

Hymans Robertson LLP has carried out an actuarial valuation of the Northamptonshire Pension Fund (“the Fund”) as at 31 March 2013, details of which are set out in the report dated 31 March 2014 (“the Report”), addressed to Northamptonshire County Council (“the Client”). The Report was prepared for the sole use and benefit of our Client and not for any other party; and Hymans Robertson LLP makes no representation or warranties to any third party as to the accuracy or completeness of the Report.

The Report was not prepared for any third party and it will not address the particular interests or concerns of any such third party. The Report is intended to advise our Client on the past service funding position of the Fund at 31 March 2013 and employer contribution rates from 1 April 2014, and should not be considered a substitute for specific advice in relation to other individual circumstances.

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# Northamptonshire Pension Fund 2013 Actuarial Valuation Valuation Report

HYMANS  ROBERTSON

March 2014

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## 1 Executive summary

We have carried out an actuarial valuation of the Northamptonshire Pension Fund ('the Fund') as at 31 March 2013. The results are presented in this report and are briefly summarised below.

### Funding position

The table below summarises the financial position of the Fund at 31 March 2013 in respect of benefits earned by members up to this date.

Past Service Position	31 March 2010 (£m)	31 March 2013 (£m)
Past Service Liabilities	1,651	2,191
Market Value of Assets	1,206	1,545
Surplus / (Deficit)	(445)	(646)
<b>Funding Level</b>	<b>73.0%</b>	<b>70.5%</b>

The increase in deficit reflects the adverse conditions which the Fund has had to contend with since the previous valuation. In particular, the decrease in the real gilt yield has increased the value placed on the Fund's liabilities.

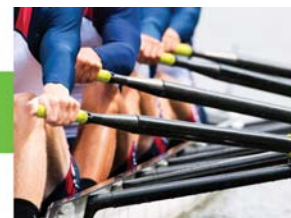
### Contribution rates

The table below summarises the average employer contribution rate that would be required, based on this triennial valuation.

Contribution Rates	31 March 2010 (% of pay)	31 March 2013 (% of pay)
Employer future service rate (incl. expenses)	16.2%	19.8%
Past Service Adjustment (20 year spread)	8.4%	12.3%
Total employer contribution rate (incl. expenses)	24.7%	32.1%
Employee contribution rate	6.5%	6.2%
Expenses	0.8%	0.9%

Again, the increase in the total employer contribution rate is primarily due to the decrease in the real gilt yields which has increased both the employer future service rate and the past service adjustment.

The common contribution rate is a theoretical figure – an average across the whole Fund. In practice, each employer that participates in the Fund has its own underlying funding position and circumstances, giving rise to its own contribution rate requirement. The minimum contributions to be paid by each employer from 1 April 2014 to 31 March 2017 are shown in the Rates and Adjustment Certificate in **Appendix G**.



## 2 Introduction

### Purpose

The main purposes of this valuation are:

- to assess the extent to which the Administering Authority's funding objectives were met at 31 March 2013;
- to identify the future contributions payable by the employers that participate in the Fund in order to meet the Administering Authority's funding objectives;
- to enable completion of all relevant certificates and statements in connection with all applicable regulations; and
- to comment on the main risks to the Fund that may result in future volatility in the funding position or to employers' contributions.

### Component reports

This document is an "aggregate" report, i.e. it is the culmination of various "component" reports and discussions, in particular:

- The data report (mentioned in **section 7**);
- The Discussion Document (dated 27 December 2013) which outlined the preliminary assumption proposals and whole fund results;
- The formal agreement by the Administering Authority of the actuarial assumptions used in this document, at a meeting dated 18<sup>th</sup> December;
- The stabilisation modelling carried out for certain employers, as detailed in our report and presentation to the Administering Authority of 14<sup>th</sup> October 2013; and
- The Funding Strategy Statement, confirming the different contribution rate setting approaches for different types of employer or in different circumstances.

Note that not all of these documents may be in the public domain.



## 3 Assumptions

### Actuarial assumptions

Assumptions must be made about the factors affecting the Fund's finances in the future. Broadly speaking, our assumptions fall into two categories – financial and demographic.

Demographic assumptions typically try to forecast **when** benefits will come into payment and what form these will take. For example, when members will retire (e.g. at their normal retirement age or earlier), how long they will then survive and whether a dependant's pension will be paid.

Financial assumptions typically try to anticipate the **size** of these benefits. For example, how large members' final salaries will be at retirement and how their pensions will increase over time. In addition, the financial assumptions also help us to estimate how much all these benefits will cost the Fund in today's money.

### Financial assumptions

A summary of the main financial assumptions adopted for the valuation of members' benefits are shown below.

Financial assumptions	31 March 2010		31 March 2013	
	Nominal	Real	Nominal	Real
Discount Rate	6.1%	2.8%	4.6%	2.1%
Salary Increases*	5.3%**	2.0%	4.3%	1.8%
Price Inflation / Pension Increases	3.3%	-	2.5%	-

\* Plus an allowance for promotional pay increases.

\*\*1% p.a. for 2010/11 and 2011/12, reverting to 5.3% p.a. thereafter.

### Discount rate

The funding valuation is effectively a planning exercise, to assess the funds needed to meet the benefits as they fall due. In order to place a current value on the future benefit payments from the Fund, an assumption about future investment returns is required in order to "discount" future benefit payments back to the valuation date at a suitable rate.

For a funding valuation such as this, the discount rate is set by taking into account the Fund's current and expected future investment strategy and, in particular, how this strategy is expected to outperform the returns from Government bonds over the long term. The additional margin for returns in excess of that available on Government bonds is called the Asset Outperformance Assumption (AOA).

The selection of an appropriate AOA is a matter of judgement and the degree of risk inherent in the Fund's investment strategy should always be considered as fully as possible.

Although there has been a downward shift in the expected returns on risky assets since the 2010 valuation, we believe the expected returns in excess of the returns on government bonds to be broadly unchanged since 2010. Therefore, we are satisfied that an AOA of 1.6% p.a. is a prudent assumption for the purposes of this valuation. This results in a discount rate of 4.6% p.a.

### Price inflation / pension increases

Due to further analysis of the CPI index since 2010, we expect the average long term difference between RPI and CPI to be 0.8% p.a. compared with 0.5% p.a. at the 2010 valuation.

At the previous valuation, the assumption for RPI was derived from market data as the difference between the yield on long-dated fixed interest and index-linked government bonds. At this valuation, we have adopted a similar approach.





### Salary increases

The long term assumption for salary increases is RPI plus 1% p.a. This translates to CPI plus 1.8% p.a. This is a change in approach from 2010 where we assumed 1% p.a. for 2 years and RPI plus 1.5% p.a. thereafter.

We have set a lower long term rate of salary growth to reflect both short term pay constraints and the belief that general economic growth and hence pay growth may be at a lower level than historically experienced for a prolonged period of time.

Note that this assumption is made in respect of the general level of salary increases (e.g. as a result of inflation and other macroeconomic factors). We also make a separate allowance for expected pay rises granted in the future as a result of promotion. This assumption takes the form of a set of tables which model the expected promotional pay awards based on each member's age and class. Please see **Appendix E**.

### Longevity

The main demographic assumption to which the valuation results are most sensitive is that relating to the longevity of the Fund's members. For this valuation, we have adopted assumptions which give the following sample average future life expectancies for members:

Assumed life expectancy at age 65	Actives & Deferreds		Current Pensioners	
	Male	Female	Male	Female
2010 valuation - baseline	19.3	21.4	19.3	21.1
2010 valuation - improvements	23.4	25.5	21.4	23.3
2013 valuation - baseline	19.4	22.1	19.4	21.7
2013 valuation - improvements	24.0	26.6	22.3	24.3

Further details of the mortality assumptions adopted for this valuation can be found in **Appendix E**. Note that the figures for actives and deferreds assume that they are aged 45 at the valuation date.

### Assets

We have taken the assets of the Fund into account at their market value as indicated in the audited accounts for the period ended 31 March 2013. We have also included an allowance for the expected future payments in respect of early retirement strain and augmentation costs granted prior to the valuation date in the value of assets, for consistency with the liabilities and with the previous valuation.

In our opinion, the basis for placing a value on members' benefits is consistent with that for valuing the assets - both are related to market conditions at the valuation date.

### Demographic assumptions

We are in the unique position of having a very large local authority data set from which to derive our other demographic assumptions. We have analysed the trends and patterns that are present in the membership of local authority funds and tailor our demographic assumptions to reflect LGPS experience.

Details of these assumptions are set out in Appendix E. Further commentary on these was included in the Discussion Document.



### Further comments on the assumptions

As required for Local Government Pension Scheme valuations, our proposed approach to this valuation must include a degree of prudence. This has been achieved by explicitly allowing for a margin of prudence in the AOA.

For the avoidance of doubt, we believe that all other proposed assumptions represent the “best estimate” of future experience. This effectively means that there is a 50% chance that future experience will be better or worse than the chosen assumption.

Taken as a whole, we believe that our proposed assumptions are more prudent than the best estimate. The assessed liability value on a “neutral” best estimate (not prudent) basis would perhaps be 20% lower than the figures shown here.





## 4 Results

The Administering Authority has prepared a Funding Strategy Statement which sets out its funding objectives for the Fund. In broad terms, the main ‘past service’ objective is to hold sufficient assets in the Fund to meet the assessed cost of members’ past service benefits and the main ‘future service’ objective is to maintain a relatively stable employer contribution rate. These objectives are potentially conflicting.

### Past service

In assessing the extent to which the past service funding objective was met at the valuation date, we have used the actuarial assumptions described in the previous section of this report and funding method described in **Appendix C**. The table below compares the value of the assets and liabilities at 31 March 2013. The 31 March 2010 results are also shown for reference.

The results are presented in the form of a “funding level”, this is the ratio of the market value of assets to the assessed cost of members’ past service benefits (“liabilities”).

A funding level of 100% would correspond to the funding objective being met at the valuation date.

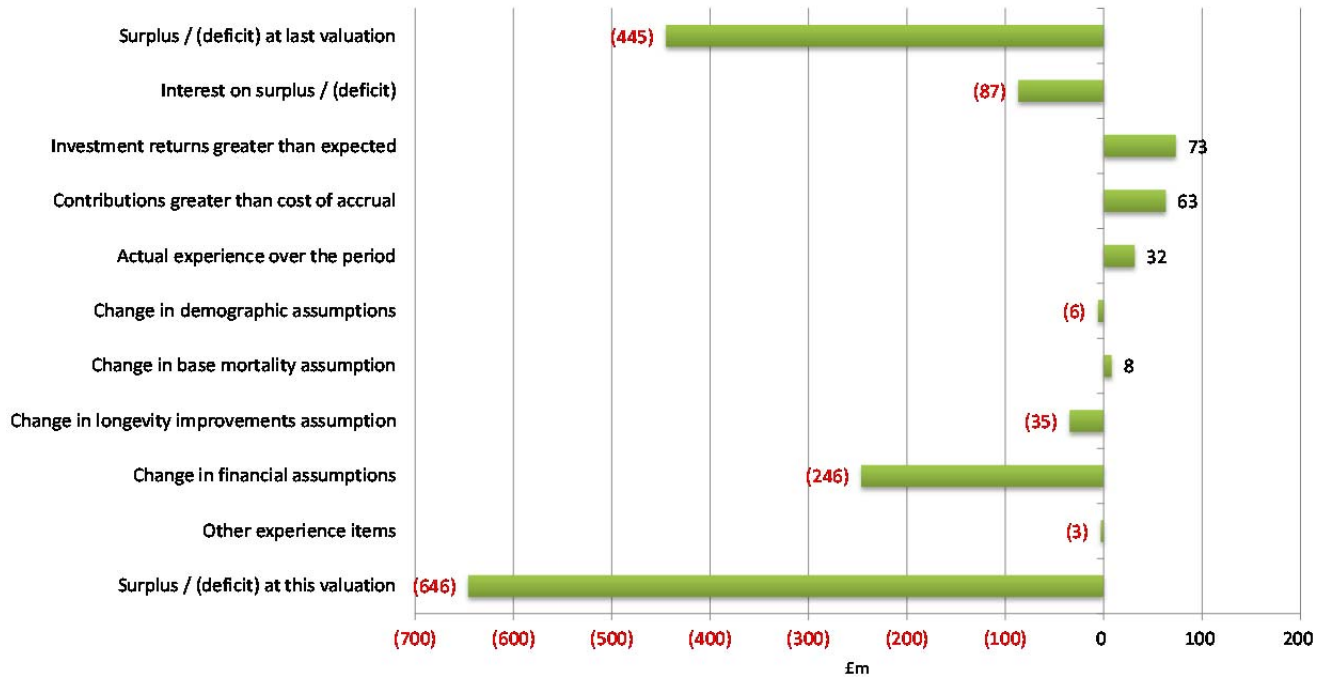
Valuation Date	31 March 2010	31 March 2013
<b>Past Service Position</b>	<b>(£m)</b>	<b>(£m)</b>
Past Service Liabilities		
Employees	671	817
Deferred Pensioners	299	429
Pensioners	681	945
Total Liabilities	1,651	2,191
Market Value of Assets	1,206	1,545
<b>Surplus / (Deficit)</b>	<b>(445)</b>	<b>(646)</b>
<b>Funding Level</b>	<b>73.0%</b>	<b>70.5%</b>

The main funding objective was not met: there was a shortfall of assets to the assessed cost of members’ benefits of £644m.



### Summary of changes to the funding position

The chart below illustrates the factors that caused the funding position to deteriorate between 31 March 2010 and 31 March 2013:



Further comments on some of the items in this chart:

- There is an interest cost of £87m. This is broadly three years of compound interest at 6.1% p.a. applied to the previous valuation deficit of £445m.
- Investment returns being higher than expected since 2010 lead to a gain of £73m. This is roughly the difference between the actual (24.7%) and expected three-year return (roughly 19%) applied to the whole fund assets from the previous valuation of £1,206m, with a further allowance made for cashflows during the period.
- The impact of the change in demographic assumptions has been a loss of around £6m.
- The change in mortality assumptions (baseline and improvements) has given rise to a loss of £27m. This is mainly due to the change in assumed longevity improvements.
- The change in financial conditions between the previous valuation has led to a loss of £246m. This is due to a decrease in the real discount rate between 2010 and 2013. This has been partially been offset by the increase in our assumption of the gap between RPI and CPI from 0.5% to 0.8%.
- Other experience items, such as changes in the membership data, have served to increase the deficit at this valuation by around £3m.
- Note that the benefit changes that come into effect as at 1 April 2014 do not change the funding position as all past service benefits to 31 March 2014 are protected.



### Future service

We have calculated the average long-term contribution rate that the Fund employers would need to pay to meet the estimated cost of members' benefits that will be earned after 31 March 2013 (the 'future service contribution rate'). Again, we have used the assumptions set out in the previous section of this report and the method set out in **Appendix C**. The resulting contribution rate is that which should (if the actuarial assumptions about the future are borne out in practice) ensure that the Administering Authority's main future service funding objective is met. The table below details this future service contribution rate for 31 March 2013 and shows the 31 March 2010 for comparison.

Valuation Date	31 March 2010	31 March 2013
Future service rate	% of pay	% of pay
Employer future service rate (excl. expenses)	15.5%	19.0%
Expenses	0.8%	0.9%
<b>Total employer future service rate (incl. expenses)</b>	<b>16.2%</b>	<b>19.8%</b>
Employee contribution rate	6.5%	6.2%

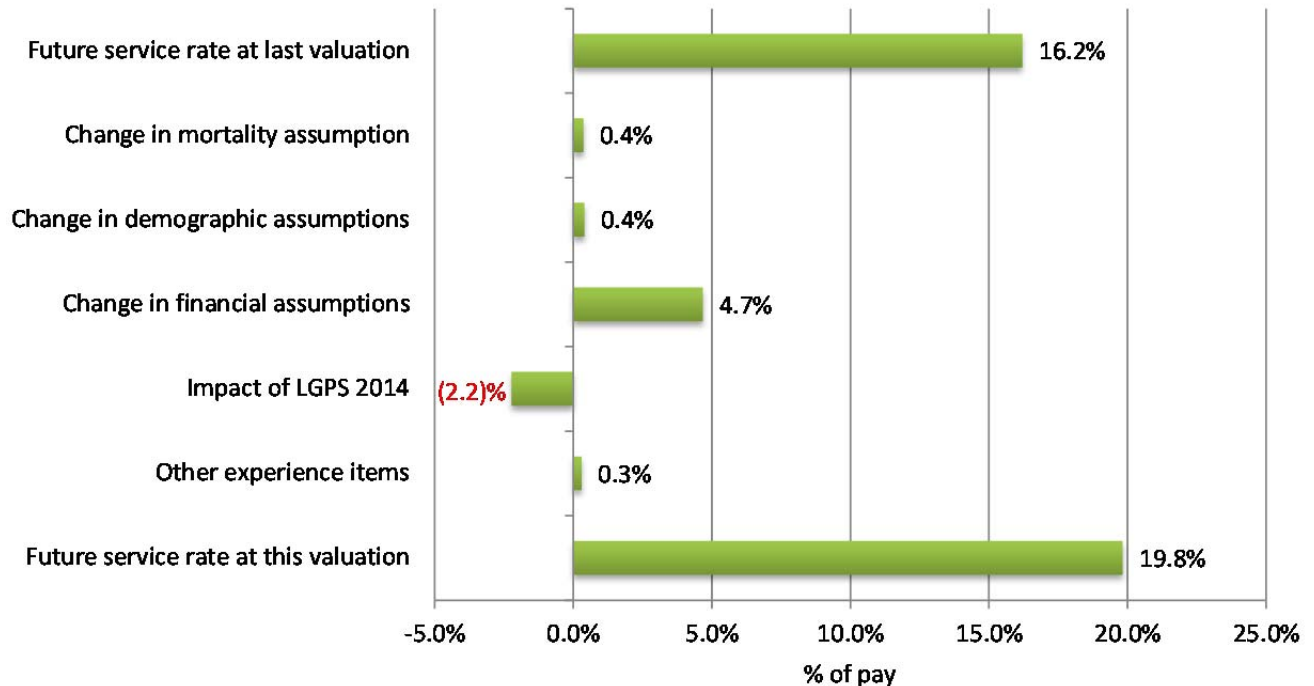
Note that the employee contribution rate includes any additional contributions being paid by employees as at 31 March 2013 into the Fund. This future service contribution rate makes no allowance for the past service deficit in the Fund described above.

The average future service rate for Fund employers is 19.8% of pay. This rate is calculated as at 31 March 2013 and therefore forms part of the total contribution rate payable by employers from 1 April 2014. Note this rate makes an allowance for changes to the benefit structure that takes effect from 1 April 2014. In practice, a future service rate for each employer has been calculated which is based on their particular circumstances and membership profile. The rate above is an average future service rate for the Fund as a whole.



### Summary of changes to the future service rate

The chart below illustrates the factors that caused the future service rate to increase between 31 March 2010 and 31 March 2013:



As can be seen from this chart, the factors that have had the biggest impact on the future service rate between 2010 and 2013 are broadly similar to those discussed for the past service position.

In addition to this, the impact of the LGPS 2014 scheme has resulted in a reduction in contribution rate of 2.2% of payroll.

### Total common contribution rate payable

The total (or “common”) contribution rate payable is the average future service rate for Fund employers plus an additional amount to recover the deficit and bring the funding level back to 100% over a period of 20 years, as set out in the Funding Strategy Statement. This additional amount is referred to as the past service adjustment.

The common contribution rate based on the funding position as at 31 March 2013 is detailed below along with the results for 31 March 2010:

Valuation Date	31 March 2010	31 March 2013
<b>Total contribution rate</b>	<b>% of pay</b>	<b>% of pay</b>
Future service rate (incl. expenses)	16.2%	19.8%
Past service adjustment (20 year spread)	8.4%	12.3%
<b>Total employer contribution rate</b>	<b>24.7%</b>	<b>32.1%</b>

This does not represent the rate which any one employer is actually required to pay, nor is it the average of the actual employer rates. The actual employer contributions payable from 1 April 2014 are given in **Appendix G**, and these have been devised in line with the Funding Strategy Statement: see **section 6**.



## 5 Risk Assessment

The valuation results depend critically on the actuarial assumptions that are made about the future of the Fund. If all of the assumptions made at this valuation were exactly borne out in practice then the results presented in this document would represent the true cost of the Fund as it currently stands at 31 March 2013.

However, no one can predict the future with certainty and it is unlikely that future experience will exactly match all of our assumptions. The future therefore presents a variety of risks to the Fund and these should be considered as part of the valuation process. In particular:

- The main risks to the financial health of the Fund should be **identified**.
- Where possible, the financial significance of these risks should be **quantified**.
- Consideration should be given as to how these risks can then be **controlled** or **mitigated**.
- These risks should then be **monitored** to assess whether any mitigation is actually working.

This section investigates the potential implications of the actuarial assumptions not being borne out in practice.

Set out below is a brief assessment of the main risks and their effect on the valuation results, beginning with a look at the effect of changing the main assumptions and then focusing on the two most significant risks – namely investment risk and longevity risk.

### Sensitivity of valuation results to changes in assumptions

The table below gives an indication of the sensitivity of the valuation results to small changes in some of the main assumptions used.

Assumption	Change	Impact	
		Deficit (£m)	Future service rate (% of pay)
Discount rate	Increases by 0.5%	Falls by £197m	Falls by 3.1%
Salary increases	Increases by 0.5%	Rises by £61m	-
Price inflation / pension increases	Increases by 0.5%	Rises by £154m	Rises by 1.5%
Life expectancy	Increases by 1 year	Rises by £66m	Rises by 0.8%

This is not an exhaustive list of the assumptions used in the valuation. For example, changes to the assumed level of withdrawals and ill health retirements will also have an effect on the valuation results. However, the table contains those assumptions that typically are of most interest and have the biggest impact.

Note that the table shows the effect of changes to each assumption in isolation. In reality, it is perfectly possible for the experience of the Fund to deviate from more than one of our assumptions simultaneously and so the precise effect on the funding position is therefore more complex.



### Investment risk

#### Sensitivity of valuation results to market conditions and investment performance

As the assets of the Fund are taken at their market value, volatility in investment performance can have an immediate and tangible effect on the funding level and deficit. This is particularly relevant because the Fund is invested predominantly in riskier assets such as equities and equity-type investments (e.g. property). A rise or fall in the level of equity markets has a direct impact on the financial position of the Fund, which may seem obvious.

Less obvious is the effect of anticipated investment performance on the Fund's liabilities (and future service cost). Here it is the returns available on government bonds that are of crucial importance, as the discount rate that we use to place a value on the Fund's liabilities is based on gilt yields at the valuation date plus a margin of 1.6% p.a.

The table below shows how the funding level (top), deficit (middle, in £m) and total contribution rate (bottom, as % of pay) would vary if investment conditions at 31 March 2013 had been different. The level of the FTSE 100 Price index is taken as a suitable proxy for asset performance whilst the index-linked gilt yield is taken as a yardstick for the valuation of liabilities.

Index Linked Gilt Yield	-0.10%	69%	73%	78%
		(658)	(565)	(472)
		30.9%	29.2%	27.4%
	-0.30%	66%	71%	75%
		(739)	(646)	(553)
		33.5%	32.1%	30.1%
	-0.50%	64%	68%	72%
		(824)	(731)	(638)
		36.1%	34.5%	32.8%
		5912	6412	6912
		FTSE 100 Price Index		

The shaded box contains the results for this valuation. Note that this does not take account of the performance of all asset classes held by the Fund (e.g. overseas equities, property, bonds, cash etc.) but it does serve to highlight, in broad terms, the sensitivity of the valuation results to investment conditions at the valuation date.

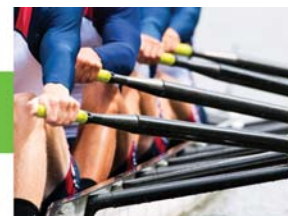
Note that the scenarios illustrated above are by no means exhaustive. They should not be taken as the limit of how extreme future investment experience could be. The discount rate assumption adopted at this valuation is expected to be appropriate over the long term. Short term volatility of equity markets does not invalidate this assumption.

### Longevity risk

The valuation results are also very sensitive to unexpected changes in future longevity. All else being equal, if longevity improves in the future at a faster pace than allowed for in the valuation assumptions, the funding level will decline and the required employer contribution rates will increase.

Recent medical advances, changes in lifestyle and a greater awareness of health-related matters have resulted in life expectancy amongst pension fund members improving in recent years at a faster pace than was originally foreseen. It is unknown whether and to what extent such improvements will continue in the future.





For the purposes of this valuation, we have selected assumptions that we believe make an appropriate allowance for future improvements in longevity, based on the actual experience of the Fund since the previous valuation.

The table below shows how the valuation results at 31 March 2013 are affected by adopting different longevity assumptions.

Longevity assumption	Impact	
	Deficit (£m)	Future service rate
2010 valuation	(445)	16.2%
2013 valuation (with improvements)	(646)	19.8%
2013 valuation (further improvements)	(694)	20.2%
1 year extra	(762)	20.9%

The shaded box contains the results for this valuation.

Full details of the longevity improvements adopted at this valuation are set out in **Appendix E**.

The “further improvements” are a more cautious set of improvements that, in the short term, assume the ‘cohort effect’ of strong improvements in life expectancy currently being observed amongst a generation born around the early and mid-1930s will continue to strengthen for a few more years before tailing off. This is known as “non-peaked”.

The “1 year extra” figures relative to a further year of life expectancies beyond those assumed in “further improvements”.

Again, the range of assumptions shown here is by no means exhaustive and should not be considered as the limits of how extreme future longevity experience could be.

### Other risks to consider

The table below summarises the effect that changes in some of the other valuation assumptions and risk factors would have on the funding position. Note that these are probably unlikely to have a large financial impact on the Fund and therefore the analysis is qualitative rather than quantitative.

Factor	Impact	
	Funding level	Future service rate
Greater level of ill health retirement	Decreases	Marginal
Reduced level of withdrawals	Decreases	Marginal
Rise in average age of employee members	Marginal effect	Increases
Lower take up of 50:50 option	No impact	Increases

One further risk to consider is the possibility of future changes to Regulations that could materially affect the benefits that members become entitled to. It is difficult to predict the nature of any such changes but it is not inconceivable that they could affect not just the cost of benefits earned after the change but could also have a retrospective effect on the past service position (as the move from RPI to CPI-based pension increases already has).

### Managing the risks

Whilst there are certain things, such as the performance of investment markets or the life expectancy of members, that are not directly within the control of the pension fund, that does not mean that nothing can be done to understand them further and to mitigate their effect. Although these risks are difficult (or impossible) to eliminate, steps can be taken to manage them.



Ways in which some of these risks can be managed could be:

- Set aside a specific reserve to act as a cushion against adverse future experience (possibly by selecting a set of actuarial assumptions that are deliberately more prudent).
- Take steps internally to monitor the decisions taken by members and employers (e.g. relating to early / ill health retirements or salary increases) in a bid to curtail any adverse impact on the Fund.
- Pooling certain employers together at the valuation and then setting a single (pooled) contribution rate that they will all pay. This can help to stabilise contribution rates (at the expense of cross-subsidy between the employers in the pool during the period between valuations).
- Carrying out a review of the future security of the Fund's employers (i.e. assessing the strength of employer covenants).
- Carry out a bespoke analysis of the longevity of Fund members and monitor how this changes over time, so that the longevity assumptions at the valuation provide as close a fit as possible to the particular experience of the Fund.
- Undertake an asset-liability modelling exercise that investigates the effect on the Fund of possible investment scenarios that may arise in the future. An assessment can then be made as to whether long term, secure employers in the Fund can stabilise their future contribution rates (thus introducing more certainty into their future budgets) without jeopardising the long-term health of the Fund.
- Purchasing ill health liability insurance to mitigate the risk of an ill health retirement impacting on solvency and funding level of an individual employer where appropriate.
- Monitoring different employer characteristics in order to build up a picture of the risks posed. Examples include membership movements, cash flow positions and employer events such as cessations.

We would be delighted to set out in more detail the risks that affect the Fund and discuss with you possible strategies for managing them.



## 6 Related issues

The Fund's valuation operates within a broader framework, and this document should therefore be considered alongside the following:

- the Funding Strategy Statement, which in particular highlights how different types of employer in different circumstances have their contributions calculated;
- the Statement of Investment Principles (e.g. the discount rate must be consistent with the Fund's asset strategy);
- the general governance of the Fund, such as meetings of the Pensions Committee, decisions delegated to officers, the Fund's business plan, etc.;
- the Fund's risk register; and
- the register of Fund employers.

### Further recommendations

#### Valuation frequency

Under the provisions of the LGPS regulations, the next formal valuation of the Fund is due to be carried out as at 31 March 2016. In light of the uncertainty of future financial conditions, we recommend that the financial position of the Fund (and for individual employers in some cases) is monitored by means of interim funding reviews in the period up to this next formal valuation. This will give early warning of changes to funding positions and possible contribution rate changes.

#### Investment strategy and risk management

We recommend that the Administering Authority continues to regularly review its investment strategy and ongoing risk management programme.

#### New employers joining the Fund

Any new employers or admission bodies joining the Fund should be referred to the Fund actuary for individual calculation as to the required level of contribution.

#### Additional payments

Employers may make voluntary additional contributions to recover any shortfall over a shorter period, subject to agreement with the Administering Authority and after receiving the relevant actuarial advice.

Further sums should be paid to the Fund by employers to meet the capital costs of any unreduced early retirements, reduced early retirements before age 60 and/or augmentation (i.e. additional membership or additional pension) using the methods and factors issued by me from time to time or as otherwise agreed.

In addition, payments may be required to be made to the Fund by employers to meet the capital costs of any ill-health retirements that exceed those allowed for within our assumptions.

#### Cessations and bulk transfers

Any Admission Body who ceases to participate in the Fund should be referred to us in accordance with Regulation 38 of the Administration Regulations.



Any bulk movement of scheme members:

- involving 10 or more scheme members being transferred from or to another LGPS fund, or
- involving 2 or more scheme members being transferred from or to a non-LGPS pension arrangement should be referred to us to consider the impact on the Fund.



## 7 Reliances and limitations

### Scope

This document has been requested by and is provided to Northamptonshire County Council in its capacity as Administering Authority to the Northamptonshire Pension Fund. It has been prepared by Hymans Robertson LLP to fulfil the statutory obligations in accordance with regulation 36 of the Administration Regulations. None of the figures should be used for accounting purposes (e.g. under FRS17 or IAS19) or for any other purpose (e.g. a termination valuation under Regulation 38(1)).

This document should not be released or otherwise disclosed to any third party without our prior written consent, in which case it should be released in its entirety. Hymans Robertson LLP accepts no liability to any other party unless we have expressly accepted such liability.

The results of the valuation are dependent on the quality of the data provided to us by the Administering Authority for the specific purpose of this valuation. We have previously issued a separate report confirming that the data provided is fit for the purposes of this valuation and have commented on the quality of the data provided. The data used in our calculations is as per our report of 31 March 2014.

### Actuarial Standards

The following Technical Actuarial Standards<sup>1</sup> are applicable in relation to this report and have been complied with where material:

- TAS R – Reporting;
- TAS D – Data;
- TAS M – Modelling; and
- Pensions TAS.

Douglas Green

Fellow of the Institute and Faculty of Actuaries

31 March 2014

Bryan T Chalmers

Fellow of the Institute and Faculty of Actuaries

31 March 2014

<sup>1</sup> Technical Actuarial Standards (TASs) are issued by the Financial Reporting Council (FRC) and set standards for certain items of actuarial work, including the information and advice contained in this report.



## Appendix A: About the pension fund

For more details please refer to the Fund's Funding Strategy Statement.

The purpose of the Fund is to provide retirement and death benefits to its members. It is part of the Local Government Pension Scheme (LGPS) and is a multi-employer defined benefit pension scheme.

### Defined benefit pension scheme

In a defined benefit scheme such as this, the nature of retirement benefits that members are entitled to is known in advance. For example, it is known that members will receive a pension on retirement that is linked to their salary and pensionable service according to a pre-determined formula.

However, the precise cost to the Fund of providing these benefits is **not** known in advance. The estimated cost of these benefits represents a liability to the Fund and assets must be set aside to meet this. The relationship between the value of the liabilities and the value of the assets must be regularly assessed and monitored to ensure that the Fund can fulfil its core objective of providing its members with the retirement benefits that they have been promised.

### Liabilities

The Fund's liabilities are the benefits that will be paid in the future to its members (and their dependants).

The precise timing and amount of these benefit payments will depend on future experience, such as when members will retire, how long they will live for in retirement and what economic conditions will be like both before and after retirement. Because these factors are not known in advance, assumptions must be made about future experience. The valuation of these liabilities must be regularly updated to reflect the degree to which actual experience has been in line with these assumptions.

### Assets

The Fund's assets arise from the contributions paid by its members and their employers and the investment returns that they generate. The way these assets are invested is of fundamental importance to the Fund. The selection, monitoring and evolution of the Fund's investment strategy are key responsibilities of the Administering Authority.

As the estimated cost of the Fund's liabilities is regularly re-assessed, this effectively means that the amount of assets required to meet them is a moving target. As a result, at any given time the Fund may be technically in surplus or in deficit.

A contribution strategy must be put in place which ensures that each of the Fund's employers pays money into the Fund at a rate which will target the cost of its share of the liabilities in respect of benefits already earned by members and those that will be earned in the future.

### The long-term nature of the Fund

The pension fund is a long-term commitment. Even if it were to stop admitting new members today, it would still be paying out benefits to existing members and dependants for many decades to come. It is therefore essential that the various funding and investment decisions that are taken now recognise this and come together to form a coherent long-term strategy.

In order to assist with these decisions, the Regulations require the Administering Authority to obtain a formal valuation of the Fund every three years. Along with the Funding Strategy Statement, this valuation will help determine the funding objectives that will apply from 1 April 2014.





## Appendix B: Summary of the Fund's benefits

Provided below is a brief summary of the non-discretionary benefits that we have taken into account for active members at this valuation. This shouldn't be taken as a comprehensive statement of the exact benefits to be paid. For further details please see the Regulations.

Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008	Benefit Structure From 1 April 2014
Normal retirement age (NRA)	Age 65.	Age 65.	Equal to the individual member's State Pension Age (minimum 65).
Earliest retirement age (ERA) on which immediate unreduced benefits can be paid on voluntary retirement	<p>As per NRA (age 65).</p> <p>Protections apply to active members in the scheme immediately prior to 1 October 2006 who would have been entitled to immediate payment of unreduced benefits prior to 65, due to:</p> <p>The benefits relating to various segments of scheme membership are protected as set out in Schedule 2 to the Local Government Pension Scheme (Transitional Provisions) Regulations 2008 and associated GAD guidance.</p>		<p>As per NRA (minimum age 65).</p> <p>Protections apply to active members in the scheme for pensions earned up to 1 April 2014, due to:</p> <p>a) Accrued benefits relating to pre April 2014 service at age 65.</p> <p>b) Continued 'Rule of 85' protection for qualifying members.</p> <p>c) Members within 10 yrs. of existing NRA at 1/4/12 – no change to when they can retire and no decrease in pension they receive at existing NRA.</p>
Member contributions	<p>Officers - 6% of pensionable pay</p> <p>Manual Workers – 5% of pensionable pay if has protected lower rates rights or 6% for post 31 March 1998 entrants or former entrants with no protected rights.</p>	Banded rates (5.5%-7.5%) depending upon level of full-time equivalent pay. A mechanism for sharing any increased scheme costs between employers and scheme members is included in the LGPS regulations.	Banded rates (5.5%-12.5%) depending upon level of actual pay. A mechanism for sharing any increased scheme costs between employers and scheme members will be included in the LGPS regulations in due course.
Pensionable pay	<p>All salary, wages, fees and other payments in respect of the employment, excluding non-contractual overtime and some other specified amounts.</p> <p>Some scheme members may be covered by special agreements.</p>		Pay including non-contractual overtime and additional hours.



Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008	Benefit Structure From 1 April 2014
Final pay	<p>The pensionable pay in the year up to the date of leaving the scheme. Alternative methods used in some cases, e.g. where there has been a break in service or a drop in pensionable pay.</p> <p>Will be required for the statutory underpin and in respect of the final salary link that may apply in respect of certain members of the CARE scheme who have pre April 2014 accrual.</p>		N/A
Period of scheme membership	<p>Total years and days of service during which a member contributes to the Fund. (e.g. transfers from other pension arrangements, augmentation, or from April 2008 the award of additional pension). For part time members, the membership is proportionate with regard to their contractual hours and a full time equivalent). Additional periods may be granted dependent on member circumstances.</p>		N/A
Normal retirement benefits at NRA	<p>Annual Retirement Pension - 1/80th of final pay for each year of scheme membership.</p> <p>Lump Sum Retirement Grant - 3/80th of final pay for each year of scheme membership.</p>	<p>Scheme membership from 1 April 2008:</p> <p>Annual Retirement Pension - 1/60th of final pay for each year of scheme membership.</p> <p>Lump Sum Retirement Grant – None except by commutation of pension.</p>	<p>Scheme membership from 1 April 2014:</p> <p>Annual Retirement Pension - 1/49th of pensionable pay (or assumed pensionable pay) for each year of scheme membership.</p> <p>Lump Sum Retirement Grant - None except by commutation of pension</p>
Option to increase retirement lump sum benefit	<p>In addition to the standard retirement grant any lump sum is to be provided by commutation of pension (within overriding HMRC limits). The terms for the conversion of pension in to lump sum is £12 of lump sum for every £1 of annual pension surrendered.</p>	<p>No automatic lump sum. Any lump sum is to be provided by commutation of pension (within overriding HMRC limits). The terms for the conversion of pension in to lump sum is £12 of lump sum for every £1 of annual pension surrendered.</p>	<p>No automatic lump sum. Any lump sum is to be provided by commutation of pension (within overriding HMRC limits). The terms for the conversion of pension in to lump sum is £12 of lump sum for every £1 of annual pension surrendered.</p>
Voluntary early retirement benefits (non ill-health)	<p>On retirement after age 60, subject to reduction on account of early payment in some circumstances (in accordance with ERA protections).</p>		<p>On retirement after age 55, subject to reduction on account of early payment in some circumstances (in accordance with ERA protections).</p>



Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008	Benefit Structure From 1 April 2014
<p>Employer's consent early retirement benefits (non ill-health)</p>	<p>On retirement after age 55 with employer's consent.</p> <p>Benefits paid on redundancy or efficiency grounds are paid with no actuarial reduction.</p> <p>Otherwise, benefits are subject to reduction on account of early payment, unless this is waived by the employer.</p>		<p>Benefits paid on redundancy or efficiency grounds are paid with no actuarial reduction.</p> <p>Employer's consent is no longer required for a member to retire from age 55. However, benefits are subject to reduction on account of early payment, unless this is waived by the employer.</p>
<p>Ill-health benefits</p>	<p>As a result of permanent ill-health or incapacity.</p> <p>Immediate payment of unreduced benefits.</p> <p>Enhancement to scheme membership, dependent on actual membership.</p> <p>Enhancement seldom more than 6 years 243 days.</p>	<p>As a result of permanent ill-health or incapacity and a reduced likelihood of obtaining gainful employment (local government or otherwise) before age 65.</p> <p>Immediate payment of unreduced benefits.</p> <p>Enhanced to scheme membership, dependent on severity of ill health.</p> <p>100% of prospective membership to age 65 where no likelihood of undertaking any gainful employment prior to age 65;</p> <p>25% of prospective membership to age 65 where likelihood of obtaining gainful employment after 3 years of leaving, but before age 65; or</p> <p>0% of prospective membership where there is a likelihood of undertaking gainful employment within 3 years of leaving employment.</p>	<p>As a result of permanent ill-health or incapacity and a reduced likelihood of obtaining gainful employment (local government or otherwise) before NRA.</p> <p>Immediate payment of unreduced benefits.</p> <p>Enhanced to scheme membership, dependent on severity of ill health.</p> <p>100% of prospective membership to age NRA where no likelihood of undertaking any gainful employment prior to age NRA;</p> <p>25% of prospective membership to age NRA where likelihood of obtaining gainful employment after 3 years of leaving, but before age NRA; or</p> <p>0% of prospective membership where there is a likelihood of undertaking gainful employment within 3 years of leaving employment.</p>



Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008	Benefit Structure From 1 April 2014
Flexible retirement	<p>After 5th April 2006, a member who has attained the age of 50, with his employer's consent, reduces the hours he works, or the grade in which he is employed, may elect in writing to the appropriate Administering Authority that such benefits may, with his employer's consent, be paid to him notwithstanding that he has not retired from that employment.</p> <p>Benefits are paid immediately and subject to actuarial reduction unless the reduction is waived by the employer.</p>	<p>A member who has attained the age of 55 and who, with his employer's consent, reduces the hours he works, or the grade in which he is employed, may make a request in writing to the appropriate Administering Authority to receive <b>all or part</b> of his benefits,</p> <p>Benefits are paid immediately and subject to actuarial reduction unless the reduction is waived by the employer.</p>	
Pension increases	<p>All pensions in payment, deferred pensions and dependant's pensions other than benefits arising from the payment of additional voluntary contributions are increased annually. Pensions are increased partially under the Pensions (Increases) Act and partially in accordance with statutory requirements (depending on the proportions relating to pre 88 GMP, post 88 GMP and excess over GMP).</p>		
Death after retirement	<p>A spouse's or civil partner's pension of one half of the member's pension (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners) is payable; plus</p> <p>If the member dies within five years of retiring and before age 75 the balance of five years' pension payments will be paid in the form of a lump sum; plus</p> <p>Children's pensions may also be payable.</p>	<p>A spouse's, civil partner's or nominated cohabiting partner's pension payable at a rate of 1/160th of the member's total membership multiplied by final pay (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners and nominated cohabiting partners) is payable; plus</p> <p>If the member dies within ten years of retiring and before age 75 the balance of ten years' pension payments will be paid in the form of a lump sum; plus</p> <p>Children's pensions may also be payable.</p>	



Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008	Benefit Structure From 1 April 2014
Death in service	<p>A lump sum of two times final pay; plus</p> <p>A spouse's or civil partner's pension of one half of the ill-health retirement pension that would have been paid to the scheme member if he had retired on the day of death (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners); plus</p> <p>Children's pensions may also be payable.</p>	<p>A lump sum of three times final pay; plus</p> <p>A spouse's, civil partner's or cohabiting partner's pension payable at a rate of 1/160th of the member's total (augmented to age 65) membership (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners and nominated cohabiting partners), multiplied by final pay; plus</p> <p>Children's pensions may also be payable.</p>	
Leaving service options	<p>If the member has completed three months' or more scheme membership, deferred benefits with calculation and payment conditions similar to general retirement provisions ; or</p> <p>A transfer payment to either a new employer's scheme or a suitable insurance policy, equivalent in value to the deferred pension; or</p> <p>If the member has completed less than three months' scheme membership, a return of the member's contributions with interest, less a State Scheme premium deduction and less tax at the rate of 20%.</p>		<p>If the member has completed two years or more scheme membership, deferred benefits with calculation and payment conditions similar to general retirement provisions ; or</p> <p>A transfer payment to either a new employer's scheme or a suitable insurance policy, equivalent in value to the deferred pension; or</p> <p>If the member has completed less than two years scheme membership, a return of the member's contributions with interest, less a State Scheme premium deduction and less tax at the rate of 20%.</p>
State pension scheme	<p>The Fund is contracted-out of the State Second Pension and the benefits payable to each member are guaranteed to be not less than those required to enable the Fund to be contracted-out.</p>		



Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008	Benefit Structure From 1 April 2014
Assumed pensionable pay		N/A	This applies in cases of reduced contractual pay (CPP) resulting from sickness, child related and reserve forces absence, whereby the amount added to the CPP is the assumed pensionable pay rather than the reduced rate of pay actually received.
50/50 option		N/A	Optional arrangement allowing 50% of main benefits to be accrued on a 50% contribution rate.

Note: Certain categories of members of the Fund are entitled to benefits that differ from those summarised above.

#### Discretionary benefits

The LGPS Regulations give employers a number of discretionary powers. The effect on benefits or contributions as a result of the use of these provisions as currently contained within the Local Government Pension Scheme Regulations has been allowed for in this valuation to the extent that this is reflected in the membership data provided. No allowance has been made for the future use of discretionary powers that will be contained within the scheme from 1 April 2014.





## Appendix C: About the valuation

For more details please refer the Fund's Funding Strategy Statement.

It is important to realise that the actual cost of the pension fund (i.e. how much money it will ultimately have to pay out to its members in the form of benefits) is currently unknown. This cost will not be known with certainty until the last benefit is paid to the last pensioner. The core purpose of this valuation is to estimate what this cost will be, so that the Fund can then develop a strategy to meet it.

Such a valuation can only ever be an estimate – as the future cannot be predicted with certainty. However, as actuaries, we can use our understanding of the Fund and the factors that affect it to determine an anticipated cost which is as sensible and realistic as possible. A decision can then be made as to how much is set aside now to meet this anticipated cost. The pace of this funding can vary according to the level of prudence that is built into the valuation method and assumptions.

For this valuation, as for the previous valuation, our calculations identify separately the expected cost of members' benefits in respect of scheme membership completed before the valuation date ("past service") and that which is expected to be completed after the valuation date ("future service").

### Past service

The principal measurement here is the comparison at the valuation date of the assets (taken at market value) and the value placed on the Fund's liabilities (calculated using a market-based approach). By maintaining a link to the market in both cases, this helps ensure that the assets and liabilities are valued in a consistent manner. Our calculation of the Fund's liabilities also explicitly allows for expected future pay and pension increases.

The funding level is the ratio of assets to liabilities at the valuation date. A funding level of less/more than 100% implies that there is a deficit/surplus in the Fund at the valuation date.

The funding target is to eliminate any deficit (or surplus) over a specified period and therefore get back to a funding level of 100%. To do so, additional contributions may be required to be paid into the Fund, either via lump sums or by increasing the employer's contribution rate. These additional contributions are known as the past service adjustment.

### Future service

In addition to benefits that have already been earned by members prior to the valuation date, employee members will continue to earn new benefits in the future. The cost of these new benefits must be met by both employers and employees. The employers' share of this cost is known as the future service contribution rate.

For the valuation results for the Fund as a whole, we have calculated the future service rate as the cost of benefits being earned by members over the year following the valuation, taking account of expected future salary increases until retirement. If new entrants are admitted to the Fund to the extent that the overall membership profile remains broadly unchanged (and if the actuarial assumptions are unchanged) then the future service rate should be reasonably stable.

This funding method we have used is known as the Projected Unit Method. As well as the whole fund, it is appropriate for individual employers that continue to admit new entrants to the Fund.



However, some participating employers may have a policy of not admitting new entrants. In this case, the membership profile will inevitably begin to age. Under these circumstances, the Projected Unit Method is arguably no longer appropriate and will not promote sufficient stability in the future service rate. For these employers, we will adopt a funding method known as the Attained Age Method, which effectively looks at the cost of benefits that members will earn over the entirety of their remaining working lifetime (rather than just the year following the valuation).

Combining this future service rate with any past service adjustment required to repay a deficit (or reduce a surplus) gives us the total contribution rate. The total rate for the Fund as a whole is known as the common contribution rate. This is really just a notional figure. In practice, each individual employer will have a contribution rate which reflects their own particular circumstances.

### **The sensitivity of valuation results**

The aim of this valuation is not only to determine these important figures but also to demonstrate their sensitivity to a number of key influences. This will promote an understanding of how the expected cost of the Fund may change in response to uncertain future events (e.g. changes in life expectancy or investment returns). Please refer to **section 5** for details of the sensitivity analysis.



## Appendix D: Data

This section contains a summary of the membership, investment and accounting data provided by the Administering Authority for the purposes of this valuation (the corresponding membership and investment data from the previous valuation is also shown for reference). For further details of the data, and the checks and amendments performed in the course of this valuation, please refer to our separate report.

### Membership data – whole fund

#### Employee members

	31 March 2010		31 March 2013	
	Number	Pensionable Pay* (£000)	Number	Pensionable Pay* (£000)
<b>Total employee membership</b>	18,925	307,523	17,606	277,956

\*actual pay (not full-time equivalent)

#### Deferred pensioners

	31 March 2010		31 March 2013	
	Number	Deferred pension (£000)	Number	Deferred pension (£000)
<b>Total deferred membership</b>	19,366	18,611	22,487	24,131

The figures above also include any “status 2” and “status 9” members at the valuation date.

#### Current pensioners, spouses and children

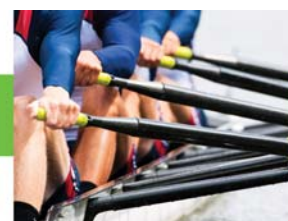
	31 March 2010		31 March 2013	
	Number	Pension (£000)	Number	Pension (£000)
Members	9,850	43,006	11,676	54,494
Dependants	1,640	3,820	1,781	4,437
Children	164	168	146	136
<b>Total pensioner members</b>	<b>11,654</b>	<b>46,994</b>	<b>13,603</b>	<b>59,067</b>

Note that the membership numbers in the table above refer to the number of records provided to us and so will include an element of double-counting in respect of any members who are in receipt (or potentially in receipt of) more than one benefit.

Membership Profile	Average Age (years)		FWL (years)	
	2010	2013	2010	2013
Employees	50.8	50.7	7.8	9.3
Deferred Pensioners	49.8	49.9	-	-
Pensioners	66.0	66.7	-	-

The average ages are weighted by liability.

The expected future working lifetime (FWL) indicates the anticipated length of time that the average employee member will remain as a contributor to the Fund. Note that it allows for the possibility of members leaving, retiring early or dying before retirement.



### Membership data – individual employers

Employer code	Employer Name	Employees		Deferreds		Pensioners	
		Number	Actual Pay (£000)	Number	Pension (£000)	Number	Pension (£000)
1	Northamptonshire County Council	6,590	92,115	13,723	10,843	6,901	27,065
10	Northamptonshire Police Authority	867	21,799	866	1,647	561	2,248
27	Northamptonshire Probation Board	187	4,918	189	316	155	834
32	Department for Constitutional Affairs (Magistrates Courts)	0	0	73	212	68	444
43	Coroners	1	*	0	0	0	0
102	Corby Borough Council	320	7,318	419	785	558	2,852
103	Daventry District Council	163	4,009	383	727	299	1,790
104	East Northamptonshire Council	165	4,169	169	436	213	1,268
105	Kettering Borough Council	414	9,602	328	754	496	2,535
106	Northampton Borough Council	714	18,779	1,062	2,491	1,546	8,620
107	South Northamptonshire Council	199	5,116	266	695	295	2,032
108	Borough Council of Wellingborough	123	3,250	279	573	442	2,723
186	NBC Ex-Transport	0	0	10	9	62	154
196	Northampton Transport Limited	0	0	14	44	109	451
212	Northampton Joint Valuation Panel	0	0	0	0	1	*
225	Northampton Development Corporation	0	0	16	22	84	327
229	Corby Development Corporation	0	0	2	0	18	101
234	Brackley Town Council	2	*	3	*	8	21
235	Moulton Parish Council	1	*	1	*	1	*
237	Raunds Town Council	4	*	4	*	2	*
238	Towcester Town Council	2	*	0	0	2	*
239	Oundle Town Council	3	*	1	*	6	6
240	Duston Parish Council	3	*	0	0	0	0
241	Rushden Town Council	5	*	2	*	3	*
242	Irthlingborough Town Council	3	*	1	*	0	0
243	Wootton & East Hunsbury Parish Council	6	105	6	4	2	*
244	Daventry Town Council	0	0	1	*	1	*
245	Long Buckby Parish Council	0	0	1	*	0	0
246	Wollaston Parish Council	1	*	1	*	0	0
247	Stanwick Parish Council	1	*	0	0	0	0
248	Barby Parish Council	1	*	0	0	0	0
249	Billing Parish Council	1	*	0	0	0	0
250	Grange Park Parish Council	1	*	1	*	0	0
251	Brixworth Parish Council	1	*	0	0	0	0
252	Northampton and County Blind Association	0	0	3	*	10	84
254	Age Concern Northampton and County	1	*	0	0	3	*
256	Northamptonshire Connexions Partnership Limited	87	2,021	166	327	66	486
257	Demgate Housing Association Limited	0	0	0	0	1	*
258	Northamptonshire Enterprise Agency	0	0	0	0	6	36
259	Nene Valley Waste	0	0	8	19	14	46
261	The University of Northampton	473	11,676	685	910	363	1,134
262	Wollaston School Cleaners	4	*	0	0	0	0
266	Northampton College	307	4,562	302	268	136	313
267	Tresham Institute	169	3,229	328	342	172	445
268	Daventry College	0	0	21	14	20	60
269	Moulton College	275	4,259	298	243	83	166
271	The Castle (Wellingborough) Limited	4	*	17	*	3	*
275	Spire Homes Limited	6	161	8	42	34	172
276	The Northampton Theatres Trust Limited	18	427	50	133	15	58
277	Society of County Archivists	0	0	0	0	1	*
278	Northampton High School	26	478	17	35	16	29
279	Newton in the Willows Trust	0	0	0	0	1	*
280	North Northamptonshire Development Company Limited	3	*	4	*	3	*
281	Pest Express	0	0	2	*	0	0
282	EMLC	3	*	0	0	4	*
283	East Northants Cultural Trust	4	*	5	*	2	*
284	Shaw Healthcare	52	507	78	124	71	165
285	Northampton Academy - United Learning Trust	67	1,246	49	50	11	12
286	Amey Plc	31	334	25	16	39	92
287	West Northants Development Corporation	19	981	26	102	7	54
288	Scholorest	0	0	2	*	0	0
290	The Stationery Office	0	0	0	0	4	*
291	Northamptonshire Enterprise Limited	7	263	7	26	8	52
292	DC Leisure (Leisure and Community Partnerships Ltd.)	20	294	11	28	1	*
293	Carillion Plc	0	0	8	24	5	*
294	NSL Limited	8	172	4	*	5	*
295	Daventry & District Housing	45	1,113	27	59	23	95
296	Old Nene College Pensioners	0	0	0	0	12	27
298	NCC - Ex Water	0	0	0	0	3	*
299	NCC - Ex Health	0	0	0	0	5	*
300	Wellingborough Homes	29	684	12	31	6	51
301	South Northants Homes	83	2,194	14	55	22	145
302	Rockingham Forest Trust	5	*	2	*	0	0



Employer code	Employer Name	Employees		Deffereds		Pensioners	
		Number	Actual Pay (£000)	Number	Pension (£000)	Number	Pension (£000)
303	EMBC	4	*	3	*	2	*
304	Higham Ferrers Town Council	1	*	0	0	0	0
392	Community Spaces	2	*	0	0	0	0
393	Northamptonshire Music and Performing Arts Trust	9	144	0	0	0	0
394	LATC	549	8,263	35	37	17	46
395	Wellingborough Norse	69	1,422	1	*	2	*
396	WBC Audit Consortium	2	*	0	0	0	0
397	SLM	1	*	0	0	0	0
398	University of Northampton Enterprise Ltd	63	963	0	0	1	*
401	Moulton Primary School	34	279	13	2	4	*
402	Raunds Windmill School	18	114	9	4	4	*
403	Corby Danesholme School	14	161	7	5	5	*
404	Corby Woodnewton Junior School	0	0	5	*	1	*
405	Kettering Millbrook Junior School	28	273	8	4	7	9
406	Kettering Millbrook Infants School	16	172	10	9	6	15
407	Corby Beanfield Primary School	0	0	1	*	3	*
408	Collingtree C E V A Primary School	4	*	13	*	0	0
409	Woodnewton School	0	0	9	9	3	*
410	Thrapston Primary School	48	148	19	12	3	*
412	Hardingstone Primary School	8	72	0	0	0	0
413	Welford Sibbertoft and Sulby Endowed School	9	52	9	6	1	*
431	CRI	4	*	1	*	0	0
501	Kingsthorpe Community College	12	142	42	24	17	47
502	Thomas Beckett Catholic School	52	636	89	25	18	21
503	Weston Favell School	0	0	72	46	14	40
504	Northampton School for Girls	74	881	44	23	5	*
505	Bugbrooke Community Primary School	14	122	14	6	0	0
506	Kettering Grange Community School	26	256	23	9	3	*
507	Wellingborough Hardwick Infants School	0	0	1	*	0	0
508	Huxlow Science College	2	*	44	*	4	*
509	Deanshanger Kingsbrook School	1	*	26	*	9	24
510	Wellingborough Oakway Infants School	0	0	13	12	1	*
511	Wellingborough Oakway Junior School	2	*	9	4	4	*
512	Wellingborough Our Ladys Junior School	22	124	6	2	1	*
513	Wellingborough Redwell Infant School	11	62	17	6	1	*
514	Rushden Community College	6	84	52	48	18	41
515	Northampton Standens Barn Primary	25	194	22	6	5	*
516	Kettering Brambleside Community Primary School	0	0	2	*	1	*
517	Irchester Primary School	41	192	11	2	7	16
518	Abington Vale Primary School	1	*	14	3	4	*
519	Bellinge Primary School	0	0	1	*	0	0
520	Campion School	1	*	70	38	10	18
521	Guilsborough Comprehensive School	0	0	37	27	11	31
522	Chenderit School	0	0	27	20	7	6
523	Danetree School	1	*	38	25	10	21
524	Prince William Upper School	59	602	47	28	8	22
525	Sponne Technology College	0	0	42	27	11	12
526	Unity C O E College	0	0	39	21	11	24
527	St. Andrews C E V A Primary School	5	*	8	3	0	0
528	Oundle C E Primary School	18	88	31	8	0	0
529	Magdalen College School Brackley	2	*	77	55	5	*
530	Bishop Stopford School	0	0	19	19	3	*
531	Headlands Primary School	2	*	9	6	5	*
532	Kingsley Primary School	19	145	9	1	0	0
533	Wellingborough Croyland Primary	33	312	10	5	3	*
534	Great Addington Primary	7	52	6	1	1	*
535	Corby Studfall Junior	38	367	17	17	1	*
536	Avondale Infant School	0	0	1	*	1	*
537	Barry Road Primary	26	252	13	6	0	0
538	Broughton Primary	26	163	10	5	4	*
539	Clipston Primary	16	74	15	2	1	*
540	Croyland Nursery	16	237	8	9	2	*
541	Fairfields Special School	51	479	44	22	3	*
542	Finedon Infant School	11	104	6	3	0	0
543	Friars Special School	28	376	5	*	1	*
544	Henry Chichele Primary School	6	58	3	*	0	0
545	Irthingborough Junior School	25	194	12	5	3	*
546	Mawsley Primary School	34	193	12	6	0	0
547	Abbeyfield School	0	0	27	19	6	10
548	Parklands Primary	20	143	11	8	3	*
550	Rowan Gate Primary School	6	68	3	*	2	*



Employer code	Employer Name	Employees		Deffereds		Pensioners	
		Number	Actual Pay (£000)	Number	Pension (£000)	Number	Pension (£000)
551	St Mary's Primary, Burton Latimer	9	44	10	6	0	0
552	St. Patricks Primary School	11	159	8	3	3	*
553	The Ferrers College	55	698	17	11	2	*
554	Thorplands Primary School	42	486	20	10	0	0
555	Wallace Road Nursery	1	*	4	*	0	0
556	Weldon Primary School	22	155	15	6	2	*
557	Woodford Halse CE School	1	*	11	6	0	0
558	Boothville Primary School	34	186	5	*	0	0
559	Caroline Chisholm School	0	0	23	6	0	0
560	Chacombe CEVA Primary School	6	40	6	2	1	*
561	Duston School	0	0	23	16	3	*
562	Ecton Brook Primary School	0	0	12	4	2	*
563	Finedon Mulso CEVA Junior School	9	66	8	1	1	*
564	Gateway School	24	299	19	13	3	*
565	Greenfields School and Arts College	47	551	23	12	3	*
566	Isebrook School	40	510	2	*	1	*
567	Kingsley School Kettering	0	0	10	5	2	*
568	Montsaye Community College	0	0	25	15	3	*
569	Moulton Secondary School	1	*	18	12	3	*
570	Newton Road Community Primary School	2	*	4	*	0	0
571	Park Infant School (Raunds)	16	97	7	4	1	*
572	Park Junior School (Kettering)	34	256	6	5	0	0
573	Ringstead CE Primary School	10	54	4	*	0	0
574	South End Infant Rushden	30	226	9	4	1	*
575	South End Junior Rushden	27	175	10	5	0	0
576	St Mary's Catholic Primary School, Northampton	21	162	7	1	0	0
577	Stimpson Avenue Primary School	30	242	16	6	2	*
578	Towcester CE Primary School	17	145	6	2	1	*
579	Trinity Lower School	8	46	9	2	0	0
580	Wollaston Community Primary School	14	109	10	3	1	*
581	Vernon Terrace Primary	24	284	19	9	1	*
582	Latimer Arts College	53	678	9	13	0	0
583	Couthbrook Infant and nursery	0	0	6	1	0	0
585	Rothwell Junior School	19	123	0	0	0	0
586	The Elizabeth Woodville School	4	*	11	*	1	*
587	St Peter's C of E School	8	116	0	0	0	0
588	Oundle & Kings Cliffe Middle	42	353	2	*	1	*
589	Wootton Primary School	0	0	3	*	0	0
590	Higham Ferrers Nur & Inf Sch	23	196	2	*	0	0
591	Kings Heath Primary	27	227	4	*	0	0
592	Hopping Hill Primary School	39	326	0	0	2	*
593	The Avenue Infants School	17	131	0	0	0	0
594	Billing Brook Special School	49	547	9	4	2	*
595	The Grange School, Daventry	24	209	4	*	0	0
596	Oakley Vale Primary School	42	283	0	0	0	0
597	Woollaston School	44	592	3	*	0	0
598	Brixworth CEVC Primary school	45	252	1	*	0	0
599	Denfield Park Primary School	35	344	0	0	0	0
601	Southfield School for Girls	0	0	28	26	10	31
602	Kingsley Park School	0	0	17	5	5	*
603	Corby Kingswood School	65	866	28	27	18	42
604	The King John School Thrapston	30	234	18	7	4	*
605	Northampton School for Boys	0	0	40	32	13	29
606	Lodge Park Technology College	6	79	63	54	12	36
607	Manor School and Sports College Raunds	0	0	24	11	17	39
608	Kettering Montagu School	0	0	18	12	13	41
609	Wellingborough Weavers School	77	943	76	36	28	42
610	Sir Christopher Hatton School Wellingborough	1	*	41	20	13	23
611	Wellingborough Wrenn School	71	1,187	49	26	20	65
612	Corby Queen Elizabeth School	0	0	3	*	7	17
620	Duston Eidean Primary School	12	86	0	0	0	0
621	East Hunsbury Primary School	31	293	1	*	0	0
622	Simon de Senlis Primary School	40	240	0	0	0	0
623	Diamond Learning Community	25	295	5	*	0	0
625	Hunsbury Park Primary	15	94	0	0	0	0
700	Corby Business Academy	61	972	9	14	10	28
701	Brooke Weston Academy	52	935	7	3	5	*
703	May Gurney Limited	20	583	0	0	6	11
704	WSP Management Services Limited	25	673	7	35	8	80
705	Kettering Science Academy	66	807	40	45	10	21
706	Kettering Buccleuch Academy	65	831	16	8	6	10
707	Malcolm Arnold Academy	44	749	21	27	3	*

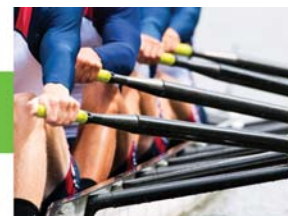




Employer code	Employer Name	Employees		Deferreds		Pensioners	
		Number	Actual Pay (£000)	Number	Pension (£000)	Number	Pension (£000)
708	Service 6	4	*	9	*	0	0
709	CDS	0	0	0	0	3	*
710	Northampton School for Boys	70	1,045	13	5	2	*
711	Creton Parish Council	1	*	0	0	0	0
712	Deanshanger Parish Council	1	*	1	*	0	0
713	Riverside Truck Rental	0	0	1	*	0	0
714	Nordis Signs	11	192	3	*	1	*
715	Sponne Academy	76	835	11	8	4	*
716	Guilsborough Academy	44	649	10	9	5	*
717	Duston School	75	1,071	10	6	0	0
718	Hartwell	12	106	6	3	0	0
719	Nicholas Hawksmoor	31	237	5	*	0	0
720	NBC Leisure	99	1,552	6	5	3	*
721	Caroline Chisholm	92	1,103	21	17	0	0
722	Waste Management	163	3,446	19	71	16	75
723	Bishop Stopford CE	57	803	6	4	5	*
724	Balfour Beatty-St Lighting	5	*	1	*	1	*
725	Southfield	43	558	4	*	3	*
726	Montsaye	73	801	21	18	6	9
727	Campion	89	881	7	7	1	*
729	Moulton	62	834	10	8	1	*
730	Manor	57	750	5	*	3	*
731	Northgate	69	623	7	10	1	*
732	Kingsley	47	534	0	0	2	*
733	Chenderit	63	574	8	4	2	*
734	Sir Christopher Hatton	53	675	4	*	0	0
735	Woodland View Primary	31	212	0	0	0	0
736	Waynflete Infants School	13	120	1	*	0	0
737	DSLVA	85	919	13	7	1	*
738	Huxlow	32	401	1	*	1	*
739	Woodnewton - a learning community	78	638	5	*	0	0
740	Cedar Road Academy	24	152	0	0	0	0
741	Boughton Primary School	7	71	0	0	0	0
742	Weston Favell Academy	43	733	0	0	0	0
743	Parker E-Act Academy	54	583	2	*	0	0
744	Gretton Primary (Brooke Weston)	11	57	1	*	0	0
745	Beanfield Primary (Brooke Weston)	47	407	3	*	0	0
746	Corby Technical College	1	*	1	*	0	0
747	Maplefields School	24	367	2	*	0	0
748	Abbeyfield school	50	697	0	0	0	0
749	Welton Church of England Academy	17	58	3	*	0	0
750	Wootton Primary	33	221	6	0	0	0
754	Kingsthorpe College Academy (Edison Learning)	52	783	2	*	0	0
755	Lumbertubs Primary Academy (Edison Learning)	13	101	1	*	0	0
756	Spring Lane Primary Academy (Edison Learning)	37	270	1	*	0	0
757	Eastfield Academy (DRET)	9	85	0	0	0	0
758	Ruskin Junior Academy (Education Fellowship)	20	200	1	*	0	0
759	Warwick Primary Academy (Education Fellowship)	36	242	2	*	0	0
760	Briar Hill Primary Academy (DRET)	17	178	1	*	0	0
761	Complimentary Education	29	485	0	0	0	0
762	Weston Favell Primary School	42	215	1	*	0	0
763	Abington Vale Primary School	17	117	0	0	0	0
764	Headlands Primary School	52	628	3	*	0	0
765	Lings Primary School	14	152	1	*	0	0
766	Ecton Brook Primary School	45	449	6	4	0	0
767	Elizabeth Woodville School	104	1,096	2	*	0	0
768	Preston Hedges Primary School	36	245	2	*	0	0
769	Southfield Primary School	32	184	1	*	0	0
770	Rushden Community Academy	44	632	1	*	0	0
771	Blackthorn Primary School	25	187	0	0	1	*
772	Lodge Park Academy	53	696	1	*	0	0
773	The Arbours Primary	29	179	0	0	0	0
774	Exeter – A learning community	54	570	3	*	0	0
775	Magdalen College	90	1,004	0	0	0	0
776	Sunnyside Primary	20	115	0	0	0	0
777	Woodvale Primary	27	215	0	0	0	0
778	Silverstone University Technical College	1	*	0	0	0	0
88	Councillors - Borough Council of Wellingborough	2	*	0	0	0	0
81	Councillors - Northamptonshire County Council	0	0	0	0	0	0
728	Spratton	1	*	0	0	0	0

\*salary/pension amounts have been removed where there are 5 or less members for data protection purposes.





### Assets at 31 March 2013

A summary of the Fund's assets (excluding members' money-purchase Additional Voluntary Contributions) as at 31 March 2013 and 31 March 2010 is as follows:

Asset class	Market Value at 31 March 2010 (£000)	Allocation %	Market Value at 31 March 2013 (£000)	Allocation %
UK equities	338,419	28%	583,226	37%
UK fixed interest gilts	30,755	3%	13,799	1%
UK corporate bonds	124,779	10%	0	0%
UK index-linked gilts	83,964	7%	42,950	3%
Overseas equities	512,416	43%	527,093	34%
Overseas bonds	2,946	0%	241,358	16%
Property	70,830	6%	78,475	5%
Cash and net current assets	35,996	3%	56,238	4%
<b>Total</b>	<b>1,200,105</b>	<b>100%</b>	<b>1,543,139</b>	<b>100%</b>

Note that, for the purposes of determining the funding position at 31 March 2013, the asset value we have used also includes the present value of expected future early retirement strain payments.

### Accounting data – revenue account for the three years to 31 March 2013

Consolidated accounts (£000)	Year to			Total
	31 March 2011	31 March 2012	31 March 2013	
<b>Income</b>				
Employer - normal contributions	66,003	63,849	69,663	199,516
Employer - additional contributions	0	0	0	0
Employer - early retirement and augmentation strain contributions	0	4,139	1,578	5,717
Employee - normal contributions	19,889	18,631	17,647	56,167
Employee - additional contributions	299	236	182	716
Transfers In Received (including group and individual)	7,768	6,810	2,363	16,941
Other Income	0	0	0	0
<b>Total Income</b>	<b>93,959</b>	<b>93,665</b>	<b>91,433</b>	<b>279,057</b>
<b>Expenditure</b>				
Gross Retirement Pensions	49,210	53,693	60,680	163,583
Lump Sum Retirement Benefits	14,139	18,735	9,388	42,262
Death in Service Lump sum	0	0	0	0
Death in Deferment Lump Sum	0	0	0	0
Death in Retirement Lump Sum	1,848	1,613	1,142	4,603
Gross Refund of Contributions	0	0	0	0
Transfers out (including bulk and individual)	9,458	5,686	4,875	20,019
Fees and Expenses	2,352	2,547	2,645	7,544
<b>Total Expenditure</b>	<b>77,007</b>	<b>82,274</b>	<b>78,730</b>	<b>238,011</b>
<b>Net Cashflow</b>	<b>16,952</b>	<b>11,392</b>	<b>12,703</b>	<b>41,047</b>
<b>Assets at start of year</b>	<b>1,200,104</b>	<b>1,298,440</b>	<b>1,346,736</b>	<b>1,200,104</b>
Net cashflow	16,952	11,392	12,703	41,047
Change in value	81,384	36,904	183,700	301,988
<b>Assets at end of year</b>	<b>1,298,440</b>	<b>1,346,736</b>	<b>1,543,139</b>	<b>1,543,139</b>
<b>Approximate rate of return on assets</b>	<b>6.7%</b>	<b>2.8%</b>	<b>13.6%</b>	<b>24.7%</b>

Note that the figures above are based on the Fund accounts provided to us for the purposes of this valuation, which were fully audited at the time of our valuation calculations.



## Appendix E: Assumptions

### Financial assumptions

Financial assumptions	31 March 2010 (% p.a.)	31 March 2013 (% p.a.)
Discount rate	6.1%	4.6%
Price inflation	3.8%	3.3%
Pay increases*	5.3%	4.3%
Pension increases:		
pension in excess of GMP	3.3%	2.5%
post-88 GMP	2.8%	2.5%
pre-88 GMP	0.0%	0.0%
Revaluation of deferred pension	3.3%	2.5%
Expenses	0.8%	0.9%

\*An allowance is also made for promotional pay increases (see table below). Note that the assumption at 31 March 2010 is actually 1% p.a. for 2010/11 and 2011/12, reverting to 5.3% p.a. thereafter.

### Mortality assumptions

Longevity assumptions	31 March 2013
Longevity - baseline	Vita curves
Longevity - improvements	
CMI Model version used	CMI_2010
Starting rates	CMI calibration based on data from Club Vita using the latest available data as at December 2011.
Long term rate of improvement	Period effects: 1.25% p.a. for men and women. Cohort effects: 0% p.a. for men and for women.
Period of convergence	Period effects:  CMI model core values i.e. 10 years for ages 50 and below and 5 years for those aged 95 and above, with linear transition to 20 years for those aged between 60 and 80.  Cohort effects:  CMI core i.e. 40 years for those born in 1947 or later declining linearly to 5 years for those born in 1912 or earlier.
Proportion of convergence remaining at mid point	50%

We have suggested a longevity improvement assumption based on the latest industry standard and combined information from our longevity experts in Club Vita. The start point for the improvements has been based on observed death rates in the Club Vita data bank over the period.

In the short term we have assumed that the 'cohort effect' of strong improvements in life expectancy currently being observed amongst a generation born around the early and mid-1930s will start to tail off, resulting in life expectancy increasing less rapidly than has been seen over the last decade or two. This is known as 'peaked'.

In the long term (post age 70) we have assumed that increases in life expectancy will stabilise at a rate of increase of 1 year per decade for men and women. This is equivalent to assuming that longer term mortality rates will fall at a rate of 1.25% p.a. for men and women.

Various scaling factors have been applied to the mortality tables to reflect the predicted longevity for each class of member and their dependants. Full details of these are available on request.



As a member of Club Vita, the longevity assumptions that have been adopted at this valuation are a bespoke set of VitaCurves that are specifically tailored to fit the membership profile of the Fund. These curves are based on the data you have provided us with for the purposes of this valuation. Full details of these are available on request.

#### Other demographic valuation assumptions

Retirements in ill health	Allowance has been made for ill-health retirements before Normal Pension Age (see table below).
Withdrawals	Allowance has been made for withdrawals from service (see table below).
Family details	A varying proportion of members are assumed to be married (or have an adult dependant) at retirement or on earlier death. For example, at age 60 this is assumed to be 90% for males and 85% for females. Husbands are assumed to be 3 years older than wives.
Commutation	50% of future retirements elect to exchange pension for additional tax free cash up to HMRC limits for service to 1 April 2008 (equivalent 75% for service from 1 April 2008).
50:50 option	10% of members (uniformly distributed across the age, service and salary range) will choose the 50:50 option.

The tables below show details of the assumptions actually used for specimen ages. The promotional pay scale is an annual average for all employees at each age. It is in addition to the allowance for general pay inflation described above. For membership movements, the percentages represent the probability that an individual at each age leaves service within the following twelve months.



### Death in Service table:

Age	Incidence per 1000 active members per annum			
	Male officers and Post 98	Male Manuals	Female officers and Post 98	Female Manuals
	Death	Death	Death	Death
20	0.21	0.27	0.12	0.15
25	0.21	0.27	0.12	0.15
30	0.26	0.32	0.18	0.22
35	0.30	0.37	0.30	0.37
40	0.51	0.64	0.48	0.60
45	0.85	1.07	0.77	0.97
50	1.36	1.71	1.13	1.42
55	2.13	2.68	1.49	1.87
60	3.83	4.82	1.90	2.39
65	6.38	8.03	2.44	3.07

### Ill Health Early Retirements tables

#### Tier 1

Age	Incidence for 1000 active members per annum							
	Male Officers & Post 98 Males		Male Manuals		Female Officers & Post 98 Females		Female Manuals	
	Ill Health		Ill Health		Ill Health		Ill Health	
	FT	PT	FT	PT	FT	PT	FT	PT
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.60	0.60	0.15	0.11	0.79	0.79
30	0.00	0.00	1.11	1.11	0.20	0.15	1.15	1.15
35	0.15	0.11	1.66	1.66	0.40	0.30	1.58	1.58
40	0.25	0.19	2.42	2.42	0.60	0.45	2.30	2.30
45	0.55	0.42	3.33	3.33	0.81	0.60	3.02	3.02
50	1.41	1.06	4.94	4.94	1.51	1.13	4.03	4.03
55	5.53	4.15	11.69	11.69	5.61	4.20	10.83	10.83
60	9.73	7.30	18.74	18.74	11.89	8.92	19.05	19.05
65	18.48	13.86	36.12	36.12	21.37	16.03	36.12	36.12



**Tier 2**

Age	Incidence for 1000 active members per annum								
	Male Officers & Post 98 Males		Male Manuals		Female Officers & Post 98 Females		Female Manuals		
	Ill Health		Ill Health		Ill Health		Ill Health		
	FT	PT	FT	PT	FT	PT	FT	PT	
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.64	0.64	0.16	0.12	0.84	0.84	
30	0.00	0.00	1.18	1.18	0.21	0.16	1.22	1.22	
35	0.16	0.12	1.77	1.77	0.43	0.32	1.68	1.68	
40	0.27	0.20	2.57	2.57	0.64	0.48	2.45	2.45	
45	0.59	0.44	3.53	3.53	0.86	0.64	3.21	3.21	
50	1.90	1.42	6.65	6.65	2.03	1.53	5.43	5.43	
55	4.27	3.20	9.03	9.03	4.33	3.25	8.37	8.37	
60	3.66	2.75	7.05	7.05	4.48	3.36	7.17	7.17	
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

**Tier 3**

Age	Incidence for 1000 active members per annum								
	Male Officers & Post 98 Males		Male Manuals		Female Officers & Post 98 Females		Female Manuals		
	Ill Health		Ill Health		Ill Health		Ill Health		
	FT	PT	FT	PT	FT	PT	FT	PT	
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.48	0.38	0.09	0.07	0.55	0.44	
30	0.09	0.07	0.77	0.62	0.15	0.12	0.77	0.61	
35	0.12	0.10	1.16	0.93	0.30	0.24	1.11	0.88	
40	0.21	0.17	1.61	1.29	0.39	0.31	1.53	1.22	
45	0.48	0.38	2.32	1.86	0.62	0.50	1.96	1.56	
50	0.26	0.21	0.68	0.54	0.24	0.20	0.58	0.46	
55	0.37	0.30	0.77	0.61	0.45	0.36	0.76	0.61	
60	0.21	0.17	0.42	0.33	0.25	0.20	0.42	0.33	
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

**Withdrawal**

**Less than 2 years' service**

Age	Incidence for 1000 active members per annum											
	Male Officers Withdrawals		Male Manuals Withdrawals		Female Officers Withdrawals		Female Manuals Withdrawals		Post 98 Males Withdrawals		Post 98 Females Withdrawals	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
20	304.04	506.74	304.04	506.74	288.39	400.55	288.39	400.55	557.41	1000.00	384.52	640.87
25	200.83	334.72	201.20	335.01	194.07	269.50	194.43	269.79	368.19	736.38	258.74	431.17
30	142.53	237.46	143.05	237.91	162.69	225.89	163.17	226.27	261.24	522.40	216.89	361.38
35	111.38	185.51	112.17	186.19	140.45	194.94	141.07	195.43	204.11	408.11	187.19	311.79
40	89.71	149.31	90.77	150.23	116.92	162.22	117.80	162.92	164.33	328.47	155.80	259.40
45	73.64	122.28	75.03	123.55	96.49	133.73	97.50	134.54	134.71	268.98	128.49	213.73
50	56.96	94.68	57.28	95.02	73.34	101.75	73.60	101.96	104.26	208.28	97.73	162.71
55	49.47	82.09	49.77	82.44	56.73	78.59	56.97	78.78	90.46	180.57	75.53	125.58
60	29.97	49.75	30.13	49.94	26.40	36.55	26.52	36.65	54.81	109.43	35.13	58.39



### More than 2 years' service

Age	Incidence for 1000 active members per annum											
	Male Officers Withdrawals		Male Manuals Withdrawals		Female Officers Withdrawals		Female Manuals Withdrawals		Post 98 Males Withdrawals		Post 98 Females Withdrawals	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
	20	119.85	199.76	119.85	199.76	113.69	157.90	113.69	157.90	219.73	439.46	151.58
25	79.17	131.95	79.31	132.06	76.50	106.24	76.64	106.35	145.14	290.28	101.99	169.97
30	56.18	93.60	56.39	93.78	64.13	89.05	64.32	89.20	102.98	205.93	85.50	142.46
35	43.90	73.12	44.22	73.40	55.37	76.84	55.61	77.04	80.46	160.88	73.79	122.91
40	35.36	58.85	35.79	59.22	46.09	63.95	46.44	64.22	64.78	129.48	61.42	102.26
45	29.03	48.18	29.59	48.71	38.04	52.72	38.44	53.04	53.10	106.03	50.65	84.25
50	22.45	37.31	22.58	37.46	28.91	40.11	29.01	40.19	41.10	82.10	38.52	64.14
55	19.50	32.35	19.62	32.50	22.36	30.98	22.46	31.06	35.66	71.18	29.77	49.50
60	11.82	19.60	11.88	19.69	10.41	14.41	10.46	14.45	21.61	43.14	13.85	23.02

### Promotional salary scale

Age	Promotional Salary Scales							
	Male Officers & Post 98 Males		Male Manuals		Female Officers & Post 98 Females		Female Manuals	
	FT	PT	FT	PT	FT	PT	FT	PT
20	100	100	100	100	100	100	100	100
25	135	116	100	100	118	105	100	100
30	169	134	100	100	137	111	100	100
35	192	146	100	100	151	116	100	100
40	208	153	100	100	163	121	100	100
45	222	154	100	100	166	122	100	100
50	236	154	100	100	166	122	100	100
55	239	154	100	100	166	122	100	100
60	239	154	100	100	166	122	100	100
65	239	154	100	100	166	122	100	100



## Appendix F: Events since valuation date

### Post-valuation events

These valuation results are in effect a snapshot of the Fund as at 31 March 2013. Since that date, various events have had an effect on the financial position of the Fund. Whilst we have not explicitly altered the valuation results to allow for these events, a short discussion of these “post-valuation events” can still be beneficial in understanding the variability of pension funding.

### Investment conditions since 31 March 2013

In the period from the valuation date to early March 2014, investment markets moved in the following manner:

- asset returns have been c. 7%
- long term Government bond yields have risen by more than long term expected price inflation, which is likely to have reduced past service liabilities by c. 6%

It should be noted that the above is for information only: the figures in this report have all been prepared using membership data, audited asset information and market-based assumptions all as at 31 March 2013. In particular, we do not propose amending any of the contribution rates listed in the Rates & Adjustments Certificate on the basis of these market changes, and all employer contribution rates are based on valuation date market conditions. In addition, these rates are finalised within a risk-measured framework as laid out in the Fund’s Funding Strategy Statement (FSS).

We do not propose altering the FSS to include allowance for post-valuation date market changes, since this principle would then need to be adopted for future valuations even if markets had worsened since the valuation date (thus increasing contribution rates). Such a change in principle would then obstruct advance planning by employers. Only allowing for market changes where these reduced contribution rates, and not where they increased the rates, would not be consistent with prudent financial management of the Fund.

### Other events

Other than investment conditions changes above, I am not aware of any material changes or events occurring since the valuation date.





## Appendix G: Rates and adjustments certificate

In accordance with regulation 36(1) of the Administration Regulations we have made an assessment of the contributions that should be paid into the Fund by participating employers for the period 1 April 2014 to 31 March 2017 in order to maintain the solvency of the Fund.

The method and assumptions used to calculate the contributions set out in the Rates and Adjustments certificate are detailed in the Funding Strategy Statement for the 2013 valuation, and our report on the actuarial valuation dated 31 March 2014.

The required minimum contribution rates are set out in the table below.

Signature:

Date: 31 March 2014

31 March 2014

Name: Douglas Green

Bryan Chalmers

Qualification: Fellow of the Institute and  
Faculty of Actuaries

Fellow of the Institute and  
Faculty of Actuaries

Firm: Hymans Robertson LLP

Hymans Robertson LLP

20 Waterloo Street

20 Waterloo Street

Glasgow

Glasgow

G2 6DB

G2 6DB



## Statement to the rates and adjustments certificate

The Common Rate of Contribution payable by each employing authority under regulation 36(4)(a) of the Administration Regulations for the period 1 April 2014 to 31 March 2017 is 32.1% of pensionable pay (as defined in Appendix B).

Individual Adjustments are required under regulation 36(4)(b) of the Administration Regulations for the period 1 April 2014 to 31 March 2017 resulting in Minimum Total Contribution Rates expressed as a percentage of pensionable pay are as set out below.

The contributions shown include expenses and the expected cost of lump sum death benefits but exclude early retirement strain and augmentation costs which are payable by Fund employers in addition.

Employer code	Employer name	Contributions currently being paid in 2013/14	Minimum Contributions for the Year Ending		
			31 March 2015	31 March 2016	31 March 2017
<b>Councils</b>					
	Northamptonshire County Council *	12.8% plus £9,500,000	12.8% plus £7,080,000	12.8% plus £8,230,000	12.8% plus £9,460,000
	Local Education Authority Schools	22.4%	22.4%	22.6%	23.6%
	Northampton Borough Council *	13.3% plus £4,915,000	13.3% plus £5,300,000	13.3% plus £5,680,000	13.3% plus £6,060,000
	Borough Council of Wellingborough *	13.9% plus £1,107,000	13.9% plus £1,180,000	13.9% plus £1,250,000	13.9% plus £1,320,000
102	Corby Borough Council	13.1% plus £1,422,000	13.1% plus £1,570,000	13.1% plus £1,710,000	13.1% plus £1,860,000
103	Daventry District Council	11.5% plus £1,026,000	11.5% plus £1,110,000	11.5% plus £1,190,000	11.5% plus £1,270,000
104	East Northamptonshire Council	12.5% plus £790,000	12.5% plus £870,000	12.5% plus £960,000	12.5% plus £1,040,000
105	Kettering Borough Council	12.0% plus £1,474,000	12.0% plus £1,670,000	12.0% plus £1,860,000	12.0% plus £2,050,000
107	South Northamptonshire Council	12.8% plus £806,000	12.8% plus £910,000	12.8% plus £1,010,000	12.8% plus £1,110,000
<b>Colleges</b>					
	The University of Northampton*	12.0% plus £1,031,000	12.0% plus £1,200,000	12.0% plus £1,380,000	12.0% plus £1,570,000
	Northampton College*	20.5%	20.5% plus £50,000	20.5% plus £100,000	20.5% plus £160,000
267	Tresham Institute	12.4% plus £226,000	12.4% plus £270,000	12.4% plus £320,000	12.4% plus £370,000
269	Moulton College	11.8% plus £209,000	11.8% plus £260,000	11.8% plus £320,000	11.8% plus £380,000
<b>Town and Parish Councils</b>					
234	Brackley Town Council	22.3%	23.3%	24.3%	25.3%
235	Moulton Parish Council	22.3%	23.3%	24.3%	25.3%
237	Raunds Town Council	22.3%	23.3%	24.3%	25.3%
238	Towcester Town Council	22.3%	23.3%	24.3%	25.3%
239	Oundle Town Council	22.3%	23.3%	24.3%	25.3%
240	Duston Parish Council	22.3%	23.3%	24.3%	25.3%
241	Rushden Town Council	22.3%	23.3%	24.3%	25.3%
242	Irthlingborough Town Council	22.3%	23.3%	24.3%	25.3%
243	Wootton & East Hunsbury Parish Council	22.3%	23.3%	24.3%	25.3%
244	Daventry Town Council	22.3%	23.3%	24.3%	25.3%
245	Long Buckby Parish Council	22.3%	23.3%	24.3%	25.3%
246	Wollaston Parish Council	22.3%	23.3%	24.3%	25.3%
247	Stanwick Parish Council	22.3%	23.3%	24.3%	25.3%
248	Barby Parish Council	22.3%	23.3%	24.3%	25.3%
249	Billing Parish Council	22.3%	23.3%	24.3%	25.3%
250	Grange Park Parish Council	22.3%	23.3%	24.3%	25.3%
251	Brixworth Parish Council	22.3%	23.3%	24.3%	25.3%
304	Higham Ferrers Town Council	22.3%	23.3%	24.3%	25.3%
711	Creaton Parish Council	22.3%	23.3%	24.3%	25.3%
712	Deanshanger Parish Council	22.3%	23.3%	24.3%	25.3%
728	Spratton Parish Council	22.3%	23.3%	24.3%	25.3%



Employer code	Employer name	Contributions currently being paid	Minimum Contributions for the Year Ending		
			31 March 2015	31 March 2016	31 March 2017
<b>Academies</b>					
700	Corby Business Academy	16.3%	19.6%	19.6%	19.6%
701	Brooke Weston Academy	16.3%	17.3%	17.3%	17.3%
705	Kettering Science Academy	16.3%	14.3%	14.3%	14.3%
706	Kettering Buccleuch Academy	15.6%	15.8%	15.8%	15.8%
707	Malcolm Arnold Academy	17.8%	22.6%	23.0%	23.0%
710	Northampton School for Boys	17.7%	22.6%	23.6%	24.2%
715	Sponne Academy	19.0%	22.6%	23.5%	23.5%
716	Guilborough Academy	17.5%	22.0%	22.0%	22.0%
717	Duston Academy	16.8%	22.6%	23.6%	23.6%
718	Hartwell	17.4%	21.5%	21.5%	21.5%
719	Nicholas Hawksmoor	16.3%	22.5%	22.5%	22.5%
721	Caroline Chisholm	14.9%	19.4%	19.4%	19.4%
723	Bishop Stopford CE	17.3%	22.6%	23.6%	24.6%
725	Southfield	22.4%	22.6%	23.6%	24.6%
726	Montsaye	18.9%	21.7%	21.7%	21.7%
727	Campion	21.2%	22.6%	23.6%	24.5%
729	Moulton	21.8%	22.6%	23.2%	23.2%
730	Manor	21.7%	22.6%	22.9%	22.9%
731	Northgate	17.8%	17.6%	17.6%	17.6%
732	Kingsley	22.4%	22.6%	23.6%	24.6%
733	Chenderit	22.4%	22.6%	23.6%	24.0%
734	Sir Christopher Hatton	22.4%	22.6%	22.8%	22.8%
735	Woodland View Primary	22.4%	22.6%	23.6%	24.6%
736	Waynflete Infants School	22.4%	22.6%	23.6%	24.6%
737	DSL	22.4%	22.6%	23.1%	23.1%
738	Huxlow	21.1%	22.6%	23.6%	24.6%
739	Woodnewton	26.2%	21.8%	21.8%	21.8%
740	Cedar Road Academy	20.0%	22.6%	23.6%	24.6%
741	Boughton Primary School	21.7%	20.9%	20.9%	20.9%
742	Weston Favell Academy	18.4%	22.6%	23.6%	24.6%
743	Parker E-Act Academy	22.4%	22.6%	22.6%	22.6%
744	Gretton Primary	22.4%	22.6%	23.6%	24.1%
745	Beanfield Primary	22.4%	22.2%	22.2%	22.2%
747	Maplefields School	28.3%	22.6%	23.6%	24.6%
748	Abbeyfield School	24.5%	22.6%	23.6%	24.6%
749	Welton Church of England Academy	22.0%	22.2%	22.2%	22.2%
750	Wootton Primary	22.4%	22.6%	23.6%	24.6%
757	Eastfield Academy	22.0%	18.6%	18.6%	18.6%
758	Ruskin Junior Academy	22.4%	22.6%	23.6%	24.6%
759	Warwick Primary Academy	22.4%	22.6%	23.6%	23.6%
760	Briar Hill Primary Academy	22.0%	22.6%	23.6%	24.2%
761	Complimentary Education	22.4%	22.6%	23.6%	24.6%
762	Weston Favell Primary School	18.4%	22.6%	23.6%	24.3%
763	Abington Vale Primary School	22.4%	22.6%	23.6%	24.6%
764	Headlands Primary School	22.4%	22.6%	23.6%	24.6%
765	Lings Primary School	22.4%	19.5%	19.5%	19.5%
766	Ecton Brook Primary School	22.4%	22.6%	23.6%	24.6%
767	Elizabeth Woodville School	22.4%	22.6%	23.6%	24.5%
768	Preston Hedges Primary School	22.4%	22.6%	23.3%	23.3%
769	Southfield Primary School	22.4%	22.6%	23.6%	24.6%
770	Rushden Community Academy	22.4%	22.6%	23.6%	24.6%
771	Blackthorn Primary School	22.4%	22.6%	23.6%	24.6%
772	Lodge Park Academy	22.4%	22.6%	23.6%	24.6%
773	The Arbours Primary	22.4%	22.1%	22.1%	22.1%
774	Exeter	24.1%	20.7%	20.7%	20.7%
775	Magdalen College	22.4%	22.6%	23.6%	24.6%
776	Sunnyside Primary	22.4%	22.6%	23.6%	24.6%
777	Woodvale Primary	20.9%	21.1%	21.1%	21.1%
778	Silverstone University Technical College	22.4%	13.4%	13.4%	13.4%
	Edison Learning *	20.9%	22.6%	23.6%	24.6%



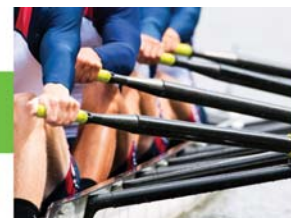
Employer code	Employer name	Contributions currently being paid	Minimum Contributions for the Year Ending		
			31 March 2015	31 March 2016	31 March 2017
<b>Individual Employers</b>					
10	Police and Crime Commissioner for Northamptonshire	17.0%	17.0% ¥	17.0% ¥	17.0% ¥
27	Northamptonshire Probation Board	11.0% plus £674,000	13.8% plus £684,000	16.5% plus £695,000	19.3% plus £705,000
254	Age Concern Northampton and County	49.9%	47.2% plus £7,000	47.2% plus £15,000	47.2% plus £24,000
256	Northamptonshire Connexions Partnership	12.4% plus £383,000	14.8% plus £505,000	17.3% plus £626,000	19.7% plus £748,000
262	Wollaston School Cleaners	20.1% plus £21,000	22.1% plus £9,000	22.1%	22.1%
271	The Castle (Wellingborough) Limited	14.8% plus £21,000	16.0% plus £22,000	17.1% plus £23,000	18.3% plus £24,000
275	Spire Homes Limited	15.9% plus £80,000	17.0% plus £117,000	18.0% plus £154,000	19.1% plus £191,000
276	The Northampton Theatres Trust Limited	12.1% plus £60,000	14.1% plus £88,000	16.2% plus £115,000	18.2% plus £143,000
278	Northampton High School	11.9% plus £33,000	15.8% plus £47,000	19.7% plus £62,000	23.5% plus £76,000
280	North Northamptonshire Development Corporation	30.4%	30.4%	30.4%	30.4%
282	EMLC	19.7%	20.7%	20.7%	20.7%
283	East Northants Cultural Trust	16.9%	18.6% plus £99,000	18.6% plus £99,000	18.6% plus £99,000
284	Shaw Healthcare	20.8%	22.5% plus £6,000	24.2% plus £12,000	26.0% plus £18,000
285	Northampton Academy - United Learning	15.2%	16.5% plus £10,000	17.8% plus £19,000	19.1% plus £29,000
286	Amey Plc	22.1%	22.9% plus £10,000	23.6% plus £20,000	24.4% plus £30,000
287	West Northants Development Corporation	10.6% plus £370,000	17.4%	17.4%	17.4%
291	Northamptonshire Enterprise Limited	15.8%	17.4%	19.0%	20.5%
292	DC Leisure (Leisure and Community Partnership)	15.5%	17.7%	19.9%	22.1%
294	NSL Limited	19.6%	20.6% plus £4,000	21.5% plus £9,000	22.5% plus £13,000
295	Daventry & District Housing	14.7% plus £51,000	16.8% plus £78,000	18.9% plus £104,000	21.0% plus £131,000
300	Wellingborough Homes	16.1%	18.8%	21.5%	24.2%
301	South Northants Homes	15.8%	18.0%	20.2%	22.4%
302	Rockingham Forest Trust	19.0%	21.0% plus £1,000	23.0% plus £1,000	25.1% plus £1,000
303	emPSN	18.4%	19.4%	20.5%	21.5%
392	Community Spaces	24.2%	22.1%	22.1%	22.1%
393	Northamptonshire Music and Performing Arts Trust	21.8%	18.7%	18.7%	18.7%
395	Wellingborough Norse	21.9%	16.2%	16.2%	16.2%
396	WBC Audit Consortium	17.5%	13.1%	13.1%	13.1%
397	SLM	16.5%	12.7%	12.7%	12.7%
398	University of Northampton Enterprise Ltd	35.7%	22.3%	22.3%	22.3%
703	May Gurney Limited	21.3%	21.7%	21.7%	21.7%
704	WSP Management Services Limited	21.4%	19.6%	19.6%	19.6%
708	Service 6	17.8%	23.1%	23.1%	23.1%
714	Nordis Signs	18.2%	20.1% plus £7,000	22.0% plus £15,000	23.8% plus £22,000
720	Unity Leisure	17.5%	18.5% plus £19,000	19.4% plus £39,000	20.4% plus £58,000
722	Waste Management	18.9%	20.5% plus £65,000	22.1% plus £129,000	23.6% plus £194,000
724	Balfour Beatty-St Lighting	21.2%	22.5% plus £1,000	23.8% plus £1,000	25.1% plus £1,000
746	Corby Technical College	16.3%	22.6%	23.3%	23.3%

¥ The Police and Crime Commissioner for Northamptonshire have paid a lump sum contribution of £1.325m in place of paying their deficit repayment contributions over the three years from 1 April 2014. This sum is equivalent to the present value of deficit contributions of £230,000 for the year ending 31 March 2015, £470,000 for the year ending 31 March 2016 and £740,000 for the year ending 31 March 2017.

Employer code	Employer name	Surplus/Deficit (000's)
<b>No Actives</b>		
32	Department for Constitutional Affairs (Magistrates Courts)	(£5,175)
212	Northampton Joint Valuation Panel	(£38)
225	Northampton Development Corporation	(£1,938)
229	Corby Development Corporation	(£631)
252	Northampton and County Blind Association	(£347)
257	Dergate Housing Association Limited	(£59)
258	Northamptonshire Enterprise Agency	(£164)
277	Society of County Archivists	182
279	Newton in the Willows Trust	(£5)



Pool	Code	Name
Northampton Borough Council	106	Northampton Borough Council
	186	NBC Ex-Transport
	196	Northampton Transport Limited
	281	Pest Express
Borough Council of Wellingborough	108	Borough Council of Wellingborough
	88	Councillors - Borough Council of Wellingborough
The University of Northampton	261	The University of Northampton
	296	Old Nene College Pensioners
Northampton College	266	Northampton College
	268	Daventry College
Edison Learning	754	Kingsthorpe College Academy (Edison Learning)
	755	Lumbertubs Primary Academy (Edison Learning)
	756	Spring Lane Primary Academy (Edison Learning)
Northamptonshire County Council	1	Northamptonshire County Council
	43	Coroners
	81	Councillors - Northamptonshire County Council
	259	Nene Valley Waste
	288	Scholorest
	290	The Stationery Office
	293	Carillion Plc
	298	NCC - Ex Water
	299	NCC - Ex Health
	394	LATC
	399	May Guerne Fleet & Passenger Services
431	CRI	



### Stabilisation

The following employers have had their contribution rates stabilised following a separate modelling exercise that I carried out on their behalf:

- Northamptonshire County Council
- Corby Borough Council
- Daventry District Council
- East Northamptonshire Council
- Kettering Borough Council
- Northampton Borough Council
- South Northamptonshire Council
- Borough Council of Wellingborough
- The University of Northampton
- Tresham Institute
- Moulton College
- Northampton High School
- Northamptonshire Police Authority
- Town and Parish Councils
- Academies

For stabilised employers, contribution rates for the year ending 31 March 2018 will be set equal to those rates certified for the year ending 31 March 2017. This will be subject to market conditions at the time making it safe to do so.

### Further comments

- Contributions expressed as a percentage of payroll should be paid into Northamptonshire County Council Pension Fund (“the Fund”) at a frequency in accordance with the requirements of the Regulations.
- Further sums should be paid to the Fund to meet the costs of any early retirements and/or augmentation methods and factors issued by me from time to time.
- Further sums may be required to be paid to the Fund to meet the capital costs of any ill-health retirements that exceed those included within my assumptions. This additional cost will be met by either the employer or by Legal and General through whole of fund ill-health liability insurance policy for the Fund.
- The certified contribution rates represent the **minimum** level of contributions to be paid. Employing authorities may pay further amounts at any time and future periodic contributions may be adjusted on a basis approved by the Fund actuary.