Pensions inequality

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Introduction

This study looks at occupational pension schemes, which are those set up by employers for the benefit of their employees. A contribution is made by both the employer and employee into these schemes. The government's automatic enrolment initiative was designed to set up just such pension schemes.

Specifically, the report compares the occupational pensions that are available to new entrants[1] into the workplace and the pension they can expect at the end of their career. Schemes operating in the private and public sectors[2] are analysed and the value of the respective pension benefits provided are highlighted.

Key findings

For occupational pension schemes, a new employee aged 25 joining on the national average wage of **£28,600 a year,** and making the same level of employee pension contributions, would retire at 68 (the normal retirement age) on[3]:

- An average pension of:

Public sector	**61 per cent of final salary**
Private sector	**22 per cent of final salary**

- In 2018 prices, this would mean an average pension of:

Public sector	**£17,563 a year**
Private sector	**£6,412 a year**

For the above example:

- At current average levels of private employer pension contributions, the new private sector employee would need to make a pension contribution amounting to **30 per cent of their gross pay (£8,606) a year** to receive the same pension as an equivalent public sector worker.
- The new public sector employee could expect to retire on an index-linked, combined occupational and state pension[4] equal to **91 per cent of their final salary**.
- Public sector total remuneration, including the value of pension entitlements, is on average **23 per cent higher** than the private sector for comparable workers.

[1] This analysis does not relate to employees already in occupational pension schemes.
[2] For the purpose of this report, the civil service, NHS and teachers' pensions schemes are used as the basis to illustrate public sector pension schemes in general. Together with the armed services pension scheme, they account for around 75 per cent of central government pension spending.
[3]Percentages shown are rounded, calculations are based on tables 1 and 2.
[4] Full state pension £164.35 per week for 2018-19.

Projections for private sector pension schemes

Private sector pension projections are based on the 5 per cent intermediate rate of return prescribed for projections by the Financial Conduct Authority (FCA).[5] This is the same effective rate of investment return currently used by the Government Actuary's Department to assess the cost of public sector pensions.[6] However, this FCA rate includes a 3 per cent risk premium (primarily an equity market risk premium). Public sector pension benefits are guaranteed by the government and so are risk-free. If private sector pension funds were to be invested in equivalent risk-free government bonds, the nominal investment returns would be just 2 per cent[7] and the eventual pension only **13 per cent of final salary** (**£3,667 a year)** on the same basis as the previous example**.**

Table 1: comparison of occupational pension schemes for new entrants[8]

	Public sector				Private sector	
	Civil Service	NHS	Teachers	Weighted average	With risk	Risk free
Employee contribution (%)	5.45	9.30	8.60	8.46	8.46*	8.46*
Employer contribution (%)[9]	18.50	11.60	10.90	12.46	4.00	4.00
Annual pension (% of final salary)	60.22	62.51	60.24	61.41	22.42	12.82
Annual pension (£)[10]	17,223	17,878	17,229	17,563	6,412	3,667

*The private sector pension benefits are projected based on an 8.46 per cent employee contribution, the same as the public sector average. These were actually less than 2 per cent[11] in 2016, and only likely to increase to 5 per cent by 2019[12] as a result of automatic enrolment.

Based on prescribed FCA investment returns, to receive a pension of equivalent value to a new public sector worker on retirement, a new private sector employee would require combined pension contributions equal to 34 per cent of their gross pay. At current average levels of private employer contributions, this would mean a personal contribution by new employees amounting to **30 per cent of their gross pay**. Invested on a risk-free basis, the employee would need to contribute an even less likely **56 per cent of their gross pay** to match a public sector pension (refer to table 2).

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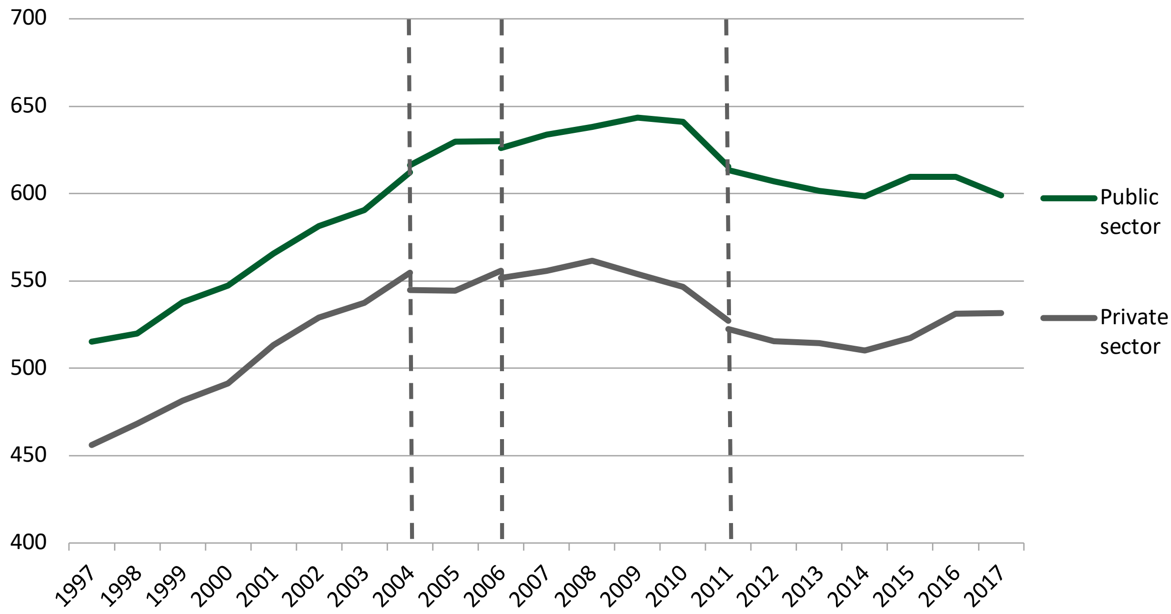
[5] FCA, *Rates of return for prescribed projections 2017,* https://www.fca.org.uk/publication/research/rates-return-fca-prescribed-projections.pdf, (accessed 28 June 2018).
[6] HM Treasury, *The Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014,* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/411287/HMT_Directions_9_Mar_2015.pdf, (accessed 28 June 2018).
[7] FCA, *Rates of return for prescribed projections 2017,* https://www.fca.org.uk/publication/research/rates-return-fca-prescribed-projections.pdf, (accessed 28 June 2018).
[8] Please see appendices A, B and C for parameters and detailed calculations.
[9] Public sector rate is the cap cost rate for the 2015 Schemes.
[10] Expressed in 2018 prices and levels of pay.
[11] ONS, *Occupational Pensions Schemes Survey 2016*, https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/pensionssavingsandinvestments/datasets/occupationalpensionschemessurvey, (accessed 11 April 2018).
[12] Ibid.

Table 2: cost of public sector level pensions for private sector employees[13]

	Public sector	Private sector	
	Average	With risk	Risk free
Employee contribution (%)	8.46	8.46	8.46
Employer contribution (%)[14]	12.46	4.00	4.00
Combined contribution (%)	20.92	12.46	12.46
Annual pension as % of final salary	61.41	22.42	12.82
Combined contribution (%) required to provide average public sector level of pension benefit	-	34.13	59.68
Employee contribution (%) required to provide average public sector level of pension benefit	-	30.13	55.68
Public sector employer contribution (%) assessed at private sector investment and annuity rates	25.67	-	-

It should also be borne in mind that median average weekly earnings for public sector workers are 12.6 per cent higher than in the private sector.[15] Even after controlling for workers' age, sex, region, education and experience, public sector pay was still 3 per cent higher in 2016-17.[16]

Chart 1: real median weekly pay in 2017 prices, full-time UK employees[17][18]



[13]For new entrants, refer appendices A, B and C for parameters and detailed calculations.

[14] Public sector rate is the cap cost rate for the 2015 Schemes.

[15]ONS, *Annual Survey of Hours and Earnings 2017,* https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/annualsurveyofhoursandearnings/previousReleases, (accessed 28 June 2018).

[16] Institute of Fiscal Studies, *IFS Briefing note 216,* September 2017, https://www.ifs.org.uk/uploads/publications/bns/BN216.pdf (accessed 28 June 2018.)

[17] House of Commons Library, *Public sector pay*, 3 May 2018, http://researchbriefings.files.parliament.uk/documents/CBP-8037/CBP-8037.pdf, (accessed 27 June 2018).

[18] Note: dashed lines indicate breaks in series. Figures adjusted for CPI inflation.

The pensions landscape

Occupational pensions fall into two distinct categories:

Defined benefit (DB) schemes

Often referred to as "final salary schemes". These entitle an employee to a pre-defined percentage of their final or career average salary as a pension, based on the number of years worked. Contributions from both employer and employee (usually a percentage of current salary) are paid into a fund from which the pensions are ultimately paid. It is the responsibility of the employer to ensure there are sufficient funds to meet these pension obligations and top up the fund if necessary. These are also frequently described as "gold plated" pension schemes.

Defined contribution (DC) schemes

In DC schemes, the employer and employee also both pay a contribution based on a percentage of current salary into a fund. However, the pension payable to the employee on retirement will depend upon total contributions and the investment performance of that fund. In these schemes, the investment risk is borne entirely by the employee.

Recent developments

DB schemes have become increasingly expensive for private sector employers to provide for a number of reasons:

- Tax relief on dividends received by private pension funds was withdrawn and has reduced the net income they receive by £11 billion a year.[19]
- Returns on investments have fallen substantially since the 2008 financial crash and the subsequent era of low interest rates.
- Life expectancy for retirees has increased on average by three years since 1997. It is expected to continue to rise a further four years by 2057.[20]

The combined effect of these changes has meant that the 88 per cent[21] of private DB schemes are now closed to new entrants and 39 per cent[22] are even closed to existing members. Chart 2 shows just how dramatic that decline has been. In 2016 only 500,000 private sector employees were in open DB pension schemes.[23] This represented just 7 per cent of private sector employees in all open occupational pension schemes.

By contrast almost all 4.8 million public sector employee pensions are in open schemes of the more generous DB type.[24]

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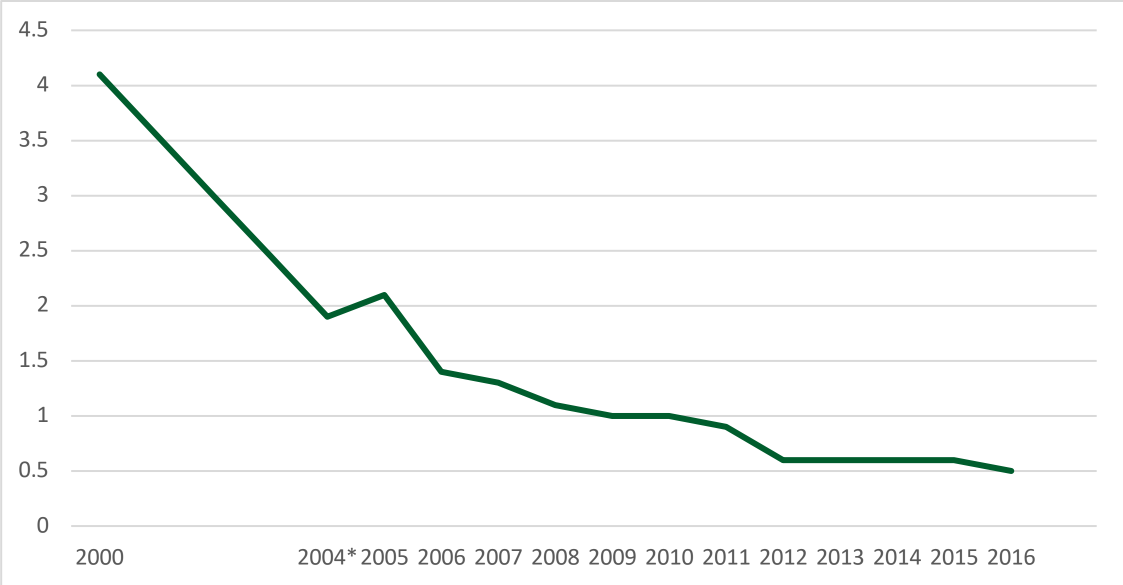
[19] OBR, *Policy Measures Database*, November 2017, obr.uk/download/policy-measures-database, (accessed 11 April 2018).
[20] ONS, *Expectation of life, principal projection United Kingdom*, 1 December 2017, https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/datasets/expectationoflifeprincipalprojectionunitedkingdom, (accessed 17 April 2018).
[21] House of Commons Library, *Defined Benefit Pension Schemes – 2018 White Paper*.
[22] Ibid.
[23] ONS, *Occupational Pension Schemes Survey (OPSS) 2016, Table 4*, 28 September 2017, https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/pensionssavingsandinvestments/datasets/occupationalpensionschemessurvey, (accessed 17 April 2018).
[24] Ibid.

Chart 2: active members of open private sector defined benefit occupational pension schemes, 2000 to 2016 (millions)[25]



** Data not available for 2001-03.*

The problem

How can the government afford to continue "gold plated" DB pensions for nearly five million public sector workers, while the private sector has all but ceased to offer such pensions? Moreover, how can they continue to be offered to new public sector employees? The answer is that the government does not fund public sector pensions in the way, by law, it requires the private sector to finance pensions. Private sector pension schemes must have sufficient ring-fenced funds set aside to cover the pensions they are committed to. The main public sector pension schemes are unfunded,[26] meaning there are no funds set aside to cover these pensions when they fall due. The cost must therefore be met from the tax revenues of future years (as much as 70 years ahead). Put simply they will be paid by our children, grandchildren and beyond.

One could be forgiven for thinking this problem was resolved several years ago. Much was made of the *Hutton Report* – the final report of The Independent Public Service Pensions Commission and the resulting changes made under the Public Service Pensions Act 2013. This purportedly set a cap on the cost public sector employers could incur paying towards employee pensions, changed the benefit indexation from RPI to the generally lower CPI measure of inflation, increased the level of employee contributions and also increased the normal retirement age in line with the state pension age. In reality public sector pensions, both past and present-day schemes, remain very generous and a significant burden on taxpayers.

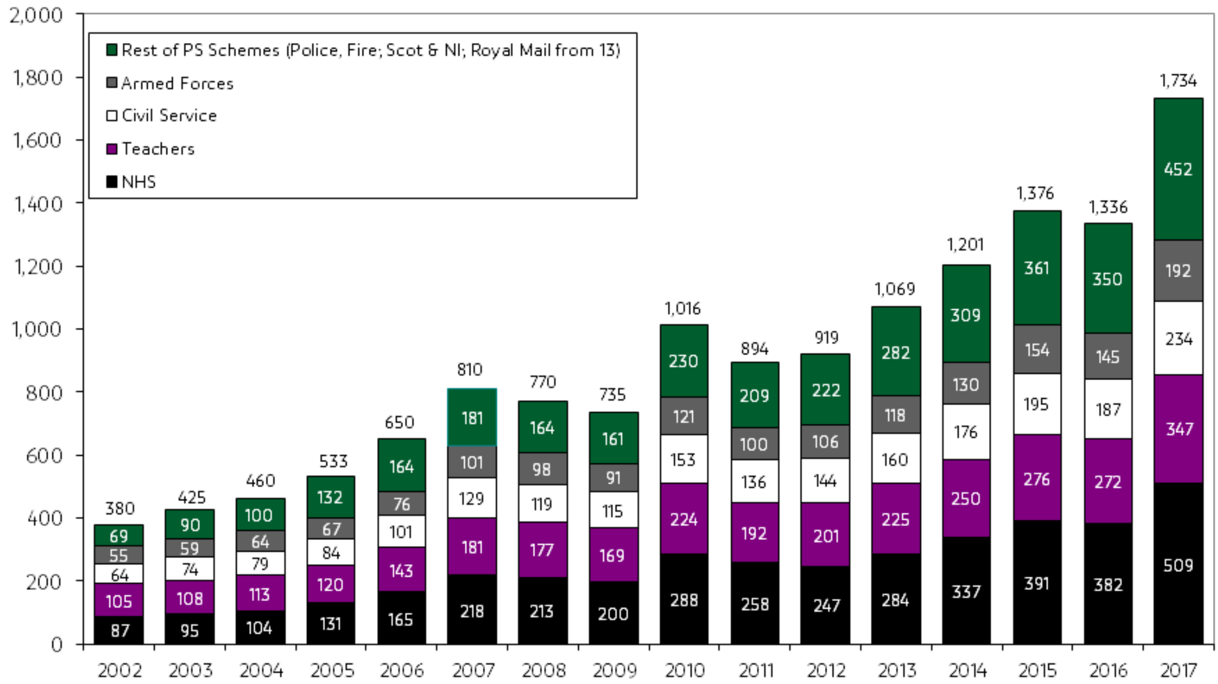
[25] ONS, *Occupational Pension Schemes Survey (OPSS), 2016, Table 4*, 28 September 2017, https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/pensionssavingsandinvestments/datasets/occupationalpensionschemessurvey, (accessed 17 April 2018).
[26] HM Treasury, *The Government Financial Reporting Manual 2017-18,* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/669344/2017-18_Government_Financial_Reporting_Manual.pdf, (accessed 28th June 2018).

Whilst the focus of this study is the value of the pensions on offer to new employees, the pensions of existing public sector employees continue to accrue benefits at the same generous DB rates.

Current government expenditure and liabilities for public sector pensions

Government liabilities for all existing unfunded public sector pension obligations are huge. The government reports this as being £1.7 trillion in 2017 (refer to chart 3). To put this in context, the official national debt (public sector net debt) is £1.8 trillion.[27]

Chart 3: main public sector pension schemes unfunded liabilities (£ billions)[28]



The annual cost of public sector pensions was £38 billion[29] in 2017. That compares to £37 billion[30] total spending on defence in the same period. The colossal cost of these public sector pensions is being left for future generations to pay.

[27] ONS, *Public Sector Finances, UK: March 2018*, 24 April 2018, https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/publicsectorfinance/bulletins/publicsectorfinances/march2018, (accessed 27 April 2018).
[28] N Record, Data from annual report and accounts of Civil Service, NHS and Teachers' pension schemes 2017.
[29] HM Treasury, *Whole of Government Accounts: year ended 31 March 2017,* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/627535/Whole_of_Government_Accounts_2015_to_2016_WEB.pdf, (accessed 12 April 2018).
[30] Ibid.

The pensions gap

A new private sector employee would need combined pension contributions of 34 per cent of their gross pay in order to benefit from the same pension that a new public sector employee will enjoy. The government claims it can achieve the same result with an average combined pension contribution of just 21 per cent (13 per cent funded by the taxpayer), which is shown in table 2. However, this would require a risk-free rate of return on investments and annuity rates that simply do not exist in the market. This is not credible; the true cost to the taxpayer is 26 per cent of public sector pay when measured on the same basis as private sector employees. Half of this cost is not recognised by the government in the published employer cost cap contribution rates.[31]

While the government may underestimate the true cost of providing such generous public sector pensions, it cannot disguise the actual pensions it will be paying to new workers entering the public sector, which are shown in table 1. New workers in the private sector will quite rightly question how the government can offer a risk free, index-linked pension equal to over **61 per cent of final salary** to new public sector employees, when based on the same employee contributions they would retire on just **22 per cent of their final salary** and only then if they bear the investment risk. After all they are, in the main, the taxpayers who will have to provide the money to pay these government pensions.

Unseen spending

Portraying the cost of pensions for public sector workers as somehow different from those in the private sector is misleading. Pensions are part of an employee's remuneration, they are just deferred salary. The value of a pension should be recognised on the same basis for all employees, irrespective of whether they work for the public or private sector.

The true cost of public sector pensions is unseen spending the public needs to be aware of and should be taken into account when setting public sector pay.

For equivalent workers, public sector pay is 3 per cent higher than in the private sector.[32] In addition, the effective employers' pension contributions for new and existing workers are on average 22 per cent higher in the public sector[33] compared to the private sector, when valued on the same basis. Even if we allow for existing private sector workers in closed defined benefit schemes that are still able to accrue a defined benefit pension, that difference is 20 per cent. If pay and the value of pension entitlements are taken together, total remuneration is on average **23 per cent higher in the public sector**.

[31] Government Actuary's Department, Actuarial valuations for Civil Service, NHS and Teachers' pension schemes as at 31st March 2012 section 8.
[32]Institute of Fiscal Studies*, IFS Briefing note 216,* September 2017, https://www.ifs.org.uk/uploads/publications/bns/BN216.pdf, (accessed 28 June 2018)
[33]Refer table 2.

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Recommendations

Given the increases in life expectancy over recent decades, the provision of defined benefit pensions to public sector employees has become increasingly expensive for taxpayers. However, the existing pension arrangements between government and public sector employees are the result of contracts freely entered into by both parties. As such, existing government commitments under these agreements must be met in full. However:

- The government should recognise the true value of offering such generous defined benefit pensions to public sector employees, on a basis consistent with that applied to the private sector.

- As defined benefit schemes are effectively unavailable in the private sector, all new public sector employees should join on the basis of a defined contribution pension.

- The new, defined contribution public sector pension schemes should be fully funded. In this way, the liabilities for this current expenditure will gradually cease to be passed onto future generations. This is similar to the transition that has taken place at the Royal Mail.

- The true value of public sector employee pension entitlements are part of total remuneration and should be recognised as such in future pay negotiations. This is in line with the recommendation of the Hutton Report that states *"The government should make clear in its remits for pay review bodies that they should consider how public service pensions affect total reward when making pay recommendations."* [34]

[34] Independent Public Services Commission: Final Report 2011.

Appendices

Appendix A: basis of calculations

Common parameters		Source
Annual salary - National average wage (£)	28,600	ONS, Annual Survey of Hours and Earnings 2017
Current age	25	
Normal retirement age	68	
Inflation CPI (%)	2.00	OBR, Economic and fiscal outlook 2018
Common public sector parameters		Source
Long term salary growth including CPI (%)	4.75	HMT, The Public Service Pensions Directions 2014
Notional investment return (%)	5.06	HMT, The Public Service Pensions Directions 2014
Civil Service parameters		Source
Employer cost cap contribution (%)	18.50	GAD, PCSPS Valuation 31 March 2012
Employee contribution (%)	5.45	https://www.civilservicepensionscheme.org.uk
Annual pension benefit accrual (%)	2.32	GAD, PCSPS Valuation 31 March 2012
NHS parameters		Source
Employer cost cap contribution (%)	11.60	GAD, NHSPS Valuation 31 March 2012
Employee contribution (%)	9.30	NHS Business Services Authority
Annual pension benefit accrual (%)	1.85	GAD, NHSPS Valuation 31 March 2012
Revaluation enhancement (%)	1.50	GAD, NHSPS Valuation 31 March 2012
Teachers' parameters		Source
Employer cost cap contribution (%)	10.90	GAD, TPS Valuation 31 March 2012
Employee contribution (%)	8.60	Teachers' Pension Scheme Annual Accounts 2017
Annual pension benefit accrual (%)	1.75	GAD, TPS Valuation 31 March 2012
Revaluation enhancement (%)	1.60	GAD, TPS Valuation 31 March 2012
Private sector parameters		Source
Employer weighted average contribution (%)	4.00	ONS, Occupational Pension Schemes Survey 2016
Employee contribution (%)	8.46	Average of Civil Service, NHS and Teachers'
Charge on new contributions (%)	1.80	NEST, Delivering value
Annual management charges (%)	0.30	NEST, Delivering value
Market risk premium - MRP (%)	3.00	FCA, Rates of return for prescribed projections
Return on investment including MRP (%)	5.00	FCA, Rates of return for prescribed projections
Nominal return on UK Government bonds (%)	2.00	FCA, Rates of return for prescribed projections
Market annuity rate (%) - Age 68, joint life with 50% benefit, 2% CPI increases	4.206	The Money Advice Service (15 June 2018)

Appendix B: pension benefit projections

Table B1: Civil Service pension fund valuations

Year	Salary (£)	Annual contribution (£)	Notional fund value (£)	Accrued annual pension (£)
1	28,600	6,850	7,023	664
2	29,959	7,175	14,735	1,372
3	31,382	7,516	23,187	2,127
4	32,872	7,873	32,432	2,932
5	34,434	8,247	42,528	3,790
6	36,069	8,639	53,537	4,703
7	37,782	9,049	65,524	5,673
8	39,577	9,479	78,558	6,705
9	41,457	9,929	92,714	7,801
10	43,426	10,401	108,069	8,964
11	45,489	10,895	124,707	10,199
12	47,650	11,412	142,718	11,508
13	49,913	11,954	162,196	12,897
14	52,284	12,522	183,242	14,367
15	54,767	13,117	205,963	15,925
16	57,369	13,740	230,472	17,575
17	60,094	14,392	256,891	19,321
18	62,948	15,076	285,347	21,167
19	65,938	15,792	315,977	23,120
20	69,071	16,542	348,927	25,185
21	72,351	17,328	384,349	27,368
22	75,788	18,151	422,407	29,673
23	79,388	19,013	463,276	32,108
24	83,159	19,917	507,138	34,680
25	87,109	20,863	554,189	37,394
26	91,247	21,854	604,638	40,259
27	95,581	22,892	658,703	43,282
28	100,121	23,979	716,619	46,470
29	104,877	25,118	778,634	49,833
30	109,858	26,311	845,009	53,378
31	115,077	27,561	916,025	57,116
32	120,543	28,870	991,976	61,055
33	126,269	30,241	1,073,177	65,205
34	132,266	31,678	1,159,959	69,578
35	138,549	33,182	1,252,674	74,184
36	145,130	34,759	1,351,698	79,034
37	152,024	36,410	1,457,425	84,142
38	159,245	38,139	1,570,274	89,519
39	166,809	39,951	1,690,692	95,180
40	174,732	41,848	1,819,148	101,137
41	183,032	43,836	1,956,142	107,406
42	191,726	45,918	2,102,203	114,002
43	200,833	48,100	2,257,891	120,942

Pension as a percentage of final salary at normal retirement age 60.22 %

Table B2: NHS pension fund valuations

Year	Salary (£)	Annual contribution (£)	Notional fund value (£)	Accrued annual pension (£)
1	28,600	5,977	6,129	529
2	29,959	6,261	12,858	1,102
3	31,382	6,559	20,234	1,721
4	32,872	6,870	28,302	2,389
5	34,434	7,197	37,112	3,110
6	36,069	7,538	46,720	3,886
7	37,782	7,897	57,180	4,721
8	39,577	8,272	68,554	5,619
9	41,457	8,665	80,907	6,582
10	43,426	9,076	94,306	7,616
11	45,489	9,507	108,826	8,724
12	47,650	9,959	124,543	9,911
13	49,913	10,432	141,541	11,181
14	52,284	10,927	159,907	12,540
15	54,767	11,446	179,734	13,992
16	57,369	11,990	201,122	15,543
17	60,094	12,560	224,176	17,199
18	62,948	13,156	249,008	18,965
19	65,938	13,781	275,738	20,849
20	69,071	14,436	304,491	22,856
21	72,351	15,121	335,403	24,995
22	75,788	15,840	368,614	27,272
23	79,388	16,592	404,278	29,695
24	83,159	17,380	442,555	32,273
25	87,109	18,206	483,614	35,014
26	91,247	19,071	527,638	37,927
27	95,581	19,976	574,818	41,023
28	100,121	20,925	625,359	44,311
29	104,877	21,919	679,476	47,802
30	109,858	22,960	737,399	51,507
31	115,077	24,051	799,370	55,439
32	120,543	25,193	865,649	59,609
33	126,269	26,390	936,509	64,032
34	132,266	27,644	1,012,239	68,720
35	138,549	28,957	1,093,148	73,688
36	145,130	30,332	1,179,561	78,952
37	152,024	31,773	1,271,824	84,528
38	159,245	33,282	1,370,302	90,432
39	166,809	34,863	1,475,384	96,684
40	174,732	36,519	1,587,482	103,300
41	183,032	38,254	1,707,030	110,302
42	191,726	40,071	1,834,490	117,709
43	200,833	41,974	1,970,351	125,544

Pension as a percentage of final salary at normal retirement age 62.51%

Table B3: teachers' pension fund valuations

Year	Salary (£)	Annual contribution (£)	Notional fund value (£)	Accrued annual pension (£)
1	28,600	5,577	5,718	501
2	29,959	5,842	11,997	1,043
3	31,382	6,119	18,878	1,630
4	32,872	6,410	26,406	2,263
5	34,434	6,715	34,626	2,948
6	36,069	7,033	43,590	3,685
7	37,782	7,368	53,350	4,479
8	39,577	7,718	63,962	5,333
9	41,457	8,084	75,487	6,250
10	43,426	8,468	87,989	7,235
11	45,489	8,870	101,536	8,291
12	47,650	9,292	116,201	9,424
13	49,913	9,733	132,060	10,637
14	52,284	10,195	149,195	11,934
15	54,767	10,680	167,694	13,322
16	57,369	11,187	187,650	14,806
17	60,094	11,718	209,159	16,391
18	62,948	12,275	232,328	18,082
19	65,938	12,858	257,268	19,887
20	69,071	13,469	284,095	21,812
21	72,351	14,109	312,935	23,863
22	75,788	14,779	343,923	26,049
23	79,388	15,481	377,197	28,376
24	83,159	16,216	412,910	30,853
25	87,109	16,986	451,219	33,488
26	91,247	17,793	492,294	36,290
27	95,581	18,638	536,314	39,269
28	100,121	19,524	583,469	42,435
29	104,877	20,451	633,961	45,798
30	109,858	21,422	688,003	49,369
31	115,077	22,440	745,824	53,160
32	120,543	23,506	807,663	57,184
33	126,269	24,622	873,776	61,452
34	132,266	25,792	944,434	65,979
35	138,549	27,017	1,019,923	70,779
36	145,130	28,300	1,100,547	75,866
37	152,024	29,645	1,186,630	81,258
38	159,245	31,053	1,278,511	86,970
39	166,809	32,528	1,376,555	93,020
40	174,732	34,073	1,481,143	99,427
41	183,032	35,691	1,592,683	106,209
42	191,726	37,387	1,711,606	113,388
43	200,833	39,162	1,838,366	120,984

Pension as a percentage of final salary at normal retirement age 60.24%

Table B4: projections for private sector pensions

Year	Salary (£)	Annual contribution (£)	With risk fund value (£)	Risk free fund value (£)
1	28,600	3,499	3,582	3,529
2	29,959	3,666	7,502	7,286
3	31,382	3,840	11,784	11,282
4	32,872	4,022	16,455	15,530
5	34,434	4,213	21,540	20,043
6	36,069	4,413	27,070	24,835
7	37,782	4,623	33,074	29,919
8	39,577	4,843	39,585	35,312
9	41,457	5,073	46,637	41,028
10	43,426	5,314	54,267	47,084
11	45,489	5,566	62,514	53,497
12	47,650	5,830	71,420	60,287
13	49,913	6,107	81,027	67,471
14	52,284	6,397	91,383	75,070
15	54,767	6,701	102,537	83,104
16	57,369	7,019	114,541	91,596
17	60,094	7,353	127,450	100,568
18	62,948	7,702	141,323	110,046
19	65,938	8,068	156,223	120,053
20	69,071	8,451	172,215	130,617
21	72,351	8,853	189,370	141,765
22	75,788	9,273	207,762	153,528
23	79,388	9,714	227,469	165,934
24	83,159	10,175	248,574	179,016
25	87,109	10,658	271,166	192,808
26	91,247	11,165	295,337	207,346
27	95,581	11,695	321,188	222,665
28	100,121	12,251	348,822	238,805
29	104,877	12,832	378,351	255,806
30	109,858	13,442	409,891	273,711
31	115,077	14,080	443,568	292,564
32	120,543	14,749	479,511	312,413
33	126,269	15,450	517,861	333,305
34	132,266	16,184	558,765	355,292
35	138,549	16,952	602,377	378,429
36	145,130	17,758	648,864	402,771
37	152,024	18,601	698,399	428,377
38	159,245	19,485	751,166	455,310
39	166,809	20,410	807,361	483,634
40	174,732	21,380	867,189	513,417
41	183,032	22,395	930,869	544,731
42	191,726	23,459	998,630	577,650
43	200,833	24,573	1,070,716	612,252

Pension at normal retirement age (£)	**45,034**	**25,751**
Pension as a percentage of final salary	22.42%	12.82%

Appendix C: supporting calculations

Table C1: weighted average contribution rates - selected unfunded public service pension schemes

	Contribution (%) based on cap cost			Pension as (%) of final salary	Total Pay (£bn)[35]
	Employer	Employee	Combined		
Civil Service	18.50	5.45	23.95	60.22	13.3
NHS	11.60	9.30	20.90	62.51	43.3
Teachers	10.90	8.60	19.50	60.24	27.5
Weighted average	12.46	8.46	20.92	61.41	84.1

Table C2: weighted average contribution rates - open DB & DC private occupational pension schemes open to new employees[36]

	Employer contribution (%)	Employee contribution (%)	Members (millions)
Defined benefit	15.6	6.3	0.5
Defined contribution	3.1	1.0	6.3
Weighted average	4.0	1.4	6.8

Table C3: weighted average contribution rates - open DB & DC private occupational pension schemes including those accruing for existing members but closed to new employees[37]

	Employer contribution (%)	Employee contribution (%)	Members (millions)
Defined benefit	15.6	6.3	1.3
Defined contribution	3.1	1.0	6.4
Weighted average	5.2	1.9	7.7

[35]Source: schemes' annual accounts 2017.
[36]ONS, *Occupational Pension Schemes Survey (OPSS) 2016, Table 4*, 28 September 2017, https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/pensionssavingsandinvestments/datasets/occupationalpensionschemessurvey, (accessed 17 April 2018).
[37]Ibid.

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