>
</tr>
<tr>
<td>Change arising from increase in earnings growth assumption</td>
<td>+1.5%</td>
</tr>
<tr>
<td>Change arising from increase in discount rate</td>
<td>+2.0%</td>
</tr>
<tr>
<td>Average EEBR using 2012 data and assumptions</td>
<td>22%</td>
</tr>
</tbody>
</table>
Annex 3: The impact of the switch from RPI to CPI as the index used for revaluation and indexation of benefits

The previous Labour Government implemented reforms to the four largest public service pension schemes between 2007 and 2008. The reforms applied mainly to new entrants and maintained final salary benefits in the NHS and Teachers’ pension schemes. The final salary link was also maintained for the Local Government Pension Scheme, although the reforms applied to all members. The contribution increases proposed under Labour’s reforms also applied to both existing and new members.

The reforms in the Principal Civil Service Scheme introduced a new Nuvos section for new members with Career Average Revalued Earnings (CARE) benefits. Existing members in the Principal Civil Service Pension scheme at the time the reforms were introduced remained in the existing Classic and Premium sections, which provide final salary benefits. In all schemes, pension benefits were uprated in line with changes in the RPI. Under these reforms, the value of the pension benefit received across all members of the four largest schemes was around 28% of a member’s salary, on average. (Chart A1).

Chart A1\(^2\)

The reforms of successive Governments have reduced the value of public service pension schemes

Average value of the four main public service pension schemes as a percentage of the scheme member’s salary before and after the Coalition Government’s proposed reforms across all scheme members

- Labour Reforms (RPI)
- Coalition CPI change
- Coalition Gov proposals

\(^2\)PPI EEBR analysis using the scheme designs set out in the proposed final agreements for each scheme and summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%. RPI is assumed to be 2.95%, CPI 2%. 
In June 2010, the Coalition Government changed the inflation measure used to uprate pension benefits from the RPI to the CPI. This reduced the value of the pension benefit received by members of the four largest schemes from around 28% of salary, on average, to around 23% of a member’s salary.

The Coalition Government’s proposed reforms, as set out in the Proposed Final Agreements, further reduce the value of the pension benefit received by members of the four largest schemes to around 15% of a member’s salary, on average.

The estimates of the value of the schemes with RPI indexation are sensitive to the assumption on RPI changes

Future changes on how the RPI is calculated may affect its future value. In turn, this may affect the estimates of the average value of the pension benefit to members of the four largest schemes in our counterfactual analysis of the value of the schemes under the Labour Government’s reforms, which used RPI to uprate pension benefits.

The Office of National Statistics (ONS) is currently consulting on the formula used to calculate the RPI. Future changes in the formula used to calculate the RPI could affect its value and, therefore, the estimates presented in this section using RPI indexation. The table below shows how the estimates on the average value of the pension benefit received by members of the four largest pension schemes would change under the central RPI assumption of a 2.95% yearly increase, compared to a lower RPI assumption of 2.5% and a higher RPI assumption of 3.4%.

The higher RPI assumption assumes that the so called “formula effect” between the way that the CPI and RPI is calculated persists into the future and there is no change to the way that the RPI is calculated. The lower RPI assumption assumes the converse - that the ONS review recommends abolishing the formula effect entirely so that there is only a 0.5% difference between CPI and RPI due to the different treatment of housing. Our central assumption is the mid point between our RPI higher and lower estimates. It effectively assumes that there is some change to the formula effect following the ONS’ review but that the formula effect is not eliminated entirely.
Table A10: The average value of the pension benefit under the Labour Government’s reforms and retaining RPI indexation and revaluation, with different RPI assumptions (as a percentage of a member’s salary)\(^3\)

<table>
<thead>
<tr>
<th></th>
<th>NHS</th>
<th>Teachers’</th>
<th>Local Government</th>
<th>Principal Civil Service</th>
<th>Average 4 main public service schemes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RPI high: 3.4%</strong></td>
<td>30%</td>
<td>30%</td>
<td>29%</td>
<td>35%</td>
<td>30%</td>
</tr>
<tr>
<td><strong>RPI central: 2.95%</strong></td>
<td>27%</td>
<td>27%</td>
<td>27%</td>
<td>32%</td>
<td>28%</td>
</tr>
<tr>
<td><strong>RPI low: 2.5%</strong></td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>30%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Table A10 shows that under the central RPI assumption of 2.95% yearly increase, the average value of the pension benefit received by members of the four largest schemes would have been around 28% of a member’s salary, on average, compared to 30% of a member’s salary under the high RPI assumption and 26% of a member’s salary under the low RPI assumption.

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\(^3\) PPI EEBR analysis using the scheme designs set out in the proposed final agreements for each scheme and summarised in in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%. 


Annex 4: Impact of the Coalition’s reforms on members of the Teachers’ Pension Schemes

The impact of the Coalition’s reforms on members of the Teachers’ Pension Scheme who have joined the scheme before 1 January 2007

Chart A2

The Coalition Government’s proposed reforms reduce the value to pre 2007 entrants of the Teachers Pension Scheme by more than a third

Impact of each component of the Coalition Government’s proposed reforms on average value of the pension for members who joined the Teachers’ Pension Scheme before 1 January 2007

The average value of the pension benefit offered to members who have joined the Teachers’ Pension Scheme before 1 January 2007 reduces by more than a third under the Coalition Government’s proposed reforms, from 23% of a teacher’s salary before the proposed reforms with final salary benefits paid out from Age 60 and CPI indexation to 14% of a teacher’s salary after the Coalition’s proposed reforms are introduced.

The components of the Coalition’s proposed reforms contribute to the total reduction in the average value of the pension benefit offered by the scheme. The increase in average member tiered contributions, under which higher earners pay higher contributions than lower earners, reduces the average value of the pension benefit offered by the scheme by 3% of salary.

The switch from a final salary scheme with an accrual rate of 1/80th and a lump sum of 3/80ths to the new Teachers’ CARE scheme with an accrual rate of

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44 PPI EEBR analysis using scheme designs as set out in the proposed final agreement for the Teachers’ Pension Scheme, summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
1/57th reduces the average value of the pension benefit being offered by the scheme by 3% of salary.

Linking the Normal Pension Age to the State Pension Age instead of having a NPA of Age 60 reduces the average value of the pension benefit by a further 3% of salary.

Nevertheless, even after the Coalition’s proposed reforms the average value of the Teachers’ Pension Scheme of 14% of a teacher’s salary is still more valuable than an average Defined Contribution pension scheme that many workers in the private sector are offered, typically worth around 10% of a DC scheme member’s salary.

The impact of the Coalition’s reforms on members of the Teachers’ Pension Scheme who have joined the scheme since 1 January 2007

Chart A3

The Coalition Government’s proposed reforms reduce the value to post 2007 entrants of the Teachers’ Pension Scheme by more than a third

Impact of each component of the Coalition Government’s proposed reforms on average value of the pension for members who joined the Teachers’ Pension Scheme since 1 January 2007

The average value of the pension benefit offered to members who have joined the Teachers’ Pension Scheme since 1 January 2007 reduces by more than a third under the Coalition Government’s proposed reforms, from 22% of a teacher’s salary before the proposed reforms with final salary benefits paid out from age 65 and CPI indexation to 14% of a teacher’s salary after the proposed reforms are introduced.

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45 PPI EEBR analysis using scheme designs as set out in the proposed final agreement for the Teachers’ Pension Scheme, summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
The components of the Coalition’s proposed reforms contribute to the total reduction in the average value of the pension benefit offered by the scheme. The increase in average member tiered contributions, under which higher earners pay higher contributions than lower earners, reduces the average value of the pension benefit offered by the scheme by 3% of salary.

The switch from a final salary scheme with a 1/60th accrual rate to the new Teachers’ CARE scheme with a 1/57th accrual rate reduces the average value of the pension benefit being offered by the scheme by 5% of salary.

Linking the Normal Pension Age to the State Pension Age rather than having an NPA of Age 65 reduces the average value of the pension benefit by a further 1% of salary.

Nevertheless, even after the Coalition’s proposed reforms the average value of the Teachers’ Pension Scheme of 14% of a teacher’s salary is still more valuable than an average Defined Contribution pension scheme that many workers in the private sector are offered, typically worth around 10% of a DC scheme member’s salary.
Annex 5: The impact of the Coalition’s reforms on members of the Local Government Pension Scheme

Chart A4

The Coalition Government’s proposed reforms reduce the value to members of the Local Government Pension Scheme by more than a third

Impact of each component of the Coalition Government’s proposed reforms on average value of the pension for members of the Local Government Pension Scheme

<table>
<thead>
<tr>
<th>Component</th>
<th>Impact Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of CPI linked pension before Coalition reforms</td>
<td>22%</td>
</tr>
<tr>
<td>Impact of restructuring contributions</td>
<td>0%</td>
</tr>
<tr>
<td>Impact of switch to CARE scheme</td>
<td>7%</td>
</tr>
<tr>
<td>Impact of linking retirement to SPA</td>
<td>1%</td>
</tr>
<tr>
<td>Value after Coalition Government proposed reforms</td>
<td>14%</td>
</tr>
</tbody>
</table>

The average value of the pension benefit offered by the Local Government Pension Scheme reduces by more than a third under the Coalition Government’s proposed reforms, from 22% of a Local Government worker’s salary before the proposed reforms with final salary benefits and CPI indexation to 14% of a Local Government worker’s salary after the proposed reforms are introduced.

As the 2008 reforms applied to all members of the LGPS including existing scheme members the date a member joined the LGPS scheme does not affect how they are impacted by the reforms.

The proposed reforms restructure the tiered contributions already in place in the scheme under the current rules. The contributions are increased for higher earners and reduced for some lower earners. The overall intention is to maintain the same average contribution rate. As a consequence, the restructuring of member contributions has almost no impact on the reduction in the average value of the pension benefit offered by the scheme.

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46 PPI EEBR analysis using scheme designs as set out in the LGPS 2014 proposals, summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
The switch from a final salary scheme with an accrual rate of 1/60th to the new LGPS CARE scheme with a 1/49th accrual rate reduces the average value of the scheme by 7% of salary.

The linking of the Normal Pension Age to the State Pension Age instead of having an NPA of 65 reduces the average value of the pension benefit offered by the scheme by a further 1% of salary.

Nevertheless, even after the Coalition’s proposed reforms the average value of the Local Government Pension Scheme of 14% of a Local Government worker’s salary is still more valuable than an average Defined Contribution pension scheme that many workers in the private sector are offered, typically worth around 10% of a DC scheme member’s salary.
Annex 6: The impact of the Coalition’s reforms on members of the Principal Civil Service Pension Scheme

The impact of the Coalition’s reforms on members of the Principal Civil Service Pension Scheme who joined the scheme before 30 July 2007 and are in the Classic Final Salary section of the Scheme

Chart A5

The Coalition Government’s proposed reforms reduce the value to pre 2007 entrants of the Principal Civil Service Pension Scheme by more than a third

Impact of each component of the Coalition Government’s proposed reforms on average value of the pension for members who joined the Classic Principal Civil Service Pension Scheme before 30 July 2007

The analysis in the first part of this Annex considers the impact of the Coalition Government’s proposed reforms on members of the Classic section of the Principal Civil Service Pension Scheme, which has final salary pension benefits and a membership of around 60% of all Civil Servants.

The Coalition Government’s proposed reforms reduce the average value of the pension benefit offered by the Classic section of the Principal Civil Service Pension Scheme by more than a third, from 28% of a Civil Servant’s salary before the proposed reforms with final salary benefits and CPI indexation to 17% of a Civil Servant’s salary after the proposed reforms are introduced.

(Chart A5)

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47 PPI EEBR analysis using scheme designs as set out in the proposed final agreements for the Principal Civil Service Pension Scheme, summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
The different components of the Coalition’s proposed reforms contribute to the total reduction in the average value of the pension benefit offered by the scheme. The increase in average member tiered contributions, under which higher earners pay higher contributions than lower earners, reduces the average value of the pension benefit offered by the scheme by 4% of salary.

The switch from a final salary scheme with a 1/80th accrual rate and a 3/80th lump sum to the new Civil Service CARE scheme reduces the average value of the pension benefit being offered by the scheme by 3% of salary.

Linking the Normal Pension Age to the State Pension Age instead of having an NPA of Age 60 reduces the average value of the pension benefit by a further 4% of salary.

Nevertheless, even after the Coalition’s proposed reforms the average value of the Classic section of the Principal Civil Service Pension Scheme of 17% of a Civil Servant’s salary is still more valuable than an average Defined Contribution pension scheme that many workers in the private sector are offered, typically worth around 10% of a DC scheme member’s salary.

The impact of the reforms on members of the Career Average Nuvos section of the Principal Civil Service Pension Scheme for members who have joined the Civil Service scheme since 30 July 2007

Members of the Civil Service scheme who have joined the scheme since 30 July 2007 are offered membership in the Nuvos Section of the scheme, which has Career Average Revalued Earnings (CARE) benefits. The proposed reforms reduce the average value of the pension benefit offered to members of this section of the scheme from 22% of a Civil Servant’s salary to 18%. (Chart A6)
The Coalition Government’s proposed reforms reduce the value to post 2007 entrants of the Principal Civil Service Pension Scheme by less than a fifth

Impact of each component of the Coalition Government’s proposed reforms on average value of the pension for members who joined the Principal Civil Service Pension Scheme since 30 July 2007

The increase in average member contributions reduces the average value of the pension benefit received by members of this section of the scheme by 2% of salary.

Given that this section of the scheme already has Career Average Revalued Earnings benefits, there is no impact in this regard under the Coalition Government’s proposed reforms.

The linking of the Normal Pension Age to the State Pension Age instead of having an NPA of Age 65 reduces the average value by a further 1% of salary.

Overall members of the Career Average section of the Civil Service pension scheme are least affected by the Coalition’s proposed reforms. This is largely because the scheme was already Career Average and already had an NPA of 65.

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48 PPI EEBR analysis using scheme designs as set out in the proposed final agreements for the Principal Civil Service Pension Scheme, summarised in Annex 1. Methodology and assumptions for the EEBR are set out in Annex 2. Figures rounded to the nearest 1%.
Acknowledgements and Contact Details

The Pensions Policy Institute is grateful for input from many people in support of this paper, in particular:

Michael Pomery CVO  Peter Thompson
David Yeandle OBE  Andrew Young

Editing decisions remained with the authors who take responsibility for any remaining errors.

The Pensions Policy Institute is an educational charity promoting the study of retirement income provision through research, analysis, discussion and publication. The PPI takes an independent view across the entire pensions system.

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