

Chapter 3

Central Government Public Service Pensions

Public Service Pensions

3.1 Special Report 68 – Public Service Pensions¹⁰ put the accrued liability for public service pensions at an estimated €108 billion as at 31 December 2008. This cost related to occupational pension schemes only and did not take into account the net cost of State pensions which for persons who joined the public service after 6 April 1995 are integrated with their occupational entitlements.

3.2 In February 2009, the Government introduced a pension-related deduction (PRD) for staff in the public service under the Financial Emergency Measures in the Public Interest Act 2009. While the PRD does not affect the value of the liabilities for pensions that has already accrued because since those liabilities are based on service to date and the PRD is not a pension contribution for purposes of the Pensions Act 1990 – it has, however, been taken into account for the purpose of this report in estimating the annual cost of future pensions.

Chapter Focus

This chapter updates the financial liability that has accrued for public service pensions to 31 December 2009. It also makes an estimate of the additional accrued cost of the State pension.

While the liability for State pension could be regarded as accruing to all pensioners as a result of general social welfare entitlements, it is presented here in order to give as complete an estimate as possible of the extent of future funding that will be necessary in respect of those citizens that are in public employment.

In addition, the chapter outlines the impact on the Exchequer pay bill of the pension-related deduction for public servants introduced in 2009.

3.3 The methodology for this examination was broadly in line with that employed for Special Report 68. Annex A sets out the key underlying methodologies and assumptions. The report is based on the results of a pension consultant's analysis.

Accrued Liability for Pensions

3.4 Before taking account of the liability that has accrued in respect of State pensions for those public servants whose occupational and State pensions are integrated, the accrued liability for occupational pensions of public servants was of the order of €16 billion at the end of 2009.

3.5 Figure 10 sets out the present value of expected future pension payments to public service staff and their dependents in respect of service to date, along with an estimate of the present value of future payments to current pensioners and their dependents and to former employees with preserved pensions. The aggregate pension payments arising from the liabilities will be spread over 60 or more years into the future.

¹⁰ The report was presented to Dáil Éireann on 22 October 2009.

Figure 10 Accrued Occupational Pension Liabilities at 31 December 2009

Sector	Gross Liability
	€m
Civil Service	14,257
Health	24,352
Gardaí	8,954
Prison Officers	1,323
Defence Forces	8,895
Teachers ^a	30,923
Vocational Education Committees and Institutes of Technology	6,691
Universities	5,281
Non Commercial State Sponsored Bodies	7,605
Constitutional, Ministerial and Judicial Office-Holders	769
Local Authorities ^b	7,387
Total Liability	116,438

Notes:

- a Includes primary teachers, post-primary teachers, special needs assistants and non-teaching staff in schools.
- b The estimate for local authorities was a limited exercise based on relativities derived from the Report of the Commission on Public Service Pensions (2000).

3.6 State-owned assets are available to offset the total pension liability shown in Figure 10. One-third of the value of the National Pension Reserve Fund (NPRF) has been notionally allocated towards the cost of Public Service pensions and two-thirds towards the cost of the State pension. Taking account of the value of the NPRF (€22.3 billion at 31 December 2009) and the subsequent transfer of €1.07 billion in assets of pension schemes¹¹ to it in the course of 2010 the net occupational pensions liability may be of the order of €108.6 billion at the end of 2009.

3.7 The gross accrued liability has increased by 7.4%. The main items that have increased the accrued liability over the 2008 estimate include

- The change in the discount rate assumption from 3.3% to 3.0%¹² increased the liability by 5.4%.
- The reduction in the number of serving staff and the increase in the number of pensioners since 31 December 2008 resulted in a 3.8% higher liability. Staff and pensioner numbers are shown in Annex B.
- The impact of pay cuts for active members has reduced the accrued liability by 1.8%.

¹¹ €88 million remain in these schemes to be used to defray gross pension costs in the State bodies to which they relate.

¹² The lower the discount rate, the higher will be the present value of future entitlements.

Impact of State Pension on Liabilities and Costs

3.8 The integration of post April 1995 State pensions with occupational pensions needs to be taken into account in estimating overall State liabilities and costs for citizens employed in the public service. The total financial entitlements of public service pensioners do not change due to integration so that the same overall level of financial benefit accrues to recipients of integrated and pre-integrated pensions. However, as more staff are recruited under integrated arrangements the proportion of the total entitlement accounted for by pure occupational pension diminishes and there is a correspondingly greater cost of the State pension¹³ element.

Impact of State Pension

3.9 It is estimated that, in addition to the State's liability for occupational pensions, there would be a further liability in the order of 11% of the accrued value of occupational liabilities at 31 December 2009 were the impact of the State pension to be taken into account.

3.10 It is estimated that the accrued liability in respect of State pension arising from the entitlements of public servants who pay full rate PRSI was €2.7 billion at 31 December 2009. (€1.8 billion at 31 December 2008). The present value of pension liabilities at 31 December 2009, taking account of both occupational and State pension elements is outlined in Figure 11.

Figure 11 Present Value of all Pension Liabilities at 31 December 2009

	€ billion
Occupational Pension Entitlements	116.4
State Pension	12.7
Accrued Pension Entitlements of State Employees^a	129.1

Note:

a This is stated gross and does not take account of any contribution from the NPRF.

Annual Pension Costs

3.11 The ongoing annual costs of pensions can be represented using two measures

- the cost of one year's additional service – which is the change in the accrued liability for active members expressed as a percentage of pensionable remuneration
- the effective contribution rate for a new entrant starting after 1 April 2004.

3.12 Both measures are useful but answer two different questions. The cost of one year's additional service is largely an accounting representation of the extra pension earned in any one year expressed as a percentage of pay. It answers the question 'if this scheme was already fully funded how much extra would need to be set aside in the current year to keep it so'. By contrast, the effective contribution rate expresses the net present value of the estimated aggregate pension costs as a proportion of the present value of pensionable salaries over an officer's whole working life. It therefore gives an estimate of the proportion of ongoing salary that would have to be set aside from all sources to meet pension benefits based on retirement levels of pay. The key difference between the two measures derives from the fact that the cost of one year's service is an

¹³ Up to the limit of the State pension in individual cases.

aggregation of the costs in relation to whole cohorts of staff. It takes account of the mix of employees, their stage in the 'work life cycle' and their current earnings¹⁴. By comparison, the effective contribution rates are based on representative new entrants in various classes of employment.

Cost of One Year's Service

3.13 The net cost of pension entitlements in terms of annual remuneration is estimated at 15.1% for the average civil servant. Figure 12 outlines this average cost showing its component elements. The base year used was 2008 but the impact is unlikely to vary to any material extent.

Figure 12 Cost of One Year's Additional Service of Civil Servants^a at 31 December 2008

Pension Element	Gross Pension Cost as a Percentage of Pensionable Remuneration	Employee Contribution	PRD	Net Pension Cost as a Percentage of Pensionable Remuneration
	%	%	%	%
Occupational Pension Cost	22.3	(2.2)	(7.1)	13.0
State Pension Cost	3.5	(1.4)	-	2.1
Total Pension Cost	25.8	(3.6)	(7.1)	15.1

Note:

- a The cost of one year's service is calculated by reference to the change in the accrued pension liability over one year (expressed as a percentage of remuneration) for the existing cohort of staff in a category.

New Entrant Contribution Rates

3.14 A further measure of annual pension cost is the additional contribution rate required to fund future pension benefits to a new entrant. By way of example, Figure 13 sets out the new entrant contribution rates for a (male) established civil servant at the end of 2008.

Figure 13 New Entrant Contribution Rate at 31 December 2008

	Gross Pension Cost as a Percentage of Pensionable Remuneration	Employee Contribution	PRD	Net Pension Cost as a Percentage of Pensionable Remuneration
	%	%	%	%
Cost of Occupational Pension	24.6	(4.6)	(8.1)	11.9
State Pension Cost	10.2	(2.6)	-	7.6
Total	34.8	(7.2)	(8.1)	19.5

¹⁴ Many factors impinge on an explanation of the difference between the two rates. Apart from the fact that the 'populations' are different they would be expected to diverge because the one year cost does not accrue equally over an employees work life and, since the actual distribution of staff shows higher proportions in the categories with lower annual costs, the one year rate is relatively lower.

PRSI Contribution Assumption

3.15 The net State pension costs were computed on the basis that the percentage of employee PRSI contributions that is used to finance pensions is 85%. This is based on previous work that estimated that pension expenditure as a proportion of total social insurance has been projected to reach 85% by 2056¹⁵. Accordingly, a working assumption was made that this percentage of employee social insurance contribution would be allocated to finance pensions. No element of the Employer PRSI contribution is reckoned in calculating annual pension costs since the purpose of the calculation is to determine the residual element of contribution that must be made by the State out of general taxation. In reality, it is impossible to predict the future level and distribution of social insurance contributions and benefits¹⁶. The potential impact of reducing this level to 50%, 25% and zero is outlined in Figure 14.

Figure 14 Impact of Variations in Employee Contribution Rates on Net Pension Costs

PRSI Proportion	0%	25%	50%	85%
Annual Pension Cost Measure^a	%	%	%	%
One Year Cost	16.4	16.0	15.6	15.1
New Entrant Cost	22.1	21.3	20.6	19.5

Note:

a As a percentage of remuneration.

3.16 Annex C sets out the detail for the various sectors of public sector employment for both the cost of one year's service and the new entrant contribution rate.

Pension-Related Deduction for Public Servants

3.17 A pension-related deduction from the remuneration of public servants was introduced in February 2009. This was part of a wider set of measures provided for in the Financial Emergency Measures in the Public Interest Act 2009, designed to assist in achieving stability in the public finances.

3.18 The deduction was applied to income earned from 1 March 2009. The rate of deduction was based on a graduated scale and applied to all elements of pay of public servants, including non-pensionable payments such as overtime and certain allowances.¹⁷ The application of the deduction was expected to achieve a reduction in the pay bill across all sectors totalling €1,160 million in 2009, and €1,350 million in a full year.

3.19 Subsequent to the commencement of the scheme, a number of changes were made in the deduction rates and related income bands, with effect from 1 May 2009. The changes were intended to reduce the impact of the deduction on lower paid public servants and increase the rate of deduction for those on higher earnings. The net impact of the changes was estimated to reduce the projected 2009 saving by €100 million and the full year saving by €150 million.

¹⁵ The National Pensions Review Report – Appendix 6, 2006.

¹⁶ The last actuarial review of the Social Insurance Fund was completed in 2007. The Social Welfare (Consolidation) Act 2005 provides that the next review should be completed in 2012.

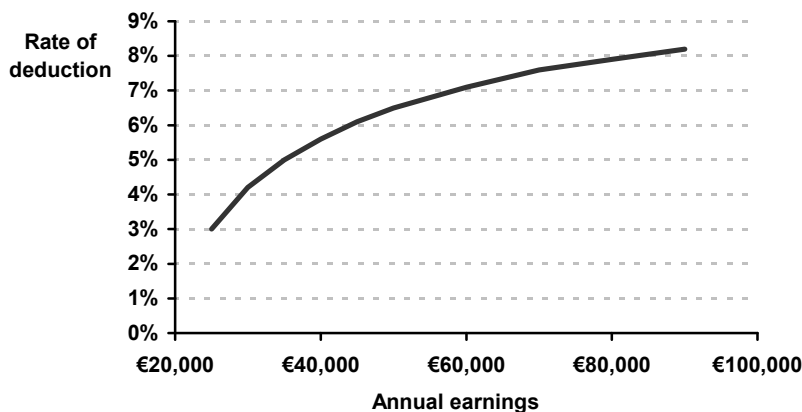
¹⁷ Excludes employers' Pay Related Social Insurance contributions.

3.20 The deduction rates and bands that currently apply are

- the first €15,000 of earnings are exempt
- a deduction of 5% is applied on earnings between €15,001 and €20,000
- a deduction of 10% is applied on earnings between €20,001 and €60,000
- a deduction of 10.5% is applied on all earnings over €60,000.

3.21 Figure 15 indicates the effective rates of deduction that apply for annual earnings in the range €25,000 to €90,000. The rates increase from 3% at the lower earnings level to over 8% at the upper earnings level.

Figure 15 Rates of Pension-Related Deduction with effect from 1 May 2009



Impact on Exchequer Pay Bill

3.22 The Revised Estimates Volume 2009 included estimates of the value of the deductions under each Vote. The projected total value of the deductions was just over €56 million. This included deductions in respect of public sector employees paid directly from each Vote, including civil servants, teachers and others employed in the education sector, health service workers, Gardaí, prison officers and Defence Force personnel. Deductions in respect of local authority employees¹⁸, and public servants paid directly from the Central Fund are not included.

3.23 The total amount of pension-related deductions collected under Votes in 2009 was €37 million i.e. 98% of the projected amount. The highest yields were in respect of the Health Service Executive Vote (€32 million) and the Education and Science Vote (€04 million).

3.24 The amount collected under the deduction scheme in 2009 represents about 5.1% of the total Exchequer pay bill of €6.5 billion. Because the deduction was only applied from 1 March 2009, the percentage impact in a full year will be higher.

¹⁸ The Exchequer pay bill does not include the pay costs of local authority staff because those costs are not directly funded by the Exchequer and the Local Government Fund does not include an identifiable pay element. See Department of Finance, Analysis of the Exchequer Pay and Pensions Bill, 2005-2010 (June 2010).

Conclusion

The accrued liability for occupational pensions of public servants at 31 December 2009 is estimated at €16.4 billion.

It is estimated that the value of the additional accrued liabilities arising from integration of the State pension into overall pension benefits is €12.7 billion as at 31 December 2009. This would bring the total cost of funding accrued pension benefits to citizens currently employed in the public service to €29 billion.

Net new entrant contribution rates – the proportion of pay needed to fund retirement benefits for a typical civil servant would cost 11.9% of pensionable remuneration for occupational pension entitlements and a further 7.6% to fund State Pension.

The pension-related deduction which came into effect in March 2009 reduced voted expenditure by €37 million in that year.

Annex A Methodology and Assumptions

This annex outlines the calculation methodology used and the key assumptions made in the course of estimation. Special Report 68 outlines the methodology in greater depth for the occupational pension element.

Accrued Liability

The accrued liability represents the present value of the future pension benefits that had accrued to the employee or pensioner as at the valuation date. This method sees each period of service as giving rise to an additional proportion of benefit. The methodology used to calculate the accrued liability was covered in Special Report 68. This section sets out the methodology used to estimate the impact of including the State pension in the accrued liability.

Active Members

For members currently in employment, the accrued liability was calculated as the present value of the expected benefits at retirement, based on the service completed as at the valuation date.

The following calculation was performed for each member in order to add the State pension to the accrued liability

- the amount of the State pension was projected to age 65
- the present value of the State pension was then calculated by discounting the value of the State pension at age 65 to the valuation date
- the capital value of the State pension was then calculated by applying an annuity factor to the present value of the accrued State pension. This was added to the accrued value of the occupational pension.

Pensioners

For pensioners the value of the State pension was calculated for each pensioner by applying an annuity factor to the current State pension amount.

Preserved Pensioners

The value of these benefits was calculated in a similar manner to that for active members.

Update of Accrued Liability

This section sets out the methodology used to update the accrued liability to the position as at 31 December 2009. A full review was done for 2008. The impact of the following items was estimated in order to arrive at an approximate accrued liability one year later i.e. as at 31 December 2009.

- The accrued liability for active members was rolled forward to allow for an increase of one year in age and service. This was adopted on the basis that there was low recruitment in 2009 so there was unlikely to be younger new entrants offsetting the increase in age and service of existing active members. Promotional salary increases for active members were also applied.
- The pay cuts applied in 2009 were allowed for.

- The accrued liability for each sector was adjusted for the numbers of serving staff and pensioners as at 31 December 2009 compared with 31 December 2008. Annex B sets out the details of the numbers assumed.
- The early retirement enhancements taken by civil service employees during 2009 were allowed for. This increased the civil service pensioners accrued liability.
- The discount rate was updated from that applying at 31 December 2008 (3.3%) to that applying at 31 December 2009 (3.0%).

Cost of Public Service Pensions

Cost of One Year's Service

The cost that arises from one year's additional service was determined. The cost is equal to the change in the accrued liability for active members and is then expressed as a percentage of Pensionable Remuneration (salary plus pensionable allowances).

The process involved re-running the updated accrued liability model as described above, adjusting the data for one year's age, service and salary increases (including scale and promotional increases) to calculate the cost of one year's additional service.

New Entrant Contribution Rate

Under this method the effective contribution rate that would be required to fund future pension benefits for a new entrant was determined. The effective contribution rate is the proportion of Pensionable Remuneration that would have to be contributed for each year of service in order to provide the benefit accrued at retirement.

The following calculation was performed for each new entrant in order to include the State pension cost in the new entrant cost

- the State pension was projected to age 65
- the present value of the State pension was then calculated by discounting the value of the Pension at age 65 to the valuation date
- the capital value of the State pension was then calculated by applying an annuity factor to the present value of the accrued State pension. This was added to the capital value of the occupational pension benefits
- the equivalent annual contribution rate was calculated as a percentage of Pensionable Remuneration that would be required over the working life of the employee so that the accumulated value of the contributions made is equal to the capital value required at retirement
- the employee pension and PRSI contributions were deducted to arrive at a net required employer contribution.

Key Assumptions – Inclusion of the State Pension

The assumptions outlined in Special Report 68 continue to pertain. This section sets out the additional assumptions required to include the State pension in the figures.

- An assumption was made that the percentage of employee PRSI contributions that is used to finance pensions is 85%, as per the National Pensions Review in 2006. This was used to determine the employee PRSI contributions in the calculation of the cost of Public Service pensions. It does not impact the accrued liability. The impact of varying this percentage is set out in the foregoing chapter.
- The 2008 PRSI contribution rates and State pension amounts were used. It was assumed that the PRSI pay bands will increase in line with salary inflation.
- Health contributions were excluded from the PRSI contributions.
- It was assumed that no spouse or dependant's PRSI benefits apply.
- It was assumed that the State pension is payable from age 65. For employees that will retire before age 65 that are also integrated (the pre-2004 and post-1995 cohort) an extra cost for the "bridging pension" that is likely to be paid by the pension scheme was included.
- It was assumed that the State pension is accrued at the same rate as the occupational pension, for the purposes of calculating the accrued liability for active members and preserved pensioners. This was also assumed for calculating the new entrant cost. In reality, individuals qualify for the State pension if they have paid enough PRSI contributions (between 3-10 years worth is required depending on the date that pension age is reached). However, using this approach would give rise to irregular results so a more smoothed approach of accruing a portion over each year of working life was used.
- In order to update the accrued liability for pensioners it was assumed that any current pensioner that is a member of an integrated pension scheme, will receive the full pension amount from age 65. Non-established civil servants and persons who are not officers in terms of the Local Government Superannuation Scheme were integrated pre-1995 so pensioners in those schemes have been updated to include the cost of the State pension.

Annex B Employee Numbers

Data on serving staff numbers and pensioners at 31 December 2008 underpinned the findings reached in Special Report 68. These data sets have been used in this chapter for consistency. In the case of the staff and pensioner numbers at 31 December 2009, data were sourced, insofar as possible, from the Analysis of Exchequer Pay and Pensions Bill 2005-2010. Some estimates have been made in relation to pensioner numbers at 31 December 2009 where information was lacking for some public sector groups.

Figure 16 Size of the Public Service by Sector

Sector	Number of Serving Staff		Number of Pensioners	
	31 December 2008	31 December 2009	31 December 2008	31 December 2009
Health	112,500	109,100	29,549	31,385
Education	92,480	93,706	22,415	26,355
Civil Service	38,572	37,381	15,660	17,594
Security Services	26,202	25,583	19,495	21,056
Non Commercial State Sponsored Bodies	12,175	11,834	3,728	4,840
Constitutional, Ministerial and Judicial Office-Holders	419	404	603	598
Local Authorities	34,926	32,200	21,934	22,126
Total	317,274	310,208	113,384	123,954

Annex C Pension Costs

One measure of the cost of public service pensions is the cost of one year's additional service. The cost is equal to the change in the accrued liability for active members expressed as a percentage of pensionable remuneration. It is the cost for all serving staff and so includes members with pre-1995, post-1995 and post-2004 pension terms.

Figure 17 Cost of One Year's Additional Service of Public Servants including State Pension, at 31 December 2008^a

Sector	Gross Pension Cost as a Percentage of Pensionable Remuneration	Employee Contribution	PRD	Net Pension Cost as a Percentage of Pensionable Remuneration
	%	%	%	%
Civil Service	25.8	(3.6)	(7.1)	15.1
Health	21.7	(6.8)	(7.1)	7.8
Gardaí	31.0	(5.7)	(7.9)	17.4
Prison Officers	33.9	(4.3)	(7.0)	22.6
Defence Forces	30.6	(2.8)	(7.0)	20.8
Teachers ^b	25.7	(6.9)	(7.5)	11.3
VECs and ITs	24.5	(7.0)	(7.5)	10.0
Universities	22.6	(5.3)	(7.8)	9.5
Non-Commercial State Sponsored Bodies	24.1	(4.4)	(7.8)	11.9
Constitutional, Ministerial and Judicial Office-Holders	70.0	(0.3)	(8.9)	61.8
Average Public Service Cost of Occupational Pensions (excluding local authorities)	24.4	(6.0)	(7.3)	11.1

Notes:

- a The cost of one year's service is calculated by reference to the change in the accrued pension liability over one year (expressed as a percentage of remuneration) for the existing cohort of staff in a category.
- b Includes primary teachers, post-primary teachers, special needs assistants and non-teaching staff in schools.

Another measure of the cost of public service pensions is the effective contribution rate for a new entrant starting after 2004. This cost represents the notional contribution rate that would have to be contributed for each year of service in order to provide the benefit accrued at retirement. The new entrant contribution rates are based on the pension scheme terms that apply to employees joining from 1 April 2004, so employees were assumed to be integrated.

Figure 18 New Entrant Contribution Rates including State Pension - Males^a

Category of Employment	As a percentage of Pensionable Remuneration			
	Total Cost	Employee Contribution	PRD	Net Cost
	%	%	%	%
Civil Service				
Established	34.8	(7.2)	(8.1)	19.5
Non-Established	25.9	(2.9)	(7.0)	16.0
Education				
Primary Teacher	28.5	(7.4)	(8.4)	12.7
Post-Primary Teacher	31.6	(7.4)	(8.4)	15.8
Security				
Garda	40.8	(7.6)	(8.5)	24.7
Prison Officer	44.2	(7.3)	(7.7)	29.2
Commissioned Officer	53.7	(7.2)	(8.1)	38.4
Enlisted Personnel	41.5	(3.1)	(7.2)	31.2
Health				
Consultant	29.2	(6.9)	(9.5)	12.8
Nurse (General)	27.8	(7.5)	(8.0)	12.3
State Sponsored Bodies				
Established Officer	31.2	(7.4)	(8.5)	15.3

Note:

a The female new entrant contribution rates are very similar to the rates for males.