



**CAMBRIDGE COLLEGES' FEDERATED  
PENSION SCHEME**

**Actuarial Valuation  
as at 31 March 2014**

**Scheme Funding Report**

**Prepared for the Management Committee  
Acting as the Trustee of the  
Cambridge Colleges' Federated Pension Scheme**

Robert Sweet  
Cartwright Group Ltd  
Mill Pool House  
Mill Lane  
Godalming  
Surrey GU7 1EY

Tel: 01483.860201  
Fax: 01483.860182  
Email: [robert.sweet@cartwrightgroup.co.uk](mailto:robert.sweet@cartwrightgroup.co.uk)

3 June 2015

# Contents

---

<b>ES</b>	Executive Summary	1
<b>1</b>	Introduction	3
<b>2</b>	Background	6
<b>3</b>	Funding Principles	10
<b>4</b>	Valuation Method & Assumptions	12
<b>5</b>	Funding Valuation Results	16
<b>6</b>	Funding Risks & Sensitivities	21
<b>7</b>	Pension Protection Fund – Section 179 Valuation	24
<b>8</b>	Solvency Position	26
<b>9</b>	Investment Strategy	29
<b>10</b>	Conclusions	31

## Appendices

<b>A</b>	Membership Data	33
<b>B</b>	Scheme Assets	41
<b>C</b>	Summary of Benefits and Member Contributions	42
<b>D</b>	Statement of Funding Principles	47
<b>E</b>	Assumptions	54
<b>F</b>	College Contribution levels	57
<b>G</b>	College Funding levels	59
<b>H</b>	Actuary's Certification of the Calculation of Technical Provisions	60
<b>I</b>	Glossary	61

**Introduction**

This report sets out the results of the actuarial valuation of the Cambridge Colleges' Federated Pension Scheme ("the Scheme") as at 31 March 2014.

---

**Current Funding Level**

Using the agreed assumptions set out in Appendix E, the Scheme's funding level on the Statutory Funding Objective at the valuation date was 82%, equivalent to a deficit of £29,847,000. At the previous valuation the ongoing funding level was 100%.

The main reasons for the deterioration are low investment returns and changes in the valuation basis. The latter is principally due to the adoption of lower assumptions for future investment return.

---

**Future Service Cost**

The average ongoing joint (College plus members) future contribution rate for future service benefits, ignoring the past service position, is 25.22% of Contribution Pay. This rate includes member contributions and an allowance for current premiums for death in service costs. It excludes allowances for expenses and for the premiums for group income protection, which will be paid in addition by the Colleges.

This compares with the current average contribution rate at which joint contributions are being paid of 20.71% of Contribution Pay, before the adjustment for the previous deficit. The main reasons for the increase are changes in the valuation assumptions and an increase in the average age of the active membership.

---

**Deficit Funding Contributions**

All College Sections (with one exception) have a funding deficit. The Management Committee have agreed with each College the term over which the deficit should be repaid. In each case a fixed monetary amount is payable. The details of the agreements are set out in Appendix F.

---

**Solvency Position and PPF Position**

The solvency position of the Scheme has been measured by reference to the estimated cost of buying out the benefits with an insurance company. As at the valuation date the solvency funding level of the Scheme was 46%.

If the Scheme was fully funded on the Statutory Funding Objective the solvency funding level would be 55%.

---

**PPF Section 179  
Position**

The PPF Section 179 position of the Scheme has been measured in line with the prescribed assumptions and benefits as laid down by the PPF Board. At the valuation date the Section 179 funding position was 59%.

This funding level is used by the PPF Board to help it determine the risk based portion of the PPF levy.

---

**CETVs**

The Management Committee have considered whether Cash Equivalent Transfer Values should be reduced to reflect the degree of underfunding in the Scheme. They have decided to continue to pay CETVs in full, taking into consideration the strong Employer covenant.

---

**Factors**

The Scheme's commutation factors and other administrative factors should be reviewed following the valuation to reflect changing economic and demographic conditions.

---

**Timescale and  
Future Valuation  
Requirements**

The next triennial valuation is due to take place as at 31 March 2017. For those Colleges with more than 100 members, interim actuarial reports will be required as at 31 March 2015 and 31 March 2016.

For each College Section with a Recovery Plan, a summary of this valuation report plus copies of the Recovery Plan and Schedule of Contributions needs to be sent to TPR within 10 working days of this report being signed.

A Summary Funding Statement should be sent to all Members to inform them of the outcome of this valuation.

---

**Background**

This report on the actuarial valuation of the Cambridge Colleges' Federated Pension Scheme ("the Scheme") as at 31 March 2014, was commissioned by and is addressed to the Management Committee, acting as the Trustee of the Scheme. It has been prepared under Clause 18.2 of the Trust Deed & Rules dated 9 March 2004 and Section 224 of the Pensions Act 2004. These state that the Trustee is required to obtain an actuarial valuation at least every three years. Actuarial reports in intervening years are required for College Sections with more than 100 members.

---

**Purposes**

The purposes of the valuation are:

- to review the Scheme's funding position relative to its funding target;
  - to determine contribution rates for funding Scheme benefits;
  - to assess the Scheme's solvency position; and
  - to satisfy statutory requirements.
- 

**Previous Valuation**

The Scheme was last valued as at 31 March 2011 and the results were contained in my report dated 31 May 2012.

---

**Inter-valuation Review**

The previous valuation recommended joint (College plus members) contributions to the Scheme at an average rate of 20.71% of members' Contribution Pay inclusive of allowance for member contributions and death-in-service insurance premiums. Allowances for expenses and the premiums required for Group Income Protection (GIP) benefit were payable separately in addition to these amounts. Recovery Plans were agreed individually between the Management Committee and each College for whom the valuation showed a shortfall.

The Scheme auditors have confirmed that contributions have been paid in line with the agreed rates. Member contributions have been paid in accordance with the Rules of the Scheme.

---

### **References for earlier advice on this valuation**

An earlier discussion document, the Memorandum on the Actuarial Valuation dated 17 October 2013, set out my initial advice to the Management Committee regarding the commencement of the valuation process. It included drawing the Management Committee's attention to the Pension Regulator's Code of Practice 3 ("the Code") and the different funding methods that are available to them and how they may choose a set of assumptions.

I have not provided any advice to the Management Committee on College matters. In particular in recommending assumptions to the Management Committee I provided no advice on factors affecting the Colleges or the academic environment in general which may affect such factors as pay increases or rates of withdrawal of Scheme membership. In addition, in calculating the contribution rates in accordance with the Statement of Funding Principles, I have not provided any advice on other related College matters such as business plans, expenditure commitments or industry reports.

The above advice was reviewed by the Management Committee, and following discussion with the Colleges, the agreed assumptions to be used are set out in Appendix E.

---

### **Third Party Statement**

The calculations in the report use methods and bases appropriate for the purpose described above. Figures required for other purposes, such as College accounting, should be calculated in accordance with the specific requirements for such purposes and it should not be assumed that the figures contained in this report are appropriate. The report may be provided to the Colleges and to Scheme members in accordance with the disclosure legislation and regulations, but may only be disclosed to other parties with our consent. Such parties may rely upon the results only for the purposes described above. The report does not grant any rights to Scheme members or other third parties and may not necessarily cover all the implications for a third party. I and Cartwright Group Ltd do not accept any liability to any third parties in respect of the contents of this report.

---

## Reporting Requirements

This report, when read in conjunction with the reference material set out above, is compliant with the following Standards issued by the Financial Reporting Council:

- Technical Actuarial Standard: Pensions (TAS P);
- Technical Actuarial Standard R: Reporting Actuarial Information (TAS R); and
- Technical Actuarial Standard D: Data (TAS D).

The calculations in this report have been calculated using models that are compliant with Technical Actuarial Standard M: Models (TAS M).

The actuarial information contained in this report has been peer reviewed in accordance with Actuarial Profession Standards (APS) P2 – Compliance Review.

It should be noted that the calculation of Technical Provisions and future contribution rates in this report are defined as a “Planning Exercise” under TAS R. The calculation of the solvency position and the PPF Section 179 funding position is defined as a “Valuation Exercise” under TAS R. This report is a “Scheme Funding Report” for the purposes of TAS P and Section 224 of the Pensions Act 2004.

---

## The Scheme

The Scheme is deemed to be a registered pension scheme under the terms of Schedule 36 of the Finance Act 2004.

There are 25 participating Colleges in the Scheme, each with their own segregated Section. 19 of the College Sections are contracted-out of the State Second Pension (S2P) using the Reference Scheme Test.

Of the 25 College Sections:

- 7 of the College Sections remain open to new entrants;
- 16 College Sections are closed to new entrants; and
- 2 Sections are closed for all accrual. Churchill College closed on 31 March 2007 and the last active member left service at Lucy Cavendish in May 2012.

---

## Core Benefits Under Rules

We have valued the Scheme benefits set out in the Trust Deed and Rules of the Scheme dated 9 March 2004 together with subsequent Deeds of Amendment. References to Contribution Pay in this report have the same meaning ascribed to them as in the above documents. A summary of the benefits valued is set out in Appendix C, although it should be borne in mind that in the event of any discrepancy between that summary and the Rules, the Rules will prevail.

Members may pay Additional Voluntary Contributions (AVCs) to purchase added years service and increase benefits payable from the Scheme. Liabilities and assets shown in this report include AVCs.

The Management Committee have previously considered whether legislation on age and sex discrimination, as it applies to pension schemes, might require changes to the benefit structure of the Scheme as it relates to those College Sections which are contracted-in to S2P. Our valuation calculations have been based on the current benefit structure and therefore make no allowance for any changes which might be required.

---

## Allowance for Discretionary Benefits

The Scheme Rules allow discretionary benefits to be provided to members. In recent years this option has not been exercised and therefore no discretionary benefits have been granted. As such the valuation does not allow for any discretionary benefits and instead assumes that any that are granted will be funded at the time.

---



### **Allowance for Insured Benefits**

The Management Committee maintains insurance policies to cover the liability for the lump sum and spouse's pension benefits provided on death in service. We have allowed for the premiums payable under these policies within the contribution rates recommended. The allowance is based on the current premium rates shown on the existing Schedules of Contributions.

Pensions in payment are not insured, being wholly paid by the Scheme.

---

### **Allowance for Member Options**

Allowance has been made for Members commuting some of their pension for cash at retirement, and for an assumed pattern of early retirements.

---

### **Scheme Changes since previous valuation**

Since the previous valuation, the following changes have been made to the Scheme benefits:

- 1) Member Contributions have been changed in the following College Sections:

<b>College</b>	<b>Old Rate %</b>	<b>New Rate %</b>	<b>Date of Change</b>
Christ's	9.00	10.00	1 January 2012
Darwin	3.00	5.00	1 August 2011
Murray Edwards	12.00	15.00	1 February 2012
Pembroke	7.79	6.82	1 July 2012
St. Catharine's	8.00 8.25	8.25 9.00	1 June 2011 1 June 2012
Trinity Hall	10.00	12.00	1 January 2012

- 2) In 2012 St John's College made a change to their members' contractual definition of Contribution Pay. An underpin based on the previous definition applies to affected members. This has no immediate short term impact on their Section's funding, but will have an effect in the longer term, and has been taken into account in the valuation.

---

### **Legislative changes since previous valuation**

There have been no significant changes in legislation since the previous valuation that affect the benefits of the Scheme.

---

### **Membership Data**

The data for the valuation was provided by the Pensions Administration Office on behalf of the Management Committee. Whilst we have taken reasonable steps to satisfy ourselves that the data provided is of adequate quality for the purposes of the valuation, ultimately we have relied on the accuracy of the information provided. The membership data covered details of 860 active members, 821 deferred pensioners, 1,256 pensioners and 6 pending members.

A more detailed summary is provided in Appendix A of this report.

We carried out the following data checks:

- Full reconciliation of membership numbers with the previous valuation;
- Comparison and reconciliation with previous valuation data and accounting data;
- Missing data and full consistency checks on an item by item basis.

All queries were resolved quickly and satisfactorily. We would like to thank the Pensions Administration Office for their very helpful assistance.

The membership statistics we have in our data extract differ from those set out in the final Scheme accounts due to both timing differences and the fact that the membership numbers in the accounts exclude pensioners where the member has commuted all of their pension but there remains a contingent liability for a spouse's pension. We include these in our statistics. Once this is taken into consideration, the total membership number is exactly the same as in the accounts.

---

#### **Asset Data**

The audited Scheme accounts show that the market value of the Scheme's assets at 31 March 2014 amounted to £140,714,473. This includes assets in relation to members' AVCs which relate to added years. Appendix B provides a more detailed breakdown of the Scheme's assets.

---

#### **College Matters**

We have not provided any advice to the Management Committee in connection with the Colleges.

---

#### **Material Post Valuation Date Events**

Please note that, apart from the following two items highlighted in the Memorandum, we are not aware of any material events that have occurred after the valuation date which would affect the results set out in this report.

##### **Allowance for GMP Equalisation**

Please note that no allowance has been made for any additional liability that might arise from the impact of equalising Guaranteed Minimum Pensions (GMPs) between men and women. This is because the Government has not yet issued its promised further guidance on this matter.

### Cessation of Contracting-out

The Government has announced that contracting-out of the State Second Pension will be abolished in April 2016 when a new single tier State Pension will be introduced. This will impact on the Scheme in two ways:

- Both the Colleges and members of those Sections of the Scheme which are currently contracted-out of the State Second Pension will revert to paying National Insurance Contributions at the full contracted-in rates.

The Government appreciates that many employers will not wish to bear the extra cost of NI contributions whilst having to maintain pension benefits at their existing levels. Employers will therefore be able to reduce benefits if they wish. Indeed, employers have been given the power to amend benefits for future service without requiring trustee consent. However, employers will have to go through a consultation process with affected staff members.

Employers who intend to use their defined benefit scheme for auto-enrolment will need to ensure that the revised benefit structure meets the minimum standards required.

- The new single tier State Pension will be higher than the current Basic State Pension. Currently the calculation of Contribution Pay includes an offset based on the Basic State Pension for some or all of members' Pensionable Service. This will therefore impact both on members' benefits and on the contributions payable on their behalf.

The Management Committee has agreed that the 2014 valuation should be based on the Scheme's current benefit structure.

We understand that the Colleges are about to commence a consultation with Scheme members regarding possible changes to the benefits structure from April 2016. The aim of these changes will be to ensure that benefits accrued prior to March 2016 are unaffected and that the proposed benefit changes from April 2016 appropriately reflect the changes in the State benefits. Should the changes go ahead then they will impact on future service contribution rates which will be considered separately at a later date.

**Statutory Funding Objective**

The Statutory Funding Objective is set out in the Statement of Funding Principles dated 3 June 2015 included as Appendix D to this report.

Under Rule 3.10 of the Scheme's Trust Deed & Rules dated 9 March 2004, the rate at which each College makes contributions to the Scheme is determined by the Management Committee, after taking actuarial advice and after consulting the College. In accordance with the Pensions Act 2004, the Management Committee has sole responsibility for preparing the Statement of Funding Principles.

---

**Agreed Funding Target**

The agreed funding target for the Scheme is the Technical Provisions. I would stress that achieving this target may mean that other targets may still not be met. In particular, in current market conditions if the Scheme were to be 100% funded on the Technical Provision, it would only be 55% funded on the Solvency target, i.e. Technical Provisions are not the same as wind up costs. Unless further funds were to be available, on a winding-up of the Scheme it would not be possible to secure members' benefits in full.

---

**Funding Objectives**

Based on the Technical Provisions as a funding target, the agreed funding objectives are as follows:

- to assume that the Scheme will invest in a range of assets and credit should be taken for the assumed long term out-performance of these assets relative to 18 year duration gilts equivalent to 1.9% per annum.
  - subject to the above, to adopt a set of assumptions which is prudent.
  - not to make any allowance for any mis-matching of assets and liabilities.
  - not to make any allowance for discretionary benefit increases for each College Section.
  - to eliminate any deficit relative to the funding target by increases in the rate of contributions over a period which does not exceed 20 years from the valuation date.
-

**Changes to  
Funding Objectives**

Since the previous valuation, the Management Committee have agreed to an extension in the period over which deficit repair contributions may be made by the Colleges.

---

**Funding  
Implications on  
Stability of  
Contribution Rate**

The funding objective includes allowance for investment in equity type assets, and makes no allowance for mis-matching of assets and liabilities. Since the returns on equities can be volatile over even relatively short periods of time, this means that the contribution rate will be less stable than would apply were these factors not included.

---

**Funding  
Implications for  
paying CETVs in  
full**

The funding objective adopted is such that if the Scheme meets its objective there will be more than sufficient assets to pay unreduced transfer values.

---

## 4 Valuation Method and Assumptions

---

**Funding Method** Different funding methods were adopted for different College Sections, depending on College status and College choice in some cases. The methods adopted were:

- Projected Unit Method (PUM)
- Attained Age Method (AAM)
- Defined Accrued Benefit Method (DABM)

These methods differ in how the future service contribution rate is determined.

---

### **Future Service Contribution Rate**

#### **Projected Unit Method (PUM)**

Under this method, the capital value of the benefits accruing over the year following the valuation date, based on members' Pensionable Salaries projected to the date of their retirement, death or earlier exit, is expressed as a percentage of the total current Contribution Pay, to give the future service contribution rate.

#### **Attained Age Method (AAM)**

Under this method, a capital value is placed on the benefits which will accrue to the present active members after the valuation date, based on their service after that date and Pensionable Salaries projected to the date of their retirement, leaving service or death. A capital value is also placed on the total projected Contribution Pay for the members throughout their expected future membership, and the ratio of these two values then gives the future service contribution rate, expressed as a percentage of Contribution Pay.

#### **Defined Accrued Benefit Method (DABM)**

This method is used only for a Section which is closed to all accrual, so that no calculation of a future service contribution rate is required.

---

### **Allowance for new entrants**

#### **Projected Unit method**

The PUM will result in a relatively stable future service contribution rate provided the profile of the active membership, by age, sex and salary, does not change significantly between actuarial valuations. There is therefore an implicit assumption that there are new entrants to the Section concerned. If the Section is closed to new entrants, the future service contribution rate will therefore be expected to rise in the future as the active membership ages.

Colleges that are closed to new entrants, but who have chosen to fund their Section on this basis, are aware of this issue.

### **Attained Age method**

Under the AAM, no allowance is made for new entrants; the contribution rate is determined solely on the basis of current members. This method therefore anticipates the ageing effect for a closed Section, where the active membership is expected to age between actuarial valuations.

### **Defined Accrued Benefit Method**

Under the DABM no allowance is made for new entrants as the Section has closed to future benefit accrual. As there is no future benefit accrual there is no need to calculate a future service contribution rate.

### **Previous Funding Method**

For both this valuation and the previous valuation, the Management Committee decided to give those Colleges whose Section is closed to new entrants the choice of adopting either the AAM or the PUM, after considering the possible impact on future contribution rates.

The following College Sections are closed to new entrants and the table indicates the method chosen for the 2014 valuation and any change from 2011.

<b>College</b>	<b>2014 Method</b>	<b>2011 Method</b>
Christ's	PUM	PUM
King's	PUM	PUM
Murray Edwards	PUM	PUM
Corpus Christi	PUM	PUM
Robinson	PUM	PUM
St. Catharine's	PUM	PUM
Trinity Hall	PUM	PUM (assumed open in 2011)
Wolfson	PUM	PUM

Other Colleges with Sections closed to new entrants have adopted the AAM method, whilst those College Sections which remain open to new entrants have continued to use the PUM.

### **Factors to Consider in choosing funding method**

Under the Code the Management Committee are required to consider the following factors (inter alia) when choosing a funding method:

- the ability and willingness of the Colleges to make advance provision for future events; and
- the likely number of new entrants to the Scheme in future.

We have not provided any advice to the Management Committee in connection with these factors. The Management Committee will need to satisfy themselves that the chosen funding method is appropriate bearing in mind the above factors.

The past service funding position is calculated by comparing the value placed on the existing Scheme assets with the value placed on members' benefits accrued before the valuation date allowing for future Pensionable Salary increases to retirement, death or earlier exit. Any surplus is expressed as an increase in the contribution rate payable for a stated period.

---

### **Valuation Assumptions**

The valuation assumptions are given in Appendix E. Details of how they were derived are set out in the Management Committee's Statement of Funding Principles included in Appendix D.

---

### **Assets**

As for the previous valuation, we have used a market-related basis to value both the assets and liabilities of the Scheme. Assets are included at their market value, whilst liabilities are valued using financial assumptions based on the yields implied by these market values. This does lead to a degree of volatility in the valuation results from one valuation to the next but I believe it ensures that a compatible and consistent approach is adopted to valuing both assets and liabilities, and that it will provide a more appropriate estimate of the cost of the Scheme benefits in current market conditions.

---

### **Recovery Plan**

The Statement of Funding Principles describes a Recovery Plan for removing any funding deficit. The Recovery Plan for each College Section requires the deficit to be removed by fixed additional annual contributions payable over a College specific number of years.

Under the Code the Management Committee should aim for any shortfall to be eliminated as quickly as the Colleges can reasonably afford. What is possible and reasonable, however, will depend on the Trustee's assessment of the Colleges' covenant.

When considering the structure of the Recovery Plan and the contribution required, the Management Committee should take into account the following matters:

- the Colleges' business plans and the likely effect any potential recovery plan would have on the future viability of the Colleges;



- the Scheme's membership profile. A longer recovery period may be more appropriate in a scheme where most members have many years to go before retirement than in one where the vast majority are already receiving pensions.
- the ability of the Management Committee to pursue a College to make good a deficiency in the event of a scheme wind-up.
- the Colleges' expenditure commitments.
- the value of any contingent security provided by the College bearing in mind both the term and enforceability.
- whether there are any impending member movements which would have a potentially significant effect on funding, such as major retirements or bulk transfer (in or out);
- The anticipated level of the risk-based element of the Pension Protection Fund levy, year on year, over the course of the recovery period and how this is met by the Colleges;

We have not provided any advice to the Management Committee in connection with the above factors. The Management Committee will therefore need to seek advice on these factors before determining the appropriate period over which the deficit should be paid.

---

## 5

# Funding Valuation Results

## Results

The following Section summarises the results of the valuation on the Scheme's funding objective using the basis described in Section 4 and Appendix D.

## Past Service Position/Technical Provisions

		£000's
<b>Value of benefits in respect of service on or before 31 March 2014:</b>		
Active Members		67,015
Deferred Pensioners		33,050
Current Pensioners		<u>70,496</u>
<b>Technical Provisions</b>	[a]	170,561
<b>Market Value of Scheme Assets</b>	[b]	<u>140,714</u>
<b>Past Service Surplus/(Deficit)</b>	[b-a]	<b>(29,847)</b>
Level of Funding of Past Service Benefits	[b/a]	82%

The appropriate actuarial certification of the Scheme's technical provisions is included as Appendix H to this report.

The past service deficit of £29,847,000 compares to the surplus disclosed by the previous valuation of £78,000. An approximate analysis of the principal factors affecting the level of deficit since the last valuation is given below.

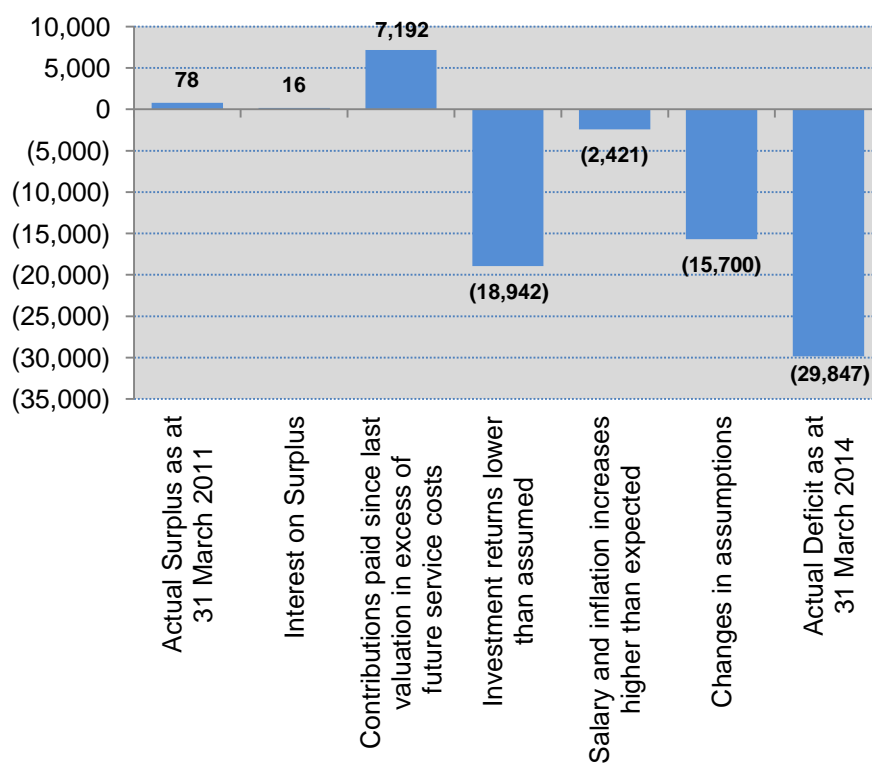
The Management Committee and the Colleges should be aware that the Technical Provisions are not the same as the cost of winding up the Plan. This is shown in Section 8 of the report.

The miscellaneous item in the analysis includes, for example, the effects of variations over the inter-valuation period between actual experience and the assumptions made for mortality, withdrawals and expenses used in the previous valuation. We would be pleased to analyse this item further, if required.

## Analysis of Surplus/(Deficit)

	£000's
<b>Actual (Deficit)/Surplus as at 31 March 2011</b>	78
Interest on (Deficit)/Surplus	16
Contributions paid since last valuation in excess of future service costs	7,192
<b>Expected (Deficit)/Surplus as at 31 March 2014</b>	<b>7,286</b>
Investment returns lower than assumed	(18,942)
Salary and inflation increases higher than expected	(2,421)
Changes in assumptions	(15,700)
Miscellaneous	(70)
<b>Actual (Deficit)/Surplus as at 31 March 2014</b>	<b>(29,847)</b>

### Analysis of Deficiency



## Significant Variations

The most significant variations between actual and expected experience are as follows:

- Investment returns were much lower than assumed over the 3 year period. The 2011 valuation assumed an investment return of 6.3% p.a. Over a 3 year period this implies investment growth of +20%. The actual growth achieved on the Scheme's assets was +6%. The Scheme's assets are therefore significantly lower in value than expected.
- Changes in the valuation basis, which are analysed further below.
- Contributions paid have been greater than the cost of future accrual, particularly as a result of those Colleges whose Section was in deficit at the last valuation having paid deficit Recovery Plan payments.
- Salary and pension increases were higher than assumed over the 3 year period. For example, the 2011 valuation assumed that future RPI related pension increases would be at an average rate of 3.4% p.a., whereas the average of the actual increases awarded was 3.8% p.a.

---

## Changes in Assumptions

The impact of the changes made in the valuation basis can be analysed further as follows:

		Increase/ (Decrease) in liabilities £m
1.	Reduction in investment return assumption from 6.3% to 5.4% p.a.	21.0
2.	Reductions in assumptions for salary and pension increases due to fall in inflation assumptions	(3.6)
3.	Change in assumption for proportions married from 90% to 80%	(1.9)
4.	Updating mortality assumptions from 2011 to 2014	<u>0.2</u>
		15.7

The largest component is the impact of the reduction in the assumption for future investment return, which is a direct consequence of the fall in gilt yields between 2011 and 2014.

## Future Service Cost

The total contribution rate is made up of two parts; the cost of the future benefit accrual and the contribution to remove the past service deficit shown above. The rates shown do not include any allowance for members' AVCs.

The joint contribution rate (College plus members) to fund future benefit accrual is 25.22% of Contribution Pay. This includes allowances for members' contributions and the cost of insuring the death in service benefits (based on June 2015 premium rates). Note that this rate has increased since the Summary of Initial Results was provided as a result of changes in the insurance costs for death in service benefits.

Allowances for Scheme expenses, PPF levies plus any GIP insurance costs will be paid in addition by the Colleges.

	<b>% of Contribution Pay</b>
Total Average Joint Contribution Rate (excluding expenses and GIP costs)	23.52
Expense allowance (including PPF Expenses).	0*
Death in Service Insurance Premium allowance (based on current premium rates)	<u>1.70</u>
Total Joint Contribution Rate	25.22
Average Member Contributions	<u>(7.27)</u>
Average College Contribution Rate	17.95

\*paid in addition

At the last valuation, the total future service joint contribution rate was determined as 20.71% of Contribution Pay. The increase is mainly due to changes in the funding assumptions and an increase in the average age of the active membership.

---

## Deficit Funding Contributions

All College Sections (with one exception) have a funding deficit. The Management Committee have agreed with each College the term over which the deficit should be repaid. In each case a fixed monetary amount is payable. The details of the agreement are set out in Appendix F.

The assumptions used in drawing up the Recovery Plan are those defined in the Statement of Funding Principles as set out in Appendix D.

---

## Expenses

I recommended that the expense allowances continue to be expressed as a per member charge plus a per College Section charge, the latter reflecting those expenses which are independent of membership numbers.

The Trustee has agreed that the per College charge should remain the same as previously agreed for the 2011 valuation. As a result the agreed overall expenses are set out below:

Per Member Charges £ p.a.		Per College Section Charge £ p.a.
Active:	152.31	3,000
Deferred:	58.18	
Pensioner:	113.59	

The increase in the per member charges from 2011 mainly come about as a result of changes in membership since the previous valuation. The increases in the per member charges are below the rate of inflation since 2011.

In addition, each College will pay separately the directly attributable PPF levies plus any directly attributable actuarial or legal fees.

---

## Future progression and Material developments

Based upon the above total contributions and assuming that experience matches the adopted assumptions for the funding calculations the above funding level is expected to improve to 85% over the period to the next actuarial valuation. This is because Colleges' contributions are more than sufficient to meet the expected interest on the deficit and the cost of future pension accrual.

I am not aware of any material developments that would affect funding over the next 3 years.

---

## Further Issues: CETVs

As the Scheme has a deficit, the Management Committee are permitted, should they so decide, to offer reduced Cash Equivalent Transfer Values (CETVs) to members asking for a transfer value quotation, to reflect the level of underfunding. The Management Committee have considered this and have agreed to maintain full CETV payments in view of the strong Employer covenant.

---

## Scheme Factors

The Scheme's administration and other actuarial factors are due for review following the valuation to reflect the change in economic and demographic conditions since the previous valuation.

---

## 6

# Funding Risks and Sensitivities

---

**Funding Risks** There are risks inherent with any funding objective, even if the funding target is met, and the following risks should be appreciated and where possible mitigated.

---

**Sponsor Risk** If the Colleges become insolvent or are otherwise unable to meet the contribution rate set then the risk is that members may not receive all benefits they expect. The Management Committee take a prudent approach to funding to mitigate this risk to some extent.

---

**Investment Return** If the assets under-perform the returns assumed in setting the funding target then additional contributions may be required at subsequent valuations.

---

**Investment Matching Risk** The Scheme invests significantly in equity type assets, whereas the solvency target is closely related to the return on bonds. If the Scheme were to wind-up when these equity type assets have fallen in value relative to the matching assets of bonds, members may not receive their full expected benefits. If the Scheme were not to wind-up, additional contributions may be required.

---

**Longevity Risk** If future improvements in mortality exceed the assumptions made then additional contributions may be required. The Management Committee have taken a prudent approach to possible future improvements in longevity to help mitigate this risk.

---

**Solvency Risk** As the funding target is not a solvency target, and the investment strategy does not follow that required for a solvency target, the assets of the Scheme may not be sufficient to provide all members with the full value of their benefits on a Scheme wind-up.

---

**Inflation Risk** Some Scheme benefits are linked to inflation (RPI/CPI). If actual inflation is higher than expected or if future inflation expectation increases then additional contributions may be required at subsequent valuations.

---

---

**Concentration of Assets**

If the Scheme invests a significant proportion of its assets in one class of investments for example UK equities, or in one specific investment it is exposed to an increased risk from falls in that investment. This may reduce the level of funding and require additional contributions to correct. The Management Committee have no such investment.

---

**Self-Investment Risk**

If the Scheme invests in the Colleges in any form it is at risk that the value of this investment will fall if the Colleges perform badly. This will coincide with the time the Colleges are least able to make additional contributions to correct the situation. The Management Committee do not invest in the Colleges to help avoid this risk.

---

**Member Option Risk**

If members of the Scheme exercise options allowed by the Scheme on a scale which is sufficient to lead to an increase in costs, the Scheme funding position may worsen. Currently there are no such options that apply without Management Committee and College consent. The Management Committee would request that the exercise of such options would be funded by the Colleges at that time.

---

**Summary**

The above list is not exhaustive but covers the main risks for the Scheme. Some of the risks can be reduced by adjusting the funding strategy, for example investment matching risk. Other risks cannot be removed, for example longevity risk, and the Management Committee must be aware of these risks and monitor them closely.

---

**Sensitivities**

The risks discussed above can have a significant impact on the results of the valuation. For example, the financial assumptions that have the most significant effect on the results of the valuation relate to the investment return, the rate of increase in Pensionable Salaries and the rates of increase of pensions in payment or deferment. In addition, improving longevity can also result in increased Scheme liabilities.

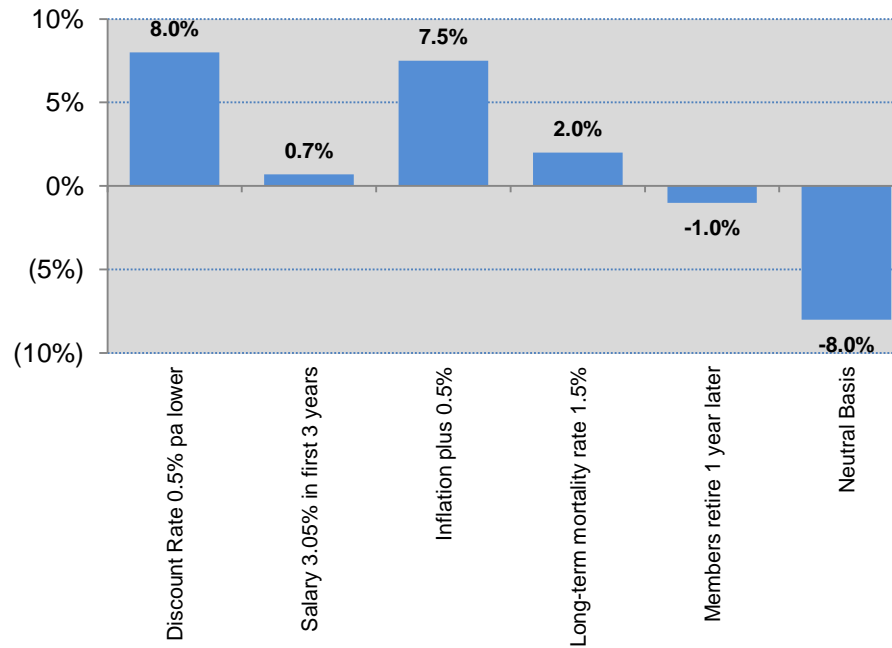
The chart below shows the approximate percentage increase in the Scheme's funding objective liabilities if each of the assumptions was changed by the specified amount. The figures shown are for a guide only as the effects of changing the assumptions are interdependent.

We have also included a 'neutral' valuation assuming that margins for prudence are removed from the funding assumptions. This leads to the following adjustments to the main assumptions:

- 0.5% p.a. added to the Investment Returns
- 0.2% p.a. deducted from the Consumer Price Index assumption



## SENSITIVITY ANALYSIS



The chart shows that the effects of a fall in the assumed rate of investment return or an increase in the assumed rate of inflation are similar. The value placed on the Scheme's liabilities is therefore most sensitive to the real rate of investment return, i.e. return in excess of inflation.

The Scheme's funding position is likely to deteriorate significantly if the Scheme's assets do not attain the real investment return assumed.

## Pension Protection Fund – Section 179 Valuation

### Background

Since April 2005 the Scheme has been required to pay levies to the Pensions Protection Fund (PPF). The PPF provides a minimum level of benefit for members of pension schemes that wind-up in deficit.

In order to assess the appropriate levy the PPF require pension schemes to submit section 179 valuations at least every three years. The section 179 valuation requires the Scheme Actuary to value the PPF level of benefits using a method and assumptions defined by the PPF board, and detailed on their website.

### Section 179 Position

		£000's
<b>Value of benefits in respect of:</b>		
Active Members		106,068
Deferred Pensioners		49,881
Current non insured Pensioners		75,398
Expenses of winding up		6,940
Expenses of benefit installation		<u>1,259</u>
<b>Total Section 179 Liabilities</b>	<b>[a]</b>	<b>239,546</b>
<b>Total Value of Scheme Assets</b>	<b>[b]</b>	<b><u>140,714</u></b>
<b>Section 179 Surplus/(Deficit)</b>	<b>[b-a]</b>	<b>(98,832)</b>
<b>Level of Section 179 Funding</b>	<b>[b/a]</b>	<b>59%</b>

### Additional Information

These results will need to be supplied to the Pensions Regulator and the PPF Board via the Pensions Regulator's online Exchange system. When submitting information on Exchange the following additional information is required:

S179 Guidance and Assumptions	
S179 Guidance used	G5
S179 Assumptions used	A6

Percentage of the assets shown above held in the form of a contract of insurance where this is not included in the asset value recorded in the relevant Scheme accounts : 0%

The percentage of liabilities shown above that are matched by insured annuity contracts for:

Active Members	0
Deferred Members	0
Pensioner Members	0

The proportion of liabilities which relate to each period of service:

	<b>Before 6 April 1997</b>	<b>6 April 1997 to 5 April 2009(*)</b>	<b>On or after 6 April 2009</b>
Active members	13%	57%	30%
Deferred Members	19%	72%	9%
Pensioners	36%	64%	

(\*) to the valuation date for pensioners.

Number of members and averages ages:

	<b>Number of members</b>	<b>Average age</b>
Active members	860	53
Deferred Members	824	51
Pensioners	1,256	70

The average ages for each member type are weighted by their liabilities.

**Solvency**

The figures in the previous Sections relate to Scheme funding on the funding objective. We have separately considered the solvency position, assuming that the Scheme was wound-up at the valuation date and members' accrued benefits were secured by the purchase of deferred and immediate annuity policies issued by an insurance company.

---

**Assumptions**

Insurance companies price deferred and immediate annuity policies by reference to the yields available on UK Government gilts. At the valuation date such investments were yielding approximately 3.2% to 3.5% per annum.

We have used the investment return assumptions underlying the PPF's Section 179 valuation basis as these are intended to be close to the assumptions used by insurance companies (albeit at the more competitive end of the range). I would regard this approach as appropriate for calculating the solvency position.

---

**Other Economic and Demographic Assumptions**

Other assumptions such as mortality and those relating to pension increases and revaluation in payment and deferment are consistent with the PPF assumptions.

This approach is an estimate which should be used as a guide only. Market changes in both interest rates and the supply and demand for this business mean that no one estimate can be relied upon. The actual true position can only be established by completing a buy-out.

---

**Expenses**

We have included an estimate of the expenses associated with organising a wind-up equal to 3% of the liabilities. The true cost of winding-up the Scheme may be higher or lower than this estimate.

---

## Summary

On this basis the solvency position of the Scheme at the valuation date is shown below. The equivalent position at the previous valuation is shown for comparison.

		<b>Solvency Valuation 2014 £000's</b>	<b>Solvency Valuation 2011 £000's</b>
<b>Value of benefits in respect of:</b>			
Active Members		139,379	111,414
Deferred Pensioners		66,380	49,714
Current Pensioners		93,804	60,898
Expenses		<u>8,990</u>	<u>6,659</u>
<b>Total Solvency Liabilities</b>	<b>[a]</b>	<b>308,553</b>	<b>228,685</b>
<b>Market Value of Scheme Assets</b>	<b>[b]</b>	<b><u>140,714</u></b>	<b><u>132,405</u></b>
<b>Solvency Surplus/(Deficit)</b>	<b>[b-a]</b>	<b>(167,839)</b>	<b>(96,280)</b>
Level of Solvency Funding	[b/a]%	46%	58%

If the Scheme's funding objective had been met in full the level of solvency funding would have increased to 55%.

---

## Changes since previous valuation

The solvency level has deteriorated since the last valuation as a result of:

- a stronger basis mainly as a result of lower gilt yields;
- low investment returns; and
- interest on the solvency deficiency from the previous valuation.

---

## Debt on Employer

Under current legislation if the Scheme were to be wound-up the deficit on the solvency basis would be imposed as a debt due from the Colleges. If the Colleges are unable to pay the debt in full, then the liabilities would be met in the order of priority set out in the Scheme's Deed and Rules as overridden by the Pensions Act 1995 and subsequent Regulations.

---

## Priority Order

The cover, on the solvency basis, of the Scheme benefits using the order of priority which would apply as at the date of signature of this report is as follows:

<b>Liability</b>	<b>Cover</b>
Expenses & Money Purchase Benefits	100%
Benefits provided by the Pensions Protection Fund	57%
Benefits in excess of those provided by the Pensions Protection Fund	0%

This table shows that at the valuation date the benefits provided by the Pensions Protection Fund (PPF) were not covered in full. Therefore at this date if the Scheme had wound up without a solvent employer it would have entered the PPF. This would have resulted in members' benefits being reduced below their full entitlements.

---

## Future progression and Material developments

Based upon the assumptions adopted for the solvency calculations, payments of College contributions at the rate detailed in Appendix F are projected to be insufficient to fund on the solvency basis. Consequently the above solvency position is expected to deteriorate over the period to the next actuarial valuation to 44%.

College contributions at the rate detailed in Appendix F are also likely to worsen the level of coverage on the current order of priorities. However in the period to the next valuation the change is unlikely to be significant.

---

## Background

The Pensions Act 1995 requires the Management Committee to regularly review their Statement of Investment Principles to ensure that it is consistent and compliant with Section 36 (“Choosing Investments”). We have therefore set out below some comments on the nature of the Scheme’s liabilities to assist in this review.

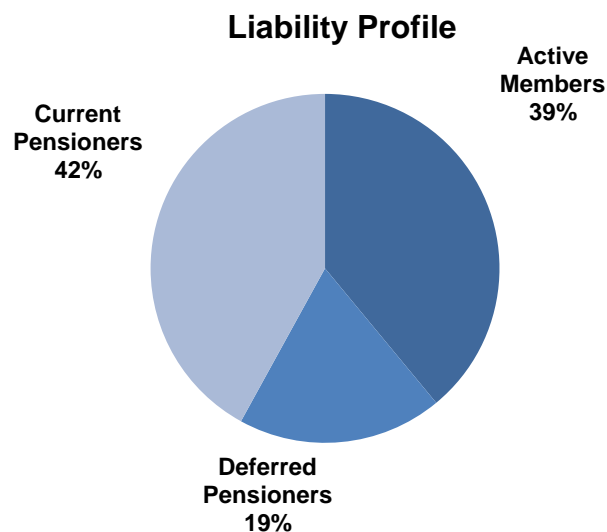
## Asset Split

Appendix B provides details of the Scheme’s assets at the valuation date. Assets held comprise equities, alternatives (including property, hedge funds and private equity funds), bonds, LDI Swap Funds and cash.

Assuming that the hedge funds and derivatives are bond like in nature then the overall bond and cash holding is around 34% of the Scheme assets.

## Liability Split

The chart below shows the breakdown of the Scheme’s technical provisions by Member Category.



Equity and property assets are typically assumed to provide some level of out-performance, but their returns are volatile. Therefore, any scheme that includes assets of this type and/or uses investment return assumptions allowing for out-performance will experience a more volatile funding level.

In many schemes pensioner members are often matched by the scheme holding gilts and/or bonds because these provide a known return and their values will change in a similar way when interest rates change. The other scheme liabilities are matched by more volatile out-performance assets.

## Comparison

Looking at the chart, the Scheme has 42% of its liabilities directly related to pensioners. In addition, looking at the age distribution of technical provisions in Appendix A, a significant number of retirements are expected over the next 5 years which will increase this percentage further.

In addition, it should be noted that the overall liability split between pensioners and other members does hide large variations between the individual College Sections. The pensioner proportion by College Section varies from 27% to 66% of the liabilities. The current approach of having the same investment strategy for all College Sections therefore means that the degree of mismatching of assets and liabilities varies significantly between the individual College Sections.

---

## Recovery Plan

The Management Committee have agreed to use a best estimate rate of return in the calculation of contributions to be paid under the Recovery Plan. The best estimate rate of return is based on previous investment advice from their investment consultants.

---

## Recommendation

There are a number of different funding measures the Scheme can match against in order to reduce risk with respect to the funding measure.

Alternatively, the Management Committee might wish to accept a certain degree of mismatching in the expectation of higher investment returns. I understand that the Management Committee have reviewed their investment policy and appreciate the risks associated with this element of mismatching. Given the strength of the Colleges covenant this does not appear to be an unreasonable approach.

Should the Management Committee wish to move towards a more matched asset position then I recommend that they consider obtaining an asset liability report. This would help analyse their current investment strategy and determine alternative strategies to meet their objectives.



## **Funding Level and Recovery Plan**

The valuation results in Section 5 show the Scheme's assets at the valuation date are insufficient to meet the funding target. The Management Committee and the Colleges have agreed that the average ongoing joint (College plus members) future contribution rate for future service benefits, ignoring the past service position, is 25.22% of Contribution Pay. This rate includes member contributions and an allowance for current premiums for death in service costs. It excludes allowances for expenses and for the premiums for group income protection, which will be paid in addition by the Colleges.

In addition, the Colleges have agreed to pay deficit reduction contributions as agreed and set out in Appendix F.

---

## **Solvency Level**

The solvency position of the Scheme is a funding level of 46% at the valuation date. Contributions at the rates above are insufficient to fund the solvency basis. Consequently the above solvency position is expected to deteriorate over the period to the next actuarial valuation.

---

## **Deficit Funding Contributions**

All College Sections (with one exception) have a funding deficit. The Management Committee have agreed with each College the term over which the deficit should be repaid. In each case a fixed monetary amount is payable. The details of the agreement are set out in Appendix F.

---

## **CETVs**

The Management Committee have agreed to continue to pay CETVs in full.

---

## **Factors**

The Scheme's commutation factors and other administrative factors should be reviewed following the valuation to reflect changing economic and demographic conditions.

---

## **Timescale and Future Valuation Requirements**

The next triennial valuation is due to take place as at 31 March 2017. For those Colleges with more than 100 members, interim actuarial reports will be required as at 31 March 2015 and 31 March 2016.

For each College Section with a Recovery Plan, a summary of this valuation report plus copies of the Recovery Plan and Schedule of Contributions needs to be sent to TPR within 10 working days of this report being signed.

A Summary Funding Statement should be sent to all Members to inform them of the outcome of this valuation.

---

*Robert J. Sweet*

R J SWEET  
Scheme Actuary  
Fellow of the Institute and Faculty of Actuaries

3 June 2015

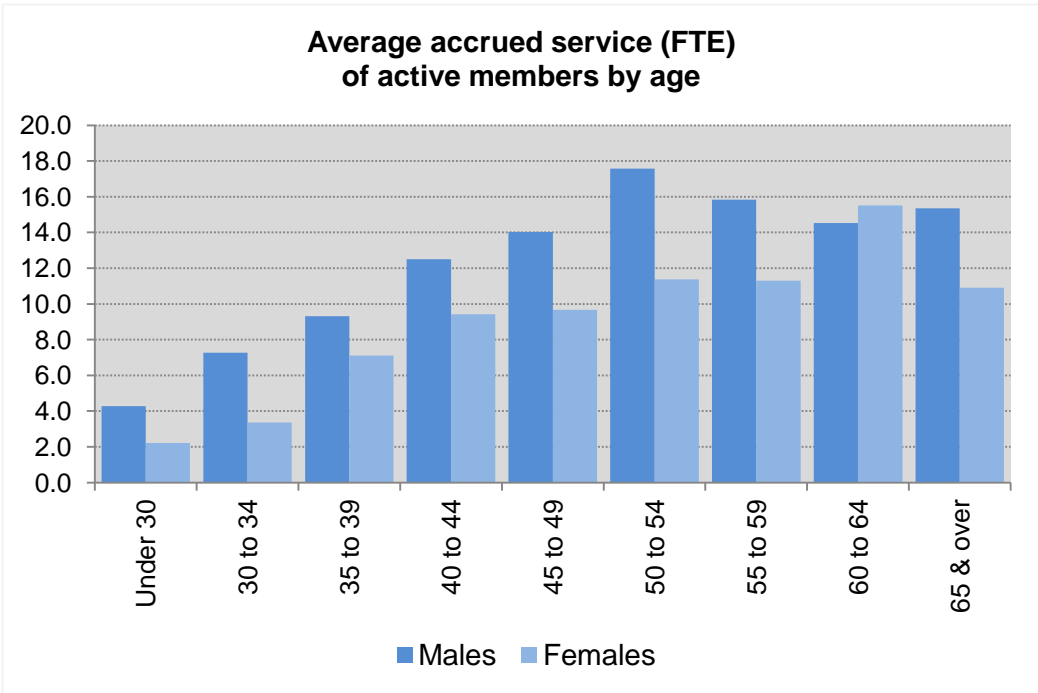
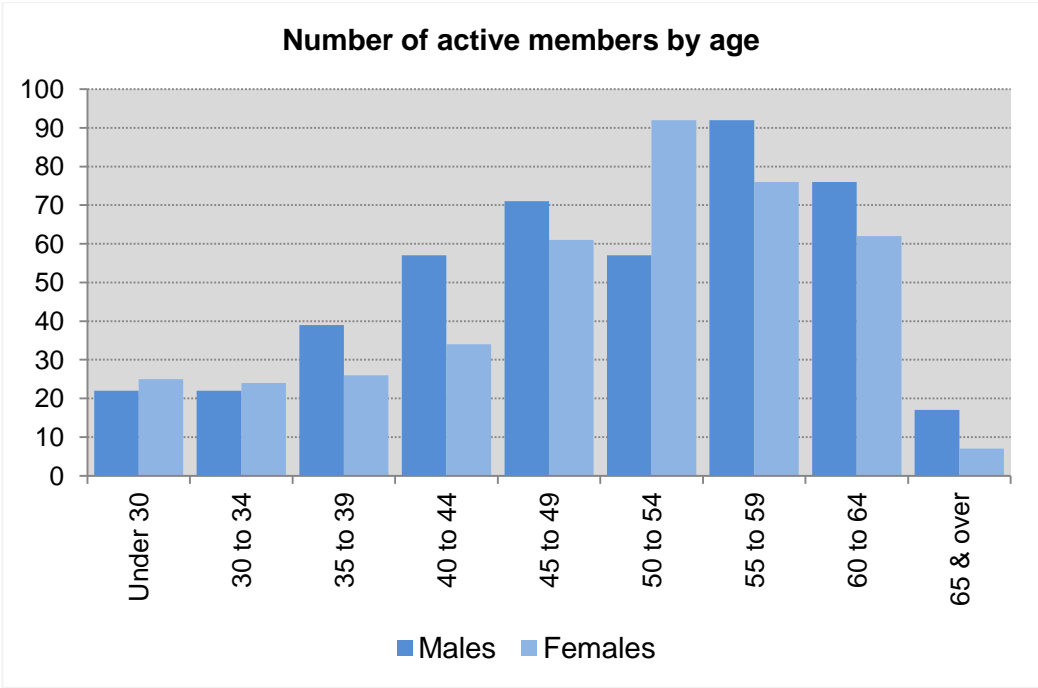
RJS/dsh

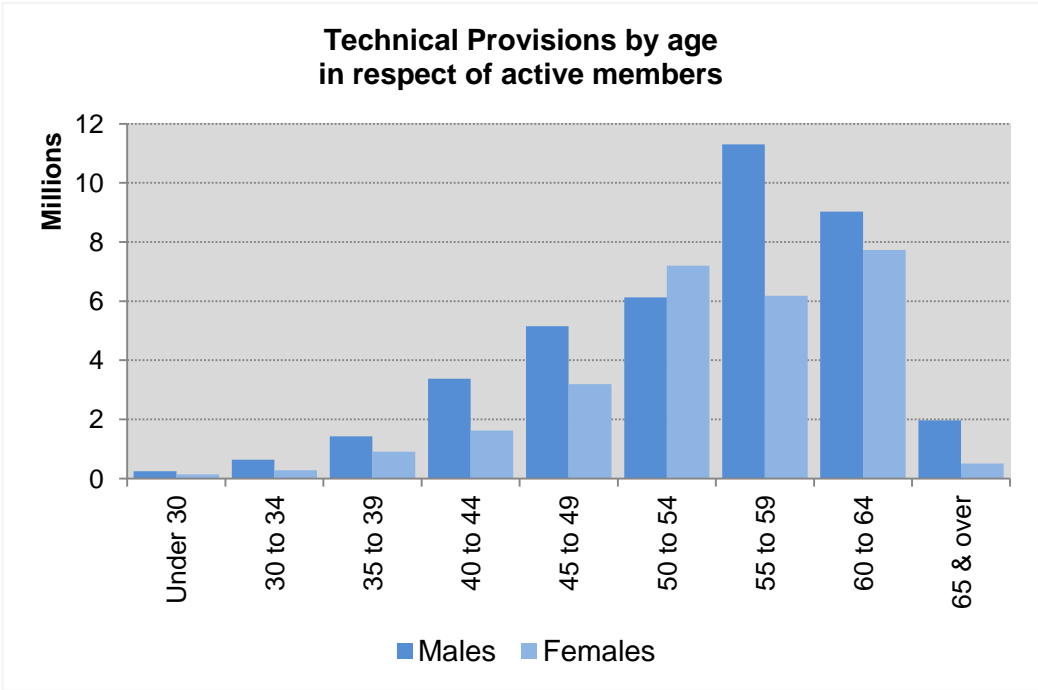
The Scheme membership data was supplied by the Pensions Administration Office on behalf of the Management Committee. We have relied on the accuracy of the information provided.

The data used in the valuation is summarised below, the previous valuation data is summarised in brackets for comparison.

<b>ACTIVE MEMBERS</b>	<b>Males</b>	<b>Females</b>	<b>Total</b>
Number of Members	453 (525)	407 (467)	860 (992)
Total Contribution Pay p.a.	£11,361,065 (£12,745,851)	£8,555,072 (£9,090,172)	£19,916,137 (£21,836,022)
Average Contribution Pay p.a.	£25,080 (£24,278)	£21,020 (£19,465)	£23,158 (£22,012)
Average Past Service (years)	13.6 (12.8)	10.3 (9.3)	12.0 (11.1)
Average age (years)	50.4 (50.0)	49.8 (49.3)	50.1 (49.7)
Discounted Mean Term to retirement (years)	10.3	9.1	9.8

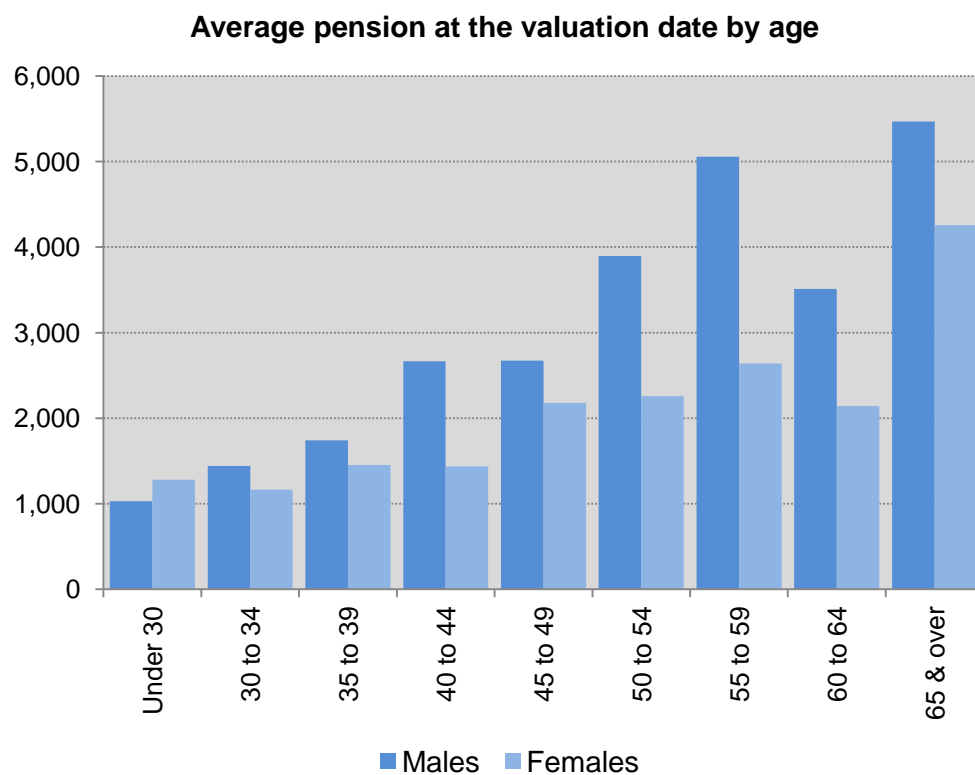
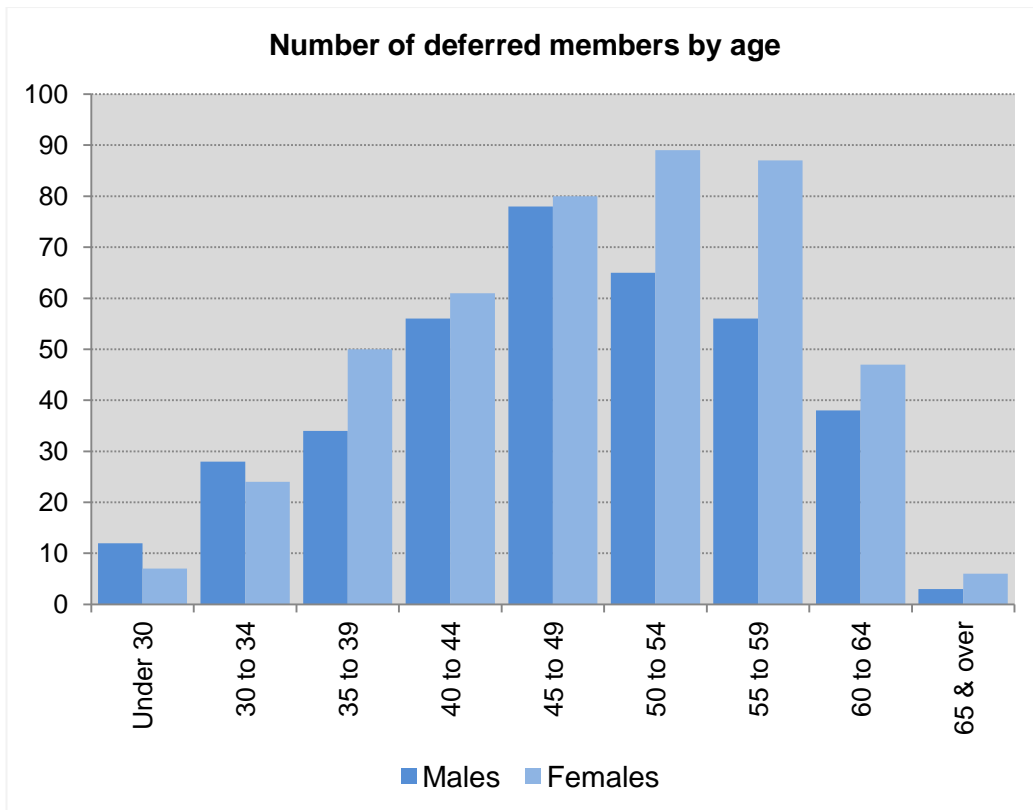
- Notes**
1. The member numbers in the audited accounts are 861. The difference is due to timing of the data extraction. The figures above have been reconciled with the Administration Office.
  2. The figures for the previous actuarial valuation are shown in brackets.
  3. Included in these statistics are 24 active members who have not yet retired, but who have passed age 65.
  4. Total Contribution Pay shown above represents the actual salaries paid to members (i.e. not full time equivalent for part-timers) as provided to us by the Administration team.
  5. The Average Past Service is the full time equivalent past service for all members and is represented in the graph below. It includes transferred-in added years, augmentations and AVC added years where appropriate.
  6. The Discounted Mean Term to Retirement is the average term to the members' assumed retirement date, weighted by members' Technical Provisions.



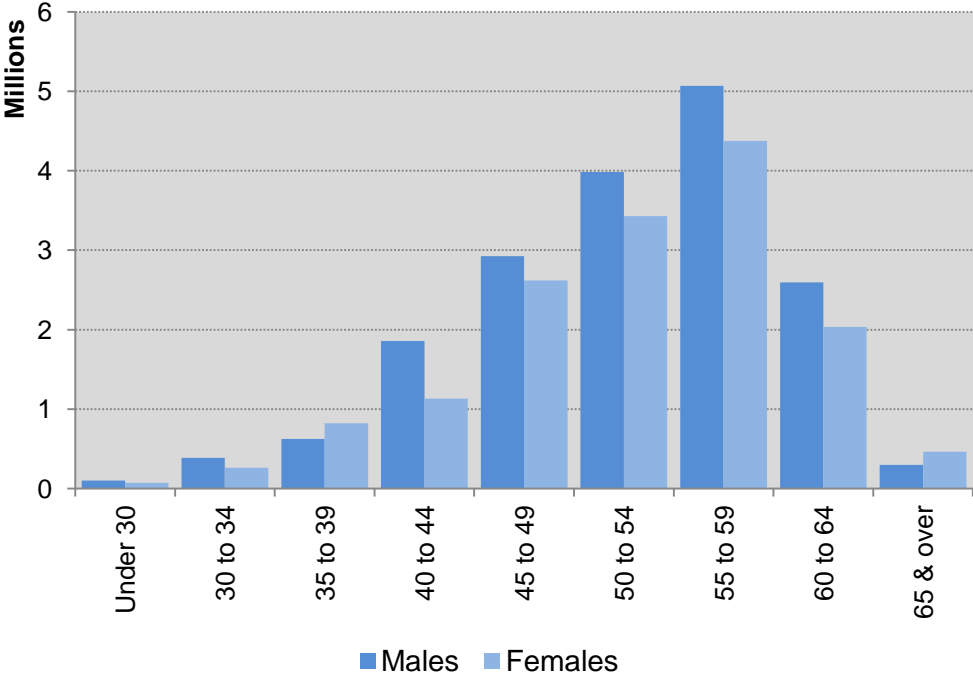


<b><u>DEFERRED PENSIONERS</u></b>	<b><u>Males</u></b>	<b><u>Females</u></b>	<b><u>Total</u></b>
Number	370 (386)	451 (435)	821 (821)
Total deferred pensions p.a. payable as at valuation date	£1,156,060 (£1,112,224)	£928,252 (£806,394)	£2,084,311 (£1,918,618)
Average deferred pension p.a. payable as at valuation date	£3,124 (£2,881)	£2,058 (£1,854)	£2,539 (£2,337)
Average age (years)	48.2 (47.9)	49.3 (48.0)	48.8 (48.0)
Discounted Mean Term to Retirement (years)	9.5	8.0	8.8

- Notes**
1. The member numbers in the audited accounts are 820. The difference is due to timing of the data extraction. The figures above have been reconciled with the Administration Office.
  2. The figures for the previous actuarial valuation are shown in brackets.
  3. Included in these statistics are 9 deferred pensioners who have not yet retired, but who have passed age 65.
  4. In addition, there are 3 short service members who are due a refund of contributions only and who have no other deferred pension liability. We have allowed for their liabilities in the valuation.
  5. The following graphs illustrate the current statistics in greater detail.
  6. The Discounted Mean Term to Retirement is the average term to the members' assumed retirement date, weighted by members' Technical Provisions.



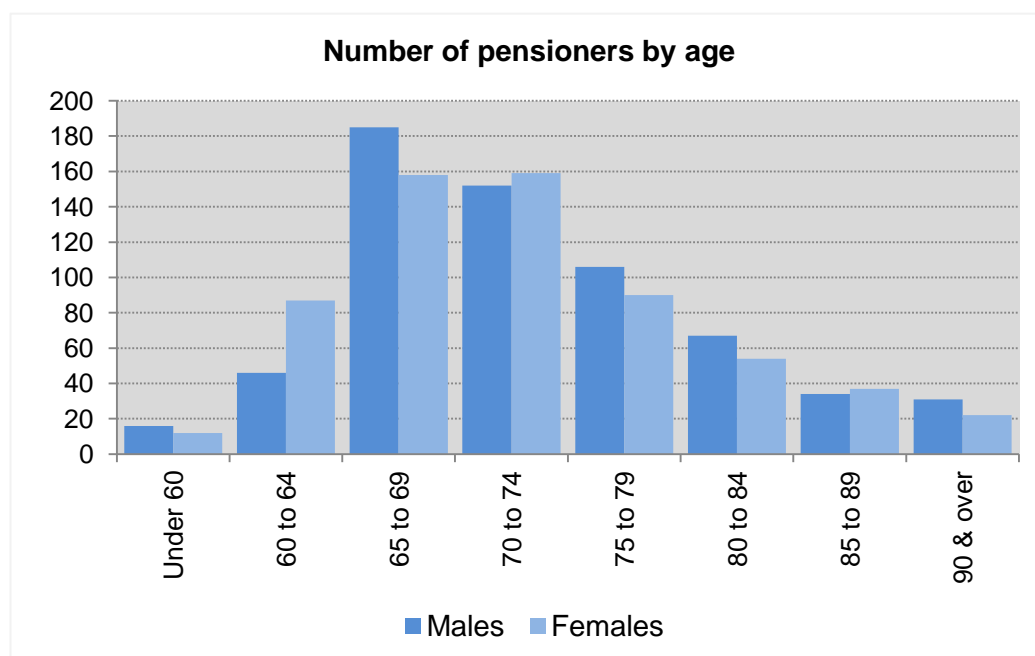
**Technical Provisions by age  
in respect of deferred members**

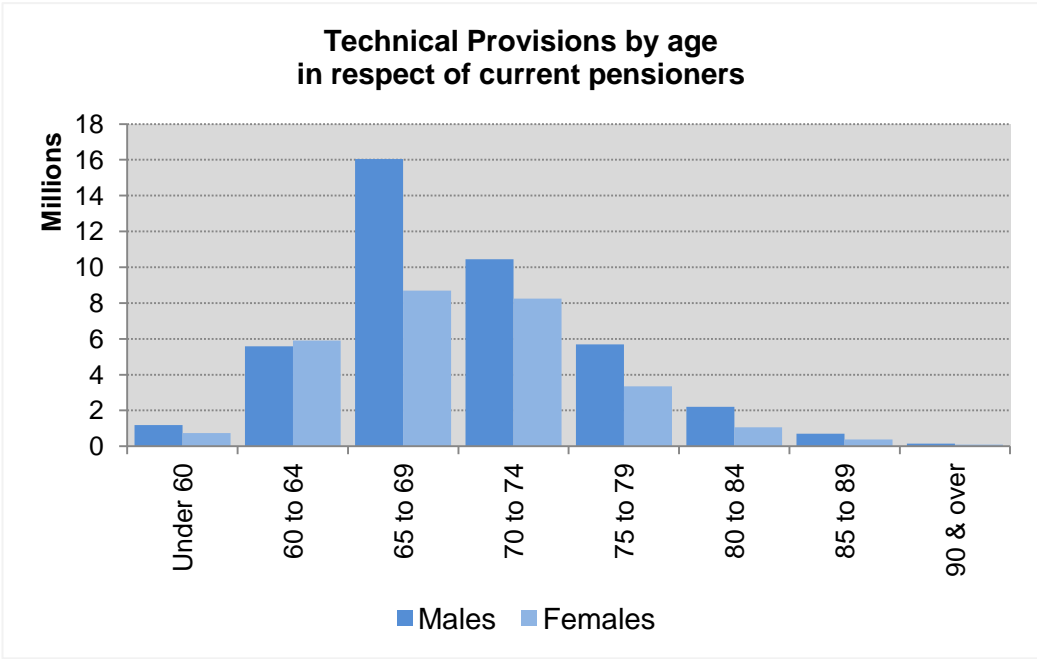
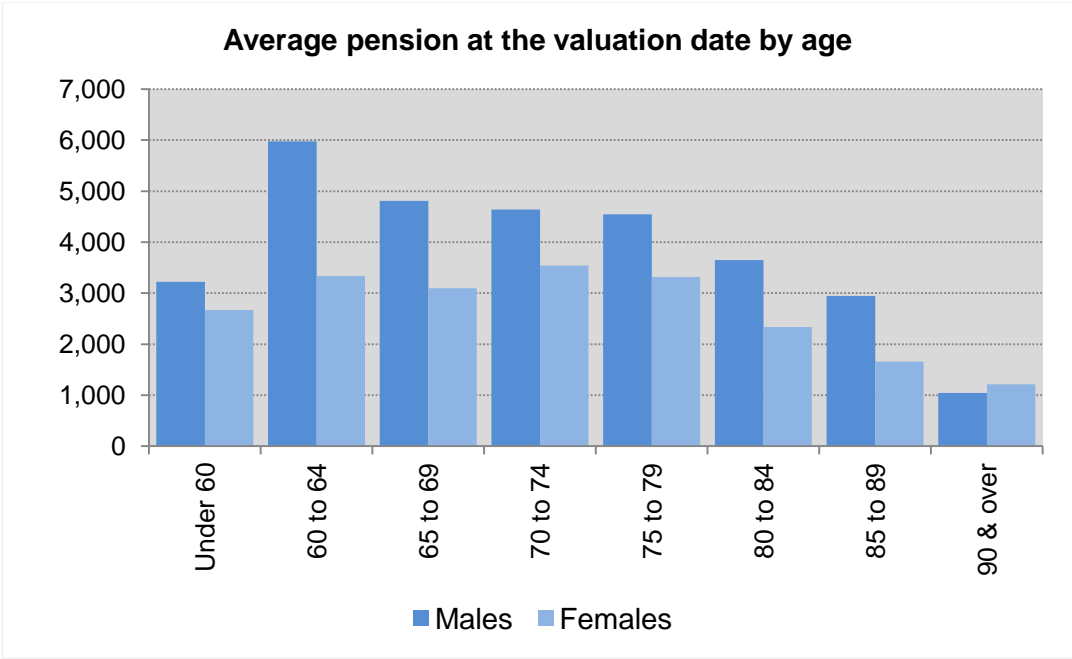




<b><u>PENSIONERS</u></b>	<b><u>Males</u></b>	<b><u>Females</u></b>	<b><u>Total</u></b>
Number	637 (550)	619 (535)	1,256 (1,085)
Total pensions p.a. payable from valuation date	£2,780,824 (£2,061,785)	£1,887,991 (£1,367,962)	£4,668,814 (£3,429,748)
Average pension p.a. payable from valuation date	£4,366 (£3,749)	£3,050 (£2,557)	£3,717 (£3,161)
Average age (years)	73.6 (73.4)	72.7 (71.8)	73.1 (72.6)

- Notes**
1. The audited accounts show 1205 pensioners. However, the accounts do not include members who have fully commuted their own benefits but who have left a residual spouse's pension. This accounts for the difference.
  2. The figures for the previous actuarial valuation are shown in brackets.
  3. There are 151 dependant pensioners included in the above statistics.
  4. The following graphs illustrate the current statistics in greater detail.





# B

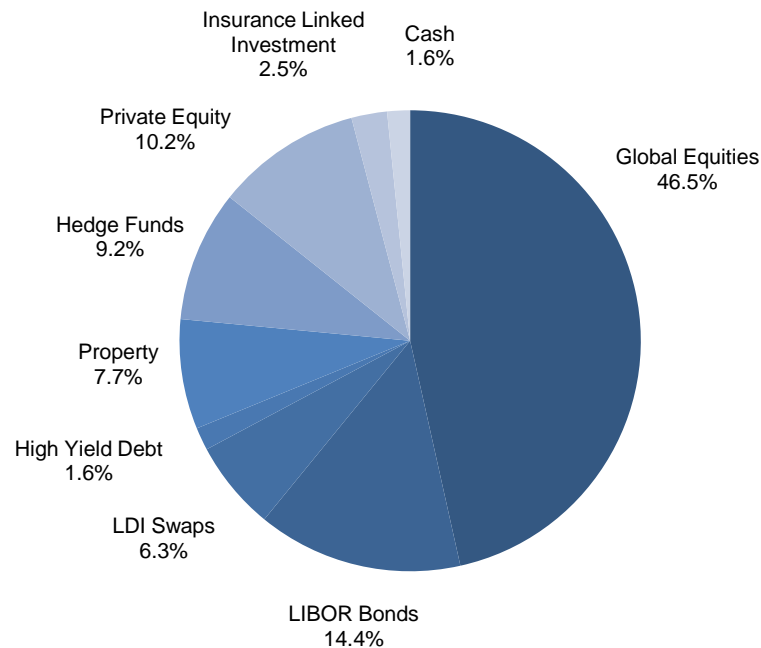
## Scheme Assets

The Scheme's audited accounts show that the Scheme held the following assets as at 31 March 2014

Market Value of Scheme Assets	Amount £	Percentage of Total Assets %
Invested assets	138,837,750	98.70
Net current assets	<u>1,876,723</u>	<u>1.30</u>
Total	140,714,473	100.00

The chart below shows the breakdown of the assets by asset class.

### Assets Split by Categories



## C

## Summary of Benefits and Member Contributions

<b>1. Effective Date</b>	31 March 2014
<b>2. Eligibility</b>	Each College has its own eligibility conditions.
<b>3. Pensionable Age (PA)</b>	65th birthday for males and females
<b>4. Offset Removal Date (ORD)</b>	The date a College removed the single person's Basic State Pension (BSP) entitlement from the definition of Contribution Pay. The table at the end of this Section sets out those Colleges which have removed the BSP Offset and those which have not.
<b>5. Contribution Pay</b>	<p><b>For Pensionable Service prior to ORD</b> Gross taxable earnings for the week or month minus:</p> <p>(a) if paid weekly, the current weekly rate of the single person's flat rate state retirement pension, or</p> <p>(b) if paid monthly, <math>4 \frac{1}{3}</math> x the current weekly single person's flat rate state retirement pension in force on the last day of the month.</p> <p><b>For Pensionable Service on or after ORD</b> Gross taxable earnings for the week or month.</p>
<b>6. Insured Salary</b>	Current rate of annual salary or the gross taxable earnings for the previous tax year, whichever is larger.
<b>7. Final Pensionable Salary</b>	The best average of 3 consecutive years Contribution Pay in the last 13 years before the date of exit, increased in line with the RPI to the date of exit.
<b>8. Pensionable Service</b>	Service from date of joining the Scheme in years and completed months <u>plus</u> Service granted on transfer in <u>plus</u> Service secured by AVCs
<b>9. Member's contributions</b>	See table at end of this Section. Members may pay AVCs to secure added years of service.
<b>10. Normal Retirement Pension</b>	$\frac{1}{60}$ th of Final Pensionable Salary times Pensionable Service

<p><b>11. Early Retirement Pension in Normal Health</b></p>	<p>Members may retire between age 50 and 60 with the consent of their College, and on or after age 60 as of right.</p> <p><b><u>Members retiring at or after age 60:</u></b> 1/60th of Final Pensionable Salary times Pensionable Service</p> <p><b><u>Members retiring between age 50 and 60:</u></b> 1/60th of Final Pensionable Salary times Pensionable Service</p> <p><b>The pension in this case is reduced by an actuarial factor depending on the period to age 60.</b></p> <p>These provisions are modified in respect of Pensionable Service on or after 1 April 2004 for some Colleges in respect of some of their members (as identified in the following table) so that the actuarial reduction referred to above is based on the period to age 65 and College consent is required for any retirement before age 65.</p>
<p><b>12. Additional Retirement Cash</b></p>	<p><b><u>For Pensionable Service prior to ORD</u></b> In addition to the pension payable a tax free lump sum is payable equal to the first year's pension.</p> <p><b><u>For Pensionable Service on or after ORD</u></b> Nil</p>
<p><b>13. Early Retirement Pension in Ill-Health or on grounds of Incapacity</b></p>	<p>Generally, there is no early retirement pension from the Scheme in these circumstances. An insured Group Income Protection (GIP) benefit will be paid outside the Scheme.</p>
<p><b>14. Exchange of pension for cash</b></p>	<p>Part of the retirement pension may be commuted for a tax free cash lump sum, in addition to the Retirement Cash in 12, subject to HMRC limits.</p>
<p><b>15. Benefits on death after retirement</b></p>	<p>(a) The balance, if any, of the first 5 years' payments of the member's pension, is paid as a lump sum to dependants <b>plus</b></p> <p>(b) a spouse's pension of one half of the member's pension before any exchange for cash.</p>
<p><b>16. Benefits on death in service</b></p>	<p>(a) A lump sum of 2 times Insured Salary at the date of death <b>plus</b></p> <p>(b) a spouse's pension of 25% of Insured Salary <b>plus</b></p> <p>(c) a child's pension of 12.5% of Insured Salary for each child (maximum of 2) while below age 18 or, if later, receiving full time education.</p>

<b>17. Increases to pensions in payment</b>	
• GMP earned before 6 April 1988	Nil
• GMP earned between 6 April 1988 and 5 April 1997	3% p.a. compound (or the increase in the CPI if lower)
• Pension in excess of GMP (other than spouse's or children's pensions on death in service)	The increase in the RPI in the year ending each September, applied at 1 November. This is modified for some Colleges in respect of Pensionable Service after 1 April 2004 for some of their members (as identified in the following table) so that the maximum increase each year is 5%.
• Spouse's or children's pensions on death in service	5% p.a. compound (or the increase in the RPI if lower)
<b>18. Benefits on Termination of Service</b>	<p>(a) If the member has completed less than 3 months of Pensionable Service, an appropriate payment is made to National Insurance Contributions Office (NICO) to reinstate the member into the State Second Pension (S2P), and a refund of the member's contributions is paid to the member less the member's share of the payment to NICO, less tax.</p> <p>(b) If the member has completed between 3 months and 2 years of Pensionable Service then they have the option to take a cash transfer sum to an alternative pension arrangement. If this is not taken, then a refund is paid as described in (a).</p> <p>(c) If the member has completed 2 or more years Pensionable Service, the pension at termination is 1/60th of Final Pensionable Salary for each year (and proportionately for months) of Pensionable Service</p> <p>The pension in excess of the GMP will be revalued between termination and retirement at 5% p.a. compound (2½% p.a. for Pensionable Service after 5 April 2009) or the increase in CPI if lower. The GMP will be revalued in line with statutory increases.</p> <p>The member also has the option to take a transfer value to an alternative pension arrangement.</p>

<b>19. State Second Pension</b>	The following table sets out those Colleges which are
---------------------------------	---

(S2P)

contracted-out of S2P and those which are not. Those members who are not contracted-out of S2P receive lower benefits than shown in this summary.

College	BSP Offset Removed	Service on or after 1 April 2004		Death in service benefits		Employee Contribution Rate
		Members at 31 March 2004	Members joining on or after 1 April 2004	Members at 31 March 2004	Members joining on or after 1 April 2004	As at 31 March 2014
<b>Contracted-out Colleges with BSP Offset Removed</b>						
Christ's	1 June 2001	2	3 to 31 December 2009; 4 thereafter	Unchanged	6	10%
Churchill	1 June 2001	3 up to 31 March 2007, nil thereafter	3 up to 31 March 2007, nil thereafter	N/A	N/A	N/A
Corpus Christi	1 June 2001	2	4	Unchanged	N/A	15%
Downing	1 June 2001	1 up to 31 March 2005, 2 thereafter	4	Unchanged	N/A	15%
Emmanuel	1 June 2001	1	2	Unchanged	Unchanged	8%
Girton	1 June 2001	1	3	Unchanged	Unchanged	8.5%
Gonville & Caius	1 April 2002	2	2 to 31 March 2007; 4 thereafter	Unchanged	Unchanged	6.35%
Magdalene	1 June 2001	2	2 to 31 December 2006; 4 thereafter	Unchanged	Unchanged	15%
Murray Edwards	1 June 2001	3	4	5	N/A	15%
Newnham	1 June 2001	1	4	Unchanged	N/A	8%
Pembroke	1 June 2001	1	3 to 31 January 2006; 4 thereafter	Unchanged	5	6.46%
Peterhouse	1 June 2001	1	3	Unchanged	5	6%
Queens'	1 June 2001	2	2	Unchanged	Unchanged	6.35%
Selwyn	1 June 2001	1	3	Unchanged	Unchanged	6.35%
St Catharine's	1 April 2002	3	3 to 31 October 2010; 4 thereafter	Unchanged	Unchanged	9%
St John's	1 April 2002	1	3	Unchanged	6	6%
Trinity Hall	1 June 2001	2	2 to 3 October 2009; 4 thereafter	Unchanged	Unchanged	12%

		Service on or after 1 April 2004	Death in service Benefits	Employee Contribution Rate
--	--	-------------------------------------	---------------------------	-------------------------------

<b>College</b>	<b>BSP Offset Removed</b>	<b>Members at 31 March 2004</b>	<b>Members joining on or after 1 April 2004</b>	<b>Members at 31 March 2004</b>	<b>Members joining on or after 1 April 2004</b>	<b>As at 31 March 2014</b>
<b>Contracted-out Colleges with BSP Offset Retained</b>						
King's	No	1	4	Unchanged	N/A	15%
Robinson	No	3	3 to 30 June 2009; 4 thereafter	Unchanged	Unchanged	8.5%
<b>Contracted-in Colleges with BSP Offset Removed</b>						
Clare Hall	1 June 2001	2	2	Unchanged	Unchanged	5%
Darwin	1 June 2001	1	3	Unchanged	Unchanged	5%
Lucy Cavendish	1 June 2001	3	4 up until last active member left service, nil thereafter	Unchanged	N/A	N/A
St Edmund's	1 June 2001	2	3 up to 1 March 2010, 4 thereafter	Unchanged	Unchanged	5%
Wolfson	1 June 2001	1	3 up to 1 March 2008, 4 thereafter	Unchanged	Unchanged	4%
<b>Contracted-in Colleges with BSP Offset Retained</b>						
Hughes Hall	No	1	4	Unchanged	N/A	8%

<b>Key</b>	<ol style="list-style-type: none"> <li>1) Existing Benefits;</li> <li>2) Cap maximum service at 40 years and pay unreduced pensions from 65;</li> <li>3) As 2) above, but increase pensions in payment in line with LPI (RPI max 5% pa);</li> <li>4) Alternative arrangements for future service;</li> <li>5) No lump sum and 50% of prospective pension;</li> <li>6) No lump sum and 50% of accrued pension; and</li> <li>7) Many of the above Colleges offer a salary sacrifice arrangement whereby the Member sacrifices part of their salary in lieu of the above contribution which is then paid by the College.</li> </ol>
------------	--



# D

## Statement of Funding Principles

---

**Name of Scheme** Cambridge Colleges' Federated Pension Scheme

---

**Status** This statement has been prepared by the Management Committee for the purposes of the actuarial valuation as at 31 March 2014 after obtaining the advice of Robert Sweet of Cartwright Group Ltd, the Actuary to the Scheme, and after consulting the Colleges.

---

**Statutory Funding Objective** This statement sets out the Management Committee's policy for securing that the statutory funding objective is met. The statutory funding objective is defined in section 222 of the Pensions Act 2004. Every scheme must have sufficient and appropriate assets to cover its technical provisions.

---

**Technical Provisions - Method** The actuarial method to be used in the calculation of the technical provisions depends on whether or not the Section is open or closed to new entrants:

If a Section is open to new entrants, the Projected Unit Method is to be used.

If the Section is closed to new entrants then the Attained Age Method or the Projected Unit Method may be used, as agreed with the College concerned.

For those Colleges closed to new entrants, but who have retained the Projected Unit Method for funding purposes, the Colleges and Management Committee understand that normal contribution rates will increase over time.

---

**Technical Provisions - Assumptions** The following sets out the principles behind setting the actuarial assumptions for the funding of the Scheme. A full set of the assumptions used in the actuary's triennial valuation is set out as an Appendix to this document.

### **Discount Rate (also referred to as "interest rate")**

Technical provisions are determined using a single rate of interest for all pre and post retirement benefits.

On retirement, Members' pensions are paid from the fund. Assets providing a risk free rate of return, such as Government bonds (gilts) provide a good match for pensions in payment.

The Management Committee invests in a wide range of assets including equities and property, which are expected to give long term returns in excess of those available on gilts. The Management Committee wishes to take credit for some of this out-performance and to that end will use an interest rate based on the Bank of England's published nominal gilt yield curve at 18 years plus a margin to allow for this expected out-performance. The Management Committee has determined that for the purposes of the calculations as at 31 March 2014 the margin to be adopted is 1.9% p.a.

### **Retail Prices Index (RPI)**

RPI will be determined at the valuation date and is based on the Bank of England's published implied inflation rate yield curve, using the rate at 18 years.

As RPI may be over- or understated using this method due to varying demand for index linked gilts, the Management Committee can adjust the calculated yield by up to 0.25% p.a. and then round the answer to the nearest 0.05%. For the calculation at 31 March 2014 they applied a reduction of 0.15%.

### **Consumer Prices Index (CPI)**

CPI will be determined by making a prudent adjustment to the assumption adopted for RPI. The Management Committee have agreed to determine the assumption for CPI by making a 0.8% p.a. deduction from the assumption for RPI.

### **Pension increases in deferment**

The Management Committee's assumption is the same as the expected future increase in the Consumer Prices Index (CPI) up to a maximum of 5% p.a. (2½% p.a. for Pensionable Service after 5 April 2009).

### **Salary Increases**

After discussion with the Colleges, the Management Committee believe that, due to Colleges' salary banding structure and limits to comparable salaries in the Public Sector, it is appropriate to assume that in future salary increases will be limited to 1.5% p.a. for the first 3 years after the valuation, and then CPI plus 0.5% p.a. thereafter.

This relationship with CPI is monitored for accuracy and may be subject to change in future valuations.

## Pension increases in payment

Pension increases in payment, depending on the College Section and when benefits were accrued, are defined in the Rules as either:

- Increasing in line with the RPI;
- Increasing in line with RPI to a maximum of 5% p.a. compound
- Increasing in line with CPI to a maximum of 3% p.a. compound (post April 1988 GMP)
- Level in payment (pre April 1988 GMP only)

For these increases the Management Committee will use:

- Calculated RPI or CPI for any RPI or CPI increases (as calculated above);
- RPI less 0.2% (or the LPI Cap less 0.2% if lower) for those assumptions where there is a cap on future RPI increases to reflect the fact that these benefits are calculated on a year by year basis and RPI increases will be limited in some cases.
- For the GMP increase in payment an assumption of CPI less 0.2% p.a. has been adopted.

## Mortality

It is the intention of the Management Committee to use both pre- and post-retirement mortality tables that reflect, as much as possible, actual Scheme experience with a suitable allowance for likely mortality improvements over the medium to long term.

The Management Committee have agreed to adopt the S2 normal pensioner average mortality table produced by the Continuous Mortality Investigation Bureau (CMIB).

In addition, the Management Committee wish to make provision for future longevity improvements by adopting the CMI 2013 projection model produced by the CMIB, with a 1% p.a. long term improvement rate for future longevity.

These tables and adjustments are subject to regular review and will be updated in future valuations as more up-to-date data becomes available.

## **New Entrants**

The Management Committee does not allow explicitly for new entrants. However, by adopting the Projected Unit Method for Colleges open to new entrants, to give a stable normal contribution rate, they are implicitly assuming that the active membership average age remains relatively constant – i.e. that new entrants will continue to join the Scheme.

## **Leaving Service**

The Scheme is relatively large; as it is prudent to assume that no-one leaves early, the Management Committee therefore makes no allowance for early leavers. Any members leaving early are likely to release a surplus to the Scheme; this will be used to reduce future contribution rates when appropriate.

## **Retirement**

The Scheme's Pensionable Age is 65 although many members have the right to take at least part of their pension benefits without actuarial reduction at age 60. The Management Committee wishes to fund active member benefits to assumed average expected ages of retirement for all Males and Benefit Option 2 & 3 Females of age 65 and for Benefit Option 1 Females of age 63.

For members who have previously left the Scheme the Management Committee will assume that Benefit Option 1 Females retire at age 60, and other members will retire at age 62.

These retirement ages will continue to be reviewed by the Actuary at each triennial valuation to ensure that they remain appropriate.

## **Age difference of dependants**

The average age difference between partners is also to be reviewed on a triennial basis at each valuation.

Female spouses are assumed to be 3 years younger than their male partner.

## **Percentage with dependants' benefits at death**

The average percentage of members with partners at date of death will be reviewed on a triennial basis at each valuation.

The current assumption is that 80% of members are married at date of death.

## Member Options

The Management Committee believe that the vast majority of members take the maximum tax free cash option at retirement.

The Committee therefore wish to make allowance for this as follows:

- 100% of members take maximum tax free cash at retirement;
- Commutation (cash) factors are those in force at the valuation date.

This feature will be monitored at each future valuation.

## Expenses

Expenses of administering the Scheme are borne by the Scheme.

The Management Committee's policy is for the Actuary to review the allowance for expenses at each valuation and make a recommendation for both elements.

The Actuary has reviewed the expense provisions in the light of recent experience and recommended that a per member and per College Section charge be made to each College Section. These are as follows:

- College Section Charge = £3,000 p.a.
- Active Member Charge = £152.38 p.a.
- Deferred Member Charge = £58.18 p.a.
- Pensioner Member Charge = £113.59 p.a.

These charges will be reviewed at each future valuation.

In addition, each College will pay the directly attributable PPF levies plus any directly attributable actuarial or legal fees.

## Policy on discretionary increases and funding strategy

The current policy is not to fund for or pay any additional discretionary increases. In certain individual cases the Management Committee can use their discretion to increase a member's benefits but only if the participating College meets the additional cost (Clause 20 of the Trust Deed & Rules dated 9 March 2004).

**Period within which and manner in which a failure to meet the statutory funding objective is to be rectified**

Any funding shortfalls identified at an actuarial valuation are to be eliminated by the payment of additional contributions. In determining the length of the recovery period at any particular valuation the Management Committee's principles are to take into account the following factors:

- the size of the funding shortfall;
- the maturity of the Section concerned;
- the Management Committee's assessment of the financial covenant of the Colleges; and
- any contingent security offered by the Colleges.

The assumptions to be used in the calculations to determine the additional contributions required will be those set out above for calculating the Technical Provisions except that the expected rate of return (the return on existing assets and on new contributions paid during the recovery period) will be the gross redemption yield on Bank of England's published gilt yield at duration 18 years plus a margin of up to 4% p.a., the exact level of the margin will be such as the Management Committee determine to be appropriate in any particular case.

The assumption adopted for the valuation at 31 March 2014 is for a margin of 2.4% p.a. to be adopted.

---

**Arrangements by a person other than the Colleges or a Scheme member to contribute to the Scheme**

No such arrangements exist.

---

**Policy on reduction of cash equivalent transfer values (CETVs)**

The Management Committee asks the actuary to advise them at each valuation of the extent to which assets are sufficient to provide CETVs for all non pensioners without adversely affecting the security of the benefits of other members and beneficiaries.

If at any time, after obtaining advice from the actuary, the Management Committee is of the opinion that the payment of CETVs at a previously agreed level may adversely affect the security of the benefits of other members and beneficiaries, the Management Committee will commission a report from the actuary to decide whether, and to what extent, CETVs should be reduced.

**Frequency of valuations and circumstances for extra valuations**

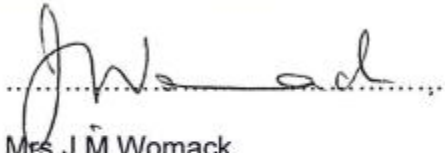
The Scheme's third actuarial valuation under Part 3 of the Pensions Act 2004 is being carried out as at the effective date of 31 March 2014 and subsequent valuations will in normal circumstances be carried out every three years thereafter. An actuarial report on developments affecting the Scheme's funding level will be obtained as at each intermediate anniversary of that date for College Sections whose membership exceeds 100.

The Management Committee may call for a full actuarial valuation instead of an actuarial report when, after considering the actuary's advice, they are of the opinion that events have made it unsafe to continue to rely on the results of the previous valuation as the basis for future contributions. However, the Management Committee will consult the Colleges before doing so.

---

Signed on behalf of the Management Committee

Signature:



Name:

Mrs J M Womack

Position:

Chair

Date:

3 June 2015

# E

## Assumptions

The 2014 Funding Basis is based on the Statutory Funding Objective and the current Statement of Funding Principles adopted by the Management Committee. These assumptions have been adjusted by the Management Committee in line with actuarial advice, as required by legislation.

Also included are the previous valuation assumptions for comparison purposes.

Under the Code, when choosing the assumptions the Management Committee are required to consider the factors particular to the Colleges, or the Colleges' industry, affecting matters such as pay increases, rate of withdrawal from membership and recruitment. The Management Committee are satisfied that the chosen assumptions set out below are appropriate bearing in mind the above factors.

	<b>Assumptions used in valuation as at <u>31 March 2014</u> (% per annum compound)</b>	<b>Assumptions used in valuation as at <u>31 March 2011</u> (% per annum compound)</b>
<b><u>Economic*</u></b>		
Rate of interest:		
• before retirement	5.4%	6.3%
• after retirement	5.4%	6.3%
Asset return	5.9%	6.7%
Rate of salary increases:	1.5% p.a. for 3 years, then 3.05%	1.5% p.a. for 3 years, then 3.2%
Rate of increase in pensions in payment:		
• Guaranteed Minimum Pension (GMP) earned for service before 6 April 1988	0.0%	0.0%
• GMP earned for service between 6 April 1988 and 5 April 1997	2.35%	2.5%
• Pension in excess of GMP earned to 31 March 2004	3.35%	3.4%
• Pension earned after 31 March 2004	3.35% or 3.15%	3.4% or 3.2%



	<b>Assumptions used in valuation as at 31 March 2014</b> (% per annum compound)	<b>Assumptions used in valuation as at 31 March 2011</b> (% per annum compound)
Rate of increases to pensions in deferment: <ul style="list-style-type: none"> <li>• Excess pension accrued prior to 6 April 2009</li> <li>• Excess pension accrued from 6 April 2009</li> <li>• GMP</li> </ul>	2.55%  2.5%  Statutory	2.7%  2.5%  Statutory
<b><u>Other</u></b>		
Valuation of assets:	Surrender value of the assets	Surrender value of the assets
Expenses:	<ul style="list-style-type: none"> <li>• College Section Charge = £3,000 p.a.</li> <li>• Active Member Charge = £152.38 p.a.</li> <li>• Deferred Member Charge = £58.18 p.a.</li> <li>• Pensioner Member Charge = £113.59 p.a.</li> </ul>	<ul style="list-style-type: none"> <li>• College Section Charge = £3,000 p.a.</li> <li>• Active Member Charge = £141.89 p.a.</li> <li>• Deferred Member Charge = £54.18 p.a.</li> <li>• Pensioner Member Charge = £105.77 p.a.</li> </ul>
Death in Service Premiums:	As paid by the individual College	As paid by the individual College
Pension Protection Fund levy and other directly attributable expenses:	Paid for in addition to the above expenses	Paid for in addition to the above expenses

	<b>Assumptions used in valuation as at 31 March 2014 (% per annum compound)</b>	<b>Assumptions used in valuation as at 31 March 2011 (% per annum compound)</b>
<b><u>Demographic</u></b>		
Mortality tables	S2 SAPS normal pensioner mortality tables plus the CMI_2013 projection based on year of birth and with long term improvements of 1% p.a.	S1 SAPS normal pensioner mortality tables plus the CMI_2009 projection based on year of birth and with long term improvements of 1% p.a.
<b>Assumed Retirement Age (ARD)</b>		
<b>Males:</b>		
Active Members	Age 65	Age 65
Deferred Members	Age 62	Age 62
<b>Females</b>		
Active Members	Age 63 for Benefit Option 1 members and Age 65 for Benefit Option 2&3 members	Age 63 for Benefit Option 1 members and Age 65 for Benefit Option 2&3 members
Deferred Members	Age 60 for Benefit Option 1 members and Age 62 for Benefit Option 2&3 Members	Age 60 for Benefit Option 1 members and Age 62 for Benefit Option 2&3 Members
<b>Proportion Married:</b>	Males and Females 80%	Males and Females 90%
<b>Age Difference:</b>	Wives 3 years younger than their husbands	Wives 3 years younger than their husbands
<b>Commutation of pension for cash:</b>	100% of Members will take their maximum tax free cash allowance on the basis that current commutation factors are maintained.	100% of Members will take their maximum tax free cash allowance on the basis that commutation factors are 93% of the funding basis factors.
<b>Withdrawal rates:</b>	No allowance	No allowance
<b>Other Member Options:</b>	No allowance	No allowance

## F

## College Contribution Rates

College	From 1 April 2014 to 30 June 2015			From 1 July 2015				
	Employee Contribution Rate (%)	Employer Contribution Rate (%)	Recovery Plan Amounts (15 months)	Employee Contribution Rate (%)	Employer Contribution Rate (%)	Recovery Plan Amounts (£ p.a.)	Recovery Plan Cessation Date	
<b>Contracted-out Colleges with BSP Offset Removed</b>								
Christ's	10.00	10.76	0	10.00	14.41	107,558	31 March 2034	#
Churchill	0.00	-	0	0.00	0.00	60,348	31 March 2034	##
Corpus Christi	15.00	7.72	0	15.00	10.59	Nil		#
Downing	15.00	12.52	107,089	15.00	17.42	39,105	31 March 2034	#
Emmanuel	8.00	14.81	0	8.00	19.26	14,543	31 March 2034	
Girton	8.50	13.19	0	8.50	16.53	69,976	31 March 2034	
Gonville & Caius	6.35	17.50	0	6.35	22.13	140,565	31 March 2034	#
Magdalene	15.00	16.33	0	15.00	16.89	48,974	31 March 2034	#
Murray Edwards	15.00	8.39	0	15.00	14.10	62,097	31 March 2034	#
Newnham	8.00	17.76	0	8.00	22.46	24,375	31 March 2034	#
Pembroke	6.46	19.52	0	8.11	22.83	99,290	31 March 2034	#
Peterhouse	6.00	15.80	0	6.00	21.75	11,575	31 March 2034	
Queens'	6.35	15.60	87,500	6.35	18.86	171,782	31 March 2029	
Selwyn	6.35	14.94	0	6.35	20.30	37,074	31 March 2034	
St Catharine's	9.00	11.71	0	9.00	16.44	59,387	31 March 2034	#
St John's	6.00	14.48	0	6.00	19.00	401,899	31 March 2024	
Trinity Hall	12.00	10.18	0	12.00	14.21	90,844	31 March 2034	#
<b>Contracted-out Colleges with BSP Offset Retained</b>								
King's	15.00	20.34	309,235	15.00	26.38	136,777	31 March 2034	#
Robinson	8.50	14.06	0	8.50	20.19	131,145	31 March 2034	#
<b>Contracted-in Colleges with BSP Offset Removed</b>								
Clare Hall	5.00	15.35	0	5.00	17.96	2,823	31 March 2034	
Darwin	5.00	13.13	0	5.00	17.23	23,772	31 March 2034	
Lucy Cavendish	0.00	-	0	0.00	0.00	2,945	31 March 2034	##
St Edmund's	5.00	13.26	0	5.00	17.76	2,597	31 March 2034	#
Wolfson	4.00	16.05	0	4.00	19.02	34,697	31 March 2034	#
<b>Contracted-in Colleges with BSP Offset Retained</b>								
Hughes Hall	8.00	18.48	0	8.00	24.00	6,111	31 March 2034	#
# Closed to New Entrants ## Closed to Future Accrual Also please see notes overleaf								

<b>General</b>	<b>Notes</b>
Scheme Expenses	Additional contributions are payable to fund Scheme expenses at the rate per College Section of £3,000 p.a. plus £152.38 per active members, £58.18 per deferred member, and £113.59 per pensioner based on statistics at 31 March 2014.
Insurance Premiums	The contribution rates shown are inclusive of the insurance premiums payable for death-in-service and group income protection benefits (where applicable).  Note that since the previous valuation the Employer contributions have changed twice as a result of changes in the insurance premiums. The figures above for the period to 30 June 2015 are the latest contribution rates.
Frequency of Contributions	Contributions are payable monthly unless otherwise indicated on the College's individual Schedule of Contributions. Monthly contributions are to be paid on or before the 4 <sup>th</sup> day of the calendar month following that to which the payment relates.
<b>College</b>	<b>Notes</b>
Pembroke College	The 1 July 2015 contribution rates shown above make allowance for a change in Employee contribution rate to 8.11%, with the Employer rate adjusted accordingly.
Queens' College	The £87,500 contributions that the College paid during the period ending 30 June 2015 relates to additional funding contributions as their previous Recovery Plan contributions formally ceased on 30 June 2012.

# College Funding Levels

College	Funding Objective Basis				Solvency Funding Basis				PPF Basis			
	Technical Provisions (£)	Asset Values (£)	Surplus/ (Deficiency) (£)	Funding Level (%)	Technical Provisions (£)	Asset Values (£)	Surplus/ (Deficiency) (£)	Funding Level (%)	Technical Provisions (£)	Asset Values (£)	Surplus/ (Deficiency) (£)	Funding Level (%)
<b>Contracted-out Colleges with BSP Offset Removed</b>												
Christ's	9,281,900	7,344,000	(1,937,900)	79.1%	16,801,900	7,344,000	(9,457,900)	44%	13,025,600	7,344,000	(5,681,600)	56%
Churchill	6,995,500	5,718,300	(1,277,200)	81.7%	11,124,600	5,718,300	(5,406,300)	51%	8,832,900	5,718,300	(3,114,600)	65%
Corpus Christi	5,453,700	5,638,200	184,500	103.4%	9,185,500	5,638,200	(3,547,300)	61%	7,009,600	5,638,200	(1,371,400)	80%
Downing	4,497,500	3,571,900	(925,600)	79.4%	7,826,800	3,571,900	(4,254,900)	46%	6,096,800	3,571,900	(2,524,900)	59%
Emmanuel	7,993,300	7,184,300	(809,000)	89.9%	15,262,700	7,184,300	(8,078,400)	47%	11,834,700	7,184,300	(4,650,400)	61%
Girton	9,891,800	8,308,100	(1,583,700)	84.0%	18,615,100	8,308,100	(10,307,000)	45%	14,491,900	8,308,100	(6,183,800)	57%
Gonville & Caius	11,374,100	8,900,700	(2,473,400)	78.3%	19,651,200	8,900,700	(10,750,500)	45%	15,315,200	8,900,700	(6,414,500)	58%
Magdalene	5,459,600	4,443,400	(1,016,200)	81.4%	9,319,600	4,443,400	(4,876,200)	48%	7,367,400	4,443,400	(2,924,000)	60%
Murray Edwards	4,330,700	3,279,100	(1,051,600)	75.7%	7,100,100	3,279,100	(3,821,000)	46%	5,691,700	3,279,100	(2,412,600)	58%
Newnham	3,955,500	3,355,600	(599,900)	84.8%	6,583,800	3,355,600	(3,228,200)	51%	5,298,300	3,355,600	(1,942,700)	63%
Pembroke	7,179,900	5,518,300	(1,661,600)	76.9%	12,559,600	5,518,300	(7,041,300)	44%	9,867,900	5,518,300	(4,349,600)	56%
Peterhouse	7,839,100	7,097,400	(741,700)	90.5%	15,074,300	7,097,400	(7,976,900)	47%	11,619,600	7,097,400	(4,522,200)	61%
Queens'	11,533,000	9,296,400	(2,236,600)	80.6%	20,981,400	9,296,400	(11,685,000)	44%	15,938,300	9,296,400	(6,641,900)	58%
Selwyn	7,247,400	6,288,800	(958,600)	86.8%	13,730,000	6,288,800	(7,441,200)	46%	10,879,300	6,288,800	(4,590,500)	58%
St Catharine's	6,783,000	5,586,600	(1,196,400)	82.4%	12,345,400	5,586,600	(6,758,800)	45%	9,631,100	5,586,600	(4,044,500)	58%
St John's	22,309,300	18,939,400	(3,369,900)	84.9%	45,007,200	18,939,400	(26,067,800)	42%	34,584,300	18,939,400	(15,644,900)	55%
Trinity Hall	8,524,700	6,838,200	(1,686,500)	80.2%	16,244,900	6,838,200	(9,406,700)	42%	12,559,600	6,838,200	(5,721,400)	54%
<b>Contracted-out Colleges with BSP Offset Retained</b>												
King's	11,765,000	8,942,300	(2,822,700)	76.0%	18,833,500	8,942,300	(9,891,200)	47%	14,525,000	8,942,300	(5,582,700)	62%
Robinson	9,522,600	7,324,000	(2,198,600)	76.9%	17,184,500	7,324,000	(9,860,500)	43%	13,112,300	7,324,000	(5,788,300)	56%
<b>Contracted-in Colleges with BSP Offset Removed</b>												
Clare Hall	1,290,200	1,157,400	(132,800)	89.7%	2,094,100	1,157,400	(936,700)	55%	1,708,600	1,157,400	(551,200)	68%
Darwin	2,325,500	1,891,500	(434,000)	81.3%	4,179,100	1,891,500	(2,287,600)	45%	3,208,900	1,891,500	(1,317,400)	59%
Lucy Cavendish	275,700	219,300	(56,400)	79.5%	465,900	219,300	(246,600)	47%	377,900	219,300	(158,600)	58%
St Edmund's	529,300	459,200	(70,100)	86.8%	991,200	459,200	(532,000)	46%	784,700	459,200	(325,500)	59%
Wolfson	3,656,600	2,976,700	(679,900)	81.4%	6,576,500	2,976,700	(3,599,800)	45%	5,141,000	2,976,700	(2,164,300)	58%
<b>Contracted-in Colleges with BSP Offset Retained</b>												
Hughes Hall	546,700	435,300	(111,400)	79.6%	813,700	435,300	(378,400)	53%	643,100	435,300	(207,800)	68%

H

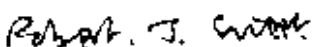
# Actuary's Certification of the Calculation of Technical Provisions

---

**Name of Scheme** : **Cambridge Colleges' Federated Pension Scheme**

## Calculation of Technical Provisions

I certify that, in my opinion, the calculation of the Scheme's technical provisions as at 31 March 2014 is made in accordance with regulations under section 222 of the Pensions Act 2004. The calculation uses a method and assumptions determined by the Management Committee Acting as the Trustee of the Scheme and set out in the Statement of Funding Principles dated 3 June 2015.

Signed : 

Date: 3 June 2015

Name : R J Sweet

Qualification: Fellow of the Institute and Faculty of Actuaries

Address : Mill Pool House  
Mill Lane  
Godalming  
Surrey  
GU7 1EY

Employer Cartwright Group Ltd

## **Actuarial Report**

Introduced by the Pensions Act 2004, this is a written report, prepared and signed by the Scheme Actuary, on developments affecting the Scheme's Technical Provisions since the last actuarial valuation. It must also include an assessment of changes in the value of the Scheme's assets.

## **Actuarial Valuation**

Defined by the Pensions Act 2004 as a written report, prepared and signed by the Scheme Actuary, valuing the Scheme's assets and calculating its Technical Provisions.

## **Code of Practice 3 – Funding Defined Benefit Schemes**

This is a written document dated July 2014 setting out the Pension Regulator's guidance and standards of conduct for trustees with regard to funding their defined benefit pension scheme.

## **Planning Exercise (as defined in TAS R)**

This involves the estimation of an amount for budgeting or target setting purposes. The setting of future service contribution rates and the calculation of Technical Provisions are an example of a Planning Exercise, as they help set the pace of Scheme funding.

## **Recovery Plan**

Where a scheme has a deficit on the Statutory Funding Objective a Recovery Plan is needed to remove the deficit. The Plan should detail the period and means by which the deficit will be eliminated.

## **Schedule of Contributions**

This is a written document detailing the contributions payable to the Scheme from the date of the Schedule for a period of 5 years or such longer period as the Recovery Plan applies. The contributions on the Schedule must be sufficient to ensure the Scheme's assets cover the Technical Provisions by the end of the period it covers.

## **Statement of Funding Principles**

This is a document produced by the Management Committee and agreed by the Colleges. It sets out details of the method and assumptions to use to meet the Statutory Funding Objective as well as any other objectives the Management Committee has and details of the Recovery Plan.

## **Statutory Funding Objective**

Introduced by the Pensions Act 2004, this is the funding target the Scheme must meet. The assumptions chosen to calculate the target must be chosen in a prudent manner and reflect market conditions.

## **Technical Provisions**

This is the name given to the Scheme's liabilities calculated using the method and assumptions set out in the Statement of Funding Principles. The Management Committee and Colleges should aim to fund 100% of the Scheme's Technical Provisions.

## **Valuation Exercise (as defined in TAS R)**

This involves the quantification of an amount for recording in a formal document, for example the calculation of the Solvency liabilities in this report.