

7. Public sector pay and pensions

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Summary

- The public sector pay bill totalled £182 billion in 2009. It rose steadily as a share of national income from 2000 to 2005 and, after a pause, increased again in 2009. Spending plans set out in the October 2010 Spending Review imply a significant public pay freeze and large employment cuts.
- Before the financial crisis, public sector employees were, on average, paid at levels roughly in line with their private sector counterparts once observed differences in skill composition were taken into account. Since 2008, a significant public pay premium has appeared. We do not therefore believe that the planned two-year pay freeze will lead to widespread recruitment problems in the public sector in the near future. However, the average pay differential hides large variations in relative pay between different areas of the country. Consequently, some public sector vacancies, especially in London and the South-East, will remain hard to fill.
- In certain parts of the public sector, such as education and health, the downsizing of the workforce implied by the Spending Review could be achieved using ‘natural exits’ and a freeze in recruitment, but this does not appear to be true of areas where exit rates are low and the spending cuts are deeper, such as the police. Given that redundancies and early retirement schemes are costly ways of reducing the size of the workforce, achieving spending targets within the timing set by the Spending Review will be difficult in these areas.
- The government has already made changes to public sector pensions, including a change in the way they are indexed which will affect existing workers as well as new entrants. Further reforms are likely as a result of the review by Lord Hutton. Public sector pensions continue to be more generous than their private equivalents for most workers. Reforms should consider not simply issues of generosity and long-term affordability, but also what incentive structures would help promote flexibility in the labour market.

7.1 Introduction

The public sector pay bill amounted to £182 billion in 2009, representing 30% of all government expenditure or 13.1% of national income.¹ With large public spending cuts planned for at least the next four years, policy decisions on public sector pay, employment and pensions are going to be crucial. They will impact not only on the stability of the public finances, by helping (or not) to deliver the announced cuts, but also on the functioning of public sector organisations and their ability to deliver public services.

¹ ONS, *United Kingdom National Accounts: Blue Book*, 2010 (<http://www.statistics.gov.uk/statbase/tsdtables1.asp?vlnk=bb>).

In this chapter, we analyse the strategies the government could follow to reduce the public sector pay bill: cutting pay levels, cutting the size of the workforce and reforming public sector pensions:

- Reducing public sector pay is a natural first option given that earnings in the private sector have been hit by the recession. But it is not a magic bullet. Reducing public sector pay by too much over too prolonged a period might lead to a fall in the average skill level of public sector employees, making it more difficult to provide efficiently public services of the desired quality.
- Reducing public sector employment might therefore appear to be inevitable in order to reach the public spending targets set by the October 2010 Spending Review. But reducing public sector employment quickly is not that easy, nor that cheap. Using the natural turnover rate is not costly, but the pace of associated employment reduction is bound to be limited in areas of the public sector where the turnover rate is low. Using redundancies is bound to lead to severance payments which will impede spending cuts in the short term. Moreover, in some parts of the public sector, non-voluntary redundancies are illegal. Another option would be to encourage early retirement. This would certainly allow a quick reduction in the public sector workforce without major unrest. It would, however, ultimately be costly to the public finances, as, in addition to increasing public pension liabilities, it would tend to depress labour force participation, thus reducing the growth capacity of the economy. The already-increasing liabilities of public sector pensions – largely the result of increasing life expectancy – should deter policymakers from the lure of early retirement policies.
- Cuts to public pensions are an additional option for reducing the public sector pay bill as public sector pensions are, on average, more generous than private ones. But here again short-term savings are hard to find beyond the change from retail price index (RPI) to consumer price index (CPI) indexation and the increase in member contributions already announced. Reforming public pensions is likely to reduce long-term public liabilities but, in the short run, it will not reduce spending. Increasing Normal Pension Ages (NPAs) is actually likely to make it harder to reduce public sector employment as increasing the retirement age lowers the turnover rate.

For each of the policy options available to the government, the general trade-off is between short-term savings that will lead to increased costs later on and long-term efficiency gains that might not bring the required spending cuts soon enough. Reducing the public sector pay bill quickly and efficiently will prove to be a major challenge.

This chapter starts by setting out the size of the public sector pay bill and workforce and how this has changed in recent years (Section 7.2). Section 7.3 presents new estimates of regional public sector pay premiums and discusses policy options. Section 7.4 gives evidence on the turnover rate of employees in the public sector and compares the relative attraction of various options to reduce public sector employment. In Section 7.5, public sector pensions are considered; in particular how they change the overall judgement on the public–private remuneration gap and, looking forward, how they are likely to change. Section 7.6 concludes.

7.2 The total public sector pay bill

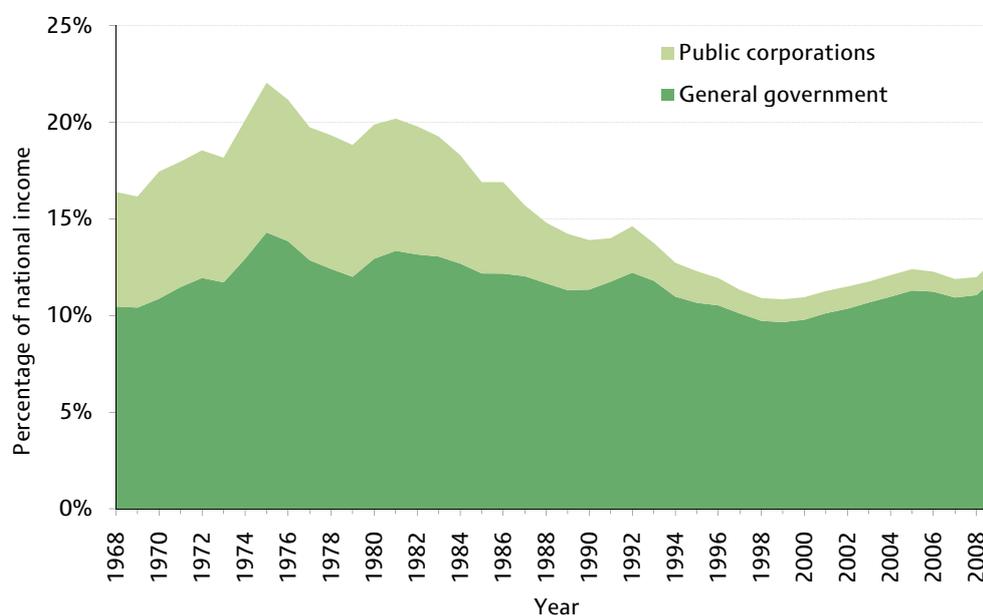
The total public sector pay bill is the sum of pay bills across public corporations and general government. Public corporations, previously an endangered species, have seen a marked revival in the last two years with the effective nationalisation of a number of large UK financial institutions. Although they represent a substantial addition to the public sector, only limited information is available about their pay bill, so we will exclude these recently nationalised institutions from our analysis.

This section looks at trends in the public sector pay bill, and then examines the forecasts for public sector pay and employment implied by the latest fiscal projections from the Office for Budget Responsibility (OBR).

Past evolution and recent trends

Figure 7.1 shows the evolution of public sector compensation² as a share of national income over the last 40 years. From a peak of 22% of national income in 1975, total public sector compensation (the two shaded areas combined) declined to a low in 1999 of 11%, in large part reflecting the privatisation of public corporations. Between 1999 and 2005, the pay bill grew steadily and, after a small decline between 2005 and 2007, the total pay bill increased again to reach 13.1% of national income in 2009, which is its highest level since 1993. The reason behind the large increase between 2008 and 2009 was the continued real increase in the public pay bill at a time when national income was declining (see Section 6.2 for more details).

Figure 7.1. Public sector compensation



Note: Public financial corporations recently nationalised are not included.

Source: ONS, *United Kingdom National Accounts: Blue Book*, 2010

(<http://www.statistics.gov.uk/statbase/tsdtables1.asp?vlnk=bb>).

² This includes wages and salaries and employers' social contributions, in accordance with the National Accounts definitions.

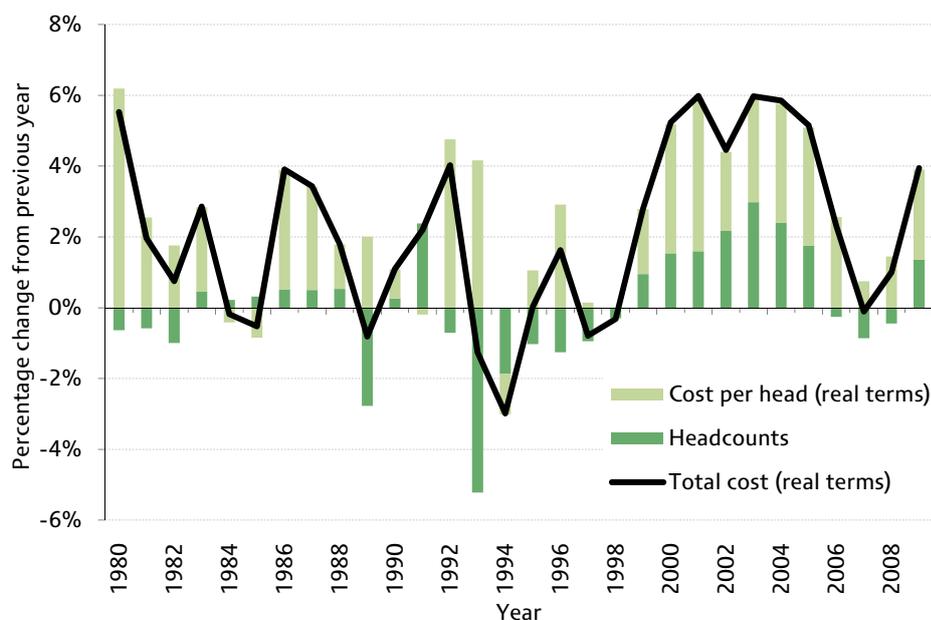
The general government pay bill (i.e. excluding public corporations) grew from a low of £111 billion (in 2009 prices) in 1998 to £160 billion in 2006, i.e. between 4% and 6% each year in real terms over this period. In the years 2007 and 2008, it grew at a much slower rate – below 1% per annum – before growing more quickly again between 2008 and 2009, reaching £168 billion in 2009.

Changes in the public sector pay bill can be decomposed into changes in the size of the workforce and changes in the cost of employing them (i.e. their gross earnings, employers’ pension provision and employers’ social contributions.)

Figure 7.2 shows the percentage increase in the general government pay bill (in real terms) split between the increase in headcount and the increase in cost per head since 1980. The Conservative governments, from 1979 to 1997, reduced headcounts on average by 0.6% each year while increasing real cost per head by 1.9% a year. The Labour governments, on the other hand, increased headcounts by 1.1% a year as well as increasing cost per head by 2.4% a year over the period from 1997 to 2009. However, most of the increase in the general government pay bill was concentrated during 2000–05, with costs per head rising by 3.3% per year in real terms over this period. As shown in Chapter 6, this was the period when public spending was growing at its fastest rate under the previous Labour administrations. In the years before the financial crisis, the Labour government started to reduce this growth both by limiting increases in costs per head and by reducing the employment level slightly. After 2008, this tightening of the public sector pay bill ceased, with a significant increase occurring in 2009.

Changes in the size of the public sector workforce over the last decade have been far from evenly spread across professions. Table 7.1 describes these changes for some of the key groups between 1997 and 2009. Compared with the rest of the public sector, the numbers of teaching assistants, police, doctors and nurses have risen relatively quickly. The number of administrators in the public sector has risen relatively slowly. In the civil service, recent reductions in numbers have almost entirely reversed the growth in the

Figure 7.2. Changes in the general government pay bill



Sources: ONS, *United Kingdom National Accounts: Blue Book*, 2010 (<http://www.statistics.gov.uk/statbase/tsdtables1.asp?vlnk=bb>); authors’ calculations.

Table 7.1. Selected groups of general government workforce in the UK

	1997	2009	% change, 1997–2009
National Health Service	1,190,000	1,578,000	+33%
<i>Of which:</i>			
<i>Doctors (England)</i>	89,619	140,897	+57%
<i>Nurses (England)</i>	318,856	417,164	+31%
Police	230,000	294,000	+28%
<i>Of which:</i>			
<i>Police community support officers</i>	–	16,631	–
Education	1,131,000	1,410,000	+25%
<i>Of which:</i>			
<i>Teachers (England)</i>	400,300	442,700	+11%
<i>Teaching assistants (England)</i>	60,600	183,700	+203%
Public administration	1,139,000	1,207,000	+6%
<i>Of which:</i>			
<i>Civil service</i>	516,000	527,000	+2%
HM Forces	220,000	197,000	–10%
Other health and social work	436,000	374,000	–14%
Construction	124,000	54,000	–56%
All general government	4,835,000	5,494,000	+14%

Note: Headcounts, not seasonally adjusted.

Sources: ONS, *Public Sector Employment, Q1 2010* (<http://www.statistics.gov.uk/pdfdir/pse0610.pdf>); DCSF, *School Workforce in England, January 2009* (http://www.education.gov.uk/rsgateway/DB/SFR/s000874/SFR23_2009v2.pdf); NHS data from the Information Centre (<http://www.ic.nhs.uk/statistics-and-data-collections/workforce>); police workforce data from the Home Office Statistical Bulletin (<http://www.homeoffice.gov.uk/about-us/non-personal-data/data-police/>).

early years of the decade. Numbers in the armed services have fallen in absolute terms over the period, although the conflict in Iraq led to a large increase in 2003, which was reversed thereafter.

The impact of the Spending Review

In its November 2010 projection, the OBR produced a forecast for growth in general government employment and in public sector pay per head for the next four years,³ which can be contrasted with past numbers presented in Figure 7.2.

One of the implications of these forecasts is a cut of 320,000 public sector jobs by 2013–14. This number was commented on in the press, as it contrasted with the 490,000 job losses that the OBR estimated were implied by the June 2010 Budget.⁴ The change in the estimate is mostly due to the less severe squeeze on public services, and therefore on the

³ Office for Budget Responsibility, *Economic and Fiscal Outlook*, November 2010 (<http://budgetresponsibility.independent.gov.uk/econ-fiscal-outlook.html>).

⁴ See *OBR Forecast: Employment*, 30 June 2010 (http://budgetresponsibility.independent.gov.uk/d/employment_forecast_300610.pdf).

public sector wage bill, that the welfare cuts announced in the Spending Review have made possible.⁵

Table 7.2 retraces the assumptions made by the OBR in order to obtain the 320,000 figure for employment reductions. The OBR uses projections for spending on public services (specifically, spending by Whitehall departments, local authorities and the BBC), excludes investment spending, and then estimates pay bill per head growth. This is done by forecasting, or making assumptions about, different components of growth in the total pay bill growth per head (basic settlements, pay drift,⁶ employer pension contributions and other costs such as employer National Insurance contributions (NICs)). By assuming that the growth rate in the total pay bill will be the same as the growth rate in total spending, the OBR can calculate a growth rate of public employment. Using the latest data from the ONS for government employment in 2010–11 (5.49 million), the last line of Table 7.2 computes the implied cumulative job losses over the next four years.

Table 7.2. OBR estimation of general government job losses

	2011–12	2012–13	2013–14	2014–15
A) Non-investment spending on public services^a	0.3%	0.4%	1.6%	-0.3%
Basic settlement	0.4%	0.4%	2.7%	2.7%
Pay drift	0.4%	0.4%	0.4%	0.4%
Employer pension contributions	0.2%	0.0%	0.0%	0.0%
Other (incl. NICs)	0.1%	0.0%	0.0%	0.0%
B) Total pay bill per head growth	1.2%	0.8%	3.1%	3.1%
C) Implied GG employment growth (i.e. C = A–B)	-0.9%	-0.4%	-1.5%	-3.4%
D) Implied cumulative GG employment losses	-40,000	-70,000	-150,000	-320,000

a. Sum of growth in resource Departmental Expenditure Limits (RDEs), i.e. central government expenditure, Local Authority Self-Financed Expenditure (LASFE) and BBC current expenditure.

Note: GG stands for general government.

Source: Pages 64–66 of OBR, *Economic and Fiscal Outlook*, November 2010

(http://budgetresponsibility.independent.gov.uk/d/econ_fiscal_outlook_291110.pdf) and table 1.8 of http://budgetresponsibility.independent.gov.uk/d/fiscal_supplementary_tables_291110.xls.

According to these forecasts, public sector job cuts are going to be limited in the first two years covered by the Spending Review but become much more important in 2013–14 and 2014–15. One of the key assumptions behind this pattern is the evolution of pay bill per head growth. According to the assumption from the OBR, growth in pay bill per head is going to be limited in the first two years, with basic settlements at 0.4%, before reverting to higher growth in 2013–14 and 2014–15, at 2.7%, in line with expected earnings growth in the private sector. These assumptions rely on the June 2010 Budget announcement that public sector pay is going to be frozen for two years in nominal terms for all workers except those earning less than £21,000. This implies a real-terms pay cut

⁵ According to the OBR, changes in methodology account for 30,000 of the 160,000 reduction in job losses between the two estimates, while changes in spending plans can account for 130,000 jobs (page 65 of the OBR's November 2010 *Economic and Fiscal Outlook*).

⁶ Pay drift is the difference between growth in earnings and growth in basic pay. For instance, if basic pay is growing at 1% but earnings at 2%, pay drift will be estimated at 1%. We come back to this notion in the next section.

of 4.7% over the next two years for most public sector workers as inflation (CPI as forecast by the OBR⁷) is forecast to run at around 3.1% in 2011–12 and 1.8% in 2012–13. We discuss the implications of this policy in the next section.

7.3 Public sector earnings

Comparing public and private sector pay

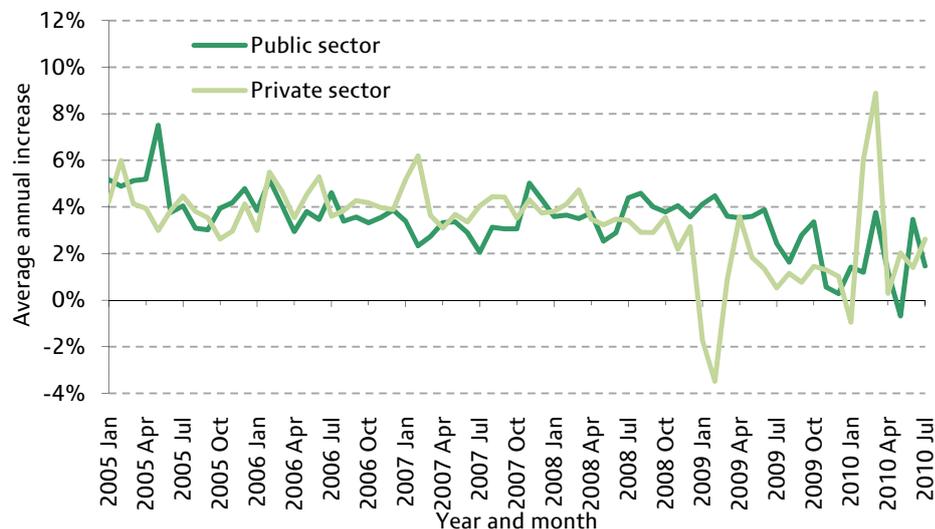
We present two types of evidence on pay in the public and private sectors in recent years. First, we document average earnings growth, which highlights the differential impact of the recent financial crisis on the remuneration of private and public sector employees. Second, we present estimates of the relative levels of pay between the two sectors that allow for the composition difference of the two sectors.

Trends in average earnings

Figure 7.3 presents average annual earnings growth in the public and private sectors in each month between January 2005 and July 2010. These numbers include all forms of earnings, including bonuses.

In 2006 and 2007, before the crisis started, earnings growth in the two sectors generally followed similar patterns, but in early 2009 private sector earnings were hit by the recession, experiencing drops in average earnings of 2–3% for a couple of months – during the months when bonuses are usually paid – with a stabilisation thereafter. In contrast, average earnings in the public sector continued to grow at a similar rate to that before the crisis. In early 2010, we can see a peak in the growth rate of private sector earnings, reflecting a catch-up on bonuses that had been slashed in 2009.

Figure 7.3. Growth in public and private sector pay



Source: ONS, <http://www.statistics.gov.uk/STATBASE/Product.asp?vlnk=9537a>. Average earnings indices not seasonally adjusted and including bonuses (series LNNI for the public sector and LNKX for the private sector).

⁷ Page 83 of OBR, *Economic and Fiscal Outlook*, November 2010 (http://budgetresponsibility.independent.gov.uk/d/econ_fiscal_outlook_291110.pdf).

Public–private sector wage gap

The average earnings growth figures just presented do not provide information on the public–private pay differential; one needs to look at the difference in pay levels to consider this.

One often-quoted statistic is the difference between the mean wage in the public and private sectors. As was highlighted in last year’s Green Budget, drawing conclusions on the public sector pay premium from such raw comparisons is not appropriate.⁸ The raw differential does not take into account the fact that the skill compositions of the two sectors are markedly different: it is like using the average pay of neurosurgeons and the average pay of bartenders to conclude that neurosurgeons are overpaid!

The approach taken in last year’s Green Budget was to use the Labour Force Survey (LFS), a representative sample of the UK population with detailed information on labour market situations, to estimate the public sector pay premium controlling for a limited set of important characteristics such as education, qualifications and age. We have updated these estimates using the most recent LFS and present the results in Table 7.3 for 2009 and 2010.

Table 7.3. Estimating public–private wage differentials (2009 and 2010)

	Men	Women	All
Mean difference in wages	+0.207 (0.012)	+0.276 (0.009)	+0.246 (0.007)
Controlling for education	+0.098 (0.011)	+0.153 (0.009)	+0.124 (0.007)
Controlling for education, age and qualifications	+0.052 (0.011)	+0.096 (0.009)	+0.075 (0.007)

Notes: The wage differentials controlling for various factors are estimated by ordinary least squares (OLS), regressing log hourly wages on control variables for public sector, age left full-time education, highest qualification, age, age squared and interactions between age and age squared with age left full-time education. Hourly wages are computed using actual hours reported by survey respondents. Standard errors are reported in parentheses.
Source: Authors’ calculations using data from the quarterly LFS, 2009 and 2010 up to September 2010.

The first row of Table 7.3 presents the raw difference between the mean hourly wage in the public sector and the mean hourly wage in the private sector. On average, hourly wages are 24.6% higher in the public sector, with a greater gap for women (27.6%) than for men (20.7%). The second row shows the estimates of public sector wage differentials once education is controlled for: the raw estimates are immediately halved, reflecting the fact that public sector workers tend to be, on average, more educated than private sector workers. This is due to the fact that a large part of public sector services are very intensive in high-skilled labour (health and education, for example). The final row presents the estimated public sector premium once education, age and qualifications are taken into account. For men, the estimated premium is 5.2%, while it is 9.6% for women and 7.5% on average. All of these estimates are statistically different from zero at conventional levels.

However, this methodology has limitations. Although controlling for differences in observed characteristics between public and private sector pay removes some of the

⁸ A. Bozio and P. Johnson, ‘Public sector pay and pensions’, in R. Chote, C. Emmerson, and J. Shaw (eds), *The IFS Green Budget: February 2010*, IFS Commentary 112 (<http://www.ifs.org.uk/budgets/gb2010/10chap9.pdf>).

issues present in raw comparisons, these estimates should not be interpreted as a measure of the public pay premium without some care. More specifically, this methodology misses five potentially important drivers of public–private pay differentials:⁹

- First, pay is only one part of the total remuneration package. A full comparison of public and private sector workers should also consider elements such as pensions (see Section 7.5), fringe benefits, annual leave and health insurance.
- Second, this methodology misses the impact of unobserved ability, as education, experience and qualifications are crude measures of workers' productivity.¹⁰
- Third, the methodology does not account for the marked differences in the age–earnings profile between the two sectors, with these being steeper in the private sector than in the public sector for young men but declining at older ages when they are still increasing in the public sector. Recent research has therefore argued that any comparison between public and private sector remuneration should take account of these life-cycle variations.¹¹
- Fourth, individuals are going to self-select into different occupations based on preferences, which are unobserved to the statistician. If doctors, nurses or teachers receive some non-monetary satisfaction in doing a socially useful job in the public sector, they might be paid less for a given skill level than if they were doing a less rewarding job in the private sector. As a result, our pay differential estimates might have, in this case, an upward bias. On the other hand, if some public sector jobs are particularly painful, this would lead to a downward bias in our estimates.
- Fifth, this methodology relies on assuming that private sector pay reflects underlying productivity. If, say, women (or any other group) are discriminated against in the private sector but not in the public sector, then the estimated public–private pay differential for women (or whichever group) will also reflect private sector discrimination.

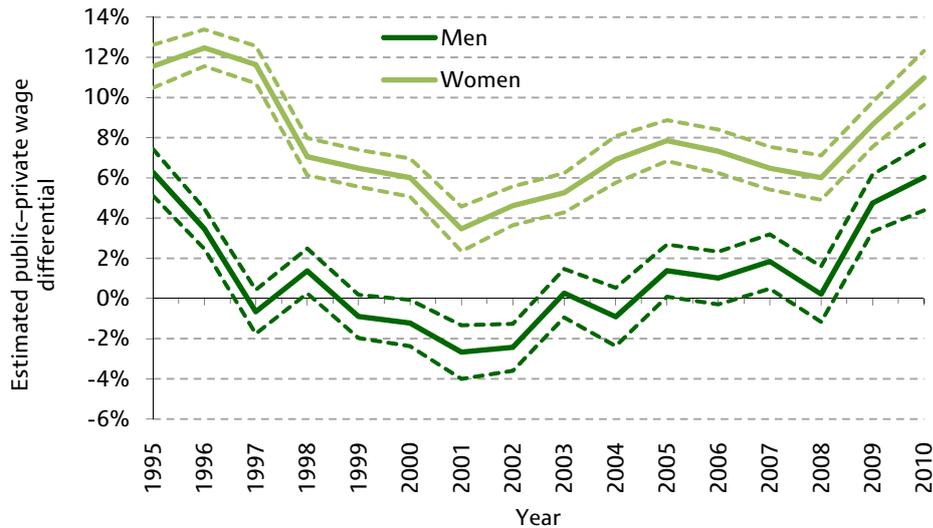
With these caveats in mind, it is nonetheless interesting to see how estimates of the public pay premium using this methodology have evolved over time in the UK. Figure 7.4 reproduces the estimated pay gap for men and women for each year since 1995. Confidence intervals at 95% are shown with dotted lines. Estimated pay differentials for men were negative in 2001 and 2002, and were not significantly different from zero in subsequent years after some higher public pay growth allowed a form of catch-up on the private sector. In 2009, the picture changes dramatically, with the emergence of a significant estimated pay gap in favour of the public sector, which reached 6% in 2010. For women, the estimated pay gap follows a similar trend, albeit at a higher level, with an increase in the estimated pay differential from 6% in 2008 to 11% in 2010. Even if the level of the public pay premium is not properly estimated with our methodology due to

⁹ For a critical assessment of the literature estimating public sector pay premiums, see R. Disney, 'The future of public sector pay in Britain', in D. Marsden (ed.), *Labour Market Policy for the Twenty-First Century*, Oxford University Press, forthcoming, 2011.

¹⁰ For evidence on the impact of pay on teachers' quality, see e.g. S. Nickell and G. Quintini, 'The consequences of the decline in public sector pay in Britain: a little bit of evidence', *Economic Journal*, 2002, 112, F107–F118.

¹¹ F. Postel-Vinay and H. Turn, 'The public pay gap in Britain: small differences that (don't) matter?', *Economic Journal*, 2007, 117, 1460–1503.

Figure 7.4. Estimated public–private wage differentials



Notes and sources: As for Table 7.3. Estimates control for education, age and qualifications.

omitted variables, the change over time of these estimates requires less stringent assumptions in order to be interpreted as the change in the public pay premium.

Regional disparities

Given that public sector pay is largely set nationally, average pay differentials are likely to vary substantially by region. In order to highlight these regional variations, Table 7.4 presents similar estimates by large regions of the UK. In regions where the private sector offers high average pay, i.e. in London and the South-East, the estimates of public–private pay differential are not significantly different from zero for men or women, even in 2009 and 2010. This means that in these regions, for a given level of education and qualification, public and private sector workers command the same hourly wage, on average. In the rest of the country, the estimated pay differential is substantial, at around

Table 7.4. Estimating public–private wage differentials by region (2009 and 2010)

Region	Men		Women	
	Raw differential	Estimated differential	Raw differential	Estimated differential
London	+0.106 (0.042)	+0.021 (0.038)	+0.193 (0.034)	+0.022 (0.032)
South-East	+0.145 (0.030)	+0.013 (0.026)	+0.228 (0.021)	+0.034 (0.020)
South-West	+0.242 (0.038)	+0.086 (0.035)	+0.259 (0.028)	+0.128 (0.028)
East of England and Midlands	+0.225 (0.025)	+0.079 (0.023)	+0.325 (0.019)	+0.145 (0.018)
North of England	+0.266 (0.023)	+0.076 (0.021)	+0.326 (0.017)	+0.141 (0.016)
Wales, Scotland, Northern Ireland	+0.275 (0.027)	+0.106 (0.024)	+0.326 (0.021)	+0.155 (0.020)
All UK	+0.207 (0.012)	+0.052 (0.011)	+0.276 (0.009)	+0.096 (0.009)

Notes and sources: As for Table 7.3.

8% for men in the rest of England and over 10% in Wales, Scotland and Northern Ireland, and between 13% and 16% for women.

How can the government reduce public sector earnings?

Broadly speaking, the overall change in the average earnings of public sector workers will depend on three factors:

- changes in negotiated pay rates over time (basic pay settlements);
- ‘pay drift’ arising from changes in the composition of the public sector workforce as it affects the relative proportions of high-paid and low-paid workers;
- changes in earnings that are not directly determined by changes in basic pay rates such as changes in overtime payments and shift premiums (especially in non-supervisory grades), performance-related pay, recruitment and retention premiums and one-off payments (notably among senior managerial grades).

The issues involved in each of these three factors – basic pay settlements, pay drift and pay incentives policy – are now considered in turn.

Basic pay settlements

Pay rates in the UK public sector are normally set at the national level by centralised negotiating procedures. Roughly 2 million of the 6 million workers in the public sector have pay rates set through the system of publicly-established but independently-constituted Review Bodies.¹² Other public sector workers negotiate directly with employers (local government workers and firefighters, for example) or through negotiation procedures that allow explicitly for arbitration (in the case of the police).

Recommendations made by Review Bodies (and indeed arbitrators) are not always accepted by government, and recommended awards may be staged or rejected. Indeed, the period from 2008 onwards has seen the Cabinet Office and HM Treasury taking a more prescriptive and interventionist role in public pay-setting, with a number of Review Body recommendations rejected outright, superseded by direct negotiation of multi-year pay agreements with public sector unions (as in the case of the NHS three-year settlement from 2008–09 to 2010–11) or superseded by pre-announced partial or complete freezes of pay scale rates.

The impact of freezing public sector pay awards in aggregate

A general pay freeze in the public sector is seen as an attractive option by government and public sector employers when affordability is the dominant factor in public sector pay determination. Indeed, a pay freeze might be economically desirable in itself if public sector workers have been generously treated relative to private sector workers, as suggested in the previous subsection.

The pay awards of the last year of the previous Labour government (for the period 2009–10) reflected a *partial* and somewhat ad hoc pay freeze. Some groups of public sector workers were awarded zero increases in pay rates across-the-board (senior

¹² Review Bodies cover workers in the NHS (other than GPs), school teachers, the armed forces, prison officers and some senior salaried staff. They make recommendations concerning changes in public pay scale rates to the government, based on evidence submitted by staff, employers and the relevant government departments, as well as independent evidence on pay trends in the private sector, on prospective changes in the cost of living, on workforce recruitment and retention and on the criterion of ‘affordability’. They may also be invited by government to consider other facets of public sector remuneration and they have in the recent past made recommendations concerning public sector pensions, performance-related pay and pay structure (grades). For more details, see http://www.ome.uk.com/Review_Bodies.aspx.

administrators in central government and workers in local government, for example). For some public sector groups, the recommendations of Review Bodies for pay increases were accepted (such as for the armed forces), while others were rejected. And some multi-year settlements in existence were honoured (such as those for NHS staff, teachers and police officers) while others were abandoned in favour of freezes in pay scales (as in the case of senior civil servants).

The current background to public sector pay negotiations is the *overall* two-year freeze in public sector pay rates announced by the coalition government in the June 2010 Budget, to cover the period 2011–12 to 2012–13. However, even this overall pay freeze contains an important exemption – workers earning less than £21,000 will receive a lump-sum increase of £500 over the two years – which will cover 1.7 million workers, or 28% of the public sector workforce, according to the Chancellor.¹³ A more significant fraction of workers earn less than this in some parts of the public sector, such as the NHS. Using the OBR forecast of average earnings growth and the current pay policy, we estimate in Table 7.5 the impact of the pay freeze on public–private pay differentials.

Under current policy, the public sector premium would be reduced on average by 6.6 percentage points by 2014–15. This would lead to a reduction in the mean wage difference between the two sectors from 24.6% (from Table 7.3) to 18.0%. If one assumes that the sector composition by age, education and qualifications is not changing differentially, the estimated public pay premium would go from 7.5% to 0.9%. If our estimates of public sector pay premium are to be interpreted as such, this would suggest

Table 7.5. Implications of the pay freeze for public–private pay differentials

	2011–12	2012–13	2013–14	2014–15
<i>OBR assumptions</i>				
GG employment (million) ^a	5.5	5.4	5.3	5.2
Total employment (million) ^b	29.1	29.4	29.7	29.9
Share of public sector	18.7%	18.4%	18.0%	17.3%
Average earnings growth ^b	2.1%	2.6%	4.1%	4.4%
Average public sector pay growth ^c	1.2%	0.8%	3.1%	3.1%
Average private sector pay growth ^d	2.3%	3.0%	4.3%	4.7%
<i>Implied reduction in pay differential (cumulative percentage points)</i>				
Current policy (2-year pay freeze)	1.1	3.4	4.8	6.6
Option 1 (3-year pay freeze)	1.1	3.4	7.1	9.1
Option 2 (4-year pay freeze)	1.1	3.4	7.1	12.2

a. Page 65 of OBR, *Economic and Fiscal Outlook*, November 2010 (http://budgetresponsibility.independent.gov.uk/d/econ_fiscal_outlook_291110.pdf).

b. Page 83, idem as above.

c. Table 1.8 of http://budgetresponsibility.independent.gov.uk/d/fiscal_supplementary_tables_291110.xls.

d. We calculate this line from the three lines above assuming that the share of general government in the UK workforce will follow OBR employment assumptions.

Note: Option 1 corresponds to one more year of pay freeze, leading to a 0.8% increase in the public pay bill per head in 2013–14, while option 2 corresponds to two more years of pay freeze, leading to a 0.8% pay increase in 2013–14 and 2014–15.

¹³ See the Chancellor's Budget statement, available at http://www.hm-treasury.gov.uk/junebudget_speech.htm. A lump sum of £500 over two years for an individual earning £21,000 represents a 1.2% annual nominal pay increase.

that one more year of pay freeze in the public sector would not significantly endanger public sector recruitment: it would cut the public–private pay differential by 9.1 percentage points (option 1 in Table 7.5), which would reduce the estimated public pay premium to –1.6%, although it would still be a very harsh settlement. Option 2 – two more years of pay freeze in the public sector – would, at least according to our estimates, lead public sector pay further into the zone of a negative average pay premium.

All the caveats previously mentioned should be kept in mind when interpreting these numbers. For instance, if the estimated pay differential for women is biased upwards due to discrimination or other preference differences, the true pay premium would be better estimated on men only. From Table 7.3, the current pay freeze policy would lead to a negative pay premium for men of –1.4 percentage points (–3.9 percentage points with a three-year pay freeze). These estimates suggest that the current two-year pay freeze policy is broadly in line with removing the current average public sector pay premium but that there is only limited scope for further pay reductions.

Although the four countries of the UK may have different negotiated outcomes, the scope for regional variation in pay scale rates within countries is highly limited in the public sector. Consequently, there is generally much less variation in public sector pay across local labour markets than there is in private sector pay. Hence local imbalances in supply and demand can easily arise for public sector jobs. In that respect, the national pay freeze policy might lead to a different judgement depending on which part of the country we look at. Using our estimates from Table 7.4, we can see that current policy will lead to a large negative pay gap in London and the South-East, as there does not seem to be a significant public pay premium in these regions. This is bound to create recruitment issues, especially for skills in high demand, and it might lead to a deterioration of the quality of public services in these areas.¹⁴ In the rest of the country, however, there still seems to be room for further freezes without endangering the recruitment process. Given the difficulty of reducing nominal pay, it is particularly hard for the government to reduce regional disparities when overall earnings growth is low. It is usually thought that this type of policy is one that should be implemented in good times, when it is possible to offer differentiated positive pay awards. If the earnings forecasts of the OBR turn out to be correct, i.e. with a return to more normal earnings growth from 2013–14 onwards, there might then be a case for higher public sector pay growth in London and the South-East than in the rest of the country in those years.

Although the approach we have adopted so far suggests that a two-year public sector pay freeze might be appropriate in aggregate, the implications of such a policy at the microeconomic level are much less straightforward.

The microeconomics of public sector pay freezes

Pay freezes ultimately cause labour market distortions, with implications for the quality and composition of the public sector workforce. If private sector employment does begin to increase, recruitment of more able workers from the public sector will be easier when public sector pay is relatively less attractive; moreover, any difficulties that arise in recruiting new staff to the public sector (or, indeed, freezes in recruitment, as discussed in the next section) will lead to a public sector workforce that is ageing and losing its most able employees to the private sector.

¹⁴ A controversial implication from this is drawn by C. Propper and J. Van Reenen, ‘Can pay regulation kill? Panel data evidence on the effect of labor markets on hospital performance’, *Journal of Political Economy*, 2010, 118, 222–273.

Statistics suggest that, even during a period when the overall number of public sector job openings was low, there have still been significant levels of vacancies in selected occupations within the public sector – existing public sector pay levels and pay structures have not led to a convergence of vacancy rates. This can be illustrated in the case of the NHS by data on vacancies reported by English Strategic Health Authorities, depicted in Figure 7.5. These data exclude frozen posts and vacancies that are no longer being advertised. Although some of these vacancy rates might seem relatively low – and NHS-defined ‘hard-to-fill’ rates (open for three months or longer) are typically even lower, at 1–2% of the workforce – vacancy rates for some groups remain relatively high and have recently often been at double-digit levels in areas such as London and the surrounding regions where private pay levels are relatively high.

Figure 7.5. Vacancies in the NHS in England by Strategic Health Authority: selected occupations, 2009



Note: ‘Vacancy rate’ defined as vacancies as a percentage of the total workforce plus total vacancies.

Source: NHS Information Centre, <http://www.ic.nhs.uk/statistics-and-data-collections/workforce/nhs-and-gp-vacancies>.

For some NHS occupations, the public sector is the dominant employer and further supply comes primarily through training extra staff, with a predictable time lag. However, even in these occupations, higher pay may induce trained individuals who are employed elsewhere or not currently in paid work to rejoin the NHS workforce. Lower pay will induce the opposite effect. In other occupations, such as physiotherapy and pharmacy, there is a substantial private sector workforce and the supply of workers to the public sector is much more likely to be sensitive to relative wage rates between the two sectors. Either way, however, a centralised pay structure coupled with a universal public sector pay freeze maintained for several years will ultimately induce distortions in the labour market, which will be reflected in disproportionate shortages in specific occupations coexisting with adequate recruitment in other areas. Allowing pay increases for earners below a particular level of earnings, as in the current two-year pay freeze, is irrelevant to this problem unless it happens to be the case that vacancy rates are higher for workers on lower levels of pay (which is not, in fact, the case).

One solution would be for HM Treasury to set a strict pay bill envelope for departments over a target period whilst allowing greater discretion for pay rate changes within the

envelope, rather than to impose a limit on scale rates per se. For example, in the NHS case, a ceiling on pay growth could be set (which might or might not be zero) whilst allowing for national or local recruitment premiums for occupations with hard-to-fill vacancies. The scope for such premiums already exists in the pay-setting arrangements, but for one reason or another employers and the Department of Health are reluctant to encourage the use of such pay flexibility.¹⁵

The distortions that tend to accumulate during periods of pay freezes are exacerbated by *partial* pay freezes. The current policy of a pay freeze for all workers except those earning less than £21,000 provides an illustrative example. Does the £21,000 apply only to full-time workers or to full-time equivalent salaries? Will a worker earning £20,700 'leapfrog' a worker earning £21,000? No doubt the answers to these questions are currently being worked out by HM Treasury, the relevant government departments and Review Bodies. However, previous experience suggests that anomalies develop and persist in response to such interventions. For example, the previous Labour administration decided to reduce the pay increases of very senior managers in the NHS below Review Body recommendations whilst allowing managers below them in the hierarchy to receive the full three-year pay settlement negotiated for the period 2008–10. This has led to the position that senior managers in the NHS can be earning less than their deputies.

All these factors tend to suggest that interventions on public pay rates, motivated primarily by macroeconomic factors (i.e. cutting public spending), have microeconomic implications for pay structure and thereby for recruitment and retention. Long periods of pay constraint also tend to exacerbate existing anomalies. This suggests that the government will ultimately have to think more carefully about flexibility in the public sector pay structure, so that workforce planning can be more carefully managed.

Pay drift

A freeze of public sector pay rates does not of itself guarantee that the total public sector wage bill remains constant. Indeed, the total public sector pay bill could rise or fall even if all pay rates were frozen. The reason for this is simple: the total pay bill depends not just on pay rates, but also on the composition of the public sector workforce. Changes in the composition of the public sector workforce are a key factor in public sector 'pay drift', defined as the difference between growth in basic pay and growth in earnings.

Many public sector workers are on broadly incremental pay scales, starting at a low salary and ending on a high salary. Therefore in periods of high recruitment of young workers, or in periods when large numbers of older and higher-paid workers retire, the pay bill per head can actually fall. Public sector pension schemes (discussed in Section 7.5) encourage individuals to retire at the earliest age at which normal pension benefits are available, but they also encourage workers in later middle age to remain in post in order to be eligible for retirement benefits, especially when the rate at which the pension accrues accelerates after a certain number of years' service (as in the Police Pension Scheme for those who joined before 2006¹⁶).

¹⁵ Foundation Trusts (not hospitals) do have the freedom to diverge from NHS pay rates, which are set within the Agenda for Change pay structure, but so far only a few have chosen to do so.

¹⁶ Since April 2006, new joiners to police forces are not eligible to join the Police Pension Scheme. New entrants are enrolled in the New Police Pension Scheme which, whilst still relatively generous, does not have this accelerated accrual-with-service feature.

The impact of a broad pay freeze accompanied by measures to ‘downsize’ the public sector workforce on the growth of the public sector pay bill is therefore difficult to predict. Recruitment freezes will tend to raise pay per head, but measures to encourage early retirement are likely to have the opposite effect. The lack of job opportunities elsewhere may encourage older public sector workers to remain in their posts until eligible for pension benefits, but the lump-sum £500 pay increase to lower earners (who will typically be younger workers) will also reduce the incentives for lower earners to quit. Finally, incremental scales in the public sector typically have a limited number of grade points, with promotion or transitions to higher grades at the discretion of the employer; a cost-cutting public sector employer may seek to postpone or limit such transitions to save money, so that an increasing number of workers are thereby at the top of their particular pay scales and not eligible for pay increments. Given that moving up pay scales is usually a function of tenure but moving to a higher scale is a function of performance, it is more likely that controls on pay bills would reduce only the performance-related component of pay, with possible negative implications on the motivation of the best-performing staff.

Pay incentives policy in the public sector

In addition to changes in basic pay rates, there have been major reorganisations to public sector pay – notably the introduction in the NHS of the Agenda for Change pay structure between 2005 and 2007 that implied an additional upward boost to pay for some groups.

An important component of ‘pay drift’ in the private sector is that earnings tend to rise faster than pay rates in periods of economic upturn, with greater working of overtime and payment of profit-related bonuses, and the reverse tends to happen in a recession. Both overtime pay and the payment of ‘bonuses’ – in the form of performance-related pay, since the public sector is not-for-profit – are also present, albeit to a somewhat lesser degree, in the public sector. We now discuss these in turn.

Although overtime work in the public sector sometimes reflects staff shortages, it is generally less susceptible to macroeconomic fluctuations than in the private sector, and instead it is generally the outcome of union-negotiated agreements concerning work practices and shift patterns. There has been a systematic effort to eliminate ‘excessive’ overtime in the past decade in the public sector by renegotiating pay structures, and significant overtime pay is now generally common only among a minority of public sector occupations such as the police, paramedics, postal workers and some health-related occupations. Constraints on spending are likely to lead employers to restrict the opportunities for overtime still further.

Pay incentives for senior grades in the public sector, such as bonuses, performance-related pay and one-off payments, have become a political issue. The issue arose from concern over bonuses paid to senior managers (in both the public and private sectors) and David Cameron’s express desire to limit the ratio of high to low pay in the public sector.¹⁷ The issue of what the appropriate range of pay is in the public sector is a complex one since measurable outputs are limited and pay cannot typically be linked to explicit measures of performance (such as profitability) in any credible fashion.

¹⁷ Following the Prime Minister’s pre-election commitment that the ratio of highest to lowest pay in any public sector organisation should not exceed 20 to 1, Will Hutton was appointed to lead a review of fairness in public sector pay and an interim report was published in December 2010; see *Hutton Review of Fair Pay in the Public Sector: Interim Report* (http://www.hm-treasury.gov.uk/indreview_willhutton_fairpay.htm).

The expressed rationale for payment of ‘bonuses’ to senior managers in the public sector is quite distinct from that for those paid in the private sector, since the former arise from attempts to ‘incentivise’ senior managers in public sector organisations on an individual basis so as to improve public sector performance, rather than being linked in any manner to turnover or profitability. Attempts to improve public sector performance by recruitment of high-performing individuals from the private sector have often also led to high pay levels for particular individuals and one-off recruitment bonuses. There is also some evidence that tenure of high-profile senior officials in sectors such as NHS Trusts and local government has increasingly been linked to potential indicators of performance, with early exits requiring one-off severance payments, which naturally attract public opprobrium as ‘rewarding failure’.¹⁸ Earnings of particular individuals may therefore be excessive and ‘unfair’, but if differential remuneration is no longer going to be used as an instrument for improving performance of public sector managers, some thought needs to be given to how the performance of public sector institutions is going to be improved in the future.

7.4 Public sector employment

We have seen in the previous section that, although there is room for some public pay reduction, the use of further pay cuts may be limited. According to the OBR’s forecasts, and even with the planned pay freeze, 320,000 public sector jobs will have to be cut by 2014–15.

This section attempts to answer questions related to this headline number. How easy will achieving the implied job losses be in different areas such as the police, the NHS, education and other parts of the public sector? What is the best way for the government to cut 320,000 jobs?

How many public sector jobs will have to go?

The OBR has not estimated the number of job losses by department as it would require information or assumptions on departmental pay bill growth and pay bill per head. For instance, it is difficult to infer pay bill growth from spending growth in the Department for Business, Innovation and Skills, as cuts in spending could be offset by increases in student fees. It is also likely that components of earnings growth vary by occupation: pay drift is likely to be different in the police from that for teachers or for NHS staff. It is unfortunately, and perhaps surprisingly, difficult to find comparable and reliable measures of these departmental differences.

As an illustrative exercise, we have computed in Table 7.6 the growth rate of employment for a selection of departments, using the same methodology as the OBR, assuming that the growth of pay bill per head is the same in every department, and using the non-investment spending plans for each department from the October 2010 Spending Review. But one should question these assumptions, as departments might be able to cut other areas of spending by more than they cut the pay bill.

¹⁸ See House of Commons, Public Administration Committee, *Top Pay in the Public Sector*, Sixth Report, HC-172, Session 2009–10
<http://www.publications.parliament.uk/pa/cm200910/cmselect/cmpubadm/172/17202.htm>.

Table 7.6. Illustrative example of potential job losses in some departments

	2011–12	2012–13	2013–14	2014–15
Education	–0.4%	+1.0%	–1.6%	–1.2%
NHS (Health)	+1.6%	+1.7%	–0.3%	–0.4%
Home Office	–5.5%	–5.3%	–7.8%	–6.8%
Justice	–3.6%	–5.8%	–7.0%	–8.5%
Defence	+1.3%	+0.4%	–4.4%	–3.9%
All general government	–0.9%	–0.4%	–1.5%	–3.4%

Notes: We use the projection of the departmental RDEL from the Spending Review and assume the same pay bill growth per head for each department as the OBR does for the general government sector as a whole. Departments wishing to cut employment by less than these numbers suggest would need to cut other budgets by more than the pay budget. Negative numbers indicate job losses.
Sources: Table A.5 (page 81) of HM Treasury, *Spending Review 2010* (http://cdn.hm-treasury.gov.uk/sr2010_completereport.pdf). Authors' calculations.

Table 7.6 simply translates the choices that were made in the Spending Review, detailed in Section 6.3, into employment losses taking into account the likely evolution of pay. Relatively protected departments, such as the NHS and Education, will, at least according to these calculations, face limited job losses. The Home Office and the Justice department, on the other hand, will have to carry out severe reductions in their workforce if they are to achieve their spending cuts targets, or reduce other parts of their budgets even more (as pay forms the majority of their expenditure). By 2014–15, according to these estimates, the Home Office and the Justice department would have to cut employment by 23%. Defence will be protected in the first two years, but face significant cuts likely in 2013–14 and 2014–15.

These employment implications should be taken with great care as department spending cuts might disproportionately affect other parts of spending than the pay bill. For instance, the Spending Review announced that within the 23% real cuts in Home Office spending, a larger share will be borne by non-police budgets, with police budgets being reduced by 20%. If the Police Authority decided to increase its precept on council tax, it would lead to a smaller reduction in its budget, thus reducing the need for employment cuts.¹⁹ Even if these numbers do not end up being the number of jobs departments will cut, they provide rough estimates of the scale of workforce reductions implied by the Spending Review under the assumptions that the spending plans are adhered to and that non-pay costs are not cut disproportionately.

How to cut public sector employment?

Once the targets for spending cuts, the level of pay growth and the implied cuts in public sector workforce have been established, one has to face the question of how to deliver these job cuts. The most straightforward way – but not necessarily the optimal way – of reducing employment is freezing recruitment and using natural exits to reduce the number of employees. We first consider this policy option, providing evidence on the turnover rate in various parts of the public sector, and then consider the alternative policies of redundancies and early retirement.

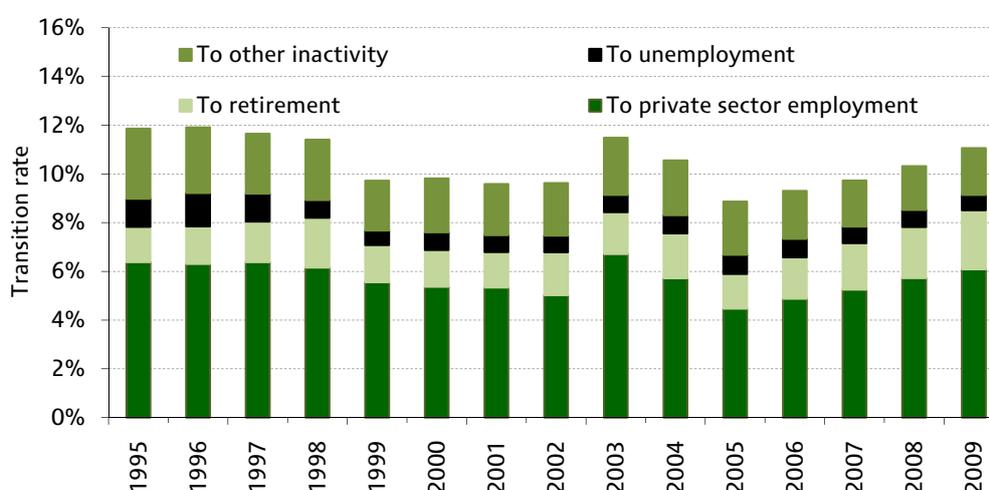
¹⁹ Page 54 of the October 2010 Spending Review (http://cdn.hm-treasury.gov.uk/sr2010_completereport.pdf).

Using ‘natural’ exits

The number of job losses that can be achieved by using ‘natural’ exits from the public sector depends on the turnover rate, i.e. on the fraction of public sector employees who voluntarily leave public sector employment in a given period.

Figure 7.6 presents estimates of the annual transition rate from public sector employment to employment elsewhere or economic inactivity for each year since 1995. Some of the exits from public sector employment to inactive states other than retirement might allow for employment cuts, but some will not if there is an expectation that the employee will return (or a legal requirement for this to happen), such as exits to maternity leave or short-term sickness. However, the sum of the retirement rate and the exit rate to private sector employment is around 6–9%; this is considerably greater than what is required to achieve the scale of cuts suggested by the OBR (see Table 7.2, i.e. between 0.4% and 3.4% annual employment reductions).

Figure 7.6. Transition rate out of public sector employment



Note: Transitions are yearly estimates based on the individual transitions between the first and fifth waves of the quarterly LFS.

Source: Authors' calculations using data from the Labour Force Survey, 1994–2009.

However, the problem with looking at turnover rates at the aggregate level is that they hide the large heterogeneity within the public sector: some groups or institutions tend to have higher turnover rates while others have much lower exit rates.

Table 7.7 presents transition rates out of the public sector,²⁰ computed for different categories of public sector workers averaged over the years 2006–09. Some groups, such as doctors and teachers, have high transition rates, either with significant private employment possibilities or through retirement. On the other hand, the police, nurses and prison officers have much lower overall transition rates.

²⁰ Turnover rates presented by public organisations or departments measure the exit rate out of a given organisation, which might imply that the employee has switched to a different public sector job. Transition rates presented in Table 7.7 from the Labour Force Survey show the net rate of exit out of the public sector. It is likely that the transition rate out of the public sector is lower than the transition rate out of a given public organisation and it cannot be higher than that.

Box 7.1. Spending cuts and turnover in the police force

The plans in the 2010 Spending Review envisage the Home Office seeing overall resource spending reduced by 24.6% in real terms by 2014–15, with a predicted 20.7% real cut in police budgets (see also Chapter 6).^a Although ministers have argued that ‘front-line’ police services will be protected^b and that local budgets may make up some of the shortfall in central resources, it is hard to see how such a large real cut in police budgets can be achieved in such a short period, even with significant workforce reductions.

We therefore model a scenario in which the police pay budget is cut by 20%, with the consequent implications for workforce size, and assess the scope for achieving such reductions using ‘natural’ attrition through natural exit and normal retirement. In fact, with zero real wage growth, such a target can be achieved, but there are strong reasons for thinking that real wages will grow, even with a pay freeze, due to ‘wage drift’ (see Section 7.3). This makes the achievement of the target unlikely without discretionary measures – primarily early retirement.

The bulk of the police budget is spent on workforce. There were about 144,000 police officers in post in England and Wales as of March 2010 and a further 91,000 support staff including community support officers and civilian support staff. Police officers’ salaries in the financial year 2010–11 will total £7.9 billion and support staff salaries £2.7 billion, plus £1.2 billion in employer pension contributions, out of total operating expenditure for police forces of £13.8 billion.

On average, 4–5% of police officers quit the police every year. These are ‘voluntary’ exits – there is no procedure for involuntary redundancy for police officers. These exits will typically be younger members of the force since the accelerated accrual of pension benefits in the Police Pension Scheme after 20 years gives a strong incentive for older officers to remain in service to retirement. Turnover rates among non-officer staff are likely to be higher, since turnover rates in comparable public sector clerical grades are typically double those of police officers. We therefore assume annual exit rates of 4.5% and 9% for police officers and non-uniformed staff respectively. These numbers are consistent with Chartered Institute of Public Finance and Accountancy (CIPFA) data on turnover rates among police staff in recent years.

Making the strong assumptions of zero recruitment and zero real wage growth per head, a 20% budget cut could be achieved by 2014–15 through natural exits resulting in 26,000 fewer police officers and 22,000 fewer support officers. Assuming real earnings growth of 2%, however (since zero recruitment will tend to push up the average age, and earnings, of police officers), the real budget cut would not be achieved until midway through the early part of 2016–17, with 35,000 fewer officers and 30,000 fewer support staff. Faster workforce reduction could then only be achieved by forced early retirement. Some 7,000 police officers are over age 50 – the Normal Pension Age under the Police Pension Scheme – but this is the only scope for tenure flexibility given the police’s contractual conditions. And this scenario assumes zero recruitment – a state of affairs that Chief Police Officers would be unlikely to accept.

Without real cuts in earnings, or other sources of police finance, or disproportionate cuts in the non-police Home Office budget, therefore, a 20% cut in the police pay budget looks very ambitious given the low rate of turnover in UK police forces.

a. Page 54 of the October 2010 Spending Review, taking into account changes in the inflation forecast in the OBR’s November 2010 *Economic and Fiscal Outlook*.

b. See, e.g., Hansard, 6 December 2010, column 10

(<http://www.publications.parliament.uk/pa/cm201011/cmhansrd/cm101206/debtext/101206-0001.htm#1012067000510>).

Table 7.7. Transitions out of public employment by public sector groups (2006–09)

	Private emp.	Retired	Unemp.	Other inactive	Total
Doctors	6.9%	0.6%	0.6%	0.8%	8.9%
Nurses	2.1%	0.9%	0.5%	0.9%	4.3%
NHS PAM	1.8%	1.7%	0.2%	0.8%	4.5%
Other health	4.3%	2.1%	0.8%	2.2%	9.4%
Police	1.7%	0.5%	0.3%	0.4%	3.0%
Prison officers	3.2%	0.5%	0.6%	1.7%	6.1%
Teachers	4.0%	3.2%	0.5%	2.1%	9.8%
Other education	3.8%	2.1%	0.7%	2.7%	9.4%
Civil service	2.7%	1.5%	1.1%	1.8%	7.0%
Other admin	4.3%	1.7%	0.7%	1.6%	8.4%
HM Forces	7.8%	0.0%	0.0%	0.9%	8.7%
Other	4.3%	1.5%	0.7%	2.4%	8.9%

Notes: Transitions are averages over four years of annual transition rates (between wave 1 and wave 5) of the quarterly LFS. NHS PAM designates NHS practices allied to medicine.

Sources: Labour Force Survey, 2006–09; authors' calculations.

Unfortunately for the government, the categories with very low turnover rates include those where the required employment cuts appear to be the largest. If one compares the last column of Table 7.7 with the estimates of Table 7.6, one can see immediately that the 'natural exit' policy will face a problem for the police (within Home Office) and, to a lesser extent, for prison officers (within Ministry of Justice). We discuss in detail in Box 7.1 the case of the police, where the gap between the announced spending cuts and the speed of possible employment adjustment is striking.

The problem of looking at aggregate estimates is not only an issue when comparing different parts of the public sector; it is also an issue between different organisations within the public sector. Some schools or hospitals have very high turnover rates, while others have much lower rates of exit. Even if, at the aggregate level, it is possible to use exit rates to reduce public sector employment, some organisations with low turnover rates may encounter real difficulties. Box 7.2 discusses the case of nurses in the NHS to illustrate the issues at stake. Organisations that have high turnover rates will have less of a problem reducing the number of staff, but this high turnover rate might be due to the fact that they have less attractive conditions of service. Hospitals or schools in London and the South-East that struggle to recruit qualified staff might end up cutting employment easily, while organisations in the rest of the country where the turnover rate is much lower will find it much harder to achieve employment targets.

Another problem with this 'natural exit' policy is that it assumes no recruitment at all, which is an extreme assumption. A freeze in recruitment for the public sector at large would distort the age and experience distribution of staff, and would, in some organisations, lead quickly to severe disruptions of service. As a result, it is more reasonable to assume that recruitment will be reduced, but not frozen. This will make squaring the circle in departments such as the Home Office and the Ministry of Justice even harder, if not impossible, without using other policies.

Box 7.2. Turnover in the National Health Service

The NHS has been protected from deep spending cuts by the government. Nevertheless, given cost pressures, even constant real spending can only be achieved with workforce reductions in some areas. In the example of police spending, illustrated in Box 7.1, the problem with relying on ‘natural’ exits is the relatively low (but relatively uniform) rates of turnover of police staff, especially police officers, across police forces. In the case of the NHS, however, the problem of relying on ‘natural wastage’ to achieve workforce reductions is the high variation in turnover rates across NHS Trusts. Recruitment freezes coupled with ‘normal’ exit rates would soon leave some Trusts with serious shortfalls in workers, while other Trusts would have seen little change in workforce. A high degree of local discretion would therefore be needed in determining how specific NHS Trusts should attempt to stay within a fixed real budget.

Table 7.8 shows the range of variation of turnover rates between September 2007 and September 2008 across NHS Trusts in England for qualified nurses.

Table 7.8. Range of turnover rates for qualified nurses across English NHS Trusts, 2007–08

Organisation name	Number of staff in Sept 2007	% of staff exiting Sept 2007 to Sept 2008
<i>Low turnover</i>		
Humber Mental Health Teaching NHS Trust	587	5.9%
North Staffordshire Combined Healthcare NHS Trust	663	6.2%
Doncaster and South Humber Healthcare NHS Trust	647	6.3%
Shrewsbury and Telford Hospital NHS Trust	1,351	6.5%
North Cumbria Acute Hospitals NHS Trust	1,421	6.5%
<i>High turnover</i>		
Salford PCT	400	24.4%
Somerset Partnership NHS and Social Care Trust	419	24.5%
Surrey Primary Care Trust	1,247	21.3%
Royal Marsden Hospital NHS Foundation Trust	675	20.5%
Bradford District Care Trust	503	20.3%

Source: NHS Information Centre, <http://www.ic.nhs.uk/statistics-and-data-collections/workforce>. These figures are for Trusts of at least 400 staff at the start of the period and that were not subject to reorganisation during the period.

In the five ‘low turnover’ Trusts, exit rates of qualified nurses were around 6% on an annual basis; for the five ‘high turnover’ Trusts, exit rates exceeded 20% in a single year. Of course, exit rates vary from year to year, but NHS data suggest that certain Trusts – in London, its surrounding regions and the larger municipalities – tend to have consistently higher average exit rates.

Faced with budget cuts, managers are tempted to use natural turnover and partial or complete recruitment freezes as lines of least resistance in achieving budget reductions. However, reliance on such strategies in the NHS will cause imbalances that will have to be rectified within a relatively short period.

Redundancies

An obvious alternative to the ‘natural exit’ strategy is to make public sector workers redundant. The problem with this method is that it is usually costly, as it tends to require large severance packages. It is also not an option for some public sector workers (for example, it is legally impossible to engage in involuntary redundancies with police officers).

In July 2010, the government announced a reduction in the generosity of redundancy packages for the civil service, in a move to reduce pre-emptively the cost of forthcoming redundancies.²¹ Current rules imply that civil servants made redundant can receive one month of pay per year of service, doubled after five years, up to six years of pay (for 38.5 years of tenure). The government proposal is to reduce the maximum amount of severance pay to two years of pay, which could mean some civil servants qualifying for four years’ less pay than they would under the current system. The government’s proposal would also bring the civil service closer to other parts of the public sector, where the general rule is one month of pay per year of service up to two years of pay. But even with the government’s proposed reduction in severance pay, reducing the public sector workforce through redundancies is costly, limiting its ability to help curb spending in the short term. It would also risk creating tensions and possible disruptions in the way the public sector operates.

Early retirement policies

The final option for policymakers wishing to reduce public sector employment is to set up early retirement plans.

Such schemes have been used extensively in the past both by private sector firms and by public sector employers. They are usually perceived positively by unions and employers and therefore typically allow large workforce reductions in a smooth way. In the 1970s and 1980s, it was thought that early retirement policies could reduce unemployment, and some European countries (notably France, Belgium and the Netherlands) carried out large-scale early retirement policies with that intent. In the UK, a Job Release Scheme was implemented between 1977 and 1988, with the intention of freeing up jobs occupied by older workers for younger workers.

But these early retirement policies have not been very successful: they have had a direct cost to the public finances of the countries that carried them out, with no significant fall in unemployment. On the contrary, they have contributed to lower employment of older workers and lower total employment.²² As a result, these policies end up being costly – much more so than redundancy packages – because they have a doubly negative effect on the public finances: they represent a direct cost through the additional pension payments, and they lead to lower labour force participation and thus reduce tax revenues.

Given how expensive and inefficient early retirement schemes are, we do not recommend that they are pursued to any great extent. We consider this final part of public sector cost – pensions – in the next section.

²¹ The story of the changes to the civil service redundancy package is more complex – it was started by the Labour government in July 2009 and subsequently stopped by the High Court before the coalition government proposed new legislation. The new legislation is subject to further legal challenges at the time of writing.

²² See, for example, the UK case within a cross-country study of these policies: J. Banks, R. Blundell, A. Bozio and C. Emmerson, ‘Releasing jobs for the young? Early retirement and youth unemployment in the United Kingdom’, in D. A. Wise and J. Gruber (eds), *Social Security Programs and Retirement around the World: The Relationship to Youth Employment*, University of Chicago Press, 2010.

7.5 Public sector pensions

The total public sector pay bill also includes the cost of providing pensions to public sector workers. We discuss this component of the public sector pay bill separately from earnings, as a large amount of current pension liabilities correspond to past promises from public employers, meaning that pension reforms typically have only small impacts on the public finances in the short run.

In this section, we first compare typical public and private pension provisions, in a similar way to the comparison of pay levels in Section 7.3. We then discuss options for reforming public sector pensions.

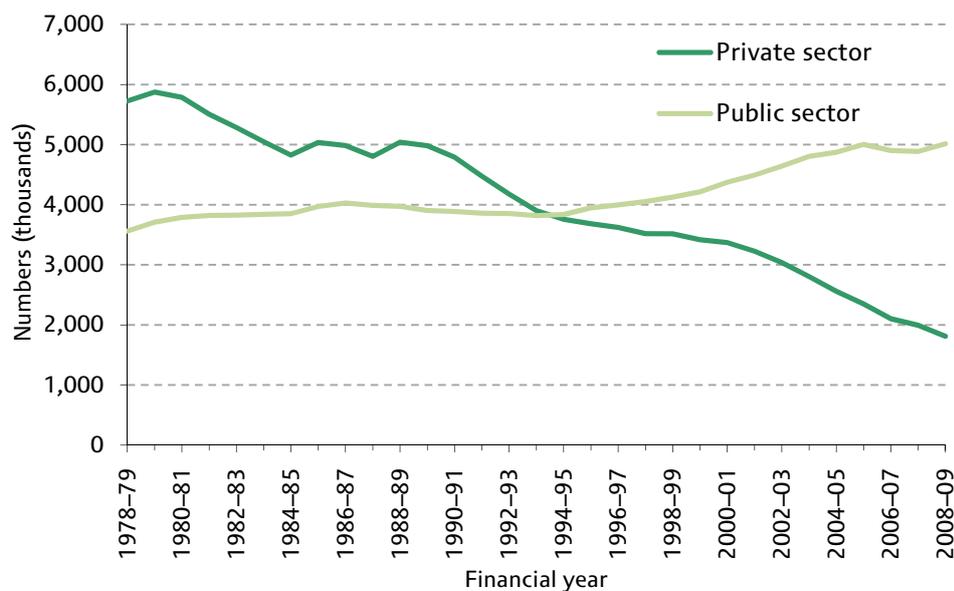
Comparing public and private pension provisions

Pension schemes are markedly different in the public and private sectors and have become more so over time. Three main characteristics underlie the differential provision:

- Public sector workers are more likely than those in the private sector to enjoy membership of an occupational pension scheme, and particularly of a defined benefit (DB) pension scheme.
- Public sector DB schemes have, on average, more generous benefit rules than private sector DB schemes.
- Public sector workers enrolled in defined contribution (DC) schemes have, on average, higher level of contributions to these schemes than private sector workers enrolled in DC schemes.

The reduction in coverage of DB schemes in the private sector relative to the public sector is a long-term trend. This is illustrated in Figure 7.7.

Figure 7.7. Principal membership of contracted-out defined benefit pension schemes, by sector



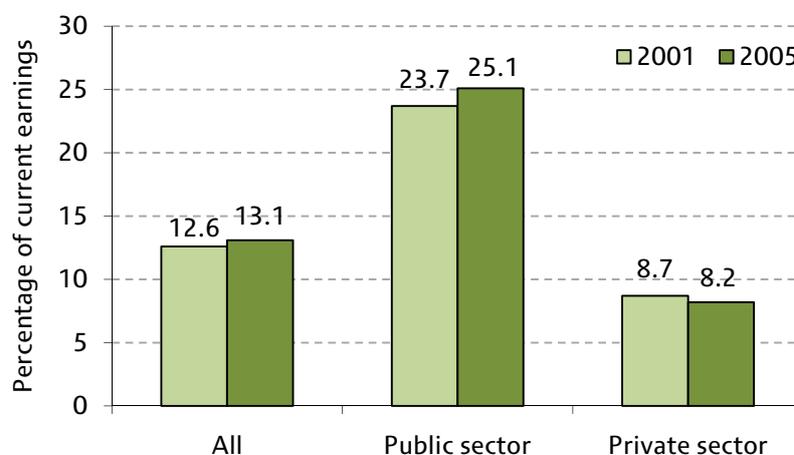
Note: Recently nationalised financial corporations are not included in these data.

Source: Department for Work and Pensions, *Second Tier Pension Provision Statistics*, available at <http://research.dwp.gov.uk/asd/tabtool.asp>.

The increase in the number of public sector employees covered by a DB scheme between 1997 and 2009 is largely explained by an increase in the number of public sector employees over that period, in particular in the NHS (as shown in Table 7.1).

Researchers at IFS have recently estimated the advantage public sector workers enjoy with their pension arrangements over their counterparts in the private sector.²³ This shows not only that the coverage of DB pensions is more extensive in the public sector, but also that the generosity of these pension schemes is higher. In Figure 7.8, we reproduce estimates of the mean value of total pension accrual across the public and private sectors. Not only are public pensions overall more generous than their private counterparts but also the two are on a diverging trend: mean public sector pension accrual actually rose between 2001 and 2005, from 23.7% to 25.1% of current earnings, while mean private pension accrual decreased from 8.7% to 8.2% over the same period.

Figure 7.8. Mean value of total pension accrual across all employees



Source: Figure 3.3 (page 15) of R. Crawford, C. Emmerson and G. Tetlow, 'Occupational pension value in the public and private sectors', IFS Working Paper W10/03, 2010 (<http://www.ifs.org.uk/wps/wp1003.pdf>).

The numbers in Figure 7.8 do not take account of the compositional difference between the two sectors (they are therefore raw comparisons similar to the ones made for pay in the first row of Table 7.3). To estimate a public pension premium, one would face the same issues as those mentioned in Section 7.3 for estimating a public pay premium. Crawford et al. (2010) attempt to measure this public sector pension premium, controlling for a small set of observed characteristics (age, sex, broad education categories). They find that public sector workers tend to have 14.1 percentage point higher pension accrual after accounting for these characteristics. Unlike the estimates of a public pay premium presented in Section 7.3, this adjusted public sector pension premium is only slightly smaller than the raw differential. One reason that could explain why controlling for such characteristics does not reduce the estimated public sector pension premium is the difference in age-earnings profiles between the private and public sectors, which also affects the generosity of final salary arrangements.

²³ R. Disney, C. Emmerson and G. Tetlow, 'What is a public sector pension worth?', *Economic Journal*, 2009, 119, issue 541 (<http://www.ifs.org.uk/publications/4666>) and R. Crawford, C. Emmerson and G. Tetlow, 'Occupational pension value in the public and private sectors', IFS Working Paper W10/03, 2010 (<http://www.ifs.org.uk/wps/wp1003.pdf>). They use data from the British Household Panel Survey (BHPS) for the years 2001 and 2005, as well as Labour Force Survey data (to simulate earnings profiles).

Looking forward: Lord Hutton's Commission

In order to shape public sector pension reforms, the government asked Lord Hutton to chair an Independent Public Service Pensions Commission, which is expected to release a final report by Budget 2011. An interim report was published in October 2010.²⁴ The Hutton Commission is addressing three questions: are public sector pension liabilities affordable? are public sector pensions too generous? and are they structured in an adequate way to reward public sector workers at the lowest cost for the taxpayer?

Affordability of public sector pensions

The first issue that the Hutton Commission Interim Report stresses is that public sector pensions in the UK are affordable in the long run, in the sense that pension payments are set to fall as a share of national income over the next 50 years (see chart 4.B on page 66). From 2020 to 2050, pension payments are expected to fall from 1.8% of national income to 1.4%. In large part, this cut is due to two recent reforms:

- First, the previous Labour government increased the NPA from 60 to 65 for most new entrants to public sector schemes, which is a very large change for those who were affected.
- Second, the coalition government announced in the June 2010 Budget that pensions in payment would be indexed in line with a measure of inflation that is typically lower (CPI rather than RPI), which reduced the value of not just future pension accruals but also rights already accumulated. Some commentators have suggested that this change alone will reduce the value of pensions to scheme members by around 15% on average.²⁵

This second change has two important characteristics that should receive further attention. First, it is retrospective, in the sense that it applies to pension rights already accrued as well as to future accumulated rights. Second, it disproportionately affects members of schemes with earlier NPAs (such as the police and armed forces) and also, by changing the procedure by which earnings are revalued before retirement, disproportionately affects schemes that utilise career averaging (such as the civil service Nuvo scheme) relative to final salary schemes.

Although these changes led Lord Hutton's Interim report to be relatively sanguine concerning the long-term affordability of public pension schemes, such a conclusion might need to be modified if earlier retirement is used to downsize the public sector.

Generosity of public sector pensions

The second question underlying Lord Hutton's Interim Report relates to the generosity of public sector pensions within the total remuneration package of public sector workers. At a time when spending cuts are about to be enacted with large implications for public pay and employment cuts, it would be strange to leave out of consideration the generosity of public sector pensions. As we have seen in the previous subsection, public sector pensions are more generous than their private sector equivalents, and are becoming more so.

²⁴ The Interim Report and evidence received by the Commission can be found at http://www.hm-treasury.gov.uk/indreview_johnhutton_pensions.htm.

²⁵ Analysis done by the Pensions Policy Institute, quoted on page 44 of Lord Hutton's Interim Report (http://www.hm-treasury.gov.uk/d/hutton_pensionsinterim_071010.pdf).

Of course, there is no reason why public sector workers might not choose to take a higher share of their total remuneration package in pension than in pay. But, given that our estimates in Section 7.3 suggest that public sector pay is not lower than private sector pay to compensate for these more generous pension benefits, there does seem to be a case for either reducing public sector pay, or reducing public sector pension benefits, or increasing employee pension contributions. In his Interim Report, Lord Hutton suggests that increasing employee contributions is the most effective way to reduce the anomaly of public sector pensions. His argument is that public sector workers should have a better view of how much their pension benefits are worth in order to make future choices on their level of pension provision. It also happens that increasing pension contributions has a direct short-term benefit to the public finances that long-term changes to pension entitlements do not have. Of course, for the majority of public sector workers, who are members of a public sector occupational pension, an increase in employee contributions has an almost identical impact on their disposable income right now as a cut in pay (although the two are not identical in the long run, as a pay cut would also lead to lower DB pension entitlements, whereas an increase in employee contributions would not).

Lord Hutton's report does not give recommendations for the size of the increase in contributions, leaving the decision to the government. In the Spending Review, the government decided to increase employees' pension contributions by 3 percentage points on average, for a total estimated saving of £1.8 billion by 2014–15. The government has also announced that the average increase will be implemented in a progressive way, and that the armed forces will be exempted.²⁶ Of course, when assessing the total impact of the government's reforms on public sector pensions, one must consider not just the effect of increased contributions, but also the impact pay cuts will have on the level of pensions, and the differential impact of the recent indexation change on different public sector pension schemes (as mentioned earlier).²⁷

One further issue with a policy of increasing employee pension contributions is that public pension reforms have already been enacted for new entrants. If the increase in contributions applies both to new cohorts of public sector workers (who will not benefit from such generous public sector pensions) and to their longer-serving colleagues, one could question the fairness of the approach. Aligning pension contributions to the level of pension benefits would require further reforms to the structure of public sector pensions, which we do not discuss further here.

Structure of public sector pensions

Lord Hutton's recommendations for more fundamental reform to public service pensions will be published in his final report. The key issue should be how cost-effectively public service pensions fulfil the role of attracting and retaining the desired calibre of staff in the public sector. A number of features of the current schemes, for a given pension level, are difficult to justify, and reform could potentially enhance value for money for the taxpayer.

First, final salary schemes embody a particular set of incentives. They benefit long-stayers more than short-stayers, and are much more generous to those who receive pay increases towards the end of their career than those who do not. Arguments justifying such an incentive structure include the desire to reward loyalty to the public sector. But

²⁶ Page 37 of the October 2010 Spending Review.

²⁷ For more details, see R. Disney, C. Emmerson and G. Tetlow, 'What is a public sector pension worth?', *Economic Journal*, 2009, 119, issue 541 (<http://www.ifs.org.uk/publications/4666>).

given the increased flexibility of labour markets, and the increased flows of workers between private sector organisations and public sector institutions, it seems an inappropriate way of rewarding public sector workers.

Second, a fixed Normal Pension Age of 65 (or lower) seems inconsistent with continued rising life expectancy and the planned increase in the State Pension Age (SPA) for men and women to 68. Parts of the public sector – the police, firefighters and the armed forces – continue to enjoy a much lower NPA with substantially more generous pension conditions. Further analysis is needed of, for example, whether these lower NPAs are justified by lower life expectancies.

Third, reforms introduced in 2007 mean that many who joined before that date are accruing substantially more generous pension entitlements than those who have joined since. This means that within public sector organisations, for similar pay and conditions of service, some individuals will be rewarded much more than others on no other basis than when they joined. This is unfair and inefficient.

An example of a possible improvement to the structure of defined benefit pensions that could retain the average generosity would be, for future accrual only, a shift from final salary to career average earnings schemes and an equalisation of NPAs with the SPA, combined with an offsetting increase in accrual rates (the implications of the shift to CPI indexation would need careful analysis in this scenario). Alternatively, compensation for pension cuts could be provided through pay increases. However, this latter option might prove unattractive in the current circumstances: the unfunded nature of most public service pension schemes (the most notable exception being the Local Government Pension Scheme) means that pension cuts lead to lower spending (and therefore borrowing) in the future, while increases in public sector pay would increase spending (and therefore headline borrowing) immediately. The issue of public service pensions and the government's fiscal targets is discussed in Chapter 2.

7.6 Conclusion

Public sector pay and pensions are a key issue for this government as the spending cuts announced in the Spending Review imply significant reductions in public sector pay and employment and increases in pension contributions. None of these three policies is without consequences for the provision of public services.

The government has announced a two-year pay freeze for the majority of public sector workers. On average, this implies a significant real pay cut that will remove most of the estimated average public sector pay premium. But this evidence should be treated with care, both because of measurement issues and because the average public pay premium hides significant discrepancies between regions and occupations: no positive public sector pay premium is currently detected in London and the South-East, and some public sector vacancies remain hard to fill.

Unfortunately, a two-year pay freeze will not be enough to achieve the spending cuts envisaged in the Spending Review, so reducing the workforce will be inevitable in some parts of the public sector. We have analysed how much employment can be cut through 'natural exits'. In the parts of the public sector where spending cuts are relatively small and the turnover rate is relatively high (education and parts of the NHS), these employment reductions, at least in aggregate, could be achieved in the timescale implied by the Spending Review. In other parts of the public sector, where the required cuts are

larger and turnover rates lower (the police force and prison service), 'natural exits' will not be nearly enough to achieve the scale and speed of employment reductions implied by spending cuts unless non-pay budgets are cut disproportionately. Variation in turnover rates across organisations will also make it harder to achieve these employment targets at the level of individual organisations. The options of compulsory redundancies and early retirement schemes are costly for the public finances. Given that the ultimate goal is to reduce public spending, the scale and timing of some spending cuts combined with the constraints of workforce management in some areas of the public sector will make the task of policymakers an impossible one.

Public sector pensions are an area where long-term gains for the taxpayer could be found by reforming the structure of pension incentives for a given level of generosity and, perhaps, by reducing public sector pension generosity. The gains for the public finances from any reduction in average generosity would, however, accrue mostly in the long run, which would not help the government's immediate goals. On the other hand, the gains from getting the incentives right would start to accrue almost immediately.

Overall, the issue of reducing the public sector pay bill highlights a general conundrum with the timing of public spending cuts. The easiest reforms to implement often involve substantial long-term costs for the public finances, while efficiency-improving reforms have mainly long-term gains. The risk is that by cutting the public sector pay bill too fast, the government ends up using policies that increase longer-term public liabilities.